CentralSquare Solutions Agreement

This CentralSquare Solutions Agreement (the "**Agreement**"), effective as of the latest date shown on the signature block below (the "**Effective Date**"), is entered into between **CentralSquare Technologies, LLC** with its principal place of business in Lake Mary, FL ("**CentralSquare**") and **City of Waukesha, WI** ("**Customer**"), together with CentralSquare, the "**Parties**", and each, a "**Party**".

WHEREAS, CentralSquare licenses and gives access to certain software applications ("**Solutions**") to its customers and also provides maintenance, support, migration, installation and other professional services; and

WHEREAS, Customer desires to license and/or gain access to certain Solutions and receive professional services described herein, and CentralSquare desires to grant and provide Customer license and access to such offerings as well as to provide support and maintenance, subject to the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants, terms, and conditions set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, by the signatures of their duly authorized representative below, the Parties intending to be legally bound, agree to all of the following provisions and exhibits of this Agreement:

CentralSquare Technologies, LLC	**City of Waukesha**
1000 Business Center Drive Lake Mary, FL 32746	1901 Delafield St, Waukesha, WI , 53188
By:	By:
Print Name:	Print Name:
Print Title:	Print Title:
Date Signed:	Date Signed:

Solution: PSJ Enterprise

Term.

Initial Term. The Initial Term of this Agreement commences as of the Effective Date and will continue in effect for five (5) year(s) from such date unless terminated earlier pursuant to any of the Agreement's express provisions (the "**Initial Term**").

Renewal Term. This Agreement will automatically renew for additional successive one (1) year terms unless earlier terminated pursuant to any of the Agreement's provisions (a "**Renewal Term**" and, collectively, with the Initial Term, the "**Term**").

Non-Renewal. Either Party may elect to end renewal of the Agreement by issuing a notice of non-renewal, in writing, to the other Party six (6) months prior to the expiration of the Agreement term.

Fees.

In consideration of the rights and services granted by CentralSquare to Customer under this Agreement, Customer shall make payments to CentralSquare pursuant to the amounts and payment terms outlined in Exhibit 1 (the Solution(s) and Services Fee Schedule).

All invoices shall be billed and paid in U.S. dollars (USD) and in accordance with the terms set forth in Exhibit 1. If Customer delays an invoice payment for any reason, Customer shall promptly notify CentralSquare in writing the reasons for such delay. Unless otherwise agreed by both Parties, CentralSquare may apply any payment received to any delinquent amount outstanding.

Standard Terms and Conditions

1. **Definitions**. Capitalized terms not otherwise defined in this Agreement have the meanings set forth below:

1.1. "**Affiliate**" means any other Entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Entity.

1.2. "**Authorized User**" means Customer's employees, consultants, contractors, and agents who are authorized by Customer to access and use the Solutions pursuant to this Agreement, and for whom access to the Solutions has been purchased.

1.3. "**Baseline Solution**" means the version of a Solution updated from time to time pursuant to CentralSquare's warranty services and maintenance, but without any other modification.

1.4. "**CentralSquare Systems**" means the information technology infrastructure used by or on behalf of CentralSquare to deliver the Solutions, including all computers, software, hardware, databases, electronic systems (including database management systems), and networks, whether operated directly by CentralSquare or through the use of third-party services.

1.5. "**Customer Data**" means information, data, and content, in any form or medium, collected, downloaded, or otherwise received, directly or indirectly from Customer, an Authorized User or end-users by or through the Solutions, provided the data is not personally identifiable and not identifiable to Customer.

1.6. "**Customer Systems**" means the Customer's information technology infrastructure, including computers, software, hardware, databases, electronic systems (including database management systems), and networks, whether operated by Customer or through the third-party services.

1.7. "**Defect**" means a material deviation between the Baseline Solution and its Documentation, for which Customer has given CentralSquare sufficient information to enable CentralSquare to replicate the deviation on a computer configuration that is both comparable to the Customer Systems and that is under CentralSquare's control. Further, with regard to any custom modification, Defect means a material deviation between the custom modification and the CentralSquare generated specification and Documentation for such custom modification, and for which Defect Customer has given CentralSquare sufficient information to enable CentralSquare to replicate the deviation on a computer configuration that is both comparable to the Customer Systems and that is under CentralSquare's control.

1.8. **"Delivery"** means:

1.8.1. For on-premise Solutions, Delivery shall be when CentralSquare delivers to Customer the initial copies of the Solutions outlined in Exhibit 1 by whichever the following applies and occurs first (a) electronic delivery, by posting it on CentralSquare's network for downloading, or similar suitable electronic file transfer method, or (b) physical shipment, such as on a disc or other suitable media transfer method, or (c) installation, or (d) delivery of managed services server. Physical shipment is on FOB - CentralSquare's shipping point, and electronic delivery is at the time CentralSquare provides Customer with access to download the Solutions.

1.8.2. For cloud-based Solutions Delivery shall be whichever the following applies and occurs first when Authorized Users have (a) received log-in access to the Solution or any module of the Solution or (b) received access to the Solution via a URL.

1.9. "**Documentation**" means any manuals, instructions, or other documents or materials that CentralSquare provides or makes available to Customer in any form or medium and which describe the functionality, components, features, or requirements of the Solution(s), including any aspect of its installation, configuration, integration, operation, use, support, or maintenance.

1.10. **"End User Training"** means the process of educating general users of the Software on the operation of the Software.

1.11. "**Entity**" means an individual, corporation, partnership, joint venture, limited liability entity, governmental authority, unincorporated organization, trust, association, or other organization.

1.12. **"Hardware"** means any equipment, computer systems, servers, storage devices, peripherals, and any other tangible assets purchased under this Agreement.

1.13. "**Intellectual Property Rights**" means any and all registered and unregistered rights granted, applied for, or otherwise now or hereafter in existence under or related to any patent, copyright, trademark, trade secret, database protection, or other intellectual property rights laws, and all similar or equivalent rights or forms of protection, in any part of the world.

1.14. "**Managed Services Hardware**" means any equipment, computer systems, servers, peripherals, and any other tangible asset purchased as a subscription under this Agreement.

1.15. "**Maintenance**" means optimization, error correction, modifications, and Updates (defined herein) to CentralSquare Solutions to correct any known Defects and improve performance. Maintenance will be provided for each Solution, the hours and details of which are described in Exhibit 2 (Maintenance and Support).

1.16. "**New or Major Releases**" means new versions of a Baseline Solution (e.g., version 4.0, 5.0 etc.) not provided as part of Maintenance.

1.17. "**Personal Information**" means any information that does or can identify a specific individual or by or from which a specific individual may be identified, contacted, or located. Personal Information includes all "nonpublic personal information" as defined under the Gramm-Leach-Bliley Act, "protected health information" as defined under the Health and Insurance Portability and Accountability Act of 1996, "Personal Data" as defined in the EU General Data Protection Regulation (GDPR 2018), "Personal Information" as defined under the Children's Online Privacy Protection Act of 1998, and all rules and regulations issued under any of the foregoing.

1.18. "**Professional Services**" means configuration, installation, implementation, development work, training or consulting services including custom modification programming, support relating to custom modifications, on-site support services, assistance with data transfers, system restarts and reinstallations provided by CentralSquare.

1.19. **"Project Kickoff"** is a meeting to occur shortly after contract execution between CentralSquare and Customer in which goals and objectives are set forth, all parties relevant team members are identified, and scope, timelines, and milestones are reviewed.

1.20. **"Reliability Period"** Per section 7.1 of the Statement of Work (Exhibit 5) is the time period in which the Software is tested and confirmed reliable by successfully completed thirty (30) continuous days in a live environment with no repeatable Priority 1 or Priority 2 issues as defined in Exhibit 2, unless otherwise agreed in a statement of work. Should a Critical software error occur between day twenty-five (25) and day thirty (30), the Customer shall have ten (10) days from the day the resolution has been provided in accordance with the Agreement to test the critical error functionality.

1.21. "**Software**" means the software program(s) (in object code format only) identified on Exhibit 1 (Solution(s) and Services Fee Schedule). The term "Software" excludes any Third-Party Software.

1.22. **"Software Version"** means the base or core version of the Solution Software that contains significant new features and significant fixes and is available to the Customer. The nomenclature used for updates and upgrades consists of major, minor, build, and fix and these correspond to the following digit locations of a release, a,b,c,d. An example of which would be 7.4.1.3, where the 7 refers to the major release, the 4 refers to the minor release, the 1 refers to the build, and the 3 refers to a fix.

1.23. "**Solutions**" means the software, Documentation, development work, CentralSquare Systems and any and all other information, data, documents, materials, works, and other content, devices, methods, processes, hardware, software, technologies and inventions, including any deliverables, technical or functional descriptions, requirements, plans, or reports, provided or used by CentralSquare or any Subcontractor in connection with Professional Services or Support Services rendered under this Agreement.

1.24. **"Support Services"** means Maintenance, Enhancements, implementation of New Releases, and general support efforts to respond to incidents reported by Customer in accordance with Exhibit 2 (Maintenance & Support) and Exhibit 8 (Managed Services Provisions), if applicable.

1.25. "**Third-Party Materials**" means materials and information, in any form or medium, including any software, documents, data, content, specifications, products, related services, equipment, or components of or relating to the Solutions that are not proprietary to CentralSquare.

2. License, Access, and Title.

2.1. License Grant. For any Solution designated as a "license" on Exhibit 1, Customer is granted a perpetual (unless terminated as provided herein), nontransferable, nonexclusive right and license to use the Software for Customer's own internal use for the applications described in the Statement of Work, in the applicable environment (e.g., production, test, training, or disaster recovery system) and in the quantity set forth in Exhibit 1. Additional software licenses purchased after the execution of this Agreement shall also be licensed in accordance with the provisions of this section. Customer shall not use, copy, rent, lease, sell, sublicense, modify, create derivative works from/of, or transfer any software, or permit others to do said acts, except as provided in this Agreement. Any such unauthorized use shall be void and may result in immediate and automatic termination of the applicable license. In such event, Customer shall not be entitled to a refund of any license fees paid. Notwithstanding, Customer shall be entitled to use software at the applicable designated location for the purpose of the application(s) described in the Statement of Work to provide services for itself and other Affiliate governmental agencies/entities, provided that the Software is installed and operated at only one physical location. The Software license granted in this Agreement or in connection with it are for object code only and do not include a license or any rights to source code whatsoever.

2.2. Access Grant. For any Solution designated as a "subscription" on Exhibit 1, so long as subscription fees are paid and current, (unless terminated as provided herein), Customer is granted a nontransferable, nonexclusive right to use the software for the Customer's own internal use for the applications described in the Statement of Work, in the applicable environment (e.g., production, test, training, or disaster recovery system) and in the quantity set forth in Exhibit 1. Additional CentralSquare software subscriptions purchased after the execution of this Agreement shall also be accessed in accordance with the provisions of this section. Customer shall not use, copy, rent, lease, sell, sublicense, modify, create derivative works from/of, or transfer any software, or permit others to do said acts, except as provided in this Agreement. Any such unauthorized use shall be void and may result in immediate and automatic termination of the applicable access. In such event, Customer shall not be entitled to a refund of any subscription fees paid. Notwithstanding, Customer shall be entitled to use software at the applicable designated location for the purpose of the application(s) described in the Statement of Work to provide services for itself and other Affiliate governmental agencies/entities. The subscription access granted in this Agreement or in connection with it are for object code only and do not include a license or any rights to source code whatsoever.

2.3. Documentation License. CentralSquare hereby grants to Customer a non-exclusive, non-sublicensable, non-transferable license to use the Documentation during the Term solely for Customer's internal business purposes in connection with its use of the Solutions.

2.4. Application Programming Interface "API". If the Customer has purchased any Application Programming Interface (API) license or subscription, Customer may use such API for Customer's own internal use to develop interfaces which enable interfacing with the applicable CentralSquare Software purchased herein. The development and use of such interfacing applications is specifically permitted under the use granted herein and shall not be deemed derivative works provided that they are not, in fact, derived from the CentralSquare Software or the ideas, methods of operation, processes, technology or know-how implemented therein. Other than the usage rights granted herein, Customer shall not acquire any right, title or interest in the CentralSquare Software or API by virtue of the interfacing of such applications, whether as joint owner, or otherwise. Should Customer desire to provide or share the API to a third-party, the third-party must enter into an API Access Agreement by and between the third-party and CentralSquare directly to govern the usage rights and restrictions of the applicable API.

2.5. Hardware**.** Subject to the terms and conditions of this Agreement, CentralSquare agrees to deliver, through hardware vendors, the Hardware itemized on Exhibit 1. The risk of loss or damage will pass to Customer upon the date of delivery to the Customer specified facility. Upon delivery and full satisfaction of the Hardware payment obligations, Hardware shall be deemed accepted and Customer will acquire good and clear title to Hardware. All Hardware manufacturer warranties will be passed through to Customer. CentralSquare expressly disclaims, and Customer hereby expressly waives all other Hardware warranties, express or implied, without limitation, warranties of merchantability and fitness for a particular purpose.

2.6. Managed Services Hardware**.** Subject to the terms and conditions of this Agreement, CentralSquare agrees to deliver the Managed Services Hardware itemized on Exhibit 1. So long as the applicable subscription fees are paid and current, Customer shall maintain a limited right in possessory interest in the Managed Services Hardware. No title in the Managed Services Hardware will pass to Customer at any time or for any reason. Customer agrees to maintain adequate insurance against fire, theft, or other loss for the Managed Services Hardware full insurable value. CentralSquare shall coordinate any Defect or warranty claims in accordance with Exhibit 8.

2.7. Reservation of Rights. Nothing in this Agreement grants any right, title, or interest in or to any Intellectual Property Rights in or relating to the Solutions, or Third-Party Materials, whether expressly, by implication, estoppel, or otherwise. All right, title, and interest in the Solutions, and the Third-Party Materials are and will remain with CentralSquare and the respective rights holders.

3. Use Restrictions. Authorized Users shall not:

3.1. copy, modify, or create derivative works or improvements of the Solutions, or rent, lease, lend, sell, sublicense, assign, distribute, publish, transfer, or otherwise make available any Solutions to any Entity, including on or in connection with the internet or any time-sharing, service bureau, software as a service, cloud, or other technology or service;

3.2. reverse engineer, disassemble, decompile, decode, adapt, or otherwise attempt to derive or gain access to the source code of the Solutions, in whole or in part;

3.3. bypass or breach any security device or protection used by Solutions or access or use the Solutions other than by an Authorized User through the use of his or her own then valid access;

3.4. input, upload, transmit, or otherwise provide to or through the CentralSquare Systems, any information or materials that are unlawful or injurious, or contain, transmit, or activate any harmful code (any software, hardware, device, or other technology, including any virus, worm, malware, or other malicious computer code, the purpose or effect of which is to (a) permit unauthorized access to, or to destroy, disrupt, disable, distort, or otherwise harm or impede any (i) computer, software firmware, hardware, system or network; or (ii) any application or function of any of the foregoing or the security, integrity, confidentiality, or use of any data processed thereby; or (b) prevent Customer or any Authorized User from accessing or using the Solutions as intended by this Agreement;

3.5. damage, destroy, disrupt, disable, impair, interfere with, or otherwise impede or harm in any manner the CentralSquare Systems, or CentralSquare's provision of services to any third-party, in whole or in part;

3.6. remove, delete, alter, or obscure any trademarks, specifications, Documentation, warranties, or disclaimers, or any copyright, trademark, patent, or other intellectual property or proprietary rights notices from any Documentation or Solutions, including any copy thereof;

3.7. access or use the Solutions in any manner or for any purpose that infringes, misappropriates, or otherwise violates any Intellectual Property Right or other right of any third-party, or that violates any applicable law;

3.8. access or use the Solutions for purposes of competitive analysis of the Solutions, the development, provision, or use of a competing software service or product or any other purpose that is to CentralSquare's detriment or commercial disadvantage or otherwise access or use the Solutions beyond the scope of the authorization granted in Section 2.

4. Audit.

4.1. CentralSquare shall have the right to audit Customer’s use of the Software to monitor compliance with this Agreement. Customer shall permit CentralSquare and its directors, officers, employees, and agents to have on-site access at Customer’s premises (or remote access as the case may be) during normal business hours to such systems, books, and records for the purpose of verifying license counts, access counts, and overall compliance with this Agreement. Customer shall render reasonable cooperation to CentralSquare as requested. If as a result of any audit or inspection CentralSquare substantiates a deficiency or non-compliance, or if an audit reveals that Customer has exceeded the restrictions on use, Customer shall promptly reimburse CentralSquare for all its costs and expenses incurred to conduct such audit or inspection and be required to pay for any delinquencies in compliance and prompt payment of any underpayment of Fees.

5. Customer Obligations.

5.1. Customer Systems and Cooperation. Customer shall at all times during the Term: (a) set up, maintain, and operate in good repair all Customer Systems on or through which the Solutions are accessed or used; (b) provide CentralSquare Personnel with such access to Customer's premises and Customer Systems as is necessary for CentralSquare to perform the Support Services in accordance with the Support Standards and specifications and if required by CentralSquare, remote access in accordance with Exhibit 3 (CentralSquare Access Management Policy); and (c) provide all cooperation as CentralSquare may reasonably request to enable CentralSquare to exercise its rights and perform its obligations under this Agreement.

5.2. Effect of Customer Failure or Delay. CentralSquare is not responsible or liable for any delay or failure of performance caused in whole or in part by Customer's delay in performing, or failure to perform, any of its obligations under this Agreement.

5.3. Corrective Action and Notice. If Customer becomes aware of any actual or threatened activity prohibited by Section 3, Customer shall, and shall cause its Authorized Users to, immediately: (a) take all reasonable and lawful measures within their respective control that are necessary to stop the activity or threatened activity and to mitigate its effects (including, where applicable, by discontinuing and preventing any unauthorized access to the Solutions and permanently erasing from their systems and destroying any data to which any of them gained unauthorized access); and (b) notify CentralSquare of any such actual or threatened activity.

5.4. Maintaining Current Versions of CentralSquare Solutions. In accordance with Exhibit 2 (Maintenance & Support) and Exhibit 8 (Managed Services Provisions), if applicable. Customer shall install and/or use any New or Major Release within one year of being made available by CentralSquare to mitigate a performance problem, ineligibility for Support Services, or an infringement claim.

6. Professional Services.

6.1. Compliance with Customer Policies. While CentralSquare personnel are performing services at Customer's site, CentralSquare personnel will comply with Customer’s reasonable procedures and site policies that are generally applicable to Customer’s other suppliers providing similar services and that have been provided to CentralSquare in writing or in advance.

6.2. Contributed Material. In the process of CentralSquare’s performing Professional Services, Customer may, from time to time, provide CentralSquare with designs, plans, or specifications, improvements, works or other material for inclusion in, or making modifications to, the Solutions, the Documentation or any other deliverables (“**Contributed Material**”). Customer grants to CentralSquare a nonexclusive, irrevocable, perpetual, transferable right, without the payment of any royalties or other compensation of any kind and without the right of attribution, for CentralSquare, CentralSquare’s Affiliates and CentralSquare’s licensees to make, use, sell and create derivative works of the Contributed Material.

6.3. Federal Grant Funds. CentralSquare shall comply with the provisions of Title VII of the Civil Rights Act of 1964 in that it will not discriminate against any individual with respect to their compensation, terms, conditions, or privileges of employment. Additionally, CentralSquare shall not discriminate in any way that would deprive or intend to deprive any individual of employment opportunities or otherwise adversely affect their status as an employee based on race, color, religion, sex, national origin, age, medical condition, marital status, sexual orientation, gender identity, genetic information, veteran status, or disability, or any other characteristic or classification protected by applicable law. Not Applicable.

6.4. Criminal Justice Information Services. To the extent permissible, the parties acknowledge that any employee of CentralSquare who has been granted Criminal Justice Information Services ("CJIS") clearance in any state within the United States shall be deemed to have satisfied the CJIS clearance requirements under this Agreement. This provision is based on the principle of reciprocity, recognizing the validity of CJIS clearance across state lines.

Notwithstanding the foregoing, CentralSquare shall ensure that all employees comply with the applicable laws and regulations of the state in which services under this Agreement are performed. CentralSquare shall also ensure that all employees continue to meet the standards required for CJIS clearance and shall promptly notify Customer of any changes in an employee’s CJIS clearance status.

7. Confidentiality.

7.1. Nondisclosure. The Parties agree, unless otherwise provided in this Agreement or required by law, not to use or make each other's Confidential Information available to any third party for any purpose other than as necessary to perform under this Agreement. **"Confidential Information"** means the Solution(s), Software, and customizations in any embodiment, and either Party's technical and business information relating to inventions or software, research and development, future product specifications, engineering processes, costs, profit or margin information, marketing and future business plans as well as any and all internal Customer and employee information, and any information exchanged by the Parties that is clearly marked with a confidential, private or proprietary legend or which, by its nature, is commonly understood to be confidential.

7.2. Exceptions. A Party's Confidential Information shall not include information that: (a) is or becomes publicly available through no act or omission of the recipient; (b) was in the recipient's lawful possession prior to the disclosure and was not obtained by the recipient either directly or indirectly from the disclosing Party; (c) is lawfully disclosed to the recipient by a third party without restriction on recipient's disclosure, and where recipient was not aware that the information was the confidential information of discloser; (d) is independently developed by the recipient without violation of this Agreement; or (e) is required to be disclosed by law.

7.3. Public Record. As this Agreement is public record, CentralSquare is permitted to disclose Customer as a Customer. However, CentralSquare shall not make any statements or representations regarding Customer's opinion of CentralSquare or its services. CentralSquare may reach out to Customer from time to time for references or marketing engagements, subject to Customer's written approval.

8. Security.

8.1. CentralSquare will implement commercially reasonable administrative, technical and physical safeguards designed to ensure the security and confidentiality of Customer Data, protect against any anticipated threats or hazards to the security or integrity of Customer Data, and protect against unauthorized access or use of Customer Data. CentralSquare will review and test such safeguards on no less than an annual basis.

8.2. Customer shall maintain, in connection with the operation or use of the Solutions, adequate technical and procedural access controls and system security requirements and devices, necessary for data privacy, confidentiality, integrity, authorization, authentication, non-repudiation, virus detection and eradication.

8.3. To the extent that Authorized Users are permitted to have access to the Solutions, Customer shall maintain agreements with such Authorized Users that adequately protect the confidentiality and Intellectual Property Rights of CentralSquare in the Solutions and Documentation and disclaim any liability or responsibility of CentralSquare with respect to such Authorized Users.

9. Personal Data. If CentralSquare processes or otherwise has access to any personal data or Personal Information on Customer's behalf when performing CentralSquare's obligations under this Agreement, then:

9.1. Customer shall be the data controller (where "**data controller**" means an entity which alone or jointly with others determines purposes for which and the manner in which any personal data are, or are to be, processed) and CentralSquare shall be a data processor (where "**data processor**" means an entity which processes the data only on behalf of the data controller and not for any purposes of its own);

9.2. Customer shall ensure that it has obtained all necessary consents and it is entitled to transfer the relevant personal data or Personal Information to CentralSquare so that CentralSquare may lawfully use, process and transfer the personal data and Personal Information in accordance with this Agreement on Customer's behalf, which may include CentralSquare processing and transferring the relevant personal data or Personal Information outside the country where Customer and the Authorized Users are located in order for CentralSquare to provide the Solutions and perform its other obligations under this Agreement; and

9.3. CentralSquare shall process personal data and information only in accordance with lawful and reasonable written instructions given by Customer and as set out in and in accordance with the terms of this Agreement; and

9.4. CentralSquare shall take reasonable steps to ensure that its employees, agents and contractors who may have access to Personal Information are persons who need to know / access the relevant Personal Information for valid business reasons; and

9.5. each Party shall take appropriate technical and organizational measures against unauthorized or unlawful processing of the personal data and Personal Information or its accidental loss, destruction or damage so that, having regard to the state of technological development and the cost of implementing any measures, the measures taken ensure a level of security appropriate to the harm that might result from such unauthorized or unlawful processing or accidental loss, destruction or damage in relation to the personal data and Personal Information and the nature of the personal data and Personal Information being protected. If necessary, the Parties will cooperate to document these measures taken.

10. Representations and Warranties.

10.1. Intellectual Property Warranty. CentralSquare represents and warrants that (a) it is the sole and exclusive owner of (or has the right to license) the software; (b) it has full and sufficient right, title and authority to grant the rights and/or licenses granted under this Agreement; (c) the software does not contain any materials developed by a third party used by CentralSquare except pursuant to a license agreement; and (d) the software does not infringe any patent, or copyright.

10.2. Intellectual Property Remedy. In the event that any third party asserts a claim of infringement against the Customer relating to the software contained in this Agreement, CentralSquare shall indemnify and defend the Customer pursuant to section 13.1 of this Agreement. In the case of any such claim of infringement, CentralSquare shall either, at its option, (1) procure for Customer the right to continue using the software; or (2) replace or modify the software so that that it becomes non-infringing, but equivalent in functionality and performance.

10.3. Software Warranty. CentralSquare warrants to Customer that: (i) for a period of one year from Delivery (the "Warranty Period") the Software will substantially conform in all material respects to the specifications set forth in the Documentation, when installed, operated and used as recommended in the Documentation and in accordance with this Agreement; and (ii) at the time of Delivery the Software does not contain any virus or other malicious code.

10.4. Software Remedy. If, during the Warranty Period a warranty defect is confirmed in the CentralSquare Software, CentralSquare shall, at its option and as the sole remedy, reinstall the Software or correct the Defects pursuant to Exhibit 2 (Maintenance & Support) and Exhibit 8 (Managed Services Provisions), if applicable.

10.5. Services Warranty. CentralSquare warrants that the Professional Services delivered will substantially conform to the deliverables specified in the applicable statement of work and that all Professional Services will be performed in a professional and workmanlike manner consistent with industry standards for similar work. If Professional Services do not substantially conform to the deliverables, Customer shall notify CentralSquare of such non-conformance in writing, within 10 days from completion of Professional Service, and CentralSquare shall promptly repair the non-conforming deliverables.

10.6. **Disclaimer of Warranty. EXCEPT FOR THE EXPRESS LIMITED WARRANTIES SET FORTH ABOVE, CENTRALSQUARE MAKES NO WARRANTIES WHATSOEVER, EXPRESSED OR IMPLIED, WITH REGARD TO THE INTELLECTUAL PROPERTY, SOFTWARE, PROFESSIONAL SERVICES, AND/OR ANY OTHER MATTER RELATING TO THIS AGREEMENT, AND THAT CENTRALSQUARE DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, INCLUDING ALL WARRANTIES ARISING FROM COURSE OF DEALING, USAGE OR TRADE PRACTICE, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR TITLE. FURTHER, CENTRALSQUARE EXPRESSLY DOES NOT WARRANT THAT A SOLUTION, ANY CUSTOM MODIFICATION OR ANY IMPROVEMENTS WILL BE USABLE BY CUSTOMER IF THE SOLUTION OR CUSTOM MODIFICATION HAS BEEN MODIFIED BY ANYONE OTHER THAN CENTRALSQUARE PERSONNEL, OR WILL BE ERROR FREE, WILL OPERATE WITHOUT INTERRUPTION OR WILL BE COMPATIBLE WITH ANY HARDWARE OR SOFTWARE EXCEPT TO THE EXTENT EXPRESSLY SET FORTH IN THE DOCUMENTATION. ALL THIRD-PARTY MATERIALS ARE PROVIDED "AS-IS" AND ANY REPRESENTATION OR WARRANTY OF OR CONCERNING ANY OF THEM IS STRICTLY BETWEEN CUSTOMER AND THE THIRD-PARTY. THIS AGREEMENT DOES NOT AMEND, OR MODIFY CENTRALSQUARE'S WARRANTY UNDER ANY AGREEMENT OR ANY CONDITIONS, LIMITATIONS, OR RESTRICTIONS THEREOF.**

10.7. **Third-Party Warranty Disclaimer. Any third-party products being provided as part of this solution (including but not limited to third-party software hardware) are warranted by the respective third-party vendor or manufacturer, the warranties of which will be passed through to Customer.**

11. Notices. All notices and other communications required or permitted under this Agreement must be in writing and will be deemed given when delivered personally, sent by United States registered or certified mail, return receipt requested; transmitted by facsimile or email confirmed by first class mail, or sent by overnight courier. Notices must be sent to a Party at its address shown below, or to such other place as the Party may subsequently designate for its receipt of notices in writing by the other Party.

If to CentralSquare
CentralSquare Technologies, LLC
1000 Business Center Dr.
Lake Mary, FL 32746
Phone: 407-304-3235
Attention: Legal/Contracts

If to Customer:
City of Waukesha
201 Delafield St
Waukesha, WI 53188
Phone: 262-524-3565
Email: cpofahl@waukesha-wi.gov
Attention: Chris Pofahl

12. Force Majeure.

Neither Party shall be responsible for failure to fulfill its obligations hereunder, or be liable for damages resulting from delay in performance as a result of war, fire, strike, riot or insurrection, natural disaster, pandemic or epidemic, delay of carriers, governmental order or regulation, complete or partial shutdown of plant, unavailability of equipment, software, or services from suppliers, default of a subcontractor or vendor to the Party if such default arises out of causes beyond the reasonable control of such subcontractor or vendor, the acts or omissions of the other Party, or its officers, directors, employees, agents, contractors, or elected officials, and/or other occurrences beyond the Party's reasonable control ("Excusable Delay" hereunder). In the event of such Excusable Delay, performance shall be extended on a day for day basis or as otherwise reasonably necessary to compensate for such delay.

13. Indemnification.

13.1. CentralSquare Indemnification. CentralSquare shall indemnify, defend, and hold harmless Customer from any and all Claims or liability, including attorneys' fees and costs, brought by a third party, allegedly arising out of, in connection with, or incident to any loss, damage or injury to persons or property or arising solely from a wrongful or negligent act, error or omission of CentralSquare, its employees, agents, contractors, or any subcontractor as a result of CentralSquare's or any subcontractor's performance pursuant to this Agreement; however, CentralSquare shall not be required to indemnify Customer for any claims caused to the extent of the negligence or wrongful act of Customer, its employees, agents, or contractors. Notwithstanding anything to the contrary in the foregoing, if a Claim or liability results from or is contributed to by the actions or omissions of Customer, or its employees, agents or contractors, CentralSquare's obligations under this provision shall be reduced to the extent of such actions or omissions based upon the principle of comparative fault.

13.2. Customer Indemnification. To the extent allowable by law, Customer shall indemnify, defend, and hold harmless CentralSquare from any and all Claims or liability, including attorneys' fees and costs, allegedly arising out of, in connection with, or incident to any loss, damage or injury to persons or property or arising solely from a wrongful or negligent act, error or omission of Customer, its employees, agents, contractors, or any subcontractor as a result of Customer's or any subcontractor's performance pursuant to this Agreement; however, Customer shall not be required to indemnify CentralSquare for any Claims or actions caused to the extent of the negligence or wrongful act of CentralSquare, its employees, agents, or contractors. Notwithstanding anything to the contrary in the foregoing, if a Claim or liability results from or is contributed to by the actions or omissions of CentralSquare, or its employees, agents or contractors, Customer's obligations under this provision shall be reduced to the extent of such actions or omissions based upon the principle of comparative fault.

13.3. "**Claim**" in this Section 13 means any claim, cause of action, demand, lawsuit, dispute, inquiry, audit, notice of violation, proceeding, litigation, citation, summons, subpoena or investigation of any nature, civil, criminal, administrative, regulatory or other, whether at law, in equity, or otherwise.

14. Termination.

14.1. Either Party may terminate this Agreement for a material breach in accordance with this subsection. In such event, the disputing Party shall deliver written notice of its intent to terminate along with a description in reasonable detail of the problems for which the disputing Party is invoking its right to terminate and the specific requirement within this Agreement or any exhibit or schedule hereto that the disputing Party is relying upon. Following such notice, the Parties shall commence dispute resolution procedures in accordance with the dispute resolution procedure pursuant to Section 17.

14.2. CentralSquare shall have the right to terminate this Agreement based on Customer's failure to pay undisputed amounts due under this Agreement more than ninety (90) days after delivery of written notice of non-payment.

15. Effect of Termination or Expiration.

On the expiration or earlier termination of this Agreement:

15.1. All rights, licenses, and authorizations granted to Customer hereunder will immediately terminate and Customer shall immediately cease all use of CentralSquare's Confidential Information and the Solutions, and within thirty (30) days deliver to CentralSquare, or at CentralSquare's request destroy and erase CentralSquare's Confidential Information from all systems Customer directly or indirectly controls; and

15.2. All licenses, access or subscription fees, services rendered but unpaid, and any amounts due by Customer to CentralSquare of any kind shall become immediately payable and due no later than thirty (30) days after the date of the termination or expiration, including anything that accrues within those thirty (30) days.

15.3. The provisions set forth in the following sections, and any other right or obligation of the Parties in this Agreement that, by its nature (including but not limited to: Use Restrictions, Confidential Information, Warranty Disclaimers, Indemnifications, & Limitations of Liability), will survive any expiration or termination of this Agreement.

15.4. In the event that Customer terminates this Agreement or cancels any portions of a project (as may be set forth in a Statement of Work) prior to Go Live (which shall be defined as "first use of a Solution or module of a Solution in a production environment, unless otherwise agreed by the Parties in a statement of work"), Customer shall pay for all Professional Services actually performed by CentralSquare up to the date of such termination.

15.5. Return of Customer Data. If Customer requests in writing at least ten (10) days prior to the date of expiration or earlier termination of this Agreement, CentralSquare shall within sixty (60) days following such expiration or termination, deliver to Customer in CentralSquare's standard format the then most recent version of Customer Data maintained by CentralSquare, provided that Customer has at that time paid all Fees then outstanding and any amounts payable after or as a result of such expiration or termination.

15.6. Deconversion. In the event of (i) expiration or earlier termination of this Agreement, or (ii) Customer no longer purchasing certain Solutions (including those indicated to be Third-Party Materials), if Customer requests assistance in the transfer of Customer Data to a different vendor's applications ("Deconversion"), CentralSquare will provide reasonable assistance. CentralSquare and Customer will negotiate in good faith to establish the relative roles and responsibilities of CentralSquare and Customer in effecting Deconversion, as well as the appropriate date for completion. CentralSquare shall be entitled to receive compensation for any additional consultation, services, software, and documentation required for Deconversion on a time and materials basis at CentralSquare's then standard rates. *As of the execution date of this Agreement, CentralSquare's hourly rate for such Services is $195 per hour.

15.7. Termination of this Agreement shall not relieve either Party of any other obligation incurred one to the other prior to termination.

16. Assignment. Neither this Agreement nor any rights or obligations hereunder shall be assigned or otherwise transferred by either Party without the prior written consent of the other Party, which consent will not be unreasonably withheld; provided however, that in the event of a merger or acquisition of all or substantially all of CentralSquare's assets, CentralSquare may assign this Agreement to an entity ready, willing and able to perform CentralSquare's executory obligations hereunder.

17. Dispute Resolution. Any dispute, controversy or claim arising out of or relating to this Agreement (each, a "Dispute"), including the breach, termination, or validity thereof, shall be resolved as follows:

17.1. Good Faith Negotiations. The Parties agree to send written notice to the other Party of any Dispute ("Dispute Notice"). After the other Party receives the Dispute Notice, the Parties agree to undertake good faith negotiations to resolve the Dispute. Each Party shall be responsible for its associated travel and other related costs.

17.2. Escalation to Mediation. If the Parties cannot resolve any Dispute through good faith negotiations, the dispute will be escalated to non-binding mediation, with the Parties acting in good faith to select a mediator and establishing the mediation process. The Parties agree the mediator's fees and expenses, and the mediator's costs incidental to the mediation, will be shared equally between the Parties. The Parties shall bear their own fees, expenses, and costs.

17.3. Confidential Mediation. The Parties further agree all written or oral offers, promises, conduct, and statements made in the course of the mediation are confidential, privileged, and inadmissible for any purpose in any litigation, arbitration or other proceeding involving the Parties. However, evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the mediation.

17.4. Litigation. If the Parties cannot resolve a Dispute through mediation, then once an impasse is declared by the mediator either Party may pursue litigation in a court of competent jurisdiction.

18. Waiver/Severability. The failure of any Party to enforce any of the provisions hereof will not be construed to be a waiver of the right of such Party thereafter to enforce such provisions. If any provision of this Agreement is found to be unenforceable, that provision will be enforced to the maximum extent possible, and the validity, legality and enforceability of the remaining provisions will not in any way be affected or impaired thereby.

19. LIABILITY. NOTWITHSTANDING ANY PROVISION WITHIN THIS AGREEMENT TO THE CONTRARY, AND REGARDLESS OF THE NUMBER OF LOSSES, WHETHER IN CONTRACT, EQUITY, STATUTE, TORT, NEGLIGENCE, OR OTHERWISE:

19.1. **NEITHER PARTY SHALL HAVE LIABILITY TO THE OTHER PARTY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, EXEMPLARY, LIQUIDATED, OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING BUT NOT LIMITED TO, REPLACEMENT COSTS, AND NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR LOSSES OF PROFIT, REVENUE, INCOME, BUSINESS, ANTICIPATED SAVINGS, DATA, AND REPUTATION, AND MORE GENERALLY, ANY LOSSES OF AN ECONOMIC OR FINANCIAL NATURE, REGARDLESS OF WHETHER SUCH LOSSES MAY BE DEEMED AS CONSEQUENTIAL OR ARISING DIRECTLY AND NATURALLY FROM THE INCIDENT GIVING RISE TO THE CLAIM, AND REGARDLESS OF WHETHER SUCH LOSSES ARE FORESEEABLE OR WHETHER EITHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES; AND**

19.2. **CENTRALSQUARE'S TOTAL LIABILITY ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT SHALL NOT EXCEED THE AMOUNT(S) ACTUALLY PAID BY CUSTOMER TO CENTRALSQUARE HEREUNDER FOR THE LAST TWELVE (12) MONTHS PRIOR TO THE DATE THE CLAIM AROSE.**

20. Insurance. During the term of this Agreement, CentralSquare shall maintain insurance coverage covering its operations in accordance with Exhibit 4 (Certificate of Insurance (Evidence of Coverage)). Upon request by Customer, CentralSquare shall include Customer as an additional insured on applicable insurance policies provided under this Agreement. CentralSquare shall provide proof of current coverage during the term of this Agreement.

21. Third-Party Materials. CentralSquare may, from time to time, include third parties to perform services, provide software, or provide equipment. Customer acknowledges and agrees CentralSquare provides front-line support services for these Third-Party Materials, but these third parties assume all responsibility and liability in connection with the Third-Party Materials. CentralSquare is not authorized to make any representations or warranties that are binding upon the third-party or to engage in any other acts that are binding upon the third-party, except specifically that CentralSquare is authorized to represent third-party fees and to accept payment of such amounts from Customer on behalf of the third-party for as long as such third-party authorizes CentralSquare to do so. As a condition precedent to installing or accessing certain Third-Party Materials, Customer may be required to execute a click-through, shrink-wrap End User License Agreement ("EULA") or similar agreement provided by the Third-Party Materials provider. If mapping information is supplied with the CentralSquare Software, CentralSquare makes no representation or warranty as to the completeness or accuracy of the mapping data provided with the CentralSquare Software. The completeness or accuracy of such data is solely dependent on the information supplied by the Customer or the mapping database vendor to CentralSquare. All third-party materials are provided "as-is" and any representation or warranty concerning them is strictly between Customer and the third-party.

22. **Subcontractors**. CentralSquare may from time to time, in its discretion, engage third parties to perform services on its behalf including but not limited to Professional Services, Support Services, and/or provide software (each, a "Subcontractor"). CentralSquare shall be fully responsible for the acts of all subcontractors to the same extent it is responsible for the acts of its own employees.

23. **Entire Agreement**. This Agreement, and any Exhibits specifically incorporated therein by reference, constitute the entire agreement between the Parties with respect to the subject matter. These documents supersede and merge all previous and contemporaneous proposals of sale, communications, representations, understandings and agreements, whether oral or written, between the Parties with respect to the subject hereof.

24. **Amendment**. Either Party may, at any time during the term, request in writing changes to this agreement. The Parties shall evaluate and, if agreed, implement all such requested changes. No requested changes will be effective unless and until memorialized in either a CentralSquare issued add-on quote signed by Customer, or a written change order or amendment to this Agreement signed by both Parties.

25. **No Third-Party Beneficiaries**. This Agreement is for the sole benefit of the Parties and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer on any other person any legal or equitable right, benefit, or remedy of any nature under or by reason of this Agreement.

26. **Counterparts**. This Agreement, and any amendments hereto, may be executed in several counterparts, each of which when so executed shall be deemed to be an original, and such counterparts shall constitute one and the same instrument. The Agreement (and any amendments) shall be considered properly executed by a Party if executed by that Party and transmitted by facsimile or other electronic means, such as DocuSign, Tagged Image Format Files (TIFF), or Portable Document Format (PDF).

27. **Material Adverse Change**. If any law, regulation, applicable standard, process, OEM requirement is changed or comes into force after the Effective Date, including but not limited to PCI standards or Americans with Disabilities Act compliance (collectively, a “Material Adverse Change”), which is not explicitly addressed within this Agreement and results in *significant extra* costs for either Party in relation to the performance of this Agreement, both Parties shall promptly meet, discuss in good faith, and agree upon reducing the technical, operational, and/or commercial impact of such Material Adverse Change.

28. **Cooperative Purchases.** The Parties agree that other entities (“Cooperative Customers”) may use this Agreement as a purchasing vehicle for similar CentralSquare software and services. Terms and conditions specific to each Cooperative Customer’s purchase, including but not limited to pricing, payment terms, and scope of work, shall be negotiated separately between CentralSquare and the Cooperative Customer. A separate contract and any necessary supplemental documents shall be developed independently from this Agreement for each Cooperative Customer, and each such contract shall be fully independent of the others. The original Customer shall not be a party to any agreements made between CentralSquare and Cooperative Customers and will not incur any liability related to specifications, delivery, payment, or any other aspect of purchases made by Cooperative Customers.

29. **Order of Precedence**.

    29.1. In the event of any conflict or inconsistency between this Agreement, the Exhibits, or any purchase order, then the following priority shall prevail:

        29.1.1. The main body of this Agreement and any associated amendments, statements of work (including Exhibit 5 (Statement of Work)), or change orders and then the attached Exhibits to this Agreement in the order in which they appear.

    29.2. Customer’s purchase order terms and conditions are not applicable and shall have no force or effect, whether referenced in any document in relation to this Agreement.

    29.3. Incorporated Exhibits to this Agreement:

    Exhibit 1: Solution(s) and Services Fee Schedule

    Exhibit 2: Maintenance & Support

    Exhibit 3: CentralSquare Access Management Policy

    Exhibit 4: Certificate of Insurance (Evidence of Coverage)

    Exhibit 5: Statement of Work

    Exhibit 6: System Planning Guide

    Exhibit 7: Service Level Commitments (if applicable)

    Exhibit 8: Sample Documentation

    Exhibit 9: CentralSquare’s RFP Response

    Exhibit 10: City’s RFP

EXHIBIT 1
Solution(s) and Services Fee Schedule

Quote #: Q-220265

WHAT SOFTWARE IS INCLUDED?

CAD

	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
1.	Enterprise CAD Archive Server Software (OP) Annual Subscription Fee	1	1,100.00	- 330.00	770.00
2.	Enterprise CAD Caller Location Query Subscription (OP) Annual Subscription Fee	1	2,500.00	- 750.00	1,750.00
3.	Enterprise CAD Disaster Recovery System (OP) Annual Subscription Fee	1	2,500.00	- 750.00	1,750.00
4.	Enterprise CAD GISLink Utility Position (OP) Annual Subscription Fee	1	2,200.00	- 660.00	1,540.00
5.	Enterprise CAD Mapping (OP) Annual Subscription Fee	6	200.00	- 360.00	840.00
6.	Enterprise CAD Mapping Test or Training (OP) Annual Subscription Fee	1	200.00	- 60.00	140.00
7.	Enterprise CAD Position (OP) Annual Subscription Fee	6	4,300.00	- 7,740.00	18,060.00
8.	Enterprise CAD Routing Server - Disaster Recovery (OP) Annual Subscription Fee	1	1,300.00	- 390.00	910.00
9.	Enterprise CAD Routing Server - Test or Trn. System (OP) Annual Subscription Fee	1	1,300.00	- 390.00	910.00
10.	Enterprise CAD Routing Server (OP) Annual Subscription Fee	1	8,100.00	- 2,430.00	5,670.00
11.	Enterprise CAD Server Software (OP) Annual Subscription Fee	1	15,100.00	- 4,530.00	10,570.00
12.	Enterprise CAD Situational Awareness Manager (SAM) (OP) Annual Subscription Fee	1	4,300.00	- 1,290.00	3,010.00
13.	Enterprise CAD Test or Training System (OP) Annual Subscription Fee	1	2,500.00	- 750.00	1,750.00
14.	NCIC/State Query Position for Enterprise CAD (OP) Annual Subscription Fee	6	200.00	- 360.00	840.00

CAD Software Subtotal	69,300.00 USD
CAD Software Discount	- 20,790.00 USD
CAD Software Total	48,510.00 USD

CAD-TO-CAD COUNTY

	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
15.	CAD-to-CAD Unify (Cloud) Annual Subscription Fee	1	29,000.00	- 8,700.00	20,300.00

CAD-to-CAD County Software Subtotal	29,000.00 USD
CAD-to-CAD County Software Discount	- 8,700.00 USD
CAD-to-CAD County Software Total	20,300.00 USD

CAD-TO-CAD POLICE

	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
16.	CAD-to-CAD Unify (Cloud) Annual Subscription Fee	1	15,750.00	- 4,725.00	11,025.00
17.	Enterprise CAD CAD-to-CAD Hub Interface Annual Subscription Fee	1	0.00		0.00

CAD-to-CAD Police Software Subtotal	15,750.00 USD
CAD-to-CAD Police Software Discount	- 4,725.00 USD
CAD-to-CAD Police Software Total	11,025.00 USD

INTERFACES

	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
18.	CentralSquare Identity (OP) Annual Subscription Fee	1	0.00		0.00
19.	CentralSquare Message Switch (OP) Annual Subscription Fee	1	9,500.00	- 2,850.00	6,650.00
20.	CentralSquare Message Switch Additional Provider (OP) Annual Subscription Fee - AXON RMS	1	3,200.00	- 960.00	2,240.00
21.	Enterprise CAD Archive Server View (OP) Annual Subscription Fee	1	500.00	- 150.00	350.00
22.	Enterprise CAD ASAP Interface Annual Subscription (OP) Annual Subscription Fee	1	2,500.00	- 750.00	1,750.00
23.	Enterprise CAD Axon Evidence.com Data Extract (OP) Annual Subscription Fee	1	4,700.00	- 1,410.00	3,290.00
24.	Enterprise CAD LPR Interface (OP) Annual Subscription Fee	1	7,000.00	- 2,100.00	4,900.00
25.	Enterprise CAD Premise Data Import (OP) Annual Subscription Fee	1	4,300.00	- 1,290.00	3,010.00
26.	Enterprise CAD RapidSOS Interface (OP) Annual Subscription Fee	1	5,400.00	- 1,620.00	3,780.00
27.	Enterprise CAD REST API Annual Subscription Fee	1	12,000.00	- 3,600.00	8,400.00
28.	Enterprise Mobile AFR XML Export (OP) Annual Subscription Fee	60	40.00	- 720.00	1,680.00
29.	Standard Alpha Numeric Paging Interface (OP) Annual Subscription Fee	1	3,900.00	- 1,170.00	2,730.00
30.	Standard ANI/ALI Interface (OP) Annual Subscription Fee	1	3,900.00	- 1,170.00	2,730.00
31.	Standard EMD Integration (OP) Annual Subscription Fee	6	200.00	- 360.00	840.00
32.	Standard Station Alert Interface (OP) Annual Subscription Fee	1	8,600.00	- 2,580.00	6,020.00
33.	Std Enterprise CAD External Incident Data Transfer (OP) Annual Subscription Fee - APX Data	1	6,500.00	- 1,950.00	4,550.00

34.	Std Enterprise CAD External Incident Data Transfer (OP) Annual Subscription Fee - ESO Reporting	1	6,500.00	- 1,950.00	4,550.00
35.	Std Enterprise CAD External Incident Data Transfer (OP) Annual Subscription Fee - WSI	1	6,500.00	- 1,950.00	4,550.00
36.	Std Enterprise CAD External Incident Data Transfer (OP) Annual Subscription Fee - Third Party RMS	1	6,500.00	- 1,950.00	4,550.00

Interfaces Software Subtotal	95,100.00 USD
Interfaces Software Discount	- 28,530.00 USD
Interfaces Software Total	66,570.00 USD

MOBILE

	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
37.	Enterprise Mobile Base Position (OP) Annual Subscription Fee	22	300.00	- 1,980.00	4,620.00
38.	Enterprise Mobile Base Position w/ CJIS/NCIC Forms (OP) Annual Subscription Fee	38	400.00	- 4,560.00	10,640.00
39.	Enterprise Mobile Disaster Recovery System (OP) Annual Subscription Fee	1	2,300.00	- 690.00	1,610.00
40.	Enterprise Mobile Mapping (OP) Annual Subscription Fee	60	100.00	- 1,800.00	4,200.00
41.	Enterprise Mobile Mapping Test or Training (OP) Annual Subscription Fee	1	100.00	- 30.00	70.00
42.	Enterprise Mobile Server Software (OP) Annual Subscription Fee	1	10,800.00	- 3,240.00	7,560.00
43.	Enterprise Mobile Test or Training System (OP) Annual Subscription Fee	1	2,300.00	- 690.00	1,610.00

Mobile Software Subtotal	43,300.00 USD
Mobile Software Discount	- 12,990.00 USD
Mobile Software Total	30,310.00 USD

MOBILE X

	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
44.	Enterprise Mobile Mapping (OP) Annual Subscription Fee	105	100.00	- 3,150.00	7,350.00
45.	Enterprise Mobile X Position (OP) Annual Subscription Fee	105	200.00	- 6,300.00	14,700.00

Mobile X Software Subtotal	31,500.00 USD
Mobile X Software Discount	- 9,450.00 USD
Mobile X Software Total	22,050.00 USD

SOFTWARE SUMMARY

Software Subtotal	283,950.00 USD

Software Discount	- 85,185.00 USD
Software Total	**198,765.00 USD**

WHAT SERVICES ARE INCLUDED?

CAD-TO-CAD COUNTY

	DESCRIPTION	TOTAL
1.	Public Safety Consulting Services - Fixed Fee	7,800.00
2.	Public Safety Development Services - Fixed Fee	975.00
3.	Public Safety Project Management Services - Fixed Fee	8,190.00
4.	Public Safety Technical Services - Fixed Fee	8,190.00
5.	Public Safety Training Services - Fixed Fee	3,120.00

CAD-to-CAD County Services Subtotal	28,275.00 USD
CAD-to-CAD County Services Discount	- 8,482.50 USD
CAD-to-CAD County Services Total	19,792.50 USD

CAD-TO-CAD POLICE

	DESCRIPTION	TOTAL
6.	Public Safety Consulting Services - Fixed Fee	7,800.00
7.	Public Safety Project Management Services - Fixed Fee	3,510.00
8.	Public Safety Technical Services - Fixed Fee	4,680.00
9.	Public Safety Training Services - Fixed Fee	3,120.00

CAD-to-CAD Police Services Subtotal	19,110.00 USD
CAD-to-CAD Police Services Discount	- 5,733.00 USD
CAD-to-CAD Police Services Total	13,377.00 USD

GIS MANAGED SERVICES

	DESCRIPTION	TOTAL
10.	CentralSquare Managed Services (Remote) Annual Subscription Fee	68,250.00

GIS Managed Services Services Total	68,250.00 USD

MOBILE X

	DESCRIPTION	TOTAL
11.	Public Safety Project Management Services - Fixed Fee	2,340.00
12.	Public Safety Technical Services - Fixed Fee	10,530.00
13.	Public Safety Training Services - Fixed Fee	780.00

Mobile X Services Subtotal	13,650.00 USD
Mobile X Services Discount	- 4,095.00 USD
Mobile X Services Total	9,555.00 USD

SERVICES

	DESCRIPTION	TOTAL
14.	Enterprise CAD System Administration Training Course	8,700.00
15.	Estimated Travel & Living Enterprise PSJ	18,400.00
16.	Public Safety Consulting Services - Fixed Fee	48,165.00
17.	Public Safety Data Conversion Services - Fixed Fee	44,655.00
18.	Public Safety GIS/Analytics Services - Fixed Fee	31,980.00
19.	Public Safety Project Management Services - Fixed Fee	51,090.00

20. Public Safety Technical Services - Fixed Fee	153,465.00
21. Public Safety Training Services - Fixed Fee	21,840.00

Services Services Subtotal	378,295.00 USD
Services Services Discount	- 114,058.50 USD
Services Services Total	264,236.50 USD

SERVICES SUMMARY

Services Subtotal	507,580.00 USD
Services Discount	- 132,369.00 USD
Services Total	**375,211.00 USD**

QUOTE SUMMARY

Software Subtotal	283,950.00 USD
Services Subtotal	507,580.00 USD
Quote Subtotal	791,530.00 USD
Discount	- 217,554.00 USD
Quote Total	**573,976.00 USD**

WHAT ARE THE RECURRING FEES?

TYPE	AMOUNT
FIRST YEAR MAINTENANCE TOTAL	0.00
FIRST YEAR SUBSCRIPTION TOTAL	198,765.00
FIRST YEAR RECURRING SERVICES TOTAL	68,250.00

The amount totals for Maintenance and/or Subscription on this quote include only the first year of software use and maintenance.

Payment Terms:

Subscriptions:

- If applicable, Annual Subscription Fees are due on the Delivery Date, and annually thereafter on the anniversary of the Delivery Date.
- Annual Subscription Fees shall increase as follows:
- * Years 1-5 = no increase
- * Years 6-8 = 3%
- * Years 9-onward = 5%

Services:

Payment Schedule:

	Implementation Services
20%	Due on Effective Date
20%	Due upon Completion of CAD Enterprise Operational and Administrative Review (Admin Workshop)
30%	Due upon Completion of CAD/Mobile Functional Acceptance Testing
20%	Due upon CAD/Mobile Go Live
10%	Due upon End of Reliability Period

- If applicable, non-fixed fee professional services shall be due as incurred on a time and materials basis. Non-fixed fee professional services are not included in the percentages outlined in the above Payment Schedule.
- If applicable, non-fixed fee travel expenses shall be due as incurred, invoiced monthly for the travel expenses of the preceding month. Non-fixed fee travel expenses are not included in the percentages outlined in the above Payment Schedule.
- If applicable, Fixed Fee travel expenses are included in the percentages outlined in the above Payment Schedule.

Hardware:

- If applicable, Non-subscription Hardware Fees are due on the Effective Date.

Licenses:

- If applicable, License Fees are due on the Delivery Date.

Support & Maintenance

- If applicable, Support & Maintenance Fees are due annually, starting prior to the first anniversary of the Delivery Date and annually thereafter.
- Annual Software Maintenance Fees shall increase in accordance with the terms above.

Third Party:

- If applicable, Third-Party Software Fees are due on the Effective Date. Third-Party software subscriptions and/or support fees shall be due annually thereafter on the anniversary of the Effective Date. Third-Party Software fees are subject to increase each year.
- If applicable, Third-Party Services shall be due 50% at Effective Date, 25% at completion of 1st End User Training Session, and 25% at Go Live.

Invoice Terms:

CentralSquare shall provide an invoice for the items in the schedule above no less than thirty (30) days prior to the due date.

ANCILLARY FEES

a. Customer is responsible for paying all taxes relating to this Agreement. Applicable tax amounts (if any) are not included in the fees set forth in this Agreement. If Customer is exempt from the payment of any such taxes, Customer must provide CentralSquare valid proof of exemption; otherwise, CentralSquare will invoice Customer and Customer will pay to CentralSquare all such tax amounts.

b. To the extent allowable by law, if Customer fails to make any payment when due, then CentralSquare may charge interest on the past due amount at the rate of 1.5% per month calculated daily and compounded monthly, or, if lower, the highest rate permitted under applicable law; and if such failure continues for 90 days following written notice thereof, CentralSquare may suspend performance or access until past due amounts have been paid.

EXHIBIT 2
Maintenance & Support

This Maintenance & Support Exhibit describes support and maintenance relating to technical support that CentralSquare will provide to Customer during the Term of the Agreement.

1. **Product Updates and Releases**
   1.1. Software Version. "Software Version" means the base or core version of the Software that contains significant new features and significant fixes and is available to the Customer. Software Versions may occur as the Software architecture changes or as new technologies are developed. The nomenclature used for updates and upgrades consists of major, minor, build, and fix and these correspond to the following digit locations of a release, a,b,c,d. An example of which would be 7.4.1.3, where the 7 refers to the major release, the 4 refers to the minor release, the 1 refers to the build, and the 3 refers to a fix. All Software Versions are provided and included as part of this Agreement.

   1.2. Updates. From time to time CentralSquare may develop permanent fixes or solutions to known problems or bugs in the Software and incorporate them in a formal "Update" to the Software. If Customer is receiving technical support from CentralSquare on the general release date for an Update, CentralSquare will provide the Customer with the Update and related Documentation at no extra charge. Updates for custom configurations will be agreed upon by the Parties and outlined in a Statement of Work or Change Order.

   1.3. Releases. Customer shall agree to install and/or use any New or Major Release within one year of being made available by CentralSquare to avoid or mitigate a performance problem, ineligibility for Support and Maintenance Services or infringement claim. All modifications, revisions and updates to the Software shall be furnished by means of new Releases of the Software and shall be accompanied by updates to the Documentation whenever CentralSquare determines, in its sole discretion, that such updates are necessary.

