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WV PURCHASING
DIVISION

MAINTSTAR

State of West Virginia
One-Stop-Shop Permitting Portal

CRFP 0201 SEC2600000001

Date Due: December 4, 2025 at 1:30 PM

TECHNICAL VOLUME I



MaintStar, Inc.

3510 Turtle Creek Blvd., Unit 17B
Dallas, TX 75219
(800) 255-5675
(949) 458-7626 fax
www.maintstar.com

Mark Desnoyer

Regional Sales Manager, Northeast
(248) 996-2452
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3510 Turtle Creek Blvd. # 17B
Dallas • TX • 75210

(800) 255-5675 phone
(949) 458-7626 fax
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November 19, 2025

State of West Virginia

Department of Administration
2019 Washington Street East
Charleston, WV 25305

Ref: RFP SEC260000001 - One-Stop-Shop Permitting Portal - State of West Virginia
Attn: Tara Lyle - Buyer

Ms. Lyle:

MaintStar is pleased to respond to the State of West Virginia. MaintStar is a Texas Corporation in good standing with over forty years of experience in Enterprise Land and Asset Management development and professional services. Our permitting solution are in use with the State of Kansas and Wyoming. We are the sole and prime contractor for this proposal, which is valid for a minimum of 180 days.

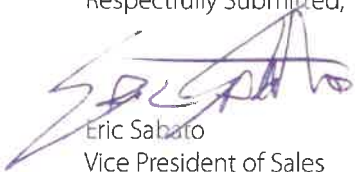
MaintStar proposes our LMS Land Management System, currently used across the United States to support Community Development for cities, counties, and states with populations ranging from 9,000 to over 3 million residents. MaintStar offers LMS as an enterprise SaaS site license for unlimited users, with an annual recurring fee that covers all services, hosting, support, and online training.

MaintStar assigns highly experienced professionals to each client. Our professional services team averages fourteen years of tenure and is an expert in their field. Our implementation teams possess overlapping skills, which reduces project risks, allows for resource leveling, maintains schedules, and provides high value to customers.

I am authorized to execute and bind a contract on behalf of MaintStar, Inc. Our proposal team strives to provide a comprehensive and accurate document, including detailed responses. If you have any questions, please don't hesitate to contact me directly.

MaintStar Office Supporting this Contract	RFP Contact	Signatory
MaintStar, Inc. 3510 Turtle Creek Blvd., Unit 17B Dallas, TX 75219	Mark Desnoyer Regional Sales Manager, Northeast (248) 996-2452 mark@maintstar.com	Eric Sabato Vice President of Sales (714) 883-8851 eric@maintstar.com

Respectfully Submitted,



Eric Sabato
Vice President of Sales

MaintStar

Enterprise Asset and Land Management Products
(714) 883-8851 mobile
eric@maintstar.com

Point of Contact, Affirmations and Disclosures

RFP Contact	Mark Desnoyer
Telephone	(248) 996-2452 Mobile (800) 255-5675 Office
Email	mark@maintstar.com
Corporate Address	MaintStar, Inc. 3510 Turtle Creek Blvd., Unit 17B Dallas, TX 75219
Mailing Address	MaintStar, Inc. 1278 Glenneyre Street #405 Laguna Beach, CA 92651
Socioeconomic Status	TxDOT Certified SBE
Subcontracting	Not required
Unique Entity ID (UEI)	P3VCXP2MZ4W5
Federal Tax ID (EIN)	33-0151817
Established	1984 – Texas C-Corporation in Good Standing
Clients	> 100 with similar software proposed and professional services
Financial Stability	MaintStar has zero debt, and has never filed for bankruptcy. The firm enjoys a 16% YoY growth rate.
No Acquisitions and Mergers	MaintStar has grown organically for forty (40) years. MaintStar has not acquired or merged with another company to gain technology or clients.
No Defaults or Litigation	MaintStar has NOT had a contract terminated for convenience or default in the prior ten (10) years. MaintStar has had no judgements or litigation activity for the last ten (10) years.
Requirements Compliance Statement General Terms and Conditions Insurance Requirements Requirements and Qualifications	MaintStar has read and reviewed all documents and attachments of this solicitation and takes NO exception to the terms and conditions, insurance requirements and RFP requirements and qualifications.
Addenda and QAs Received	Addenda 1 Rec'd Nov 17, 2025 (signed page 7) Addenda 2 Rec'd Nov 18, 2025
Primary Relevant Past Performance and References	State of Kansas Dale Kirmer, P.E. – Engineer, Bureau of Maintenance State of Wyoming Matt Groth - Utilities Section Supervisor Alameda County CA Kent Andrel – Alan Tam, P.E., CBO, LEED Building Official



Section 1 – Return Forms

State of West Virginia

RFP – One-Stop-Shop Permitting Portal





Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Centralized Request for Proposals
Info Technology

Proc Folder: 1818626			Reason for Modification:
Doc Description: One-Stop-Shop Permitting Portal -State of West Virginia			
Proc Type: Central Master Agreement			
Date Issued	Solicitation Closes	Solicitation No	Version
2025-10-24	2025-11-20 13:30	CRFP 0201 SEC2600000001	1

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Customer Code: VS0000050626

Vendor Name : MaintStar, Inc.

Address : 3510

Street : Turtle Creek Blvd., Unit 17B

City : Dallas

State : TX

Country : United States

Zip : 75219

Principal Contact : Mark Desnoyer

Vendor Contact Phone: (800) 255-5675

Extension: x. 110

FOR INFORMATION CONTACT THE BUYER

Tara Lyle
(304) 558-2544
tara.l.lyle@wv.gov

**Vendor
Signature X**

FEIN# 33-0151817

DATE 11/17/2025

All offers subject to all terms and conditions contained in this solicitation



Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Centralized Request for Proposals
Info Technology

Proc Folder: 1818626			Reason for Modification: Addendum No 1 is issued to modify the technical opening date and to publish Questions and answers
Doc Description: Addendum No.1- One-Stop-Shop Permitting Portal -State of WV			
Proc Type: Central Master Agreement			
Date Issued	Solicitation Closes	Solicitation No	Version
2025-11-14	2025-12-04 13:30	CRFP 0201 SEC2600000001	2

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Customer Code: VS0000050626
Vendor Name : MaintStar, Inc.
Address : 3510
Street : Turtle Creek Blvd., Unit 17B
City : Dallas
State : TX **Country :** United States **Zip :** 75219
Principal Contact : Mark Desnoyer
Vendor Contact Phone: (800) 255-5675 **Extension:** x. 110

FOR INFORMATION CONTACT THE BUYER

Tara Lyle
(304) 558-2544
tara.l.lyle@wv.gov

Vendor
Signature X

FEIN# 33-0151817

DATE 11/19/2025

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION

Addendum No 1 is issued for the following reasons:

- 1) To modify the bid opening date from 11/20/25 to 12/04/25
 - 2) To publish a copy of vendor questions with the agency's response.
- no other changes---

For Request for Proposal ("RFP") Responses Only: Submission of a response to a Request for Proposal is not permitted in wvOASIS. In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal prior to the bid opening date and time plus three (3) convenience copies of each to the Purchasing Division. Additionally, the Vendor should clearly identify and segregate the cost proposal from the technical proposal in a separately sealed envelope.

INVOICE TO		SHIP TO	
SECRETARYS OFFICE BLDG 1 RM E119 1900 KANAWHA BLVD E CHARLESTON WV 25305 US		DEPARTMENT OF ADMINISTRATION OFFICE OF THE SECRETARY 1900 KANAWHA BLVD E, BLDG 1 RM E119 CHARLESTON WV 25305-0120 US	

Line	Comm Ln Desc	Qty	Unit of Measure	Unit Price	Total Price
1	One-Stop-Shop Permitting Portal -State of West Virginia	As instructed pricing contained in separately sealed envelope.			

Comm Code	Manufacturer	Specification	Model #
43232408	MaintStar		LMS

Extended Description:

See attached Cost Sheet - Attachment A.

Vendor should clearly identify and segregate the cost proposal from the technical proposal in a separately sealed envelope.

**** Online responses have been prohibited for this solicitation. See Section 6, BID SUBMISSION in the CRFP for more information. ****

SCHEDULE OF EVENTS

Line	Event	Event Date
1	Technical questions due by 3:00 pm	2025-11-03

SOLICITATION NUMBER: CRFP SEC2600000001
Addendum Number: 1

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

- ☒ Modify bid opening date and time
- ☐ Modify specifications of product or service being sought
- ☒ Attachment of vendor questions and responses
- ☐ Attachment of pre-bid sign-in sheet
- ☐ Correction of error
- ☐ Other

Description of Modification to Solicitation:

Addendum No 1 is issued for the following reasons:

- 1) To modify the bid opening date from 11/20/25 to 12/04/25
 - 2) To publish a copy of vendor questions with responses.
- no other changes--

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

Revised 6/8/2012

Subcontractor List Submission (Information Technology)

Bidder's Name: MaintStar, Inc.

Check this box if no subcontractors will be provided access to State data, State information, or access to the State Network during the performance of this Contract.

[illegible]

Attach additional pages if necessary

Request for Proposal

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Mark Desnoyer

(Address) 3510 Turtle Creek Blvd., Unit 17B • Dallas, TX 75219

(Phone Number) / (Fax Number) (248) 996-2452 (949) 458-7626

(email address) mark@maintstar.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes a binding offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

MaintStar, Inc.

(Company) 

(Signature of Authorized Representative)

Eric Sabato, Vice President of Sales

(Printed Name and Title of Authorized Representative) (Date)

(714) 883-8851 (949) 458-7626

(Phone Number) (Fax Number)

eric@maintstar.com

(Email Address)

REQUEST FOR PROPOSAL

CRFP SEC2600000001 - One-Stop-Shop Portal

SECTION 5: VENDOR PROPOSAL

- 5.1. Economy of Preparation:** Proposals should be prepared simply and economically providing a concise description of the items requested in Section 4. Emphasis should be placed on completeness and clarity of the content.
- 5.2. Incurring Cost:** Neither the State nor any of its employees or officers shall be held liable for any expenses incurred by any Vendor responding to this RFP, including but not limited to preparation, delivery, or travel.
- 5.3. Proposal Format:** Vendors should provide responses in the format listed below:
- 5.3.1. Two-Part Submission:** Vendors must submit proposals in two distinct parts: technical and cost. Technical proposals must not contain any cost information relating to the project. Cost proposal must contain all cost information and must be sealed in a separate envelope from the technical proposal to facilitate a secondary cost proposal opening.
 - 5.3.2. Title Page:** State the RFP subject, number, Vendor's name, business address, telephone number, fax number, name of contact person, e-mail address, and Vendor signature and date.
 - 5.3.3. Table of Contents:** Clearly identify the material by section and page number.
 - 5.3.4. Response Reference:** Vendor's response should clearly reference how the information provided applies to the RFP request. For example, listing the RFP number and restating the RFP request as a header in the proposal would be considered a clear reference.

Proposal Submission: All proposals (both technical and cost) must be submitted to the Purchasing Division **prior** to the date and time listed in Section 2, Instructions to Vendors Submitting Bids as the bid opening date and time.

REQUEST FOR PROPOSAL

CRFP SEC2600000001 - One-Stop-Shop Portal

SECTION 6: EVALUATION AND AWARD

- 6.1. Evaluation Process:** Proposals will be evaluated in two parts by a committee of three (3) or more individuals. The first evaluation will be of the technical proposal and the second is an evaluation of the cost proposal. The Vendor who demonstrates that it meets all of the mandatory specifications required, attains the minimum acceptable score and attains the highest overall point score of all Vendors shall be awarded the contract.
- 6.2. Evaluation Criteria:** Proposals will be evaluated based on criteria set forth in the solicitation and information contained in the proposals submitted in response to the solicitation. The technical evaluation will be based upon the point allocations designated below for a total of 70 of the 100 points. Cost represents 30 of the 100 total points.

Evaluation Point Allocation:

- Project Goals and Proposed Approach (§ 4.2)
- Approach & Methodology to Goals/Objectives (§ 4.2.1) 25 Points Possible
 - Approach & Methodology to Compliance with Mandatory Project Requirements (§ 4.2.2) 15 Points Possible

- Qualifications and experience (§ 4.3)
- Qualifications and Experience Generally (§ 4.3.1) 10 Points Possible
 - Exceeding Mandatory Qualification/Experience Requirements (§ 4.3.2) 5 Points Possible

(Oral interview, if applicable) (§ 4.4) 15 Points Possible

Total Technical Score: 70 Points Possible

Total Cost Score: 30 Points Possible

Total Proposal Score: 100 Points Possible

REQUEST FOR PROPOSAL

CRFP SEC2600000001 - One-Stop-Shop Portal

- 6.3. Technical Bid Opening:** At the technical bid opening, the Purchasing Division will open and announce the technical proposals received prior to the bid opening deadline. Once opened, the technical proposals will be provided to the Agency evaluation committee for technical evaluation.
- 6.4. Technical Evaluation:** The Agency evaluation committee will review the technical proposals, assign points where appropriate, and make a final written recommendation to the Purchasing Division.
- 6.5. Proposal Disqualification:**
- 6.5.1. Minimum Acceptable Score ("MAS"):** Vendors must score a minimum of 70% (49 points) of the total technical points possible in order to move past the technical evaluation and have their cost proposal evaluated. All vendor proposals not attaining the MAS will be disqualified.
- 6.5.2. Failure to Meet Mandatory Requirement:** Vendors must meet or exceed all mandatory requirements in order to move past the technical evaluation and have their cost proposals evaluated. Proposals failing to meet one or more mandatory requirements of the RFP will be disqualified.
- 6.6. Cost Bid Opening:** The Purchasing Division will schedule a date and time to publicly open and announce cost proposals after technical evaluation has been completed and the Purchasing Division has approved the technical recommendation of the evaluation committee. All cost bids received will be opened. Cost bids for disqualified proposals will be opened for record keeping purposes only and will not be evaluated or considered. Once opened, the cost proposals will be provided to the Agency evaluation committee for cost evaluation.
- The Purchasing Division reserves the right to disqualify a proposal based upon deficiencies in the technical proposal even after the cost evaluation.
- 6.7. Cost Evaluation:** The Agency evaluation committee will review the cost proposals, assign points in accordance with the cost evaluation formula contained herein and make a final recommendation to the Purchasing Division.

Cost Evaluation Formula: Each cost proposal will have points assigned using the following formula for all Vendors not disqualified during the technical evaluation. The lowest cost of all proposals is divided by the cost of the proposal being evaluated to generate a cost score percentage. That percentage is then multiplied by the points attributable to the cost proposal to determine the number of points allocated to the cost proposal being evaluated.

Step 1: $\text{Lowest Cost of All Proposals} / \text{Cost of Proposal Being Evaluated} = \text{Cost Score Percentage}$

Step 2: $\text{Cost Score Percentage} \times \text{Points Allocated to Cost Proposal} = \text{Total Cost Score}$

REQUEST FOR PROPOSAL

CRFP SEC2600000001 - One-Stop-Shop Portal

Example:

Proposal 1 Cost is \$1,000,000

Proposal 2 Cost is \$1,100,000

Points Allocated to Cost Proposal is 30

Proposal 1: Step 1 – $\$1,000,000 / \$1,000,000 = \text{Cost Score Percentage of 1 (100\%)}$
Step 2 – $1 \times 30 = \text{Total Cost Score of 30}$

Proposal 2: Step 1 – $\$1,000,000 / \$1,100,000 = \text{Cost Score Percentage of 0.909091 (90.9091\%)}$
Step 2 – $0.909091 \times 30 = \text{Total Cost Score of 27.27273}$

- 6.8. Availability of Information:** Proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for disqualification, will not be available until after the contract has been awarded pursuant to West Virginia Code of State Rules §148-1-6.3.d.

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

MaintStar, Inc.
(Company)

Eric Sabato, Vice President of Sales
(Representative Name, Title)

(714) 883-8851 (949) 458-7626
(Contact Phone/Fax Number)

11/19/2025
(Date)

Revised 07/01/2021



Section 2.1 – Requirements Response
State of West Virginia
RFP – One-Stop-Shop Permitting Portal



Response to State of West Virginia Requirements

4.2.1 Goals and Objectives – The project goals and objectives are listed below.

MaintStar is providing a point-by-point response below with the details to the requirements in the following pages of this section.