2. **Support**
   2.1. CentralSquare shall provide to Customer support via toll-free phone number *833-278-7877* or via the CentralSquare Support Portal. CentralSquare shall, in accordance with the support and maintenance provisions of the Agreement, resolve errors reported by the Customer via either method. Customer shall provide to CentralSquare reasonably detailed documentation and explanation, together with underlying data, to substantiate errors and to assist CentralSquare in its efforts to diagnose, reproduce and correct the error. Should either Party not be able to locate the error root cause and Customer and CentralSquare agree that on-site services are necessary to diagnose or resolve the problem CentralSquare shall provide a travel estimate and estimated hours in order to diagnose the reported error.

   2.2. If after traveling onsite to diagnose a reported error and such reported error did not, in fact, exist or was not attributable to a Defect in the Software provided by CentralSquare or an act or omission of CentralSquare, then Customer shall pay for CentralSquare's investigation, travel, and related services in accordance with provided estimate. Customer must provide CentralSquare with such facilities, equipment and support as are reasonably necessary for CentralSquare to perform its obligations under this Exhibit, including remote access in accordance with the Remote Access Policy.

   2.3. Customer Infrastructure. So long as Customer meets or exceeds CentralSquare's minimum mandatory technical requirements for the Enterprise CAD/Mobile system, Customer's use of existing or self-purchased physical infrastructure will not have adverse impact on CentralSquare's provision of system support and maintenance as set forth in the support and maintenance provisions of the Agreement.

3. **Online Support Portal**
   Online support is available via https://support.centralsquare.com/s/contact-us, offering Customer the ability to resolve its own problems with access to CentralSquare's most current information. Customer will need to enter its designated username and password to gain access to the technical support areas on CentralSquare's website. CentralSquare's technical support areas allow Customer to: (i) search an up-to-date knowledge base of technical support information, technical tips, and featured functions; and (ii) access answers to frequently asked questions (FAQ).

4. **Exclusions from Technical Support Services**
   CentralSquare shall have no support obligations to provide Support or Maintenance for Solutions that are not kept current to one version prior to the then current version of the Solution. CentralSquare shall have no support obligations with respect to any third-party hardware or software product not licensed or sold to Customer by CentralSquare ("Nonqualified Product"). Customer shall be solely responsible for the compatibility and functioning of Nonqualified Products with the Software.

5. **Customer Responsibilities**

   In connection with CentralSquare's provision of technical support as described herein, Customer acknowledges that Customer has the responsibility to do each of the following:
   5.1 Provide hardware, operating system and browser software that meets technical specifications, as well as a fast, stable, high-speed connection and remote connectivity for accessing the Solution.
   5.2 Maintain any applicable computer system and associated peripheral equipment in good working order in accordance with the manufacturers' specifications, and ensure that any problems reported to CentralSquare are not due to hardware malfunction;

5.3 For CentralSquare Solutions that are implemented on Customer Systems, maintain the designated operating system at the latest code revision level reasonably deemed necessary by CentralSquare for proper operation of the Software;

5.4 Supply CentralSquare with access to and use of all information and facilities reasonably determined to be necessary by CentralSquare to render the technical support described herein;

5.5 Perform any test or procedures reasonably recommended by CentralSquare for the purpose of identifying and/or resolving any problems;

5.6 At all times follow routine operator procedures as specified in the Documentation or any error correction guidelines of CentralSquare posted on the CentralSquare website;

5.7 Customer shall remain solely responsible at all times for the safeguarding of Customer's proprietary, confidential, and classified information contained within Customer Systems; and

5.8 Reasonably ensure that the Customer Systems are isolated and free from viruses and malicious code that could cause harm before requesting or receiving remote support assistance.

6. **Priorities and Support Response Matrix**

The following priority matrix relates to software errors covered by this Agreement. Causes secondary to non-covered causes - such as hardware, network, and third-party products - are not included in this priority matrix and are outside the scope of this Exhibit. CentralSquare will make commercially reasonable efforts to respond to Software incidents for live remote based production systems using the following guidelines:

Priority	**Issue Definition**	**Response Time**
Priority 1 – Urgent	The software is completely down and will not launch or function. Examples: • Major Functionality that does not have an alternative business process • Issue being reported leads to downtime for major functionality	Priority 1 issues must be called in via 833-278-7877 and will be immediately answered and managed by the first available representative.
Priority 2 – Critical	A high-impact problem that disrupts the customer's operation but there is capacity to remain productive and maintain necessary operations. Examples: • Major Functionality that does not have an alternative business process • Issue being reported leads to downtime for major functionality	Priority 2 issues must be called in via 833-278-7877 and will be immediately answered and managed by the first available representative.
Priority 3 – Non-Critical	Non-critical software errors which have a negative impact on Public Safety operations. ***CentralSquare and Customer will collaborate in order to develop a strategy to bring closure to the reported software incident(s).***	Non-Critical Priority 3 issues must be reported via Https://support.centralsquare.com/s/contact-us
Priority 4 – Minor	Cosmetic or documentation errors, including Customer technical questions or usability questions.	Minor Priority 4 issues must be reported via Https://support.centralsquare.com/s/contact-us

7. **Exceptions.** CentralSquare shall not be responsible for failure to carry out its Support and Maintenance obligations under this Exhibit if the failure is caused by adverse impact due to:

7.1. defectiveness of the Customer's Systems (including but not limited to environment, hardware or ancillary systems), or due to Customer corrupt, incomplete, or inaccurate data reported to the Solution, or documented Defect.

7.2. denial of reasonable access to Customer's System or premises preventing CentralSquare from addressing the issue.

7.3. material changes made to the usage of the Solution by Customer where CentralSquare has not agreed to such changes in advance and in writing or the modification or alteration, in any way, by Customer or its subcontractors, of communications links necessary to the proper performance of the Solution.

7.4. a Force Majeure event (as outlined in Section 12), or the negligence, intentional acts, or omissions of Customer or its agents.

8. **Incident Resolution.** Actual response times and resolutions may vary due to issue complexity and priority. For critical impact level and above, CentralSquare provides a continuous resolution effort until the issue is resolved. CentralSquare will make commercially reasonable efforts to resolve Software incidents for live remote based production systems using the following guidelines:

Priority	Resolution Process	Resolution Time
Priority 1 – Urgent	CentralSquare will provide a procedural or configuration workaround or a code correction that allows the Customer to resume live operations on the production System.	CentralSquare will work continuously to provide the Customer with a solution that allows the Customer to resume live operations on the production system. CentralSquare will either resolve the issue or provide a resolution plan as soon as possible and not later than twenty-four (24) hours after notification.
Priority 2 – **Critical**	CentralSquare will provide a procedural or configuration workaround or a code correction that allows the Customer to resume normal operations on the production System.	CentralSquare will work continuously to provide the Customer with a solution that allows the Customer to resume normal operations on the production System. CentralSquare will either resolve the issue or provide a resolution plan as soon as possible and not later than thirty-six (36) hours after notification.
Priority 3 – Non – Critical	CentralSquare will provide a procedural or configuration workaround that allows the Customer to resolve the problem.	CentralSquare will work to provide the Customer with a resolution which may include a workaround or code correction within a timeframe that takes into consideration the impact of the issue on the Customer and CentralSquare's User base. Priority 3 issues have no defined resolution time.
Priority 4 – Minor	If CentralSquare determines that a reported Minor Priority error requires a code correction, such issues will be addressed in a subsequent release when applicable.	CentralSquare will work to provide the Customer with a resolution which may include a workaround or code correction in a future release of the software. Priority 4 issues have no defined resolution time.

9. Cases needing development. Support cases that require code development (e.g. writing, modifying or reviewing source code to create new functionality, resolve issues, or improve existing features) will be transferred to the appropriate product development team. Cases transferred to product development will be reviewed to determine the nature of the request, the severity of the impact on the performance of the solution, and the availability of a resolution. CentralSquare reserves the right to close out Non-Critical (Priority 3) and Minor (Priority 4) support cases, without resolution, for development items that do not reasonably fall within the current product roadmap.

10. **Non-Production Environments.** CentralSquare will make commercially reasonable efforts to provide fixes to non-production environment(s). Non-production environments are not included under the response or resolution tables provided in this Exhibit.

10.1. Maintenance. All non-production environment resolution processes will follow the structure and schedules outlined above for production environments.

10.2. Incidents and service requests. Non-production environment incidents are considered priority 3 or 4, dictated by circumstances and will be prioritized and scheduled subordinate to production environment service requests.

11. **Training.** Outside the scope of training services purchased, if any, Customer is responsible for the training and organization of its staff in the operation of the Software.

12. **Development Work.** Software support and maintenance does not include development work either (i) on software not licensed from CentralSquare or (ii) development work for enhancements or features that are outside the documented functionality of the Software, except such work as may be specifically purchased and outlined in the Agreement. CentralSquare retains all intellectual property rights in development work performed and Customer may request consulting and development work from CentralSquare as a separate billable service.

13. **Technology Life Expectancy**. Customer understands, acknowledges and agrees that the technology upon which the Hardware, Solution and Third-Party Software is based changes rapidly. Customer further acknowledges that CentralSquare will continue to improve the functionality and features of the Solution to improve legal compliance, accuracy, functionality and usability. As a result, CentralSquare does not represent or warrant that the Hardware, Solution and/or Third-Party Software provided to Customer under this Agreement or that the Customer Systems recommended by CentralSquare will function for an indefinite period of time. Rather, CentralSquare and Customer may, from time to time, analyze the functionality of the Hardware, Solution, Third-Party Software and Customer Systems in response to changes to determine whether Customer must upgrade the same. Customer upgrades may include without limitation, the installation of a new Release, additional disk storage and memory, and workstation and/or server upgrades. Customer upgrades may also include the installation and/or removal of Third-Party Software. Customer is solely responsible for all costs associated with future resources and upgrades.

EXHIBIT 3
CentralSquare Access Management Policy

In order to provide secure, federally compliant connections to agency systems CentralSquare Technologies ("CentralSquare") requires BeyondTrust or SecureLink as the only approved methodology of connection. BeyondTrust and Securelink provide the necessary remote access in order to service and maintain CentralSquare products while adhering to the Federal Bureau of Investigations Criminal Justice Information Services requirements. Both solutions utilize two-factor authentication Federal Information Processing Standard Publication ("FIPS") 140-2 validated cryptographic modules and AES encryption in 256-bit strengths.

BeyondTrust and Securelink are addressed in turn via this Access Management Policy; Customers may choose which remote privileged access management solution will be utilized by CentralSquare.

BeyondTrust

The BeyondTrust remote support solution may be utilized via escorted session or a jump Customer. As for an escorted session, when an agency needs assistance from CentralSquare, the agency employee requesting assistance will receive verbal or email communication with a session key necessary to enable remote access. If a verbal key is provided, the user enters the session key after visiting https://securesupport.centralsquare.com.

Jump Customers are a Windows service that can be stopped/started to facilitate a support session. Connections made via jump Customer can be active or passive. An active jump Customer is always available. A passive connection is enabled for a specific purpose and then disabled when not used. Regardless of the option selected, CentralSquare's support team will arrange a BeyondTrust session to establish the jump Customer.

The jump Customer resides on the agency side on the installed device, where an agency administrator can manage. Instructions on how to enable/disable jump Customers can be provided upon request. A sample workflow of a passive jump Customer is provided below:

> *Should an agency require support from CentralSquare, a call would be placed and/or a support ticket opened in the portal on the CentralSquare customer support website. Before accessing the agency's system and/or environment, the CentralSquare representative would send a notice of connection from the CentralSquare support portal instance. This notice can be sent to the individual at the agency that the CentralSquare representative is working with or other designated contacts as necessary. Upon receipt of the notice of connection, the agency personnel would enable the BeyondTrust jump Customer. The CentralSquare representative would then be admitted to the agency's system and/or environment to perform the necessary task. Upon completion of the task, the CentralSquare representative sends a notice of disconnection from the CentralSquare support portal instance. Upon receipt of the notice of disconnection, the agency personnel would then disable the BeyondTrust jump Customer.*

Securelink

Similar to BeyondTrust's escorted session, Securelink may be utilized via "quick connect". To enable a quick connect session when an agency needs assistance from CentralSquare, the Agency employee requesting assistance will enter a key code in order to connect for screen sharing on a device.

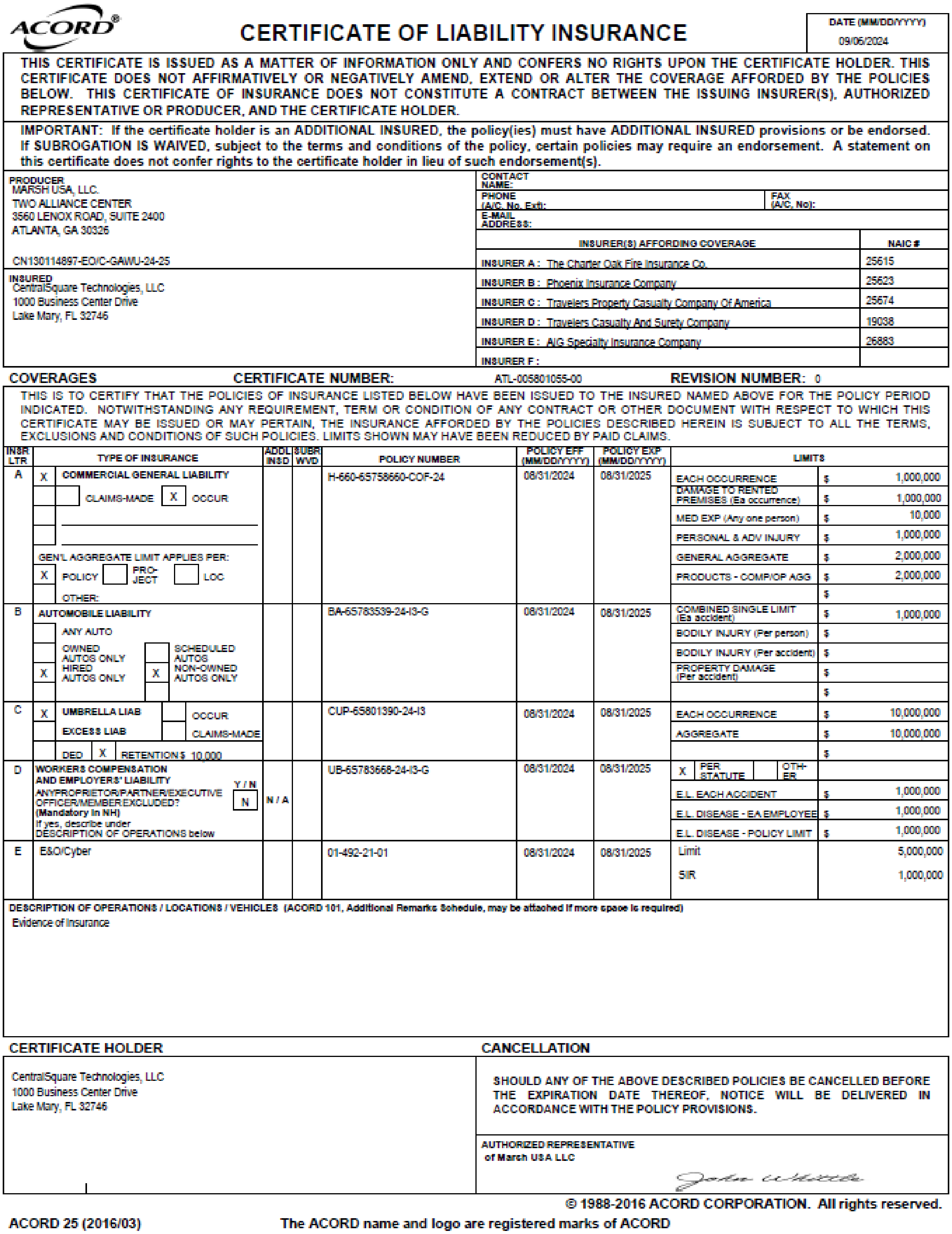
Similar to the jump Customer methodology, SecureLink may also be utilized via "gatekeeper". The sample workflow description for a jump Customer provided above is substantially similar to the workflow for gatekeeper.

Summation

BeyondTrust and Securelink allow customers the ability to monitor connectivity to the customer's network and maintain CJIS compliance while enabling CentralSquare to perform the necessary support functions.

EXHIBIT 4

Certificate of Insurance (Evidence of Coverage)



ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 09/06/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
MARSH USA, LLC.
TWO ALLIANCE CENTER
3560 LENOX ROAD, SUITE 2400
ATLANTA, GA 30326

CN130114897-EO/C-GAWU-24-25

CONTACT NAME:
PHONE (A/C, No, Ext): FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : The Charter Oak Fire Insurance Co.	25615
INSURER B : Phoenix Insurance Company	25623
INSURER C : Travelers Property Casualty Company Of America	25674
INSURER D : Travelers Casualty And Surety Company	19038
INSURER E : AIG Specialty Insurance Company	26883
INSURER F :	

INSURED
CentralSquare Technologies, LLC
1000 Business Center Drive
Lake Mary, FL 32746

COVERAGES **CERTIFICATE NUMBER:** ATL-005801055-00 **REVISION NUMBER:** 0

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	☒ COMMERCIAL GENERAL LIABILITY			H-660-65758660-COF-24	08/31/2024	08/31/2025	EACH OCCURRENCE	$ 1,000,000
	☐ CLAIMS-MADE ☒ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
	☐						MED EXP (Any one person)	$ 10,000
	☐						PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	☒ POLICY ☐ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	☐ OTHER:							$
B	AUTOMOBILE LIABILITY			BA-65783539-24-I3-G	08/31/2024	08/31/2025	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☒ HIRED AUTOS ONLY ☒ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
	☐ ☐							$
C	☒ UMBRELLA LIAB ☐ OCCUR			CUP-65801390-24-I3	08/31/2024	08/31/2025	EACH OCCURRENCE	$ 10,000,000
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$ 10,000,000
	☐ DED ☒ RETENTION $ 10,000							$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			UB-65783668-24-I3-G	08/31/2024	08/31/2025	☒ PER STATUTE ☐ OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N / A					E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
E	E&O/Cyber			01-492-21-01	08/31/2024	08/31/2025	Limit	5,000,000
							SIR	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Evidence of Insurance

CERTIFICATE HOLDER

CentralSquare Technologies, LLC
1000 Business Center Drive
Lake Mary, FL 32746

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
of Marsh USA LLC

ACORD 25 (2016/03)

EXHIBIT 5

Statement of Work

[ATTACHED]

STATEMENT OF WORK

PSJ - Enterprise

City of Waukesha, WI

Version 6.0

1000 Business Center Drive, Lake Mary, FL 32746
407.304.3235 l Fax: 407.304.3301 l www.centralsquare.com

Trademarks

Microsoft, Windows, Microsoft Access, Microsoft Excel, Microsoft Exchange, and Microsoft Word are either registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.

CentralSquare Public Safety Suite – Enterprise, CentralSquare CAD Enterprise, CentralSquare Mobile Enterprise, CentralSquare Records Enterprise, CentralSquare Jail Enterprise, CentralSquare False Alarm Management, and CentralSquare Public Safety Analytics Enterprise are trademarks of CentralSquare Technologies, LLC.

ArcGIS, ArcMap and ArcCatalog are registered trademarks of Environmental Systems Research Institute (Esri) in the United States and other countries.

Internal Version - Document Control

Date	Version	Details/Changes	Author
3.13.2025	1.20		Ann Marie Newton

External Version - Document Control

Date	Version	Details/Changes	Author
3.27.2025	1.0	Initial SOW, draft	Ann Marie Newton
5.19.25	2.0	Client redlines and comments	City of Waukesha
5.20.25	3.0	1)- Accepted Client changes from 'Waukesha Police' to 'City of Waukesha'. 2)- Responded to the majority of the Client's comments. 3)- Removed non-applicable boilerplate items/language: a)- Removed references to "contracted modifications" and "modifications" in the body of the SOW and Appendix A. b)- Removed references to "subcontractor" in the body of the SOW and Appendix E. c)- Removed "if applicable" in the body of the SOW. d)- Removed references to Jail Enterprise.	Ann Marie Newton

		e)- Removed references to Records Enterprise and accepted Client deletions where noted. 4)- Section 1.2 Project Overview: Added configuration, testing, and go-live. Added: "A single environment" for Test/Train. 5)- Section 4.6.2: Added for MobileX. 6)- Section 4.2.5.4/DR: Added back in redline comments from May 12 SOW to review with COW. 7)- Appendix B: Std Enterprise CAD to External Incident Data Transfer for Axon- deleted 'import, bi-directional, link' (this is an export). Updated multiple OSD document names- changed.docx to .pdf. EMD- Added a placeholder to note the CST ProQA certification level and noted that COW has all disciplines. Changed document names that were "N/A" to: "This interface does not have a customer facing OSD". 8)- Noted for removal references to "custom interfaces" in the body of the SOW and Appendix C (Section 4.4.2). 9)- Appendix D: Removed reference to a new state. 10)- Appendix G: Added Situational Awareness Manager (SAM).	
5.20.25	4.0	Call with client on 5-20-25 and reviewed the following items: *Appendix Y (and the spreadsheet). Call with client on 5-20-25 and reviewed the following items from version 3 with the exception of: *Section 4.6.2: MobileX. *Section 4.2.5.4/DR and the installation section (to be reviewed with Will). Reviewed the following redline comments with the Client: *Sections: 1.1, 1.2, 2.1, 2.1.2, 2.2, 2.3, 2.4, 2.5, 2.5.2, 2.6, 4.3, 4.4, 4.4.2, 4.5.3.1, 4.5.4, 4.6.4, 4.7, 5.0, 6.1, 7.1. *Appendices: B, D, G. SOW changes made after the call (to be reviewed with Client on a future call): *Added Appendix F for SOW documentation (placeholder for the list). *Added Appendix H for listing of non-payment TCR milestones (placeholder for the list).	Ann Marie Newton
5.23.25	5.0	Call with client on 5-21-25 and reviewed the following items: *Section 2.3.1, item b: Provide a meeting agenda in advance of the monthly status call to review the monthly status report.	Ann Marie Newton

		*Section 2.5.2, Customer Responsibilities: Adjusted language that COW can add comments to all documents (not just status reports). Added status report back in as a bullet. *Section 3.1 Project Initiation and Planning *Section 3.1.1 why detailed info is required *Section 4.4.2 Approval to delete Custom interfaces and references to Appendix, *Section 4.6.2: MobileX. *Appendix F: Placeholder. *Appendix H: Placeholder. *Appendix Y: Edits made for additional sessions. Call with client on 5-21-25 and reviewed the following items from version 4 with the exception of: *Section 4.2.5.4/DR and the installation section (to be reviewed with Will). SOW changes made after the call: *Accepted the redlines that we agreed to and resolved (closed) comments.	
5-30-25	6.0	Call with client on 5-29-25 and reviewed the following items: *Section 4.2: Reviewed installation section with Will and discussed redline comments. *Section 4.5.5 CAD FAT: Worked offline with Customer on this section, reviewed redlines. *Section 5.1 Pre Go-Live Tasks: Added: "A coordinated planning session between CentralSquare, the Customer, and Axon will be required to ensure a collaborative effort for the go-live implementation". *Section 7.1 Reliability Period: Worked offline with Customer on this section. Added additional language around the Reliability Period weekly report/TCR to be provided by the CST PM, and the PM's continued involvement in the project. Adjusted CST responsibilities items c and d. Adjusted Customer responsibilities item c. Reviewed redlines. Call with client on 5-30-25 and reviewed the following items: *Section 4.2: Reviewed installation section, redline comments. *Section 4.2.5.4: Will to check on specific type of DR sync with Nutanix. Will close this item, but keep it on the action item listing as follow up. *Section 4.2.5.4: DR- adding that Customer will be using DR features built into Nutanix. Added add on purchase of quantity of	Ann Marie Newton

		(one) 1 failover/failback test to be conducted one (1) year after Go-Live. *Section 4.5.5 CAD FAT: Worked offline with Customer, reviewed final redlines. (Customer conducts internal testing after CST FAT, explained process for issue submission). *Section 4.5.6: System Admin training (CSU), qty of 6 seats, no cost. *Section 4.6.3 Mobile FAT: Adjusted language to reflect CAD FAT changes. (Customer conducts internal testing after CST FAT, explained process for issue submission). *Section 4.7.1 SIT: Adjusted language to reflect CAD FAT changes (Customer conducts internal testing after CST SIT, explained process for issue submission). *Section 5.1 Pre Go-Live Tasks: Reviewed redline language added for CST, Customer, Axon Go-Live coordination. *Section 7.1 Reliability Period: Worked offline with Customer, reviewed final redlines. *Appendix B: EMD: Added platinum certification level. Station alerting: Phoenix G2 (manufactured by US Digital Designs, acquired by Honeywell Building Technologies) Added CAD Axon Evidence.com, Paging, External System to Enterprise CAD Data Transfer Premise (First Due), Automated License Plate Reader Interface (Flock), CAD Enterprise API, and Mobile AFR Export (Tracs), CrewSense / VectorSolutions: Customer would use third-party vendor and CST CAD API. *Appendix F: Changed the title to "Sample" SOW Documentation. Added overview statement. *Appendix H: Added overview statement. *Appendix Y: Added System Admin training (CSU), qty of 6 seats. *Appendix Z: No changes to data conversion scope. New SOW changes to be reviewed with the client (see redlines: *Section 4.2.5.5: Added a new section for SQL AlwaysON. *Section 4.4.1: Addressed redline comment: If we are using DR built into Nutanix, wouldn't all interfaces be included, since DR is a mirror of Prod? The answer is yes. *Appendix D: The NCIC transaction table was not updated, there were no changes. *Appendix D: Added Custom Provider (Interface between CAD/Mobile Enterprise and Axon RMS to query data from the RMS and present to CAD/Mobile users). *Appendix F: Inserted the listing. *Appendix H: Inserted the listing. *Appendix Y: Adjusted training table per request of Client.	

5-30-25	7.0	FINAL SOW, removed draft watermark, accepted all redlines, and resolved/closed all comments.	Ann Marie Newton

Table of Contents

1 OVERVIEW

1.1 Statement of Work

This Statement of Work (SOW) defines the services and deliverables that CentralSquare will be providing in accordance with the terms and conditions of the Agreement (the “Agreement”) between CentralSquare Technologies, LLC (CentralSquare) and City of Waukesha, WI (“Customer”).

This Statement of Work (SOW) includes the services and deliverables specified by the Agreement, including CentralSquare services, third-party products, and services for the implementation of the System and Subsystems specified in the Agreement (collectively the “Project”).

The framework of deliverables documented by this SOW for this Project is further defined through additional documents such as: Operational Scenario Documents (OSD); User and Administrator Documentation and training materials. For additional documentation that will be provided during the implementation, refer to Appendix F – Sample SOW Documentation.

The number and type of software licenses, products, or services provided by CentralSquare is specifically listed in the Agreement and any reference within this document do not imply or convey a software, license, or services that are not explicitly listed in the Agreement.

1.2 Project Overview

The Project shall consist of:

- Migration from Pro Phoenix to CAD Enterprise and Mobile Enterprise (on-premise)
- Software included: Message Switch (on-premise), CentralSquare Identity (on-premise), and MobileX
- Environments: Production, Test/Train (a single environment), Disaster Recovery
- On-premise deployment (Section 4.2)
- Customer provided hardware (Section 4.2)
- Standard interfaces (Appendix B)
- Workshops / Training (Appendix Y)
- CAD data conversion with CentralSquare (Appendix Z)
- Configuration, testing, and Go-Live

1.3 Project Implementation Definitions

Unless otherwise defined herein, capitalized terms within this document have the meanings described in the Definitions section of the Agreement.

The following terms are used in this document. Since these terms may be used differently in other settings, these definitions are provided for clarity.

- **Agreement** refers to the CentralSquare Solutions Agreement.
- **API** is an acronym for Application Programing Interface. An API is a connection between computers or between computer programs. It is a type of software Interface, offering a service to other pieces of software. A document or standard that describes how to build or use such a connection or Interface is called an API specification. A computer system that meets this standard is said to implement or expose an API. The term API may refer either to the specification or to the implementation.
- **Change Order** is a collective term for communicating and approving all changes in project scope.
- **Codefiles** are the component fields within each product that define the data to be contained within each table.
- **Disaster Recovery (DR)** is the process of preparing for and recovering from a disaster. An event that prevents a workload or system from fulfilling its business objectives in its primary deployed location is considered a disaster.
- **FBI CJIS Security Policy** means the Federal Bureau of Investigations Criminal Justice Information System Security Policy. The essential premise of the CJIS Security Policy is to provide appropriate controls to protect the full lifecycle of criminal justice information (CJI), whether at rest or in transit. The CJIS Security Policy provides guidance for the creation, viewing, modification, transmission, dissemination, storage, and destruction of CJI.
- **FDD** is an acronym for Functional Design Document, which is a document that will be developed by a Software Engineer for the purpose of documenting customer Interface requirements.
- **Functional Acceptance Test (FAT)** is a test(s) of specific functionality of the Subsystems of the Enterprise System.
- **GIS** is an acronym for Geographic Information System, which is a system for storing and manipulating geographical information on a computer.
- **Go-Live** is defined as the event that occurs when the Customer first uses a Subsystem or an Interface in a live operational environment (i.e., production use).
- **Hardware** means any equipment, computer system, servers, storage devices, peripherals, and any other tangible assets purchased under this Agreement.
- **Installation Service Request (ISR)** documents servers required for the implementation and the servers' Hardware/virtual specifications.

- **Interface** is the integration of a third-party software with CentralSquare software. Contracted deliverable interfaces are described in the Appendix B – Standard CentralSquare Interfaces, in and the Agreement.
- **Operational Scenario Document (OSD)** is a document that provides an operational description of an Interface, capability, or feature within the applicable CentralSquare solution. For standard Interfaces these documents are standard, published CentralSquare documents and are not specific to any Customer.
- **Post Go-Live** means the event(s) that occurs after the Customer first uses a Subsystem or an Interface in a live operational environment (i.e., production use).
- **Pre Go-Live** means the event(s) that occurs before the Customer first uses a Subsystem or an Interface in a live operational environment (i.e., production use).
- **Project** collectively includes the services and deliverables specified by the Agreement, including CentralSquare services, third-party products, and services for the implementation of the System and Subsystems specified in the Agreement.
- **Project Management Plan** means collectively the Communications Management Plan; Risk Management Plan; and Change Management Plan that provide the criteria for managing those tasks within the Project.
- **Project Schedule** means the mutually agreed upon schedule providing dates and timeframes for completion of tasks and deliverables during the course of this Project. The Project Schedule is subject to change at the mutual agreement of CentralSquare and Customer as further described in this SOW.
- **SME** is an acronym for Subject Matter Expert, an individual with a deep understanding of a particular topic.
- **Subsystem** means each of the applications described in the Statement of Work including its equipment, other Hardware, and software. In most cases, the Subsystem software will share equipment. Applicable Enterprise core applications, e.g. CAD Enterprise, Mobile Enterprise are defined as Subsystems.
- **System** means collectively all Subsystem(s) (e.g. CAD, Mobile) that make up the integrated computer system.
- **System Integration Test (SIT)** is a scenario-based testing event to test the integration and end-to-end functionality of the system.
- **System Planning Guide** provides system administrators and system planners with a single requirements reference.
- **Task Completion Reports (TCR)** is a formal document presented to the Customer that acknowledges completion of a major task or event.
- **Work Hours:**
  - Business hours are defined as Monday – Friday, 8:00am - 5:00pm (local time)
  - Default training hours are defined as:

- Remote Training: Monday - Friday, between 8:00am – 5:00pm (local time) based on the actual duration of the class.
- Onsite Training: Tuesday – Friday, between 7:00am – 10:00pm (local time) based on the actual duration of the class.
- Alternate training schedules (e.g., Monday class starts for classes that would normally start on a Tuesday, multiple classes per day, evening, and weekend classes) are subject to additional cost.

1.4 General Customer Responsibilities

In addition to those Customer responsibilities stated elsewhere in this SOW, Customer is responsible for the following:

a) Electrical facilities – cabling, network communications, telephone, other voice/data connections and peripherals for system workstations and mobiles for production and training use.

b) Providing information to CentralSquare staff on network infrastructure, including any firewalls within the overall network that the system will operate and necessary port access for the system to operate in accordance with CentralSquare documentation.

c) The installation, configuration, maintenance (including patch management and upgrades of Microsoft software on workstations and mobiles.

d) Any Hardware and third-party software or services necessary for implementing the System that is not listed in the Agreement as a CentralSquare deliverable (not listed as a line item in the Solution(s) and Services Fee Schedule of the Agreement). This includes workstations, server Hardware not included with managed server/hosted solutions, network equipment, telephone or TDD equipment, performance test software, Microsoft licenses, Hypervisor licenses, Disaster Recovery software, and services required to extract legacy data and convert into acceptable data formats.

e) Configuration, maintenance, testing, and supporting the third-party systems that Customer operates and which will be interfaced with as a part of this project. This project includes the contracted Interfaces listed in Appendix B – Standard CentralSquare Interfaces.

f) Consoles, furniture, or fixtures as well as any modifications to install equipment used for Systems or Subsystems specified by the Agreement into existing consoles, furniture, vehicles, or existing facilities. Installation of workstations into consoles, furniture, vehicles or like items, is the responsibility of Customer.

g) Customer is responsible for providing remote connectivity to CentralSquare for the purpose of installation, configuration, testing, and troubleshooting of any CentralSquare applications at Customer site.

h) CentralSquare's approved remote connectivity methods are described in Appendix J.

i) Connect and configure any third-party Hardware (including but not limited to: bar code scanners, bar code printers, Biometric Fingerprint Scanners, signature pads, and dongles) to Customer workstations, if these services are not explicitly sold in the Agreement.

j) Active participation of the appropriate personnel with the necessary background knowledge and availability in the Project implementation meetings and working sessions during the course of the Project. Examples of such implementation sessions are workshops, FAT, training, regular Project meetings, discussion regarding Interfaces, network planning and system installation planning.

k) The provision of data as requested by CentralSquare must be provided on a timely basis in order to meet the project timelines. This information will be provided in a format requested by CentralSquare staff in accordance with CentralSquare documentation.

l) When onsite training is purchased, provide a facility with the required computer and audio-visual equipment for training.

m) Provision of facilities and electrical power for CentralSquare staff while onsite.

n) The project timeline will require a commitment by Customer staff to attend project meetings, attend training, and execute action items within the mutually agreed upon defined time parameters in the project schedule.

1.5 Project Exclusions

CentralSquare provides software applications that it develops. These applications are sold as is and are considered to be “Commercial-Off-the-Shelf” (COTS) software packages. The functionality of these products will be based on CentralSquare’s current design and functionality of these COTS products, unless otherwise indicated in the Agreement.

a) Work, software, services, Hardware, Systems, Subsystems, product/software modifications, or any other deliverables not explicitly stated in the Agreement will not be included in the Project.

b) Any modification to CentralSquare standard products or customizations to such products that are not explicitly stated in the Agreement are excluded from the scope of this Project.

c) Changes in scope will only be executed through a mutually agreed upon change order process, as described in the Project Management Plan.

d) CentralSquare is not responsible for the deficiencies in Customer’s internal or contracted network to support Enterprise Suite workstations\mobiles.

e) CentralSquare is not responsible for the deficiencies in Customer’s network.

f) CentralSquare is not responsible for the removal of the old (legacy) equipment, hardware, furniture, consoles, cabling, as part of the Project implementation unless specifically stated in the Agreement and this SOW.

g) This project does not include creation or modification of GIS data by CentralSquare staff.

h) CentralSquare is not responsible for coordination, management, or covering the cost of any software, work, customization, coding or testing that is required to be performed by any third-party vendors engaged in the context of standard interfaces, unless the work is defined under a sub-Agreement with CentralSquare within the scope of this Agreement.

i) CentralSquare is not responsible for the creation or modification of any Crystal Reports, SSRS Reports or other third-party reporting application. This includes changes to connection strings or the migration of custom reports.

j) CentralSquare is not responsible for submitting NIBRS data to the State. Customer assumes responsibility to take the necessary steps within the Subsystem to submit NIBRS data monthly to the State unless otherwise noted in the Agreement.

2 PROJECT CONTROLLING PROCESSES

2.1 Overview

Project control is the process that includes completing regularly scheduled Project progress meetings and the use of regularly delivered Project progress reports, as well as implementing the processes needed for a Project Management Plan which includes the Communication Management, Risk Management, and Change Management plans.

As part of the controlling processes, CentralSquare utilizes a series of measurements and management reviews to mitigate project risks. Checkpoints or milestones are planned into each phase of the Project to measure performance and determine if the Project is ready for the next phase.

Checkpoints are key tasks that act as gates to the next phase of a project. A delay in a milestone may cause a delay in starting or completing subsequent tasks; in effect creating a risk to the overall Project. Therefore, CentralSquare's Project staff closely monitors checkpoint tasks and milestones and promptly notifies the Project Manager of any delay or failure with a milestone task. Milestone delays on the part of either party will trigger an overall review of Project activities so that risks can be assessed and properly managed. In the event that either party becomes aware of a delay, notification shall be provided to the other party as soon as reasonably possible.

Evaluation of overall Project status at each checkpoint is essential to ensure that the Project is effectively progressing toward completion and that new risks are not being introduced. In many cases, Project activities leading to a checkpoint are interrelated to later scheduled tasks. Success at checkpoints diminishes the risk to the Project going forward.

As part of the controlling process, upon completion of significant milestones and or tasks, CentralSquare will submit a Task Completion Report (TCR) to Customer. The TCR serves as a formal tool for the purpose of verifying with Customer that the work has been performed, services rendered, and products delivered according to the requirements specified within the SOW and/or related documents. For a list of TCR's that will be provided during the implementation, refer to Appendix H - Listing on Non-Payment TCR Milestones.

TCRs are presented to Customer by CentralSquare's Project Manager for signature. Some TCRs may trigger a Project payment, in accordance with the payment terms within the Agreement, Exhibit 1. Upon execution of a TCR that is tied to a Project payment milestone, Customer will receive an invoice from CentralSquare's Accounting Department which must be paid based on the terms and conditions of the Agreement.

The TCR will include the following information:

a) Description of work performed, and products delivered.

b) Comments noting any special circumstances.

c) Product/service deliverables listing the Agreement line items that are being recognized as delivered and will be invoiced.

d) Related payment terms in accordance with the Agreement, for Agreement line items that will be invoiced relative to the TCR.

2.1.1. CentralSquare Responsibilities

a) CentralSquare will prepare and submit TCRs for Customer’s signature upon completion of the applicable task.

b) TCRs that trigger a payment will include the payment amount in accordance with the Agreement payment terms.

2.1.2. Customer Responsibilities

a) The Customer is responsible for reviewing and approving all TCRs within a five (5) business day period from the time of receipt less any challenges to the validity of the report.

b) In the event that the Customer disagrees with a TCR, Customer shall submit to CentralSquare a written explanation detailing why the Customer believes that the subject of the TCR and/or tasks have not been completed in accordance with the Agreement or this SOW. Such notification from the Customer shall be provided to the CentralSquare Project Manager within five (5) business days of receipt of the TCR.

2.2 Change Order Process

Either party can request changes to the scope of the project at any time. Since a change may affect the price, project deliverables, this SOW, the supporting project schedule, and/or the terms of the Agreement for this SOW, both parties must approve each change in writing and agree on the impact each change may have on the Agreement and related attachments.

The purpose of the Change Order process is to manage any significant changes to the Project as described in this SOW or related documents as referenced within the SOW. These changes may include but are not limited to a modification to Project scope, standard or custom products’ functionality, CentralSquare and Customer’s identified roles and responsibilities, Project payment terms, and modifications to the scope or delivery location of services within the Project. All significant changes must be documented through the Change Order process. The type of documentation needed will depend on the nature and significance of the change.

A Project Change Order will be the vehicle for communicating and approval of the changes. Whether initiated by Customer or CentralSquare, all Change Orders will be documented by the

CentralSquare Project Manager. The Change Order shall describe the requested change, the party requesting the change, and the effect the change will have on the project, including the price, project deliverables, this SOW, the supporting project schedule, and/or the terms of the Agreement for this SOW.

Once the Change Order is generated, Customer Project Manager and CentralSquare Project Manager will review the proposed change and communicate as necessary to answer any questions, and/or work to resolve any issues preventing acceptance of the Change Order by both parties. Upon the approval by both parties the Change Order will be authorized for implementation.

2.2.1. CentralSquare Responsibilities

a) CentralSquare will capture the necessary information required to prepare Change Order and submit to the Customer.

2.2.2. Customer Responsibilities

a) When applicable, Customer will identify the services or deliverables that will be subject to a Change Order, per the Agreement between both parties.
b) When applicable, Customer will identify changes to application features or functionality, Interfaces, or any other Subsystems that will require a Change Order. This process may also include participation in the requirements process.
c) Customer will approve and process Change Orders in a timely manner.

2.3 Project Reporting

CentralSquare will provide Monthly Status Reports advising Customer Project Manager and key Customer Project Stakeholders of the progress and status of project activities. This report will include the significant accomplishments, planned activities, issues, and potential risks associated with CentralSquare deliverables. The Project Status Reports will include the following:

a) Accomplishments during the reporting period
b) Planned upcoming activities
c) Issues
d) Risks
e) Key Action Items

In addition, the CentralSquare Project Manager will provide the following:

a) Bi-weekly status calls

b) Monthly status report and schedule updates

2.3.1. CentralSquare Responsibilities

a) Provide a written report of Project status once a month.
b) Provide a meeting agenda in advance of the monthly status call to review the monthly status report.
c) Track issues and action items to closure.
d) Conduct status calls every two (2) weeks.
e) Provide a meeting agenda in advance of the bi-weekly status call.
f) Maintain an up-to-date Project Schedule.

2.3.2. Customer Responsibilities

a) Review the written report of Project status and provide feedback within five (5) business days in order to ensure that the documentation is correct.
b) Participate in Project status meetings.
c) Ensure participation of personnel in tasks and meetings.

2.4 Document Review

In the course of the Project, CentralSquare will deliver several documents to the Customer for review. These documents will include but are not limited to the Functional Acceptance Test procedures, Project Schedule, OSD, and training materials for the Project. For additional documentation that will be provided during the implementation, refer to Appendix F – Sample SOW Documentation. Approved documents are returned to the CentralSquare Project Manager. All documents will be provided via electronic copy. If Customer desires printed (hard copy) documentation, it is their responsibility to print and bind the desire copies. The CentralSquare Project Manager will retain a copy and provide the Customer with a copy.

Should the Customer find any document unacceptable, Customer must provide specific reasons in writing to the CentralSquare Project Manager. CentralSquare can then assess any required corrective measures and make revisions or modifications to provide acceptable documents within a mutually satisfactory timeframe.

In order to ensure compliance with the Project Schedule, Customer is responsible for the review of such documents and providing any comments to CentralSquare within seven (7) business days.

2.4.1. Documents Subject to Customer Approval (signature)

a) Change Orders

b) Functional Description Document (FDD)

c) Functional Acceptance Test procedure documents

d) Task Completion Reports (TCR)

2.5 Documents Subject to Customer Review not Requiring a Signature

Note: *The Project Schedule and any changes hereto are to be mutually agreed upon between Customer and CentralSquare.*

a) Operational Scenario Document (OSD) for Standard Interfaces

b) Status Reports

c) Project Schedule

2.5.1. CentralSquare Responsibilities

a) Distribute the documents to Customer.

b) Coordinate the process to consolidate comments and edit documents.

c) Manage the signoff process for applicable documents and the distribution of originals to Customer and CentralSquare for filing.

2.5.2. Customer Responsibilities

a) Review the documents presented and provide the appropriate information back to CentralSquare within five (5) business days for configuration sheets, Change Orders and/or Sales Orders.

b) Review the documents presented and provide the appropriate information back to CentralSquare within five (5) business days for requirements documents defined above. Unless unanticipated changes to the Project Schedule would warrant a shortened turn around.

c) The City can make comments on all documents including disagreement or non-approval of a statement in the report.

2.6 Third Party Management

CentralSquare will be responsible for the management of third parties that have been identified as Subcontractors within the Agreement.

The Customer will be responsible for the management of third parties that CentralSquare is not responsible for. The Customer will be responsible for the facilitation of discussions and the acquisition of materials from those third parties that are necessary for the configuration and development of the Customer’s System.

2.6.1. CentralSquare Responsibilities

a) Process any Change Orders that may arise from a material change in scope where third parties are concerned.

b) Inform Customer when configuration and or programming will require interaction and/or documentation from a third party which is not the responsibility of CentralSquare under the Agreement between CentralSquare and Customer.

2.6.2. Customer Responsibilities

a) Review, sign and process any Change Orders that may arise from a material change in scope where third parties are concerned.

b) Facilitate interaction between CentralSquare and third parties, it is not the responsibility of CentralSquare to include third parties in conference calls, answers to questions and documentation as requested.

3 PROJECT INITIATION AND PLANNING

3.1 Overview

Project initiation and planning involves gathering the necessary Project specific information in order to produce a Project Management Plan and a Project Schedule. In short, project planning consists of those processes designated to establish when and how the Project will be implemented while further elaborating on project deliverables. Most of the information exchange between Customer and CentralSquare during this process is at a level to be determined between both Project Managers and a small group of Project stakeholders.

Major deliverables for the project planning phase are the specific Project Management Plans, and a baseline Project Schedule.

The project must be managed in a manner that will allow for the adjusting the Project Management Plan and Project Schedule to address the circumstances that affect a project during project execution. As a result of these changes during the Project life cycle, Project planning will overlap each subsequent process during the Project. Project planning tasks will decrease in frequency as checkpoints are completed and as the Project nears Go-Live and Project completion.

Note*: The Project Schedule is a living document, subject to change during the course of the Project due to several factors such as change in Project scope, scheduling conflicts, delay in approving project documents, resource availability, etc. All changes to the Project Schedule will be discussed between both parties and will be incorporated within a published schedule upon approval from Customer and CentralSquare.*

3.1.1. CentralSquare Responsibilities

a) Produce required documentation to support initiation activities (such as Operational Scenario Document (OSD), etc.).

b) Identify and engage the CentralSquare Project team responsible for carrying out project execution.

c) In collaboration with Customer, develop the Project Management Plan (includes the Communication Management Plan, Risk Management Plan, and Change Management Plan).

d) Baseline the Project Schedule.

e) Prepare and submit the TCRs for Customer acceptance of the Project Management Plan as defined above.

3.1.2. Customer Responsibilities

a) Assign a Project Manager for the Project to participate in initiation phase activities.
b) Identify and engage Customer’s Project team.
c) Review and comment on the CentralSquare Project Management Plan and the Project Schedule.
d) Review and comment on CentralSquare provided documentation to support initiation activities.
e) Approve the TCRs for the Project Management Plan within five (5) business days.

3.2 Project Kickoff

During the planning phase, the CentralSquare Project Manager will hold a kickoff meeting with Customer’s Project team. During the kickoff meeting, the CentralSquare Project Manager will provide an overview of the following:

a) A high-level description of project deliverables.
b) Roles and responsibilities for the Project team members.
c) A high-level review of the preliminary Project Schedule including projected Project milestones and checkpoints.
d) Describe the work that has been either completed, is in progress or is due to begin within the immediate future.
e) Review any project related questions from Customer’s team.

3.2.1. CentralSquare Responsibilities

a) Prepare the agenda and set a date for the kickoff that is convenient to Customer and CentralSquare Team.
b) Distribute any documents that Customer should review in advance of the kickoff meeting.
c) Conduct the kickoff meeting.

3.2.2. Customer Responsibilities

a) Work with the CentralSquare Project Manager to facilitate scheduling a date for the kickoff meeting.
b) Schedule the appropriate personnel from Customer’s team to attend. This should also include key stakeholders that may not participate routinely in Project operations, but who have authority or responsibility over the Project.

c) Provide adequate accommodations to include adequate seating and audio-visual equipment including a projector(s), screen, and whiteboard.

4 PROJECT EXECUTION

4.1 Overview

Project execution focuses on the development and delivery of project deliverables, processes will be iterative and consist of 1) a review of deliverable documents; 2) development, configuration, installation and testing of software deliverables, and 3) delivery of Project related services such as project related training. These processes are iterative in nature with a number of checkpoints to evaluate project progress. Each deliverable has a closing process which consists of specific completion criteria. These deliverable closing processes are independent from the closing process of the Project.

All installation and configuration of Hardware, as well as CentralSquare software upgrades for this project will be performed remotely.

Training is a structured program designed to equip the Customer’s staff with the necessary skills and knowledge for effective software utilization.

4.2 System Installation

Overview: System installation is one of the early processes in the Project implementation phase and has a significant impact on and critical dependency on several key activities. On-premise Hardware provisioning is the responsibility of the Customer. Installation of CentralSquare software on on-premise Hardware is the responsibility of CentralSquare.

4.2.1.1 On-Premise Components:

CentralSquare will either purchase and provision the server Hardware via a partner, or if the Customer is purchasing the Hardware CentralSquare will give guidance on Hardware specifications for Customer purchasing.

The Customer is purchasing the Hardware and CentralSquare will provide the minimal Hardware specifications for Customer purchasing.

CentralSquare gives guidance on virtual provisioning after on-premise Hardware has been purchased and integrated into the Customer’s network. CentralSquare utilizes a sizing and prerequisites document called an ISR (Installation Services Request) to convey specifications and guidelines for the Customer to create the virtual machines needed for software installation.

The administration services of the on-premise environment is the responsibility of the Customer, including support, operation, and maintenance of the underlying infrastructure.

As long as Customer meets or exceeds CentralSquare's minimum mandatory technical requirements for the CAD/Mobile Enterprise system, Customer's use of existing or self-purchased physical infrastructure will not have adverse impact on CentralSquare's provision of system support and maintenance as set forth in the support and maintenance provisions of the Agreement.

On-premise installation of CentralSquare software takes place after on-premise servers are provisioned and prepared for installation.

4.2.2. Review Hardware Specifications (On-Premise Components)

The review of Hardware specifications is a review of the requirements for any on-premise components, be they servers, workstations or peripherals. The review process is intended to function as an informational exercise for the Customer for any on-premise Hardware sizing.

4.2.2.1 Customer Procured Server Hardware:

CentralSquare will provide Customer with a Hardware sizing document listing the Hardware and third-party software specifications required for this Project. CentralSquare will provide an overview of deployment recommendations for the CAD and Mobile Enterprise to the Customer. CentralSquare and Customer will review the supplied Hardware specifications and third-party software specifications with the Customer. While CentralSquare supports Customer's procuring their own hardware, CentralSquare does not offer pre-emptive certification or vetting of third-party hardware or infrastructure, including the reverse engineering of third-party Hardware quotes or Bill of Materials.

4.2.2.2 Workstation and Peripheral Hardware:

CentralSquare will review workstation and any peripheral specifications with the Customer.

4.2.2.3 CentralSquare Responsibilities

a) Provide Hardware sizing/third party-software documentation to Customer prior to the review meeting.
b) Provide System Planning Guide to Customer prior to the review meeting.
c) Schedule and participate in review meeting.

4.2.2.4 Customer Responsibilities

a) Provide technical resources for the review meeting.

b) Review and understand Hardware and third-party software documentation.

4.2.3. Procurement/Allocation of Hardware and Third-Party Software (On-Premise Components)

There is no net new Hardware purchase associated with the Agreement by CentralSquare or the Customer. This task represents the allocation of existing resources for on-premise components by the Customer.

4.2.3.1 CentralSquare Responsibilities

a) None.

4.2.3.2 Customer Responsibilities

a) The Customer is responsible for the procurement of Hardware and third-party software based on the specifications from the Hardware and third-party software review.

4.2.4. Basic Server Integration (On-Premise)

Basic server integration includes placing the servers in the racks, creating the virtual environment, provisioning virtual machines, joining them to the existing domain, and establishing remote connectivity capability via the CentralSquare remote support solution for authorized CentralSquare personnel to perform configuration.

These activities will be coordinated between CentralSquare and Customer IT staff. Guidance will be provided by way of a technical kickoff meeting with CentralSquare’s Technical Services Installation team and with the use of the ISR (Installation Services Request) process which organizes the information into CentralSquare’s preferred format.

To begin the software installation phase CentralSquare must have Customer-authorized remote connectivity to the servers, documentation of server names, IP addresses, administrator account information (username, password), services account information, and the location of third-party software media (such as SQL).

If the connectivity, servers, server details, accounts and media are not ready two (2) weeks prior to the scheduled installation, the Project may need to be rescheduled, which may have an impact on the overall Project timelines.

4.2.4.1 Customer Provided Basic Server Integration:

Customer will perform basic server integration for all on-premise servers.

The site must be prepared and ready for the installation of CentralSquare software as detailed in CentralSquare's documentation including the System Planning Guide no later than two (2) weeks prior to the scheduled installation date. Delay in providing this information in its complete form will result in a delay in the installation and the activities that follow installation of the System.

4.2.4.2 CentralSquare Responsibilities (Customer provided Basic Server Integration)

a) Host a technical kickoff meeting to review the requirements for installation including the Installation Service Request (ISR) Document.

b) Distribute the Installation Service Request (ISR) document to Customer.

c) Assist Customer in completing the ISR.

d) Review the completed ISR prior to the installation.

e) At least one (1) week prior to installation, a member of the CentralSquare Technical Services team will verify: (1) connectivity to Customer site via CentralSquare's remote support solution, (2) connectivity to each of the servers, and (3) access to all required security accounts.

f) Prepare and submit a TCR for Customer review and approval upon completion of these activities.

4.2.4.3 Customer Responsibilities (Customer provided Basic Server Integration)

a) Have appropriate subject matter experts attend the technical kickoff meeting.

b) Provide the facility suitable to house server Hardware and network infrastructure.

c) Have a member of Customer's IT staff available while software/network configuration is being performed.

d) Provide all horizontal and vertical cable runs, pathways, coring, access points, floor cutting or drilling, and related tasks related to cable and equipment installation.

e) Provide all external Interface connection points, electrical power and other receptacles within manufacturer recommended distance of the equipment and all peripheral components.

f) Provide electrical facilities (e.g., outlets, generator, and other electrical infrastructure facilities) required for this project, including necessary maintenance.

g) Provide cabling (e.g., power, network, Interface, and other electrical and data transmission lines) required for this project, including necessary maintenance. All lines will be clearly identified and tested.

h) Provide and install all data communication equipment, switches, routers, and other components necessary for system operation and maintenance, connection to remote sites to other systems, and to other agencies.

i) Provide network/communications connections (e.g., LAN/WAN, commercial wireless, telephone, VPN, and other voice/data connections), and maintain ongoing network/communications charges associated with installation, operation or support of the proposed system including the establishment and maintenance of security accounts.

j) Configuration and/or programming of network routers, switches, and bridges – this includes providing information to CentralSquare staff on any firewalls within the overall network that the system will operate and necessary port access for the system to operate in accordance with CentralSquare documentation.

k) Provide TCP/IP communications and connection to the server equipment for any existing networks, workstations, mobiles, and printers that are to have access to the CentralSquare applications.

l) Obtain all necessary IP addresses and schemes.

m) Perform basic server integration including, but not limited to:

    i. Installation of servers in applicable racks.
    ii. Connecting servers to network switches.
    iii. When deploying a SAN, configure the applicable RAID configuration, create the LUN(s), and present them to the physical or virtual servers.
    iv. Installation and configuration of the virtual environment.
    v. Creation of virtual machines
    vi. Assign server names and IP addresses to virtual machines
    vii. Install operating system software, perform Windows Genuine Advantage validation, and install all Windows updates.
    viii. Provision of domain and/or joining servers to an existing Customer domain.
    ix. Enable and configure DNS, enable, and configure DHCP if required.

n) Installation of CentralSquare prerequisite software.

o) Create and maintain any local, third party or public SSL certificates for the on-premise servers which require them, per CentralSquare documentation.

p) Allow and establish CentralSquare access to all system administrative accounts on all servers running CentralSquare licensed software.

q) Gather all necessary configuration documentation which includes machine naming, IP addresses, administrator account information, service(s) account information, naming convention, and connectivity as prescribed in the Installation Services Request (ISR) and return the ISR to CentralSquare.

r) Provide CentralSquare with a high-level network diagram. The diagram should be provided prior to CentralSquare installation.

s) Install all workstations and peripheral equipment, including scanners, printers, barcode readers, etc.

t) Approve the applicable TCR.

4.2.5. System Installation (On-Premise)

CentralSquare Technical Services Engineers will perform the CentralSquare software installation. These services will be performed remotely and include installation of the contracted CentralSquare products as specified in the basic server integration portion of the project.

These installation activities will be coordinated between CentralSquare and Customer. CentralSquare will host a technical handoff meeting with the Customer to advise on ongoing maintenance of the on-premise system.

If Customer does not follow the processes and procedures detailed in the CentralSquare System Planning Guide and technical handoff and this results in a need for reinstallation of the Hardware or software, the reinstallation effort will be performed at additional cost to Customer If determined to be because of a significant oversight deviating from the System Planning Guide and technical handoff.

4.2.5.1 Prerequisites for this Task:

a) Completion of basic server integration task

b) Completed ISR

c) Completed high-level network diagram

d) Provision and testing of remote access and server user accounts

e) Location of SQL installation media and keys

f) Provision of SSL certificates

4.2.5.2 CentralSquare Responsibilities

a) Install and configure Microsoft SQL to operate with each of the applicable CentralSquare products.

b) Install and configure the applicable CentralSquare systems on the designated servers and applicable environments as specified in the Agreement.

c) Provide verbal support to Customer with self-installation procedures for the workstations.

d) After completion of the initial installation and configuration of each major System (such as CAD and Mobile Enterprise servers), a member of Technical Services team provides a technical handoff meeting to the designated staff from Customer's Information Technology team via a conference call. The following major topics will be discussed during this technical handoff:

   i. Proper procedures for performing system backups
   ii. File structure – inclusions and exclusions
   iii. Databases
   iv. Moving backups to media
   v. Procedures for refreshing test/training system (and related documentation)
   vi. Approved configuration and use of virus scan software
   vii. Approved procedure for application of Windows updates
   viii. System upgrade process and procedures
   ix. Support website and CentralSquare list server access
   x. Managing/reviewing system logs (SQL and Event Logs)

e) Provide a Network Layout diagram of the installed servers.

f) Provide a list of network ports and protocols utilized for the purpose of securing the system.

g) Prepare and submit a TCR upon completion of the installation tasks and activities.

4.2.5.3 Customer Responsibilities

a) Allocate appropriate onsite Project personnel to support CentralSquare personnel during configuration tasks as necessary and designate a primary point of contact to be available to address and answer questions that arise during the installation of the baseline application software. Appropriate Customer personnel include the necessary IT personnel and database administrator(s) as needed during installation.

b) Customer is responsible for making the SQL media and license keys available to CentralSquare for installation.

c) Have appropriate subject matter experts (usually Customer IT) attend the technical handoff meeting.

d) Complete the configuration of workstations (after the installation of any contracted number of workstations by CentralSquare) using the Prerequisite software Package and applicable launch configurations.

e) Put in place CentralSquare’s recommended backup procedures as outlined in the System Planning Guide and ensure backup procedures are consistently followed beginning at the completion of this task.

f) Install and configure virus scanning and other security software as outlined in the System Planning Guide.

g) After completion of the initial installation and configuration of System servers, Customer will be responsible for maintaining the System based on the System Planning Guide, and the technical handoff meeting and associated document from CentralSquare Technical Services department.

h) Review and approve the TCR from the technical handoff meeting.

4.2.5.4 Disaster Recovery Provisioning (On-Premise)

Disaster Recovery licensing per product is required for any on-premise Disaster recovery solution. The licensing is for the right to use the software in a disaster scenario. Disaster Recovery is intended for core on-premise production system recovery and does not extend to replicated reporting systems or test/training systems.

Disaster Recovery is not high-availability. Disaster Recovery is a process intended to stand up the entire on-premise setup at another location for operational continuity, not migrate individual servers or services on an ad-hoc basis. Disaster Recovery does not address downtime concerns due to software updates of any kind. The Disaster Recovery solution may contain some elements which do utilize a clustered high availability approach, as supported by the CentralSquare Enterprise Suite, and as contracted for.

Disaster Recovery is not a system intended to be used as backup software, point-in time snapshots, or for malware/ransomware recovery since the replication is an ongoing process.

In the event where there is a significant failure of the primary server infrastructure, the Disaster Recovery environment allows staff to connect to a Disaster Recovery System located at a remote location to continue operations. This scenario is particularly applicable in situations that involve power and/or network outages, facility failure, and lack of access to the primary server environment.

The synchronization between primary and the Disaster Recovery server requires CentralSquare approved third-party Disaster Recovery software product(s). The Customer will be using the built in Disaster Recovery functionality with Nutanix and will be responsible for documenting the procedure and training any staff necessary for the failover operation.

CentralSquare Technical Services staff will be available for one (1) failover and failback operation as part of this engagement.

The Customer must ensure that trained personnel are available for failover/failback and that applicable documentation is carefully followed.

If the failover and failback operation is unsuccessful due to CentralSquare and/or Subcontractor misconfiguration or error, failover and failback testing will continue until there is a successful failover and failback operation. If the failover and failback operation is unsuccessful due to Customer configuration (including network issues between the sites, or between Customer software and the DR site), further tests with CentralSquare involvement will need to be contracted with a Change Order.

If the Customer's preference is to have multiple failover and failback tests with CentralSquare involvement, this can also be accommodated with a Change Order.

All failover and failback tests are to take place in the pre-production environment. If a Post Go-Live failover and failback test is required, this will need to be specifically contracted for.

Additional information on Disaster Recovery is available in the System Planning Guide.

Contracted Disaster Recovery services include:
-Quantity of (one) 1 failover/failback test to be conducted one (1) year after Go-Live.

4.2.5.5 SQL AlwaysON and Windows Clustering Three Node Solution

CentralSquare will deploy a three (3) node Windows Server Failover Cluster to protect the CAD Database server and its event service. CentralSquare will deploy a DFS Namespace to protect the CAD file share. The Inform file share and Event Services will be installed on the same servers as the SQL AlwaysON Availability Group cluster.

CentralSquare will deploy a SQL AlwaysON three (3) node Availability Group cluster in the production and Disaster Recovery environments for Enterprise CAD HA and DR. Message Switch, CIM and Mobile databases may be migrated to the cluster per the scope above and compatibility at the time of the project kick off. Automatic failover will be configured for the Hot Standby server. Manual failover will be configured for the DR Server.

Workstations and business servers will connect to the AlwaysON Listener for database connections and the Namespace for file share mapping.

CentralSquare will deploy a three (3) node Windows Server Failover Cluster to protect the CAD Application server.

Requirements:

SQL Enterprise licensing is required for SQL AlwaysON for CAD. Licensing guidance is below.

Server	**License Requirements**
Production SQL	License 4 Cores
Secondary SQL	Included with Software Assurance
DR SQL	Included with Software Assurance
Summary:	SQL Enterprise Licenses = 2 (2 core packs) with Software Assurance.

Microsoft licensing requirements change from time to time. This information serves as guidance which should be verified at the time of purchase with a Microsoft licensing specialist if purchasing independently of CentralSquare. This guidance assumes a CAD SQL Server utilizing 4 cores. If more cores are utilized, then the license requirements factor up accordingly.

SQL Server licensing is not included.

It is the Customer’s responsibility to maintain a Microsoft account for license management.

Non-clustered servers (Interface servers, Web servers, Mobile etc.) will need to utilize a virtual machine level replication solution alongside the clustering approach. Licensing and deployment services for this solution are not included in this scope.

4.3 Implementation of CentralSquare Identity

Once the software installation is complete, the CentralSquare Technical Services Engineer and Consultants will configure the CentralSquare Identity instance in each environment that will provide identity management and authentication services for the Enterprise Suite applications (supported subsystems are CAD, Mobile, and Message Switch).

4.3.1. CentralSquare Identity Configuration

Major Task	Description
Overview	CentralSquare, with the participation of the Customer, will configure CentralSquare Identity with roles. Mapping of subsystem roles to CentralSquare Identity roles. Linking the role mappings within CentralSquare Identity. Active Directory integration for each Active Directory domain which is to be integrated with CentralSquare Identity. Importing/associating subsystem users with CentralSquare Identity users.
Customer Participants	Administrators of the subsystem applications. Participants must be able to make decisions regarding configurations in the system for the applications. Testing of configurations deployed by CentralSquare.
Training	For CAD Enterprise, CentralSquare Identity is covered in the Operational and Administrative Review (OAR) workshop.
Output	User management will be centralized to the CentralSquare Identity application. Users will be able to use one (1) user account to access each of the systems.

4.3.1.1 CentralSquare Responsibilities

a) Configure the CentralSquare Identity instance in each environment.
b) Schedule the working sessions in accordance with Customer’s availability and the Project Schedule.
c) Conduct the working sessions based on the schedule and provide assignments as necessary to Customer.
d) Ensure the module is functioning per the configuration.
e) Prepare and submit a TCR upon completion of the deliverable.

4.3.1.2 Customer Responsibilities

a) Ensure participation of appropriate personnel for each scheduled activity.
b) Complete all assignments on a timely basis.
c) Review and approve the applicable TCR.

4.4 Implementation of Enterprise System Interfaces

4.4.1. Enterprise Standard Interfaces - Implementation Overview

Standard interfaces to be implemented (and designated environments) for this project are listed within the Agreement and Appendix B of this SOW.

Standard Interfaces may require certain work to be completed in the system prior to implementation. This may include code table configuration, system hierarchy, and the configuration of servers, certificates and integrations required for Interface operation. Standard Interface OSD documents will detail network, third party and other prerequisites for Interface operation.

Standard Interfaces are deployed in the pre-production environment (which becomes production at Go-Live).

Disaster Recovery Interfaces for on-premise systems are also licensed in the Agreement and listed in Appendix B of this SOW.

The Disaster Recovery system for on-premise Systems will include licensed Disaster Recovery Interface configurations if the Interface servers are replicated at a virtual machine level, with the assumption that no re-configuration needs to occur to either the CentralSquare or third-party end points as a result of a failover.

If the on-premise Disaster Recovery system contains separately configured, non-replicated, Interface servers then Interface configuration services will need to be included in the Agreement.

Major Task	Description
Schedule	Standard Interfaces are replicated for Disaster Recovery with no end point configuration changes. CentralSquare and Customer will conduct Interface implementation tasks as indicated in the approved Project Schedule. Applicable code tables and configurations that must be built as part of the overall Project Schedule as a prerequisite for Interface deployment and/or testing will be detailed by the OSD.

Functional Review	Review of standard Interface functional specifications with CentralSquare, Customer's Subject Matter Expert (SME), and third-party vendor to review the Operational Scenario Document (OSD).
Installation and Configuration	CentralSquare will install the Interface, configure and dry-run test the Interface.
Functional Acceptance Testing	CentralSquare will complete functional testing of the Interface with Customer and third party using a Functional Test document based solely on the OSD. Customer notates the Functional Test document to indicate which tests passed or did not pass based on the OSD. Any exceptions are resolved and re-tested.
Sign Off	Customer signs off on each Interface via a Task Completion Report (TCR) upon completion of Functional Test.
Go-Live	The interfaces are brought into production during system Go-Live.

4.4.1.1 CentralSquare Responsibilities

a) Review Interface OSD with Customer for each standard Interface.

b) Prepare and submit a TCR to Customer documenting the delivery/review of the OSD.

c) Assist with detailing configuration options for the Interface.

d) Install, configure and pre-test each Interface based on the agreed-upon configurations.

e) Assist Customer and third-party vendors to complete functional testing in accordance with Functional Test document. CentralSquare is not responsible for configuration of third-party systems.

f) Prepare and submit a TCR documenting completion of Functional Test including any exceptions.

g) Resolve Functional Test issues and re-run tests to confirm they have been resolved.

4.4.1.2 Customer Responsibilities

a) Participate in the review of OSDs for each standard Interface.

b) Provide the information that is necessary to complete the configuration options for each Interface.

c) Obtain the detailed documentation, schema, protocols, query specifications, sample files, and API access for each of the third-party applications that CentralSquare interfaces with and provide the documentation to CentralSquare.

d) Act as the primary point of contact with third parties, including other vendors, state and/or local agencies that control products with which CentralSquare products will Interface with.

e) Ensure connectivity on the designated protocols and ports to or from third party or Customer-hosted end points.

f) Ensure design decisions and functional signoff decisions are made conclusively and in a timely fashion.

g) Provide a point of contact/administrator for each/all standard interfaces with knowledge and experience of the work and data flows.

h) Participate in the Functional Test with CentralSquare and third-party vendor and notate each test has passed, failed, or is not applicable. Validate data transferred to/from CentralSquare systems as part of the testing process of the Interface.

i) Assist CentralSquare in documenting, testing, and resolving Functional Test exceptions.

j) Review and approve applicable TCRs.

Changes to the configuration of standard interfaces made by Customer may make the Interface non-supportable. As a result, troubleshooting efforts may be subject to additional cost. Customer will arrange for third party vendor participation for systems that will be interfaced with to ensure successful configuration and testing for end-end data flow.

Customer is responsible for any services or software needed from third party systems to allow for interaction with the third-party system, or for connection to CentralSquare software in the absence of a third-party API. CentralSquare is not responsible for cost associated for the API, any required third-party lab or certification testing, cost associated with required programming, custom work by third party vendors, or any license fees that may be required by third party vendors. No third-party Interface software will be installed on CentralSquare servers.

Note*: Modifications requested by Customer to a standard Interface may incur additional cost and could result in project delays, since modifications to standard interfaces are only released with a major software version.*

4.5 Implementation of CAD Enterprise

CAD Enterprise is implemented through a series of standard steps and process gates designed to ensure that operational needs are identified, configurations are verified, and tested to validate proper functionality prior to Go-Live.

4.5.1. CAD Enterprise Implementation Process Overview

Major Task	Description
Workshops	CentralSquare and Customer will conduct workshops as indicated in Appendix Y.
Base System Build	After initial build by CentralSquare, Customer assumes ownership of building and maintaining Codefiles.
Functional Acceptance Testing	Conducted prior to the start of End User training.
Training	As indicated in Appendix Y.
Go-Live	The application is brought into production use.

4.5.2. CAD Enterprise Base System Build

Major Task	Description
Overview	Initial Codefile review and build by CentralSquare Consultant with active participation by Customer via periodic remote review sessions. CentralSquare Consultant will configure the System hierarchy based on call flow and operational processes as defined in the SMS (System Module Setup) worksheet.
Customer Participants	CAD Administrators and core members of Customer implementation team who can address key points and make configuration decisions while participating in the Codefile building process.
Output	CentralSquare Consultant completes the base Codefile entry to a level that allows for evaluation of call flow and incident management functions, including: call-taking layout, system hierarchy, incident numbering, Incident/Unit displays. Validation via the Codefile building confirms completion of setup, limits the risk of rework, and ensures understanding of how information will translate for usage within CAD Enterprise.

	Some Codefiles that require local knowledge of the geography and physical location of business and high-risk areas of the community (such as response plans, premises, and caution note/hazard information) cannot be built by CentralSquare. Customer assumes responsibility for entering and geo-verifying some Codefile elements such as premises. The CentralSquare Consultant will provide consultation services throughout the project. The Customer can email/communicate directly with the Consultant. Please note that they may be traveling, onsite with other clients, participating in conference calls, etc but they will assist you as soon as they are available.
Prerequisites	Completion of and receipt of requested Codefile data from Customer's completed SMS (System Module Setup) worksheet.

4.5.2.1 CentralSquare Responsibilities

a) Monitor timely delivery, evaluate Codefiles submitted by Customer, and provide oversight with entry.

b) Complete preliminary Codefile build of Customer's CAD Enterprise System as outlined in the Provisioning Guide. Codefile build will be entered based upon the applicable requirements provided by CentralSquare and responses from Customer.

c) Facilitate updates to the Provisioning Guide.

4.5.2.2 Customer Responsibilities

a) Provide timely input and updates to the SMS (System Module Setup) worksheet to support Codefile building timelines.

b) Participate in the Codefile validation conference call.

c) Continue building System Codefiles (those not built by CentralSquare).

4.5.3. Geographical Information Services

4.5.3.1 Data Evaluation

The CentralSquare GIS Analyst will perform a one-time evaluation of Customer-supplied GIS data layers to ensure they are formatted correctly for street-centerline display, address point usage, address functions, routing and Quickest Path Unit Recommendations, and CAD and Mobile map optimization. Upon completion of the analysis, the CentralSquare GIS Specialist will provide a report summarizing the findings.

***Note**: The one-time GIS data evaluation by the CentralSquare Analyst only applies to custom map conversion of Customer-supplied data.*

4.5.3.1.1 CentralSquare Responsibilities

a) Evaluate Customer-supplied GIS data.

b) Provide and present a report summarizing the findings from GIS analysis services for CAD Enterprise.

c) Prepare and submit a TCR upon completion of relevant activities.

4.5.3.1.2 Customer Responsibilities

a) Provide the required GIS data in the required format, and per Project Schedule.

b) Based on the Analysis Report provided by CentralSquare, make requested changes to mapping data to meet CentralSquare's GIS data requirements.

c) Review and approve the appropriate TCR.

4.5.3.2 GIS Conversion and Mapping Configuration

A CentralSquare GIS Analyst will convert the GIS data into the CAD system and configure up to seven (7) standard GIS layers for viewing on CAD and Mobile Enterprise. GISLink training will enable the Customer to create additional layers for use in CAD Enterprise and Mobile.

Standard layers are limited to the following:

a) Water line features (rivers, streams, creeks)

b) Water polygon features (ocean, lakes, ponds)

c) Airports

d) Railroads

e) Parks

f) City Boundaries

g) County Boundaries

If Customer provides Response Area data to CentralSquare at the time of CAD map conversion, the CentralSquare GIS Analyst will import Response Areas into CAD Enterprise. GISLink training will provide Customer with the capability to add, delete, or modify Response Areas for ongoing GIS maintenance.

4.5.3.2.1 CentralSquare Responsibilities

a) Perform mapping data conversion and import of Customer-supplied data into applicable licensed Systems and Subsystems.

b) Configure routing and mapping components.

c) Prepare and submit a TCR upon completion of relevant activities.

4.5.3.2.2 Customer Responsibilities

a) After initial GIS conversion, assume responsibility for updating the data using CentralSquare provided GIS tools to ensure that data is up to date for Go-Live.

b) Review and approve the applicable TCR.

4.5.3.3 GISLink Utility Training

Major Task	Description
Overview	CentralSquare will provide hands-on training in usage of the GISLink and other GIS utilities. GISLink is a CAD Enterprise utility that consolidates GIS data-related tools for maintaining and using GIS data in CentralSquare products. The class prepares Customer personnel to import and manage existing GIS data used in CAD and Mobile Enterprise.
Customer Participants	GIS Administrator(s). Participants should not exceed four (4) per class.
Output	Students will learn how to use the GISLink utility to manage GIS data in CAD Enterprise.
Prerequisite	System installation to include GIS-related components and initial map installation to include at least one CAD Enterprise console with the GISLink utility installed on it. GIS knowledge and background; familiarity with ESRI tools.

4.5.4. CAD Enterprise Workshops

After the CAD Enterprise Operational Review workshop has been completed, CentralSquare will conduct the remaining CAD Enterprise workshops as noted in Appendix Y. Workshops are an extension of the operational review and are specified in the Agreement.

Refer to Appendix Y - Workshop and Training Summary for a complete listing applicable to this project.

4.5.4.1 CentralSquare Responsibilities

a) Schedule workshops in accordance with Customer’s availability and the Project Schedule.

b) Prepare and distribute the meeting agendas and documents for Customer review or completion prior to each workshop.

c) Conduct workshops based on the distributed agenda.

d) Prepare and submit a TCR upon completion of the workshop.

4.5.4.2 Customer Responsibilities

a) Provide adequate environment to conduct the workshop.
b) Ensure participation of the appropriate personnel.
c) Continue Codefile building activities as directed.
d) Review and approve the applicable TCR.

4.5.5. CAD Enterprise Functional Acceptance Testing (FAT)

Major Task	Description
Overview	Customer leads and CentralSquare will assist with FAT, which is an activity occurring one time prior to End User training and Go-Live. Central Square's FAT is conducted for the first phase going into production and is not repeated for subsequent phases. The Customer can choose to complete on their own additional testing sessions as deemed necessary, after the Functional Acceptance Testing event with CentralSquare is completed. CentralSquare acknowledges the Customer will continue to configure the system subsequent to the CentralSquare FAT. CentralSquare may organize, at its discretion, separate breakout FAT sessions for subsections of the Functional Test documents that are applicable only to one agency (for example, applicable only to Law or Fire agencies). Each test will be executed once, and applicable users and agencies must attend the FAT session and conduct the tests. The FAT process consists of running standard tests in a format designed to verify the functionality of CAD Enterprise. Functional Test documents are submitted and approved by the Customer prior to testing in acknowledgement that the test scenarios will be used to validate CAD functionality and assessment of features. Test sign off is a precursor to administration of the FAT. Following the completion of the FAT, any failure will be classified based on the following criteria: • Go-Live Issues: Issues in the subsystem identified during FAT with contractually required functionality that must be corrected prior to Go-Live. CentralSquare will research such identified issues and propose a plan for resolution. Go-Live Issues will be corrected prior to Go-Live.

	- Post Go-Live Issues: Issues in a subsystem with contractually required functionality that can be corrected after Go-Live. Customer and CentralSquare will mutually agree these issues may be addressed after Go-Live. CentralSquare will provide an estimated date for resolution of the issue Post Go-Live Completion of the Functional Test does not constitute final system acceptance.
Customer Participants	Key members of the implementation team familiar with CAD Enterprise from various agencies and/or PSAPs.
Duration	As noted in Appendix Y – Workshop and Training Summary.
Output	Upon completion, Customer's CAD Enterprise system is acknowledged as having completed pre-production acceptance. Customer and CentralSquare will review FAT exceptions (if any), perform an assessment, and determine the timeline for remedying the exceptions (Go-Live versus Post Go-Live). CentralSquare will not train Customer's end users until the FAT has been conducted and TCR signoff has been received. Customer, with CentralSquare assistance as needed, will repeat failed test(s) following correction of issues that caused the test(s) to fail. A full retest of the System will not be conducted by CentralSquare. The Customer can retest the system as needed after the Functional Acceptance Testing event with CentralSquare is completed. If the Customer encounters an issue during their own testing, while they are in the system, during a workshop- whatever the scenario may be- they would report the issue to their Consultant and Project Manager for review. After review, the Consultant will open a Salesforce case/ticket, if necessary. This is the process that is followed throughout the implementation.

4.5.5.1 CentralSquare Responsibilities

a) Deliver CentralSquare's standard FAT document to Customer for review no later than two (2) weeks prior to conducting the FAT.

b) Provide a TCR to Customer to approve receipt of FAT documents and content thereof.

c) Assist Customer in conducting FAT.

d) Identify and document exceptions and passes to determine timeline to remedy exceptions (Go-Live versus Post Go-Live).

e) Upon completion of the FAT, provide a TCR to the Customer for review and approval. FAT exceptions will be documented in the TCR.

f) Schedule follow-up testing for validation of exceptions after correction and confirm/document the results via TCR.

g) Provide a final TCR to Customer to confirm resolution of all Go-Live exceptions.

4.5.5.2 Customer Responsibilities

a) Complete all predecessor tasks to include the base system installation and Codefile build required to conduct the FAT.

b) Provide adequate environment to conduct the FAT.

c) Review and signoff on the FAT test documents no later than one (1) week prior to commencement of the FAT via TCR.

d) Lead the FAT by providing operational SME's with the authority to provide validation of the tests have passed. It should be noted that this is not a training exercise so SME's should have system knowledge.

e) Assist CentralSquare in documenting FAT results.

f) Review and approve the applicable TCRs.

4.5.6. CAD Enterprise Training

CAD Enterprise Training is conducted on consecutive weekdays during business hours. Alternate training schedules (e.g., Monday class starts for classes that would normally start on a Tuesday, multiple classes per day, evening, and weekend classes) are subject to additional cost.

Training classes are conducted based on the quantities specified in the Agreement. The appearance of a course description in this Statement of Work does not mean a course will be conducted – it must be listed in the Agreement. Refer to Appendix Y - Workshop and Training Summary for a complete listing applicable to this project.

The training classes related to CAD Enterprise and its subsystems are classified into three general groups:

Classes dependent upon specific Customer configurations and requirements; therefore, conducted on Customer's System after completion of the Functional Test and in preparation for Go-Live. CAD Enterprise Call Taker/Dispatcher User Training Course are examples.

Classes such as GISLink are delivered to a specialized group within Customer's team throughout the Project to assist with implementation and maintenance of the System.

Classes such as System Administration training that are not dependent upon Customer configurations and are generic in nature. This class is offered online and is conducted through a virtual lab.

Refer to Appendix Y - Workshop and Training Summary for a complete listing applicable to this project.

4.5.6.1 CentralSquare Responsibilities (For All CAD Enterprise Training)

a) Conduct training in increments of one (1), eight (8) hour days.

b) Provide feedback to Customer supervision as to the progress of the students.

c) Prepare and submit a TCR upon completion of each type of training.

4.5.6.2 Customer Responsibilities (For All CAD Enterprise Training)

a) Provide adequate environment for the execution of the training.

b) Provide a supervisor for each class to respond to Customer-specific questions.

c) Review and approve the applicable TCRs.

4.6 Implementation of Mobile Enterprise

4.6.1. Implementation Process Overview

Major Task	Description
Overview	CentralSquare Consultant will complete Mobile configuration options based on related options in CAD Enterprise and Mobile Configuration worksheet once servers are installed at Customer site. The same configurations are used as a base for the Functional Test document. Conversion and import of Mobile map and layers needed for Go-Live are also completed. All activities are performed remotely.
Customer Participants	CAD/Mobile Administrators and core members of Customer implementation team who can address key points and make decisions to complete Mobile System configuration.
Output	Completed Mobile configuration. The CentralSquare Consultant will provide ongoing consultation services.

4.6.2. MobileX Enterprise Configuration

The CentralSquare MobileX Enterprise handheld device is an app designed to run on both iOS platforms and Android devices. Detailed incident and unit information is readily accessible from smartphones and tablets.

4.6.2.1 CentralSquare Responsibilities

a) Provide the Customer with the applicable steps to download the MobileX Enterprise application from the Application store.

b) Guide the Customer through the download process and the applicable configurations needed.

c) Validate the MobileX Enterprise handheld device is working in the installed environment.

d) Prepare and submit a TCR upon completion of the installation.

4.6.2.2 Customer Responsibilities

a) Provide a list of agencies and number of licenses per agency for configuration.

b) Perform all required network configurations as advised by the CentralSquare Consultant prior to the configuration event.

c) For any staff member that is attending the Mobile Train-the-Trainer training session, the handheld device should be installed and configured prior to the class.

d) Review and approve the applicable TCR.

4.6.3. Mobile Enterprise Functional Acceptance Testing

Major Task	Description
Overview	Customer leads and CentralSquare will assist with FAT, which is an activity occurring in conjunction with the CAD FAT and prior to End User training and Go-Live. Since the focus of the FAT is functionality of the System but not a validation of Codefiles, it is not necessary that Mobile is completed prior to conducting the Functional Test. The Customer can choose to complete on their own additional testing sessions as deemed necessary, after the Functional Acceptance Testing event with CentralSquare is completed. CentralSquare acknowledges the Customer will continue to configure the system subsequent to the CentralSquare FAT. The FAT process consists of running standard tests in a format designed to verify the functionality of Mobile Enterprise. Functional Test documents are submitted and approved by Customer prior to testing in acknowledgement that the test scenarios will be used to validate Mobile functionality and assessment of features. Test sign off is a precursor to administration of the Functional Test. Following the completion of the Functional Acceptance Test, any failure will be classified based on the following criteria: • Go-Live Issues: Issues in the subsystem identified during Functional Acceptance Testing with contractually required functionality that must be corrected prior to Go-Live. CentralSquare will research such identified issues and propose a plan for resolution. Go-Live Issues will be corrected prior to Go-Live.

	- Post Go-Live Issues: Issues in a subsystem with contractually required functionality that can be corrected after Go-Live. Customer and CentralSquare will mutually agree these issues may be addressed after Go-Live. CentralSquare will provide an estimated date for resolution of the issue Post Go-Live. Completion of the Functional Test does not constitute final system acceptance.
Customer Participants	Key members of the implementation team familiar with Mobile Enterprise.
Duration	As noted in Appendix Y – Workshop and Training Summary.
Output	Upon completion, Customer's Mobile Enterprise system is acknowledged as having completed pre-production acceptance. Customer and CentralSquare will review Functional Test exceptions (if any), perform an assessment, and determine the timeline for remedying the exceptions (Go-Live versus Post Go-Live). CentralSquare will not train Customer's end users until the FAT has been conducted and TCR signoff has been received. Customer, with CentralSquare assistance as needed, will repeat failed test(s) following correction of issues that caused the test(s) to fail. A full retest of the System will not be conducted by CentralSquare. The Customer can retest the system as needed after the Functional Acceptance Testing event with CentralSquare is completed. If the Customer encounters an issue during their own testing, while they are in the system, during a workshop- whatever the scenario may be- they would report the issue to their Consultant and Project Manager for review. After review, the Consultant will open a Salesforce case/ticket, if necessary. This is the process that is followed throughout the implementation.

4.6.3.1 CentralSquare Responsibilities

a) Deliver CentralSquare's standard Functional Test documents to Customer no later than two (2) weeks prior to conducting the Functional Test.

b) Provide a TCR to Customer to approve the receipt of the Functional Test documents.

c) Install at least one Mobile client (device) to conduct the Functional Test.

d) Assist Customer in conducting the Functional Test.

e) Identify and document any exceptions discovered during the Functional Test.

f) Upon completion of the Functional Test, provide a TCR to Customer for review and approval. Functional Test exceptions will be documented in the TCR.

g) Schedule follow-up testing for validation of exceptions after correction and confirm/document the results via TCR.

h) Provide a final TCR to Customer to confirm resolution of all Go-Live exceptions.

4.6.3.2 Customer Responsibilities

a) Complete all predecessor tasks to include the base system installation and Codefile build required to conduct the Functional Acceptance Test.

b) Provide adequate environment to conduct the Functional Test.

c) Review and sign off on the Functional Test document, via TCR, no later than one (1) week prior to commencement of the Functional Test.

d) Lead the Functional Test by providing operational Subject Matter Experts with the authority to provide validation that the tests have passed.

e) Assist CentralSquare in documenting Functional Test results.

f) Review and approve the applicable TCRs.

4.6.4. Mobile Enterprise Training

Mobile Enterprise Training classes are conducted based on the quantities specified in the Agreement and are conducted on consecutive weekdays during business hours. Alternate training schedules (multiple classes per day, evening, and weekend classes) are subject to additional charge. Training classes will only be delivered after the Functional Test has been completed and the results are documented and approved via TCR.

CentralSquare trains a small group of trainers/users, who then train the remainder of field users.

Refer to Appendix Y - Workshop and Training Summary for a complete listing applicable to this project.

4.6.4.1 CentralSquare Responsibilities

a) Schedule training classes.

b) Conduct training classes.

c) Prepare and submit a TCR to Customer upon completion.

4.6.4.2 Customer Responsibilities

a) Schedule appropriate Customer staff to attend training.

b) Provide adequate environment for the execution of training to include seating for each workstation and an overhead projector.

c) Review and approve the applicable TCRs.

4.7 System Integration Testing

Once the Functional Test is concluded for CAD Enterprise, Mobile Enterprise, and interfaces and in preparation for Go-Live, CentralSquare and Customer will conduct System Integration Testing, with CentralSquare assisting remotely.

The Customer can choose to complete on their own additional testing sessions as deemed necessary, after the System Integration Testing event with CentralSquare is completed.
If the Customer encounters an issue during their own testing, while they are in the system, during a workshop- whatever the scenario may be- they would report the issue to their Consultant and Project Manager for review. After review, the Consultant will open a Salesforce case/ticket, if necessary. This is the process that is followed throughout the implementation.

The System Integration Test will be conducted based on scenarios that test call flow from creation to final disposition in CAD and include CAD and Mobile Enterprise, and Interfaces that can be tested in the pre-production environment and are scheduled to Go-Live at the same time. It is recommended that Customer utilize sample calls from their legacy system.

A small group of Customer staff (1-2 dispatchers and 1-2 Mobile field users) should participate in this test with CentralSquare Consultant. CentralSquare will work with Customer on defining a set of test scenarios to test the system based on Customer’s practices; the scenarios must be signed off prior to commencement of the System Integration Test.

At the completion without critical issues that prevent the System to be taken Live, Customer shall provide TCR approval that the System is ready for Go-Live.

4.7.1. CentralSquare Responsibilities

a) Schedule System Integration Test with Customer.

b) Assist Customer in preparing test scenarios based on Customer’s practices, no later than six (6) weeks prior to conducting the System Integration Test.

c) Deliver CentralSquare’s standard System Integration Test document to Customer for review no later than two (2) weeks prior to conducting the System Integration Test.

d) Provide a TCR to Customer to approve receipt of System Integration Test document and content thereof.

e) Assist Customer in conducting the System Integration Test.

f) Identify and document exceptions and passes to determine timeline to remedy exceptions (Go-Live versus Post Go Live).

g) Upon completion of System Integration Test, provide a TCR to Customer for review and approval. System Integration Test exceptions will be documented in the TCR.

h) Schedule follow-up testing for validation of exceptions after corrections and confirm/document the results via TCR.

i) Provide a final TCR to Customer to confirm resolution of all Go-Live exceptions.

4.7.2. Customer Responsibilities

a) Provide adequate environment to conduct the System Integration Test.

b) Provide test systems (or pre-production systems) for all integrations and interfaces. If Customer cannot provide a test system CentralSquare must test using the production system. This testing includes, but is not limited to, test data entry in a production system.

c) Provide test scenarios that closely simulate Customer’s normal call flow no later than six (6) weeks prior to conducting the System Integration Test.

d) Review and sign off on the System Integration Test document, via TCR, no later than one (1) week prior to commencement of the System Integration Test.

e) Participate in conducting the System Integration Test by providing operational Subject Matter Experts with the authority to provide validation that the tests have passed.

f) Assist CentralSquare in documenting System Integration Test results.

g) Review and approve the applicable TCRs.

5 SYSTEM AND SUBSYSTEM PRE GO-LIVE TASKS

5.1 Overview

Preparation for cutover to live operations will be outlined in the weeks leading up to the Go-Live in the Project Schedule and in the Go-Live Plan. The Go-Live plan includes:

a) The overall timeline for the event

b) Products involved

c) Roles and responsibilities

d) Established meeting dates/times

e) Issue reporting and escalation process

f) Transition to support

g) The communication plan

A coordinated planning session between CentralSquare, the Customer, and Axon will be required to ensure a collaborative effort for the go-live implementation.

CentralSquare will prepare a Pre Go-Live checklist for each Subsystem and the Interfaces, identifying the activities that will ensure preparation. The list will identify both CentralSquare and Customer responsibilities for completing the Pre Go-Live activities. Training data will be purged from the system, and the system itself will be locked down.

CentralSquare will provide the Customer with a Go-Live Authorization Letter. The Go-Live Authorization Letter confirms the system has been installed and tested, and that the Customer agrees to proceed with moving the system to live operation. It acknowledges sufficient user training has been completed, confirms software is functional for a live environment, and that none of the currently identified issues are critical to the Go-Live. This letter will list all the Subsystems and Interfaces, scheduled for the Go-Live, as well as any exceptions.

The date and time of the Go-Live is memorialized, along with assurance that the Customer’s technical team and Subject Matter Experts will be available twenty-four (24) hours a day to support the CAD/Mobile Enterprise Go-Live unless otherwise noted in the Agreement. The Customer must approve the Go-Live Authorization Letter no later than three (3) weeks prior to Go-Live. Approval of the letter is required.

CentralSquare will invite the Customer to participate in a presentation to gain familiarity with the structure and methodologies of the Product Support. CentralSquare will assist in confirming that representatives designated by Customer needing access to enter and track support cases have credentials for CentralSquare access.

5.1.1. CentralSquare Responsibilities

a) Schedule internal Go-Live readiness checks and internal team planning meetings.

b) Prepare the Go-Live Plan for delivery to Customer.

c) Prepare the Pre Go-Live checklist for delivery to Customer.

d) Prepare the Go-Live Authorization Letter and deliver to Customer.

e) Identify the participants for the Go-Live in accordance with the terms of the Agreement.

f) Coordinate CentralSquare personnel in advance of the Go-Live date to complete final tasks as a part of the Go-Live preparations.

5.1.2. Customer Responsibilities

a) Complete End User training needed to support the live use of Subsystems.

b) Participate in review of the Go-Live Plan.

c) Complete prerequisite tasks as directed by CentralSquare.

d) Review and approve the Go-Live Authorization Letter no later than three (3) weeks prior to Go-Live.

e) Develop a process for the identification of, research, reporting and resolution of issues.

6 SYSTEM AND SUBSYSTEM GO-LIVE

6.1 Overview

Go-Live of the Enterprise Subsystems and the required Interfaces into a live operational environment (i.e., production use) is a highly orchestrated activity that will require resources from both Customer and CentralSquare teams.

Go Live is conducted on consecutive weekdays (Monday - Friday). A Go-Live that requires CentralSquare support that begins before or extends beyond weekdays (unless included in the Agreement) are subject to additional cost.

The system is brought into production per the Go-Live Authorization Letter and the Go-Live Plan.

During Go-Live, issues are reported and managed by CentralSquare with Customer's assistance. Upon cessation of Go-Live support by CentralSquare, the issues will be submitted by the Customer using CentralSquare's on-line support system, Salesforce.

- "Go-Live" means the event that occurs when the Customer first uses a Subsystem in live operations. A separate Go-Live may take place with respect to each Subsystem and each Interface.
- "Go-Live" means "first use in a non-test bed environment".

6.1.1. CentralSquare Responsibilities

a) Assist Customer in placing the system into production.
b) Assist Customer staff in usage of the system as well as documenting, reporting, and researching issues.
c) Provide support during and after system Go-Live as specified within the Agreement.
d) Prepare and submit TCR(s) upon first live operation of system in a live environment.
e) Post Go-Live deliverables will be managed to completion of delivery by the CentralSquare Project Manager per the Agreement.

6.1.2. Customer Responsibilities

a) Place the software into production and begin operational use in accordance with the project schedule, Go-Live Plan, and Go-Live Authorization Letter.
b) Provide adequate persons for the supervision and assistance to end users during Go-Live and beyond the participation of the CentralSquare staff.

c) Provide dedicated workstations for CentralSquare support staff use during Go-Live.

d) Provide IT support to cover all Customer End User and CentralSquare staff hours of operation.

e) Review and approve the applicable TCR(s).

7 RELIABILITY PERIOD

7.1 Overview

Upon Go-Live of each Subsystem(s), the Customer shall use the Subsystem(s) for a thirty (30) consecutive day period to verify operational functionality in a live (production) environment. The Reliability Period is completed when the Customer uses the Subsystem(s) for a thirty (30) consecutive day period without any Priority 1 – Urgent or Priority 2 – Critical software errors (as those terms are defined in the Agreement). In the event that a Priority 1 – Urgent or Priority 2 - Critical software error occurs during the Reliability Period, CentralSquare shall commence actions in accordance with the Agreement to correct the reported error.

In the event a Priority 1 - Urgent software error occurs between day one (1) and day thirty (30) of the Reliability Period, the Reliability Period will be stopped and restarted at day one (1) once the software error has been resolved in accordance with the Agreement.

In the event a Priority 2 - Critical software error occurs between day one (1) and day fifteen (15) of the Reliability Period, the Reliability Period will be stopped and restarted from day one (1) once the software error has been resolved in accordance with the Agreement. If the software error occurs after day fifteen (15), the Reliability Period will be stopped and restarted from the day the resolution has been provided in accordance with the Agreement.
Should a Critical software error occur between day twenty-five (25) and day thirty (30), the Customer shall have ten (10) days from the day the resolution has been provided in accordance with the Agreement to test the critical error functionality.

Priority 1 - Urgent or Priority 2 – Critical software errors caused by factors that are outside of CentralSquare's control, and/or from variables which are outside the scope of CentralSquare's responsibilities, will not be counted Priority 1 - Urgent or Priority 2 software errors. Examples of such issues could be, but are not limited to:

- Power failures
- Operator error
- External network failure
- Availability of components that are not provided by CentralSquare but Interface to/from the CentralSquare solution
- Hardware or operating system software
- Non-CentralSquare supplied software components introduced into the working environment

During the Reliability Period, the CentralSquare Project Manager will provide and review with the Customer, a weekly report summarizing the Priority 1 – Urgent, Priority 2 – Critical, Priority 3 – Non-Critical, and Priority 4 - Minor software errors reported for the week. Upon completion of the review with the Customer, a TCR will be provided for signature. The TCR will document and include the summarized listing of issues and will denote the status of the Reliability Period (i.e., day number, stopped, restarted, etc).

During the Reliability Period, if a Priority 1 - Urgent or Priority 2 - Critical software error arises, the Customer shall inform the CentralSquare Project Manager of the reported issue. The Project Manager remains actively involved in the project and will act as the escalation point for the Customer.

If there are cumulative Priority 3 - Non-Critical software errors having a negative impact on Public Safety operations, CentralSquare and the Customer will collaborate in order to develop a strategy to bring closure to the reported Software incident(s).

During the Reliability Period, the Subsystem(s) will be frozen, (i.e., no changes, fixes, and/or updates will be applied, except those that are required to address downtime failures associated with the Reliability Period.).

At the conclusion of the Reliability Period, as further defined in the Agreement, the Subsystem(s) will be deemed reliable by the Customer and CentralSquare.

7.1.1. CentralSquare Responsibilities

a) Provide a TCR to the Customer to document the start of the Reliability Period upon Go-Live of the Subsystem(s).
b) Address issues that are reported during this Reliability Period.
c) Provide a weekly report and review with the Customer.
d) After reviewing the weekly report, provide a TCR to the Customer to document any stops and restarts of the Reliability Period.
e) Document Priority 3 – Non-Critical and Priority 4 – Minor software errors that are not considered “Reliability Period” issues to be addressed as part of the support and maintenance of the Subsystem.
f) Provide the TCR to document completion of the Reliability Period of the Subsystem(s).

7.1.2. Customer Responsibilities

a) Review and sign off on the TCR for documenting the start of the Reliability Period upon Go-Live of the Subsystem(s).
b) Report issues to the CentralSquare Project Manager when they occur.

c) Review and sign off on the weekly report via TCR for documenting any stops and restarts of the Reliability Period.
d) Approve and return the TCR documenting completion of the Reliability Period of the Subsystem(s).

8 PROJECT CLOSURE

8.1 Overview

Project closure activities commence when all project deliverables have been completed. Support of systems and subsystems will be transitioned to CentralSquare's Support and monitored per the Support Agreement.

Major Task	Description
Post Go-Live Project Deliverables	Once complete, ensure CentralSquare Project Manager will provide TCR to Customer for signoff of completed deliverables.
Final Audit	CentralSquare Project Manager will perform a final audit to ensure all Contractual obligations have been met. A final TCR will be provided to Customer to confirm the project is completed.
Final Transition	CentralSquare Project Manager performs final transition of Customer to Support who will become the primary conduit for entry, tracking, and resolution of system issues. Customer interaction is officially handed over from the CentralSquare Project Manager to Product Support.
Project Closure	CentralSquare Project Manager performs administrative tasks to archive project documents and close the project.

8.1.1. CentralSquare Responsibilities

a) Perform payment reconciliation, deliver final project TCRs which generate remaining invoices.

b) Transition the CentralSquare point of contact from the Project Manager to Customer Product Support.

c) Provide continued support based on terms of Agreement.

8.1.2. Customer Responsibilities

a) Provide approval of final Project TCRs within five (5) business days.

b) Process payment of final invoices.

9 Appendix B - Standard CentralSquare Interfaces

The scope of functionality for these standard interfaces is limited to 1) the capability of the CentralSquare System being interfaced and 2) the capabilities of the external system being interfaced. Descriptions of each of the standard interfaces below will become the basis for the scope of detailed requirements, described in the OSD. Any changes in the requirements documented and approved in the System OSDs are subject to a Change Order.

Standard Interfaces

Standard Interfaces are included in the Agreement and listed in this SOW. If not explicitly listed in the Agreement, the Interface will not be installed and supported.

Standard Interface	**Description**
Interface Name	Enterprise CAD RapidSOS Interface
Interface Description	The standard RapidSOS Interface is a service-based interface which works with the RapidSOS API. The API provides the ability for connecting clients to query the RapidSOS Clearinghouse server over public networks only when using TLS and tightly controlled API keys. The API keys are used during the query process to authenticate the requestor to an agency that is authorized to retrieve caller location data. The Clearinghouse contains the information of callers that have: 1)- The technical ability to deliver their location information to the Clearinghouse. 2)- Placed a 911 call. The RapidSOS Clearinghouse server interfaces with CAD Enterprise through a host server using a REST Web Service (HTTPS). Once an Incident ID is assigned to a call incident that was created using ANI/ALI data, the Interface will query the Clearinghouse using the received ANI and return the location for that caller (if a location is available). Workflows on assigning an Incident ID to a call varies between agencies and will affect how this interface initially queries the Clearinghouse.
Vendor	RapidSOS
Subsystem	CAD
Direction	Import
Interface Document Name	OSD - Standard RapidSOS Interface.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	Description
Interface Name	Std Enterprise CAD to External Incident Data Transfer
Interface Description	The standard CAD to External System Data Transfer Interface will provide a one-way data transfer of selected CAD Enterprise incident data fields from CAD Enterprise to a single Records Management System (RMS), Reporting Module, or other system external to the CAD Enterprise System. Select CAD Enterprise incident and resource assignment data fields will be transferred during this process. Data transfer is configurable to support sending incident and resource data automatically upon the following CAD events: incident creation, unit status update events of assigned units, when assigned units clear the incident, upon update of select incident record fields, and/or when the incident closes. The interface also provides a means of manually selecting and transferring of an individual or a range of selected incident records. Data transfer will be via incident and unit assignment record packages. The receiving system will be expected to process the data contained in the record packages, including any management of the output (e.g., file deletion). Note: CentralSquare has developed several separate configurations (i.e., data formats and transfer methods) for the Interface to support various external system vendors. Only one format is supported per implementation of the Interface. More than one instance of the Interface may be implemented on a single CAD Enterprise system to support multiple vendors or multiple destinations for a single vendor. The output is in CentralSquare’s proprietary file format.
Vendor	APX Data / Smart Map / SmartCapture
Subsystem	CAD
Direction	Export
Interface Document Name	OSD - Standard CAD to External System Data Transfer.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Std Enterprise CAD to External Incident Data Transfer
Interface Description	See above.
Vendor	ESO / NFIRS and Patient Care Reporting System
Subsystem	CAD
Direction	Export
Interface Document Name	OSD - Standard CAD to External System Data Transfer.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Std Enterprise CAD to External Incident Data Transfer
Interface Description	See above.
Vendor	Word Systems Technologies (WSI) / NICE
Subsystem	CAD
Direction	Export
Interface Document Name	OSD - Standard CAD to External System Data Transfer.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Standard ANI/ALI Interface
Interface Description	The ANI/ALI Interface provides a one-way transfer and processing of data from the E911 Controller of the phone system to CAD Enterprise using one of the two available types of package structures: fixed position and delimited fields. The Interface is configurable to process various formats of ANI/ALI data streams—to include certain formats of TTY/TDD emergency calls.
Vendor	Intrado / VIPER 911
Subsystem	CAD
Direction	Import
Interface Document Name	OSD - Standard ANIALI Interface.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Standard EMD Integration
Interface Description	One client (quantity) is required per CAD workstation. This module provides integration between CAD Enterprise and the EMD application. If the site is licensed to use the EMD application, CAD Enterprise allows the user to launch them automatically within the CAD Enterprise call-taking screen. When the user reaches the applicable field, the EMD application is opened as a window within CAD Enterprise allowing the user to complete the EMD session. Once key trigger points are reached, the incident type and priority are automatically updated. Only one interface is required for Police, Fire, and EMS. The EMD application must be purchased separately.
Vendor	Priority Dispatch / ProQA EMD and EFD
Subsystem	CAD
Direction	Bi-Directional
Interface Document Name	This interface does not have a customer facing OSD.
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes
Note	CST is platinum certified with ProQA. The City of Waukesha has two (2) disciplines (Fire and EMS).

Standard Interface	**Description**
Interface Name	Enterprise CAD Archive Server View
Interface Description	CentralSquare will provide a SQL view and login that allows the vendor to connect and query that view in order to obtain information on incidents, units and other data.
Vendor	PulsePoint
Subsystem	CAD
Direction	Export (Database Login, View, Query)
Interface Document Name	This interface does not have a customer facing OSD.
Instances Contracted	Production
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Standard Station Alert Interface
Interface Description	The CAD Enterprise standard Station Alerting Interface will work with the US Digital Designs Phoenix G2 Station Alerting. The Phoenix G2 Station Alerting System consists of a

	Communications Gateway that interfaces with CAD Enterprise, allows system management and monitoring, communicates with station controller devices located in stations. Upon a CAD Enterprise system dispatch event, the CAD Enterprise Interface shall pass dispatch assignment information to the Phoenix G2 system. The Phoenix G2 Alerting System server shall receive the CAD dispatch data and perform programmed station alerting functions for the stations involved.
Vendor	Phoenix G2 (manufactured by US Digital Designs, acquired by Honeywell Building Technologies)
Subsystem	CAD
Direction	Export
Interface Document Name	IRD - USDD Station Alerting Interface.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Enterprise CAD ASAP Interface
Interface Description	The Automated Secure Alarm Protocol (ASAP) is an American National Standard developed jointly by APCO and The Monitoring Association and approved by the American National Standards Institute. NLETS is a partner in the program and uses its systems to provide a data bridge between both systems. Using ASAP, Central Station alarm companies such as Vector Security, Rapid Response, and ADT can transmit alarm data electronically to Central Square’s Inform CAD, reducing the potential for human error and call volume, and results in a decreased response time for Calls for Service.
Vendor	The Monitoring Association (TMA)
Subsystem	CAD
Direction	Import
Interface Document Name	OSD – ASAP Standard Interface.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Std Enterprise CAD to External Incident Data Transfer
Interface Description	See above.
Vendor	Current RMS system is ProPhoenix, but will be moving to Axon RMS

Subsystem	CAD
Direction	Export
Interface Document Name	OSD - CAD to External System Publisher Interface v2 5-9-25.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Enterprise CAD Axon Evidence.com Data Extract (Body Camera)
Interface Description	CentralSquare will provide a SQL view and login that allows Axon to connect and query that view in order to obtain incident information such as Event ID, Address, Problem Nature, Responder information, Incident Disposition, and both dispatch and cleared call times.
Vendor	Axon
Subsystem	CAD
Direction	Export
Interface Document Name	OSD – Axon Evidence.com.pdf
Instances Contracted	Production
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Standard Alpha Numeric Paging Interface
Interface Description	The CAD Enterprise Paging Interface is a standard alphanumeric paging interface to provide text “paging” messages to a paging system vendor(s) using PET/TAP, WCTP, SMTP, or SNPP paging protocols, for delivery to the intended recipients. **Note:** Currently, SMS is not directly supported. SMS functionality can be achieved using SMTP protocol to vendors’ SMTP-to-SMS gateways, for vendors that support such service. For connection to vendors using TAP protocol, CentralSquare recommends the use of a constant connection to the paging provider – such as a leased line – to facilitate rapid pager

	activation; however, dial-up connections are supported through this Interface. For connection to vendors using Internet protocols, the customer will be required to establish access from the Paging Server interface to the Internet (and SMTP relay service for SMTP paging). This Paging Interface will allow CAD Enterprise to send predefined and manually created pager messages to alphanumeric pagers. Automatic pages are limited to those defined in the paging setup utility defined in the CAD Enterprise documentation. CentralSquare is not responsible for any equipment, software or services needed by the paging vendors. CentralSquare is responsible for providing and initially configuring the CAD Enterprise Paging Interface software, and the method of connection. The customer is responsible for the paging vendors, any necessary cabling, or communications connections, and arrangement and funding of any work. The customer is also responsible for building the CAD Enterprise paging formats and entering pager assignment information, including page groups. The customer understands that changes made by the paging vendor(s) and/or network, including the format of expected data, may disrupt the operation and functionality of this interface.
Vendor	Konexus AlertSense
Subsystem	CAD
Direction	Export
Interface Document Name	OSD – AlphaNumeric Paging Standard Interface.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	External System to Enterprise CAD Data Transfer (Premise)
Interface Description	The External System to Enterprise CAD Data Transfer Interface provides the ability to import and update premise records from an external source.

	This is a unidirectional interface from the external source (typically an RMS) to Enterprise CAD. The interface will enable information that is entered or edited on the external system to propagate to the Enterprise CAD system. Any premise information added or edited within the Enterprise CAD system will be allowed, but the changes will not be updated back to the external system. Premise data entered or modified manually within Enterprise CAD is subject to being overwritten by the Enterprise CAD interface as updates from the external source are processed. The architecture uses a method of data transfer based on file transfer from the external source. This preferred approach requires the external source to generate formatted files to be staged and processed by the interface. Typically, creation of the formatted files is done as the premises records are created and modified within the external system, although batch handling of files is supported by the interface.
Vendor	FirstDue
Subsystem	CAD
Direction	Import
Interface Document Name	OSD – External-to-CAD Premise Data Import Interface.pdf
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Automated License Plate Reader Interface
Interface Description	CentralSquare shall implement a CAD Enterprise interface with the ALPR central database and Automated License Plate Reader (ALPR) system through an API to process alarms and to collect data to support a CentralSquare Message Switch Enterprise (MSE) query/response provider.
Vendor	Flock
Subsystem	CAD
Direction	Import
Interface Document Name	Functional Design Document (FDD) – Flock ALPR.pdf
Instances Contracted	Production and Test/Train

Required for Go-Live	Yes

Standard Interface	**Description**
Interface Name	Enterprise Mobile AFR XML Export
Interface Description	The Mobile AFR XML Export generates an XML file containing Records Check returns that is placed in a directory on the mobile device for a third-party system to pick up and import into the third-party system.
Vendor	Badger TraCS
Subsystem	CAD
Direction	Export
Interface Document Name	Mobile Enterprise User Guide - Page 213
Instances Contracted	Production and Test/Train
Required for Go-Live	Yes

CAD Enterprise API Integration:

Standard Interface	**Description**
Interface Name	CAD Enterprise API
Interface Description	This is a RESTful API that utilizes JSON format. The API allows the Customer IT staff to set up various integrations on their own and to expand interface capabilities as operational needs change.
Subsystem	CAD
Direction	Bidirectional
Instances Contracted	Production
Note	For general use. Discussed this as a solution for CrewSense/VectorSolutions: City to define the middleware they would like to use, pull the data via the CrewSense API and send data to CentralSquare API.

10 Appendix D - Message Switch

The CentralSquare Message Switch is a component of the CentralSquare Suite which allows query and response transactions between CentralSquare Suite applications, the State, and some third-party data sources. CentralSquare Message Switch is a standalone application that can be accessed from any web application, or within a CentralSquare products, to centralize inquires to state switch systems, internal systems and/or other providers while reducing user interactions and data entry workflows.

A ***Message Switch Provider*** is equivalent to a data source (such as the State or a SQL database).

Message Switch Providers use Transactions to query the data source.

A ***Message Switch Transaction*** can be considered the equivalent of an individual query or a combination (combo query which queries multiple Providers). Examples of individual queries would be a Message key Transaction to the Provider State Justice Switch, or a Type of SQL Query to an external SQL database for a custom provider). Transactions are rolled up under each Provider. An example of a combination query would be a Transaction defined as a Combination Query of a Person query on both a State Provider and a SQL custom transaction (e.g., a Person by Name query which searches both the State, and an external SQL Data Source).

Standard transactions are included in the project, subject to applicable access. Standard queries can be performed via the Enterprise suite applications graphical user interfaces as documented.

The list of Message Switch Providers and associated Transactions included in this Agreement are as follows

Standard Providers:

Provider: CAD Enterprise

Standard CAD Enterprise Transactions:

Category	Transaction Name
Admin\Other	CAD Incident Inquiry
Person	CAD Person Inquiry
Article	CAD Property Inquiry
Vehicle	CAD Vehicle Inquiry
Gun	CAD Weapon Inquiry
Vehicle	Query Tow Request
Person	Query BOLO Person
Vehicle	Query BOLO Vehicle

Provider: State Justice Switch (Wisconsin)
Standard State Justice Switch Transactions (State/NLETS/NCIC transactions).

Transactions do not by default include record entry, modification, or update (Cancel, Clear, Locate) functionality. This functionality is available only if CentralSquare develops the queries as custom transactions as part of the Agreement.

Standard State Justice Switch Transactions

Category	Message Key	Transaction Name
Person	0687	Hit Request – Missing Person
Article	0703	Hit Request - Stolen Article
Vehicle	0711	Hit Request - Stolen Boat
Vehicle	0679	Hit Request - Stolen or Felony Vehicle
Vehicle	0691	Hit Request - Stolen or Missing License Plate
Gun	0699	Hit Request - Stolen or Recovered Gun
Vehicle	0695	Hit Request - Stolen Part
Article	0707	Hit Request - Stolen Security
Person	0683	Hit Request - Warrant
Person	781A	Query Wisconsin Full Driver/Full Registration by Name Sex Race DOB
Person	0818	Query Wisconsin Driver Record by Name S/R DOB - Full Record and DOT DL Photo
AdminOther	0466	Administrative Message - In-State Multiple Destinations
AdminOther	0469	Administrative Message - Out-of-State and Canada
AdminOther		Free Form Transaction
Article	0370	Query Article by NCIC Number
Article	0368	Query Article by Serial Number
Vehicle	0134	Query Boat Name
Vehicle	0136	Query Boat / Coast Guard Number
Vehicle	0131	Query Boat by NCIC Number
Gun	0387	Query Gun by NCIC Number
Gun	0386	Query Gun by Serial Number
Gun	0388	Query Gun by Serial Number Make and Caliber
Vehicle	0239	Query Boat Registration Number - Out-of-State
AdminOther	0070	Query Out-of-State Carry Concealed Weapon
Person	0838	Query WI CHRI Summary - Out-of-State Driver
Person	0987	Criminal History - by name/sex/race/dob - Out-of-State
Person	0989	Criminal History - Full Record by SID # - Out-of-State
Person	0789	Query Out-of-State Driver by Driver’s License Number - Full Record
Person	0870	Query Out-of-State Driver’s License Number - Summary Record
Person	0782	Query Out-of-State Driver by Name Sex/Race DOB - Summary Record
Vehicle	0170	Query Vehicle - Out-of-State Plate

Vehicle	0172	Query Vehicle - Out-of-State License Plate and VIN
AdminOther	0489	Query Out-of-State Snow/ATV by Registration Number
AdminOther	0490	Query Out-of-State Snow/ATV by VIN
Vehicle	0171	Query Vehicle - Out-of-State VIN
Person	0153	III - Record segment by FBI#
Person	0154	III - Record segment by SID number
Vehicle	0138	Query Boat Hull Number - In State
Vehicle	0137	Query Boat Registration Number - In State
Person	0152	Identification Segment Record By Name/Sex/Race/DOB
Person	0986	Criminal History - by name/sex/race/dob - In-State
Person	0988	Criminal History - Full Record by SID # - In-State Only
Person	0799	Query Wisconsin CHRI / Wisconsin Driver
Person	0272	Query Wisconsin CHRI Summary / Wisconsin Driver and DL Photo (QW)
Person	0822	Query Wisconsin CHRI Summary / Wisconsin Driver
AdminOther	0971	Query Disabled Parking Permit Number
Person	0241	Query Wisconsin Driver’s License Number - Full Record and DL Photo (QW)
Person	0871	Query Wisconsin Driver’s License Number - Full Record
Person	0781	Query Wisconsin Full Driver Record by Name Sex/Race DOB
Person	0817	Query Wisconsin Driver Record by Name S/R DOB - Full Record and DL Photo (QW)
Vehicle	0173	Query Wisconsin Plate - Full DOT Record
Vehicle	0231	Query Vehicle - Wisconsin License Plate and VIN - Full Registration
Vehicle	0228	Query Vehicle - Wis License Plate Number and VIN - Summary Registration
AdminOther	0486	Query Wisconsin Snow/ATV by Registration Number
Vehicle	0162	Query Vehicle - Wisconsin Vehicle Identification Number
Vehicle	0159	Query Vehicle - Wisconsin Plate
Vehicle	0179	Query Wants Only For Foreign Plate
Person	0688	Hit Response – Missing Person
Article	0704	Hit Response - Stolen Article
Vehicle	0712	Hit Response - Stolen Boat
Vehicle	0680	Hit Response – Stolen or Felony Vehicle
Vehicle	0692	Hit Response - Stolen or Missing License Plate
Gun	0700	Hit Response - Stolen or Recovered Gun
Vehicle	0696	Hit Response - Stolen Part
Article	0708	Hit Response - Stolen Security
Person	0684	Hit Response - Warrant
AdminOther	0729	Administrative Message - In-State Single Destination

Customer Providers

Custom Providers allow the ability to access additional records management systems, warrant/court systems, or other accessible external databases. It is a requirement to have connectivity from the CentralSquare Message Switch to the RDBMS system and at least a login with Read access to the schema. A Subject Matter Expert in the schema will be required to design Stored Procedures on the third-party database to be used for the Transactions.