4.2.1.1 Vendors should provide a methodology and explain in detail how they would develop and create a user-friendly dashboard interface with public-facing, and internal agency components as a One-Stop-Shop Permitting Portal.

MaintStar is proposing our commercial-off-the-shelf LMS application, which is currently deployed and in use with the states of Kansas and Wyoming.

4.2.1.2 Vendors should describe how they would implement a flexible and secure Role Based Access Control system.

MaintStar LMS uses a traditional user, user role, user group hierarchy for ease in building the security model and integration to MS Active Directory SSO (and other Federated Systems).

4.2.1.3 Vendors should explain how they will design a user-friendly, and responsive interface that tracks applications through the approval process and the ability to apply for additional permits or other licenses as needed.

One of the advantages of MaintStar LMS selection, is the system brings more than six years of proven experience and customer acceptance of an easy to use and navigate interface.

4.2.1.4 Vendors should describe how the solution assists public users through the application process, the vendor should implement an intelligent, interactive assistant (AI) or automated tool embedded within the public dashboard.

MaintStar LMS offers the highly respected wizard driven Public Portal interface for ease navigating the application process. The wizard combined with AI ChatBot and Online Help (rollover) is widely accepted with Kansas and Wyoming state installations.

4.2.1.5 Vendors should explain how the solution would implement a dynamic and transparent tracking system within the public dashboard that would provide public users with up-to-date visibility into the status and progress of their applications throughout the approval workflow.

MaintStar LMS Public Portal landing page offers a My Applications view, with staff messaging and push notifications that offer up-to-date visibility, status, and any tasks or actions from the applicant that are due via workflow.

4.2.1.6 Vendors should explain how the solution will implement a robust session management and draft-saving system for mid-process applications.

MaintStar LMS retains the session in the event a connection is lost, upon establishing connection the applicant can continue the application from the point of disconnection. Additionally users may save applications as drafts for completion at a later time.

4.2.1.7 Vendors should describe how the solution implements a transparent and dynamic time-tracking module within the public dashboard.

MaintStar LMS offers a Time-Tracker that is specifically designed to track the time tasking and provide fees for hourly based fees (i.e., plan reviews).

4.2.1.8 Vendors should explain how the proposed solution implements a mobile-friendly, offline-capable inspection module that allows field inspectors to work seamlessly without network connectivity, then queue those for automatic upload once connected to a network.

MaintStar LMS offers MaintStar Mobile inspection and mobile application for on or off network field operations. MaintStar Mobile is compiled for Apple iOS, Android and MS Surface devices for universal compatibility.

4.2.1.9 Vendors should explain how the solution is accessible with mobile devices for both public and agency users, the system should be designed with an approach that ensures full functionality, usability, and performance across mobile devices such as smartphones and tablets.

MaintStar LMS Public Portal offers universal access for applications from any device with a popular browser (Chrome, Safari, FireFox, Edge and Opera). Field inspectors can use MaintStar Mobile App (detailed above) or operate in browser mode.

4.2.1.10 Vendors should describe how the solution implements a flexible and user controlled notification system. The system should allow users to be able to sign up for and receive workflow notifications throughout the process through email, mobile phone, or both as the individual chooses.

MaintStar LMS offers push notifications which are integrated with the systems workflow automation engine (WFE) for both staff and applicant notifications. Applicants can receive notifications on any selected device and method, as well as on their Public Portal account. Notifications on the Public Portal have flag indicating the urgency of response required.

4.2.1.11 Vendors should explain how the solution includes a flexible, secure, and user friendly form and document management module with the ability to upload documents or create fillable forms for certain permits as needed.

MaintStar LMS Public Portal allows upload of documents, forms and plans. The wizard will prompt the user to upload the appropriate document at the current step of application. Staff users will find all attached documents in the uploaded documents panel, plans in the plans panel, and agency forms have a dedicated tab to select from.

4.2.1.12 Vendors should demonstrate strategic implementation of the tool for both agencies and public users, Vendors should showcase their ability to seamlessly integrate with existing portals and permitting systems while enhancing functionality, accessibility, and user experience.

MaintStar LMS offers a REST API for integration to any modern enterprise solution, and a Legacy API for older applications or specific messaging (hardware devices). MaintStar LMS is designed for web hosted deployment and follows the server publishing model and Continuous Services Ecosystem (specifically designed for continuous testing, integration and publishing). MaintStar Development, Deployment and Support all operate from the same Continuous Service Ecosystem for continuous communications.

4.2.1.13 Vendors should demonstrate how their solution would provide effective data security and protection, alongside ongoing support, maintenance, and adjustment of the program and dashboard to meet changing needs.

MaintStar LMS is specifically designed for scalability using the React.JS platform/library with a microservices architecture. The hosting enclave/environment runs continuous scanning and performance software to monitor cybersecurity, security, and performance. AWS CloudWatch is used for performance metrics.

4.2.1.14 Vendors should demonstrate a comprehensive, flexible, and secure approach that supports interoperability, minimizes disruption, and enhances operational efficiency.

MaintStar is proposing a dedicated tenant for each tenant for enhanced security, scalability and a mission critical approach. A dedicated tenant will not limit interaction between tenants as required.

4.2.1.15 Vendors should provide a clear, strategic recommendation regarding integration vs. replacement of existing agency systems, along with a realistic implementation timeline that aligns with the statutory deadline outlined in W.Va. Code §5A-13-1 et seq., which mandates full implementation of the One-Stop-Shop Permitting Program by January 1, 2027.

MaintStar proposes the customers retain existing systems until training and transition phases are complete. MaintStar is confident a 3-4 agencies can be transitioned into the One-Stop-Shop Permitting Program by January 1, 2027.

4.2.1.16 Vendors should describe their approach on how to implement a “train-the-trainer” model, the vendor should deliver a structured, scalable training program that equips key agency users with the knowledge, tools, and confidence to train others effectively.

MaintStar Professional Services will develop a training plan in collaboration with the State of West Virginia stakeholders. That plan will include a train-the-trainer course with the development of video and documentation. MaintStar Professional Services approach to training is detailed in this response.

4.2.1.17 Vendors should describe how the solution provides a comprehensive, accessible, and self-paced learning platform like on-demand that supports both agency users and constituents after implementation.

MaintStar LMS offers an onboard help system that can be customized to the specific configuration of that agency. MaintStar LMS offers an onboard help/service request system that allows users to request support to a designated support desk. This can include training requests or links to a training video library.

4.2.1.18 The State currently uses Google and Microsoft products for core functions like email, calendar, and meetings. Vendors should ensure their solution is compatible and interoperable with these platforms to streamline adoption and maximize productivity.

MaintStar LMS offers standard, native security integration to Microsoft Exchange 365. MaintStar Professional Services is proposing integration the Google Business Suite included in this proposal.

4.2.1.19 Vendors should explain how the solution can be adjusted to meet the growing and changing needs of the State. The State anticipates additional agencies may desire to participate in the solution in the future, the platform should be able to evolve alongside the State’s operational, technical, and organizational growth, flexible and scalable to adapt to increased requirements in future years.

MaintStar LMS offers dedicated administration and supervision interfaces and security. The interfaces facilitate first point administration by state personnel, with higher level or assistance support from MaintStar Dedicated Support Engineer (DSE). Both interfaces allow for product growth (users, permitting types, activity types/services, and Public Portal features). MaintStar is proposing a sandbox (test and training) environment for testing and validation of new features prior to production transitioning.

4.2.1.20 Vendors should demonstrate commitment to high system availability, transparent maintenance practices, and rapid recovery protocols with downtime and planned maintenance windows being outside of business hours.

4.2.1.21 Vendors’ solution must include a description of the project management approach and relevant tools to be utilized.

MaintStar Professional Services follows the ANSI/PMI project management standard. The Deployment Approach section of this response details the Project Management approach. MaintStar Professional Services will deploy a collaborative Project Management Tool (PMT) that offers integrated schedule management, file exchange, workflow and status on organizational change management.

4.2.1.22 Vendor should be able to integrate with the State’s Single Sign-On Solution.

MaintStar LMS offers standard, native security integration to Microsoft Active Directory SSO. Other enterprise SSO solutions can be supported.

4.2.1.23 Vendor’s pricing page should provide a total and complete implementation and build out cost, and should identify any milestone payment expectations. Vendor’s pricing page should also provide proposed annual licensing costs, hosting costs, maintenance costs, and other cost breakdowns.

MaintStar is including the Attachment A - Pricing Form as well as MaintStar Pricing Format in the Pricing Volume. The MaintStar pricing offers clarity on itemization of services and pricing per agency deployment by population count. Note: MaintStar LMS does not have per user fee.

4.2.1.24 Vendor should guarantee that all work on this project will be performed in the United States. Use of technology to communicate with countries banned by the Federal Government is prohibited.

MaintStar will perform all services domestically. MaintStar hosting services are AWS GovCloud with data centers in Ashburn VA and Hayward CA.

4.2.1.25 Vendor should provide constituents access to a digital wallet for payment, refund, and license/permit management.

MaintStar LMS offers a payment processing with default processing with CardConnect. MainStar can offer alternative payment processor for each agency based on preferences.

4.2.2. Mandatory Project Requirements - The following mandatory requirements relate to the goals and objectives and must be met by the Vendor as a part of its submitted proposal. Vendor shall describe how it will comply with the mandatory requirements and include any areas where its proposed solution exceeds the mandatory requirement. Failure to comply with mandatory requirements will lead to disqualification, but the approach/ methodology that the vendor uses to comply, and areas where the mandatory requirements are exceeded, will be included in technical scores where appropriate. The mandatory project requirements are listed below.

4.2.2.1 Vendors must provide a solution for the development and creation of a one-stop shop permitting portal.

Compliant as proposed.

4.2.2.2 Vendors' solution must outline a structured, transparent, and collaborative methodology that ensures timely delivery, stakeholder alignment, and quality assurance throughout the implementation lifecycle.

MaintStar Professional Services is designed for a transparent and collaborative development, deployment and operations methodology. This combined with the Continuous Services Ecosystem, adheres to State of West Virginia mandatory requirements. The MaintStar LMS application and AWS GovCloud active-active geo-diverse hosting provides a mission critical, scalable and cost effective solution for the full software deployment lifecycle.

4.2.2.3 Vendor must agree to and meet all data security requirements identified by the Office of Technology, for the entirety of the project, including initial meetings, information gathering, development, and other preliminary stages.

MaintStar will comply.

4.2.2.4 Vendor's proposed solution must meet FedRAMP requirements.

MaintStar AWS GovCloud active-active hosting is FedRAMP, NIST 800-53, and CNSS 1253 compliant.

4.2.2.5 Vendor must ensure all state Data is encrypted at rest and during transit. Encryption must meet FIPS 140-3 standard.

MaintStar LMS encrypts data via AES 256 in transit and at rest. The AWS GovCloud Solution is FIPS 140-3 compliant (standard).

4.2.2.6 Vendor is responsible for ensuring any subcontractors utilized in this project are identified and reported to the WV Office of Technology and that such subcontractors (if applicable) always maintain compliance with the State's data security requirements. The Contractor may not assign, transfer, or subcontract any portion of the contract without the State's prior written consent.

MaintStar is not proposing the use of subcontractors. MaintStar has successfully deployed similar solutions to the State of Wyoming and State of Kansas without the use of subcontractors.

4.2.2.7 Vendor's security controls must be in accordance with the NIST 800-53 standard. Vendor must provide evidence of this upon request

MaintStar LMS with the AWS GovCloud active-active hosting solution is NIST 800-53 r4 compliant.

4.2.2.8 Vendor must demonstrate how the solution implements a proactive, transparent, and standards-based security program that ensures system integrity and compliance with state cybersecurity expectations. Solution must provide security vulnerability scanning and routine reports of such testing of the system to the Office of Technology at routine intervals and upon request.

MaintStar's AWS GovCloud environments are continuously scanning and 24 x 7 infrastructure support is available.

4.2.2.9 Vendor must commit to a clearly defined time period for addressing critical vulnerabilities, aligned with industry standards and state cybersecurity expectations.

MaintStar Professional Services provides ITIL v4 based support with three tiers of response and resolution performance. Cybersecurity and security breach incidents are treated as Tier I (15 minutes response and 45 minutes resolution). This is possible with continuous scanning of the environment, 24 x 7 staffing and push notifications to the customers DSE.

4.2.2.10 The Vendor must implement a resilient, secure, and verifiable strategy that ensures business continuity and data integrity in alignment with the State's expectations and the Service Level Agreement (SLA) and implement and maintain a comprehensive backup and disaster recovery plan.

MaintStar LMS hosted on MaintStar's AWS GovCloud active-active geo-diverse hosting offers a historical availability of 99.9996% (17 minutes total downtime in 9 years). The solution has provides mission-critical application status with near real time RPO and RTO. The active-active hosting with two replicated data targets can continue operation in the event of single data target failure and the failed target can be rebuild to the last known good data state automatically. A topology of this solution is included in the response.

4.2.2.11 Vendor's solution must be able to be migrated into one of the State's existing cloud tenants after full development.

MaintStar can migrate to the State's existing cloud tenants as requested. However, keep in mind many of the specification and processes proposed here are based on MaintStar's AWS GovCloud active-active geo-diverse infrastructure. Please see pages 33-35.

4.2.2.12 Vendor must make the project management interface available and accessible to the State's implementation team at no additional cost

Compliant, this is a standard part of our implementation process.

4.2.2.13 Vendor's solution must provide a real-time data exchange.

Compliant.

4.2.2.14 Vendor's solution must be ADA compliant and meet the updated federal requirements.

Compliant. MaintStar LMS is Section 508 compliant and VPAT v1.3 and a Lighthouse Sec 508 report is available on request.

4.2.2.15 Vendor must provide 3-tier outage reporting.

Compliant. MaintStar Professional Services follows a 3 Tier ITIL v4 service response and resolution model. For specific response and resolution time burdens please see page 50.

4.2.2.16 Vendor must provide the State's team with access to a sandbox and production environment early on in the development stage.

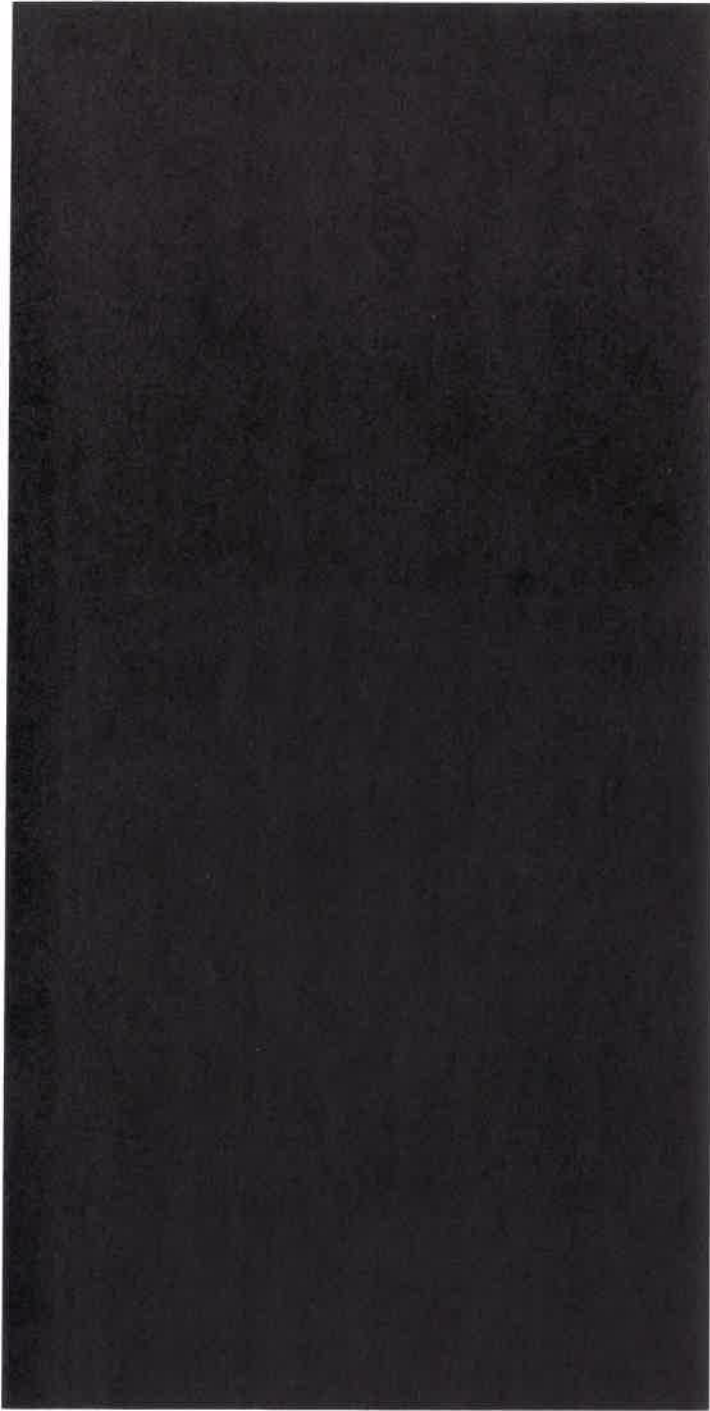
Compliant. Retention of a Sandbox environment for testing and training after production cutover is subject to an annual fee. It is priced as a per tenant option.