Custom Provider: Axon RMS

Provider	**Axon RMS**
Type	SQL
Database Type	SQL Server
Transactions	**Description**
Name	Person Inquiry
Location	Location Inquiry
Vehicle	Vehicle Inquiry
Article	Property Inquiry
Gun	Gun Inquiry

11 Appendix F – Sample SOW Documentation

11.1 Overview

The following documents have been provided as sample documents in order to provide the Customer project team with an understanding of the various types of CST documents that will be used to implement the CAD and Mobile Enterprise systems and interfaces.

Date Sent	Document Description	Notes
	Contract Capture Negotiations	
5/9/2025	Contract Capture Management Plan	
	Contract Capture Scoping	
5/28/2025	Interface Workbook Summary, version 4	
	CentralSquare Contract Package	
5/30/2025	CentralSquare Solutions Agreement	
5/30/2025	Statement of Work, version 7	
5/30/2025	Price Proposal	
	Misc	
5/30/2025	Sample Project Schedule	
5/30/2025	Sample Resumes	
Zipped file dated 4-4-25	**CAD Interfaces:** **Operational Scenario Documents (OSD)** **Functional Design Document (FDD)**	
4/4/2025	RapidSOS Interface OSD	
4/4/2025	CAD to External Incident Data Transfer OSD	APX Data / Smart Map / SmartCapture
4/4/2025	CAD to External Incident Data Transfer OSD	ESO / NFIRS and Patient Care Reporting System
4/4/2025	CAD to External Incident Data Transfer OSD	Word Systems Technologies (WSI) / NICE
4/4/2025	ANI/ALI Interface OSD	
4/4/2025	Station Alert Interface OSD	
4/4/2025	ASAP Interface OSD	
4/4/2025	CAD to External Incident Data Transfer OSD	Axon RMS
5/9/2025	CAD to External Incident Data Transfer, version 2 dated 5-9-25 OSD	Axon RMS
5/27/2025	Paging Interface OSD	Konexus AlertSense
5/28/2025	Flock ALPR FDD	
5/28/2025	External to CAD Premise Data Import Interface OSD	FirstDue
5/28/2025	Enterprise CAD Axon Evidence.com Data Extract OSD	

	Interfaces that do not have Customer facing OSD's: Standard EMD Integration Enterprise CAD Archive server view (PulsePoint)	
	CentralSquare GIS Documents	
4/4/2025	Enterprise GIS Questionnaire	
4/4/2025	Enterprise CAD Mobile GIS Requirements	
4/29/2025	Enterprise GIS Questionnaire, version 2	
	CentralSquare CAD/Mobile Enterprise System Information	
5/14/2025	System Planning Guide	
	CentralSquare Project Management Documents (Samples)	
5/30/2025	Project Management Plan	
5/30/2025	Status Meeting Agenda	
5/30/2025	Bi-weekly Status Report	
5/30/2025	Monthly Status Report	
5/30/2025	Task Completion Report (TCR) - No Invoice	
5/30/2025	Task Completion Report (TCR) - Invoice	
5/30/2025	Change Management Plan	
5/30/2025	Communication Plan	
5/30/2025	Risk Management Plan	
5/30/2025	Go Live Plan	
5/30/2025	Go Live Authorization Letter	
5/30/2025	Reliability Period Weekly Report	
	CAD/Mobile Training Agendas (Samples)	
5/30/2025	CAD Enterprise Operational and Administrative Review (OAR)	
5/30/2025	GISLink Training	
5/30/2025	CAD Enterprise Response Plan Workshop	
5/30/2025	CAD Enterprise Dispatch Supervisor Training	
5/30/2025	CAD Enterprise Call Taker/Dispatcher User Training	
5/30/2025	Mobile Enterprise Administration Training	
5/30/2025	Mobile Enterprise Train-the-Trainer Training	

12 Appendix G – Included Functionality

Functionality included with CAD Enterprise:

CAD Enterprise	**Description**
Name	Caller Location Query (CLQ)
Description	The Caller Location Query provides dispatchers with a tool to communicate in a non-traditional fashion with their community. The use of caller location query assists the dispatcher in gathering an additional data point for consideration of an emergency location. A caller's location coordinates can be sent to the call center upon request via an SMS to the device. Once the caller has verified the information presented is accurate, they simply hit send and coordinate data is processed back to the center.
Subsystem	CAD
Required for Go-Live	Yes

CAD Enterprise	**Description**
Name	Situational Awareness Manager (SAM)
Description	SAM is a robust web-based tool for monitoring and taking action within the Customer's CAD environment and includes features such as mail, call entry, queue monitoring, web map, AVL playback, and a reporting engine. (SAM replaced CAD Enterprise Browser).
Subsystem	CAD
Required for Go-Live	Yes

13 Appendix H - Listing of Non-Payment TCR Milestones

13.1 Overview

Upon completion of significant milestones and or tasks, CentralSquare will submit a Task Completion Report (TCR) to Customer. The TCR serves as a formal tool for the purpose of verifying with Customer that the work has been performed, services rendered, and products delivered according to the requirements specified within the SOW and/or related documents.

The table below lists non-payment TCR milestones that will be sent to the Customer by CentralSquare for signature. This list may be subject to change if the project scope is modified.

Non-Payment TCR Milestones
Project kickoff
Completion of CAD/Mobile Enterprise workshops
Completion of CAD/Mobile Enterprise end user training
GIS kickoff
GISLink training
Interface kickoff
Operational Scenario Document (OSD) for interfaces (acknowledgement of receipt of document)
Interface Configuration Document (ICD) for interfaces
Functional Acceptance Testing (Interfaces)
Data conversion kickoff
Data conversion specifications document
Data conversion, final review
System Integration Testing (SIT)

14 Appendix J – CentralSquare Connectivity to Enterprise On-Premise Systems

Policy

Customer Managed On-Premise Systems

The BeyondTrust/Bomgar remote support solutions shall be the method of remote access to on-premise Customer systems and/or data. These solutions meet all requirements as contained in the FBI CJIS Security Policy (Remote Access). Use of either of these solutions enable Customer agencies to remain CJIS compliant for purposes of FBI and/or state regulatory agency audits.

15 Appendix Y – Workshop and Training Summary

Training/Go-Live Deliverable	Quantity	Training(s)/Workshop(s) Included	Remote/Onsite	Students
CAD Enterprise Operational and Administrative Review (OAR) *Prerequisites: 1) Client is responsible for supplying the requested data to CentralSquare no later than four (4) weeks prior to class to allow sufficient configuration time. 2) The centerline conversion should be completed no later than four (4) weeks prior to class. Delays will result in a cascading effect on the project timeline. *Attendees will learn how to manage/maintain the CAD system. Review of system build/configuration and handoff to Client to maintain going forward. *IT staff attend CentralSquare Identity portion of the training.	1	Three (3) day workshop	Onsite	10
GIS Link Training *Prerequisites: 1) System installation to include GIS-related components and initial map installation to include at least one CAD Enterprise console with the GISLink utility installed on it. 2) GIS knowledge and background; familiarity with ESRI tools.	1	Three (3) day training class for a maximum of four (4) participants.	Remote	4

CAD Enterprise Response Plan Workshop *How to build response plans (the Response Plan Manager). Attendees should come prepared with response scenarios to build in class.	1	Two (2) day workshop	Remote	10
CAD Enterprise Functional Acceptance Testing *Prerequisites: Completion of the workshops above. FAT must be completed prior to End User Training. *Customer to determine who will actively participate in the testing event. Other staff are welcome to observe the testing.	1	One (1) day testing event	Remote	TBD
Enterprise System Administration Training *COW has 6 students and they will also attend the CSU course	1	Four (4) hour workshop	Remote	6
CAD Enterprise Dispatch Supervisor Training *Training is two days of End User training and the last day is for 'supervisory' topics.	1	Three (3) day training class	Onsite	10
CAD Enterprise Call Taker/Dispatcher User Training *We do ask that either a Supervisor or someone from the build team attend each of the End User trainings (does not factor into the	5	Two (2) day training classes	Remote	10

class size). Policy questions / agency decisions are often asked during training which the Consultant cannot/will not answer.				
CAD/Mobile Enterprise Onsite Go-Live Support Services	1	Two (2) day Go-Live Support – 1 CentralSquare Consultant per 12-hour shift, 2 shifts per day	Onsite	N/A
Mobile Enterprise Functional Acceptance Testing *Prerequisites: Completion of the training above. FAT must be completed prior to Train-the-Trainer training. *Customer to determine who will actively participate in the testing event. Other staff are welcome to observe the testing.	1	Four (4) hour testing event	Remote	TBD
Mobile Enterprise Administration Training *Prerequisites: The CAD Enterprise system should be configured, GIS data present, and mobile devices for available for installation. Each participant should have a mobile device on the network for the practical exercise of installing the application on the Mobile device. *The class should not exceed more than 3 attendees due to the topics and content covered (we will teach HTML concepts). CentralSquare will use the	1	Three (3) day training class for a maximum of three (3) participants.	Remote	TBD

installed Mobile server to teach attendees how to build/configure, maintain, and make all the tweaks/changes to their system. We are giving the Admin's the 'keys to the kingdom' to make changes, so that is another reason why the class size is limited. We will also show the attendees how to install the Mobile clients. *Customer to determine who will actively participate in the training event. Other staff are welcome to observe the training.				
Mobile Enterprise Train-the-Trainer Training *Prerequisites: 1) All attendees must have a mobile device with them to attend this class with the Mobile Enterprise application already installed. *This class is taught to agency trainers, they then create their own agency curriculum and train the remainder of their staff. We train how to use Mobile Enterprise, but the agency has to decide for themselves how they want to use the mobiles for their benefit (self-assign units, no self-assign units, etc). *It is recommended that we have separate classes for Law and Fire/EMS.	2	Four (4) hour training class	Remote	10

CAD and Mobile Enterprise System Integration Testing (SIT) *Prerequisites: All subsystems (CAD/Mobile) must pass their respective FAT. *Customer to determine who will actively participate in the testing event. Other staff are welcome to observe the testing.	1	Two (2) hour testing event	Remote	TBD
Enterprise System Administration Training	6 (per seat basis)	Forty (40) hours via virtual lab	Remote	6

16 Appendix Z – Data Conversions

16.1 CentralSquare CAD Enterprise Data Conversion

16.1.1. Data Conversion Overview

Data conversion is the implementation process of moving data from a legacy system or data files into your CentralSquare software product. Data conversion is a highly collaborative process between Customer and CentralSquare Technologies.

The listed data conversion services and their associated costs are based on CentralSquare’s understanding of Customer's needs and current system. Any modules not explicitly listed in the Statement of Work are not part of the current project scope and will not be included in implementation. If additional module conversions are required, each one will come at an additional cost based on the scope of the work required for each.

CentralSquare will implement a structured methodology for CAD Enterprise data conversion. Customer is responsible for providing CentralSquare with extracted data in a format that can be used by CentralSquare for import. Formats suitable for import into can include Excel, MDB, CSV, and ODBC access from MS SQL; however, the specific format to be used for this Project should be reviewed between the respective CentralSquare and Customer teams.

The conversion of prior CAD data is a process that involves several steps. CentralSquare develops a data conversion plan to the Customer detailing the data mapping between the legacy system and CentralSquare CAD Enterprise. During this phase of work, CentralSquare will work closely with the appropriate individuals from Customer to map each data element in each legacy application to the appropriate target data element in the CAD Enterprise databases and reflect this information in the data conversion plan.

Generally, there is an initial conversion to bring the data set close to Go-Live, a second conversion just before Go-Live and a last conversion after Go-Live. Each step does not involve a re-conversion of previously converted data. These steps do not include ongoing maintenance of imported data. If the legacy data elements have a relevant counterpart in the target CAD Enterprise databases, CentralSquare can map the data and import it into the CAD Enterprise database structure.

Conversion of Premise and Caution Notes can be performed independent from the prior Incident data. A small sub-set of the data will be initially converted and loaded to validate the process. Upon completion of this test, the Premise and Caution Notes data will be converted and imported to the system close to Go-Live, as a onetime process. Additions to Premise and Caution Notes in the old system, between the time of data conversion and Go-Live will require manually entry by Customer to the new system.

It is imperative that a member of the Customer’s staff be available to support the data conversion effort. Many operational questions will arise that depend on the data and operational expertise of Customer’s staff.

This process is considered complete once the last set of data has been converted for the new CAD Enterprise system. The Customer is responsible for the validation of the data.

Due to the need for specific knowledge of the Customer’s area, the geo validation process for the converted data is the responsibility of the Customer.

Legacy data conversion will not include conversion of attachments to Premise or Historical Incidents into CentralSquare databases.

CAD Enterprise Data Conversions are scoped per source. Sources and modules within each source are documented below.

16.1.2. Data Conversion Modules

Modules for conversion are defined in the Sales Order and this Appendix:

Data Source 1	
Agency Name(s):	City of Waukesha, WI
Vendor:	Pro Phoenix
Database Type:	MS SQL
Module to be Converted	**Definition of Module**
Premise and Caution Notes	CAD Premise and Caution Notes
Incidents	Up to ten (10) years of historical Incident data

16.1.3. Data Conversion Process

The Data Conversion process is the work that drives the configuration and implementation process. Below are the significant tasks included in this project:

Major Task	**Description**
Schedule	CentralSquare and Customer will schedule the data conversion tasks as part of the overall Project Schedule. CentralSquare CAD GIS training and build out of CAD code tables are prerequisites to any conversion mapping exercise.
Extraction	Customer will extract sample data in a format compatible with conversion and provide to CentralSquare
Configuration Documentation	CentralSquare will provide a configuration document to the Customer for the Incident Data Conversion Plan.
Review	An in-depth review between CentralSquare and Customer SME will be held. This meeting will be recorded, and Customer should be prepared to operate within the UI of the old system to provide examples and context
Setup	CentralSquare will configure servers and systems needed for the data conversion.
Premise and Caution Note Sample Conversion	A small Premise and Caution Notes conversion sample will be run to validate the mapping and the conversion process.
Review and Validation	A second in-depth review between CentralSquare and Customer SME will be held to review changes to the Incident Data Conversion Plan and validate Premise and Caution Notes sample data.
Bulk Incident Data Conversion	CentralSquare will bulk convert data into Customer’s pre-production archive system approximately two (2) months prior to Go-Live.
Premise and Caution Note Conversion	Approximately one (1) month prior to Go-Live, the Premise and Caution Notes conversion is run into Customer’s pre-production system. From this time onward Customer must maintain Premise and Caution Notes in their existing production system and the CentralSquare pre-production system.
Sign Off	Customer signs off on data conversion via a TCR.
Go-Live	The final extraction of Incident data and the final Incident delta data conversion is run as part of the Go-Live
Final Sign Off	Customer signs off on the final data conversion via a TCR.

Note: *Customer must review and sign off at different intervals to continue the process.*

16.1.3.1 CentralSquare Responsibilities

a) Work with Customer to identify, document and implement a comprehensive data conversion.

b) Advise on possible conversion options.

c) Advise on project milestone dates and Customer expectations.

d) Provide training for Customer on using CentralSquare data mapping tools.

e) Work with Customer to limit the number of Go-Live conversion events.

f) Perform one or more sample conversions.

g) Provide training for Customer on validating the data conversion for completeness and accuracy.

h) Convert legacy data into corresponding elements in the CentralSquare system. (Modifications to the CentralSquare system or database for the purposes of data conversion will be limited or unavailable).

i) Perform final delivery of data conversion.

16.1.3.2 Customer Responsibilities

a) Provide subject matter experts to complete data conversion tasks, including providing expertise in third-party data architecture, providing business processing logic for addressing data conversion and identifying and scheduling appropriate personnel to attend training.

b) Provide data dumps in the prescribed format within thirty (30) days of Agreement signing.

c) Provide routine data dumps throughout the implementation process.

d) If needed, provide a temporary workstation for data conversion personnel.

e) If needed, provide UI access to the legacy system or test system for data conversion personnel.

f) Ensure the legacy data is “conversion ready,” meaning it is clean (duplicates, typos, missing information, etc. have been corrected).

g) Provide a data dictionary or equivalent documentation to facilitate mapping data elements between the legacy system and the CentralSquare database(s).

h) Configure code values outside the scope of the data conversion process.

i) Take responsibility for costs assessed by the legacy system or any other third party for performing the data extraction as described.

j) Configure code value and complete code value data mapping prior to data conversion processing.

k) Use provided tools to translate (map) code values between your legacy system and your CentralSquare.

l) Manual adjustments by Customer may be required on converted data to make it eligible for state submissions, reports, or to align with new workflow processes.

m) Perform manual back entry of data saved after the final data cut if necessary.

n) Perform data validation. Validate data converted is both complete and accurate. Report discrepancies during the implementation process. (System downtime may be required to complete the data conversion process).

o) Use CentralSquare designated issue reporting system to report data conversion issues.

p) Provide sign off of the converted data in a non-production environment.

q) Provide sign off of the converted data set into the production environment.

EXHIBIT 6
<u>System Planning Guide</u>

[ATTACHED]

Enterprise Suite

System Planning Guide

Contact us

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Lake Mary, Florida 32746
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Customer portal and support

support.centralsquare.com • (833) 278-7877 (833-CST-SUPP)

Education and training

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Contents

What's new?

5/30/2025	Updated Machine Name Guidelines (page 6) topic.
1/8/2025	Updated the Active Directory and SQL accounts (page 3) topic.

Suite environment

Overview

This document provides system administrators and system planners a single requirements reference for the Enterprise Suite.

The Enterprise Suite includes the following products:

- CAD Enterprise
- Mobile Enterprise
- RMS Enterprise Web
- RMS Enterprise Client / Server
- Message Switch (MS)

This document covers a diverse set of topics ranging from product architecture information, approval for Microsoft platforms, security and support communications, system component hardware and third-party software. This is intended as the primary reference point for system administrators and system planners. This information includes previously released information from a variety of documents, including the Site Preparation Guide, Support Connectivity Guide, and the Platform Planning Document.

In many cases, more detailed information is listed in product documentation and release notes and may change from version to version.

This document is updated periodically and made available to all customers.

This document supersedes all previous versions of the Site Preparation Guide and Support Connectivity Guide, Site Preparation Guide, and Platform Planning Document issued by CentralSquare. These documents are referenced by CentralSquare license agreements.

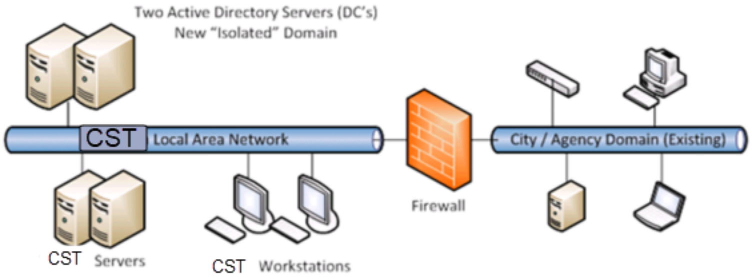
Networking, security, and support connectivity

Networking and security access for Enterprise Suite applications

Enterprise Suite and Active Directory

The server and workstation-based components of a CentralSquare system rely upon an effectively functioning Windows-based network. CentralSquare strongly recommends that Enterprise Suite systems be isolated from other systems used by the organization. The preferred method of isolation is an isolated Active Directory Domain for the Enterprise Suite.

Recommended setup:



If an isolated domain is not practical, then careful Active Directory Planning and Configuration is needed. Special attention should be paid in these areas:

- **Active Directory**: Microsoft Active Directory shall be implemented in accordance with Microsoft best practices. It is beyond the scope of this document to specify the installation and configuration of Active Directory. Best practices can limit or eliminate single points of Active Directory failure. Common points of failure in Active Directory include, but are not limited to, Domain Controllers, DNS Servers, and DHCP Servers.
- **Group Policies**: Newly deployed Active Directory Group Policies can interfere with Enterprise Suite application(s).

> **Note:** CentralSquare has identified significant problems with CentralSquare Enterprise Suite applications at customer sites due to a Group Policy that was applied. Group Policy-related issues can sometimes be difficult to identify and troubleshoot. Appropriate use of Organizational Units can minimize the potential of unintended application of Group Policies.

- **Organizational Unit**: If the Enterprise Suite system is part of an existing Active Directory, all the users/groups and computers should be moved to a separate Organizational Unit (OU). Block Policy inheritance should then be activated on that OU.

- **Firewalls**: CentralSquare recommends separating the Enterprise Suite network from the rest of the organization with a firewall to limit network traffic and to provide an additional layer of protection to the Enterprise Suite network.
- **Security Patches**: CentralSquare makes every effort to verify newly released Microsoft service packs and security patches for the CentralSquare applications. Review the product release notes for current compatibility or contact CentralSquare Support for confirmation of currently released Microsoft updates.

Note: CentralSquare tests applicable Microsoft critical updates monthly and announces approval for use with CentralSquare products through Technical Advisories. A library of approved advisories is available on the CentralSquare Support website.

- **IP Addresses**: CentralSquare strongly recommends the use of static IP addresses for an Enterprise Suite system to eliminate a DHCP server as a potential point of failure.
- **Physical Network**: It is the customer’s responsibility to provide reliable, error-free network infrastructure to host the Enterprise Suite. Due to the mission-critical nature of the Suite applications, CentralSquare strongly recommends an isolated network.

Active Directory domain trusts

Some CentralSquare applications use Active Directory credentials for authentication and security purposes. When Enterprise Suite components are installed in different Active Directory domains, or users from multiple domains access Enterprise Suite, then a trust between the domains might be required to support Enterprise Suite functionality.

Important: Similar to RMS, CAD Enterprise requires a domain trust between CAD workstations and servers.

Domain Name Service (DNS) requirement

DNS is a critical component of the Active Directory environment and must be configured with both forward and reverse lookup zones.

Active Directory and SQL accounts

A variety of user and service accounts are utilized by the Enterprise Suite. This section documents the required domain accounts:

- Support & Installation account
- SQL Server Administrator account
- Enterprise Suite Services account
- Enterprise Suite Server-Based Console Applications account
- Disaster Recovery Server account

- CAD Enterprise workstation user account
- Mobile Enterprise workstation user account
- Microsoft SQL server account

Support & Installation account

CentralSquare requires a domain account, used by a CentralSquare employee, that is added to the Local Administrator's Group on all Enterprise Suite servers and workstations to install, upgrade, and support the overall system. This account is typically named **CentralSquare**. This account should not be used as credentials for any Windows services or console applications. This account must remain a local administrator at all times and should not have its rights or the rights of the Local Administrators group downgraded manually or with group policy.

SQL Server Administrator account

CentralSquare requires an account with SQL System Administrator privileges to install, upgrade, and support Enterprise Suite SQL Server databases. This requirement can be met by granting the SQL system administrator role to the domain Support &Installation account detailed above.

Enterprise Suite Services account

CentralSquare requires a domain account to be used as credentials by Enterprise Suite components that operate as services. CentralSquare recommends that this account be called **EnterpriseService**.

- This domain account must be a local administrator on servers where it is used.
- This domain user account must be configured so that the password for the account never expires.
- This domain account must be granted the SQL Server System Administrator role.
- The domain account must have the **Log On As Service** option selected for servers where it is used.

Enterprise Suite Server-Based Console Applications account

CentralSquare requires a domain account to use to operate server-based console applications, such as Interface Applications and Mobile Server. CentralSquare recommends that this account be called **EnterpriseConsole**.

- This domain account must be a local administrator on servers where it is used.
- This domain user account must be configured so that the password for the account never expires.
- This domain account must be granted the SQL Server System Administrator role.
- This domain account must be granted permission to register Service Principal Names in Active Directory.

Disaster Recovery Server account

When Disaster Recovery is implemented with Arcserve technology, CentralSquare requires a domain account to be used by the Arcserve Engine service to update the DNS record on a Domain Controller running DNS, and other features. CentralSquare recommends that this account be called “Arcsvcacct”.

- This domain account must be a domain administrator account.
- This domain user account must be configured so that the password for the account never expires.

CAD Enterprise workstation user account

CentralSquare recommends that each Enterprise Suite user is assigned an individual domain user account to be used to log in to CAD workstations. Sharing domain user accounts can result in multiple users sharing an account being locked out of the domain by the actions of one user.

If continuity of operations requires the changing of Enterprise Suite users on a workstation without changing the logged-in Windows user, then an individual domain user account should be assigned for each workstation to prevent multiple workstations from being locked out if a workstation user account becomes deactivated.

Notes:

- For CAD to function, User Account Control must be inactivated on Windows 7-based workstations. UAC may remain activated on Windows 10-based workstation.
- Standard Windows user role credentials are not sufficient for successful installation of a CAD workstation. CentralSquare. Launch must be run by a local user with the Windows Administrator role for initial installation to the workstation.

Mobile Enterprise workstation user account

Mobile Enterprise Workstation User Accounts require permissions that allow the application to synchronize device time. Because time stamps for actions such as status changes are performed based upon the device time, failed time synchronization are likely to cause unexpected results.

Microsoft SQL server account

CentralSquare requires access to an Elevated Privilege Account with SysAdmin privileges, when installing or upgrading the application, or troubleshooting issues. Access can be granted temporarily as needed and CentralSquare does not store the account credentials.

Time Synchronization

CentralSquare products operate using the Windows time of the applicable machine. Time synchronization of all servers and workstations is important for data integrity and efficient network operation. Time synchronization can be accomplished through a combination of Windows Active Directory functionality and time synchronization capabilities coded into CAD Enterprise. Your agency's system administrator should evaluate system components to ensure that time sync problems do not cause unexpected system behavior.

CentralSquare highly recommends customers use a precision time source (such as **NetClock**) and associated software to precision time synchronization. Please consult the installation guides applicable to your chosen time source device.

Within an Active Directory with Windows time service activated, Windows syncs workstation and server times to the Domain Controller time. It is recommended that the Domain Controller is synced to a desired reliable time source.

Based upon code within the applications, all CAD Enterprise interface/business servers and workstations automatically synchronize their time to the CAD Enterprise Database Server once every 60 minutes.

Enterprise Suite Client Operation via WAN

Wide Area Network (WAN) bandwidth requirements for Enterprise Suite applications to run remotely vary by application and are based upon the overall size of the system and the utilization level for interfaces and features.

Enterprise client-based applications have higher bandwidth requirements than web-based applications. Client-based applications require at least 100 Mbps bandwidth from the client to the server across the WAN.

CentralSquare recommends the use of VMware HorizonView for running Enterprise Suite client-based applications across a WAN connection that is less than 100 Mbps to the desktop or where the connection must be established via VPN.

On-demand, workstation-based VPN connections are not recommended for making a remote connection to the Enterprise Suite network via a WAN. Please consult with CentralSquare before activating remote workstations.

Machine Name Guidelines

CentralSquare works with you to establish an effective deployment plan for machine names. The following guidelines are requirements for machine names:

1. SQL Server machine names cannot begin with numerical values.
2. Underscores (_) should not be used in any machine names. Though Microsoft Windows allows this character in machine names, RFC 1034 states that domain names cannot have underscore (_) characters. As such, VMware and possibly other software do not support the underscore.
3. The server host name must be unique. For example if the server host name is CCLLTT##, then:
   a. **CC** represents an abbreviation for the customer city. This should consist of two alphabetic characters. (For example, SD for San Diego.)
   b. For customers with multiple locations, **LL** represents the location, usually based on the locale of the site (such as PB for Public Safety Building, CH for City Hall. This must consist of two alphabetic characters.
   c. **TT** represents the machine's primary function. These are designated with the following:
      - DC: Domain Controller
      - CADS: CAD SQL
      - CADI: CAD Interface
      - MBLS: Mobile SQL
      - MBLI: Mobile Interface
      - MBLC: Mobile SQL combined with Mobile Interface
      - RPTS: Reporting/Archive SQL
      - DWHS: Reporting/Data warehouse/Archive SQL
      - RMSS: Records Management System SQL
      - RMSA: Records Management System Application Service Host
      - RMSW: Records Management System Web
      - INTF: Interface Server
      - WEBR: Web Recall Browser
      - BRWS: Browser
      - MS: Message Switch
      - PRXY: Proxy

   - ARR: Application Request Routing
   - 911A: Enterprise 911 Application
   - 911S: Enterprise 911 SQL

d. **##** are numeric values to resolve the multiple instances of the same type of machine. This will generally be two numbers. They should not be random, but should reflect a first dispatch station (01), a second dispatch station (02), or a third station (03), etc.

Windows Updates

CentralSquare recommends that the application of Windows Updates to agency servers and workstations be planned and not be allowed to automatically install upon Microsoft's release. CentralSquare conducts product functionality testing against all Windows critical updates and issues regular advisories regarding that testing. CentralSquare recognizes the need to apply Windows updates other than critical updates to maintain security and proper Windows operation. CentralSquare recommends testing of non-critical updates on a test system before applying to your production system.

Support connectivity

Approved methods of connectivity

CentralSquare has adopted Bomgar Remote Support Software as our standard support connectivity solution. CentralSquare is retiring the use of LogMeIn Rescue, Join.Me, and GoToAssist as well as a number of other connectivity options. CentralSquare strongly recommends that all customers using VPN move to CentralSquare's Bomgar Connectivity System.

Bomgar Remote Support software

CentralSquare's implementation of Bomgar is a dedicated system managed and controlled by CentralSquare. It is not shared with other vendors and is used for connecting only to CentralSquare and its customers. The Bomgar system provides:

- Secure access controls with advanced authentication
- Options for either escorted or unescorted system access
- Secure storage of the connection event documentation
- Secure encrypted connectivity
- Customer access to connection logging through the CentralSquare ticket tracking system (currently Salesforce.)

Restricted access to Bomgar

Access to the Bomgar system is limited to CentralSquare security authorized personnel for that customer's product line(s). The layered secure login process includes:

- Personally assigned CentralSquare active directory passwords that must be changed every 90 days and must meet FBI CJIS standards.
- Advanced Authentication through Duo Mobile to gain access to a CentralSquare computer.
- Validation by Bomgar of the user's CentralSquare active directory credentials.
- Advanced Authentication validation (meeting CJIS standards) through Duo Mobile smartphone validation, required by Bomgar.

This secure process ensures multiple levels of identity validation to activate a Bomgar connection.

Connection Methods

Bomgar configuration provides multiple access methods. CentralSquare recommends that customers allow the implementation of both options. CentralSquare discusses these options with customers once Bomgar use is initiated.

- **Escorted access** (similar to LogMeIn Rescue or GoToAssist): With escorted access, the customer receives an e-mail from the CentralSquare person they are talking to on the telephone. The email allows the customer to start the connectivity session. For escorted sessions, the Bomgar component is automatically installed at the beginning of the session and uninstalled at the end of the session. For escorted systems, there is shared mouse and keyboard control, bi-directional messaging, and access to see all monitors (for a multi-monitor computer).
- **Unescorted access**: Unescorted access is similar to VPN in that the user, with valid credentials, can access the customer system without the customer staff being present. In this case, the components do not automatically uninstall.

Typically, CentralSquare uses **escorted** access during work hours s when customer staff are available, while allowing **unescorted** access for after-hour emergencies in those situations where customer staff are not available at the customer site. Unescorted access can also be set up on specific computers to facilitate new installations and configuration work related to server replacement activities.

Storage of the Connection Event Documentation

The CentralSquare Bomgar system is deployed on a secure CentralSquare infrastructure hosted at the secure NLETS facility. The NLETS facility meets the stringent FBI CJIS Policy standards, including security cameras, intrusion detection system, two-factor authentication required for building access, and biometric iris authorization required for data center access. CentralSquare Bomgar hardware is within locked racks that restrict physical access to CentralSquare Security Authorized staff.

Secure Encrypted Connectivity

Encryption of data in motion is through a Bomgar component that is certified by NIST as a FIPS 140-2 encryption component (Certificate 1868 - Consolidated NIST Certificate 25). Data at rest is stored in a physically secure facility at NLETS.

The Bomgar connection to your system is through an encrypted HTTPS connection. Access to your system can be limited to a single web address to the secure Bomgar appliance at NLETS.

Connection Event Logging

Logging of connection events is securely stored within the NLETS-based infrastructure for a minimum of one year. A copy of the connection event log is written into the customer's SalesForce support logging and is available for auditing by the customer's authorized SalesForce users through the SalesForce portal through either a review of the associated SalesForce ticket or through a special SalesForce customer report.

Alternate Remote Support Connectivity Methods

CentralSquare strongly recommends that all customers using VPN move to CentralSquare's Bomgar Connectivity System.

If Bomgar Remote Support Software is not allowed by a customer, then CentralSquare must be able to connect to the customer site using one of the following:

- **Cisco Appliance-to-Appliance VPN tunnels**: CentralSquare has approved Cisco appliance-to-appliance VPN tunnels and has deployed this form of connectivity at a limited number of customer sites. This is accomplished using CentralSquare 's firewall.

  > **Note:** Customers utilizing the Appliance-to-Appliance connectivity should plan for a backup solution in case of a CentralSquare network outage to allow for a secondary method of connection.

- **Cisco VPN IPSec client** (requires Cisco VPN-enabled device, such as PIX firewall, router, or dedicated VPN concentrator): The Cisco VPN-enabled device allows the customer to restrict access to the remote user to a specific series of computers or sub-net of the customer's network. CentralSquare recommends the use of these devices and prefers that CentralSquare's access be limited to the specific areas of the network where CentralSquare software components are in use.
- Temporary alternate connection while transitioning to an approved method: Customers that use non-recommended forms of connectivity are taking responsibility for any delays associated with CentralSquare's ability to provide remote support services. CentralSquare works with the customer to provide support in these situations; however, there have been instances where a

customer's alternate method of connectivity has not worked or had limitations that prevented CentralSquare from rapidly resolving a critical problem.

VPN user access and passwords

In the case of customers using VPN accounts, CentralSquare needs VPN access account(s) in addition to the CentralSquare Support and Installation account. VPN accounts are typically issued individually to CentralSquare Security Authorized personnel. Such accounts are infrequently utilized and often need a password reset before the person can connect.

Note: If a customer requires CentralSquare to have individual VPN accounts, the customer must have staff available on a 24x7 basis to issue passwords when CentralSquare contacts the customer to perform remote support tasks.

Some customers alternatively have a few generic accounts that are always locked out. These VPN accounts are activated only when CentralSquare requests access. In this case, passwords are set to expire the same day.

Notes:

- The customer should not disable the accounts specified in the Active Directory Accounts section of this document.
- CentralSquare distributes a listing of approved personnel that are authorized to remotely connect to a customer system. Please contact CentralSquare to be added to this e-mail distribution list. CentralSquare requests that the distribution list be limited to one e-mail address per customer site.
- As noted in a previous section, CentralSquare has implemented multiple levels of advanced authentication for its Security Authorized staff. Due to the large number of customer sites and the large number of CentralSquare staff involved in the provision of remote implementation, and upgrade and support services (including after-hours support), CentralSquare does not accept key generating devices (tokens) for security access. Customers that use password-generating devices will hold these with the IT staff or the dispatch supervisor who can then provide access to CentralSquare staff when necessary.

Security program for system implementation, upgrade, and support

CentralSquare operates a CJIS–level security program for its personnel, facilities, and infrastructure consistent with Federal Standards for Criminal Justice Information and "Protected Health Information provisions for System Implementation, upgrades, and support. This Security program additionally coordinates with applicable State CJIS programs. This Security program is updated periodically to ensure compliance with the latest active version of the Federal CJIS Security Policy and State standards.

CentralSquare provides protection for customer data through a layered approach to security. This security program includes limiting access to CentralSquare personnel with the required security approval and maintaining a secure infrastructure at CentralSquare and at the customer's site.

Security Authorized Personnel

CentralSquare access to customer data and customer systems is limited to CentralSquare personnel that have completed CentralSquare's CJIS-compliant security authorization process.

CentralSquare Security Authorized personnel must complete the following:

- Pre-employment background check.
- Each Security Authorized CentralSquare employee has successfully completed CJIS On-Line Security and Awareness training and testing. Their certifications are current and must be renewed every two years. In addition to CJIS required training, CentralSquare also conducts periodic training for Security Authorized personnel on CentralSquare security policies.
- Each of these personnel have been fingerprinted and their prints have been submitted to one or more law enforcement agencies for a background check.
- Signed the one-page CJIS Security Addendum Certification. Copies are available upon request.

CentralSquare publishes product line-specific lists of Security Authorized Personnel that are distributed to Law Enforcement clients and other interested clients. This list has been segmented into a list of those personnel that will connect to the client system remotely or do not connect, but who may access client data securely stored at the CentralSquare site or may go to the client site.

In some cases, customers request employee data submitted electronically to a law enforcement agency for CentralSquare staff background checks. If transmitted electronically to the responsible party at a law enforcement agency site, this data will be password protected. Data submitted in writing is sent via express shipping with documentation of who received the information.

CentralSquare takes the privacy and security of our employee's sensitive and non-public information very seriously. Accordingly, CentralSquare requests that clients treat such information with the same level of security as they would their own personnel. CentralSquare considers an employee's name, gender, driver's license number, home address, date of birth, Social Security number, and fingerprints to be highly sensitive and confidential information. CentralSquare securely stores such information and limits the number of CentralSquare personnel that have access to such data.

Secure Facilities/Infrastructure

CentralSquare has deployed a secure technology infrastructure hosted at secure CentralSquare corporate facilities. CentralSquare facilities have the following protection features on site:

- Security cameras
- Card key authentication required for building access
- Alarm system with individual staff access
- Secure server facilities with limited access (subset of CentralSquare Security Authorized personnel)
- Secure sub-networks for storage of client data and client information (subset of CentralSquare Security Authorized personnel)
- CJIS-compliant passwords for access to CentralSquare computers and networks by Security Authorized personnel

Advance Authorization

CentralSquare's Security Authorized personnel are required to complete multiple layers of advanced authentication for access to Client data. CentralSquare uses the Duo system for advanced authentication at multiple points during the process to connect to customer data. Duo provides advanced authentication through a smartphone application that is specifically assigned to the person.

Duo authentication is triggered for multiple identity validation activities.

- When a Security Authorized user logs in to a CentralSquare computer, in addition to Active Directory authentication, a Duo validation is initiated before the user is allowed access to operate the CentralSquare computer.
- When a Security Authorized user attempts to remotely connect to the CentralSquare network, in addition to Active Directory authentication, a Duo validation is initiated before the user is allowed access the CentralSquare network.
- When a Security Authorized user logs in to CentralSquare's Bomgar connectivity system, in addition to Active Directory authentication, a Duo validation is initiated before the user can operate the CentralSquare Bomgar connective system to connect to a customer.

> **Note:** As the client, you are responsible for advanced authorization security for the user personnel you elect to deploy or are required to deploy by law or regulation.

Client Data

If Client data must be copied to CentralSquare (support issue testing and data conversions), it is transferred in an encrypted state and it is stored within a secure sub-network of the CentralSquare infrastructure that is only accessible by Security Authorized personnel. Such data is destroyed using CJIS-compliant techniques (based upon the then-current FBI CJIS Policy) once the activity is complete.

Product Compliance Documentation

As part of CentralSquare's CJIS-level security program, certain aspects of applicable CentralSquare products must be compliant with Federal Standards for "Criminal Justice Information" and "Protected Health Information." This includes password/login standards, modular security to limit access to secure data to only those uses that require access, encryption of applicable data and logging of successful and unsuccessful system access and security changes. These functions are documented in the applicable Admin Guide for the product used by the customer.

CentralSquare monitors changes in CJIS and HIPAA laws and regulations at the federal level and applicable state regulations and updates its security program where required. Product changes are scheduled for the next applicable product release.

Component virtualization

In recent years, server virtualization has shifted from being a new technology to a typical server configuration. Because CentralSquare applications are insulated from any virtualization technology by the Windows operating system, we do not routinely test virtualization technologies.

CentralSquare recognizes that there are several competing server virtualization platforms available and respects that customers have individual preferences for virtualization platforms. Customers implementing virtualization platforms are ultimately responsible for the configuration and tuning of the virtual server environment. The primary source of support for a virtual environment is the virtualization vendor. Customers should ensure that their personnel have been trained in the installation and management of implemented virtualization software and that software support and services has been purchased for this system.

Customers electing to deploy server virtualization in their production environment should carefully assess server capacity. It should be understood by the customer that when planning a virtual solution, performance for a Virtual Machine (VM) is measured in MHz and MB of RAM. Although a single virtual 2.26 GHz CPU may be allocated to the VM, the server will only consume the amount of vCPU resources needed to perform its task. However, great care must be taken to not over-subscribe host server resources to VMs as performance issues will likely be incurred. CentralSquare also recommends the use of shared storage.

Customers should also be aware of software licensing models. Understand how the virtual environment is licensed, as well as the benefits of using Microsoft Data Center licensing 2016 instead of Windows Server 2016 Standard licensing.

With proper planning and server capacity, server virtualization can be used effectively in a Production environment. Free versions of virtualization technology should *not* be used in a Production environment since these versions are typically not vendor-supported.

CentralSquare has the most experience with and recommends VMWare's vSphere ESXi.

Notes: Some interfaces may require a serial port to connect an interface to a third-party vendor such as the Zetron Station Alerting Interface. CentralSquare has successfully used PortServer by Digi to connect high-speed serial ports to any TCP/IP Ethernet network.

Disaster recovery

CentralSquare tested and approved Nutanix in conjunction with Zerto replication as the Disaster Recovery software solution. In addition, some clients have opted to use SQL AlwaysOn for database replication and high availability. AlwaysOn requires SQL Enterprise licenses.

CentralSquare works with our clients on a consulting basis to assist with the failover process and testing. Maintaining the failover process and solution is the responsibility of the client.

Client VDI

CentralSquare recommends VMWare Horizon View for an effective Virtual Desktop Infrastructure (VDI) solution.

Third-party product compatibility

Customers often want to operate third-party software applications on the same workstation as their CentralSquare software products. Some CentralSquare applications, such as Browser workstations or CAD Enterprise workstations, are more tolerant of third-party products. CAD workstations and Mobile Enterprise workstations should be treated more carefully for third-party product compatibility. CAD workstations are particularly sensitive to a specific operating environment due to the need for high volume traffic between workstations and servers and because of the time-sensitive nature of dispatch. Third-party products can introduce changes to that environment that can cause unexpected results.

CentralSquare does test some popular third-party products for collocation with CAD Enterprise such as ProQA and its sister products and Microsoft Office. However, it is impractical to test every product requested by CentralSquare’s customers. CentralSquare also recognizes that customers have valid needs to use some third-party products.

For these reasons, CentralSquare has developed a process that allows customers to take responsibility for testing and utilizing third-party products with Enterprise Suite user applications. This process does not mean that CentralSquare will support the Enterprise Suite application with these third-party products. If a problem occurs, CentralSquare may request the removal of the third-party product in order to resolve the problem. This process provides a relatively safe method for customers to test and safely use third-party products. Many customers have successfully utilized this process.

If the customer wants to load third-party software (not required by Enterprise Suite) on a Suite workstation, such as office automation software like Microsoft Office, the customer should first review the applicable Enterprise Suite product release notes for compatibility information (for example, ProQA, Microsoft Office). If information is not available, the customer should contact the CentralSquare Technical Services department to determine if compatibility information is available for this specific type of software.

Third-party product compatibility testing procedure

If no compatibility information is available, the customer is responsible for making a determination regarding loading of the third-party software. Enterprise Suite problems caused by the third-party software are not covered items under the support agreement. If the customer assumes responsibility and elects to proceed with the installation, CentralSquare recommends that the customer be competent in the installation and re-installation of Enterprise Suite applications at the workstation level.

When the customer has this foundation of technical skills, they can follow these steps to test a third-party software application:

1. Select a single workstation for testing purposes. The workstation should not be needed for use in dispatching purposes.

2. Load the new application following installation instructions from the manufacturer. Reference applicable CentralSquareTechnical Advisories for known conflicts (for example, Crystal Reports versions) with components that are used by Enterprise Suite to determine what optional items may be installed.
3. Restart the workstation.
4. Review the information in Add/Remove Programs, paying particular attention to common prerequisites to make sure newer versions have not been installed by the third-party software.
5. Uninstall inappropriate supporting components (MDAC, MSXML, and .NET Framework).
6. Reinstall the applicable version of prerequisites.
7. Review ODBC connections.
8. Launch the applicable CentralSquare application.
9. Test both the CentralSquare application and the third-party application for functionality. If there are CentralSquare application problems, consider uninstalling the CentralSquare application (remember to not leave components in the Recycle Bin) and reinstalling.
10. If the two applications are working properly, run the single workstation for one to two weeks to determine if problems occur under load. If no problems occur, consider loading the third-party software on additional workstations as part of a phased roll-out.

Compatibility may change with each version release of Enterprise Suite applications or with new versions of the third-party software as dependent components change. Therefore, the third-party application may not work with an upgrade and may need to be uninstalled by the customer to troubleshoot Enterprise Suite application problems. Additionally, performance issues may occur with all applications if the customer adds additional applications without adding additional memory.

One of the most common problems affecting Enterprise Suite application performance is errors related to workstation or network configurations. Errors occurring during computer start-up from third-party applications can negatively affect Enterprise Suite application functionality and performance.

CentralSquare support of third-party products

CentralSquare's support agreement covers software developed by CentralSquare. The base support agreement does not cover support for third-party products, including third-party hardware and software (from Microsoft, for example). More specifically, any third-party hardware or software defects or upgrades, as well as network setup, domain management, and base mapping data is not covered under CentralSquare's standard support agreement.

To assist customers with specific needs, CentralSquare has implemented custom support agreements to provide support for some third-party hardware and/or software. For example, for some customers, CentralSquare has contracted to be the first point of contact for help desk and issue tracking for third-party products, such as Fire RMS, Police RMS, and the like. For other customers, CentralSquare has contracted to provide direct support for selected hardware products, including cases where we contract with a local vendor to maintain the customer's hardware. If you are interested in such a custom support program, please contact your Account Executive.

Virus protection software configuration

CentralSquare strongly recommends the implementation of virus/malware protection software to protect your computer infrastructure, including but not limited to servers, workstations, and Mobile MDC units. CentralSquare refers to all forms of virus/malware protection software generically as virus protection.

The implementation of virus protection software can have a significant impact on the operation and performance of software systems. Therefore, the customer should carefully follow these guidelines when deploying or upgrading virus protection software. Depending on how it is implemented, virus protection has been known to cause problems on networks such as performance degradation and dropped CAD Enterprise inter-process messages. This can result in out-of-sync workstations. Additionally, improper scanning activities for viruses can negatively impact Microsoft's SQL Server and other third-party software including Arcserve RHA.

CentralSquare has provided the following recommendations to assist system administrators with the implementation of virus protection software to minimize the risk of virus infection as well as to minimize performance degradation resulting from virus scanning activities. These recommendations are provided as a reference point for the initial installation and are not necessarily all-inclusive. As with most technologies, additional or ongoing configuration is required to achieve optimal performance. It is important to emphasize that the improper implementation of virus protection can impede a system's performance.

Platform-specific recommendations

- For all Windows OS-based equipment in your system, please follow the Microsoft guidelines at http://support.microsoft.com/kb/822158.
- For all servers running Microsoft SQL Server, please follow the recommendations in the Microsoft article "Guidelines for choosing antivirus software to run on the computers that are running SQL Server" at http://support.microsoft.com/kb/309422. Under no circumstances should the SQL Server's data files ever be scanned. Configure your virus scan activities to exclude the Data directory, which on a typical SQL Server installation will be in \Program Files\Microsoft SQL Server\MSSQL\Data. CentralSquare routinely configures data and log directories on separate drives. These paths must also be identified and excluded. Disabling the scanning of the SQL Server data files by type is also acceptable. They can be identified by having one of the following

file extensions: .mdf, .ndf, and *.ldf. SQL Server backup files should also be excluded from virus scan activities.

- For customers using Arcserve RHA, Arcserve recommends that the %winddir%\CASpool folder and all of the folders or files that are being synchronized by Arcserve must be excluded from active and scheduled virus scans. This includes the CentralSquare file structure on the server.
- If your system uses Microsoft Cluster Server, please consult with your Virus Protection software vendor to determine its compatibility with Cluster services. Because Virus Protection software drivers reside above the file system, they may not properly address the nuances related to a clustered environment. For more information about this topic, go to http://support.microsoft.com/kb/250355.
- Customers utilizing VMWare products should consult the VMWare best practices for additional antivirus security recommendations. For more information, go to these websites:
    - http://kb.mit.edu/confluence/display/istcontrib/VMware+Security+Recommendations+and+Best+Practices
    - http://www.vmware.com/files/pdf/VMware-View-AntiVirusPractices-TN-EN.pdf

Scheduled virus protection recommendations

- Definition files should be updated before the scheduled scans are started.
- Nightly scans should be configured so that they do not interfere with normal call activity or the nightly maintenance routines (for example, backups).
- All CentralSquare folders and files can be scanned during a scheduled virus protection scan. This includes the CAD Enterprise file structure on the File Server, the CentralSquare folder and all of its subfolders on business servers and workstations, the CAD file structure on Mobile Servers, and the Records Enterprise file structure on Records Servers and Workstations. As noted in the general recommendations, network and/or mapped drives should not be scanned. Do not scan the CAD Q: (network drive) from a workstation.
- Expect performance impacts during the scan.
- Stagger scans across the system so that performance impacts are dispersed.
- Notify users about the scan and expected performance impacts.

Active Scanning recommendations

When implementing on-access scanning, it should be done in a conservative manner. Perform active scanning at the Network level where vulnerability of a virus infection is most likely, this is generally where access to or from an outside source is possible such as an E-mail server or an Internet server.

Arcserve recommends that the Arcserve RHA engine process should be excluded whenever possible from the antivirus **On Read Access** scan or scanning altogether. This alleviates additional IO overhead on the read access of the files that CentralSquare needs to capture changes from and also the amount of IO that occurs when CentralSquare creates our journal files for replication within the RHA Spool directory, usually L:\CAspool). Many popular antivirus solutions allow for an entire process to be excluded from scanning or at the very least **On read access** scans. These are below with information pertaining to how to activate such exclusions.

At the very least, the spool folder on the Master, Replica, and Console servers must be excluded from antivirus On-Access Scanning. The default location for the spool folder on Master, Replica, and Console servers is %SYSTEMDRIVE%\Program Files\CA\Arcserve RHA\. On Master and Replica servers, the location is the CAspool Directory (usually L:\CAspool).

Important: Active Scanning should use default settings. Heuristic scanning should not be used because it is a methodology that attempts to predict whether code elements are a virus before an actual virus signature is released. The issue is that using Heuristics has a much higher false positive than actual virus signatures do. In particular, Visual Basic code produces Overflow errors because of its architecture.

In some code bases, Overflows are utilized for virus attacks. However, Heuristics often flags these files incorrectly. The problem can also be seen or exacerbated when accepting early release virus definitions.

The following have been real-world support issues caused by Heuristic scanning:

1. Server deployment files were deleted during upgrade extraction by an antivirus application.
2. TriTech Launch would start, then disappear from the Task manager with CAD failing to launch (resulting in a Priority 1 CAD Down).
3. Other application process blocking was sighted occurring on DLLs intermittently. CentralSquare eventually traced the cause of this to Virus Scan Heuristics.

Although whitelisting the files from your application folders in the Q drive to the workstations could be a workaround, CentralSquare encourages you not to perform Active Scanning on the designated files and folder structure listed below because the antivirus application will interfere with application performance by pausing Enterprise processes and read operations.

The table below contains information about numerous Enterprise servers and CentralSquare's Active Scanning recommendations.

Component	Recommendations
Enterprise SQL/File Server	Exclude all locations where SQL Server databases, logs, and backups are stored. This usually includes: • D:\Visicad (CentralSquare file share) • D:\MSSQL\DATA\ (CentralSquare databases) • L:\MSSQL\LOGS\ (CentralSquare transaction logs) • D:\Program Files\Microsoft SQL Server\ (Microsoft SQL server databases and transaction logs) • C:\Tech and/or D:\Tech (Tech directory) • C:\Tritech (Local CAD Client) • D:\GISDropFolder (GIS Drop files) For Arcserve: Exclude the following folders and subfolders from virus scan activities: • Arcserve Application folder %SYSTEMDRIVE%\Program Files\CA\Arcserve RHA\ • L:\CAspool Directory\ Exclude the following file types from virus scan activities: • .mdf • .ndf • .ldf • .mdb • .bak

Component	Recommendations
Workstations and Interfaces	Exclude the following folders and subfolders from virus scan activities: • Mapped network shares • Q:\ and C:\Tritech\ and all subfolders • C:\WINDOWS\system32\config\ and subfolders (EventLog storage) • C:\WINDOWS\system32\msmq\ and subfolders (MSMQ storage) • C:\Program Files\Tritech Software Systems\ Exclude the following file types from virus scan activities: • .mdb • .bak

Component	Recommendations
Enterprise Web/Browser Server(s)	**Note:** The Browser server specifications are identical to these specifications because the Enterprise Web Server can either be one combined server, or two different servers. Exclude the following folders and subfolders from virus scan activities. • Mapped network shares • Q:\ and C:\Tritech and all subfolders • C:\WINDOWS\system32\config\ and subfolders (EventLog storage) • C:\WINDOWS\system32\msmq\ and subfolders (MSMQ storage) • C:\WINDOWS\Microsoft.NET\ and subfolders (ASP.NET on-the-fly compilation cache) • Media Archive Share folder • Media Stream Share folder • C:\Program Files\Tritech Software Systems\ For Arcserve: (By default, this should run from the DR [Disaster Recovery] server.) Exclude the following folders and subfolders from virus scan activities: • Arcserve Application folder %SYSTEMDRIVE%\Program Files\CA\Arcserve RHA\

Component	Recommendations
Mobile Server(s)	Exclude the following folders and subfolders from virus scan activities. • C:\ or D:\Program Files\Tritech Software Systems\ and subfolder(s) (Mobile Server and Mobile Client application and logs) • C:\ or D:\Program Files (x86)\Tritech Software Systems\ and subfolders (Mobile Server and Mobile Client application and logs) Exclude the following file types from virus scan activities: • .mdf • .ndf • .ldf • .mdb • .bak
Mobile Client(s)	Exclude the following folders and subfolders from virus scan activities. • C:\Program Files\Tritech Software Systems\ and subfolder(s) (Mobile Server and Mobile Client application and logs) • C:\Program Files (x86)\Tritech Software Systems\ and subfolder (s) (Mobile Server and Mobile Client application and logs) Exclude the following file type from virus scan activities: • .mdb
Other Client(s)	Exclude the following folders and subfolders from virus scan activities: • C:\Users\*\AppData\Local\Google\Chrome\User Data\Default **Note:** The “*” is the wildcard for Trend Micro. Different virus protection software may have a different wildcard. This is also the indexedDb path for the Chrome browser. If you are using a different browser, then the indexedDb path will differ.