4.2.2.17 Vendor must provide a disentanglement plan to the State within 6 months of contract award and maintain compliance with the requirements of ATTACHMENT A.

Compliant. MaintStar is proposing a four initiative transition and disentanglement plan.

4.2.2.18 Vendor's solution must include and provide ongoing support and maintenance of the proposed solution for the duration of this contract including updates, bug fixes, etc.

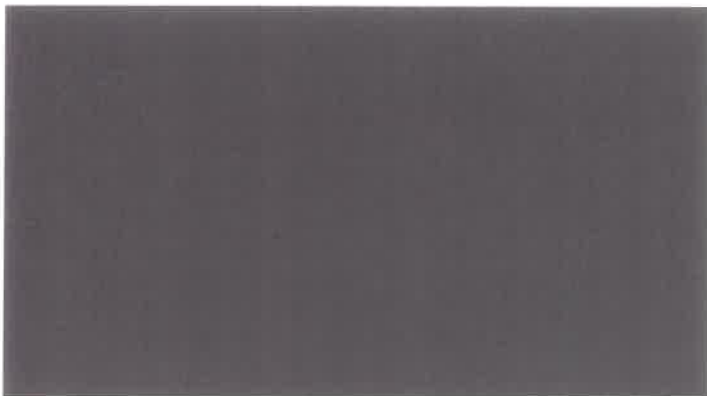
Compliant. MaintStar Professional Services follows a Continuous Delivery Ecosystem with support from development, publishing and operations.



Section 2.2 – MaintStar LMS Application

State of West Virginia

RFP – One-Stop-Shop Permitting Portal

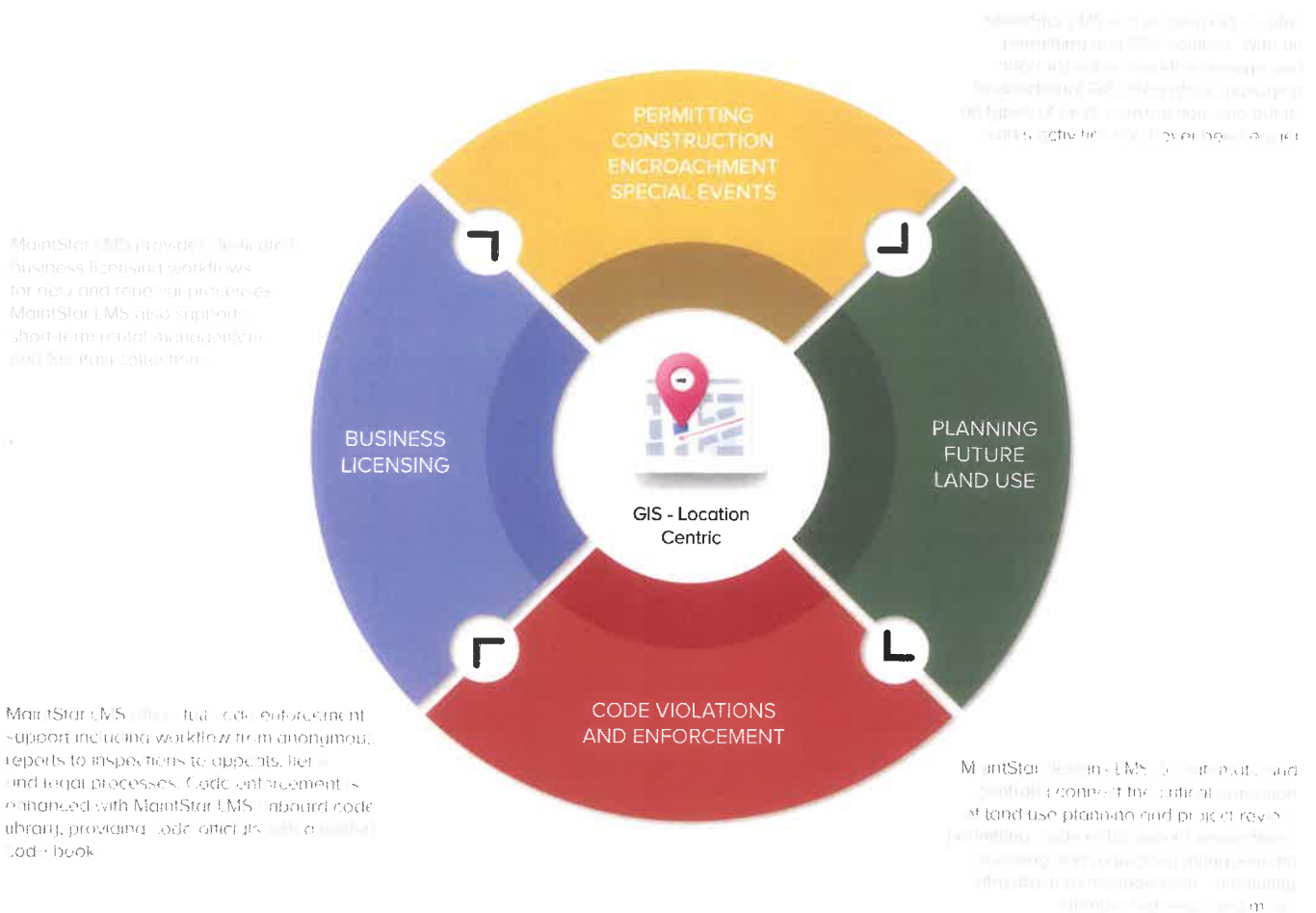


Complete Land Management Solution

Holistic Land Management Solution

MaintStar LMS allows strategic management of an organization's land management operations. MaintStar LMS will enable holistic planning and zoning, future land use management, permitting and encroachments, code violations, and business licensing and tax operations. MaintStar LMS becomes the central application and tool for community development operations and activities. Through efficient data and fee collection, workflow automation, activities assignment, and record-keeping, MaintStar LMS allows for the strategic planning and stewardship of community land area.

MaintStar LMS development uses the latest technology and REST API interface protocols to enable seamless integration and communication with the organization's enterprise environment. Sharing data between your Community Development applications will facilitate efficiencies and accuracy.



GIS-Centric Solution

MaintStar LMS is a GIS-Centric system. In addition to a complete onboard LMS database, the system offers full bi-directional integration with ESRI ArcGIS or any other Open GIS Consortium (OGC) mapping solution. All case records (Permits, P&Z, Code, and Licenses) can be associated with land management entities. Additionally, MaintStar LMS can reference case record locations via GPS coordinates or shape files to support new land development or unparceled land. With MaintStar LMS, GIS integration is standard, without costs, and deployment in a day or two.

Permitting and Planning Operations

Building department operations are more efficient and easier to manage with MaintStar LMS. MaintStar streamlines permit processing with either fixed configuration for simple building projects or workflow automation for complex projects. With MaintStar's adaptability, there is no limit to the type of permits processed (from film permits, residential/commercial construction, or highway and interstate work) MaintStar offers a solution.

- Applications with document (plans) and fees submittal
- Special Case Type(s) Support - Animal Control, Short-term Rentals, Special Permits (Film, etc.)
- Native Onboard Workflow Automation Engine (WFE) for application routing and processing
- Electronic Plan Reviews
- Electronic notifications, alerts and task reminders
- Inspections and virtual inspections with audits
- Fees (flat, formula, graduated), Cashiering and internal Double Ledger Accounting
- E-Signatures
- Forms generation - permit, inspection cards, Certificate of Occupancy, corrections or conditions reports
- Government or State permit reporting regulations
- Permanent record attachment to the property/land database upon completion
- Record and documents archival
- Group related permits, plans, and code enforcement activity into one Project. Manage and view the status of the overall project, along with being able to see key details of associated records and easily access full record history.

Community members, contractors, and developers can apply via the MaintStar Public Portal or Over-the-Counter. Full support for parent and child permits is standard and just as easy to process and manage.

Record #	Status	Record Type	Type / Sub-Type	Location	Alerts	Description
6100174	Open Case	Building Permit	Garage	2101 S. 1st St. Plant City, FL 33566	None	New Garage
2409-0001	Open Case	Code Ent.	Commercial Property	3427 University Blvd. Plant City, FL 33566	CarlyA	
2409-0002	Open Case	Code Ent.	Commercial Property	618 Moku Road Plant City, FL 33566	MariaD	Trash Pile
2409-0003	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	None	New Video Linux
2409-0004	Open Case	Building Permit	Right of Way / Use Permit	642 University Blvd. Plant City, FL 33566	None	Water Damage
6100175	Open Case	Building Permit	Per-App Meeting	2101 S. 1st St. Plant City, FL 33566	CarlyA	
2409-0005	Open Case	Code Ent.	Water Damage	618 Moku Road Plant City, FL 33566	MariaD	Water Damage
2409-0006	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	None	New Video Linux
2409-0007	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	MariaD	Water Damage
2409-0008	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	None	New Video Linux
2409-0009	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	MariaD	Water Damage
2409-0010	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	None	New Video Linux
2409-0011	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	MariaD	Water Damage
2409-0012	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	None	New Video Linux
2409-0013	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	MariaD	Water Damage
2409-0014	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	None	New Video Linux
2409-0015	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	MariaD	Water Damage
2409-0016	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	None	New Video Linux
2409-0017	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	MariaD	Water Damage
2409-0018	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	None	New Video Linux
2409-0019	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	MariaD	Water Damage
2409-0020	Open Case	Building Permit	Video	28 Hammond Ave. Plant City, FL 33566	None	New Video Linux

LMS Building Permit Application Interface

Code Enforcement Operations

MaintStar's Code Enforcement module benefits from onboard code language table and lookups. Field personnel can carry codes on their mobile device within the MaintStar application and copy and paste directly into violations forms. Code activity posts to Land Management so other business units (permitting, planning) will have visual access to code issues on a particular parcel or address.

- Full Code(s) Database with Lookup and Paste Into Case Record
- Code violation reporting via portal (anonymous or not), counter or mobile device
- Jurisdictional validation via GIS integration and automatic association to all land management data
- GIS-centric display view and reporting of violations
- Electronic notifications and updates
- Inspections and field notifications
- E-Signatures
- Forms generation - citations, notifications, lien notices
- Property tagging
- Appeals and liens processing
- Record and documents archival
- Group related permits, plans, and code enforcement activity into one Project. Manage and view the status of the overall project, along with being able to see key details of associated records and easily access full record history.

MAINTSTAR

[My View](#)
[Superadmin](#)
[Admin](#)

[Go](#)
[User Admin](#) | [Logout](#)

Records

[+ Add New Data And Log Case Entry](#)

Rows: 15000

Map	Record #	Status	Record Type	Type	Location	Description	Created	Updated	Changed	Priority	Delete
LMS >	116010000	In Process	Building Permit	One or Two Family Residence	450 ALABAMA DE DR Plant City, FL 33613	New residence home					
Notifications	116010000	Closed	Planning	Site Plan Review	450 Alabama Dr Plant City, FL 33613	Site plan review					
Activities (2)	116010000	Closed	Code Ent.	Public Nuisances	301 N WILDER Rd Plant City, FL 33616	Tall weeds in yard					
Records											
Building Permit >	116010000	Closed	Building Permit	One or Two Family Residence	125 ALEXANDER WOODS Dr Plant City, FL 33613	New resident's track					
Planning >	116010000	Open Case	Code Ent.	Public Nuisances	2116 ACALSA BLOSSOM Plant City, FL 33617						
License >	116010000	In Process	Building Permit	Election Cell Voltage	2508 HAMMOCK Dr Plant City, FL 33616	New cell phone					
Code Ent. >	116010000	In Process	Animal Services	Neutered Dog Stayed	19 Hammond Ln Plant City						
Implementation >	116010000	In Process	Animal Services	Neutered Dog Stayed		Jessie Ryan - 65lbs Boxer Female Sept 20					
Animal Services >	116010000	Closed	Code Ent.	Public Nuisances	27 ONE OAK Dr Plant City, FL 33616	Tall weeds in neighbors house					
Engineering >	116010000	Closed	Building Permit	One or Two Family Residence	14654 Haynes Rd Plant City, FL 33617	New residence					
License Renewal >	116010000	Open Case	Code Ent.	Public Nuisances	1675 YOUNG Rd Plant City, FL 33616						
Services >	116010000	Closed	Planning	Site Plan Review	4500 State Road 574 93 Plant City, FL 33613	New home track					
Mailing List >	116010000	Closed	Code Ent.	Public Nuisances	2533 Sealey Rd Plant City, FL 33617	Tall weeds					
Attachments											
Calendars >	116010000										
Inspections											

File Attachments

- [116010000_116010000.jpg](#) [View](#) [Download](#) [Delete](#)
- [116010000_116010000.jpg](#) [View](#) [Download](#) [Delete](#)
- [116010000_116010000.jpg](#) [View](#) [Download](#) [Delete](#)
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- [116010000_116010000.jpg](#) [View](#) [Download](#) [Delete](#)

LMS Code Enforcement Module (inset photo attachment details)

Business Licensing Operations

Licensing operations are more efficient and easier to manage with MaintStar LMS. MaintStar streamlines license applications processing with either fixed configuration for simple workflow or workflow automation for more application types. With MaintStar's adaptability, there is no limit to the type of licenses processed. MaintStar LMS offers a solution.

- Applications with documents, forms and fees submittal
- Comprehensive checklist creator for step by step processes and application guidance
- Dedicated workflows for new applicants and renewal applicants
- Workflow timeline progress viewer (see below)
- Multi-Location, Multi-Contact and Unlimited attachment support
- Activities – Staff reviews and approval process
- Activities – Inspections and health inspections with audits
- Electronic notifications, alerts and task reminders
- Fees (flat, formula, graduated), cashiering and internal double ledger accounting, generate invoices
- E-Signatures
- Forms generation – Licenses, Permits, Certificates and other Government Forms
- Record and documents archival
- Full History Log and Audit
- Dedicated Onboard User Help

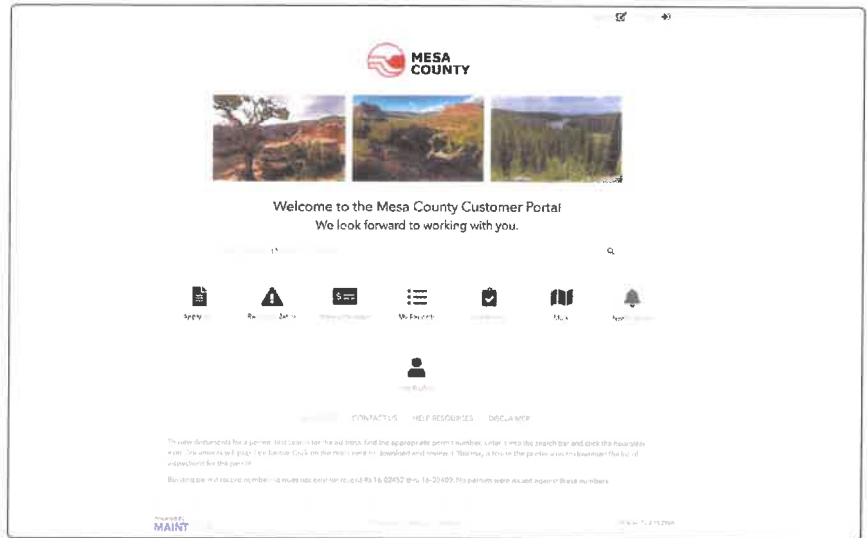
The screenshot displays the MaintStar LMS interface for a Business License application. The left sidebar contains a navigation menu with options like Map, LMS, Notifications, Activities, Records, Bonds, Building Permit, Business License, Business License Renew, Code List, Engineering, Fire Permits, Mailing List, Planning, Credentials, Help Information, and Implementation. The main content area shows the record details for BT24-0156 Business License. The top navigation bar includes 'My View', 'Supervisor', 'Admin', 'Go to record', 'Alerts (1-10)', 'User', 'Admin', and 'Logout'. The record details are organized into sections: 'Record' (BT24-0156), 'Status' (New), 'Type' (Commercial), 'Bus. Type' (Corporation), 'Applicant' (#1 COOLING & HEATING LLC), 'Type of Business' (HVAC), 'Company' (#1 Cooling & Heating Inc), 'DBA' (same), 'Nature of Business' (Heating and Air Condition), 'If appl. FEIN' (State CA), 'PBC License', 'Drivers License / ID' (34456776), 'Reason For', 'Receipt Year' (2-24), 'Business Start' (04/26/2024), 'Business Closed', '# Employees' (45), 'Notes', 'Received' (4/17/2024), 'Approved', 'Expires', 'Closed', and 'CRA'. The bottom of the interface shows 'State License Type' (Cot 1), 'Sales Tax #', and 'Sales Tax #'.

LMS License Application Interface

LMS Public Portal

MaintStar LMS offers a comprehensive public-facing portal. Through MaintStar's LMS customization, the public portal can serve as the central point for residents to apply for permits, planning and zoning, licenses, and report code violations. Applicants can upload plans and forms, pay fees, request inspections, check the status of their application, or see overall Community Development activity on a community map. The MaintStar Portal brings "City Hall" to your residents through an all-encompassing web resource that is easy to use.

MaintStar LMS Public Portal
Self-Service Friendly - Help Resources



MaintStar LMS Public Portal
Public Map View of Activity

MaintStar LMS – Self Service Public Portal

System Shared Resources

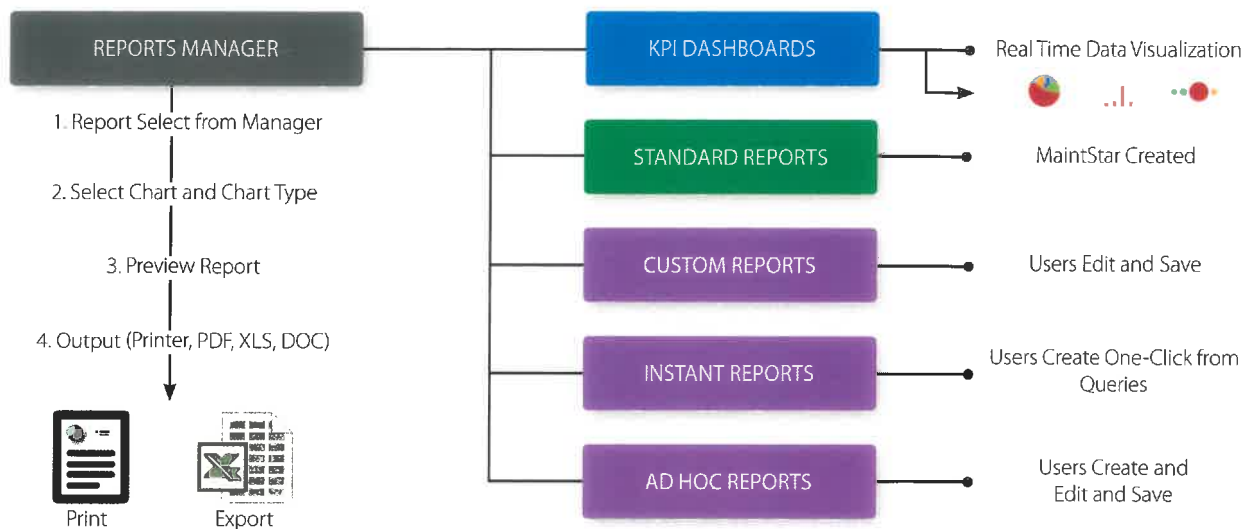
MaintStar LMS Fees and Cashiering

MaintStar LMS a full double ledger accounting module. This allows for accounting friendly integration with accounting systems including accounting codes and transactions codes synchronization. The system offers robust fees, fees grouping, fees schedules and can cashier in payment type and the public portal offers compliant PCI-DSS certification.

Comprehensive Reporting Solutions

MaintStar LMS features a powerful onboard reports engine founded on the latest technology. The MaintStar reporting engine offers the most current database, libraries, graphics, and charting technologies. MaintStar Reports and Dashboards solutions are a 100% web, cloud-hosted solution, reducing IT resources and costs.

MaintStar LMS features a powerful onboard reports engine. For real time reporting and department or user-specific observation, the system offers KPI Dashboards. Users may set up and configure dashboard widgets to provide specific insight into Asset Management activity in real time. For digital and paper reports LMS has four reporting modes (illustrated below). (1) Standard Reports – commonly used reports MaintStar loads into all systems (2) Custom Reports – standard reports that users edit, optimize, and save (3) Instant Reports – reports created from the map or list search and queries users create and save, and (4) Ad Hoc custom reports using an exclusive four-step wizard interface.



Powerful Native Reporting Engine

MaintStar LMS has a powerful, native Reporting Module. Reporting output falls into the four types below. Any report may be automatically distributed and scheduled by time of day and day of the week. Users easily identify scheduled reports by the clock icon next to the report name in their Reports Manager. All reports in the user's Reports Manager include an ID, Name, Description, and Category for easy identification.

Reporting Module - Report Types

Instant Report	Users can create and perform queries and filters on any list. They can save these queries for future recall and use as well. They can generate 'Instant Report' from the query with or without a selected chart type.
Standard Report	MaintStar LMS is loaded with universally used popular reports called 'Standard Reports'. A short list follows on the next page. Users can edit standard reports and save them as a custom report with a new name.
Custom Reports	A Standard Report may be close but not exactly what a user is looking for. These Standard Reports may be modified and saved by users. These are called 'Custom Reports'. Users can organize Custom Reports in categories for ease of recall in their Reports Module.
Ad Hoc Reporting	For Agencies that need a unique report, MaintStar can generate complete Ad Hoc Reports from scratch. The user will not need to be familiar with SQL or Database Language. A four step wizard is used to generate an Ad Hoc Report. After their training course from MaintStar, Ad Hoc reports can be easily created and saved.

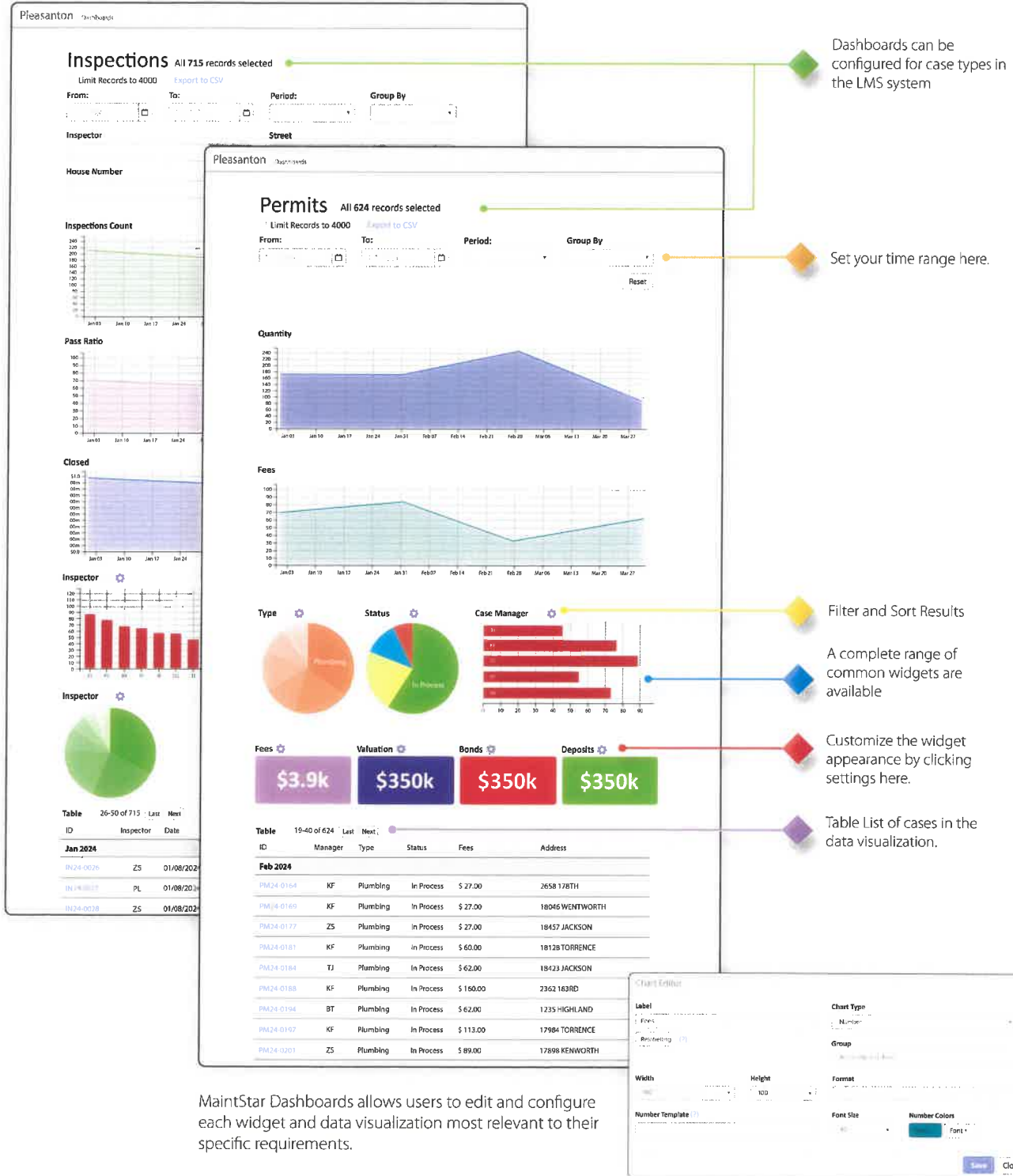
Popular Pre-Defined Reports

MaintStar LMS has hundreds of standard reports. Below is a listing of the most popular reports. Remember, reports may be easily customized, saved with a new name and used as often as desired. Reports may be auto-distributed, by email and based on scheduled time and day of week. Scheduled reports are easily identified by clock icon next to the report. Reports are stored in categories by the report manager.

Standard Reports - LMS	
Activity Reports	Recent Permits
	Recent Permit Applications by Date/Time
	Recent Inspections
	Inspections by Inspector by Date/Time
	Unscheduled Inspections
	Inspections by Type
	Closed Activities Report
	Activities By Type
Permit Detail Reports	Permit Reports By Type/Department
	Permit Approval Cycle
Plan Review Reports	Application Approval Cycle
	Plan Review Reports by Status
	Applications for Plan Review
Code Enforcement	Code Enforcement Reports
	Code Enforcement by Violation
Licensing	Licenses by Type/Department
	Licenses Approval Cycle
	Licenses
Parcel Reports	Parcel Status Reports
	Parcels by Area/Location
	Parcel Report by Zone
	Parcels Report
Citizen Reports	External User by Type (Citizen versus Contractor)
	Citizens
	Citizens by Activity
	Requests Reports
	Request Approval Cycle
Case Reports	Records or Project Reports
	Records
Financial Reports	Revenues by Activity
	Transactional Balances
	Fees by Type/Department
	Revenue by Payment Type
	Invoice
	Lease Fees
	Utility
	Unbalanced Accounts

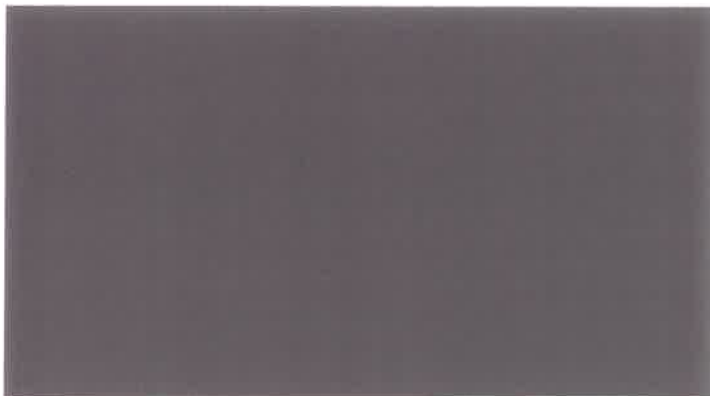
KPI Dashboards – Real-time Data Visualization

MaintStar has developed real-time Dashboards offering true KPI based reporting on all system activities. Easy to customize (see below) with fast quick response times, there is no better solution for monitoring your operations in real time. MaintStar has engineered and integrated both applications - LMS and the Dashboards. Since the same engineers developed both applications message and interface so operation is fast and precise.





Section 2.3 – MaintStar AWS GovCloud Hosting
State of West Virginia
RFP – One-Stop-Shop Permitting Portal



MaintStar AWS GovCloud Infrastructure

MaintStar AWS Infrastructure and Security

MaintStar does not multi-tenant clients. Each customer provisioning includes unique security enclaves, virtual servers, applications, databases, and IP bandwidth. Dedicated hardware provisioning means no resource is shared. Dedicated database and applications allows upgrades at customer scheduling. Dedicated IP bandwidth allow IP and location whitelisting for security.

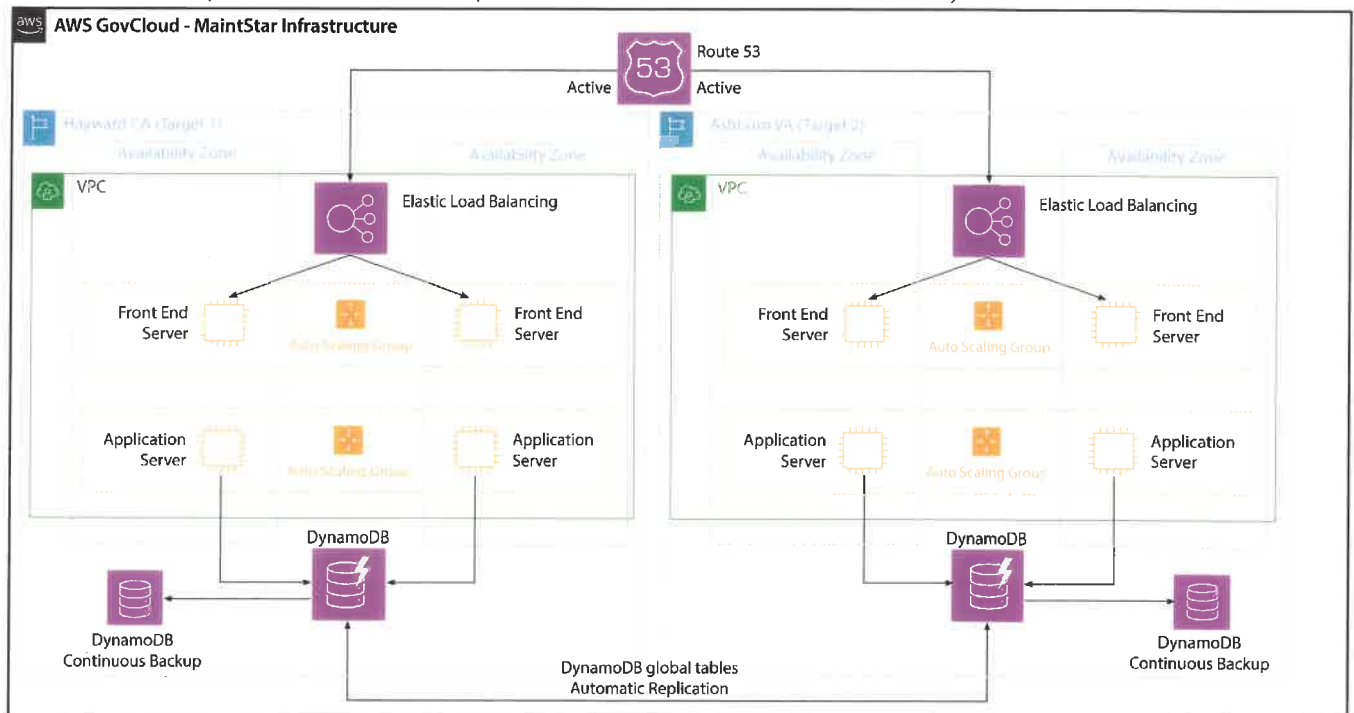
AWS Security Measures Applied

MaintStar uses the following security services/measures:

1. **AWS CloudHSM** - Hardware Security Module
2. **AWS Identity and Access Management (IAM)** - Creation and management of AWS users and groups.
3. **AWS Key Management Service (KMS)** - Creation and Control the encryption keys.
4. **AWS Shield** - Managed Distributed Denial of Service (DDoS) protection service.