Component	Recommendations
Mobile Interface	**Note:** These reccomendations only apply to CAD Enterprise version 5.8.18 and below. Exclude the following folders and subfolders from virus scan activities. • Mapped network shares • Q:\ and C:\Tritech and all subfolders • C:\WINDOWS\system32\config\ and subfolders (EventLog storage) • C:\WINDOWS\system32\msmq\ and subfolders (MSMQ storage) • C:\Program Files\Tritech Software Systems\

Component	Recommendations
Records Enterprise Web Server	Exclude the following folders and subfolders from virus scan activities. • On the Web Application Server: ◦ C:\ProgramData\TriTech\ ◦ C:\inetpub\wwwroot\InformRMS\ ◦ C:\inetpub\wwwroot\InformRMS.FormPrint\ ◦ C:\inetpub\wwwroot\InformRMSHost\ ◦ C:\inetpub\wwwroot\InformRMSIntegration\ ◦ C:\inetpub\wwwroot\STS\ ◦ C:\Program files (x86)\TriTech\ • On the Web ASH Server: ◦ C:\Program files (x86)\TriTech\ • On the Web API Server: ◦ C:\inetpub\wwwroot\InformRMS.API\ ◦ GIS Framework Settings: ■ C:\inetpub\wwwroot\VisionAIR\VisionGEO\ ◦ RMS TTMS NCIC Proxy ■ C:\Program files (x86)\TriTech\InformRMS\TTMSProxy\ • On the Web Database Server: ◦ C:\Program files (x86)\TriTech\ • On the Elastic Search Server: ◦ C:\ProgramData\TriTech\elasticsearch\ **Note:** These are the default install paths. During your agency implementation, the paths should be modified and configured for a secondary data drive on the server. • C:\Program Files\Tritech Software Systems\

Site Preparation

Customer responsibilities for installation and training

Support connectivity installation

Prior to the arrival of equipment for installation on site, all support connectivity specified in the Support Communications and Connectivity section of this document should be installed and in working order.

Network cables

Prior to the arrival of equipment, all necessary network cables should be in place. Each workstation and server on the network requires at least one network cable. Each cable should be able to reach from the network switch to the location for the workstation or server. The Enterprise Suite network requires the use of Category 5e or, where applicable, Category 6 network cable with male RJ-45 connectors on each end. CentralSquare can provide network cabling services; however, the cable is not covered under the CentralSquare Software Maintenance and Support Agreement. Please contact your Account Executive for further details.

The customer must purchase any necessary adapters or wall plates to facilitate installation of the network cable. It is the customer’s responsibility to place the cable in walls, floors, ceilings, and through radio console furniture. The customer may also need a short set of cables to be used during training, until the system is moved to its permanent location. Please review the training requirements with your project manager.

If multiple network switches are linked to support the number of computers needed for the Enterprise Suite system, these should be linked through a high-speed interconnect cable and not by bridging from port to port with a CAT 5e cable.

Staging area

CentralSquare requires a secure area for storage and staging of equipment during the installation phase of the project.

Training schedule

User Training schedules vary based upon the type of training and the type of application being trained (for example, CAD, Mobile, vs. RMS). Classes are not more than eight hours per day in length. The class size is limited to a maximum of 10 students with no more than two students per workstation. One student per workstation is preferred whenever possible. It is preferred that classes are held during typical business hours; however, special class times/days can be arranged through your project manager on a case-by-case basis.

Training location

The training classes should be held in a classroom environment that is outside of the live work area. Training in the environment of the Dispatch Center or working office area proves to be a distraction for both the students and the on-duty personnel. The training room should be secured when not in use.

The customer is required to provide a projector capable of 1024 x 768 or greater resolution for use throughout the User Training class. Two projectors are preferred.

Training ground rules

Students should be dedicated to the class for the entire duration of the course, especially for multi-day courses. Distractions with normal work duties should be avoided while students are participating in the training.

It is preferred that a customer system administrator or other customer team member attend each User Training class. This person is a valuable asset to answer questions regarding agency decisions on the system's setup.

All students are expected to fully participate in the training, which consists of lecture, hands-on activities, and written coursework. A written and practical exam is given at the conclusion of the class. Students that do not perform well in the class are to be referred to the system administrator for remediation. As it is necessary to maintain a positive learning environment, students who create a distraction in the class must be referred to the system administrator.

Computer room

Characteristic	Description
Space	Provide adequate space and working area for equipment and personnel.
Fire protection	Provide smoke detectors and fire suppressant.
Dust/Static free	Maintain clean and static-free environment.
Limit access	Restrict entry, and minimize foot traffic.
Uninterruptible power	Provide UPS and line conditioning for computer room equipment.
Voice telephone line	Provide outside access to contact support.
Modem telephone line	Provide RAS support for disaster contingency dial-up.

Characteristic	Description
Computer cabinet	Provide storage and access for equipment. Typical equipment in computer room may consist of servers, monitors, keyboards, computer mouses, hubs, printers, scanners, modems, and interface/message switches. This preparation guide is only intended to provide general information. For detailed specifications, refer to each equipment specification supplied by the manufacturer. All manufacture specifications are subject to change without notice.
Environmental Specifications	
Storage temperature	0-40°C (30-104° F)
Storage humidity	8% to 80% (relative)
Operating temperature	10-28°C (50-82° F)
Operating humidity	15% to 80% (relative) Operating temperature and humidity ranges may vary depending upon the mass storage devices installed. High humidity levels can cause improper operation of disk drives. Low humidity ranges can aggravate static electricity problems and cause excessive wear of the disk surface.
Maximum thermal dissipation	91 kcal per hour (360 BTU per hour)

Electrical and Physical Specifications for Equipment	
Manufacturer	**Website**
HPE servers	http://welcome.hp.com/country/us/en/prodserv/servers.html
HPE desktop PCs	http://welcome.hp.com/country/us/en/prodserv/desktops.html
VMware virtualization	http://www.vmware.com/products
HP networking	http://welcome.hp.com/country/us/en/prodserv/networking.html
Nutanix	http://www.nutanix.com
Dell servers	http://www.dell.com/us/business/p/enterprise-products?~ck=mn

Electrical and Physical Specifications for Equipment	
Manufacturer	**Website**
Dell desktop PCs	http://www1.us.dell.com/content/products/category.aspx/workstations
Dell networking	http://www1.us.dell.com/content/products/category.aspx/networking
Cisco switches	http://cisco.com/en/US/products/hw/switches/index.html
Mellanox	https://www.mellanox.com
Cisco routers	http://cisco.com/en/US/products/hw/routers/index.html
Cisco VPN solutions	http://cisco.com/en/US/products/hw/vpndevc/index.html

Most servers are configured with dual power supplies and dual power cords. CentralSquare strongly recommends that customers provide separate circuits for the two power cords. If uninterrupted power supplies (UPSs) are selected, two are provided by the customer (i.e., one for each power cord). This configuration should activate the server to continue to function on one power supply if the circuit breaker on the second power supply is tripped.

Enterprise Suite SSL certificates

Within the Enterprise Suite, SSL certificates are used for several purposes such as securing the transfer of information with the https protocol and signing identity tokens for authentication.

This requires a certificate that matches the name of that IIS server as it will be addressed. For example, the certificate will be machinename.domainname.local if the IIS Server will only be accessed from inside the network. If the IIS Server will be accessed from public locations, it will be machinename.publicdomainname.com. If the IIS server will be accessed from both internal and public locations, the network will need to be configured to allow internal access using the public URL. This may be accomplished by firewall configuration commonly referred to as hairpinning or through a technique known as Split DNS.

Certificate authority

If clients have an established Local Certificate Authority (CA), and Enterprise Suite applications or services are only accessed by machines that are members of the Local CA domain, then the client's CA can be used to generate the certificates needed by the Enterprise Suite. The certificates should be issued using a template suitable for securing a web site.

Customers are responsible for creating, issuing, and maintaining their certificates. It is required that customers use Enterprise Certificate Authorities so that client machines in the domain will automatically trust the certificate.

The other option is to obtain a certificate from a Public Certificate Authority such as Symantec/Verisign, DigiCert, or GoDaddy. A Public CA can only issue certificates for legitimately registered public domains. Although there is a subscription fee for this option, it is less costly from an overall IT standpoint to have another party manage certificates than it is to manage them internally.

A Public Certificate Authority must be used if an Enterprise Application is being utilized by devices that are not all members of the same single Active Directory Domain.

Wildcard certificates

In some deployments, it may be preferable or advantageous to use one certificate across the suite when using a Public CA. This can be accomplished by purchasing a wildcard certificate.

Features of wildcard certificates can vary somewhat from one Public CA to another; however, any wildcard certificate suitable for securing a web site can be used.

There is no compelling reason to generate wildcard certificates from a Local CA.

Self-signed certificates

Certificates generated on the local webserver that are hosting an application or service (otherwise known as self-signed certificates) are not acceptable or supported for use with Enterprise Suite.

Subject alternate name

When generating a certificate for use with Internet Information Services (IIS), the certificate must be created with a Subject Alternate Name for compatibility with some browser security requirements.

Subject name

A certificate's Subject Name cannot be longer than 256 characters.

Encryption hash algorithm

All certificates should be based on the SHA-2 hashing algorithm standard and incorporate a 2048-bit key length.

Suite applications requiring certificates

The number of certificates required is dependent on the number of servers that these applications are installed on and whether a wildcard certificate is used.

The following applications listed all require certificates:

- CIM
- CAD Browser
- Chat (This feature requires a Public Wildcard certificate that is used on the CIM servers.)
- Enterprise Imaging (This feature requires a certificate for the imaging server. The cameras that are to be used with the Imaging feature also need a certificate.)
- IQ
- Message Switch
- Records Enterprise (Web UI)
- Records Enterprise API
- Records Enterprise Interface Server

Enterprise Suite backup recommendations

Management of backups of data and files is an important client responsibility. CentralSquare recognizes that some of our clients are experienced with backup procedures and use very complex backup strategies. Unfortunately, depending upon the availability of local staff, resources and technology, other clients continue to struggle with this essential function. CentralSquare offers guidelines to support our clients’ efforts with this core function.

Mobile Enterprise & CAD Enterprise

- CAD Share (Q:\ drive)
- Production databases (including transaction logs)
- Reporting Server databases

- C:\ drive and registry of any interface/business servers
- CAD Mobile Enterprise Server (file structure and databases)
- MediaArchive folder (if using document & attachment feature)
- Enterprise Web server
    - C:\Inetpub\wwwroot\system\template\Custom
    - C:\Program Files\Tritech Software Systems

Records Enterprise (Client/Server)

- Databases:
    - VSI_Data
    - VSI_Int
    - VSI_System
    - VSI_Adhoc
    - VSI_Audit
- Folder path containing your .rpt files (path is configurable and can vary per client)

Records Enterprise (Web UI)

- Databases:
    - IdentityServerConfiguration
    - InformRMSAdministration
    - InformRMSAudit
    - InformRMSCaseManagement
    - InformRMSExternalApi
    - InformRMSIntegration
    - InformRMSMedia
    - InformRMSMessaging
    - InformRMSMetadata
    - InformRMSRecentInfo
    - InformRMSReports
    - InformRMSSummaries
    - InformRMSEvidence
    - Configuration Manager
    - ReportServer
    - ReportServerTempDB
- File/Folder Locations:

Note: These are the default install paths. During your agency implementation, the paths should be modified and configured for a secondary data drive on the server.

- ElasticSearch Index: C:\ProgramData\TriTech\elasticsearch\data5610

    - Located on the ElasticSearch server.
  - Configuration File folders:
    - Located on the Web Application server.
    - C:\inetpub\wwwroot\
      - InformRMS
      - InformRMSIntegration
      - InformRMS.API
      - InformRMSHost
      - InformRMS.FormPrint
      - Optimus
      - STS
  - Suite Integration files (if purchased and installed):
    - Located on the Web API server.
    - GIS Framework Settings: C:\inetpub\wwwroot\VisionAIR\VisionGEO\
    - RMS TTMS NCIC Proxy: C:\Program files (x86)\TriTech\InformRMS\TTMSProxy

SQL Server Reporting Services

One or more instances of Microsoft SQL Server Reporting Services may be utilized as part of, or in support of, the Enterprise Public Safety Suite. All instances of SQL Server Reporting Services databases must be backed up along with the SSRS encryption key(s).

Cloud-hosted considerations

The applications listed below can send notifications or perform other functions requiring a Simple Mail Transfer Protocol (SMTP) server. If you want these features in your environment, you must use a customer-owned/maintained cloud-accessible SMTP service, such as Microsoft Office 365 Outlook.

- Records Enterprise
- User Management Feature (CIM)

CAD Enterprise and Mobile

CAD Enterprise overview

An CAD Enterprise system operates across multiple software tiers and server-based or workstation-based environments. Beginning with version 5.8, servers and workstations must use approved 64-bit operating systems. Physically, these are deployed across the following components:

- CAD Enterprise Database Server
- CAD Enterprise Business Servers
- CAD Enterprise Interface Servers
- CAD Enterprise Workstations

The CAD System operates through the interaction of several applications, software services, and database components that are spread across a multi-tier architecture. These applications, services, and components can be distributed in different ways across a mix of computers.

In its simplest terms, the following core principles explain the architecture of CAD:

- **Database Server**: Generally, data is stored in the databases housed on the Production Database Server. This includes incident, activity, and setup information. Workstations, interfaces, and subsystems such as Mobile and Browser update data into these databases either directly or through an intermediate business server. The Database Server also performs the file server function via the CAD share and also performs some functional transactions through stored procedures activated in support of workstation, business server, or interface server transactions.

  Data stored outside of CAD databases include routing data and other mapping layers stored in files on the CAD share (server and workstation) and some setup data on the Mobile Enterprise Server.

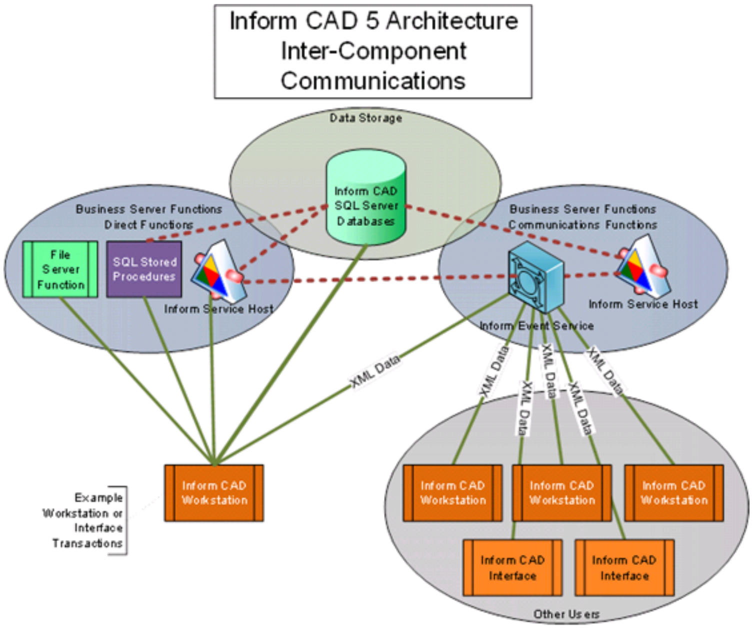
- CAD Enterprise **Business Servers**: CAD Business Servers perform activities in support of the functions executed by workstations, interfaces, or other business servers. These can generally be divided into two categories: direct functions or coordination/communications functions.

  Direct functions support a particular activity executed by a user, such as providing information for an Enterprise CAD Recall Window (Web Server), retrieving or updating information into the databases from Browser users (Web Server), providing driving directions to CAD or Mobile Enterprise users (Web Server), or processing a user message (Event Service).

  Coordination/communication functions provide information that allows the collective group of users to be presented information in a consistent format and in sync with the actions of others, such as interprocess communications to keep workstations and interfaces in sync (CAD

Communication Service or Event Service), timers and warnings, and other scheduled notifications and actions (CAD Monitor, the CAD Communication Event Service, or Enterprise Database Event Service), or transmitting messages across and between systems (multiple server-based components, Communication Event Service, interface messaging components, and eventually the Enterprise Event Service).

- CAD Enterprise **Interface Servers**: CAD Interface applications (and eventually services) provide automated functions that execute selected CAD actions based upon interactions with external systems. The interface functions either import data from an external source (911, justice databases, alarm systems and the like), export data to an external source (RMS, paging, station alerting and printing systems and the like), or perform both import and export functions (CAD to CAD, mobile systems and the like).
- **Workstation Software**: In addition to the user interface for the system, workstation software for CAD and Mobile includes software components that perform system processing and manage data to and from the computer. Workstations use updates from Business Servers and the Database Server to maintain operational data on the local workstation in order to allow the user and the workstation to act upon current system data. As previously noted, updates based upon other user actions are processed through the actions of Business Servers.



Changes in technology, including hardware speed and the approved use of virtualization, allow for a reduced number of servers for core system components. This document presents recommended deployment plans that may be very different than previous recommendations or your actual system layout. This document provides recommendations that leverage high-powered, multi-core processors and virtualization. Customers may continue deployments in a manner that uses standard server configurations.

This section also explains a phased series of architecture changes across CAD Enterprise's two versions: 4.x and 5.x. It is vital that customer system administrators understand these changes as the most critical server-based components of CAD are being updated or replaced by new components. Therefore, the process to maintain, support, and restart CAD server components substantially changes between 4.x and 5.x.

Operation of an CAD system requires:

- A functioning Database Server
- A working group of business applications operating across one or more servers
- One or more workstations
- A functioning Windows Active Directory domain
- A functioning Domain Naming Service (DNS)

The core changes in 5.x are focused upon replacing the majority of the business server applications that support CAD.

Note: The following version-specific overview includes information about components approved for virtualization. Virtualization of components is described in greater detail in the Enterprise Suite – Component Virtualization section.

CAD Enterprise Database Server overview

The Production (live) Database Server operates as a file server and a data repository for both setup and operational data. The file server function serves as a file repository for workstations and interfaces. Files are synchronized at the launch of workstation and interface applications to ensure that the latest files are being used. This facilitates initial installation, upgrades and updating of data stored in file formats (routing files, shape files and the like). Workstations and interfaces also synchronize their time with the Database Server (Time Synchronization (page 6) for additional information).

SQL Server provides data storage in the form of six databases (4.5 and later) as well as server-based architecture components in the form of stored procedures. Examples of server-based functions include timers and warnings as managed by the CAD Monitor function in the form of stored procedures.

Note: Stored procedures installed by CentralSquare are a form of CentralSquare software code and are subject to the same licensing protections described under the source code provisions of the CentralSquare license agreement. A customer shall not alter these stored procedures. Non-CentralSquare developed stored procedures or triggers are not recommended to be utilized on the Production Database Server as these can introduce problems including, but not limited to, performance problems and application problems.

CAD 5.7 includes the Enterprise Event Service, a component that has been designed to operate on the Production Database Server. CAD 5.7 also includes VisiNet Service in Services windows service that can be hosted on one or more CAD Business Servers. VisiNet Service in Services windows service executes and manages one or more service features for Enterprise CAD.

In its current design, CAD requires a functioning Production Database Server for workstations to operate. Therefore, the Production Database Server is recommended to operate on a fault-tolerant server.

In lieu of full Fault-Tolerance, other high availability technologies can be utilized such as VMWare High Availability (HA), and Site Recovery Manager (SRM), or other appropriate hypervisor technologies. Additionally, Arcserve is a CentralSquare-approved solution for disaster recovery (DR) and Hot Standby (HSB) to replicate databases and provide partially automated failover.

CAD 22.X component overview

Since CAD 5.3, the functionality of TCP socket-based CAD Communication Service was replaced with WCF (Windows Communication Foundation)-based Enterprise Event Service. This is a mission-critical component for the system.

Since CAD 5.3, the majority of server-based business functionalities such as Enterprise Communication Event Service (for CAD Monitor and Messaging), or CentralSquare Web Services (like Driving Directions Web Service, and Document Web Service, etc.) are consolidated into service features hosted inside one or more VisiNet Service in Services windows services. Each hosted service feature (with the exception of Logging Service) can be configured through Enterprise Configuration Utility to run within one of the concurrently running VisiNet Service in Services windows services on demand.

- Enterprise 22.X Workstation/Interface Prerequisite Changes: New versions of MSXML and .NET Framework will be utilized with Enterprise 5.7 workstations and interface applications. Carefully review the release notes and use the version-specific prerequisite CD. Refer to Technical Advisory - GA08-020 - CAD Prerequisite Installer.
- CAD Enterprise, since 4.5 and continuing with 22.X, sends error/debug/instrumentation log entries from workstations and servers to the Logging Service through MSMQ (Microsoft Message Queue). This provides asynchronous logging functionality for all CAD applications, comparing to the legacy file-based logging. Logging Service collects and bulk-inserts all log

entries into the Log database, which can be queried for troubleshooting and reporting purposes. File-based logging is kept as an additional option, which is turned off by default.

CAD WS Connection Changes

Connection to Q: Drive

CAD workstations no longer have access to the Q drive. Starting in v21.2, the CAD workstation uses an event service to download the latest versions and files for the CAD system. This occurs on launch of CAD. Any existing file structure that references a Q: drive file will be changed to use the domain address. CAD workstations no longer require access to the Q drive nor to the file server UNC path.

Starting in v21.2, the CAD workstation use an agent service to download the latest versions and files for the CAD workstation into a local staging folder. This occurs in the background while CAD WS is running. On launch of CAD, new files are copied into their relevant location. Any existing file structure that references a Q: drive file or 3UNC path file will still work. Accessing those files will not be done via regular Windows OS methods, as the file server is no longer accessible by the CAD user, neither for read or write functions.

For example, if the user can’t use Windows Explorer to get to any of those files on the file server, the CAD WS will still access those files using its secured connection via the App Service. Authenticated and authorized by CAD and encrypted using HTTPS.

Connection to SQL DB

CAD workstations no longer have access to the SQL DB. Starting in v21.2, the CAD workstation uses an application service to query, write, or edit the production SQL database. This functionality is authenticated and authorized by CAD and encrypted using HTTPS. It is only available for users logged into CAD WS and only via CAD WS functionality Agency admins may remove the permission they are currently required to give to call taker and dispatcher to access the database directly.

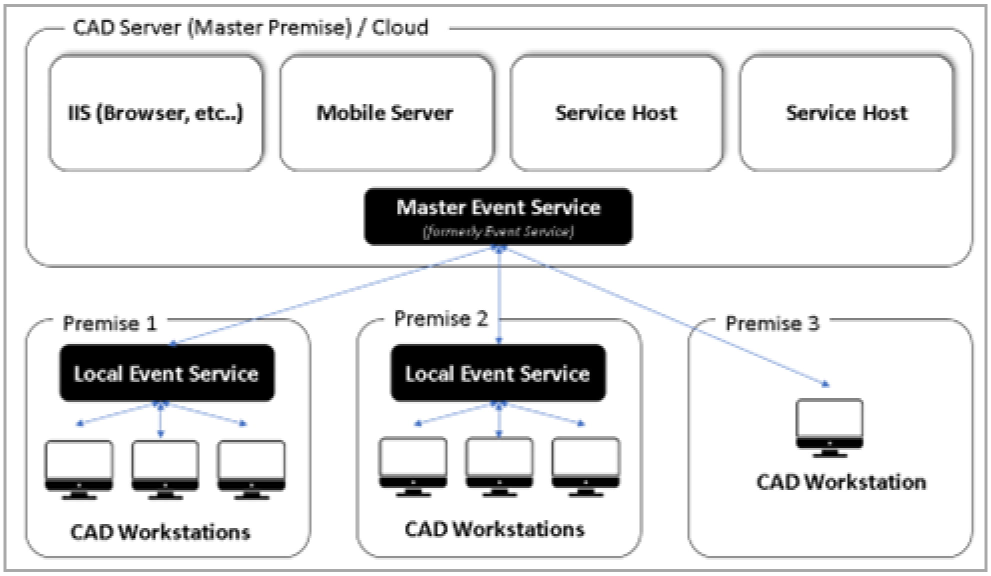
Local Event Service (Optional)

With multiple location deployments where several CAD workstations are not directly (via LAN) connected to the CAD server, Local Event servers can be deployed at that location to streamline communication with the Master Event Service (formerly Event Service) on the CAD server.

Additionally, virtualization is no longer needed for instances where multiple PSAP locations are connected to one CAD server. Local Event servers can be deployed at each location communicating to the Master Event service.

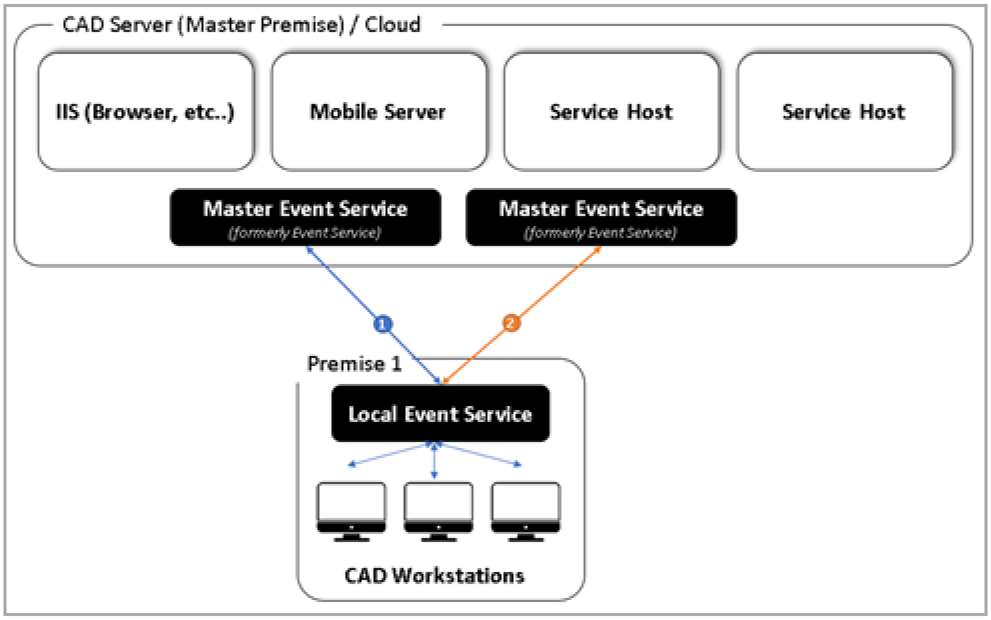
CAD Workstations on the same LAN as the CAD server can continue to directly connect to the Master Event server.

Even CAD Workstations at a remote site can continue to directly connect to the Master Event server if there is only a small number of CAD Workstations in this site. Each CAD WS is recommended to have 5-10Mbps. Meaning if the remote site connection bandwidth to the CAD Server is 100Mbps, then 10 CAD WSs can still be deployed in this site without the need for an LES.



MES (Master Event Service) (formerly Event Service)

A second MES can be deployed, but only one of the MES can be active at any given instance. If the Backup MES fails – then a relevant System Health Condition is raised. If the Main MES fails – then all applications automatically switch to the backup MES.



Other system components

Optional Business Servers (Reporting or Test/Training servers) and Interface applications (NCIC/State Message server, Paging, and Station Alerting) are deployed based upon the operational needs of the customer.

An effective functioning Windows network is essential for optimal operation of an CAD system. The components described in this document rely upon components such as domain controllers, DNS servers, properly functioning network switches, and properly configured Windows security settings. This document addresses these topics to prepare the customer's system administrator to effectively support the system.

> **Note:** The hardware recommendations within this document are provided based on CentralSquare's internal testing of the CAD software. Performance on customer systems may vary from system to system depending on the site's call volume, number of interfaces, network configuration, and overall system complexity.

Customers routinely inquire about changes in hardware requirements between versions. CentralSquare's internal test systems are periodically refreshed with new hardware. This makes it difficult for CentralSquare to predict performance on older workstations and servers. CentralSquare's experience with upgrades in the 5.7 track has been that if the customer's existing equipment provides acceptable performance for Enterprise CAD, the next major version upgrade is not likely to significantly change performance unless the customer elects to activate new functionality or implements some other significant change (expanded workload, workstations, interfaces, or OS/DB change). Nevertheless, CentralSquare provides recommendations based upon the equipment with which CentralSquare tests.

> **Important:** Version-specific requirements for Operating System, Database, and supporting software (MDAC, MSXML and the like) are hard requirements and must be met for an upgrade.

Other Network and Server Technologies

CentralSquare has approved the following technologies for use with CAD:

- Network speed based on number of workstations and potential incident/AVL/Mail Volumes. If a customer satisfies *all* the following criteria, then 100 MB network is sufficient. For everything else, the customer should be on a 1 GB network.
  a. Less than 16 CAD workstations.
  b. On average, less than 600 incidents per day.
  c. On average, less than 100 on-duty units.
  d. On average, less than 3000 mails per day.
  e. GIS data (Streets network and map display files) on Q:\ does not exceed 500 MB.
  f. On average, attachments are less than 4MB and no streaming media is used.
- Blade servers
- Storage area networks (SAN): Customers are cautioned that some forms of SAN do not provide the high speed connectivity needed for the load that some CAD Enterprise systems operate under. SANs used with CAD Enterprise should have a direct connection to the Production Database Server through fiber or similar connection.
- Terminal port server: Many recent model servers do not have serial ports. Some external systems communicate to CAD through a serial connection including many 911 systems, paging systems, and station-alerting systems. A terminal port server is a network based device that provides a virtual serial port that is translated to IP that can be configured to be accessed from an interface server.
- Microsoft Windows Server Update Services: Microsoft Windows Server Update Services (WSUS) allows system administrators to deploy Microsoft product updates.

CAD Networking, security, and support connectivity

Firewall port configuration

With version 22.X, Enterprise Browser is integrated with CAD Enterprise's core business components and its hosting Web Server needs to be on the same domain as that of CAD for OS Authentication when accessing network resources hosted inside the secured network. Starting with version 5.3, Enterprise Browser is installed with CentralSquare.Launch.

With version 22.X, CentralSquare recommends placing Microsoft's IIS with the ARR (Application Request Routing) plug-in into the DMZ. ARR Web Server functions as the reverse proxy and HTTP/HTTPS network traffic filter for Enterprise Browser hosted inside the secured CAD network. If needed, ARR Web Server supports end-to-end SSL communication, in addition to the light-weighted SSL offloading.

In addition to the ARR Web Server for Enterprise Browser, CentralSquare's Enterprise Relay Server can be installed in the same host to relay TCP/UDP traffic between Mobile Enterprise Client and Mobile Enterprise Server.

With Enterprise Browser and Mobile Enterprise Server installed in the secured CAD network and ARR Web Server and Enterprise Relay Server installed in the DMZ, there is no longer a need to open SQL Server and MSMQ ports between the DMZ and CAD network.

There are customers who purchase a second Archiving & Reporting Server to allow other organizations to report on data. Previously, this was allowed to be placed in the DMZ. For security reasons, CentralSquare no longer recommends this configuration. There may be customers who need to place this second Archiving & Reporting Server in the DMZ. If that is the case, the agencies do so at their own risk and against the recommendation of CentralSquare.

Remote access and TCP ports

In order to support CentralSquare applications and services, CentralSquare staff needs access to the remote computers' desktop (console). CentralSquare uses the following methods of access:

- Microsoft Remote Desktop Connection (RDP): (TCP port 3389)
- Direct access to Suite SQL servers (TCP port 1433) with the SQL System Administrator account.

File transfers

CentralSquare staff needs the ability to transfer files to computers running CentralSquare applications at a customer site. With most customers, CentralSquare staff maps drives directly over the remote connection after being successfully authenticated.

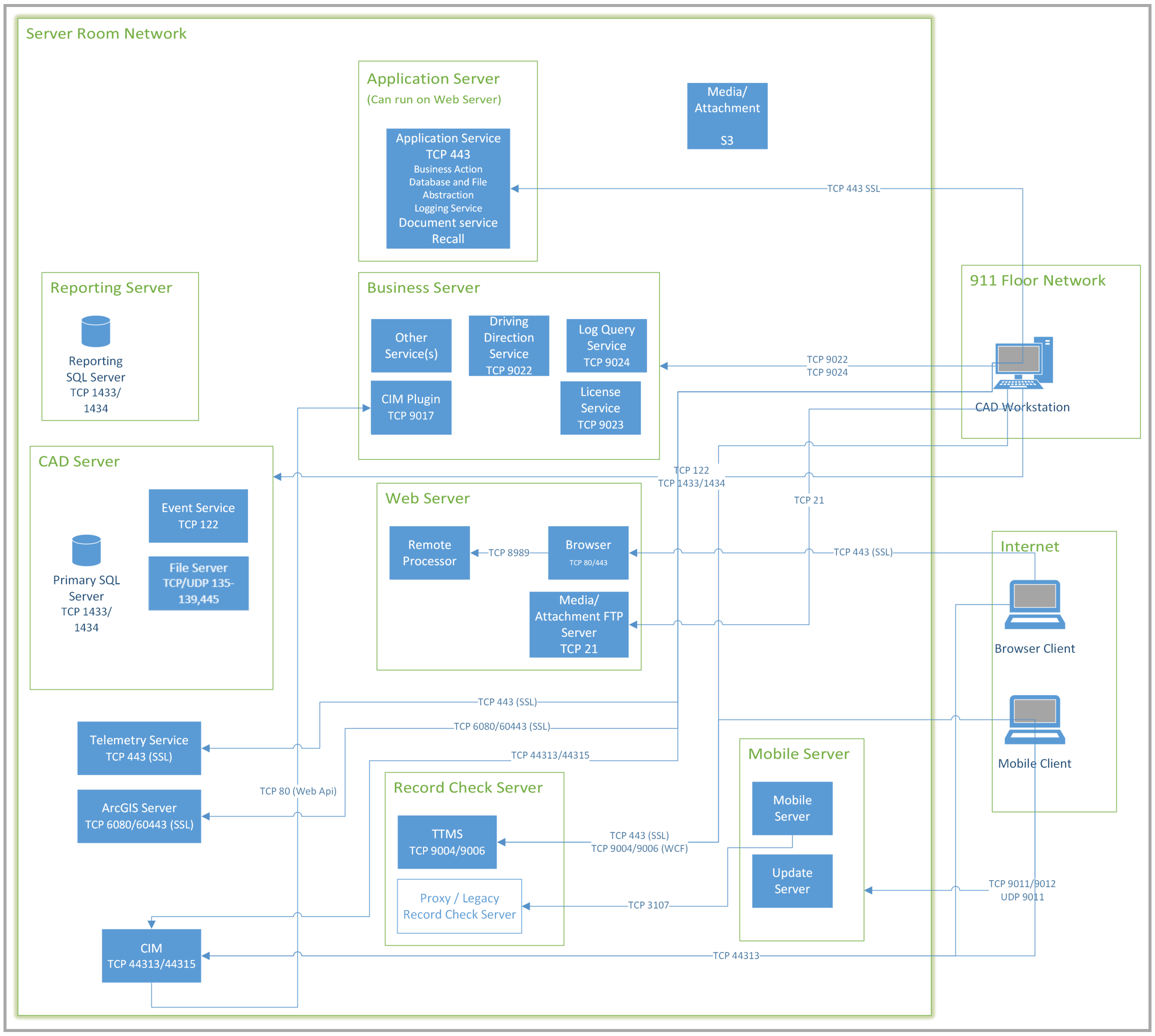
To transfer files, the following ports must be open:

- Microsoft file sharing server message block (SMB)
  - User Datagram Protocol (UDP) ports from 135 through 139
  - Transmission Control Protocol (TCP) ports from 135 through 139
- Direct-hosted SMB traffic without a network basic input/output system (NetBIOS)
  - UDP port 445
  - TCP port 445

An alternate, but not recommended, method of transferring files is via Microsoft Remote Desktop Connection (RDP). This method is not meant for large file transfers and could significantly delay support efforts (double the time to transfer files) in the case of a critical issue with the CAD system, including CAD down.

CAD and Mobile Enterprise network diagram

The following diagram shows which ports need to be open at each point in the network in order for all of the CAD Enterprise and Mobile Enterprise components to communicate.


Server Room Network
Application Server
(Can run on Web Server)
Application Service
TCP 443
Business Action
Database and File
Abstraction
Logging Service
Document service
Recall
Media/
Attachment
S3
TCP 443 SSL
Reporting Server
Reporting
SQL Server
TCP 1433/
1434
Business Server
Other
Service(s)
Driving
Direction
Service
TCP 9022
Log Query
Service
TCP 9024
CIM Plugin
TCP 9017
License
Service
TCP 9023
TCP 9022
TCP 9024
911 Floor Network
CAD Workstation
CAD Server
Event Service
TCP 122
File Server
TCP/UDP 135-
139,445
Primary SQL
Server
TCP 1433/
1434
TCP 122
TCP 1433/1434
TCP 21
Web Server
Remote
Processor
TCP 8989
Browser
TCP 80/443
Media/
Attachment FTP
Server
TCP 21
TCP 443 (SSL)
Internet
Browser Client
Mobile Client
TCP 443 (SSL)
TCP 6080/60443 (SSL)
TCP 44313/44315
Telemetry Service
TCP 443 (SSL)
ArcGIS Server
TCP 6080/60443 (SSL)
TCP 80 (Web Api)
Mobile Server
Mobile
Server
Update
Server
Record Check Server
TTMS
TCP 9004/9006
TCP 443 (SSL)
TCP 9004/9006 (WCF)
Proxy / Legacy
Record Check Server
TCP 3107
TCP 9011/9012
UDP 9011
CIM
TCP 44313/44315
TCP 44313

System Components

The hardware requirements outlined in this section may have alternate recommendations for customer's operating systems under a significant load. The term *large site* or *large sites* is used to describe such systems. *Large sites* are those with 40 or more CAD workstations in regular use, with 200 or more on-duty units with AVL/mobile devices or heavy call volume (over 2000 incidents per day).

CAD Enterprise database server

The CAD Enterprise Database Server operates primarily Microsoft products: that is, Microsoft Windows and SQL Server. CentralSquare recommends against the use of other applications on the CAD Database Server.

Database Server overview

Hardware platforms

CAD Database Server may be deployed in a single server environment, a clustered environment (for server redundancy), or on a fault-tolerant platform.

Single Server: Single server systems do not have an option for automatic system failover. The Hot Standby/Disaster Server solution can provide for a rapid manual failover to a backup server for single server systems.

Dual Server: CentralSquare has previously deployed two different dual server systems: Octopus and Microsoft Cluster Server (MSCS). CentralSquare no longer deploys these systems for new projects. CentralSquare does not directly support either of these systems. Customers who elect to deploy this type of software redundancy solution must provide or arrange for support of such a system.

Fault-tolerant systems may still require periodic downtime for OS, DB, and firmware upgrades. Customers should review the information about the Hot Standby/Disaster Server to be used in conjunction with fault-tolerant servers to manage rolling upgrades of OS, DB, and firmware with minimal CAD downtime.

Hardware requirements

Database Server Disk Space: Hard drive requirements vary with the size of the customer's code files and streets database, the use of interfaces such as AVL, and the volume of incidents managed annually. CentralSquare uses a formula for estimating disk space for new systems; however, the most effective method for analyzing future hard disk needs is periodic analysis of the size of your system's database and its growth over time.

CAD SQL Servers typically have multiple disk drives split into several partitions. The recommended configuration is as follows:

- **C**: partition is on its own controller.
- **D**: data partition is on its own controller. The D: drive should only contain the MDF data files and the CAD Enterprise share.
- **L**: Log partition is on its own controller. The L: drive should only contain transaction log (LDF) files.

CentralSquare suggests that system administrators ensure drive redundancy utilizing RAID or other technologies as appropriate to their site. Some system features can significantly impact disk space growth.

- AVL updates of unit positions. Snapshot logging in some cases requires double the disk space of AVL logging. Customers should carefully monitor their settings.
- The Documents functionality in 5.7 and above allows for adding documents as attachments to caution notes, premises, and incidents. Extensive use of this feature can consume disk space quickly and should carefully be monitored.
- Activity Log growth can consume large amounts of disk space over time and should be monitored.

Insufficient disk space is still one of the most common causes of system down events.

CentralSquare offers optional advanced tools for database management, which provide for purging of the live database and archiving of this data on the CAD Archiving and Reporting Server. Please contact your Account Executive (AE) for information about these new data management tools.

CAD, Mobile, and Records server specifications (page 75)CAD, Mobile, and Records server specifications (page 75)CAD, Mobile, and Records server specifications (page 75) for physical hardware information.

Database re-indexing

Re-indexing is of particular importance to your site. Database growth and the data archiving process can cause indexes to be progressively less effective. This affects the speed at which data is retrieved and ultimately slows down your system. CentralSquare recommends that customers re-index their system frequently. Large customers, especially those that aggressively archive data, should closely monitor data fragmentation and may need to re-index daily or weekly depending on the index fragmentation level and their performance requirements. When using SQL Server Standard Edition, the re-indexing process currently requires the system to be taken offline. This is especially important for sites that use the archiving feature of the Archive and Reporting Server and for high call volume sites. Depending on the level of fragmentation there might be a need to regularly take the system offline to perform a database re-indexing maintenance to maintain an acceptable database performance level.

SQL Server 2008 Enterprise Edition introduces the ability to re-index your databases without taking the system offline and running a manual re-index; however, this important feature is only available in the Enterprise version.

Please note that even with the Enterprise Edition there are certain tables that cannot be re-indexed online due to limitations of SQL Server data types. Even though re-indexing online is an option with Enterprise Editions, some performance degradation may be experienced and as such, even online re-indexing operations should be scheduled around non-peak usage times.

Each customer must determine the relative value of this feature compared to the additional cost of the enterprise version of SQL Server. CentralSquare recommends that sites with a large number of workstations and/or high call volume implement the enterprise version of SQL Server in order to take advantage of this important capability.

CentralSquare has implemented a re-indexing job that will run daily/weekly for each CAD database depending on the client’s performance requirements. The job will defragment the indexes based on fragmentation threshold daily and rebuild the indexes weekly. (Enterprise version will attempt to do Online indexing; Standard version will only defragment the indexes.) It is recommended that job be implemented in a low user activity window to limit the performance impact that the process may induce.

Database Server and Domain controller functions

CentralSquare does not support utilizing the Database Server as a Domain Controller. Doing so raises security and performance issues. Domain Controllers are typically run with a privileged account, which could conceivably allow an attacker access to the Active Directory. Running a Database Server on a Domain Controller can increase resource demands and degrade performance of the SQL Server. Finally, SQL Server is not supported on a read-only domain controller.

CAD Enterprise business and interface servers

CAD Enterprise Business/Interface Servers (for most installations) operate a mixture of Microsoft and CentralSquare applications. With the availability of more powerful servers (with and without virtualization), there is now an opportunity to consolidate server-based applications and servers used for your CAD Enterprise System. For customers desiring to minimize the number of physical servers, CentralSquare recommends the use of more powerful servers for CAD Enterprise Business/Interface Servers. We refer to these as *Multi-Application servers* (specifications below). Standard servers can be utilized (specifications below), but more resources may be needed to operate the system.

CentralSquare has successfully implemented systems with either dedicated physical servers or consolidated server-based applications onto limited, but more powerful servers. The decision will be based upon the customer’s particular goals for system administration costs, redundancy, and impact to the operation. Remember to consider that a single server running multiple applications (interfaces or mobile applications) may prompt all of the applications to be stopped when troubleshooting a problem with a particular application, rebooting the server or applying OS patches to the server.

CD/DVD drive

Many recent model servers do not have CD/DVD drives by default. When planning server replacements, make sure that one or more servers for your CAD Enterprise network has CD/DVD drives.

Enterprise Web server

The Web Sever Internet Information Services (IIS) role is installed on the Enterprise Web server, which allows the sever to run Enterprise Browser. Enterprise Browser is controlled by CAD Enterprise Security and provides access to unit and incident information, and various CAD Enterprise functions (such as paging, messaging, and basic rostering). Enterprise Browser opens in Google Chrome, and uses Microsoft .NET technology.

The Enterprise Web server also operates the Remote Processor that is needed for Browser Rostering and Call-Taking functions.

Enterprise Browser network configuration

The Enterprise Browser server needs to reside on the CAD Domain to be installed or upgraded. Enterprise Browser can function as an internet or intranet application. However, Enterprise Recall and Web Services are not designed as secure internet applications and should be limited to an Intranet environment. Therefore, the Enterprise Web Server for Recall and Enterprise Web services must be inside of the customer's firewall.

If Enterprise Browser will be accessible from the internet, CentralSquare recommends that the Enterprise Browser server be placed in the CAD trusted network and a reverse proxy be placed in the DMZ to proxy the request to the Enterprise Browser server. CentralSquare also recommends that a web certificate be created (self-signed) or purchased by a trusted Certificate Authority to secure http traffic between the Enterprise Browser client and the Enterprise Browser server. CentralSquare has tested Microsoft IIS 7 Application Request Routing v3 to fulfill this recommendation.

Enterprise Web Server hardware/third-party software requirements

The Enterprise Web Server operates on a Standard Enterprise CAD Business Server with the installation of Internet Information Server (IIS) in IIS 6.0 compatibility mode.

Additional hard disk space may be needed for the FTP functions associated with the Documents and Attachment functions that are available in 5.7. Streaming video is stored on the Web Server through the FTP function. If this feature is utilized, disk space should be increased based upon customer use and these files should be backed up as part of the customer's daily data backup program.

Note: Due to hardware constraints, some customers have operated their IIS server on the CAD Reporting Server. For security reasons, Microsoft strongly recommends that IIS servers not be mixed with servers running other applications, such as SQL Server. CentralSquare recommends customers plan for a separate server to operate as the Enterprise Web Server in the future.

CAD Application Server

Version 22.X and greater require the CAD application server to host the CAD Application Service (App Service). The App Service brokers database and file system messaging to CAD workstations.

Important: This functionality is critical to CAD operations and hosting the App Service on a separate server without any other applications or services is *required* for production and DR environments; however, it is optional for training, testing, and development environments.

The Web Sever IIS role is installed on the CAD application server, which allows the sever to run CAD Enterprise Recall and CentralSquare Media Service: FTP Component.

CAD Enterprise Recall works with Enterprise CAD and provides information displays to support various CAD functions. This application uses Google Chrome technology, but appears in its own form on the Enterprise CAD workstation.

Important: Running Enterprise CAD Recall from a Web Sever ISS role installed into the DMZ is not supported due to security concerns.

CentralSquare Media Service: FTP Component is required for Document Attachment feature. If using this feature, disk space for the server should be carefully monitored and expanded as needed.

Important: CentralSquare Media Service: FTP Component from a Web Sever ISS role installed into the DMZ is not supported due to security concerns.

Note: High availability and load balancing options are available for the App Service. For example, you can use failover cluster as an option for high availability or use network load balancing (NLB) as an option for high availability + load balancing. Please contact your Project Manager or Account Manager for more information.

Unit Swap and Auto Dispatch

A pair of optional CAD functions—**Unit Swap** and **Auto Dispatch**—operate with a server-based architecture. These functions are running constantly and require significant processor capacity. These components can be co-located on a Business Server running VisiNet Service in Services for small to medium-size sites. A dedicated server is recommended for large sites.

CAD Enterprise reporting servers

CentralSquare now offers two types of Reporting server (previously referred to as Data Warehouse), the CAD Reporting server and the CAD Data Archiving & Reporting server (both described in detail below). The Reporting server is primarily used for reporting purposes.

CAD offers a configuration that allows retrieving Premise History, Incident Snapshot, and AVL Playback information from the Reporting server and for searching for incidents through Incident Editor from the Reporting server.

Enterprise Browser allows for searches of Reporting server data from the Incident Search, Unit History, and Unit Activity functions. Additionally, the new Browser Drill-Down Reports can access Reporting server data.

Mobile Enterprise can also be configured to run some queries from the Reporting server.

CAD Enterprise reporting server

The CAD Enterprise Reporting server database (DB) is a copy of the customer's production databases. The reporting DBs are automatically backed up to a remote SQL server and restored each night from a backup of the production databases. Once the reporting database is restored, report writers are able to extract data to support management decisions using third-party report writer applications (e.g. SQL Server Reporting Services, MS Access, Crystal Reports, and the like).

CAD data archiving and reporting server

This version of SQL replication combines near real-time automatic duplication of the Enterprise Database data with comprehensive data purging. Comprehensive data purging allows the customer to remove data not needed for daily operations while retaining appropriate, contractual amounts of data (like 90, 180, or 365 days) to create a smaller, faster-reacting production database.

In the case where the Archive & Reporting server is not the same version of SQL as the Enterprise Database server and the Distribution database resides on the Archive & Reporting server, the Archive & Reporting server needs to be the higher version of SQL.

Note: The aggressive use of purging can increase the need for database re-indexing.

The purging tools are installed in a way that allows data on the destination (Subscribing) databases to build up over time for historical ad hoc reporting purposes, while maintaining a smaller and quicker production database for CAD operations. This functionality is achieved by keeping production database deletions from being carried out on the destination databases.

The use of the Premise History look-up from the Reporting server can make the production CAD susceptible to performance issues from the Reporting server. Large or complex reports or queries on the Reporting server can slow the retrieval of Premise History and slow the call-taking process for all users. Customers that do such reporting and desire to use the Premise History look-up from the Reporting server should consider adding a second Reporting server.

When deploying an Archiving and Reporting server, it is important to plan for data backups of the databases on this server. Data that has been purged from the Production Database server only exists on the Archiving and Reporting server. Some customers have purchased a second Archiving & Reporting server to allow other organizations to report on data. Previously this was allowed to be placed in the DMZ, but for security reasons, CentralSquare no longer recommends this configuration. There may be customers who need to place this second Archiving & Reporting server in the DMZ. If that is the case, the agencies do so at their own risk and against the recommendation of CentralSquare.

CAD Enterprise training/testing server

The Training/Testing server is designed to allow clients to perform training or testing of new versions of CAD Enterprise and configuration changes. The OS version and DB version should match the production version. The only exception to this is when the customer is testing a new version of Enterprise with a new OS/DB configuration.

The Training/Testing System is an excellent setting to test new OS versions, security profiles, and third-party software prior to deploying in the production environment.

Software requirements

For small Training/Testing CAD networks with limited workstations, the Training/Testing Server can operate on a Standard CAD Business Server with the addition of SQL Server. Disk space needs to be sized to accommodate the production databases and CAD File Share. For larger Training/Testing systems, the server hardware may need to be scaled up in terms of both processor and RAM.

CAD Enterprise interface server

The CAD Enterprise Interface server supports CentralSquare interface applications. The number of applications that can be hosted on a single server will vary based upon CAD incident volume and the type of interfaces.

Software requirements

The Interface Server operates on a Standard Enterprise CAD Business Server.

Some high-volume interfaces, such as AVL/mobile interfaces, may require higher processor and RAM requirements. Please contact your Account Executive for additional information.

Multiple interfaces per interface server

CentralSquare has successfully tested standard interface configurations in an environment where a number of the standard interfaces are running on a single server. Based upon the test results, our standard interfaces can successfully operate on a single server. With the availability of low-cost fault-tolerant computers, this presents an opportunity to reduce hardware and administrative costs while improving protection from hardware failure.

Enterprise NCIC State message server

Enterprise NCIC/State Message Server performs justice queries for law enforcement agencies including queries to state and federal law enforcement databases, local databases such as courts and records management systems, and the CAD database (BOLO). CentralSquare products, including CAD and Mobile, can activate queries and receive returns containing data from these various data sources.

CAD Enterprise workstations

CAD Enterprise workstations operate a mixture of Microsoft and CentralSquare applications. Optimal performance and functionality require adherence to hardware, software, and configuration standards.

Standard Configuration

- Computer configuration: Business workstation class machine
- Supporting Software Components: Specific to the type of application or software service being operated. Review the CentralSquare release notes and version documentation.
- Hardware: Appendix C - Enterprise suite workstation specifications (page 95) for physical hardware information.

Note: CentralSquare issues CDs that facilitate the installation of software prerequisites for interface servers and CAD workstations.

To deploy CAD on OS versions within the mainstream support cycle for windows, CentralSquare will be routinely moving to newer OS versions. In anticipation of an evolving OS environment, customers are encouraged to budget for workstation hardware replacement every three years. Many customers now buy new hardware for the dispatch center and rotate older dispatch center equipment to stations or headquarters for administrative use.

Note: CentralSquare recommends a clean installation of an OS version rather than upgrading between major OS versions.

CAD Browser Enterprise & GISLink workstations

CAD Browser Enterprise

CentralSquare requires the following in order to use full CAD Browser Enterprise functionality:

- **Operating system:** One of the following versions of Windows:
    - Microsoft Windows 10 Pro (64-bit) CBB (Current Branch for Business), 1709 and 1803 releases
    - Microsoft Windows 10 Enterprise (64-bit) CBB, 1709 and 1803 releases
    - Microsoft Windows 10 Enterprise (64-bit) LTSB (Long-Term Servicing Branch) 1507, 1607, and 1809 releases
    - Microsoft Windows 10 Enterprise (64-bit) LTSC
    - Microsoft Windows 10 Enterprise (64-bit) 1903 release
- **Web browsers:** Google Chrome, Microsoft Edge

Note: Internet Explorer is not recommended since it does not support Browser's enhanced Map features and is a CJIS violation.

- **CAD Enterprise release:**CAD Enterprise 5.8.35 or higher

Enterprise GISLink

- Computer configuration: Business workstation class machine
- Supporting Software Components: Specific to the type of application or software service being operated. Review the CentralSquare release notes and version documentation.

Refer to the Enterprise workstation section in the Addendum for physical hardware information.

The Enterprise 5.7 Prerequisite CD needs to be run on the GISLink workstations. The Prerequisite CD will install needed software such as ArcGIS Engine Runtime Version 10.2.

Please refer to Enterprise GISLink documentation for specific prerequisites as versions change.

Mobile Enterprise Overview

Mobile Server overview and configuration

The Mobile Enterprise Server provides the functionality necessary for interaction between Mobile workstations and is the integration point between other systems such as CAD Enterprise and for the Enterprise NCIC/State Message Server.

Supporting Software Components are specific to the type of application or software service being operated. Review the CentralSquare release notes and version documentation.

CAD, Mobile, and Records server specifications (page 75)CAD, Mobile, and Records server specifications (page 75)CAD, Mobile, and Records server specifications (page 75) for physical hardware information.

Mobile workstation requirements

Mobile Enterprise workstations operate a mixture of Microsoft and CentralSquare applications. Optimal performance and functionality requires adherence to hardware, software, and configuration standards. CentralSquare ended support of 32-bit operating systems on December 31, 2018.

Standard Workstation configuration

Computer configuration: Business workstation class machine or business class or ruggedized laptop.

Supporting Software Components: Specific to the type of application or software service being operated. Review the CentralSquare release notes and version documentation.

CentralSquare requires that both the Mobile Server and the Mobile Interface Server(s) be located inside of the firewall within the secure CAD network.

The Relay server can be deployed in the DMZ, allowing all Mobile clients to connect to the Relay server while the Mobile Server is located within the secure CAD network.

Classic Mobile hardware requirements

Important: CIM 21.4 and later versions moving forward are not supported on Classic Mobile/VM Client. Environments that use Classic Mobile cannot upgrade their CIM to 21.4. CentralSquare recommends that Classic Mobile customers remain at CIM version 21.3 at the latest.

Component	Small site	Large site
Processor	One 1.66 GHz or faster processor	Same
RAM	4GB	Same
Disk space	12GB	Same
Operating system	• Microsoft Windows 10 Pro (64-bit) CBB (Current Branch for Business) 1709 and 1803 releases • Microsoft Windows 10 Enterprise (64-bit) CBB 1709 and 1803 releases • Microsoft Windows 10 Enterprise (64-bit) LTSB (Long Term Servicing Branch) 1507, 1607, and 1809 releases • Microsoft Windows 10 Enterprise (64-bit) LTSC • Microsoft Windows 10 Enterprise (64-bit) 1903 release • Microsoft Windows 10 Enterprise (64-bit) 1909 release	Same
Mobile Enterprise Client Installation CD	• Microsoft .NET Framework 4.7.1 • Microsoft Primary Interoperability Assemblies 2005 • Microsoft Visual C++ 2015 Redistributable Update 3	Same

Mobile Enterprise hardware requirements for using Runtime 100 GIS

Important: Any upgrades from 20.3.3 (or prior) to 20.3.4 (or later) for clients with RT100 maps will require GIS configuration changes. Please submit a ticket to upgrade and reconfigure Mobile Maps for your agency.

Important: All RT100 deployments ranging from 21.1 and on require Visual C++ 2019. The minimum version of this tool that is compatible with Mobile Enterprise is 14.21.

Component	Small site	Large site
Processor	One 1.66 GHz or faster processor	Same
RAM	4GB	Same
Disk space	12GB	Same
Operating system	• Microsoft Windows 10 Pro (64-bit) CBB (Current Branch for Business) 1709 and 1803 releases • Microsoft Windows 10 Enterprise (64-bit) CBB 1709 and 1803 releases • Microsoft Windows 10 Enterprise (64-bit) LTSB (Long Term Servicing Branch) 1507, 1607, and 1809 releases • Microsoft Windows 10 Enterprise (64-bit) LTSC • Microsoft Windows 10 Enterprise (64-bit) 1903 release • Microsoft Windows 10 Enterprise (64-bit) 1909 release • Microsoft Windows 10 Enterprise (64-bit) 2004 release • Microsoft Windows 10 Enterprise (64-bit) 20H2 release	Same

Component	Small site	Large site
Resolution	1024x768 recommended minimum, at normal size (96 dpi)	Same
Graphics card	Must support DirectX 11 rendering	Same
Mobile Enterprise Client Installation CD	• Microsoft .NET Framework 4.7.1 • Microsoft Primary Interoperability Assemblies 2005 • Microsoft Visual C++ 2015 Redistributable Update 3 • Microsoft Visual C++ 2019 Redistributable 14.21 minimum (for 21.1 and greater)	Same

RT100: GIS Configuration website requirements

Important: Any upgrades from 20.3.3 (or prior) to 20.3.4 (or later) for clients with RT100 maps will require GIS configuration changes. Please submit a ticket to upgrade and reconfigure Mobile Maps for your agency.

Component	Small site	Large site
Processor	One quad-core 2.26 GHz processor	Same
RAM	4 GB	Same
Disk space	36 GB configured as RAID 1	Same
Operating system	• Microsoft Windows Server 2012 R2 (64-bit) • Microsoft Windows Server 2016 (64-bit)	Same
Installation CD	• Microsoft Visual C++ 2015 Update 3 Redistributable Package (x66) • MS ODBC 13 • SQLCMD • DotNetCore.2.0.5-WindowsHosting	Same

Records Enterprise

Records Enterprise Overview

An Records Enterprise system operates across multiple software tiers and server-based environments. Physically, these are deployed across the following components:

- Records Enterprise Web Database Server

> **Note:** The Records Enterprise Client Databases can be on this server for Web-Only Customers.