MaintStar EAMS Scalable Infrastructure - AWS GovCloud

MaintStar AWS GovCloud active-active architecture provides two data center target reliability and performance. This architecture anticipates issues and offers a pro-active solution for disasters and recovery.



AWS GovCloud - Mission Critical Cloud Hosting with Scalability

MaintStar Infrastructure engineers monitor all environments for speed, capacity, and availability. As the customer deployment grows, the infrastructure engineers will scale bandwidth, CPU overhead, and storage capacity accordingly to maintain a high Quality of Service (QoS). AWS GovCloud allows this without any loss of production or system availability.

MaintStar's selection of AWS GovCloud for client hosting includes increased availability through geo-diverse two data center targets. If a single data center target is unavailable or fails, the second target maintains operation and automatically rebuilds the second target to the last known good data state. Amazon Route 53, a highly available and scalable cloud Domain Name System (DNS), is used for routing. AWS automatically sends requests to the data center that provides the shortest round-trip time providing users nationwide with the fastest (and most scalable) cloud hosting solution.

Geo-Diverse Data Centers (Multi-Target)

AWS GovCloud architecture offers the highest availability, data replication, and disaster contingency. All data is replicated to two data center targets which are located in distant locations. Should target A become unavailable, operations continue on target B without interruption or any loss of data. Target B will start creating a rebuilding target A automatically at another designated target location.

This architecture provides historical availability of 99.9995% and offers data resiliency not possible in a single data center in a single geographical location. This solution is FedRAMP certified and is complies with HIPAA, CJIS and PCI as they apply to security controls.

- No Single Point Failure - Two Target Data Centers
- Geo-Diverse - No Locale Vulnerability
- FedRAMP
- NIST 800-53 r4 Compliance
- NIST 800-171 Compliance
- CNSS 1253 Compliance
- 99.9996% Availability
- Bi-Annual SOC 2 Type 2
- Unique Enclaves Environments
- Faster Network Speed - Less GeoIP Complexity



Mission Critical Availability

The best approach to disasters is to plan for them in advance. MaintStar has addressed disaster recovery by using a premier AWS GovCloud geo-diverse active-active two-target data center solution. We enhance this with a third database report sent to the customer on a regular basis. The advantages of our active-active strategy are shown below.

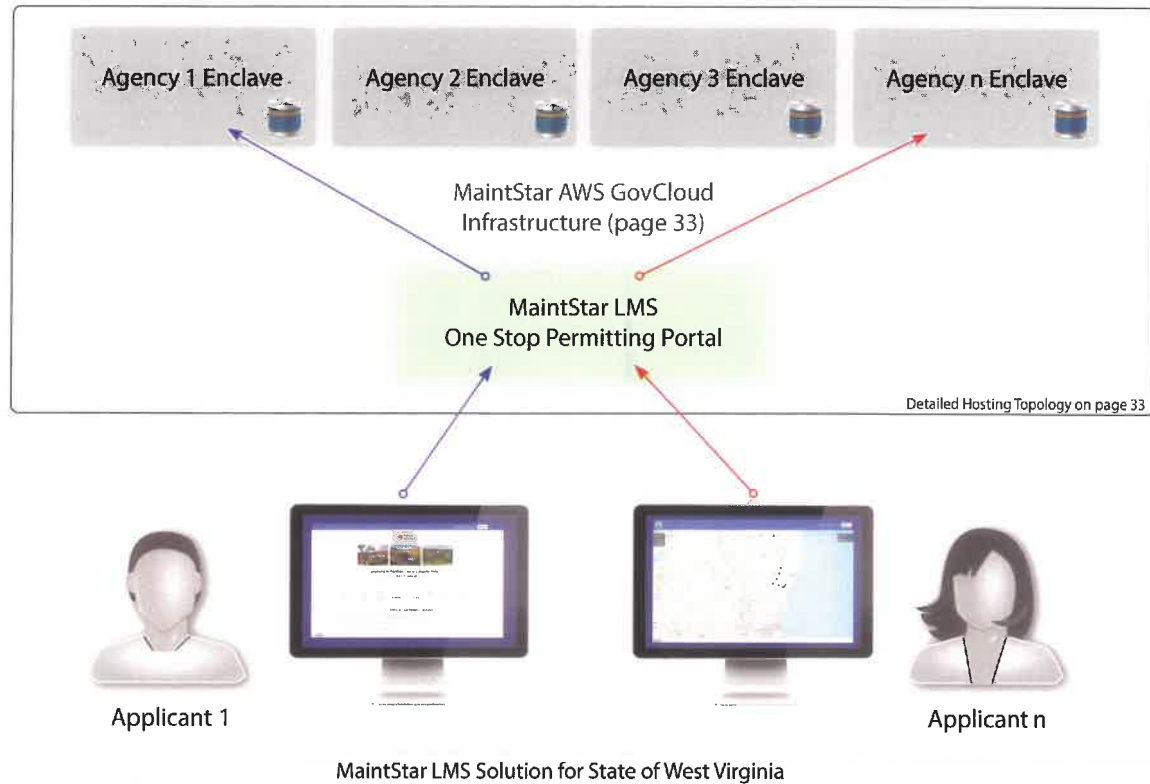
Backup and Restore	Pilot Light	Warm Standby	Geo-Diverse Two-Data Targets
RPO / RTO Hours	RPO / RTO 10s of Minutes	RPO / RTO Minutes	RPO / RTO Real-time
<ul style="list-style-type: none"> • Low Priority Apps • After Event Restore • After Restore Backup • Cost \$ 	<ul style="list-style-type: none"> • Data Live Apps • Services Idle • Provision After Event • Cost \$\$ 	<ul style="list-style-type: none"> • Business Critical Apps • Time to Scale • Provision After Event • Cost \$\$\$ 	<ul style="list-style-type: none"> • Mission Critical Apps • Near Zero Data Loss • Zero Downtime • Cost \$\$\$\$
active-passive			active-active

MaintStar AWS Active-Active versus Alternative Cloud Infrastructures

MaintStar License Services Agreement (LSA) guarantees 99.95% uptime/availability. If the customer experiences less than 99.95%, a table of credit is applied based against the actual uptime delivered. Historical performance far exceeds our LSA. MaintStar customers have experienced 99.9996% availability over the last nine (9) years. Total downtime in nine (9) years is less than seventeen (17) minutes, which occurred back in 2017.

State of West Virginia Hosting Solution

MaintStar is proposing our AWS GovCloud active-active hosting infrastructure for this proposal. We believe this is the best solution and will facilitate a fast, efficient deployment and ongoing support solution. Since all access is limited to three infrastructure engineers, each agency will have a dedicated enclave, environment, application instances (server and database), and IP bandwidth. See below.

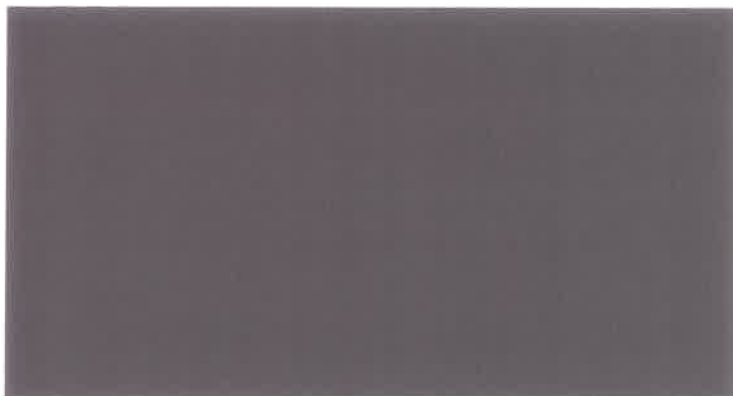


MaintStar's proposed solution offers the following benefits.

1. Dedicated security and performance per agency through AWS CloudWatch and hardware provision unique to the agency.
2. Each agency can apply unique security measures (e.g., whitelisting by location or IP address).
3. Cloud environment performance can be precisely measured for each agency without metrics or filtering.
4. Improved scalability resources for the agency are 100% dedicated to the agency.
5. Improved database performance as each agency database only contains data fields for that agency.
6. Reporting performance has improved since agency reports do not entail filtering other agency data.
7. Deployment and Ongoing Support of the agency is lower risk and simplified as it is 100% independent of other agencies. For example, forms, record types, reports, workflows, and activities are not shared, facilitating localized, faster editing or troubleshooting.



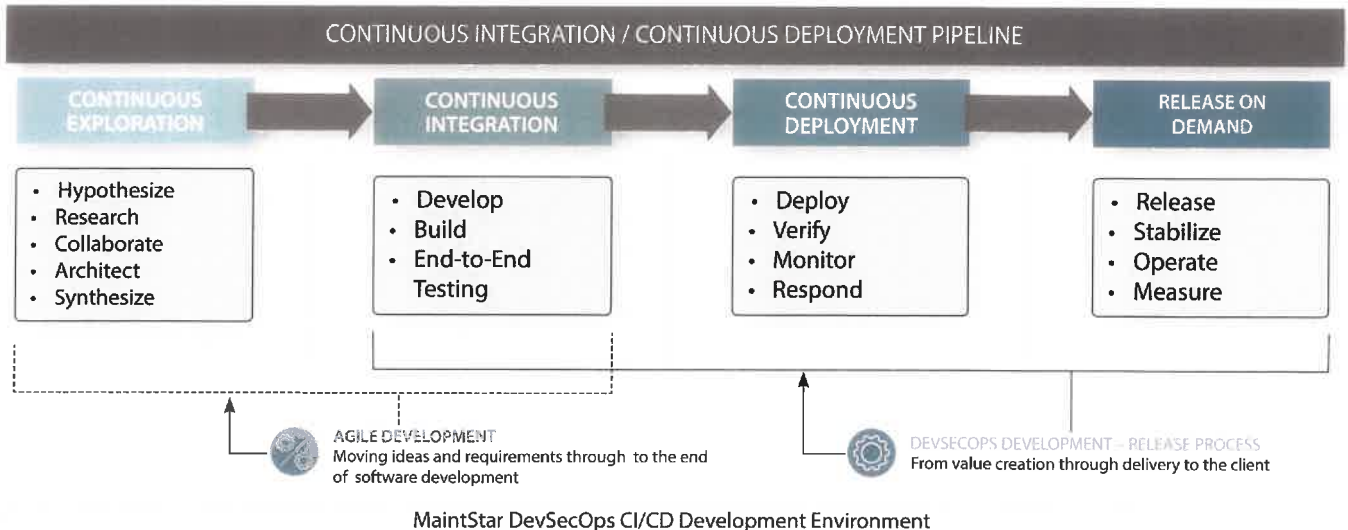
Section 2.4 – Professional Services - Approach
City of Waterbury – CT
RFP 8574 - Hosted Permitting / Inspection / Licensing System



MaintStar Development and Shared Services Ecosystem

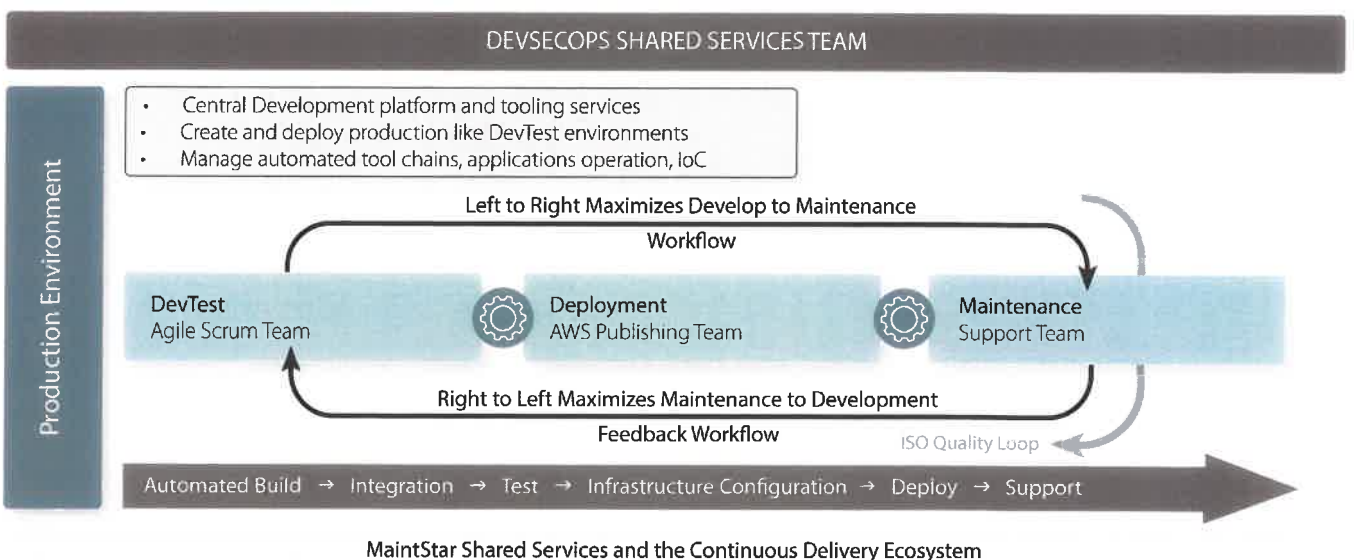
Land Management System Development

MaintStar has embraced cloud and web technology. Our application architecture and development methodology have completely abandoned legacy frameworks, taking full advantage of cloud technology and application publishing. All development is performed in DevSecOps environments (integrating development, security and operations into a unified environment) with discipline Agile/Scrum methodology. DevSecOps environments employ continuous scanning for testing and security validation. Furthermore, test scripts are developed prior to coding activities in accordance with test-driven development principles, thus ensuring that software products consistently meet well-defined requirements.



Land Management System Deployment

MaintStar, serving as the exclusive prime contractor for Asset Management, delivers Enterprise Asset Management solutions through an integrated Continuous Delivery Ecosystem (CDE). This framework consolidates the design, development, deployment, and ongoing support of asset management systems within a unified operational structure. By incorporating continuous communication and feedback aligned with ISO Quality Assurance standards, the CDE facilitates a coherent and systematic approach to Enterprise Asset Management. The following illustration demonstrates how these interconnected processes are managed cohesively under MaintStar's organizational model.