- Records Enterprise Web Application Server
  - Records Enterprise API Server
  - Records Enterprise ASH Server

> **Note:** By default, the Records Enterprise API and ASH servers can coexist on the Records Enterprise Web Application Server. When your ASH processes consistently consume (for a duration greater than an hour) greater than 60% of the processor capacity of the server, then the Records Enterprise ASH server must be moved to a standalone server.

- Records Enterprise ElasticSearch Server

The Records Enterprise System operates through the interaction of several applications, software services, and database components that are spread across a multi-tier architecture. These applications, services, and components are distributed in one server for the Records Enterprise Web Database, one server for the Records Enterprise Web Tier, and a separate server for the Records Enterprise Client Database.

The table below contains information about which Records servers require a dedicated server or can be co-located with other servers based on your agency's size.

Server	Large	Medium	Small
Records Enterprise Database	*Dedicated		
Records Enterprise Web Application	*Dedicated		

Server	Large	Medium	Small
Records Enterprise API	Can co-locate with App server **Note:** The number of interfaces may indicate the need for a dedicated server.		
Records Enterprise ASH	*Dedicated	Co-located with Web Application server	
Records Enterprise ElasticSearch	*Dedicated		
RMS Reporting	*Dedicated		
RMS GIS	Always co-located with API server		
TIPS	*Dedicated		
Message Switch	*can co-locate with CIM		
CIM	*can co-locate with MS		

Changes in technology, including hardware speed and the approved use of virtualization, allow for a reduced number of servers for core system components. This document presents recommended deployment plans that may be very different than previous recommendations or your actual system layout. This document provides recommendations that leverage high-powered multi-core processors and virtualization. Customers may continue deployments in a manner that uses standard server configurations.

Note: Virtualized Desktop support clients are not required for Records Enterprise.

SSL Certificates

Records Enterprise Web requires an SSL certificate installed on the IIS server hosting the Records Enterprise web site. Enterprise Suite SSL certificates (page 33) for certificate details. This certificate will be used to support https connections to Records Enterprise Web as well as to secure communications with various Records Enterprise Web components including the Classic Integration and the RMS Web API.

Other system components

Optional Business Servers (Test/Training Servers) are deployed based upon the operational needs of the customer.

An effective functioning Windows network is essential for optimal operation of an Records Enterprise system. The components described in this document rely upon components such as domain controllers, DNS servers, functioning network switches, and configured Windows security settings. This document addresses these topics in order to prepare the customer's system administrator to effectively support the system.

The hardware recommendations within this document are provided based on CentralSquare's internal testing of the Records Enterprise software. Performance on customer systems may vary from system to system, depending on the site's call volume, number of interfaces, network configuration, and overall system complexity.

Customers routinely inquire about changes in hardware requirements between versions. CentralSquare's internal test systems are periodically refreshed with new hardware. This makes it difficult for CentralSquare to predict performance on older workstations and servers. CentralSquare's experience with upgrades has been that if the customer's existing equipment provides acceptable performance for Records Enterprise, the next major version upgrade is not likely to significantly change performance unless the customer elects to activate new functionality or implements some other significant change (expanded workload, workstations, interfaces, or OS/DB change). Nevertheless, CentralSquare will provide recommendations based upon the equipment with which CentralSquare tests.

Version-specific requirements for Operating System, Database, and supporting software are hard requirements and must be met to support an upgrade.

Map and GIS components

Important: In order for your agency's RMS to have navigation functionality, you must obtain the part number (PN) component by using one of the two following methods:

1. Your RMS agency must receive the PN component for map information directly from CAD Enterprise. This part number is included with CAD purchases.
2. If your agency does not use CAD, you must purchase and receive GIS information directly from ESRI with the appropriate PN.

Warning: If you do not obtain this part number, RMS will not have map and location features activated.

Networking and security access

These are the default TCP ports required for Records Enterprise:

- TCP Port 80: HTTP
- TCP Port 443: HTTPS
- TCP Port 1433: SQL Server

- TCP Ports 5672 and 15672: RabbitMQ
- TCP Port 9000: Application Service Host
- TCP Port 9001: Application Service Host
- TCP Port 9200: Elastic
- TCP Port 44313: CIM

SQL SSRS

Records Enterprise Web uses SQL Server Reporting Services (SSRS) for report output. The Web RMS app pool user needs to be added with at least Browser access to Folder Security settings at the root level of the Web RMS folders or subfolders. Security cascades down from the root folders.

Users authorized to use Report Builder must be granted by adding the User or applicable AD Group in the Site Settings module of SSRS. If Report Builder will be used by Active Directory users from multiple domains, then a trust must be created between the domains.

Integration interoperability

CAD Enterprise

- APCO Meds/911 Advisor v3.3.0.9
- LowCode (formerly PSIAM) v4.3.5.1
- PowerPhone CACH 5.0.6.4

> **Note:** CentralSquare Technologies does not currently support the use of Citrix with PowerPhone CACH.

- ProQA Paramount 5.0.0.66.4
  - ProQA Fire 5.0.x
  - ProQA Medical 5.0.x
  - ProQA Police 5.0.x
- ProQA Paramount 5.1
  - ProQA Fire 5.1.x
  - ProQA Medical 5.1.x
  - ProQA Police 5.1.x

Standard CAD-to-CAD

CentralSquare's Standard CAD-to-CAD interface is utilized for two situations. One is a CAD-to-CAD between CAD Enterprise and a third-party CAD system. The other situation is when the Standard CAD-to-CAD interface is utilized to connect two or more CAD Enterprise systems.

In the latter case, the CAD Enterprise systems need to be within an approved range of CAD Enterprise versions due to changes made to the CAD-to-CAD interface in each new release.

For this release, the Standard CAD-to-CAD interface is approved to operate within the following range of versions: CAD Enterprise 4.5.7 through 5.7.10.0.

Clients should confirm CAD-to-CAD compatibility prior to upgrading their system or a linked system. New features added to CAD Enterprise that are accessible via the interface, or to the Standard CAD-to-CAD interface itself, may not be functional until all of the linked CAD Enterprise systems have been upgraded to the version in which the new feature was introduced.

Software cohabitation

Incompatible software

- Crystal Reports cannot be installed on an CAD Enterprise workstation.

Compatible software

- Microsoft Office Suite
- Adobe Acrobat

Priority Dispatch software integration

CAD Enterprise Integration Testing was successful against the following versions of Priority Dispatch software:

- Fire 3.4.3.18 Lang 5.0.13
- Medical 3.4.3.28 Lang 12.1.8
- Paramount 5.0.0.66.4
- Police 3.4.3.11 Lang 3.0B

Co-location testing was completed successfully for Microsoft Office 2007 and 2010.

Federal Information Processing Standards (FIPS)

Mobile Enterprise Server and Client employ Crypto++ version 5.2.3 and are FIPS 140-2 certified (FIPS 140-2 Validation Certificate #562).

Addendum: CentralSquare Hardware Specification Guidelines

Appendix A - Agency Sizing Parameters

Important: The guidelines and sizing parameters in these tables are not intended as a warranty or guarantee of uptime.

Large / Tier 1		
Product	**Size Parameter**	**Assumption**
CAD Enterprise	25–50 positions	35 positions
Mobile Enterprise	400–999 vehicles	750 concurrent users
RMS Enterprise	351–750 concurrent users	500 concurrent users
Jail Enterprise	26–75 concurrent users	40 concurrent users
IQ Enterprise	401–1000 concurrent users	750 concurrent users
Analytics Enterprise	151–300 concurrent users	150 concurrent users
9-1-1 Enterprise	16–30 positions	25 positions Multi-Site Backup Site ACD

Medium / Tier 2		
Product	**Size Parameter**	**Assumption**
CAD Enterprise	11–25 positions	17 positions
Mobile Enterprise	76–399 vehicles	200 concurrent users
Records Enterprise	116–350 concurrent users	175 concurrent users
Jail Enterprise	11–25 concurrent users	15 concurrent users
IQ Enterprise	101–400 concurrent users	150 concurrent users
Analytics Enterprise	41–150 concurrent users	75 concurrent users

Medium / Tier 2		
Product	**Size Parameter**	**Assumption**
9-1-1 Enterprise	9–15 positions	12 positions Multi-Site Backup Site ACD

Small / Tier 3		
Product	**Size Parameter**	**Assumption**
CAD Enterprise	1–10 positions	7 positions
Mobile Enterprise	1–75 vehicles	50 concurrent users
RMS Enterprise(Client/Server)	1–40 concurrent users	30 concurrent users
FBR Enterprise(Client/Server)	1–75 concurrent users	50 concurrent users
Records Enterprise	1–115 concurrent users	80 concurrent users
Jail Enterprise	1–10 concurrent users	5 concurrent users
IQ Enterprise	1–100 concurrent users	40 concurrent users
Analytics Enterprise	1–40 concurrent users	25 concurrent users
9-1-1 Enterprise	2–8 positions	4 positions Single-Site No ACD

Appendix B: Physical Servers Specifications

CentralSquare recommends that the virtual server approach be taken for the Enterprise Suite. This section is a reference only for customers that still use physical servers and to aid in sizing decisions for virtual server hosts and storage.

All servers have the following Network, USB, and Optical Drive components. Some servers will require a static-only network interface. Those servers will have a network interface section noting Static only address. They will still require TCP/IP protocol stack and a minimum 100/1000 Mbps full duplex Baser-T network interface adapter.

The hardware recommendations within this document are provided based on CentralSquare's internal testing. Performance on customer systems may vary from system to system, depending on the system load, number of interfaces, network configuration, and overall system complexity.

Customers routinely inquire about changes in hardware requirements between versions. CentralSquare's internal test systems are periodically refreshed with new hardware. This makes it difficult for CentralSquare to predict performance on older workstations and servers.

Note: Version-specific requirements for Operating System, Database, and supporting software must be met to support an upgrade.

Large, medium, and small environments all have the following specifications in common:

- Network Interface: TCP/IP protocol stack installed; Static or DHCP IP address; Minimum 100/1000 Mbps full duplex Base-T network interface adapter
- USB Ports: 2 USB 2.0

Important: There are three sizes of agency environments: large / tier 1, medium / tier 2, and small / tier 3. Regarding their individual and unique specifications, these three will be compared and contrasted throughout this appendix.

Common server components (CIM and Message Switch)

For Enterprise Suite installations, certain software components are shared among CAD Enterprise, Mobile, RMS, and Jail.

Software Version	Requirement
CAD 21.4.1 and previous versions	CIM 21.4 or previous version
CIM 22.1 and subsequent versions	CAD 21.4.2 or subsequent version
CIM 21.4 and subsequent versions	Xamarin Mobile or WPF Mobile, New RMS
Message Switch 22.1 and subsequent versions	CAD 22.1.3 or subsequent version

Important:

- CIM 21.4 and greater, CAD 22.1 and greater, Records 21.4 and greater, and Message Switch 22.1 and greater use embedded Chromium browsers. CentralSquare recommends that any customer using more than one of these solutions upgrade all solutions to a supported Chromium version.

Message Switch and CIM sever (with database)

This server is typically deployed when other Suite elements, such as CAD, are deployed to the cloud, but the state requires an on premise Message Switch server.

Large, medium, and small environments all possess the following components for the Message Switch server:

- CPU: Two Core or higher
- Speed: 2.40 GHz or higher
- Memory: 16 GB RAM
- Operating System:
  - Windows Server 2016
  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- SQL Server: SQL Server 2017, 2019, or 2022 Standard and Enterprise

- I/O Channel 0: Dedicated to Operating System and SQL Application, C:\ 80 GB 15K (R-1 or R-5); D: Drive (R-10 or R-5) 80 GB
- Network Interface: Static IP address
- .Net 8

Message Switch/CIM server (without database)

This is an application server only when either CAD or Records Enterprise is deployed since the databases are moved to the primary SQL Server.

Large, medium, and small environments all possess the following components for the Message Switch/CIM server (without database):

- CPU: Two Core or higher
- Speed: 2.40 GHz or higher
- Memory: 8 GB RAM
- Operating System:
  - Windows Server 2016
  - Windows Server 2019
  - Windows Server 2022 (supported on versions 22.1.0 and later)
- I/O Channel 0: Dedicated to Operating System & SQL Application, C:\ 80 GB 15K (R-1 or R-5)
- Network Interface: Static IP address

ArcGIS Routing server

Large, medium, and small environments all have the following components in common for the ArcGIS Routing server:

- Memory: 16 GB RAM
- Operating System:
  - Windows Server 2016
  - Windows Server 2019
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)

- I/O Channel 0: C:\ 40 GB minimum; must be increased depending on size of street network data and number of hosted services
- CPU: Eight Core or higher
- Speed: 2.5 GHz or higher; 3 MB cache or higher

LES server (Optional)

Large, medium, and small environments all have the following components in common for the LES server:

- CPU: Four Core or higher
- Speed: 3.0 GHz or higher; 3 MB cache or higher
- Memory: 24 GB RAM
- Operating System: Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- I/O Channel 0: Dedicated to Operating System; C:\ 80 GB 15K (R-1 or R5); D: Drive (R-10 or R-5) 80 GB; (10,000 > RPM SAS/SCSI)

CAD, Mobile, and Records server specifications

CAD & Mobile

CAD Database server

Large, medium, and small environments all have the following components in common for the CAD Database server:

- CPU: Four Core or higher
- Speed: 3.0 GHz or higher; 3Mb cache or higher
- Memory: 24 GB RAM

> **Note:** CentralSquare recommends that you have *10-15%* of data size as RAM. e.g. 24GB memory up to 240GB data size. If SQL needs 16GB RAM, then the server needs 20GB with 16GB allocated to SQL. Customers receiving data conversions should be analyzed on a case-by-case basis.

- Operating System:
    - Windows Server 2016
    - Windows Server 2019 (for releases 20.3.4+)

  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- SQL Server:
  - SQL Server 2017 or 2019
  - SQL Server 2022 (supported on CAD versions 22.3.9 and later)
- I/O Channel 0: Dedicated to Operating System & SQL Application; C:\ 80 GB 15K (R-1 or R5); D: Drive (R-10 or R-5) 80 GB; (10,000 > RPM SAS/SCSI)
- I/O Channel 1: SQL Data & Indexes; D:\ 350 GB

Note: Data drive size should be sized according to the expected data size with room for growth.

- I/O Channel 2: SQL Logs; L:\ 200 GB; (10,000 > RPM SAS/SCSI)
- I/O Channel 3: Paging File P:\ 40 GB
- I/O Channel 4: Temp database T:\ 60 GB

Mobile server

Large, medium, and small environments all have the following components in common for the CADMobile server:

- CPU: Four Core or higher
- Speed: 2.26 GHz or higher; 3 MB cache or higher
- Memory: 16 GB RAM
- Operating System:
  - Windows Server 2016
  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- SQL Server Express:
  - SQL Server 2017 or 2019
  - SQL Server 2022 (supported on CAD versions 22.3.9 and later)

Large and medium environments both possess the following for the CADMobile server:

- I/O Channel 0: Dedicated to Operating System & SQL Application; C:\ 80 GB
- I/O Channel 1: SQL data D:/ 100 GB

Small environments instead possesses the following for the CADMobile server:

- Memory: 8 GB RAM

CAD Interface machine

Large and medium environments both have the following components in common for the CAD Interface machine:

- CPU: Four Core or higher
- Speed: 2.26 GHz or higher; 3 MB cache or higher
- Memory: 4 GB RAM
- Operating System:
  - Windows Server 2016
  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- I/O Channel 0: dedicated to Operating system; C:\ 80 GB

CAD Application server

Large, medium, and small environments all have the following components in common for the CAD Web server:

- CPU: Four Core or higher
- Speed: 2.26 GHz or higher; 3Mb cache or higher
- Memory: 32 GB RAM
- Operating System:
  - Windows Server 2016
  - Windows Server 2019
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- I/O Channel 0: Dedicated to operating system; C:\ 80 GB

CAD Web server

Large, medium, and small environments all have the following components in common for the CAD Web server:

- CPU: Four Core or higher
- Speed: 2.26 GHz or higher; 3Mb cache or higher
- Memory: 16 GB RAM
- Operating System:
  - Windows Server 2016
  - Windows Server 2019 standard
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- I/O channel 1: Application D:\ 80 GB
- I/O Channel 0: Dedicated to Operating System; C:\ 80 GB

> **Note:** CentralSquarerecommends that other services such as VisiNet Service should not be running on the same server your agency is using to host the AppService.

CAD Archive and Reporting server

Large, medium, and small environments all have the following components in common for the CAD Reporting server:

- CPU: Four Core or higher
- Speed: 2.26 GHz or higher; 3 MB cache or higher
- Memory: 24 GB RAM

  > **Note:** CentralSquare recommends that you have 10-15% of data size as RAM. e.g. 16 GB memory up to 160 GB data size. If SQL needs 16 GB RAM, then the server needs 20 GB with 16 GB allocated to SQL. Customers receiving data conversions should be analyzed on a case-by-case basis.

- SQL Server:
  - SQL Server 2014, 2016, or 2019 standard 64-bit
  - SQL Server 2022 (supported on CAD versions 22.3.9 and later)

- Operating System:
  - Windows Server 2016
  - Windows Server 2019
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- I/O Channel 0: Dedicated to operating system & SQL application; C:\ 80 GB; (10,000 > RPM SAS/SCSI)
- I/O Channel 2: SQL Logs; L:\ 500 GB; (10,000 > RPM SAS/SCSI)

Large and medium environments both have the following components in common for the CAD Mobile server:

- I/O Channel 1: SQL Data & Indexes; D:\ 750GB

> **Note:** Data drive size should be sized according to the expected data size with room for growth.

- I/O channel 3 Paging File P:\ 40 GB
- I/O channel 4 Temp database T:\ 60 GB

Records Enterprise

The table below contains information about which RMS servers require a dedicated server or can be co-located with other servers based on your agency's size.

Server	Large	Medium	Small
Records Enterprise Database	*Dedicated		
Records Enterprise Web Application	*Dedicated		
Records Enterprise API	Can co-locate with App server **Note:** The number of interfaces may indicate the need for a dedicated server.		
Records Enterprise ASH	*Dedicated	Co-located with Web Application server	

Server	Large	Medium	Small
Records Enterprise ElasticSearch	*Dedicated		
RMS Reporting	*Dedicated		
RMS GIS	Always co-located with API server		
TIPS	*Dedicated		
Message Switch	*can co-locate with CIM		
CIM	*can co-locate with MS		

Records Enterprise Database server

> **Important:** The default specifications at launch are below. Over time, databases will increase in size, therefore you must add resources to your environment to maintain performance specification.

Large, medium, and small environments have the following components in common for the RMS/FBR Database server:

- CPU:Eight Core or higher
- Speed: 2.5 GHz or higher; 3Mb cache or higher over 756Mb front-side bus Speed
- Memory: 16 GB minimum

  > **Note:** CentralSquare recommends that you have *10-15%* of data size as RAM. e.g. 16GB memory up to 160GB data size. If SQL needs 16GB RAM, then the server needs 20GB with 16GB allocated to SQL. Customers receiving data conversions should be analyzed on a case-by-case basis.

- Operating System:
  - Windows Server 2016 Standard 64-bit
  - Windows Server 2019 Standard 64-bit
  - Windows Server 2022 Standard 64-bit (v22.1 and greater)
- SQL Server**:** SQL Server 2016, 2019, 2022 Standard

> **Note:** Classic and Web RMS customers must upgrade to SQL 2019 before a web installation because the classic databases always need to be installed first.

- I/O Channel 0: Dedicated to Operating System & SQL Application; (2) 150 GB
- I/O Channel 1: SQL Logs; 500 GB; (10,000 > RPM SAS/SCSI)
- I/O Channel 2: SQL Data; 1TB; (10,000 > RPM SAS/SCSI)
- I/O Channel 3: Paging File P:\ 40 GB
- I/O channel 4: Temp database T:/ 60 GB

Records Enterprise Application server

Large, medium, and small environments have the following components in common for the RMS Application server:

- CPU: Eight Core or higher
- Speed: 2.0 GHz or higher; 3 MB cache or higher
- Operating System:
  - Windows Server 2016 Standard 64-bit
  - Windows Server 2019 Standard 64-bit
  - Windows Server 2022 Standard 64-bit (v22.1 and greater)
- I/O Channel 0: Dedicated to Operating System; (1) 80 GB
- Memory: 16 GB RAM

Records Enterprise Application Service Host (ASH) server

Large, medium, and small environments all have the following components in common for the RMS Application server:

- CPU: Eight Core or higher
- Speed: 2.0 GHz or higher; 3 MB cache or higher
- Operating System:
  - Windows Server 2016 Standard 64-bit
  - Windows Server 2019 Standard 64-bit
  - Windows Server 2022 Standard 64-bit (v22.1 and greater)

- I/O Channel 0: Dedicated to Operating System; (1) 80 GB
- Memory: 16 GB RAM

Records Enterprise ElasticSearch server

Large, medium, and small environments all have the following components in common for the RMS ElasticSearch server:

- CPU: Eight Core or higher
- Speed: 2.0 GHz or higher; 3 MB cache or higher
- Operating System:
    - Windows Server 2016 Standard 64-bit
    - Windows Server 2019 Standard 64-bit
    - Windows Server 2022 Standard 64-bit (v22.1 and greater)
- I/O Channel 0: Dedicated to Operating System; (1) 80 GB

There are also a couple of differences between the three environments. This table lists their differing components for the RMS ElasticSearch server:

	Large	Medium	Small
Memory	32 GB RAM	24 GB RAM	16 GB RAM
I/O Channel 1	Dedicated to Elastic Data; (1) 200 GB	Dedicated to Elastic Data; (1) 100 GB	

Records Enterprise API server

Large environments may need a dedicated RMS API server:

- CPU: Four Core or higher
- Speed: 2.0 GHz or higher; 3 MB cache or higher
- Memory: 8 GB RAM
- Operating System:
    - Windows Server 2016 Standard 64-bit
    - Windows Server 2019 Standard 64-bit
    - Windows Server 2022 Standard 64-bit (v22.1 and greater)
- I/O Channel 0: Dedicated to Operating System; (1) 80 GB

Note: Medium and small environments are not used for this server.

Records Enterprise Reporting server

Large, medium, and small environments all have the following components in common for the RMS Reporting server:

- CPU: Four Core or higher
- Speed: 2.26 GHz or higher; 3Mb cache or higher
- Operating System:
  - Windows Server 2016 Standard 64-bit
  - Windows Server 2019 Standard 64-bit
  - Windows Server 2022 Standard 64-bit (v22.1 and greater)
- I/O Channel 0: Dedicated to Operating System & SQL Application; C:\ 80 GB; (10,000 > RPM SAS/SCSI)
- I/O channel 3 Paging File P:\ 40 GB
- I/O channel 4 Temp database T:\ 60 GB

Large and medium environments both possess the following for the RMS Reporting server:

- Memory: 24 GB RAM

  Note: CentralSquare recommends that you have *10-15%* of data size as RAM. e.g. 16 GB memory up to 160 GB data size. If SQL needs 16 GB RAM, then the server needs 20 GB with 16 GB allocated to SQL. Customers receiving data conversions should be analyzed on a case-by-case basis.

  - SQL Server: SQL Server 2014, 2016, or 2019 Standard (License 4 Cores)
- I/O Channel 1: SQL Data & Indexes; D:\ 500 GB
- I/O Channel 2: SQL Logs; L:\ 500 GB; (10,000 > RPM SAS/SCSI)

Small environments possess the following for the RMS Reporting server:

- Memory: 16 GB RAM
- SQL Server: SQL Server 2014, 2016, or 2019 Standard

- I/O Channel 1: SQL Data & Indexes; D:\ 290 GB
- I/O Channel 2: SQL Logs; L:\ 150 GB; (10,000 > RPM SAS/SCSI)

Records Enterprise GIS server

Large, medium, and small environments all have the following components in common for the RMS GIS server:

- Operating System: Windows Server 2016, 2019, or 2022 Standard 64-bit
- SQL Server**:** SQL Server 2014, 2016, 2019, 2022 Standard

There are many differences between the three environments. This table lists their differing components for the RMS GIS server:

	Large	Medium	Small
CPU	Four Core or higher	Two Core or higher	
Speed	2.5 GHz or higher; 4Mb cache or higher 1333MHz Front side bus speed or better	2.0 GHz or higher; 3Mb cache or higher 800MHz Front side bus speed or better	
Memory	16 GB RAM	8 GB RAM	4 GB RAM
I/O Channel 0	Dedicated to Operating System; (4) 146 GB	Dedicated to Operating System; (2) 146 GB	
I/O Channel 1	SQL Logs; Storage Array Dual Management Controller; (3) 146 GB	SQL Data & Logs; Storage Array Dual Management Controller; (3) 146 GB	
I/O Channel 2	SQL Data; External Storage Array Dual Management Controller; (6) 146 GB	Optional: (10,000 > RPM SAS/SCSI)	
I/O Channel 3	SQL Indexes; (2) 146 GB; Independent I/O Channel; (15,000 > RPM SAS/SCSI)	Optional: Independent I/O Channel	

Imaging (TIPS) server

TIPS is an image capture application for mugshot and camera control.

All environment sizes possess the following for the TIPS server:

- CPU: Four Core or higher
- RAM: 8 GB RAM
- Speed: 2.4 GHz minimum
- Operating System:
  - Windows Server 2016
  - Windows Server 2019 Standard
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- Network Interface: Static IP address
- Disk Space: 100 GB minimum (for both Server OS and Application)

Notes:

- The Imaging (TIPS) server can use a Microsoft SQL database on any server.
- The following size calculations apply for the Imaging server's storage:
  - Standard NIST compliant photos are 50 KB, while high-resolution NIST photos are approximately 750 KB. The photo's size dimensions will affect its file size.
  - You can use high resolutions without historical low resolution files, but this means you must use web-based capture with Imaging, starting at release 21.3 or greater.

Example:

- 500,000 images x 50 KB per image = 24 GB
- 500,000 images x 750 KB per image = 357 GB

Tip: You can estimate future disk space by assuming average bookings per month by the number of pictures per booking.

IQ server specifications

IQ Database server (single DB server option)

Large environments possess the following for the IQ Database server:

- CPU: 8 Core or higher (processors must support a minimum of eight cores)
- Speed: 2.6 GHz or higher
- Memory: 64 GB RAM
- Operating System:

  - Windows Server 2012 R2 Standard 64-bit
  - Windows Server 2016
  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- SQL Server:
  - SQL Server 2014, 2016, or 2019 standard 64-bit
  - SQL Server 2022 (supported on CAD versions 22.3.9 and later)
- I/O Channel 0: Dedicated to Operating System & SQL Application; C:\ 50 GB
- I/O Channel 1: SQL Data & Indexes; D:\ (2) 146 GB
- I/O Channel 2: SQL Logs; L:\ (2) 146 GB
- I/O Channel 3: Search Index; L:\ (2) 500 GB

Notes:

- The amount of storage depends on available data.
- Medium and small environments are not applicable. They do not have any of the above specifications.

IQ Database server (scalable 3-server option)

Large environments possesses the following for the IQ Database server:

- CPU: 8 Core or higher (processors must support a minimum of eight cores)
- Speed: 2.6 GHz or higher
- Memory: 64 GB RAM
- Operating System:
  - Windows Server 2012 R2 Standard 64-bit
  - Windows Server 2016
  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- SQL Server:

  - SQL Server 2014, 2016, or 2019 standard 64-bit
  - SQL Server 2022 (supported on CAD versions 22.3.9 and later)
- I/O Channel 0: Dedicated to Operating System & SQL Application; C:\ 50 GB
- I/O Channel 1: SQL Data & Indexes; D:\ (2) 300 GB
- I/O Channel 2: SQL Logs; L:\ (2) 300 GB
- I/O Channel 3: Search Index; L:\ (2) 1 TB

Notes:

- The amount of storage depends on available data.
- Medium and small environments are not applicable. They do not have any of the above specifications.

IQ Application server

Large environments possess the following for the IQ Application server:

- CPU: 8 Core or higher (processors must support a minimum of eight cores)
- Speed: 2.6 GHz or higher
- Memory: 32 GB RAM
- Operating System:
  - Windows Server 2012 R2 Standard 64-bit
  - Windows Server 2016
  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- I/O Channel 0: Dedicated to Operating System & Application; C:\ 50 GB
- I/O Channel 1: Dedicated to Application/IIS; C:\ (2) 146 GB

Note: Medium and small environments are not applicable. They do not have any of the above specifications.

IQ Web Client server

Large environments possess the following for the IQ Web Client server:

- CPU: 8 Core or higher (processors must support a minimum of eight cores)
- Speed: 2.6 GHz or higher
- Memory: 32 GB RAM
- Operating System:
  - Windows Server 2012 R2 Standard 64-bit
  - Windows Server 2016
  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- I/O Channel 0: Dedicated to Operating System & Application; C:\ (2) 50 GB
- I/O Channel 1: Dedicated to Application/IIS; C:\ (2) 146 GB

Note: Medium and small environments are not applicable. They do not have any of the above specifications.

IQ Analytics server

Large environments possess the following for the IQ Web Client server:

- CPU: 1.5 GHz or faster (minimum); 2.0 GHz Four Core or higher (recommended)
- Memory: 8 GB (recommended)
- Operating System:
  - Windows Server 2012 R2 Standard 64-bit
  - Windows Server 2016
  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- Storage: 10 GB or more free (minimum); 50 GB or more free (recommended)

Note: Medium and small environments are not applicable. They do not have any of the above specifications.

911 server specifications

911 Application server

Large, medium, and small environments all have the following components in common for the 911 Application server:

- Memory: 4 GB RAM
- Operating System:
  - Windows Server 2012 R2 Standard 64-bit
  - Windows Server 2016
  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- Network Interface: TCP/IP protocol stack installed; Static or DHCP IP address; Minimum 100/1000 Mbps full duplex Base-T network interface adapter; Domain controller

Large and medium environments both have the following components in common for the 911 Application server:

- CPU: Two Core or higher
- Speed: 2.26 GHz or higher; 3Mb cache or higher
- I/O Channel 0: Dedicated to Operating System & Application; (3)-300 GB; (10,000 > RPM SAS/SCSI); one 300 GB Hot Standby; (10,000 > RPM SAS/SCSI)

Small environments instead possesses the following for the 911 Application server:

- CPU: Two Core or higher
- Speed: 2.0 GHz or higher; 2Mb cache or higher
- I/O Channel 0: Dedicated to Operating System & Application; (3)-300 GB; (10,000 > RPM SAS/SCSI); one 300 GB Hot Standby; (10,000 > RPM SAS/SCSI)

911 Database server

Large, medium, and small environments all have the following components in common for the 911 Database server:

- Operating System:
    - Windows Server 2012 R2 Standard 64-bit
    - Windows Server 2016
    - Windows Server 2019 (for releases 20.3.4+)
    - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- SQL Server: SQL Server 2012 or 2014 R2 Standard 64-bit

There are many differences between the three environments. This table lists their differing components for the 911 Database server:

	Large	Medium	Small
CPU	Four Core or higher		Four Core or higher
Speed	2.26 GHz or higher; 3Mb cache or higher		2.0 GHz or higher 2Mb cache or higher
Memory	8 GB RAM	4 GB RAM	
I/O Channel 0	Dedicated to Operating System & Application; (3)-300 GB; (10,000 > RPM SAS/SCSI); one 300 GB Hot Standby; (10,000 > RPM SAS/SCSI)		Dedicated to Operating System & Application; (3)-146 GB; (10,000 > RPM SAS/SCSI); one 146 GB Hot Standby; (10,000 >RPM SAS/SCSI)

911 Management server

Large and medium environments both have the following components in common for the 911 Management server:

- CPU: Two Core or higher
- Speed: 2.26 GHz or higher; 3Mb cache or higher
- Memory: 4 GB RAM
- Operating System:
    - Windows Server 2012 R2 Standard 64-bit
    - Windows Server 2016

  - Windows Server 2019 (for releases 20.3.4+)
  - Windows Server 2022 (supported on CAD versions 22.1.8 and later)
- I/O Channel 0: Dedicated to Operating System & Application; 40 GB; (10,000 > RPM SAS/SCSI)

Note: Small environments are not applicable. They do not have any of the above specifications.

911 Proxy/Softswitch server

Large and medium environments both have the following components in common for the 911 Proxy/Softswitch server:

- CPU: Two Core or higher
- Speed: 2.9 GHz or higher; 3Mb cache or higher
- Memory: 4 GB RAM
- Operating System: Linux CentOS 7
- I/O Channel 0: Dedicated to Operating System & Application; 80 GB; (10,000 > RPM SAS/SCSI)

Notes:

- Small environments are not applicable. They do not have any of the above specifications.
- Two of these servers are required.

911 managed server

Two of these servers are required. The number of ports is based on the phone count.

CAD Enterprise Business server requirements

Component	Small site	Large site
Processor	One quad-core 2.26 GHz processor	Same
RAM	4GB	6GB
Disk space	36GB configured as RAID 1	Same

Component	Small site	Large site
Operating system	• Microsoft Windows Server 2012 R2 (64-bit) • Microsoft Windows Server 2016 (64-bit) • Microsoft Windows Server 2019 (64-bit) For information about continued support for x86 (32-bit) servers, refer to *Product Announcement 18-01*. Windows Server 2008 SP2 is not supported for CAD 5.8.22 and above.	Same
Inform CAD Prerequisite CD	Required	Same

Multi-application Business server requirements

Component	Small site	Large site
Processor	One quad-core 2.26 GHz processor	Two quad-core 2.26 GHz processors
RAM	8GB	12GB
Disk space	Two 146GB configured as RAID 1 on the C:\ partition	Same

Component	Small site	Large site
Operating system	• Microsoft Windows Server 2012 R2 (64-bit) • Microsoft Windows Server 2016 (64-bit) • Microsoft Windows Server 2019 (64-bit) For information about continued support for x86 (32-bit) servers, refer to *Product Announcement 18-01*. Windows Server 2008 SP2 is not supported for CAD 5.8.22 and above.	Same
Inform CAD Prerequisite CD	Required	Same

Citrix server requirements

Component	Small site	Large site
Processor	Two quad-core 2.4 GHz or faster processors; hyper-threading (HHT) or multi-core recommended	Same
RAM	8-12 GB	Same
Disk Space	Two 146 GB drives configured as RAID 1; more space may be needed based on your agency's configuration	Same
Operating system	• Microsoft Windows Server 2008 R2 SP1 (64-bit [EM64T]) Standard, Enterprise and Datacenter	Same

Component	Small site	Large site
Other software	• Citrix XenApp 6.5 Enterprise or Platinum Edition • Citrix Receiver for Windows 4.1_ 14.1.2.3 • Citrix XenApp 7.9 • Microsoft Windows Terminal Services Client Access License User • CAD Enterprise Prerequisite CD	Same
Display properties	24-bit color depth	Same
Screen resolution	1024x768	Same
Video/graphics adapter	64MB RAM minimum; 256MB RAM recommended. nVidia, ATI and Intel chipsets supported.	Same
Swap space	500	Same

Appendix C - Enterprise suite workstation specifications

In this appendix, comparisons on workstation specifications are made based on site sizes. Specifications are identical regardless of the site size.

CAD Enterprise workstation specifications

Minimum requirements	Recommended
Two Core or higher 2.2 GHz CPU with hyper-threading	Four Core or higher 3.5 GHz CPU or higher
8GB RAM	16GB RAM
150GB available hard drive space	200GB available hard drive space
1 GPU with 4GM of video memory	1 GPU with 8GB of video memory
DirectX 11 or greater	
Windows 10 Pro/Enterprise (64-bit), or Windows 11 Pro/Enterprise (64-bit) (supported on CAD versions 22.3.13.0 and later)	

Mobile Enterprise workstation specifications

Large and small sites share these same specifications for Mobile workstations:

- CPU: Two Core or higher Processor 2.0 GHz or higher
- Memory: 8 GB (16GB recommended)
- Operating System: Windows 10 Pro/Enterprise (64-bit), or Windows 11 Pro/Enterprise (64-bit) (supported on CAD versions 22.3.13.0 and later)
- Available Hard Drive: 12 GB minimum
- Display:
  - 800 x 600 pixel minimum display
  - 1024 x 768, 24-bit or 32-bit color depth recommended
- Prerequisite Software: Install CD:
  - ESRI Runtime 100.3 or later for New Mobile UX
    - Highest version is ArcGis Pro v2.9
  - Microsoft .NET Framework 4.8

  - Microsoft Primary Interoperability Assemblies 2005
  - Windows Imaging Component (64-bit)
- Serial Ports: 1 port
- USB: USB 1.0/2.0 (1 or more)
- Optical Drive: CD/DVD Drive
- Network: For LAN-based workstations:
  - TCP/IP protocol stack installed
  - Static or DHCP IP address
  - Minimum 100/1000 Mbps full duplex Base-T network interface adapter
  - Connection to LAN

Android

- CPU: Two Core or higher 2.0 GHz or greater
- Memory: 6 GB (8 GB Recommended)
- Operating System: Android 11 or greater
- Available Hard Drive: 64 GB (larger as needed for other applications)

Records Enterprise (RMS) workstation specifications

Large and small sites share these same specifications:

- CPU: Core i3 or faster
- Memory: 8 GB
- Operating System: Windows 10 or Windows 11 (We Client) (supported on CAD versions 22.3.13.0 and later)
- Available Hard Drive: 160 GB
- Minimum Resolution: 1024 x 768 for report writing; 1366 x 768+ is recommended
- Graphics Card: 64 MB or better

> **Note:** If using multiple screens and monitors, the graphics card must accommodate multiple screens (e.g., dual or quad monitors).

- Network: For LAN-based workstations:
  - TCP/IP protocol stack installed
  - Static or DHCP IP address

  - Minimum 100/1000 Mbps full duplex Base-T network interface adapter
  - Connection to LAN
- Supported Browsers: Microsoft Edge (Chromium); Google Chrome

RMS Enterprise Property & Evidence hardware specifications

- Desktop Printer option: Zebra ZD421 (This model has Wi-fi and Ethernet Options available.)
- Mobile Printer option: Zebra ZQ520 (This model is Bluetooth-ready.)
- Electronic Signature Pad (Optional): Topaz System, Inc: HSB Pad SignatureGem 4x3
- Wireless Bluetooth Barcode Reader: Zebra LI3678

TIPS Mugshot/Photo camera

- IP Camera: AXIS model M5525-E
- Fargo HDP5000 Dual Sided ID Card Printer: This is for agencies that want to print employee ID cards from user management (CIM) or ID cards from Enterprise records, typically for license and permits. The agency is responsible for creating a custom SSRS report in TIPS to render the card.

Registering the TIPS Photo Capture application

The TIPS application must be registered for any workstations that will be utilized to capture an image via the TIPS application.

Follow these steps in order to perform the registration:

1. Create a shortcut for the **mugshot.exe** application on the TIPS server. You must modify this shortcut to include a new parameter.
2. Right-click the new shortcut.
3. Select **Properties**.
4. From the **Shortcut** tab, in the **Target** field, add “-register” at the end of the "mugshot.exe".

   Example: "C:\Program Files (x86)\TIPS\Mugshot\Application\mugshot.exe" -register

5. Select **Apply**. You must then configure the shortcut so that you can run it as an Administrator.
6. Select the **Compatibility** tab.
7. Select the **Run this program as an administrator** check box to activate it.
8. Select **OK** to apply your changes and close the **Properties** window to complete your TIPS registration.

When you right-click the **Mugshot** shortcut, you can now select **Run as administrator**.

> **Note:** For any workstations where agencies wish to print reports from TIPS, the Google Chrome browser is highly recommended because Internet Explorer is a CJIS violation. If Internet Explorer is used, you must install a default PDF viewer for that computer. An example of a report from TIPS would be a photo ID card.

CAD Enterprise software requirements

The CAD Enterprise Prerequisites CD installs the components listed below. There is a single prerequisite installer for CAD that must be run on every workstation and server running these applications.

Although the CD contains all of the supported prerequisites, the installer only implements those required or supported for each specific Operating System version. Only the versions of prerequisite software indicated in this chart have been tested for use with CentralSquare Technologies' software.

The following chart indicates the prerequisites for CentralSquare's software, which are supported or required and are noted as follows:

- **B:** This is a **Base** requirement, meaning this software has been tested with the indicated CentralSquare and is the earliest version of the prerequisite that may be installed.
- **O:** This is an **Optional** version of the base requirement that a customer can choose to install instead of the base version. Prerequisites marked as optional may be required for optional software functionality, as indicated in the chart below, or may be later versions of supported software.
- **R:** This is a **Required** item, meaning no other versions of the software have been tested with CentralSquare's software.

Software requirements chart

Component	CST software initial version	CAD Enterprise Database, Browser, & Business servers	CAD Enterprise client	Mobile Enterprise Database & Business servers	Mobile Enterprise client
ESRI ArcGIS Engine 10.2.1	5.6.0		R		
ESRI ArcGIS Runtime 10.2.5 (Type 2 Maps)	5.6.0				R
ESRI ArcGIS Runtime 100.1 (Type 3 Maps)	5.8.9				R
ESRI ArcGIS Runtime 100.3 (Type 3 Maps)	5.8.18				R
Microsoft Visual C++ 2015 Redistributable Update 3 (Type 3 Maps)	5.8.9				O

Component	CST software initial version	CAD Enterprise Database, Browser, & Business servers	CAD Enterprise client	Mobile Enterprise Database & Business servers	Mobile Enterprise client
Internet Explorer 11.0 • IE 8 is the required minimum version. IE 9 is also supported.	5.8.9				O
Microsoft .NET Framework 4.5.2 • For customers using Windows Server 2008 32-bit, the CD installs the 4.5.2 .NET Framework.	5.7.37	B		B	B (21.3 and earlier) (Not compatible with Mobile Client release starting from 21.4.2.)
Microsoft .NET Framework 4.6.2	5.7.34	R	R	R	B (21.4.2 +)
Microsoft .NET Framework 4.6.2 or greater	5.8.22	R	R	R	R
Microsoft .NET Framework 4.7.1	5.8.3	O	O	O	O

Component	CST software initial version	CAD Enterprise Database, Browser, & Business servers	CAD Enterprise client	Mobile Enterprise Database & Business servers	Mobile Enterprise client
Microsoft .NET Framework 4.7.2	5.8.26	O	O	O	O
Microsoft .NET Framework 4.8	20.4.3	O	O	O	O
Microsoft Data Access Components - MDAC 2.8.1	Pre-5.5	R	R	R	R
Microsoft Interop Forms Redistributable Package 2.0a	Pre-5.5	R	R	R	R
Microsoft Message Queuing	Pre-5.5	R	R	R	R
Microsoft Primary Interoperability Assemblies 2005	Pre-5.5	R	R	R	R
Microsoft Report Viewer Redistributable 2005	Pre-5.5	R	R	R	R

Component	CST software initial version	CAD Enterprise Database, Browser, & Business servers	CAD Enterprise client	Mobile Enterprise Database & Business servers	Mobile Enterprise client
MSXML 4.0 SP2 Parser and SDK	Pre-5.5	R	R	R	R
MSXML 6.0 SP1 Parser	Pre-5.5	R	R	R	R
Windows Imaging Component (x86)	Pre-5.5	R	R	R	R
Windows Imaging Component (x64)	Pre-5.5	R	R	R	R
Windows Installer 3.1 (x86)	Pre-5.5	R	R	R	R
Windows Script 5.6 / 5.7	Pre-5.5	R	R	R	R

Appendix D - Enterprise product suite server definitions

This section lists the entire Enterprise Product suite's servers and the components that are hosted on those servers.

Server	Components	Definition
CAD–Database Server	• SQL Server • Event Service	
CAD–M.A.B.S	• Auto Dispatch • VisiNet Service Host • GIS Service • Unit Swap Service • Database Event Service • System Health Monitor Service • Driving Directions Service • Document Service • License Service • Log Query Service • GEO Fencing Service • Closest Premise Service • Rotation Service • Unit Status And Position Service • Dispatch Level Service • Telephony Integration Service • Systems Integration Service	Multi-Application Business Server
CAD–Web Server	• IIS • Recall • Browser • GIS Configuration Website	
CAD–Mobile Server	• Mobile Server • SQL Server Express	
CAD–Mobile Interface Machine	• Mobile Interface	

Server	Components	Definition
CAD–Interface Machine	• 911 • Paging • Records Check • Proxy • RMS/Exports • Station Alerting • CAD to CAD • Push to Talk	
CAD—-Archive Server		Archival of Database information
CAD–Reporting Server		Offline reporting server
CAD–Training Database Server	• CAD–Database Server • CAD–M.A.B.S • CAD–Web Server	
CAD–Training Application Server	• CAD–Mobile Server • CAD–Mobile Interface Machine • CAD–Interface Machine	
IQ–Database Server	• SQL Server • API • Indexer • SSRS • SSAS	
IQ–Application Server	• IIS • IQ Application	
IQ–Analytics Server	• Dundas	

Server	Components	Definition
RMS GIS Server	• PS-ENT-RMS-190129-SW-OP-LF (This part number component requires a purchase from ESRI/GIS for clients without CAD.) For more information on this component's requirement, refer to RMS Overview.	Dependent on having an ArcGIS Server, Required for RMS to have Geocoding Services for address validation and the optional Map Server for Polygon Lookup functionality.
911–Database Server	• SQL Server	
911–SoftSwitch Server	• Soft Switch Application • Voice	

Other servers include:

- 911–Application Server
- 911–SuperMicro Server
- 911–Management Server
- 911–Proxy Server

Appendix E - Virtual server configuration

The physical hardware requirements of your virtual server host will be calculated by CentralSquare based on the final sales order for what systems are purchased for Enterprise.

This table lists servers that must be provisioned in a virtual environment. Use the Components column based on your agency size to determine if a virtual server must be provisioned.

Server Name	Large Agency Components	Medium Agency Components	Small Agency Components
CAD Database Server	CAD–Production Database Server	CAD–Production Database Server	• CAD–Production Database Server • CAD–Web Server • CAD–M.A.B.S
CAD Mobile Server	CAD Mobile Server	CAD Mobile Server	• CAD–Mobile Server • CAD–Mobile Interface Machine • CAD–Interface Machine
CADMobile Interface Machine	CAD Mobile Interface Machine		N/A
CAD Interface Machine	CAD Interface Machine		N/A
CAD–Web Server	CAD–Web Server	N/A	
M.A.B.S	CAD–M.A.B.S	• CAD–Web Server • CAD–M.A.B.S	N/A
CAD Training Database Server	CAD Training Database Server		N/A
CAD Training – Server	• CAD–Training Mobile Server • CAD–Training Interface Machine		N/A

<table>
<tr><th>Server Name</th><th>Large Agency Components</th><th>Medium Agency Components</th><th>Small Agency Components</th></tr>
<tr><td>CAD Reporting Server</td><td colspan="2"><ul><li>CAD–Reporting Server</li><li>CAD–Archive Server</li></ul></td><td>These are optional:<ul><li>CAD–Reporting Server</li><li>CAD–Archive Server</li></ul></td></tr>
<tr><td>IQ Database Server</td><td>IQ Database Server</td><td colspan="2">N/A</td></tr>
<tr><td>IQ Application Server</td><td>IQ Application Server</td><td colspan="2">N/A</td></tr>
<tr><td>IQ Analytics Server</td><td>IQ Analytics Server</td><td colspan="2">N/A</td></tr>
<tr><td>RMS Database Server (Web)</td><td colspan="3">RMS Database Server</td></tr>
<tr><td>RMS API Server (Web)</td><td>RMS API Server</td><td colspan="2">N/A</td></tr>
<tr><td>RMS ElasticSearch Server (Web)</td><td colspan="3">ElasticSearch Server</td></tr>
<tr><td>RMS Web Application Server</td><td>RMS Web Server</td><td colspan="2"><ul><li>RMS Web Server</li><li>RMS API Server</li></ul></td></tr>
<tr><td>RMS GIS Server</td><td colspan="3">RMS GIS Server</td></tr>
<tr><td>911 Database Server</td><td colspan="3">911 Database Server</td></tr>
<tr><td>911 SoftSwitch Server</td><td colspan="2">N/A</td><td>911 SoftSwitch Server</td></tr>
<tr><td>911 SuperMicro</td><td colspan="2">911 SuperMicro</td><td>N/A</td></tr>
</table>

Server Name	Large Agency Components	Medium Agency Components	Small Agency Components
911 Management Server	911 Management Server		N/A
911 Application Server	911 Application Server		

EXHIBIT 7

Service Level Commitments

The following applies to any cloud-hosted CentralSquare software only. The following does not apply to any on-premise software, hardware, or third-party products.

1. **Service Level Commitments**

   A. Availability. During any calendar month, the availability of the Solution shall be no less than 99.99%, excluding scheduled maintenance. CentralSquare shall provide Customer with prompt notification as soon as it becomes aware of any actual or potential unscheduled downtime of the Solution, as well as continual periodic updates during the unscheduled downtime regarding CentralSquare's progress in remedying the unavailability and estimated time at which the Solution shall be available.

   B. Measurement. Service availability is measured as the total time that the solutions are available during each calendar month for access by Customer ("Service Availability"). Service Availability measurement shall be applied to the production environment only, and the points of measurement for all monitoring shall be the servers and the internet connections at CentralSquare's hosted environment.

   C. Calculation. Service availability for a given month shall be calculated using the following calculation:
      I. The total number of minutes which the service was not available in a given month shall be subtracted from the total number of minutes available in the given month. The resulting figure is divided by the total number of minutes available in the given month.
      II. Service availability targets are subject to change due to the variance of the number of days in a month.

      III. The total number of minutes which the service was not available in a given month shall exclude minutes associated with scheduled or emergency maintenance.

   D. Remedy. If the service period target measurement is not met, then the customer shall be entitled to a credit calculated as follows:

Service availability in the relevant Service period	**Percentage reduction in monthly fee for the subsequent service period**
Less than 99.99% but greater than or equal to 99.9%	1%
Less than 99.9% but greater than or equal to 99.5%	5%
Less than 99.5%	10%

   E. Credit must be requested by the customer within sixty (60) days of the failed target. Any credit awarded shall be applied to the next applicable invoice. Customer shall not be eligible for credits where customer is more than thirty (30) days past due on their account.

2. Exceptions. The Service Level Commitments and availability stated in this Exhibit do not cover services interruptions or performance issues that are caused by factors outside of CentralSquare or it's hosting partner's control. Such factors may include, but are not limited to:

   A. Internet Access. Issues relating to Customer's internet access. Any outages, slowdowns, or other problems related to the internet connection are explicitly disclaimed;

   B. Customer's Internal Network Issues. Issues originating from Customer's internal network such as network congestion, network equipment failure, or misconfigurations are explicitly disclaimed;

   C. Third-Party Acts. Issues caused by the acts or omissions of third-parties, including providers of internet services, or for issues arising from third-party software or hardware that is not provided by CentralSquare is explicitly disclaimed;

D. Gross Negligence or Willful Misconduct. Issues relating to the failure or delay in performance to the extent caused by the acts or omissions of Customer or its agents constituting gross negligence or willful misconduct are explicitly disclaimed; and,

E. Force Majeure. A force majeure event such as natural disasters, acts of God, or any other cause constituting force majeure are explicitly disclaimed.

3. Server Performance & Capacity. The standard provisioning of storage for the cloud solutions is 1 terabyte. If Customer requests to add additional Software, increase storage or processing requirements, and/or request additional environments, these requests will be evaluated and if additional resources are required to support modifications, additional fees may apply at per unit (gigabyte, hour, license, etc).

4. Releases. Customer agrees keep the software up-to-date with the cloud release cycle as determined by CentralSquare. Staying current is essential to address security, performance, and infringement issues, and is required for receiving software support. All modifications, revisions, and updates to the software will be provided through new releases, accompanied by documentation updates whenever the CentralSquare deems necessary.

5. Non-Production Environments. Included in the subscription fee is access to the training environment during the hours of 8:00am – 4:00pm EST, Monday through Friday. Should the Customer require extended access for items such as internal training, CentralSquare can make exceptions provided that Customer provide reasonable advance written notice. CentralSquare will then work with the Customer to enable access in accordance with an agreed upon schedule.

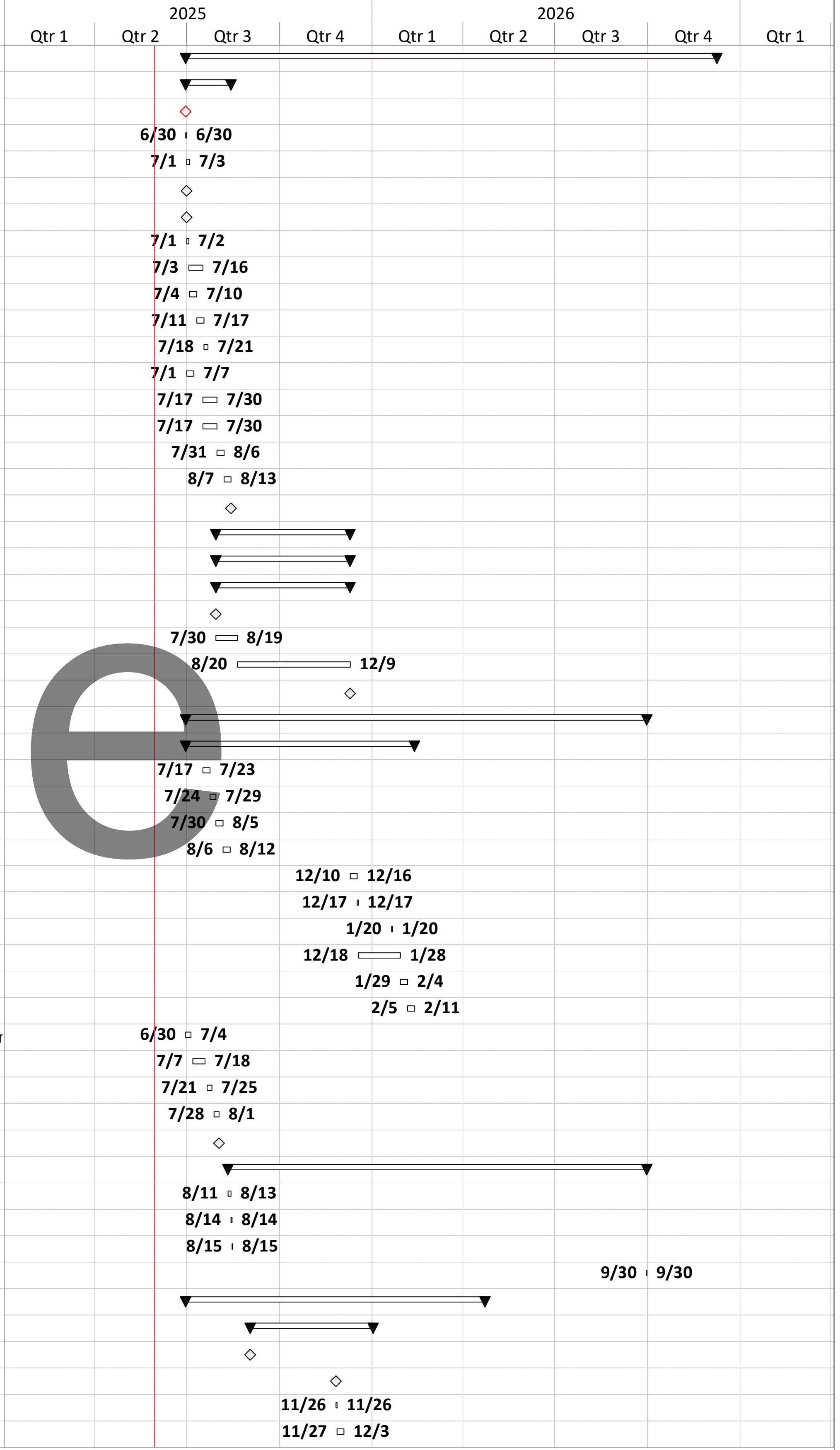
EXHIBIT 8

SAMPLE DOCUMENTATION

City of Waukesha, WI SAMPLE Project Schedule

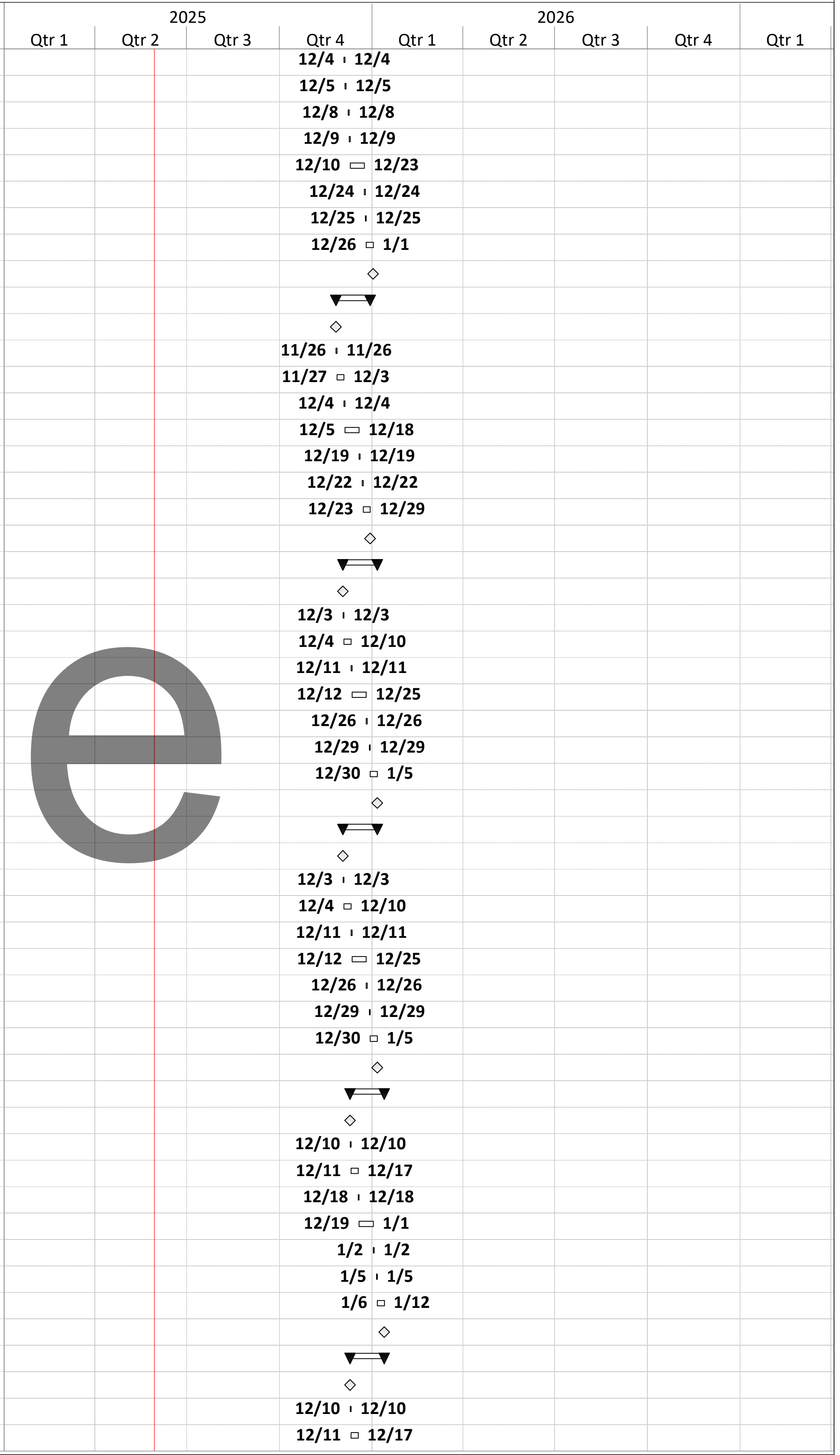
CENTRALSQUARE

ID	Task Name	Dur	Start	Finish	Predecessors	Resource Names
0	**City of Waukesha, WI: SAMPLE Project Schedule (estimation = business days)**	**377 days**	**Mon 6/30/25**	**Tue 12/8/26**		
1	**Start-Up Activities**	**33 days**	**Mon 6/30/25**	**Wed 8/13/25**		
2	Signed Contract Received	0 days	Mon 6/30/25	Mon 6/30/25		Client,Sales
3	PM Assigned	1 day	Mon 6/30/25	Mon 6/30/25	2	PMO Ops,Finance
4	PM/Client Introduction	3 days	Tue 7/1/25	Thu 7/3/25	3	CST PM,Client
5	Set Up Project Repository in Teams	0 days	Mon 6/30/25	Mon 6/30/25	3	CST PM
6	Pull Velocity Checklist Based on Project Size - Save to Repository	0 days	Mon 6/30/25	Mon 6/30/25	3	CST PM
7	Sales to PM Transition Meeting	2 days	Tue 7/1/25	Wed 7/2/25	3	CST PM,Sales
8	Internal Contract Review with Functional Managers	10 days	Thu 7/3/25	Wed 7/16/25	7	CST PM,Functional Managers
9	Contract Review With Client	5 days	Fri 7/4/25	Thu 7/10/25	7,4	CST PM,Client
10	Submit Draft Communication/Risk/Change Management Plans to Client	5 days	Fri 7/11/25	Thu 7/17/25	9	CST PM
11	Client Kickoff Meeting	2 days	Fri 7/18/25	Mon 7/21/25	8,9,10	CST PM,Client,Project Team
12	Internal Project Set Up Complete	5 days	Tue 7/1/25	Mon 7/7/25	3	CST PM
13	Complete Draft Project Schedule	10 days	Thu 7/17/25	Wed 7/30/25	2,9,8,12	CST PM
14	Complete Project Budget	10 days	Thu 7/17/25	Wed 7/30/25	2,9,8,12	CST PM
15	Resource Bookings Completed	5 days	Thu 7/31/25	Wed 8/6/25	13	CST PM,Resource Schedulers
16	Draft Project Schedule Reviewed/Confirmed by Client	5 days	Thu 8/7/25	Wed 8/13/25	15,11	CST PM,Client
17	Start-Up Activities Complete	0 days	Wed 8/13/25	Wed 8/13/25	14,13,15,16,5,6	
18	**Hardware/Software Procurement**	**95 days**	**Tue 7/29/25**	**Tue 12/9/25**		
19	**CentralSquare Scope**	**95 days**	**Tue 7/29/25**	**Tue 12/9/25**		
20	**Server/Storage Solution**	**95 days**	**Tue 7/29/25**	**Tue 12/9/25**		
21	Server/Storage Specs Available	0 days	Tue 7/29/25	Tue 7/29/25	2,28	CIS,CST
22	Server/Storage Orders Placed	15 days	Wed 7/30/25	Tue 8/19/25	21	CST
23	Server/Storage Procurement/Installation	80 days	Wed 8/20/25	Tue 12/9/25	22	CST
24	Server/Storage Ready for CentralSquare Software Installation	0 days	Tue 12/9/25	Tue 12/9/25	23	CST
25	**System Installation**	**327.25 days**	**Mon 6/30/25**	**Wed 9/30/26**		
26	**Server Install/Configuration**	**163 days**	**Mon 6/30/25**	**Wed 2/11/26**		
27	Technical Kickoff (Internal)	5 days	Thu 7/17/25	Wed 7/23/25	8	CIS,CST PM,3rd Parties
28	Installation Service Request (ISR) Delivered	4 days	Thu 7/24/25	Tue 7/29/25	27	CIS
29	Technical Kickoff with Client	5 days	Wed 7/30/25	Tue 8/5/25	28,11	CIS,CST PM,Client
30	Client Connection Document Delivered	5 days	Wed 8/6/25	Tue 8/12/25	29	CIS
31	Server Prep (Server Prep Tool / Automated SQL Install)	5 days	Wed 12/10/25	Tue 12/16/25	24,30	CIS
32	Environments/Assets Updated in Salesforce	1 day	Wed 12/17/25	Wed 12/17/25	31	CIS
33	Verify Connectivity to Client Site, Servers, and Setup of Security Accounts	1 day	Tue 1/20/26	Tue 1/20/26	34FS-7 days	CIS
34	Product Installations	30 days	Thu 12/18/25	Wed 1/28/26	32	CIS
35	Workstation Installation Training	5 days	Thu 1/29/26	Wed 2/4/26	34	CIS,Client
36	1-Step Refresh Training (Production to Test/Train)	5 days	Thu 2/5/26	Wed 2/11/26	35	CIS,Client
37	Internal Application Handoff (to BAs, SysE, GIS)	5 days	Mon 6/30/25	Fri 7/4/25		IS,SysE,GIS Specialist,CST Consultar
38	Technical Handoff to Client/Mini-System Admin	10 days	Mon 7/7/25	Fri 7/18/25	37	CIS,Client
39	System Diagram Delivered	5 days	Mon 7/21/25	Fri 7/25/25	38	CIS
40	System Audit	5 days	Mon 7/28/25	Fri 8/1/25	39	CIS
41	System Ready for Build/Training	0 days	Fri 8/1/25	Fri 8/1/25	40	
42	**Reporting Server Data Replication**	**297.25 days**	**Mon 8/11/25**	**Wed 9/30/26**		
43	Install Replication for CAD Archive Replication	3 days	Mon 8/11/25	Wed 8/13/25	41FS+5 days	CIS
44	Test Replication	1 day	Thu 8/14/25	Thu 8/14/25	43	CIS
45	Disable Replication	0.25 days	Fri 8/15/25	Fri 8/15/25	44	CIS
46	Enable Replication (Go-Live)	0.25 days	Wed 9/30/26	Wed 9/30/26	323FS-7 days	CIS
47	**System Interfaces**	**213 days**	**Mon 6/30/25**	**Wed 4/22/26**		
48	**Standard CAD ANI/ALI Interface**	**88 days**	**Mon 9/1/25**	**Thu 1/1/26**		
49	ANI/ALI Data Spill Available for Testing	0 days	Mon 9/1/25	Mon 9/1/25	11FS+30 days	Client,Phone Vendor
50	ICD Provided to Client	0 days	Tue 11/25/25	Tue 11/25/25	263	CST PM,SysE
51	ICD Review Meeting	1 day	Wed 11/26/25	Wed 11/26/25	50	Client,SysE
52	ICD Review Acknowledgement via TCR	5 days	Thu 11/27/25	Wed 12/3/25	51	Client



City of Waukesha, WI SAMPLE Project Schedule

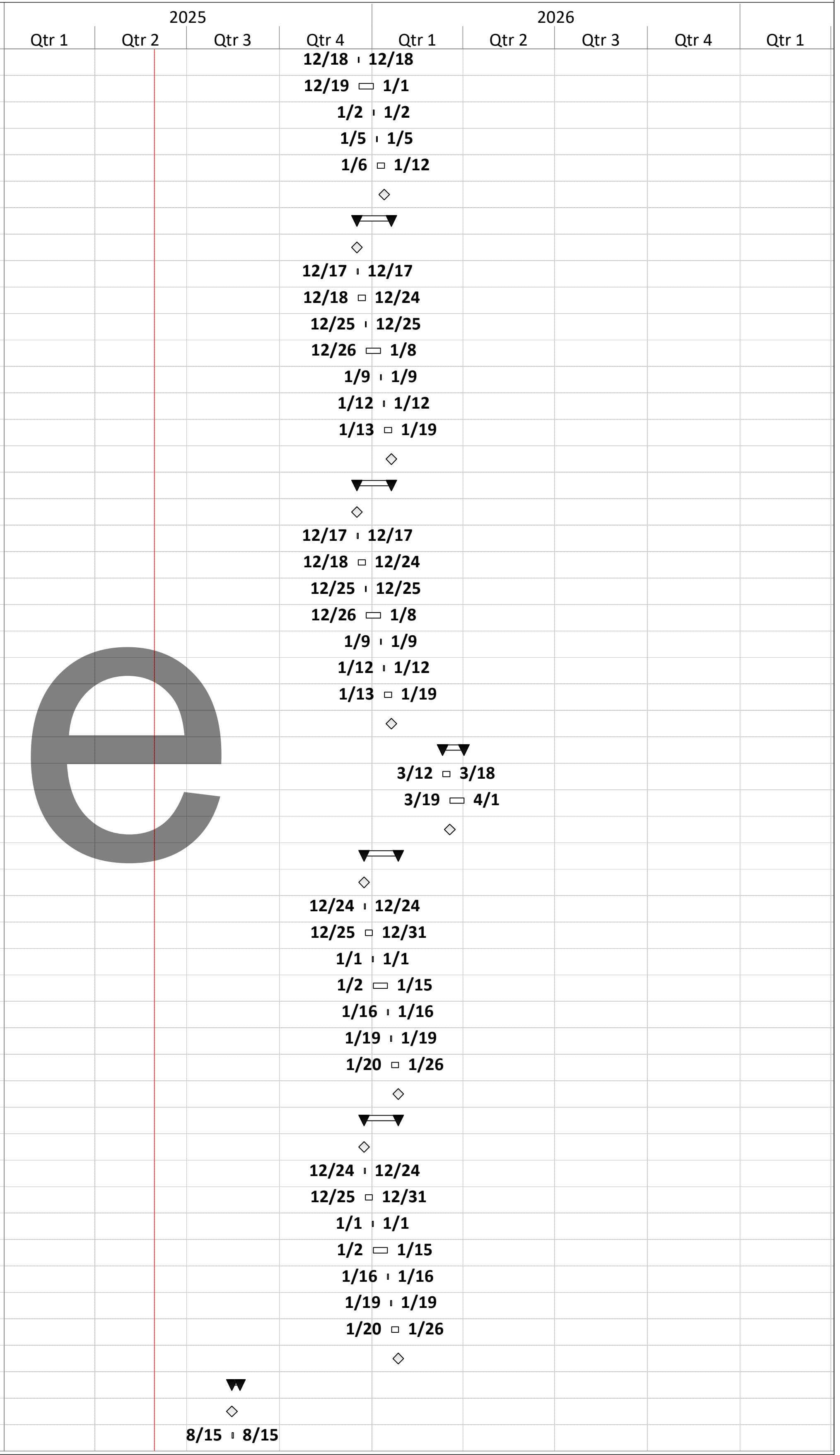
ID	Task Name	Dur	Start	Finish	Predecessors	Resource Names
53	ANI/ALI Interface Install and Base Configuration	1 day	Thu 12/4/25	Thu 12/4/25	52,41	SysE
54	Interface Control Document (ICD) Updated	1 day	Fri 12/5/25	Fri 12/5/25	49,53	SysE
55	Interface Control Document (ICD) Review Meeting	1 day	Mon 12/8/25	Mon 12/8/25	52,54	Client,CIS
56	ANI/ALI Interface Configuration Update	1 day	Tue 12/9/25	Tue 12/9/25	55	SysE
57	ANI/ALI Interface Implementation Testing	10 days	Wed 12/10/25	Tue 12/23/25	56	Client,Third Party,CIS
58	Interface Admin Training	1 day	Wed 12/24/25	Wed 12/24/25	57	Client,CIS
59	Functional Acceptance Test	1 day	Thu 12/25/25	Thu 12/25/25	58	Client,Third Party,CIS
60	Functional Acceptance Test Approval via TCR	5 days	Fri 12/26/25	Thu 1/1/26	59	Client
61	Interface Testing Complete - Ready for Go-Live	0 days	Thu 1/1/26	Thu 1/1/26	60	
62	**Standard CAD to External System Incident Data System Transfer (APX Data)**	**24 days**	**Tue 11/25/25**	**Mon 12/29/25**		
63	ICD Provided to Client	0 days	Tue 11/25/25	Tue 11/25/25	263	CST PM,SysE
64	ICD Review Meeting	1 day	Wed 11/26/25	Wed 11/26/25	63	Client,SysE
65	ICD Review Acknowledgement via TCR	5 days	Thu 11/27/25	Wed 12/3/25	64	Client
66	Interface Install and Base Config	1 day	Thu 12/4/25	Thu 12/4/25	65,41FS+5 days	SysE
67	Interface Implementation Testing	10 days	Fri 12/5/25	Thu 12/18/25	66	Client,Third Party,SysE
68	Interface Admin Training	1 day	Fri 12/19/25	Fri 12/19/25	67	Client,SysE
69	Functional Acceptance Test	1 day	Mon 12/22/25	Mon 12/22/25	68	Client,Third Party,SysE
70	Functional Acceptance Test Approval via TCR	5 days	Tue 12/23/25	Mon 12/29/25	69	Client
71	Interface Testing Complete - Ready for Go-Live	0 days	Mon 12/29/25	Mon 12/29/25	70	
72	**Standard CAD RapidSOS Interface**	**24 days**	**Tue 12/2/25**	**Mon 1/5/26**		
73	ICD Provided to Client	0 days	Tue 12/2/25	Tue 12/2/25	263FS+5 days	CST PM,SysE
74	ICD Review Meeting	1 day	Wed 12/3/25	Wed 12/3/25	73	Client,SysE
75	OSD Review Acknowledgement via TCR	5 days	Thu 12/4/25	Wed 12/10/25	74	Client
76	Interface Install and Base Config	1 day	Thu 12/11/25	Thu 12/11/25	75,41FS+5 days	SysE
77	Interface Implementation Testing	10 days	Fri 12/12/25	Thu 12/25/25	76	Client,Third Party,SysE
78	Interface Admin Training	1 day	Fri 12/26/25	Fri 12/26/25	77	Client,SysE
79	Functional Acceptance Test	1 day	Mon 12/29/25	Mon 12/29/25	78	Client,Third Party,SysE
80	Functional Acceptance Test Approval via TCR	5 days	Tue 12/30/25	Mon 1/5/26	79	Client
81	Interface Testing Complete - Ready for Go-Live	0 days	Mon 1/5/26	Mon 1/5/26	80	
82	**Standard CAD to External System Incident Data System Transfer (ESO)**	**24 days**	**Tue 12/2/25**	**Mon 1/5/26**		
83	ICD Provided to Client	0 days	Tue 12/2/25	Tue 12/2/25	263FS+5 days	CST PM,SysE
84	ICD Review Meeting	1 day	Wed 12/3/25	Wed 12/3/25	83	Client,SysE
85	ICD Review Acknowledgement via TCR	5 days	Thu 12/4/25	Wed 12/10/25	84	Client
86	Interface Install and Base Config	1 day	Thu 12/11/25	Thu 12/11/25	85,41FS+5 days	SysE
87	Interface Implementation Testing	10 days	Fri 12/12/25	Thu 12/25/25	86	Client,Third Party,SysE
88	Interface Admin Training	1 day	Fri 12/26/25	Fri 12/26/25	87	Client,SysE
89	Functional Acceptance Test	1 day	Mon 12/29/25	Mon 12/29/25	88	Client,Third Party,SysE
90	Functional Acceptance Test Approval via TCR	5 days	Tue 12/30/25	Mon 1/5/26	89	Client
91	Interface Testing Complete - Ready for Go-Live	0 days	Mon 1/5/26	Mon 1/5/26	90	
92	**Standard CAD to External System Incident Data System Transfer (WSI - NICE Logging Recorder)**	**24 days**	**Tue 12/9/25**	**Mon 1/12/26**		
93	ICD Provided to Client	0 days	Tue 12/9/25	Tue 12/9/25	263FS+10 days	CST PM,SysE
94	ICD Review Meeting	1 day	Wed 12/10/25	Wed 12/10/25	93	Client,SysE
95	ICD Review Acknowledgement via TCR	5 days	Thu 12/11/25	Wed 12/17/25	94	Client
96	Interface Install and Base Config	1 day	Thu 12/18/25	Thu 12/18/25	95,41FS+5 days	SysE
97	Interface Implementation Testing	10 days	Fri 12/19/25	Thu 1/1/26	96	Client,Third Party,SysE
98	Interface Admin Training	1 day	Fri 1/2/26	Fri 1/2/26	97	Client,SysE
99	Functional Acceptance Test	1 day	Mon 1/5/26	Mon 1/5/26	98	Client,Third Party,SysE
100	Functional Acceptance Test Approval via TCR	5 days	Tue 1/6/26	Mon 1/12/26	99	Client
101	Interface Testing Complete - Ready for Go-Live	0 days	Mon 1/12/26	Mon 1/12/26	100	
102	**Standard CAD to External System Incident Data System Transfer (Axon RMS Calls for Service)**	**24 days**	**Tue 12/9/25**	**Mon 1/12/26**		
103	ICD Provided to Client	0 days	Tue 12/9/25	Tue 12/9/25	263FS+10 days	CST PM,SysE
104	ICD Review Meeting	1 day	Wed 12/10/25	Wed 12/10/25	103	Client,SysE
105	ICD Review Acknowledgement via TCR	5 days	Thu 12/11/25	Wed 12/17/25	104	Client



City of Waukesha, WI SAMPLE Project Schedule

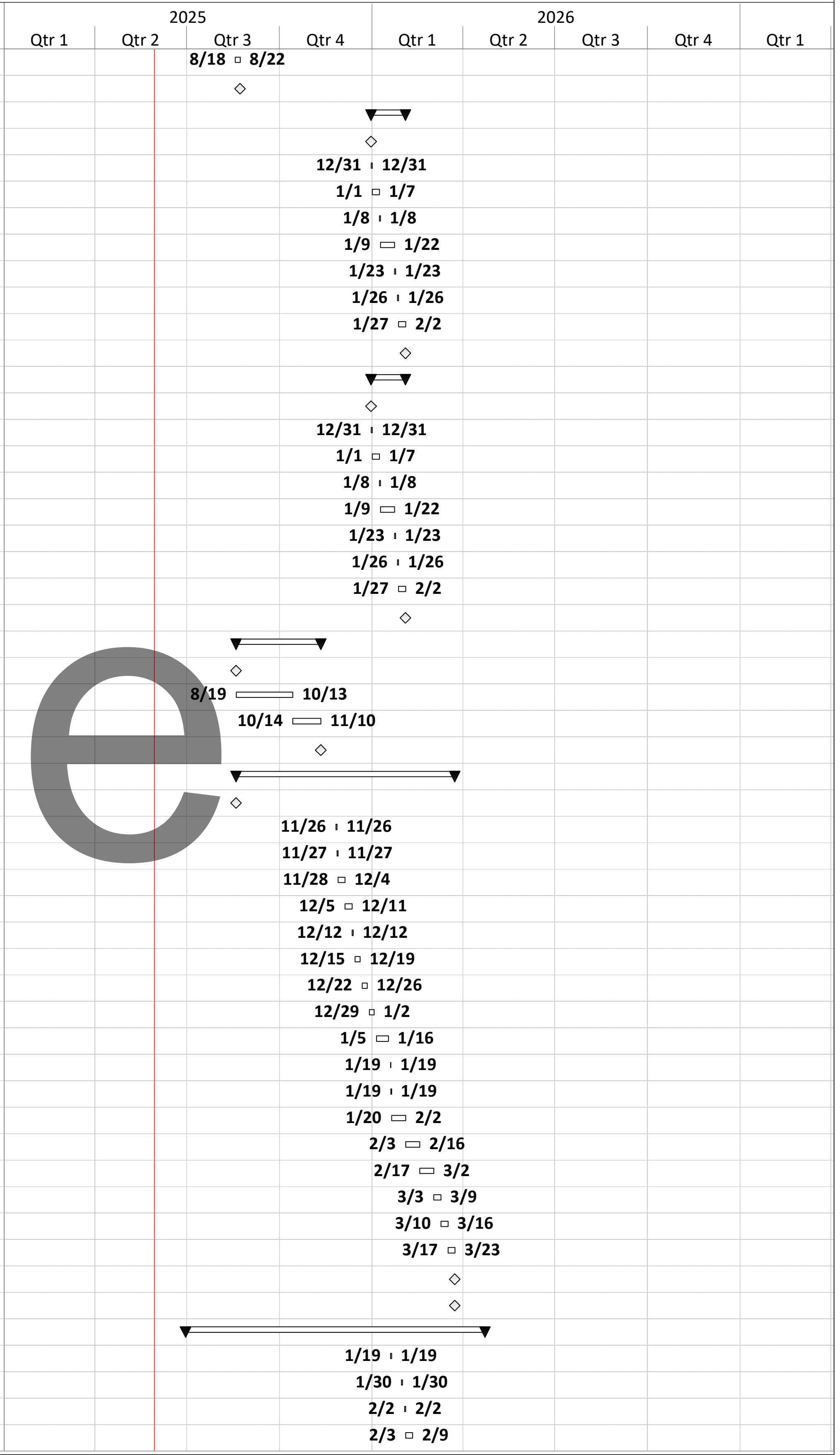
CENTRALSQUARE

ID	Task Name	Dur	Start	Finish	Predecessors	Resource Names
106	Interface Install and Base Config	1 day	Thu 12/18/25	Thu 12/18/25	105,41FS+5 days	SysE
107	Interface Implementation Testing	10 days	Fri 12/19/25	Thu 1/1/26	106	Client,Third Party,SysE
108	Interface Admin Training	1 day	Fri 1/2/26	Fri 1/2/26	107	Client,SysE
109	Functional Acceptance Test	1 day	Mon 1/5/26	Mon 1/5/26	108	Client,Third Party,SysE
110	Functional Acceptance Test Approval via TCR	5 days	Tue 1/6/26	Mon 1/12/26	109	Client
111	Interface Testing Complete - Ready for Go-Live	0 days	Mon 1/12/26	Mon 1/12/26	110	
112	**Standard CAD Station Alert Interface**	**24 days**	**Tue 12/16/25**	**Mon 1/19/26**		
113	ICD Provided to Client	0 days	Tue 12/16/25	Tue 12/16/25	263FS+15 days	CST PM,SysE
114	ICD Review Meeting	1 day	Wed 12/17/25	Wed 12/17/25	113	Client,SysE
115	ICD Review Acknowledgement via TCR	5 days	Thu 12/18/25	Wed 12/24/25	114	Client
116	Interface Install and Base Config	1 day	Thu 12/25/25	Thu 12/25/25	115,41FS+10 days	SysE
117	Interface Implementation Testing	10 days	Fri 12/26/25	Thu 1/8/26	116	Client,Third Party,SysE
118	Interface Admin Training	1 day	Fri 1/9/26	Fri 1/9/26	117	Client,SysE
119	Functional Acceptance Test	1 day	Mon 1/12/26	Mon 1/12/26	118	Client,Third Party,SysE
120	Functional Acceptance Test Approval via TCR	5 days	Tue 1/13/26	Mon 1/19/26	119	Client
121	Interface Testing Complete - Ready for Go-Live	0 days	Mon 1/19/26	Mon 1/19/26	120	
122	**Standard CAD Enterprise ASAP Interface**	**24 days**	**Tue 12/16/25**	**Mon 1/19/26**		
123	ICD Provided to Client	0 days	Tue 12/16/25	Tue 12/16/25	263FS+15 days	CST PM,SysE
124	ICD Review Meeting	1 day	Wed 12/17/25	Wed 12/17/25	123	Client,SysE
125	ICD Review Acknowledgement via TCR	5 days	Thu 12/18/25	Wed 12/24/25	124	Client
126	Interface Install and Base Config	1 day	Thu 12/25/25	Thu 12/25/25	125,41FS+10 days	SysE
127	Interface Implementation Testing	10 days	Fri 12/26/25	Thu 1/8/26	126	Client,Third Party,SysE
128	Interface Admin Training	1 day	Fri 1/9/26	Fri 1/9/26	127	Client,SysE
129	Functional Acceptance Test	1 day	Mon 1/12/26	Mon 1/12/26	128	Client,Third Party,SysE
130	Functional Acceptance Test Approval via TCR	5 days	Tue 1/13/26	Mon 1/19/26	129	Client
131	Interface Testing Complete - Ready for Go-Live	0 days	Mon 1/19/26	Mon 1/19/26	130	
132	**CAD Archive Server View (PulsePoint)**	**15 days**	**Thu 3/12/26**	**Wed 4/1/26**		
133	Provide Database Credentials to Pulsepoint	5 days	Thu 3/12/26	Wed 3/18/26	44	Client
134	PulsePoint configure views and data extract on CAD Archive database	10 days	Thu 3/19/26	Wed 4/1/26	133	Third Party/Client
135	Interface Testing Complete - Ready for Go-Live	0 days	Wed 3/18/26	Wed 3/18/26	133	
136	**CAD Mobile AFR XML Export Interface - Badger TraCS**	**24 days**	**Tue 12/23/25**	**Mon 1/26/26**		
137	ICD Provided to Client	0 days	Tue 12/23/25	Tue 12/23/25	263FS+20 days	CST PM,SysE
138	ICD Review Meeting	1 day	Wed 12/24/25	Wed 12/24/25	137	Client,SysE
139	ICD Review Acknowledgement via TCR	5 days	Thu 12/25/25	Wed 12/31/25	138	Client
140	Interface Install and Base Config	1 day	Thu 1/1/26	Thu 1/1/26	139,41FS+30 days	SysE
141	Interface Implementation Testing	10 days	Fri 1/2/26	Thu 1/15/26	140	Client,Third Party,SysE
142	Interface Admin Training	1 day	Fri 1/16/26	Fri 1/16/26	141	Client,SysE
143	Functional Acceptance Test	1 day	Mon 1/19/26	Mon 1/19/26	142	Client,Third Party,SysE
144	Functional Acceptance Test Approval via TCR	5 days	Tue 1/20/26	Mon 1/26/26	143	Client
145	Interface Testing Complete - Ready for Go-Live	0 days	Mon 1/26/26	Mon 1/26/26	144	
146	**CAD Standard LPR Interface - FLOCK**	**24 days**	**Tue 12/23/25**	**Mon 1/26/26**		
147	ICD Provided to Client	0 days	Tue 12/23/25	Tue 12/23/25	263FS+20 days	CST PM,SysE
148	ICD Review Meeting	1 day	Wed 12/24/25	Wed 12/24/25	147	Client,SysE
149	ICD Review Acknowledgement via TCR	5 days	Thu 12/25/25	Wed 12/31/25	148	Client
150	Interface Install and Base Config	1 day	Thu 1/1/26	Thu 1/1/26	149,41FS+30 days	SysE
151	Interface Implementation Testing	10 days	Fri 1/2/26	Thu 1/15/26	150	Client,Third Party,SysE
152	Interface Admin Training	1 day	Fri 1/16/26	Fri 1/16/26	151	Client,SysE
153	Functional Acceptance Test	1 day	Mon 1/19/26	Mon 1/19/26	152	Client,Third Party,SysE
154	Functional Acceptance Test Approval via TCR	5 days	Tue 1/20/26	Mon 1/26/26	153	Client
155	Interface Testing Complete - Ready for Go-Live	0 days	Mon 1/26/26	Mon 1/26/26	154	
156	**CAD Axon Evidence.com Data Extract - BWC**	**6 days**	**Thu 8/14/25**	**Fri 8/22/25**		
157	Configure Axon View on CAD Ent Archive Database	0 days	Thu 8/14/25	Thu 8/14/25	44	CST PM,SysE
158	Provide Database Credentials to Axon	1 day	Fri 8/15/25	Fri 8/15/25	157	Client,SysE

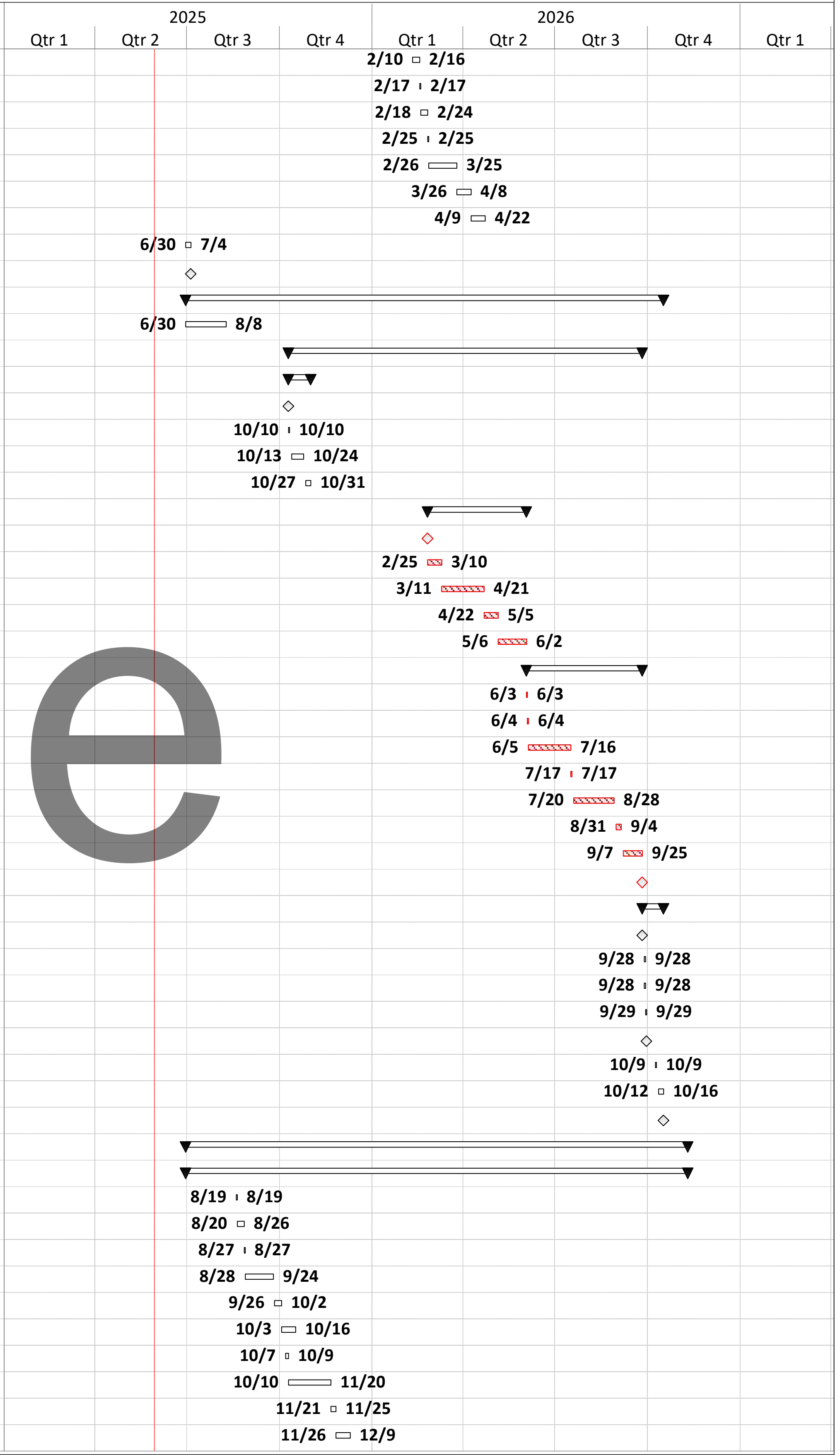


City of Waukesha, WI SAMPLE Project Schedule

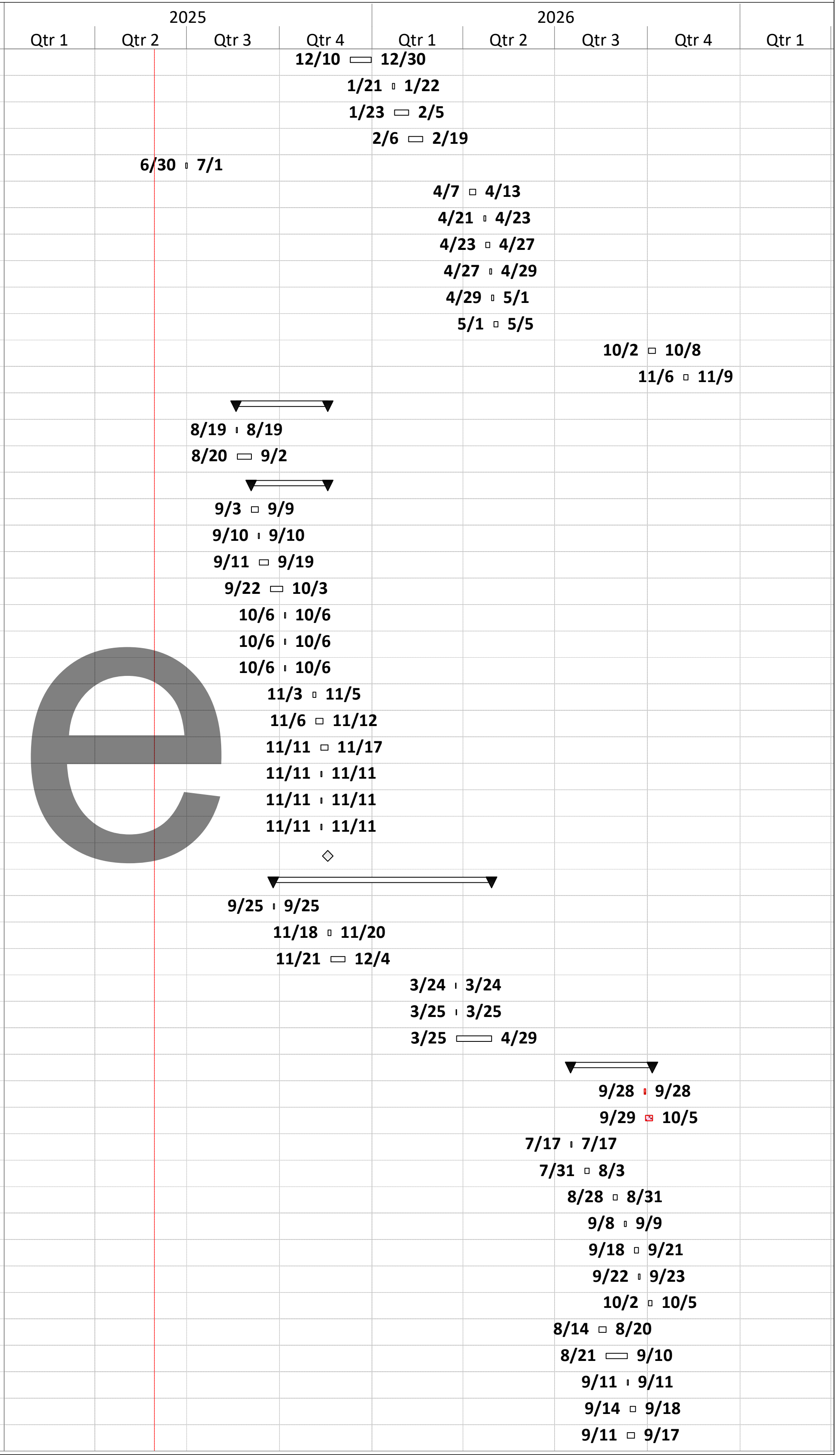
ID	Task Name	Dur	Start	Finish	Predecessors	Resource Names
159	Axon configure extract to pull CAD data from View	5 days	Mon 8/18/25	Fri 8/22/25	158	Client
160	Interface Testing Complete - Ready for Go-Live	0 days	Fri 8/22/25	Fri 8/22/25	159	
161	**CAD Standard Premise Data Import - First Due**	**24 days**	**Tue 12/30/25**	**Mon 2/2/26**		
162	ICD Provided to Client	0 days	Tue 12/30/25	Tue 12/30/25	263FS+25 days	CST PM,SysE
163	ICD Review Meeting	1 day	Wed 12/31/25	Wed 12/31/25	162	Client,SysE
164	ICD Review Acknowledgement via TCR	5 days	Thu 1/1/26	Wed 1/7/26	163	Client
165	Interface Install and Base Config	1 day	Thu 1/8/26	Thu 1/8/26	164,41FS+30 days	SysE
166	Interface Implementation Testing	10 days	Fri 1/9/26	Thu 1/22/26	165	Client,Third Party,SysE
167	Interface Admin Training	1 day	Fri 1/23/26	Fri 1/23/26	166	Client,SysE
168	Functional Acceptance Test	1 day	Mon 1/26/26	Mon 1/26/26	167	Client,Third Party,SysE
169	Functional Acceptance Test Approval via TCR	5 days	Tue 1/27/26	Mon 2/2/26	168	Client
170	Interface Testing Complete - Ready for Go-Live	0 days	Mon 2/2/26	Mon 2/2/26	169	
171	**CAD Standard Alpha Numeric Paging Interface - Alert Sense**	**24 days**	**Tue 12/30/25**	**Mon 2/2/26**		
172	ICD Provided to Client	0 days	Tue 12/30/25	Tue 12/30/25	263FS+25 days	CST PM,SysE
173	ICD Review Meeting	1 day	Wed 12/31/25	Wed 12/31/25	172	Client,SysE
174	ICD Review Acknowledgement via TCR	5 days	Thu 1/1/26	Wed 1/7/26	173	Client
175	Interface Install and Base Config	1 day	Thu 1/8/26	Thu 1/8/26	174,41FS+30 days	SysE
176	Interface Implementation Testing	10 days	Fri 1/9/26	Thu 1/22/26	175	Client,Third Party,SysE
177	Interface Admin Training	1 day	Fri 1/23/26	Fri 1/23/26	176	Client,SysE
178	Functional Acceptance Test	1 day	Mon 1/26/26	Mon 1/26/26	177	Client,Third Party,SysE
179	Functional Acceptance Test Approval via TCR	5 days	Tue 1/27/26	Mon 2/2/26	178	Client
180	Interface Testing Complete - Ready for Go-Live	0 days	Mon 2/2/26	Mon 2/2/26	179	
181	**CAD REST API - Crewsense**	**60 days**	**Mon 8/18/25**	**Mon 11/10/25**		
182	CentralSquare to provide API documentation to Customer	0 days	Mon 8/18/25	Mon 8/18/25	11FS+20 days	CST PM,SysE
183	Customer develops to the APIs	40 days	Tue 8/19/25	Mon 10/13/25	182	Client
184	Interface Testing	20 days	Tue 10/14/25	Mon 11/10/25	183	Client
185	Interface Testing Complete - Ready for Go-Live	0 days	Mon 11/10/25	Mon 11/10/25	184	
186	**NCIC Interface**	**155 days**	**Mon 8/18/25**	**Mon 3/23/26**		
187	State Approval/Connectivity Ready for Testing	0 days	Mon 8/18/25	Mon 8/18/25	11FS+20 days	Client,State
188	OSD Provided to Client	1 day	Wed 11/26/25	Wed 11/26/25	263,298	CST PM,SysE
189	OSD Review Meeting	1 day	Thu 11/27/25	Thu 11/27/25	188	Client,SysE
190	OSD Approval via TCR	5 days	Fri 11/28/25	Thu 12/4/25	189	Client
191	Interface Control Document (ICD) Prep	5 days	Fri 12/5/25	Thu 12/11/25	190	SysE
192	Interface Control Document (ICD) Review Meeting	1 day	Fri 12/12/25	Fri 12/12/25	191	Client,SysE
193	Interface Control Document (ICD) Updated/Approved	5 days	Mon 12/15/25	Fri 12/19/25	192	SysE,Client
194	Message Switch Installation	5 days	Mon 12/22/25	Fri 12/26/25	193,187	SysE
195	Message Switch Configuration	5 days	Mon 12/29/25	Fri 1/2/26	194	SysE
196	Message Switch Connectivity Testing	10 days	Mon 1/5/26	Fri 1/16/26	195	Client,CIS,State
197	Message Switch Admin Training	0.5 days	Mon 1/19/26	Mon 1/19/26	196	Client,SysE
198	Message Switch Combo Query Training	0.5 days	Mon 1/19/26	Mon 1/19/26	197	Client,SysE
199	Message Switch Implementation Testing (Dry Run 1)	10 days	Tue 1/20/26	Mon 2/2/26	198	SysE
200	Message Switch Implementation Testing (Dry Run 2)	10 days	Tue 2/3/26	Mon 2/16/26	199	SysE
201	Message Switch Implementation Testing (Final Dry Run)	10 days	Tue 2/17/26	Mon 3/2/26	200	SysE
202	Message Switch Functional Acceptance Test - CAD	5 days	Tue 3/3/26	Mon 3/9/26	201	Client,State,SysE
203	Message Switch Functional Acceptance Test - Mobile	5 days	Tue 3/10/26	Mon 3/16/26	202	Client,State,SysE
204	Functional Acceptance Test Approval via TCR	5 days	Tue 3/17/26	Mon 3/23/26	202,203	Client
205	Interface Testing Complete - Ready for Go-Live	0 days	Mon 3/23/26	Mon 3/23/26	204	
206	All Interface Testing Complete - Ready for Go-Live	0 days	Mon 3/23/26	Mon 3/23/26	61,71,81,91,101,121,131,205,135,	
207	**NCIC - Message Switch Additional SQL Provider - Axon RMS**	**213 days**	**Mon 6/30/25**	**Wed 4/22/26**		
208	Kick-Off Meeting with Third-Party Provider	1 day	Mon 1/19/26	Mon 1/19/26	196	CST PM,SysE,Client,3rd Parties
209	OSD Provided to Client	1 day	Fri 1/30/26	Fri 1/30/26	208FS+8 days	CST PM,SysE,3rd Parties
210	OSD Review Meeting	1 day	Mon 2/2/26	Mon 2/2/26	209	Client,SysE,CST PM,3rd Parties
211	OSD Approval via TCR	5 days	Tue 2/3/26	Mon 2/9/26	210	Client



ID	Task Name	Dur	Start	Finish	Predecessors	Resource Names
212	Interface Control Document (ICD) Prep	5 days	Tue 2/10/26	Mon 2/16/26	211	SysE
213	Interface Control Document (ICD) Review Meeting	1 day	Tue 2/17/26	Tue 2/17/26	212	Client,SysE
214	Install Provider, establish connections to external system	5 days	Wed 2/18/26	Tue 2/24/26	213	SysE
215	Build Stored Procedures	1 day	Wed 2/25/26	Wed 2/25/26	214	Client
216	Set up Transaction and Style Sheets in Provider	20 days	Thu 2/26/26	Wed 3/25/26	215	SysE
217	Additional Provider Testing (Dry Run 1)	10 days	Thu 3/26/26	Wed 4/8/26	216	SysE
218	Additional Provider Testing (Dry Run 2)	10 days	Thu 4/9/26	Wed 4/22/26	217	SysE
219	Additional Provider Testing Complete via TCR Approval	5 days	Mon 6/30/25	Fri 7/4/25		Client
220	Additional Provider Testing Complete - Ready for Go-Live	0 days	Fri 7/4/25	Fri 7/4/25	219	
221	**Data Conversion**	**340 days**	**Mon 6/30/25**	**Fri 10/16/26**		
222	Legacy Database(s) Delivered by Client	30 days	Mon 6/30/25	Fri 8/8/25	2	Client
223	**CAD Data Conversion**	**251 days**	**Thu 10/9/25**	**Fri 9/25/26**		
224	**Planning**	**16 days**	**Thu 10/9/25**	**Fri 10/31/25**		
225	CAD Data Conversion Resource Available for Planning	0 days	Thu 10/9/25	Thu 10/9/25	261	
226	CAD Data Conversion Kickoff	1 day	Fri 10/10/25	Fri 10/10/25	225	Client,Data Conversion Engineer
227	Draft CAD Data Conversion Specifications/OSD and Setup Code Mapping Tool	10 days	Mon 10/13/25	Fri 10/24/25	222,226	Data Conversion Engineer
228	Agency Specifications/OSD Approval	5 days	Mon 10/27/25	Fri 10/31/25	227	Client
229	**Incidents Conversion**	**70 days**	**Wed 2/25/26**	**Tue 6/2/26**		
230	CAD Data Conversion Resource Available for Conversion	0 days	Wed 2/25/26	Wed 2/25/26	2FS+8 emons,228	
231	Configure Extract Scripts and Load Extracted Data into Environment	10 days	Wed 2/25/26	Tue 3/10/26	230,268,289	Data Conversion Engineer
232	Client Review/Feedback	30 days	Wed 3/11/26	Tue 4/21/26	231	Client
233	Code Revisions to Address Client Feedback	10 days	Wed 4/22/26	Tue 5/5/26	232	Data Conversion Engineer
234	Final Incidents Conversion Signoff	20 days	Wed 5/6/26	Tue 6/2/26	233	Client
235	**Premise/Caution Notes Conversion**	**83 days**	**Wed 6/3/26**	**Fri 9/25/26**		
236	Configure Extract Scripts and Load Extracted Data into Environment	1 day	Wed 6/3/26	Wed 6/3/26	230,234	Data Conversion Engineer
237	Run Initial Automatic Validation	1 day	Thu 6/4/26	Thu 6/4/26	236	Data Conversion Engineer
238	Client Review All Address Exceptions	30 days	Fri 6/5/26	Thu 7/16/26	237	Client
239	Activate Premise and Caution Notes	1 day	Fri 7/17/26	Fri 7/17/26	237,238	Data Conversion Engineer
240	Client Review/Feedback in CAD UI	30 days	Mon 7/20/26	Fri 8/28/26	239	Client
241	Code Revisions to Address Client Feedback	5 days	Mon 8/31/26	Fri 9/4/26	240	Data Conversion Engineer
242	Final Premise/Caution Notes Conversion Signoff	15 days	Mon 9/7/26	Fri 9/25/26	239,240,241	Client
243	CAD Data Available for Go-Live	0 days	Fri 9/25/26	Fri 9/25/26	234,242	
244	**Data Push for Go-Live**	**15 days**	**Fri 9/25/26**	**Fri 10/16/26**		**Central Square/Client**
245	Data Conversion Effort Complete - Available for Go-Live Push	0 days	Fri 9/25/26	Fri 9/25/26	243	
246	CAD (Incidents Only) Final Database Pull - Data Cutoff	1 day	Mon 9/28/26	Mon 9/28/26	245	Client,Data Conversion Engineer
247	Pre-Prod System Lockdown/Purge Non-Configuration Data	1 day	Mon 9/28/26	Mon 9/28/26	245	SysE
248	Run CAD DC Program (Incidents Only) to Push Converted Data to Pre-Prod System	1 day	Tue 9/29/26	Tue 9/29/26	247,245,246	Data Conversion Engineer
249	Data Available in Pre-Prod system for Go-Live	0 days	Tue 9/29/26	Tue 9/29/26	248	
250	Re-Run Conversion for Gap Between Data Pull and Go-Live (CAD Incidents Only)	1 day	Fri 10/9/26	Fri 10/9/26	323	Data Conversion Engineer
251	Data Conversion Final TCR Signoff	5 days	Mon 10/12/26	Fri 10/16/26	250,249	Client
252	Data Conversion Complete	0 days	Fri 10/16/26	Fri 10/16/26	251	
253	**System Configuration / Training**	**356 days**	**Mon 6/30/25**	**Mon 11/9/26**		
254	**CAD Build/Training**	**356 days**	**Mon 6/30/25**	**Mon 11/9/26**		
255	Review System Module Spreadsheet	1 day	Tue 8/19/25	Tue 8/19/25	11FS+20 days	Client,CST PM,CST Consultant
256	Complete Pre-Configuration Document	5 days	Wed 8/20/25	Tue 8/26/25	255	Client,CST Consultant
257	Pre-Config Questionnaire Review Call (hierarchy, case numbers, personnel)	1 day	Wed 8/27/25	Wed 8/27/25	256	Client,CST Consultant
258	CAD System Pre-Configuration	20 days	Thu 8/28/25	Wed 9/24/25	257	CST Consultant
259	CAD/Mobile Peer Config Review	5 days	Fri 9/26/25	Thu 10/2/25	258,297	CST Consultant
260	BA Check of Migrated System & Review CIM with Client	10 days	Fri 10/3/25	Thu 10/16/25	259,41	Client,CST Consultant
261	CAD System Configuration & Operational Assessment and Review (OAR)	3 days	Tue 10/7/25	Thu 10/9/25	255,287,259,41	Client,CST PM,CST Consultant
262	Client System Build	30 days	Fri 10/10/25	Thu 11/20/25	261	Client
263	CAD Sys Admin / Code File Management Workshop	3 days	Fri 11/21/25	Tue 11/25/25	261FS+20 days,262	Client,CST Consultant
264	Client System Build	10 days	Wed 11/26/25	Tue 12/9/25	263	Client



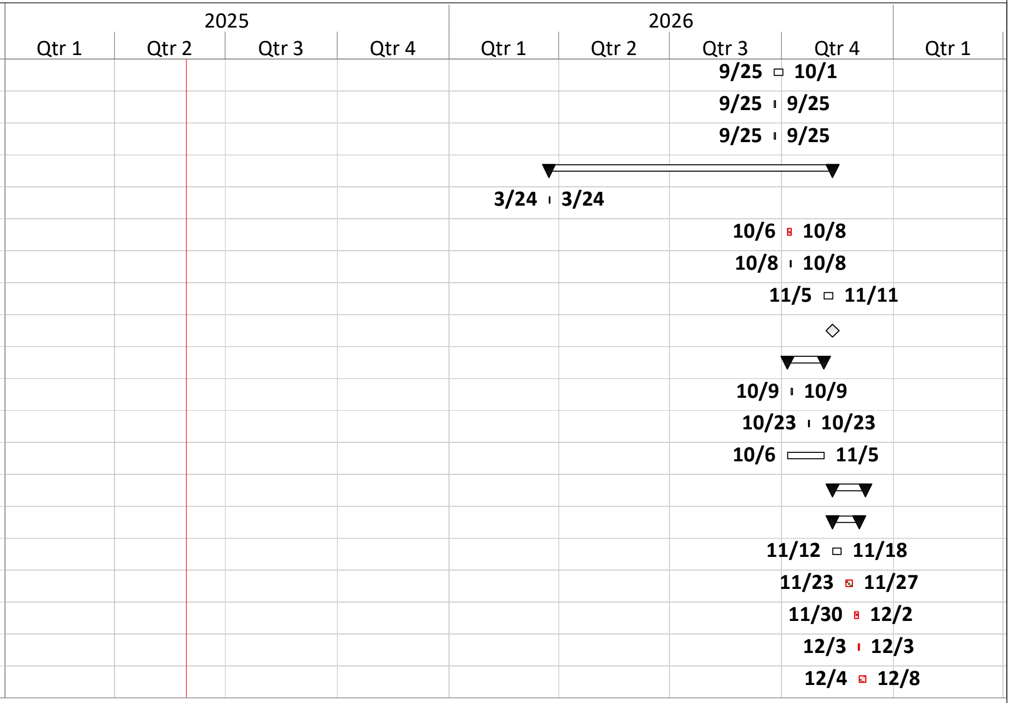
ID	Task Name	Dur	Start	Finish	Predecessors	Resource Names
265	Standard EMD Integration	15 days	Wed 12/10/25	Tue 12/30/25	263,264	Client,CST Consultant
266	CAD Response Planning Workshop	2 days	Wed 1/21/26	Thu 1/22/26	263FS+40 days,264	Client,CST Consultant
267	Client System Testing	10 days	Fri 1/23/26	Thu 2/5/26	266	Client[40%],CST Consultant
268	Response Plan Build and System Testing	10 days	Fri 2/6/26	Thu 2/19/26	267	Client,CST Consultant
269	CAD/Mobile Functional Acceptance Test	1.5 days	Mon 6/30/25	Tue 7/1/25		Client,CST Consultant
270	CAD Supervisor Training	4 days	Tue 4/7/26	Mon 4/13/26	269,322FS+10 days	Client,CST Consultant
271	CAD User Training #1 of 5	2 days	Tue 4/21/26	Thu 4/23/26	322FS+20 days,270	Client,CST Consultant
272	CAD User Training #2 of 5	2 days	Thu 4/23/26	Mon 4/27/26	271	Client,CST Consultant
273	CAD User Training #3 of 5	2 days	Mon 4/27/26	Wed 4/29/26	272	Client,CST Consultant
274	CAD User Training #4 of 5	2 days	Wed 4/29/26	Fri 5/1/26	273	Client,CST Consultant
275	CAD User Training #5 of 5	2 days	Fri 5/1/26	Tue 5/5/26	274	Client,CST Consultant
276	CAD Go-Live Prep	5 days	Fri 10/2/26	Thu 10/8/26	323FS-5 days	Client,CST Consultant
277	CAD Post Go-Live Optimization Workshop	2 days	Fri 11/6/26	Mon 11/9/26	323FS+20 days	Client,CST Consultant
278	**GIS**	**65 days**	**Tue 8/19/25**	**Mon 11/17/25**		
279	GIS Kick-Off / Orientation Meeting	1 day	Tue 8/19/25	Tue 8/19/25	11FS+20 days	Client,GIS Specialist
280	Prepare and Deliver GIS Data	10 days	Wed 8/20/25	Tue 9/2/25	279	Client
281	**CAD GIS**	**54 days**	**Wed 9/3/25**	**Mon 11/17/25**		
282	GIS Analysis	5 days	Wed 9/3/25	Tue 9/9/25	280	GIS Specialist
283	GIS Analysis Report Review Meeting	1 day	Wed 9/10/25	Wed 9/10/25	282	Client,GIS Specialist
284	Client Updates and Delivers GIS Data	7 days	Thu 9/11/25	Fri 9/19/25	283	Client
285	GIS CAD/Mobile Data Conversion/Configuration	10 days	Mon 9/22/25	Fri 10/3/25	284,41	GIS Specialist
286	GIS Routing Server Configuration - Test/Train	1 day	Mon 10/6/25	Mon 10/6/25	285	GIS Specialist
287	GIS Routing Server Configuration - Prod	1 day	Mon 10/6/25	Mon 10/6/25	285	GIS Specialist
288	GIS Routing Server Configuration - DR	1 day	Mon 10/6/25	Mon 10/6/25	285	GIS Specialist
289	GIS Link Training	3 days	Mon 11/3/25	Wed 11/5/25	285FS+20 days,286,287,288	Client,GIS Specialist
290	GIS Link Training TCR Approval	5 days	Thu 11/6/25	Wed 11/12/25	289	Client
291	CAD GIS Support and Updates	5 days	Tue 11/11/25	Mon 11/17/25	289FS+3 days	GIS Specialist
292	GIS Routing Server Support/Updates - Test/Train	1 day	Tue 11/11/25	Tue 11/11/25	289FS+3 days	GIS Specialist
293	GIS Routing Server Support/Updates - Prod	1 day	Tue 11/11/25	Tue 11/11/25	289FS+3 days	GIS Specialist
294	GIS Routing Server Support/Updates - DR	1 day	Tue 11/11/25	Tue 11/11/25	289FS+3 days	GIS Specialist
295	CAD GIS Effort Complete	0 days	Mon 11/17/25	Mon 11/17/25	291,292,293,294,290	
296	**Mobiles Build/Training**	**154.5 days**	**Thu 9/25/25**	**Wed 4/29/26**		
297	Mobile System Pre-Configuration	1 day	Thu 9/25/25	Thu 9/25/25	258	CST Consultant
298	Mobile Admin Training	3 days	Tue 11/18/25	Thu 11/20/25	295,269	Client,CST Consultant
299	Mobile System Build	10 days	Fri 11/21/25	Thu 12/4/25	298	Client,CST Consultant
300	Mobile Train-the-Trainer Training Session 1	0.5 days	Tue 3/24/26	Tue 3/24/26	322,299,269	Client,CST Consultant
301	Mobile Train-the-Trainer Training Session 2	0.5 days	Wed 3/25/26	Wed 3/25/26	300	Client,CST Consultant
302	Client Led End-User Mobile Training	25 days	Wed 3/25/26	Wed 4/29/26	301,300	Client
303	**Go-Live Prep**	**57 days**	**Fri 7/17/26**	**Mon 10/5/26**		
304	All Systems Ready for Go Live	1 day	Mon 9/28/26	Mon 9/28/26	206,295,302,243,275,220,274,273	
305	DR Failover Testing	5 days	Tue 9/29/26	Mon 10/5/26	304	
306	Go-Live Leadership Meeting: 12 weeks prior (Internal)	1 day	Fri 7/17/26	Fri 7/17/26	323FS-12 ewks	Functional Managers,CST PM
307	Go-Live Readiness (GLR) Review: 10 Weeks Prior to Go-Live (Internal)	2 days	Fri 7/31/26	Mon 8/3/26	323FS-10 ewks	CST PM
308	Go-Live Readiness (GLR) Review: 6 Weeks Prior to Go-Live (Internal)	2 days	Fri 8/28/26	Mon 8/31/26	323FS-6 ewks	CST PM
309	Go-Live Readiness (GLR) Review: 4 Weeks Prior to Go-Live (Internal)	2 days	Tue 9/8/26	Wed 9/9/26	323SS-4 ewks	CST PM
310	Go-Live Readiness (GLR) Review: 3 Weeks Prior to Go-Live (Internal)	2 days	Fri 9/18/26	Mon 9/21/26	323FS-3 ewks	CST PM
311	Go-Live Readiness (GLR) Review: 2 Weeks Prior to Go-Live (Internal) - Incl Support	1.5 days	Tue 9/22/26	Wed 9/23/26	323SS-2 ewks	CST PM,Support
312	Go-Live Readiness (GLR) Review: 1 Week Prior to Go-Live (Internal) - Incl Support	1.5 days	Fri 10/2/26	Mon 10/5/26	323FS-1 ewk	CST PM,Support
313	Draft/Submit Go-Live Plan	5 days	Fri 8/14/26	Thu 8/20/26	323FS-8 ewks	CST PM
314	Go-Live Plan Review	15 days	Fri 8/21/26	Thu 9/10/26	313	CST PM,Client
315	Submit Go-Live Authorization Letter w/Go-Live Plan in DocuSign	1 day	Fri 9/11/26	Fri 9/11/26	314,323FS-5 ewks	CST PM
316	Go-Live Authorization Letter Approved by Client	5 days	Mon 9/14/26	Fri 9/18/26	315	Client
317	Complete Go-Live Checklist (4 weeks prior)	5 days	Fri 9/11/26	Thu 9/17/26	323FS-4 ewks	CIS,SysE,CST Consultant



City of Waukesha, WI SAMPLE Project Schedule

CENTRALSQUARE

ID	Task Name	Dur	Start	Finish	Predecessors	Resource Names
318	Complete Go-Live Checklist (2 weeks prior)	5 days	Fri 9/25/26	Thu 10/1/26	323FS-2 ewks	CIS,SysE,CST Consultant
319	Complete Transition to Support/CSM Presentation	1 day	Fri 9/25/26	Fri 9/25/26	323FS-2 ewks	CST PM,Client,Support
320	Verify Client Contacts and Designated Portal Administrator in Salesforce	1 day	Fri 9/25/26	Fri 9/25/26	323FS-2 ewks	CST PM
321	**Major Milestones**	**167 days**	**Tue 3/24/26**	**Wed 11/11/26**		
322	System Integration Test (SIT) (2 hours)	0.5 days	Tue 3/24/26	Tue 3/24/26	295,269,206,220	CST PM,Client,CST Consultant
323	CAD-Mobile Enterprise System Go-Live	3 days	Tue 10/6/26	Thu 10/8/26	322,249,305	CST PM,Client,CST Consultant
324	Client Transition to Support/CSM Review	1 day	Thu 10/8/26	Thu 10/8/26	323FF,319	CST PM,Support,CSM,Client
325	Client Signs Final Task Completion Report (TCR) for Project Completion	5 days	Thu 11/5/26	Wed 11/11/26	323,330	Client
326	Project Completed / Project Closure	0 days	Wed 11/11/26	Wed 11/11/26	325	
327	**Post Go-Live Activities**	**22 days**	**Tue 10/6/26**	**Thu 11/5/26**		
328	Submit Go-Live Announcement	1 day	Fri 10/9/26	Fri 10/9/26	323	CST PM
329	Post Go-Live Transition Meeting (2 weeks after)	1 day	Fri 10/23/26	Fri 10/23/26	323FS+2 ewks	CST PM,Support,CSM
330	System Reliability (Acceptance) Period	30 edays	Tue 10/6/26	Thu 11/5/26	323SS	
331	**Project Closeout (Internal CST)**	**19 days**	**Thu 11/12/26**	**Tue 12/8/26**		
332	**Issue Final Report/Lessons Learned**	**16 days**	**Thu 11/12/26**	**Thu 12/3/26**		
333	Final Report/Lessons Learned Drafted	5 days	Thu 11/12/26	Wed 11/18/26	325	CST PM
334	Team Review	5 days	Mon 11/23/26	Fri 11/27/26	333,323FS+45 edays	CST
335	Lessons Learned Review	3 days	Mon 11/30/26	Wed 12/2/26	334	CST PM
336	Final Report Complete - Distributed to Team	1 day	Thu 12/3/26	Thu 12/3/26	335	CST PM
337	Close Out Project	3 days	Fri 12/4/26	Tue 12/8/26	326,336	CST PM



CENTRALSQUARE

Project Report:	Project Status Report	**[Client] Exec Sponsor:**	
Project Name:		**CST Executive Sponsor:**	
Report Date:		**CST Program Manager:**	
[Client] PM:		**CST Project Manager:**	

Project Status		**Comments**
Overall	🟩	
Schedule	🟥	
Cost	🟨	
Scope	🟩	

Attendees

-
-
-

Agenda

1. Current events
    a. Item a
    b. Item b
2. Upcoming events
3. Open Discussion

Minutes

1. Current events
    a. Item a
        i. Discussed, need to follow up
    b. Item b
2. Upcoming events
3. Open Discussion

Upcoming Events

Upcoming Tasks (Next 30 days)	Start Date	End Date	Resource Name	Onsite

Action Items

Item	Responsibility	Due Date	Status	Comments

Next Meeting

Change Management Plan

<Customer Name, Q-#####>

Date:	
CentralSquare Project Manager:	
Client Project Manager:	
Account Executive:	

Purpose:

The purpose of the Change Management Plan is to agree upon and document the project's Change Management process.