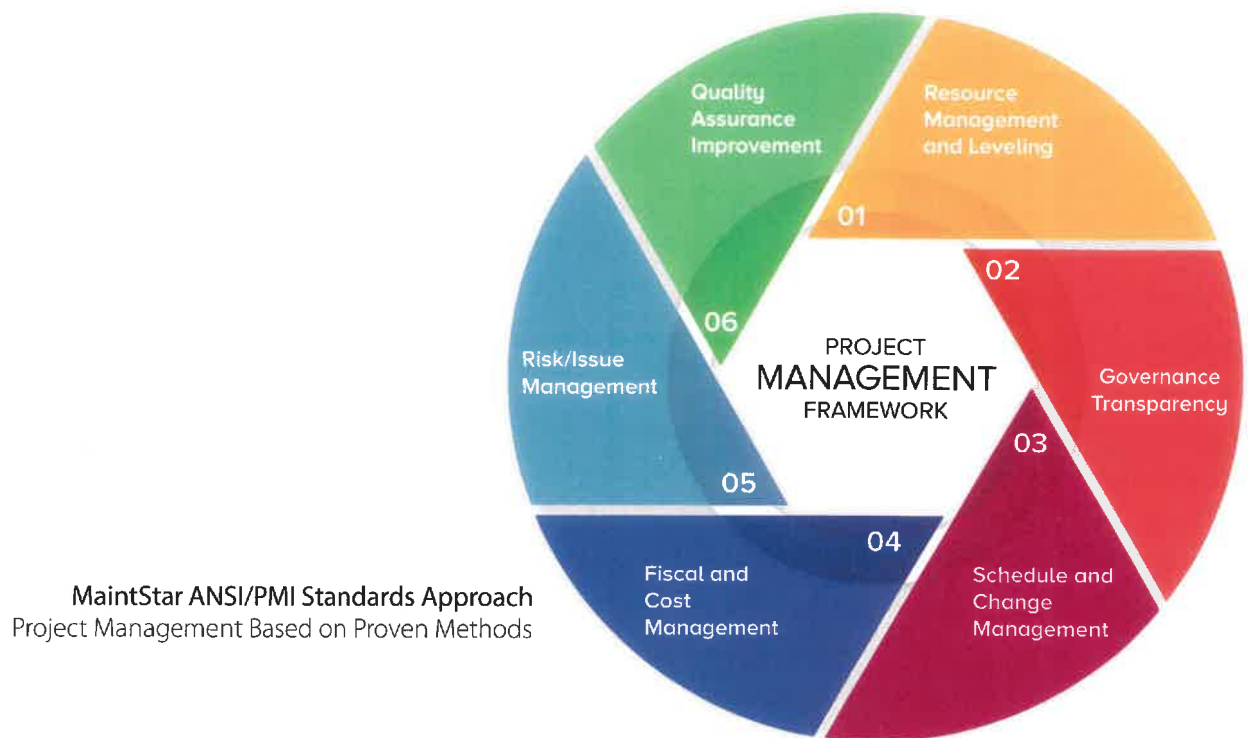


Project Management

The Project Management Standard

MaintStar adheres to the Project Management Institute (PMI) and American National Standards Institute (ANSI) standards for Project Management. Our customer relationship is treated as a Program, and the relationship follows best PMO practices. PMI is the core reference for all MaintStar deployment projects. While each project is tailored, high-level best practices are strictly adhered to. MaintStar employs multiple certified Project Management Professionals (PMPs) for deployment, specializing in our products and experienced in the application and installation environment. Our project manager presides over and monitors six responsibility areas throughout the project to reduce risk, maintain cadence, and achieve success. See below.

In addition, the PM will enlist MaintStar corporate business units, including the Resources Manager, Director of Engineering, Transition and Go-Live Manager, and Director of Training/Documentation, and will be ready to deploy additional resources as required. The PMI process is known to reduce risk, maintain schedules, and achieve 100% success.

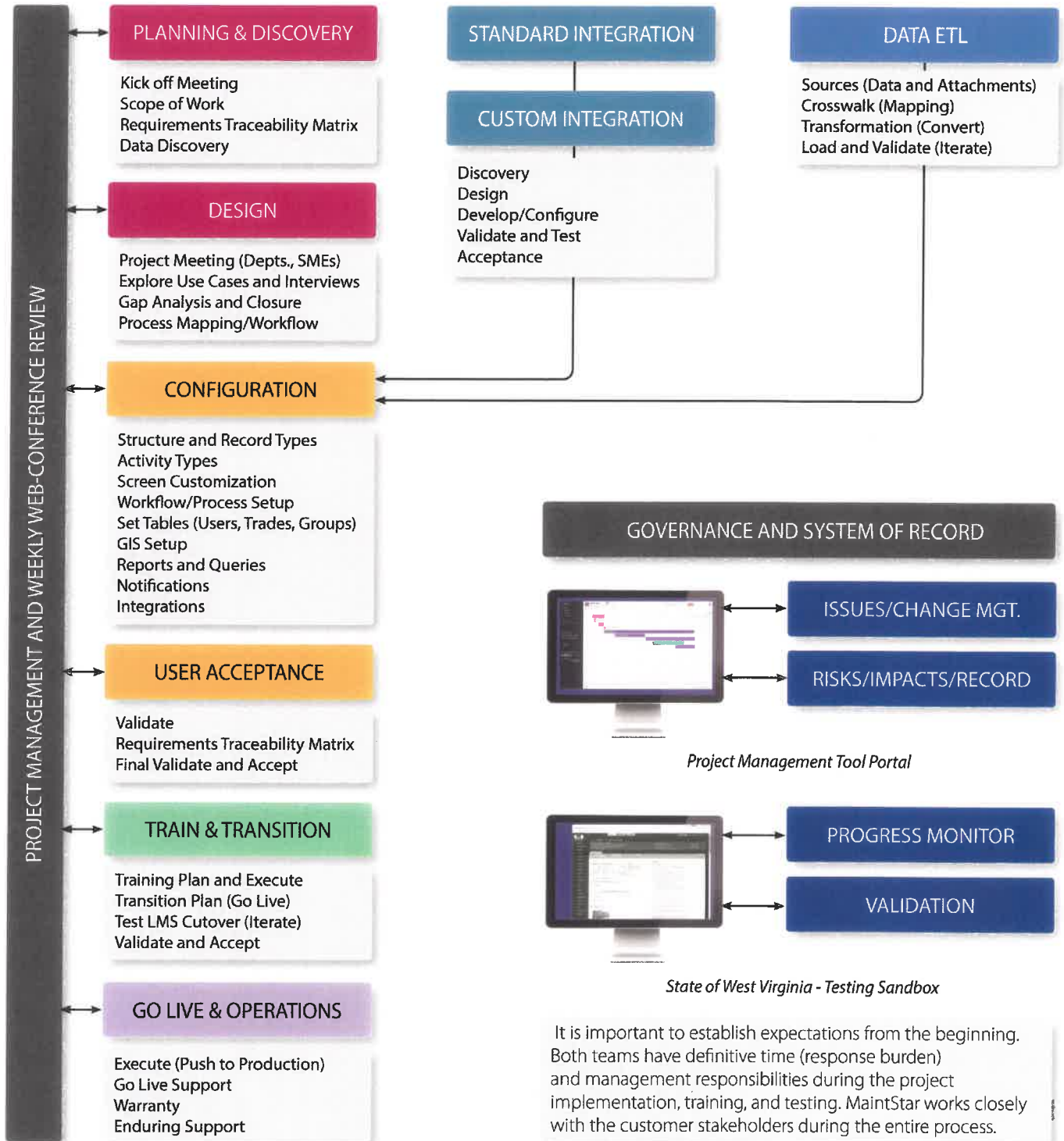


The MaintStar Project Manager (PM) adopts a collaborative engagement model by facilitating ongoing communication and decision-making processes with both the State of West Virginia stakeholders and relevant MaintStar business units across each area of responsibility. This collaboration involves regularly scheduled coordination meetings, joint planning sessions, and transparent progress reporting to ensure mutual alignment of project objectives and deliverables. Furthermore, the MaintStar Resource Manager works closely with the PM to systematically assess resource requirements and allocate appropriate tools, personnel, financial assets, and development support at each critical phase outlined in the program's master schedule. This systematic approach is designed to optimize resource availability and promote the successful achievement of project milestones.

The governance framework will establish a clearly defined organizational structure supported by appropriate technological tools to maintain a centralized repository, serving as the authoritative system of record for the project. Specifically, all MaintStar projects utilize a collaborative project management software platform such as Microsoft Project, which functions as the project master schedule to systematically monitor schedules, deliverables, and milestones. This approach ensures real-time visibility into project progress and enhances accountability among all stakeholders.

LMS - Implementation Roadmap

MaintStar LMS deployment follows a well-structured methodology. MaintStar's approach to the Enterprise Land Management deployment project follows six (6) phases with concurrent operations for integration (custom and standard) and data ETL.



MaintStar LMS Project Roadmap

Discovery, Planning and Gap Analysis

Discovery

MaintStar starts with a comprehensive discovery and planning process. The Project Manager will meet with State of West Virginia stakeholders for an on-site operational assessment. The objectives of this assessment are to understand the details of the operation and clarify software requirements in relation to the day-to-day operations. MaintStar will identify the primary needs of deployment to maximize system functionality, minimize manual processing, and address any gaps in MaintStar implementation.

Gap Analysis - Project Plan

Maintstar's approach to GAP analysis follows the traditional four-step process to achieve ideal results. The analysis will conclude with a Gap Close Plan to document and incorporate into the Project Plan.

1. Assessment of the State of West Virginia Operations, Business Structure, Automation/Workflow, and Objectives (this includes changes to business processes and planned enhancements). To adequately determine corrections, the analysis structure identifies gaps in data, usage, and processes through qualitative and quantitative assessments.
2. Identify and document all gaps.
3. Data and usage gaps are analyzed, and any product optimization or unusual configurations required in MaintStar LMS are identified and documented to close or correct the gaps identified in step two.
4. Process gaps are analyzed, along with the identification and documentation of any business rules, workflows, automation, or procedures needed to close or correct these gaps or to incorporate business enhancements. This step may include mutual agreement on enhancements and organizational workflow adjustments.

Once the Gap Analysis is complete, our team will summarize recommendations and create a Gap Close Plan to bridge gaps. The review of the Gap Close Plan continues with the State of West Virginia stakeholders and the MaintStar project team until a mutual agreement is reached. To maintain a system of record, the Gap Analysis becomes a permanent record/file in the Project Management System, and is available throughout the entire project.

Communications Plan

Clear communications are integral to MaintStar's policy of maintaining client transparency across all aspects of program management. The Project Manager is always available to the State of West Virginia Project Team to ensure that any team member(s) can provide guidance/recommendations, address questions/concerns, support reviews/analysis, and develop/review documentation such as reports, O&M instructions, and training plans. Project Management Plans include the Requirements Traceability Matrix (RTM), Specifications for Custom Integration, Integrated Project Schedule, and Forms and Report Inventory. In addition to emails, phone calls, and in-person visits (scheduled and unscheduled), the Project Management Tool (PMT) enhances communications and transparency.

System of Record - Project Management Tool (PMT)

MaintStar deploys a collaborative Project Management Tool (PMT) to enhance communications, deliverables, and the productivity of the weekly conference calls. The PMT is a web-based collaborative system. Contractor and customer teams will have access to the project folders, file exchange, contribute comments, upload deliverables, and visibility into the project at any time of the day.

The PMT maintains a real-time schedule (timeline) with milestones that all team members see upon logging in. The PMT provides a system of record, including an audit of Organization Change Management (OCM).

Throughout the implementation process, the PM will hold weekly web conferences. All State of West Virginia stakeholders are invited, along with Subject Matter Experts, to discuss specific topics for the conference. The PMT allows participants to join conferences prepared with their project status and deliverables before the web conference, enhancing efficiency.

Requirements Traceability Matrix

Requirements Traceability Matrix

The State of West Virginia Statement of Objectives and Scope of Work will be the foundation of the Project Plan and the Requirements Traceability Matrix (RTM). The RTM establishes the metrics for acceptance validation and testing. The RTM is a MaintStar Project Plan document maintained in the PMT for transparency and a system of record. Any change to the RTM throughout deployment and implementation is subject to Organization Change Management (OCM) and approval (transparency).

The RTM provides transparency and traceability from original requirements to production. The RTM provides an accounting for every requirement. An RTM sample (excerpt) is shown below.

Requirements Traceability Matrix								
Project Name		Sussex County EAMS						
Project ID:		212						
Sussex County Requirements Document (CRD)		MaintStar Project Plan (MPP)			Test Case Document (TCD)			
CR_ID	CR_User Case	PP_ID	PP_User Case	OCM_ID	Test Case ID	Documents	Status	Comments
AR 1	Ability to create a hierarchy tree structure of all assets	PP 1	Validate asset vertical structure adequate	None	001	∅	Pass	No cnf. needed
AR 2	Ability to graphically show a hierarchy tree structure of all assets	PP2	Validate UI accurate displays each asset and sub-asset (tree)	None	002	√	Pass	Run assets structure report for test
AR 3	Ability to configure an asset hierarchy structure to easily find assets (e.g., by facility, plant section, similar equipment type).	PP3	Validate all asset views facilitate search and detail view.	None	003	√	Pass	Configure vertical levels for test.
AR 4	Asset hierarchy depth may be user-defined and capable of supporting at least 10 levels	PP4	Asset structure to 10 vertical levels	None	004	∅	Not Started	Configure vertical levels for test.

MaintStar Requirements Traceability Matrix (RTM) - Excerpt

Custom Integration/Interfaces

Organizational Change Management

Managing Changes

MaintStar welcomes changes as the deployment project proceeds. By welcoming changes, the company can focus on accommodating change with an accurately measured response. Our project team will document the change request, including specification(s), Level of Effort (LOE), task lists, and assignments.

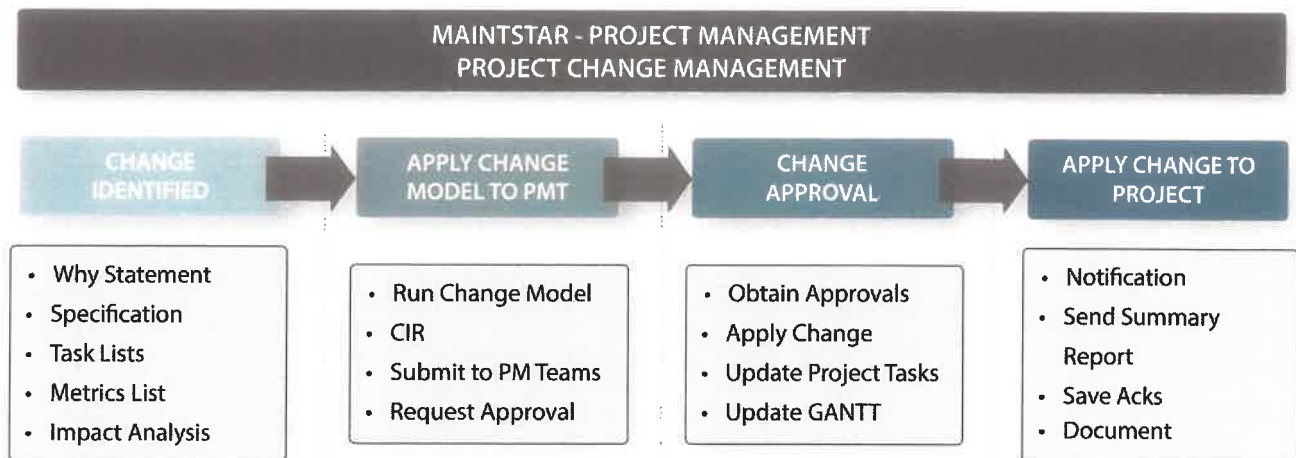
Using an effective Project Management Tool (PMT) the team will run the change in a Project Model and generate a Change Impact Report (CIR). The CIR is sent to stakeholders on both PM teams for approval.

Through the project's Requirements Traceability Matrix (RTM), each specific Organizational Change Management (OCM) ID is available, and traceability to the source and workflow is maintained. Please see previous page - MaintStar Project Plan (MPP) (yellow section - column 3)..

Once approved, a new Project Summary Report (PSR) is sent to both PM teams, and all acknowledgements and documents are archived.

The following steps and workflow (bottom) summarize the management of project changes:

1. Create Why Statement
2. Create Specification
3. Establish Task List and Assignments
4. Create Impact Analysis
5. Run Revised Project Model in the PMT
6. Generate a Change Impact Report
7. Request and Obtain Approvals
8. Apply Change after Approval
9. Update Project Tasks
10. Generate New Timeline and Milestones
11. Send Notifications
12. Send New Project Summary Report
13. Save Acknowledgments and Document in the PMT



MaintStar Change Management Workflow

Data Extract, Transform and Load (ETL)

Data ETL

MaintStar Professional Services assigns a Senior Database Engineer (DBE) with twenty-five (25) years of experience to every project implementation. The DBE ensures a documented, smooth, and accurate data transition from the existing asset data sources to the new MaintStar LMS.

Our team documents, defines, and populates into the source side of the Data Mapping Document. Source Data is mapping routes to Receive Slots in the MaintStar LMS Database. Identification of all data orphans (unmapped source fields) takes place. If necessary, our team generates UDFs to accept data orphans.

A complete field Authentication Data Set is added to the source side to validate data map processing.

The team performs the first run of Data ETL to the MaintStar LMS test environment. MaintStar project team tests and validates against system operation. We anticipate correction through the iteration process, and MaintStar seeks to achieve near perfection.

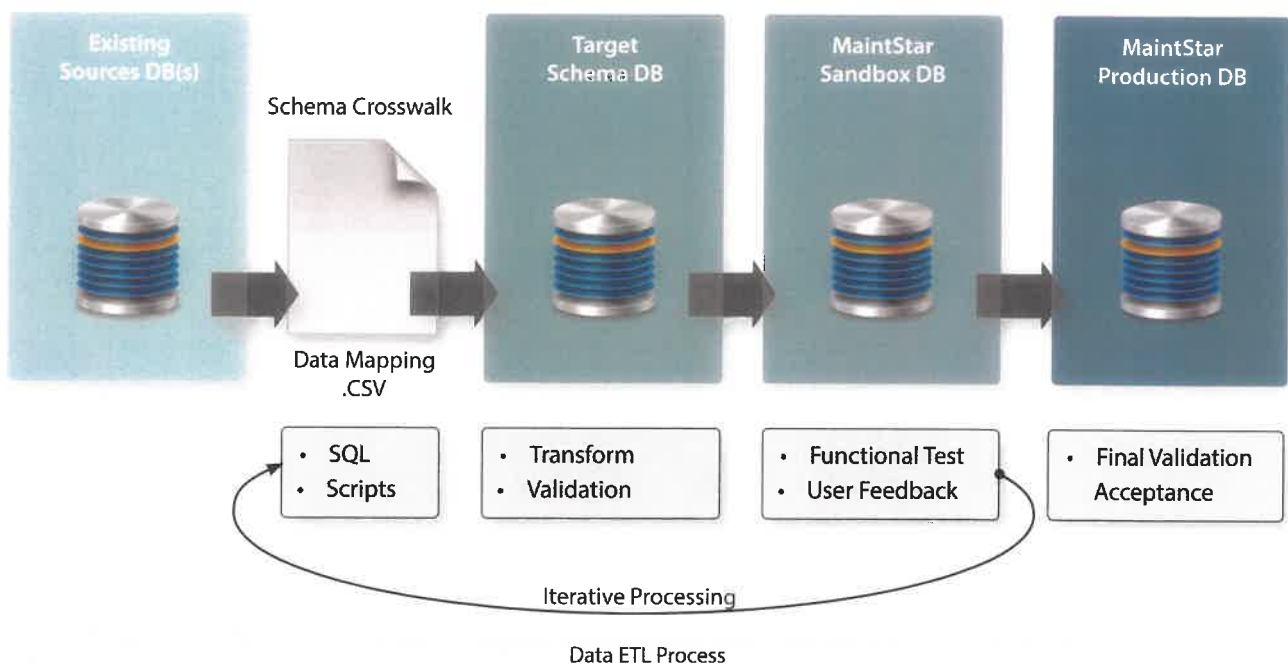
The DBE creates a second-generation mapping document. Our team performs a second run of Data ETL and testing. Replication of the iterative process achieves optimal accuracy and performance. In compliance with ANSI and PMI, all documentation is archived in the PMT. Details of Data ETL workflow are shown below.

Attachment Conversion

Documents and their associated metadata are identified and associated in the Data Mapping Document. MaintStar stores a complete project record of document attachment transition in the PMT.

Retain All Legacy Data

Generally MaintStar recommends to retain all historical data. This means pushing all data into MaintStar LMS. Data may be migrated but remain 'hidden' from production activities, or purged from the system if the City of Mountain View authorities determine historical data becomes an unnecessary liability.

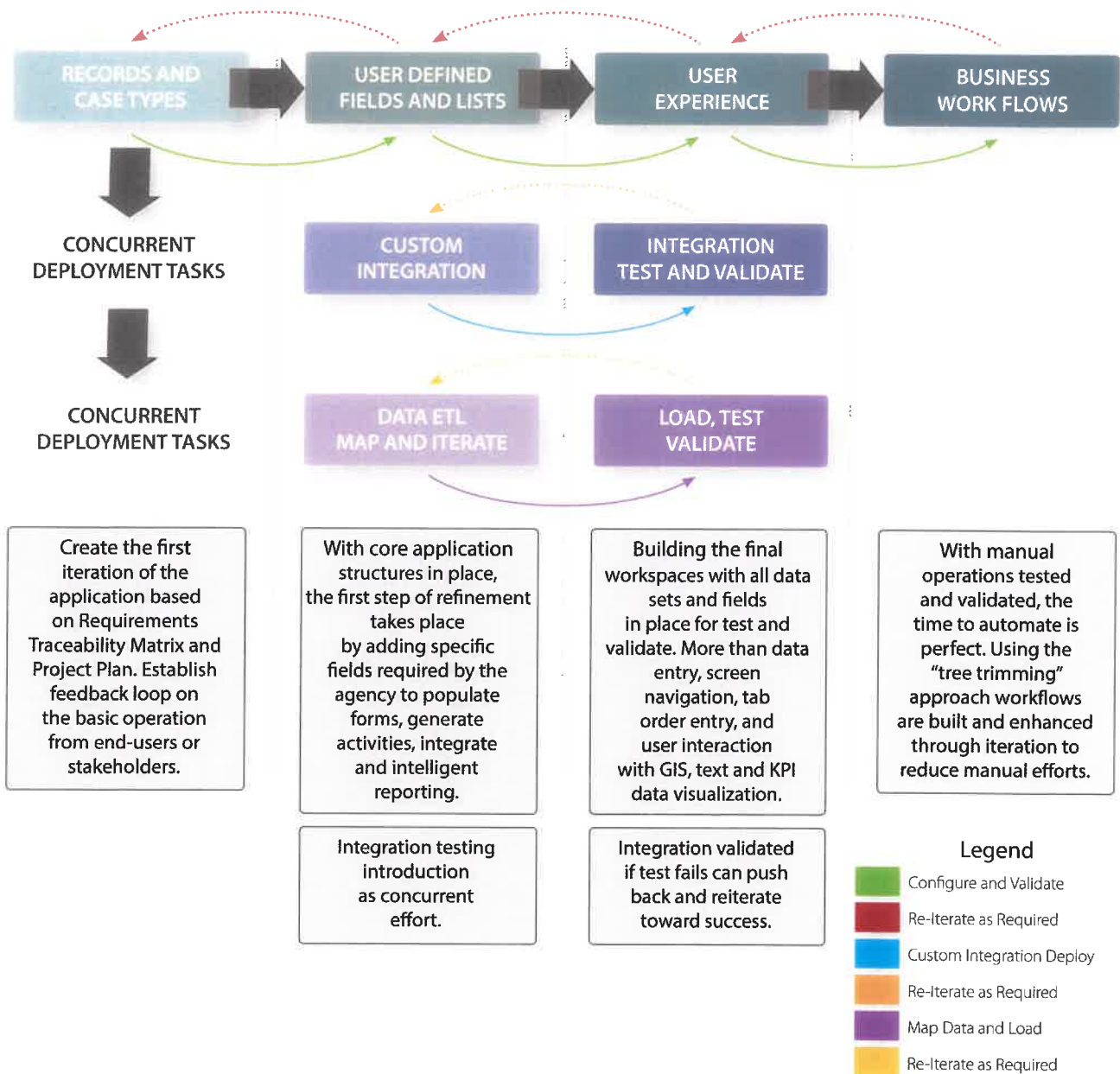


Iteration and Continuous Testing

Iterative Deployment Propels Continuous Testing

Deploying a new software product from scratch can be challenging. MaintStar uses the proven phased implementation approach to ensure process-specific detail perfection before each subsequent stage ([iterative development advantages](#)). All implementations use a formal sign-off process, defined by the RTM and documented in the Project Management Tool (PMT).

During implementation, the deployment team can return to a prior phase (re-iterate) of the product configuration, correct, and improve. Iterative processing minimizes risk, accommodates rapid changes, and informs stakeholders on schedule/delivery impacts. Final validation is a light task through continuous validation.



Iterative Processes Yield Better Deployments Through Continuous Testing and Refinement

Customer Responsibilities

Specific responsibility of the customer related to the implementation and data ETL efforts include the following:

- Researching and compiling electronic data from your existing sources
- State of West Virginia to assign or dedicate a Project Manager/Lead for the customer-side for the Project.
- State of West Virginia to assign a dedicated IT resource for the project to expedite establishment of the testing environments and connections to third party systems.

The IT resource will also assist with the extraction of the legacy database for transformation and loading into the MaintStar environments.

- Providing this data in electronic to MaintStar Project team or post on PM Tool.
- Scheduling staff time for review of transformed data.
- Be available for telephonic or text support for MaintStar regarding data transformation via PM Tool, email or telephone.

Project Hour Estimates

State of West Virginia -- Hourly Estimates		
Item	MaintStar - Estimates	State of West Virginia - Estimates
Program Management	20 hours	20 hours
Project Management	180 - 240 hours	100 - 140 hours
Configuration to RTM	160 - 220 hours	80 - 120 hours
Standard Integration ¹	30 - 40 hours	20 hours
Custom Integration ²	40 - 240 hours	20 - 40 hours
Data ETL	100 - 160 hours	40 hours
Report Development	30 hours	30 hours
Training and Documentation	60 hours	40 hours
Transitioning/Support	30 hours	30 hours
Estimate Totals	750 - 1040 hours	380 - 480 hours

Full GANTT Chart on page 39.

¹ ESRI GIS, MS Exchange 365, and MS Active Directory SSO

² Custom Interfaces to be determined.

Contractor Tasks and Responsibilities

MaintStar Team - Tasks and Responsibilities

Task	Team Member
Project Kick-Off - Coordinate Conferences/Project Tempo	David McElroy, Project Sponsorship
Project Management - Operation Assessment - Gap Analysis - Requirements Traceability Matrix	Tony Sheppard, Project Manager
Standard Integrations - GIS Integration (ESRI ArcGIS) - MS Integrated Security - MS Exchange 365 Business Applications - Selected Payment Processing	Anel Begildayeva, Integration Engineering Tier I
Deployment LMS - Milestone 1 - Modules and Core Data - Milestone 2 - LMS Record Types - Milestone 3 - User Defined Fields/Lists - Milestone 4 - User Experience - Milestone 5 - Business Work Flows	Vladimir Buskin, Deployment Engineer David McElroy, Project Sponsor Tony Sheppard, Project Manager
Database ETL	Victor Reinhart, DBA/GIS Development
Custom Integrations - CSLB - Oracle NetSuite ERP - Solar App+ - Laserfiche DMS - HDL Licensing	Anel Begildayeva, Integration Engineering Tier I
Training and Disentanglement - User Training - Supervisor Training - Administration Training	David McElroy, Director of Training
Transition to Operations Support	Kadrack Everson, DSE and Senior Technical Support

Transition to Production/Operations

MaintStar Transition Manager

Transition Manager

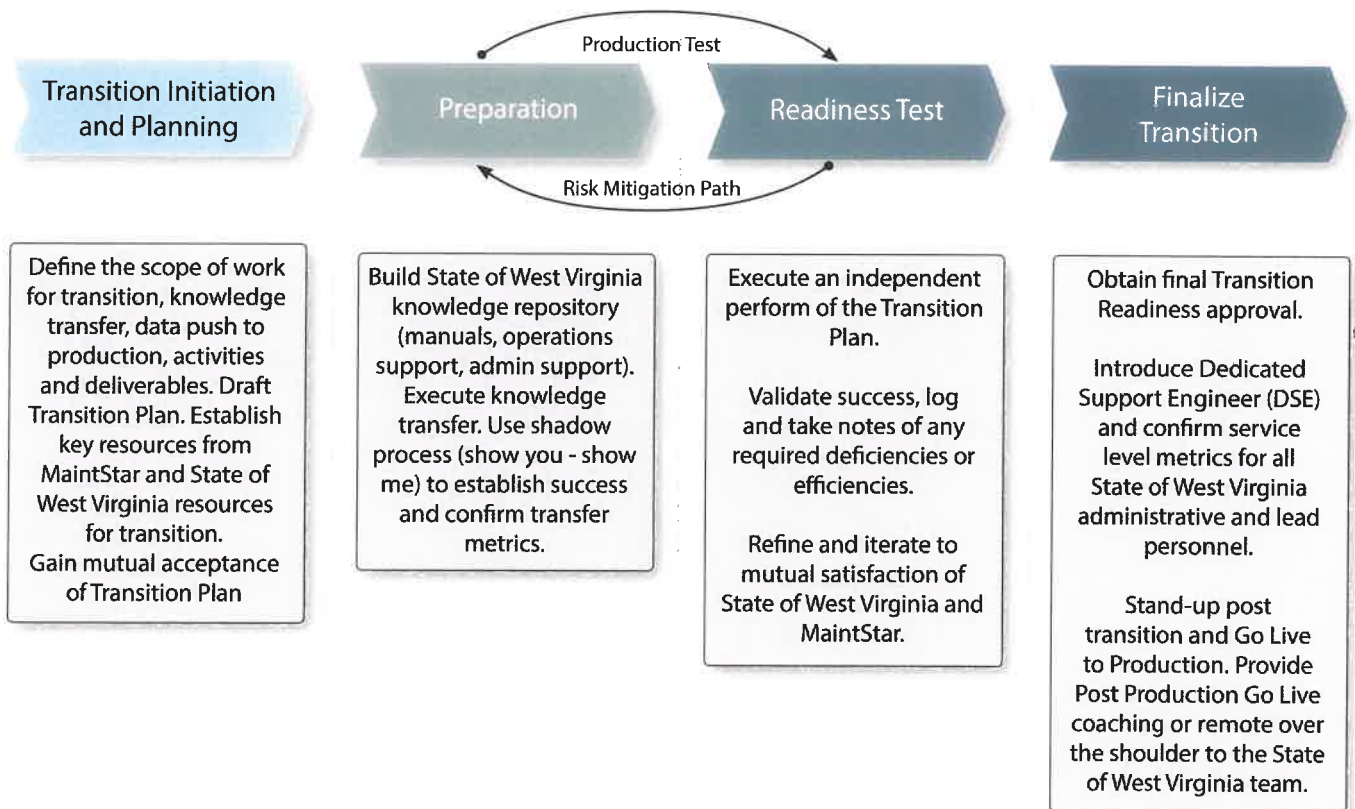
Madeleine Tecci, Transition and Disentanglement

(800) 255-5675 ext. 110

madeleine@maintstar.com

MaintStar proposes a traditional four-initiative transition (EAMS Go Live) model (see below) that includes a risk mitigation cycle. Making sure all parties are familiar with the transition plan will accelerate the transition (resulting in lower overall risks and costs), maximizes knowledge transfer, and increases transition reliability/success. The four-initiative transition process goes a long way to avoid poorly collected documentation and knowledge and complete a comprehensive transition.

A quality transition plan will identify workflow enhancements and incorporate these prior to production transition. For scheduling our plan will use date established in our Project Plan. As with all project a dedicated Transition Manager (TM) will be assigned to the project from the start. Transition Plan and activities will commence immediate after successful training.



MaintStar Four-Initiative Transition Model

Training and Documentation

MaintStar Training Director

Training Lead

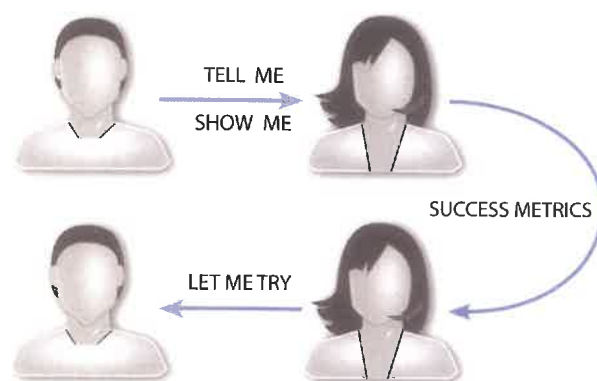
David McElroy, Training Director
(800) 255-5675 ext. 110
david@maintstar.com

The MaintStar training team averages twelve (12) years of Asset and Land management experience and qualifies as domain experts. David McElroy, Training Director, brings twenty (20) years of experience building training courses to optimize product expertise and work productivity.