Change Control:

The System Purchase Agreement details the contractual deliverables of the project and includes any and all work to be performed. There are additional documents that further describe the project's deliverables and services in detail, such as the Statement of Work, SOW.

Changes in project scope or the products defined in the System Purchase Agreement or SOW document trigger a Change Control. CentralSquare's Project Manager is responsible for Change Order management and documentation throughout the project lifecycle. The Change Order will capture any change requested including new requirements, services and products along with description and rationale. Authority to implement the Change Order requires the signature from both the Client and CentralSquare (typically the Project Managers and nominated Executive members on each side).

Changes in the project may adversely or positively affect the schedule, cost, and/or risks. Changes in cost will be captured in the Change Order.

Change Order:

A Change Order details the project's change in scope, cost, and payment terms. The Change Order includes project additions and/or deletions. CentralSquare's Project Manager and Client Account Manager create the Change Order document. Authority to implement the Change Order requires the signature from both the Client and CentralSquare (typically the Project Managers and nominated Executive members on each side).

Schedule Changes:

The baseline project schedule is a living document and is subject to change. Any changes to the schedule initiated by the Client or CentralSquare, such as scheduling conflict or shift in the critical path activities shall be discussed between the Project Managers. The schedule may be adjusted upon the mutual agreement of the Project Managers.

Approvals:

Client Project Manager: **Print Name:**____________________________

Signature:______________________________ **Date:**_______________

CentralSquare Project Manager: **Print Name:** ____________________________

Signature:______________________________ **Date:**________________

Communication Management Plan

Prepared for:

[Customer]

[Project Name]

[Date]

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Communication Management Plan

The purpose of the Communications Management Plan is to establish a consistent structured method of communication between CentralSquare Technologies' (CentralSquare) professional services teams, and the [customer] project team with effective and comprehensive communication flow throughout the project life cycle.

This plan includes the processes required to ensure timely and appropriate dissemination of project information among project's stakeholders, key decision makers, and key contributors. This plan also contains a communication matrix to facilitate efficient communication and map communication requirements. The CentralSquare project manager is accountable for the initial setup and maintenance of the communication management plan and will work with the [customer] project manager to maintain over the life of the project.

This communication plan outlines:

- [Customer] Project Team – Includes:
    - **Executive Sponsor(s)**: Provide customer staff and facilities; make decisions on policy changes; final customer escalation point for project issues. Approve material changes in the project plan; advise project managers on resolution of project issues.
    - **Functional Leads**: Coordinate with the [customer] project manager in communications and issue resolution; make recommendations to the project manager concerning any policy or implementation issues; configure software based on consulting provided by CentralSquare; Identify end users to attend training; create end-user training documentation, deliver end-user training classes; provide support to the user community in the post production timeframe.
    - **Functional Team Members**: Subject matter experts in particular areas of the software/organization. Support project team leads and [customer] project manager (may be same as project leads).
- CentralSquare Project Team– Identifies the members of the Velocity project team, their role, team, and contact information.
- Communication Methods – outlines the types of communication channels that will be used throughout the project
- Communication Matrix – Details the types of communication used throughout the project. The matrix includes the communication type, purpose, frequency, communication method, participants, expected deliverable, and owner

[Customer] Project Team

Name	Title	Role	Decision Maker (Y/N)	Location	Office #	Mobile #	Email

CentralSquare Project Team

Name	Title	Role	Location	Office #	Mobile #	Email

Communication Methods

Communication methods for this project include, but are not limited to the following:

- **Phone** is the preferred communication method for urgent matters, concerns, topics requiring extended discussion, for clarification of written matters, and monthly review of progress reports.

- **Cadenced meetings** are the preferred method to provide regular updates regrading project status. Meetings will be a combination of face-to-face and conference call.
- **Email** is the preferred method for communicating project updates, action items, general questions, and confirmation of dates and meetings. Email with Docusign is also the preferred method for exchanging documents requiring signatures.
- **Skype or comparable application** is the preferred communication method for presenting material that require observing the process, demonstration of an application, or live presentation of a document.
- **Face-to-face communication** is preferred for major activities and milestone in the projects. Please note that the travel budget impacts the amount of face-to-face contact.

Communication Matrix

Communication type	Purpose	Frequency	Communication Method	Participants	Deliverable	Owner
Project Status Meetings	Discuss: • Recent activities and accomplishments • Open items • Open cases • Upcoming training • Upcoming project tasks • Next steps	Weekly/Bi-weekly	Conference Call unless coordinated to be on customer site	• [Customer] Project Manager • CentralSquare Project Manager • Other team members as necessary (identified prior to meeting)	Meeting minutes detailing: • Project timeline • Upcoming activities • Milestone updates • Risks/Issues • Action items • Decisions/approvals	CentralSquare Project Manager
Monthly Status Reporting	Provide [customer] sponsor and project manager a monthly snapshot on project status	Monthly – due by [day of the month]	Status report by email	• CentralSquare Project Manager sends to [customer] Project Manager	Detailed status report including: • Project overall status • Project schedule status • Project cost status • Project scope status • Monthly summary of key activities and milestones • Monthly accomplishments • Issue/Risk watch list • Upcoming scheduled meetings • Upcoming tasks (next 60 days)	CentralSquare Project Manager

Communication type	Purpose	Frequency	Communication Method	Participants	Deliverable	Owner
					- Long range tasks (next 61-120 days)	
Project Timeline updates	Provide the latest version of the project timeline if/when changes occur to the current project timeline	As needed	Email	- [Customer] Project Manager - CentralSquare Project Manager	Updated project timeline	CentralSquare Project Manager
Project Sponsor Meetings	Ensure the status of the project is visible at the highest levels at both CentralSquare and [customer] executive sponsor(s)	Quarterly or as needed	Conference Call unless coordinated to be on customer site	- [Customer] Executive Sponosr(s) - [Customer] Project Manager - CentralSquare Project Sponsor - CentralSquare Project Manager	Meeting minutes detailing: - Project timeline - Upcoming activities - Risks/Issues - Action items - Decisions/approvals	CentralSquare Project Manager

CENTRALSQUARE

Go-Live Authorization

Product name (i.e. CentralSquare Finance Enterprise) Implementation
For
Enter Customer name

After months of hard work by the **Enter Customer name** project team and CentralSquare (CST), your system is almost ready to Go-Live. The specific details for your Go-Live are included in this letter and the attached Go-Live Plan. Please review the details below and the attachments and let us know if you recommend any changes so we can review them with you. Once the Go-Live Plan is agreed to by you and CentralSquare please sign this Authorization and we will continue to implement the plan on our way to your Go-Live. Thank you for your consistent dedication and effort to make this project successful.

This agreement acknowledges the following:

1. CentralSquare has installed Enter products and Interface Software at Enter Customer name consistent with **Central Square Contract/Sales Order Enter contract#.**
2. The customer has successfully tested the software and found the functionality to be consistent with the contract/SOW for the project other than any items that may be documented on the Issues Log.
3. The customer agrees to proceed with live operation of the current system and any changes to the configurations or installation of patches or upgrades on the production system must be with confirmation from Enter Customer PM/Project Stakeholder to ensure Go-Live is as successful as testing has been.
4. **The customer's Go-Live is scheduled to occur on Click or tap to enter a date at Enter time.**
5. The customer has verified system code files, functional testing of Enter products and other sub-systems and verified functionality of the interfaces developed by CST other than those agreed to as Post Go-Live deliverables.
6. The customer has completed the system building process, completed imaging of all workstations, rolling out Mobile devices, and ensured readiness of the infrastructure based on the site preparation documents provided by CST.
7. The customer agrees that sufficient internal user training has been completed.
8. The customer has determined that the software is functional for their live environment and none of the identified issues are critical to Go-Live process, although these problems will be triaged, resolved, and verified by CST and customer project teams.
9. The CST team will be available as a resource to assist the customer's supervisors, managers, and employees should the customer's staff be unable to provide solutions to questions and to assist in problems that may arise. The scope of Go-Live support has been defined in the Statement of Work (SOW).
10. The customer ensures that their technical team and subject matter experts will be available 24 hours a day during the Go-Live process to answer questions or attempt to solve any user issues prior to enlisting the help of the CST team. CST will not be involved in the actual operations of the customer but will be responsible for providing assistance by qualified trainers, business analysts, system engineers, technical consultants and other resources during Go-Live processes as defined in the SOW.

Go-Live Scope:

List all System, Subsystem and Interface licenses included as part of Go-Live in this section. This part should include all licenses to be included in the internal Go-Live email

Migration from Legacy Products (if applicable)

List all interfaces and subsystems that shall remain operational and included in Customer's support from the original legacy product platform.

Go-Live Exceptions:

The following items have been identified as issues or deliverables to be delivered/resolved post Go-Live. The Customer has agreed that these items will not have any critical impacts on the live operation of their system and will not be a critical operational problem.

List identified items

Please acknowledge agreement with this plan by signing and returning this form to the Project Manager. If no acknowledgment is received within 7 days of receipt of this plan, CentralSquare will assume the customer agrees with the plan and will continue to implement the project as agreed in the contract.

Reviewed and authorized by:

Enter Customer name

Name/Title: **Enter Name/Title**____

____

Signature/Date

CST:

Name/Title: **Enter Name/Title**____

____

Signature/Date

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Go-Live Plan

Prepared for:

[Customer]

[Project Name]

[Customer Project Sponsor Name]

[Date]

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Overview of GO LIVE

Statement of Intent

This GO LIVE plan serves as an explanation of activities and responsibilities between CentralSquare Technologies (CentralSquare), and [Customer], for the [Product] GO LIVE activities. This document will establish expectations ensuring understanding and commitments between all parties in order to provide effective services throughout the GO LIVE period.

GO LIVE Time Period

The GO LIVE period will begin on [date and time] and will extend through [date and time].

GO LIVE Products

CentralSquare is responsible for ensuring the products specified in the contract are available in the Production [product] environment. This includes [product] with the below listed modules and interfaces for [customer]:

- [text]

Open Items & Pending Interfaces/Modules

- [text]

Support Roles and Responsibilities

CentralSquare

CentralSquare will provide on-site support services for [number of days for go-live] days during the GO LIVE period with a total of [number of CentralSquare Resources] personnel supporting the city. These include the [list of the resource type: Training, PM, etc.].

This plan focuses on providing Subject Matter Experts (SMEs) for technical assistance covering all three days, to include supplemental training support for [product] users during cutover.

The shifts developed for this cutover were based on a planned cutover time of [date and time]. The shifts are as follows:

- Shift 1: [time-time]
- Shift 2: [time-time]
- Shift 3: [time-time]

CentralSquare Tentative Staff On-Site Coverage:

Date	Resource	On-Site Times* **
[date] *[time]* *[location]*		

[customer] IT

[Customer] will designate technical staff to support the GO LIVE on ALL SHIFTS for the first 48 hours. After that, technical staff needs to be ON CALL and available for the duration of the GO LIVE period. The technical staff will be available to coordinate network access and work with CentralSquare technical personnel to resolve any technical issues that come up during the GO LIVE period.

[customer] Departmental Staff

[Customer] will designate [product] power users on ALL SHIFTS to support the GO LIVE for the duration of the GO LIVE period. The power users will be the first line of support to address questions or issues that come up during each shift. They will escalate any issues to the appropriate CentralSquare personnel for action.

Cut-Over Timeline

First use of the [product] is scheduled for [time] on Day 1 of the GO LIVE: [date]. Final technical preparations will be confirmed the day prior at the [go-live location]. Several days prior to GO LIVE, CentralSquare SIC will ready the [product] Production System: this will include the deletion of all test data in the Production environment.

[Customer] departmental staff for the morning shift will report to the [go-live location] on time, and ahead of the [time] cutover. CentralSquare personnel will be onsite as outlined in CentralSquare Tentative Staff On-Site Coverage and [customer] subject matter experts will be onsite 24hours per day for the duration of the GO LIVE period to support end users.

[Customer] personnel will coordinate with the CentralSquare staff to ensure all interoperability and interfaces are validated in the production environment.

Issue Reporting Procedure

General Reporting Procedure

It is the responsibility of all users to report issues as soon as possible throughout the GO LIVE process. There will be both CentralSquare and [customer] GO LIVE team members available [hours of availability] through the duration of the GO LIVE period. All issues will be documented and tracked through the entire GO LIVE period.

[Product] users will report issues to designated [customer] personnel and [product] Trainers in their area. If the CentralSquare personnel discovers a technical issue they will report it to the appropriate technical personnel.

Issue Escalation Process:

The CentralSquare staff will be staged in the [go-live location], for the duration of the GO LIVE period to address issues and facilitate resolutions.

If the CentralSquare resources are not able to resolve an issue they will report this to the Program or Project Manager for escalation and if necessary submit a Request for Assistance (RFA) for Development support. The Program or Project Manager will follow up with the appropriate CentralSquare resource or manager for resolution.

All issues will be tracked on a whiteboard or in Smartsheet and projected to a wall in the [go-live location] during the GO LIVE period. A description of the issue, resource assigned, and current status will be noted. No item will be removed from the Whiteboard or Smartsheet until the CentralSquare Project Manager and [customer] Project Manager mutually agree the item can be closed.

In an effort to ensure all parties are kept informed of the status of all issues, the CentralSquare Project Manager, and/or [customer] Project Manager will translate items on the whiteboard to a designated SmartSheet to be shared with appropriate staff and management.

All issues will be reviewed during daily briefings scheduled at [time] for the GO LIVE period. The briefings are intended for designated CentralSquare and [customer] GO LIVE team members and on-duty Supervisors.

A final debriefing prior to closing out the GO LIVE Period will take place on [time and date]. This debriefing is required for CentralSquare and [customer] primary project teams.

Transition to Product Support

Immediately after GO LIVE, CentralSquare will transition responsibility for assistance related to the [customer and product] to Support Services with noted exceptions. The CentralSquare Project Manager will coordinate a meeting with the onsite Support personnel during the GO LIVE period. This introduction will serve as the first step in the transition to Support. A [Customer] Support Playbook will be reviewed with the [customer]'s staff at this time. Official transition to CentralSquare Support for [product] will be effective [time and date].

The CentralSquare Project Manager and implementation team will continue to retain responsibility for tracking and resolving all system issues affecting [customer] as identified during the implementation process, up to and including the GO LIVE period. Any issue discovered after [time and date] will be supported through the CentralSquare Support Services.

Communications Plan

The following communications plan will be followed for the duration of the GO LIVE timeline.

GO LIVE Locations, Phone

[Customer Location]

[Street Address]

City, State]

[Phone]

GO LIVE Staff Contacts

CentralSquare Personnel

Name	Title/Shift	Phone	Email

[Customer] Personnel

Name	Title/Shift time	Location	Phone	Email

Meetings

Meeting Type	Time/Dates	Locations	Deliverables	Conference Line
Pre GO LIVE Review			GO LIVE Plan Open Issue Log	In Person Attendance Required
Shift Change				
AM Status Meeting			Status Report Open Issue Log	
PM Status Meeting			Status Report Open Issue Log	
Introduction to Support			Support Playbook	
GO LIVE Close Out Review			Status Report Open Issues Log	

Status Report

Project Report:	Monthly Project Status Report	**[Client] Exec Sponsor:**	
Project Name:		**CST Executive Sponsor:**	
Report Date:		**CST Program Manager:**	
[Client] PM:		**CST Project Manager:**	

Project Status		**Comments**
Overall	🟥	
Schedule	🟨	
Cost	🟩	
Scope	🟥	

Monthly Summary
Key [month] Activities:

[Month] Accomplishments

Issues/Risks on Watch List

Scheduled Meetings

Upcoming Tasks (Next 60 days)	Start Date	End Date	Resource Name	Onsite

Long Range Tasks (Next 61-120 days)*	Task Start Date	Task End Date	Resource Name	Onsite

Long Range Tasks (Next 61-120 days)*	Task Start Date	Task End Date	Resource Name	Onsite

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Project Management Plan

Prepared for:

Date: X-XX-2025

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Project Management Plan Approach

Using CentralSquare Technologies' (CentralSquare) Velocity Implementation Methodology, the CentralSquare project manager will manage various aspects of the implementation project to include installation, configuration, training, scope management, cost management, time management, quality management, human resource management, communications management, change management, and risk management. These project areas are standard project management disciplines.

CentralSquare's Velocity Implementation Methodology is executed in four phases: Initiation, Planning, Monitor & Control, and Closeout. The four phases provide the structure for the overall project, helping the project management team monitor and control expectations, budget, scope, schedule, communication, and quality.

The following project phases and activities are considered typical for the project approach:

1. INITIATION
    a. Initiate project
    b. Develop draft project plan and timeline
    c. Build project repository and draft project artifacts
    d. Notify and coordinate applicable CentralSquare and third-party resources
    e. Confirm project scope, project team, and blackout dates with customer
2. PLANNING
    a. Finalize project management plan and timeline
    b. Identify initial risks
    c. Kickoff and analysis
    d. Finalize project timeline
3. EXECUTION/MONITOR & CONTROL
    a. Direct and manage project execution
    b. Manage project team
    c. Manage quality assurance
    d. Manage procurements (as necessary)
    e. Manage project quality
    f. Manage project work
    g. Manage change
        i. Change control
        ii. Organization change
    h. Manage project risks
    i. Manage project financials
    j. Manage communications
    k. Manage stakeholder expectations
    l. Manage knowledge resources
4. CLOSEOUT
    a. Transition to support and customer success manager
    b. Verify delivery to contract
    c. Close project
    d. Document project success

Scope Management Plan

Managing project scope requires processes to ensure all the work required and only that work is included in the project scope outlined in the Statement of Work (SOW) for this project. Scope management is primarily focused on these defining and controlling activities. The project scope outlined in the SOW will document project inclusions, exclusions, deliverables, deliverable completion criteria and method of communication. The SOW has been drafted throughout the sales process and has been finalized and approved by CentralSquare and [customer]. Scope will be managed via Change Control processes as influenced by risks, issues, procurements, and other project influences. The SOW will be baselined prior to contract signing and maintained via CentralSquare change processes. Project scope completion will be documented via Delivery Milestone Acceptance and/or Client Letter of Acceptance, as applicable.

Schedule Management Plan

The project team will work to develop a project schedule, by which resources can be scheduled to deliver in scope services and products. The project schedule has been drafted by the CentralSquare project manager and will be baselined with project team agreement. The schedule basis will be the *Statement of Work*, inclusive of the client teams' availability documented in the Project Schedule Availability document. The management of the schedule will be documented in regularly delivered Status Meeting Motes, and Monthly Status Reporting, as applicable and agreed by the project team.

Project Schedule Timeline

[Insert timeline from kickoff slide deck]

Cost Management Plan

Project budget forecasts and actuals will be managed and communicated on a monthly basis, unless agreed to otherwise by the project team. The budget status will reflect contracted, invoiced, planned and adjusted amounts, reported in local currency, hours, or both as agreed to and will be communicated via the standard *Budget Reconciliation Report*, *Executive Status Reports*, *Executive Status Dashboard* and/or *Executive Project Status Meeting Presentations*.

Change Control

The Customer and CentralSquare may request a change to this scope of work by following the process outlined in this section.

Either party may request changes in scope. Such a request is enforced by the parties only if it becomes a formal Change Order. The change order will provide sufficient detail including the following:

- Detailed description of resources (both Customer and CentralSquare) required to perform the change
- Specifications (if applicable)
- Implementation Plans (if applicable)
- Schedule for completion (if applicable)
- Verification and Approval criteria (if applicable)
- Impact on current milestones and payment schedule (if applicable)
- Additional milestones (if applicable)
- Impact on project goals and objectives (if applicable)
- Impact on milestones
- Price (if applicable)

Either CentralSquare or Customer management may propose a change by submitting a Change Request to the other party. The other party has five (5) business days (or as mutually agreed upon) to determine whether it agrees to the Change Request. If both parties agree to the Change Request, the change will then become a Change Order, which will need to be documented and signed by both parties. If the parties cannot reach an agreement to pursue a Change Order within five (5) business days of the initiation of the Change Request (or as mutually agreed upon), it is assumed that the Change Request has been rejected and any remaining issues will be identified on the Issues Log and/or follow the Dispute Resolution process identified in Section 8.

Communication Management Plan

The Communication Management plan addresses the entire project organization and sets expectations about communications, inclusive of communication deliverable, method, audience, owner, and timing. The planning framework identifies the communication goals, strategy and overall information requirements and distribution structure based on the project organization.

The detailed Project Communication Plan to be developed and maintained by CentralSquare's project manager in coordination with the [customer] project manager. Common items to detail in the communication plan may include:

- Cadenced status meetings
- Cadenced status reporting
- Project reviews
- Project timeline updates
- Executive Level project updates

The Communications Plan will be developed at the beginning of the project and will expand as the project ramps-up. The Communications Plan will be updated throughout the life of the project.

Procurement Management Plan

The detailed Procurement plan to be developed and maintained inclusive of all project procurement needs can be found in the *Procurement Management Plan*. This plan describes how procurement for external products and services will be managed for this project.

Quality Management Plan

Project quality will be managed by documenting project expectations of the purchased products and services detailed in the Contract and Statement of Work, as applicable. Quality assurance will be performed through:

- Internal quality reviews performed to ensure we are managing the project using Company Implementation Methodology and templates
- Internal project reviews to monitor the health and status of the project against scope, schedule, budget, and quality
- *Customer Surveys* conducted during several key milestones in the project to allow for client feedback and continued process improvement
- Internal *Project Dashboard* and *PMO Dashboard* that enables delivery management team to track project health, solution status, key dates, delivery milestones, and risk mitigations

Quality may be ensured through inspections, additional audits, and various levels of formal testing (e.g. load, functional, system, user acceptance testing).

Risk and Issue Management

The Risk and Issue Management Plans processes help to identify risks to the project, how those risks may be responded to and how mitigation plans can be outlined and controlled. Examples of risk include potential loss of a critical resource, technology changes, regulatory changes, dependence on a third party, project sponsorship or management changes. For high-probability and high-impact risks, specific plans are developed for reducing the likelihood/impact of the risk (mitigation). Approaches to responding to risks include **Deflection** (transferring the risk to another party), **Control** (minimize the effect), **Retention** (accept the consequences), and **Avoidance** (eliminate the cause of the risk through changes in plans or other constraints).

Risks are identified during project planning and are tracked and managed using the *Risk Response Plan*, as defined in the Company Implementation Methodology. As the project is underway, additional risks may be identified and will be added to the *Risk Response Plan*, classifying the risk based on Probability and Impact to the overall project and developing mitigation and response plans, where appropriate.

An unidentified risk that is realized is tracked as a Project Issue and is managed via our Issue Management process. The *Project Issue Log* is the primary tool used to log project issues; including issue details such as, opening and closing dates, owners, status, priority, actions and resolutions. Alternatively, issues maybe tracked directly in the client collaboration environment site.

Project issues statuses are tracked as follows:

- Open - Issue has been entered but is not actively being addressed or been assigned an owner
- Active - Issue has been assigned and is actively being addressed.
- Resolved - Issue has been resolved but may still need to be communicated to project stakeholders.
- Closed - Issue has been resolved, communicated to all project stakeholders, and no further action is required.

Project issues priorities are tracked as follows:

- Issue Priorities are managed as below:
    - High - Needs resolution in 1-30 days
    - Medium - Needs resolution in 31-90 days
    - Low - > 90 days
- In some cases, the resolution to an issue may require a project change and those changes will be managed via CentralSquare's Change Control Process.

Project Governance

The purpose of the project governance is to define the resources required to adequately establish the business needs, objectives and priorities of the project, communicate the goals to other Project participants and provide support and guidance to accomplish these goals. Project governance also defines the structure for issue escalation and resolution, change control review and authority, and organizational change management activities.

The preliminary governance structure establishes a clear escalation path when issues and risks require escalation above the Project Manager level. Further refinement to the structure, the process and specific roles and responsibilities may occur throughout the project. Changes to the governance will be mutually agreed upon, properly documented, and communicated to all impacted parties.

Project Staffing

Customer Personnel

Steering Committee (SC)

The Customer's SC provides support to the project by allocating resources, providing strategic direction, communicating key issues about the project and the project's overall importance to the organization. When called upon, the SC will also act as the final authority on all escalated project issues. The SC engages in the project, as needed, to provide necessary support, oversight, guidance, and escalation, but will not participate in day-to-day activities. The SC will empower the project management team, the Project Manager and the functional team leads to make critical business decisions for the Customer. Specifically, the SC will:

- Understand and support the cultural change necessary for the project
- Foster an appreciation of the value of the new system system throughout the organization
- Oversee the project team and the project as a whole
- Participate in regular meetings so it is current on all project progress, project decisions, and achievement of project milestones
- Communicate the importance of the project to each member's department along with other department directors.
- Be responsible for making timely decisions on critical project or policy issues.

The Project Management Team (PMT)

This team is made up of the Customer Project Manager and subject matter experts from major departments within the organization. It will meet on a regular basis to monitor that overall project goals are realized. This team will formulate strategy to the execution of the project plan and make decisions and recommendations regarding project activities, changes, resources, issues, and risks. This team will also provide oversight and guidance for Change Management, ensuring project and change management activities are properly aligned with overall objectives. In short, this team will serve as a liaison between the Steering Committee and the day-to-day activities of the project. Meeting frequency between this group and the CentralSquare Project Manager will be defined in the Communications Plan.

Project Manager

The Customer's Project Manager will:

- Be the primary contact for the project
- Coordinate Customer's project team members,
- Coordinate all CentralSquare activities with the CentralSquare Project Manager
- Coordinate the subject matter experts (SMEs) at the City
- Be responsible for reporting to the Steering Committee (SC)
- Ensure all deliverables are reviewed on a timely basis by the Customer
- Co-manage the overall implementation schedule with the CentralSquare Project Manager
- Collaborate with the Change Management Team

Functional Team Leads

Project team members will work under the direction of the designated functional team leads for each area in the system. The functional leads have detailed subject matter expertise and are empowered to make appropriate business process and configuration decisions in their respective areas.

The functional leads are tasked with carrying out all project tasks described in the SOW including planning, business process analysis, configuration, documentation, testing, training, and all other required Customer tasks. The functional leads will be responsible for and empowered to implement the new system in the best interests of the Customer consistent with the project goals, project vision, and direction from the Project Manager, the PMT and the SC.

Subject Matter Experts (SMEs)

SMEs have special, in-depth knowledge of Customer's current legacy systems and processes. Their opinions will be sought in defining business needs, test requirements, and software functionality. During the implementation, the Customer's SMEs will dedicate a considerable amount of their time to the project because they may be involved in multiple roles, including participating in training and other workshops, conducting end user training, reviewing project deliverables, performing various testing tasks, etc.

Quality Assurance Team (QAT)

The Customer will form a QAT made up of individual(s) who will participate in the review and acceptance of each CentralSquare deliverable and conduct periodic project health checks to ensure tasks are completed on time, on budget and to the satisfaction of the Customer. Additionally, the QAT will work closely with the Project Manager to ensure all contractual matters are in compliance and services delivered are in accordance with the terms and conditions of the CentralSquare/Customer agreement as well as with the SOW.

Assumptions:

- The Customer may have multiple staff providing the roles outlined above and the same staff providing multiple roles.

CentralSquare Personnel

Project Sponsor

CentralSquare Project Sponsor will have indirect involvement with the project and is part of the escalation process. The sponsor will offer additional support to the CentralSquare project team and collaborate with other third-party consultants who are involved on this project. Specifically, the project sponsor will:

- Provide support to Project Managers in reporting project progress to SC.
- Approve and sign off on any material changes to project scope or staffing changes.

Project Manager (Key Personnel)

The CentralSquare Project Manager will coordinate all project activities with the Customer and perform the following:

- Serve as the point person for all project issues (the first escalation point)
- Be responsible for project performance, deliverables as they are outlined in the SOW, and the milestones.
- Provide periodic updates to the Customer's SC and the PMT.
- Fulfill Go Live dates
- Support the Customer Project Manager in monitoring and reporting overall implementation progress
- Monitor and report progress on CentralSquare's responsibilities on a weekly basis
- Immediately notify the Customer Project Manager, the PMT and the SC of any issue that could delay the project
- Ensure Software installation occurs as per the project schedule.
- Schedule CentralSquare Staff according to the project plan.
- Facilitate coordination between all CentralSquare departments.
- Monitor the work plan and schedule and make course corrections as necessary.
- Prepare bi-weekly status reports along with notes from meetings and calls.
- Develop meeting agendas.
- Provide issue resolution status, tracking, and procedures.
- Identify personnel, equipment, facilities and resources that will be required to perform services by CentralSquare.

Functional Leads (Consultants, Developers, and Technical resources) (Key Personnel)

- Consultants from CentralSquare include:
    - GL Consultant – Manages the General Ledger, Job Ledger, Projects, Grants, Budget
    - Core Finance Consultants – Purchasing, Accounts Payable, Receivables, Inventory, Fixed Assets.
    - Tools Consultant – Workflow, Reporting/Forms, Analytics, Security.
- Install application in agreed upon environments.
- Work with the Customer functional leads and SMEs to design and configure the functional. Components of the Finance Enterprise system for optimal long-term use.
- Document decisions made during configuration in the weekly site reports.
- Lead the Finance Enterprise software configuration with assistance from the Customer's functional leads.
- Check that software operates after configuration as per its documentation.
- Assist with the resolution of issues and tasks.
- Schedule the training of the Customer functional leads and SMEs during the configuration of software.
- Provide and assist with data conversion guides according to Customer specifications and this SOW.
- Create and deliver interface programs according to Customer specifications and this SOW.
- Create and deliver Reports according to this SOW.
- Provide training on security and assist with set up.
- Provide training on workflow and assist with set up according to this SOW.
- Create and deliver forms according to this SOW.
- Perform all other tasks as outlined in this SOW.

CENTRALSQUARE

City of Waukesha, WI
Reliability Period Status Report
Week of June 16 – 20, 2025

Week of:	Total P1 Issues Reported	Total P2 Issues Reported	Salesforce Case #'s
June 2 - 6	1	0	747584
June 9 - 13	0	0	N/A
June 16 - 20	1	0	749067
June 23 - 27	0	0	N/A
June 30 - July 4	0	0	N/A

Week of June 2 - 6 summary:

- June 5: 747584, Priority 1: CAD down due to a fiber cut that impacted the southwest area of Waukesha. The problem that caused an outage was not a CentralSquare issue and does not affect the Reliability Period.

Week of June 9 - 13 summary:

- No P1 or P2 reliability tickets (per the terms of the contract) were reported during this week.
- June 10: 748695, Priority 4: CST assistance needed to add a new CAD user.

Week of June 16 - 20 summary:

- June 18: 749067, Priority 1: Powerline commands are locked up. Ticket was closed on June 18.

  In the event of a Priority 1 – Urgent software error occurs between day 1 and day 30 of the Reliability Period, the Reliability Period will be stopped and restarted at day one, once the software error has been resolved in accordance with the Agreement. The re-start date is: June 18.

**Note: Reliability Period began on June 3, 2025 and ends on July 3, 2025 (30 consecutive days).*
***Note: Issue priority definitions per City of Waukesha/CST CentralSquare Solutions Agreement dated X-X-25.*
****Note: Reliability Period definitions per City of Waukesha/CST Statement of Work version X, dated X-X-25.*

Risk Management Plan

<Customer Name> <Product/Software> <Q-#####>

Date:	
CentralSquare Project Manager:	
Client Project Manager:	
Account Executive:	

Purpose:

A project is accompanied by internal and external forces which might impede the project development, cause deviations from the project plan, or jeopardize project success. It is critical to identify and manage these risks from inception to completion. The purpose of a risk management plan is to alleviate, as far as is practical, any critical factors within the project, and to minimize any adverse effects on the business. During this process the risks are identified, analyzed, reported, mitigated, and monitored. This document describes CentralSquare's process for managing project risks.

Risk Management Activities:

- **Risk identification:** Risk identification is the process of recognizing and documenting internal and external risks to the project. Internal risks are those risks that the project team can control; external risks are those risks that the project team cannot control. Identification should take place during project planning, as part of the kick-off, and regularly throughout the project. Both CentralSquare and the Client Project Managers must be actively engaged in identifying risks to the project, documenting them for analysis and planning a mitigation plan.
- **Quantitative Risk Analysis:** Risk analysis is the process of evaluating possible risks for their probability of occurrence, impact description, and severity of impact. The risk impact, or what will happen if the event occurs, should be described. This information may then be used to define impact severity and assist the project team in prioritizing the risks facing the project as well as assigning an overall risk ranking for the project.
- **Risk Response Development:** Risk Response Development is the process of creating strategies to minimize the impact of risks on the project. Response strategies should be worked for the highest priority risks first. It is possible that for lower or unmanageable impact risks, the strategy will be to take no action and prepare contingency plans in case of the impact occurrence.

Some risk response strategies include:

- **Transfer** – Shifting the consequence to a third party together with ownership of the risk. Change the scope of the project to re-assign the cause of the risk
- **Mitigation** – Develop a series of tasks / actions that are added to the project to reduce the probability or impact
- **Acceptance** – Either active (developing a contingency plan) or passive (accepting cost increases, schedule overruns, or scope reduction within tolerable limits)
- **Contingency -** When estimating the project make adjustments by adding resources or including a contingency factor for those activities associated with the risk area
- **Risk Response Strategies** - The process for developing risk response strategies is as follows:
    1. Define the approach or steps to take
    2. Assign a responsible party (Owner)
    3. Define criteria for closure and date
    4. Create or update risk response plan
    5. Update project plan to reflect risk mitigation and the impact on other activities

CentralSquare uses below scoring system for assessment of probability, impact, and reporting overall risk score. A risk score is calculated by multiplying Probability Score, by Impact Score.

Probability of Occurrence	**Very high**	**High**	**Medium**	**Low**
Definition	Unavoidable or very difficult to avoid	Very likely to occur, but may be avoided	Likely to occur	Limited potential for occurrence
Score	0.9	0.7	0.5	0.2
Severity of Impact	**Very high**	**High**	**Medium**	**Low**
Definition	Has major impact on overall deliveries. No workarounds are available. Will definitely impact project timelines and critical path, and/or Introduces changes to the scope.	No workarounds are available. Has major impact on project milestones but will not impact the critical path.	Workarounds are available. Has minor impact on project milestones.	Workarounds available for the impact. Will not affect project milestones
Score	0.9	0.7	0.5	0.2

- **Continuous Monitoring and Control:** Continuous monitoring is the process that allows for the iteration of risk identification, analysis, and mitigation. A project's risk identification and analysis is reviewed periodically to ensure risk mitigation strategies are occurring as planned and that potential impacts to the project are being managed. CentralSquare Project Manager updates the project risks in the project status reports, which will reflect the latest status of existing risks, as well as newly identified risks. CentralSquare has an internal process for reviewing, prioritization, and addressing all project risks.

Risk Management Roles and Responsibilities:

- **CentralSquare Project Manager:** Responsible for documenting project risks, managing the risk register, identifying the risk owner and assigning the tasks, and managing the response strategy. CentralSquare Project Manager is also responsible for timely escalation of the risks to ensure proper response planning and minimizing the impact.
- **Client Project Manager:** Responsible to work closely with the CentralSquare Project Manager on Risk Management, report new risks, and supervises responses to Client owned risks.
- **Risk Owner:** Responsible to develop and implement, if necessary, risk response plans. The risk owner should also update progress to the Project Managers prior to the release of project progress reports.
- **Project Team:** Responsible for reporting newly identified risks, as soon as they are identified, and assist the Project Managers to assess the probability and impact scores. Project Managers on each side must supervise this activity.

Note: Escalation of any problems with risk management should follow the guidelines set forth in Project Communication Plan.

Approvals:

Client Project Manager: **Print Name:** ______________________________

Signature: ______________________________ **Date:** ____________________

CentralSquare Project Manager: **Print Name:**

Signature: ______________________________ **Date:** ____________________

Status Meeting

Project Name:		**Report Date:**	
[Client] PM:		**CST Project Manager:**	
[Client] Exec Sponsor:		**CST Program Manager:**	

Project Task	Start Date	Due Date	Notes
Infrastructure			Please include the current status of the infrastructure
Configuration			Please include the percent complete from the Consultant's workbook
System Review			Please include the number of test results that are in the "Not Started" status
Data Conversion			Please include the status of the data conversion mapping or data conversion review depending on the stage of the task
Training			Please include any noteworthy information about the status of the training agenda or upcoming training sessions
Go Live			Please include any noteworthy information on the status of go live.

Attendees

-
-
-

Agenda

1. Review current statuses
    a. Item a
    b. Item b
2. Review upcoming events/tasks
3. Review project risks

Status Meeting Minutes

1. Current events
    a. Item a
        i. Discussed, need to follow up
    b. Item b
2. Upcoming events

3. Open discussion

Upcoming Tasks

Upcoming Tasks (Next 30 days)	Start Date	End Date	Resource Name

Project Risks

Description	Owner	Status	Comments

Next Status Meeting

<Enter date here>

CENTRALSQUARE

Insert Agency Name Here
Quote Q-1231234
Task Completion Report -

Reference: Project; PO ####
Effective Date: x/x/2025

The purpose of this Task Completion Report ("TCR") is to document the mutual acceptance between CentralSquare and Client of the items listed in this TCR, in reference to **[Project – Client – Quote (Example: CAD/Mobile Enterprise - City of Waukesha, WI– Q-XXX)**.

Completion of Project Deliverable:

The following Project Deliverable(s) have been completed:

1. Deliverable – Completion date

   Notes: (optional)

2. Deliverable – Completion date

   Notes: (optional)

Acknowledgement:

Approval of this TCR does not generate an invoice related to this Project.

The Client is responsible for approving and executing this TCR within five (5) business days of receipt. If Client rejects this TCR, Client must provide written notice detailing the reason(s) why this TCR cannot be approved. If Client does not execute, or provide rejection notice, within five (5) business days, this TCR will be deemed accepted. Acceptance of this TCR will close out the deliverable(s), milestone(s), and/or project, as applicable. If the effective date of this TCR is in the past, you will be responsible for 1 or more years of back maintenance. Any delays in the execution or acceptance of this TCR may result in a project slowdown or stoppage.

Please sign and return this TCR to CentralSquare.

Approvals		
Client Project Manager	**Print Name:**	
	Signature:	**Date:**
CentralSquare Project Manager	**Print Name:**	
	Signature:	**Date:**

CENTRALSQUARE

Insert Agency Name Here
Quote Q-1231234
Task Completion Report -

Reference: Project; PO ####

Effective Date: x/x/x

The purpose of this Task Completion Report ("TCR") is to document the mutual acceptance between CentralSquare and the Client of the items listed in this TCR, in reference to [Project – Client - Sales Order – example: CAD/Mobile Enterprise – City of Waukesha, WI - Q-XXX].

Completion of Project Deliverable:

The following Project Deliverable(s) have been completed:

1. Deliverable – Completion date

   Notes: (optional)

2. Deliverable – Completion date

   Notes: (optional)

Acknowledgement:

Upon receipt of this TCR, CentralSquare will provide an invoice for the following Deliverables:

Description	**Amount**
## % Payment Milestone Description	**$ xx,xxx.xx**
Total	**$0.00**

The Client is responsible for approving and executing this TCR within five (5) business days of receipt. If Client rejects this TCR, Client must provide written notice detailing the reason(s) why this TCR cannot be approved. If Client does not execute, or provide rejection notice, within five (5) business days, this TCR will be deemed accepted. Acceptance of this TCR will close out the deliverable(s), milestone(s), and/or project, as applicable. Any delays int eh execution or acceptance of this document may result in a project slowdown or stoppage.

Please sign and return this document to CentralSquare.

Approvals

Client Project Manager	**Print Name:**	
	Signature:	**Date:**
CentralSquare Project Manager	**Print Name:**	
	Signature:	**Date:**

CENTRALSQUARE

Sample Training Plans

City of Waukesha, WI

SAMPLE TRAINING PLANS

CentralSquare’s sample training plans are provided below.

Note: Training and workshop agendas/training content is subject to change, as the product releases change. Updated training and workshop agendas will be provided to the customer prior to the start of training.

CAD Enterprise Sample Training Plan

CAD Enterprise Operational and Administrative Review (OAR)

Course Duration	Three (3) day workshop
Location	Onsite
Recommended Class Size	Should not exceed ten (10) participants.

DESCRIPTION AND GOAL

Codefile review validates the accuracy and completeness of information provided for call-taking and dispatch workflows and ensures mutual understanding how information will be used within CAD Enterprise.

OUTPUT

- CAD Core Team learns how to use the key utilities used to configure the system.
- Completion of the Codefiles transfers to Client, who will enter the balance of Codefiles not built by CentralSquare.
- Client becomes responsible moving forward for maintaining Codefiles, including those that must be continually updated (personnel, units, premises, caution notes, etc.) to keep Codefiles in Go-Live ready status.

TARGET AUDIENCE

Key members of implementation team to include representatives from dispatch and operations. Participants must be able to make decisions regarding subsequent changes in call flow that may arise during Codefile review.

CLASSROOM AND COURSE MATERIALS

Projector	One projector is required for the presentation.
Workstations	One workstation per student installed with CAD Enterprise.
Whiteboard	Whiteboard access for note taking and visual aids.
Internet Access	Internet access is required.
Server	Access to the pre-production server is required.
Room Layout	Recommended setup would be classroom style.
Lunch	One hour will be allocated each day for lunch. Attendees will be responsible for providing their own lunch.
Breaks	Short morning and afternoon break as needed.

PREREQUISITES AND SKILLS

- Client is responsible for supplying the requested data to CentralSquare no later than four (4) weeks prior to OAR to allow sufficient configuration time.
- The centerline conversion should be completed no later than four (4) weeks prior to OAR. Delays will result in a cascading effect on the project timeline.

CAD Enterprise Response Plan Workshop

Course Duration	
Location	
Recommended Class Size	

DESCRIPTION AND GOAL

- Provide an overview of code files that are utilized for response planning and the utilities to configure each.
- Review the basics of response plans and the components that make the plans function.
- Discuss the advanced modules that can modify responses.
- Hands on building of response plans as defined by the participants.
- Review additional functions that can happen at the time of unit assignment and how they are configured.

TARGET AUDIENCE

CentralSquare recommends the following staff attend:

- Project Manager
- CAD Administrator
- Client GIS Specialist
- Response Plan Subject Matter Experts

COURSE COMPLETION

Following the Response Plan Workshop, ownership and ongoing administration of Response Plans transfers to the Client. Post Response Plan Workshop, the Client will enter the balance of the Response Plans not built during the course. These are typically items that require local knowledge of the Client's business processes. After the Response Plan Workshop, the client is responsible for the on-going maintenance of the Response Plans to keep the Plans in Go-Live ready status. During this phase, the assigned CentralSquare Consultant will provide consultation services on an as needed basis. *Each module will be included in training and hands on will only occur if the module is installed on the client system*

CLASSROOM AND COURSE MATERIALS

Projector	One projector is required for the presentation.
Workstations	One workstation per student installed with CAD Enterprise.
Whiteboard	Whiteboard access for note taking and visual aids.
Internet Access	Internet access is required.
Server	Access to the pre-production server is required.
Room Layout	Recommended setup would be classroom style.
Lunch	One hour will be allocated each day for lunch. Attendees will be responsible for providing their own lunch.
Breaks	Short morning and afternoon break as needed.

CAD Enterprise Dispatch Supervisor and End User Training

Course Duration	
Location	
Recommended Class Size	

DESCRIPTION AND GOAL

CAD Enterprise End User and Supervisor training course is designed for participants to become proficient in the use of CAD Enterprise as configured by their agency. Participants will learn how to customize queues, create, and manage incidents, manage unit activity and be able to work through dispatcher / call-taker CAD processes. Scenarios will be utilized as often as possible throughout the training to demonstrate functionality and to ensure participant understanding and proficiency.

LEARNING OBJECTIVES

Upon completion of training, the participant will be able to understand the use of the following topics:

- Dashboard, Queues, PowerLine, Emergency Call Taking Screen (ECT) and the use of Caller Location Queries (CLQ), Scheduled Call Taking (if configured), Geo, Messaging, Records Check-TTMS (if configured), Rotation Provider (if configured), BOLOs, and the Push-to-Talk (PTT) module (if configured).

In addition, they will be able to create and manage incidents and other events to include critical tasks of:

- Statusing/Dispatching Units, Appending and Linking calls, Using Controlling Dispatcher feature (if enabled), Adding other agencies to calls, Critical Incident Mode, and Case Number Management.

They will be able to utilize searching tools to find and manipulate closed calls, unit activity and other various dispatching activities where users can find needed information relating to reports, attachments, person details, call history and incident associations. Additional Supervisor topics may include Managing Caution Notes, Password Security, Road Impedances, Advisor Alert Configuration, Snapshot (auditing recommendations of units when dispatching), Recall vs Incident Detail reports, Managing users and vehicles, common Supervisor issues, Auditing messages in CAD, Premise Management, Rostering, and Reports.

TARGET AUDIENCE

Participants must include CAD Supervisors, CAD administrators, Dispatch supervisors, and any other applicable agency staff who will be required to possess a higher level of system knowledge and a range of CAD management ability.

CLASSROOM AND COURSE MATERIALS

Projector	One projector is required for the presentation.
Workstations	One workstation per student installed with CAD Enterprise.
Whiteboard	Whiteboard access for note taking and visual aids.
Internet Access	Internet access is required.
Server	Access to the pre-production server is required.
Room Layout	Recommended setup would be classroom style.
Lunch	One hour will be allocated each day for lunch. Attendees will be responsible for providing their own lunch.
Breaks	Short morning and afternoon break as needed.

PREREQUISITES AND SKILLS

All workstations configured with software correctly loaded and configured. The user possesses a standard knowledge of using a computer to include keyboard, mouse, and basic Microsoft functionality.

CAD Enterprise Call Taker/Dispatcher User Training

Course Duration	
Location	
Recommended Class Size	

DESCRIPTION AND GOAL

CentralSquare will provide hands-on training for call takers and dispatch personnel. Training can be onsite or remote. If held at Client site, Client is responsible to provide training facilities with adequate space, seating, white board, projector, and workstation setups (dual monitors are preferred).

TARGET AUDIENCE

Call takers and dispatchers. Dispatch supervisors (in each class, to respond to agency-specific questions) and trainers as applicable.

COURSE COMPLETION

Client staff will be prepared for operation in a Production Environment.

CLASSROOM AND COURSE MATERIALS

Projector	One projector is required for the presentation.
Workstations	One workstation per student installed with CAD Enterprise.
Whiteboard	Whiteboard access for note taking and visual aids.
Internet Access	Internet access is required.
Server	Access to the pre-production server is required.
Room Layout	Recommended setup would be classroom style.
Lunch	One hour will be allocated each day for lunch. Attendees will be responsible for providing their own lunch.
Breaks	Short morning and afternoon breaks as needed.

GIS – GISLink Training

Course Duration	
Location	
Recommended Class Size	

DESCRIPTION AND GOAL

The focus of this course is to prepare selected Client personnel to import and use existing GIS data in CAD Enterprise to manage the GIS data used by CAD Enterprise and Mobile Enterprise. GISLink is a CAD Enterprise Utility that provides a way for the Client to import Client GIS data into the CAD Enterprise databases. It consolidates GIS data related tools for maintaining and using GIS data in CentralSquare products. It consists of a Windows Forms application, a command line console application, and a programming API that consists of a set of re-usable publicly exported classes and methods.

No other activities (including but not limited to CentralSquare performing follow-up changes to the Client's maps, development of special material for the Client, or a follow-up one-on-one session with the Client's GIS staff) are within the scope of this class.

LEARNING OBJECTIVES

Upon completion of this section of training, the participant will be able to:

- Import GIS data into CAD Enterprise databases
- Maintain GIS data for the Client's CentralSquare system

TARGET AUDIENCE

CentralSquare recommends the following staff attend:

- GIS Administrator
- Information Technology

CLASSROOM AND COURSE MATERIALS

Projector	One projector is required for the presentation.
Workstations	One CAD Enterprise workstation per student installed with GISLink utility.
Whiteboard	Whiteboard access for note taking and visual aids.
Internet Access	Internet access is required.
Server	Access to the pre-production server is required.
Room Layout	Recommended setup would be classroom style.
Lunch	One hour will be allocated each day for lunch. Attendees will be responsible for providing their own lunch.
Breaks	Short morning and afternoon breaks as needed.

PREREQUISITES AND SKILLS

- GIS knowledge and background, familiarity with Esri tools
- Authority to make decisions regarding GIS data for the CentralSquare Public Safety Suite – Enterprise

Mobile Enterprise Sample Training Plan

Mobile Enterprise Administration Training

Course Duration	
Location	
Recommended Class Size	

DESCRIPTION AND GOAL

The Mobile Enterprise System Administrator and Configuration is a hands-on course intended to provide the client’s mobile administrators with the knowledge and skills needed to maintain, support, and configure the mobile server, mobile interface, and mobile client software.

TARGET AUDIENCE

This course should be attended by the key group of personnel responsible for maintaining and configuring the Mobile System. Suggested personnel to attend:

- IT representative
- Decision makers for Mobile Client configurations
- Personnel with knowledge of:
  - HTML/XML
  - Cascading Style Sheets (CSS)
  - JavaScript
  - Microsoft SQL (Views, Stored Procedures, Database schema)
  - Standard Global Positioning System (GPS) protocols Trimble ASCII Interface Protocol (TAIP) and National Marine Electronics Association (NMEA)

COURSE COMPLETION

Upon completion of this course, the participant should have a base Mobile Client configured, understand the mobile system requirements, be prepared to manage the Mobile Server, Software Update Server, Mobile Interface, and comprehend the configuration and deployment of the Mobile Enterprise – Client.

CLASSROOM AND COURSE MATERIALS

Projector	One projector is required for the presentation.
Workstations	One Mobile Enterprise workstation per student installed with Mobile Enterprise.
Whiteboard	Whiteboard access for note taking and visual aids.
Internet Access	Internet access is required.
Server	Access to the pre-production server is required.
Room Layout	Recommended setup would be classroom style.
Lunch	One hour will be allocated each day for lunch. Attendees will be responsible for providing their own lunch.
Breaks	Short morning and afternoon breaks as needed.

PREREQUISITES AND SKILLS

The CAD Enterprise system should be configured, GIS data present, and Mobile Data Computers (MDC) for installation. Each participant should have a computer on the network for the practical exercise of installing the Mobile Client.

Mobile Enterprise Train-the-Trainer

Course Duration	
Location	
Recommended Class Size	

DESCRIPTION AND GOAL

The Mobile Enterprise Train-the-Trainer session provides the client's mobile training staff with the knowledge and skills to develop a training curriculum to train the client's mobile field users in the use of the Mobile system. Participants will be instructed and have hands-on experience in the use and functionality of their agency's configured Mobile system.

TARGET AUDIENCE

CentralSquare recommends the following staff attend:

- Client staff who can provide answers to operational questions
- Client staff who will be responsible for training mobile field users on the use of the Mobile system.
- Mobile subject matter experts.

COURSE COMPLETION

Upon completion of this section of training, the participant will be able to:

- Navigate through the Mobile Enterprise system.
- Understand mobile call management processes.
- Comprehend messaging and query operations.
- Understand mobile mapping functionality.

CLASSROOM AND COURSE MATERIALS

Projector	One projector is required for the presentation.
Workstations	One Mobile Enterprise workstation per student installed with Mobile Enterprise.
Whiteboard	Whiteboard access for note taking and visual aids.
Internet Access	Internet access is required.
Server	Access to the pre-production server is required.
Room Layout	Recommended setup would be classroom style.
Lunch	One hour will be allocated each day for lunch. Attendees will be responsible for providing their own lunch.
Breaks	Short morning and afternoon breaks as needed.

EXHIBIT 9

<u>CentralSquare Technologies' Proposal Response to City of Waukesha RFP</u>

EXHIBIT 10

City of Waukesha RFP