All training follows the highly respected shadow method (Tell me, Show me, Let me try), which is proven to provide hands-on experience and the acquisition of complex skills. The shadow technique provides both explicit context and meta-knowledge, such as where to find data and information, and guides decision-making while using the application.

Shadow methods have advantages, primarily offering students a better understanding of how applications operate and instructors a measurement of training success.

Shown at right.



Shadow Training Method

[More on the Benefits of Shadow Learning Model](#)

Training Plan

MaintStar Training Director, David McElroy will consult the State of West Virginia to develop a complete training plan. The Training plan will include selection of courses, venue, schedule, documentation and option video recording. The Training Plan can include a Train-the-Trainer course if requested.

Training Courses are provided on site for enterprise asset management and include these courses:

1. **Train the Trainer** - Optional course for clients with large user counts and self-sufficient services (8 hours). This course will be video recorded for the State's use in the future.
2. **Staff User Training** - For team members that handle day-to-day production activities (4 hours).
3. **Field User Training** - For team members that operate in the field on mobile devices (2 hours - supplement).
4. **Administration Training** - For users tasked with integration and environment settings, system configuration and customization, and user access (8 hours).

Training Documentation - Knowledge Repository

MaintStar provides all training documentation in PDF and HTML formats. MaintStar encourages unlimited internal distribution and posting on an internal education website for clients to provide continuous user access.

1. MaintStar LMS Operations Manual
2. MaintStar LMS Reporting Engine Manual
3. MaintStar LMS Quick Guides - Specifically Developed for State of West Virginia

On Going Training

MaintStar annual support fee includes online web training and access to our website training videos. New users and users requesting training refreshes will not incur additional costs to the agency.

Ongoing Support Services

MaintStar West Virginia - Dedicated Support Engineer

DSE	Kadrick Everson, DSE and Senior Technical Support (800) 255-5675 ext. 110 kadrick@maintstar.com
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MaintStar assigns a Dedicated Support Engineer (DSE) to each client, and the support team member becomes closely involved with your staff from the outset. They'll understand how you work and the issues that are likely to arise. They have extensive experience with the MaintStar System and are continuously involved with our programmers throughout its entire development.

MaintStar DSE can facilitate or assist with any of the MaintStar support services:

1. System Hosting and Infrastructure Support
2. Administrative Support (report creation, forms modification, workflow edit/creation)
3. Ongoing Support of Custom Interfaces
4. Training Refreshes (web training conferences and video training videos)
5. Administrative Support for Configuration Changes and New Functional Deployment

ITIL v4 Problem Resolution Metrics

MaintStar does not rely on any partners or vendors for primary support services. As a result, West Virginia can be assured that MaintStar handles all support situations directly, which speeds problem identification and resolution. The support response SLA standards are outlined below. Service issues may be reported via toll-free call, by text to the DSE, or online through the Redmine Ticket System. Additionally, MaintStar hosting via AWS GovCloud uses Continuous Data Protection, enabling sub-second Recovery Point Objectives (RPOs). This is further complemented by highly automated machine conversion and orchestration, which enable Recovery Time Objectives (RTOs) of minutes.

MaintStar ITIL v4 Support Response Metrics

Support Hours	6 AM - 5 PM PST Monday – Friday
Tier 1 - Critical Unavailable System	Response < 15 minutes Resolution < 45 minutes
Tier 1 - Issues	Client may contact their DSE (24x7) for any Tier 1 issue via SMS message
Tier 2 - Crucial Function Unavailable	Response < 45 minutes Resolution < 90 minutes
Tier 3 - Support Level Routine Support	Response < 120 minutes Resolution < One business day

Software Upgrades - Mission Critical Solution

MaintStar annual Service Agreements include software upgrades. MaintStar's major upgrades, released annually, include new LMS features. Minor upgrades focus on performance, and operation enhancements are released twice a year.

Since every customer is provisioned with dedicated environments, each customer may opt in or out of upgrades based on desired new features or scheduling necessary to prepare their staff for a new version.

Quality Assurance

MaintStar - Quality Assurance Lead

Quality Assurance
Operations / Resources

Mr. Brerak Sheh
brerak@mainstar.com
Program Quality Assurance

Continuous Process Improvement (CPI) is integral to all MaintStar processes and procedures. We continually leverage CPI to streamline our corporate effectiveness by reducing bottlenecks, redundancies, and repetitions to optimize workflows. Quality Surveillance data is gathered through observation and inspection (direct and periodic), random sampling, and surveillance reports to the designated program stakeholders.

We apply CPI in managing projects and service operations to deliver benefits to clients, including quality improvements (to processes/procedures, code, and other deliverables), better data integrity (via consistent data entry and reduced errors), and shorter production windows that result in higher output/reduced cost.

All projects are subject to an independent review by MaintStar Quality Assurance - Surveillance. Surveillance metrics are detailed in the table below. Customer feedback, inspection, PM reports, and PM feedback are the basis for quality determination.

MaintStar Quality Assurance Surveillance Plan Metrics (Baseline)








Objective	Performance Measurement	Surveillance Interval and Basis
Team Staffing	Overall Satisfaction > 95% Survey all Team Members Unified Teaming - Skills Overlap Performance on Tasking Performance Beyond Expectations	Monthly/Project Completion Periodic Inspection Project Manager Feedback Customer Feedback
Technical Approach and Execution	Overall Satisfaction > 95% On time and RTM validation	Project Completion Project Manager Reports Customer Feedback Periodic Unannounced Check
Milestone Achievement	Overall Satisfaction > 95% Cadence against Project Plan	Monthly/Project Completion Project Manager Reports Customer Feedback

Project Team - Unified Team Mindset

Value Stream Management - Teaming

Project value stems from successful team building. Reviewing resumes alone does not make a great project team (resume review alone leads to discrete functional success). Unified teams are created by analyzing individual skills in a skills assessment matrix for the project - Unified Team Mindset and Value Streaming process. MaintStar Teams require six (6) years of tenure. Every team member must be capable of performing from four to ten overlapping skill sets necessary for MaintStar EAMS and LMS deployment. We follow the respected teaming process called Value Streaming or the Single Team Mindset. Value streaming imparts cost control, enables surge capabilities, creates risk minimalization, and builds teams that come together to provide maximum value to the project and customer, not one for discrete functional success - details on [Value Stream Teaming](#).

Our team tenure/contact table and a comprehensive skills assessment table (in place of resumes) follow. A team jointly contributed to over sixty (60) projects in 2023, a cumulative of over one hundred (100) years of Asset Management experience, and a skills overlay index for the project of 4.7 (minimal risk). Team changes require the customer's prior approval.

Project Team Organization		
Sales Manager Contracting Escalation	Eric Sabato, Vice President of Sales - Asset and Land Management Irvine CA eric@maintstar.com	
Project Manager EAMS Full Reach Back	Tony Sheppard, Project Manager EAMS Irvine CA tony@maintstar.com	
Configuration and Deployment Tier I – Integration Team	Vladimir Buskin, Chief Engineer LMS / EAMS Irvine CA vladimir@maintstar.com Anel Begildayeva, Integration Engineering Tier I	
GIS Engineer Data Base Engineer (DBE)	Victor Reinhart, Director GIS Development, LMS / EAMS Irvine CA victor@maintstar.com	
Transitioning and Disentanglement	Madeleine Tecci, Transition and Disentanglement Remote madeleine@maintstar.com	
Director of Training	David McElroy, Director of Training LMS / EAMS Remote OH david@maintstar.com	
Dedicated Support Engineer (DSE)	Kadrack Everson, Senior Technical Support LMS / EAMS Irvine CA kadrack@maintstar.com	

MaintStar Project Team Skills Assessment Table

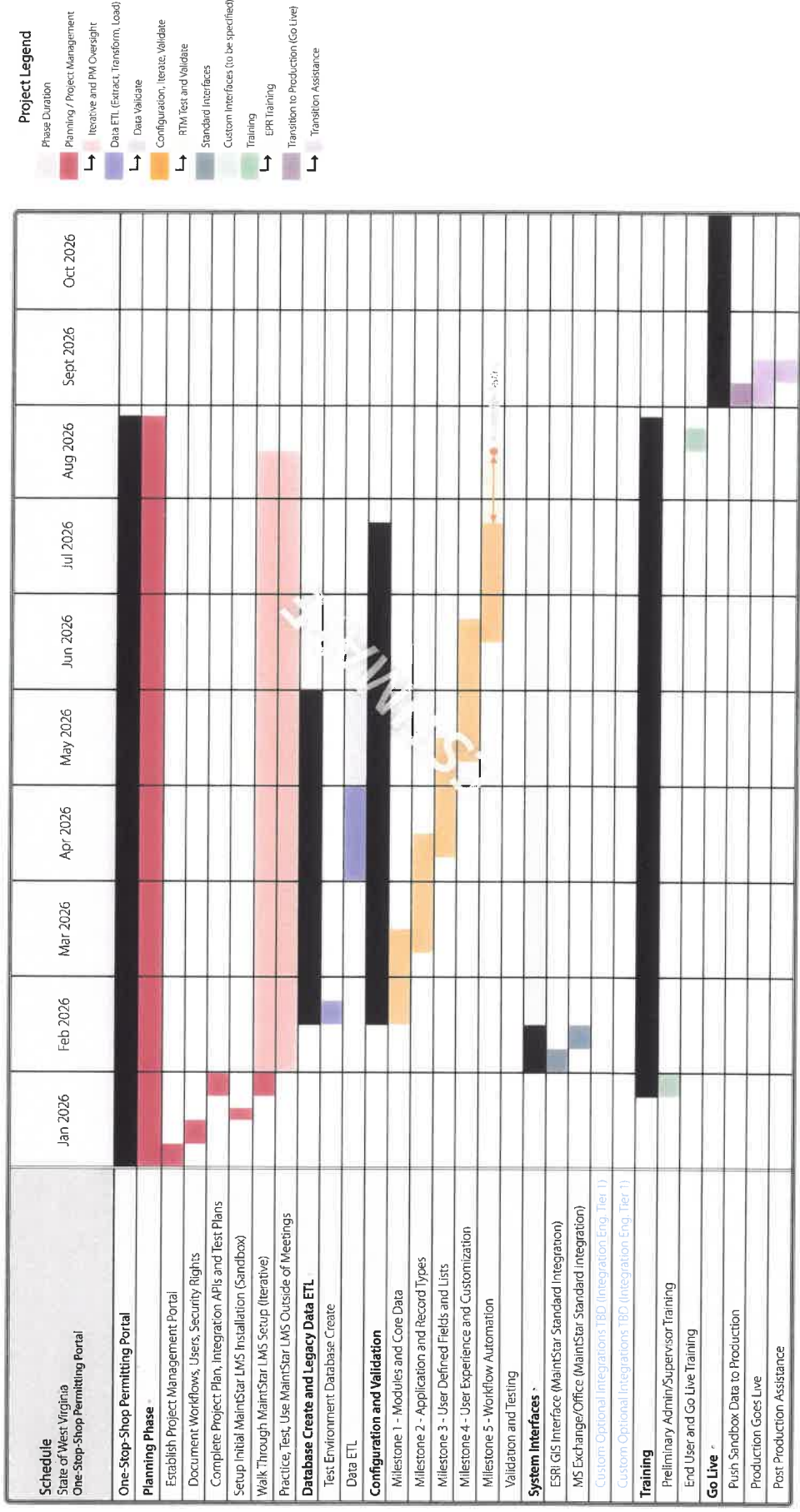
A full skills assessment table is provided in lieu of resumes so a risk resource and true team assessment can be provided.

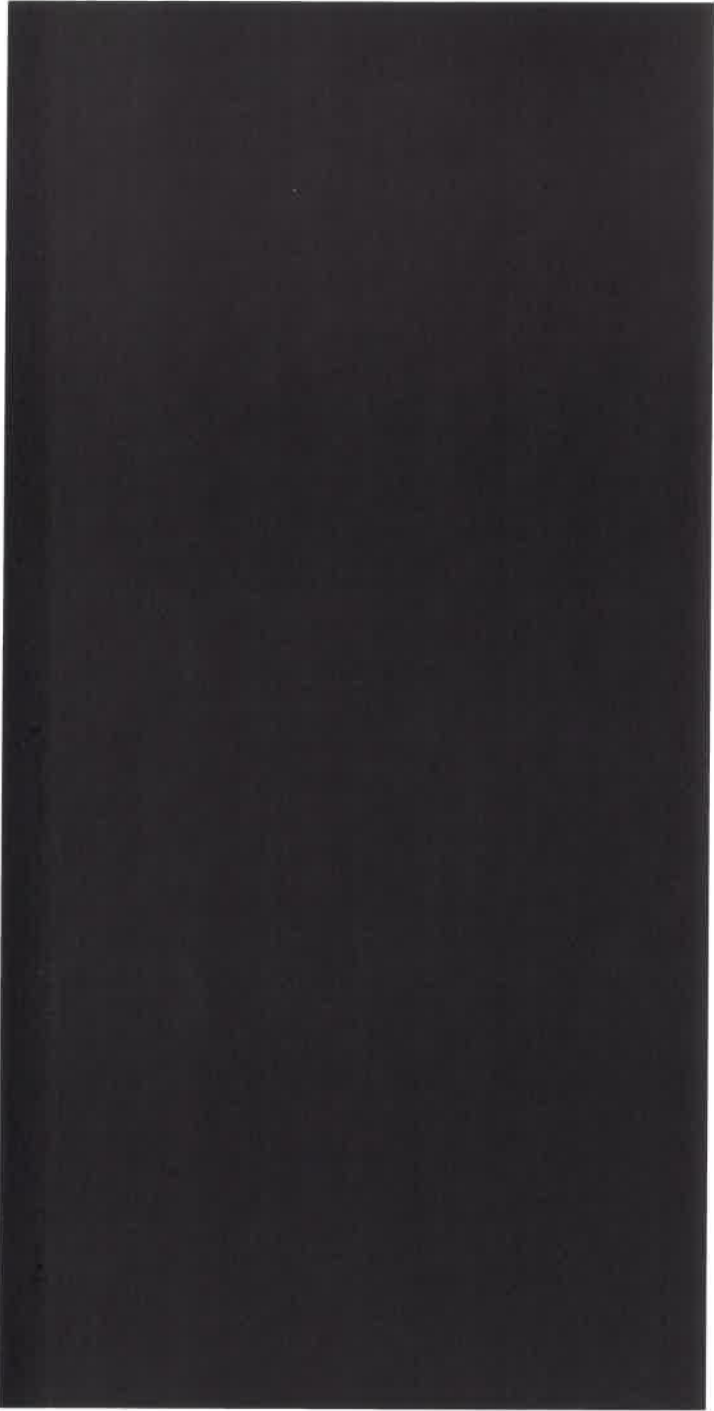
Personnel Name	Role	Education Certifications	MaintStar Years Experience	Career Years Experience	2023 Projects EAMS and LMS	Project Management	Custom Integration	Integration (ESRI and E365)	Configuration Optimization	Data ETL	User Defined Data and Lists	Cloud Infrastructure	Training	Testing and Transition Go Live
Tony Sheppard	Project Manager EAMS	B.S., American Military University Charles Town	8	20+	6	✓			✓				✓	✓
Vladimir Buskin	Workflows, Configuration Engineer	M.C.S., Informatics and Computer Engineering Moscow	16	18+	10		✓	✓	✓	✓	✓	✓		
Victor Reinhart	GIS Engineer Data ETL	B.S., University of California, Los Angeles	25	25+	11		✓		✓	✓	✓	✓		
Anel Begildayeva	Tier I Integration Engineer	B.S., M. Kh. Dulati Taraz State University Taraz	22	25+	8	✓		✓	✓		✓			
Madeline Tecci	Transition and Disentanglement	B.S. Business Administration Professional Lean Certification	1	16+	1	✓	✓	✓	✓		✓			
David McElroy	Training and Transition Manager	M.B.A., University of California, Santa Barbara	25	25+	9	✓			✓		✓		✓	✓
Kadrick Everson	Dedicated Support Engineer (DSE)	B.S., Fullerton College, Fullerton	7	10+	6		✓	✓	✓	✓	✓	✓	✓	✓
MaintStar Team Cumulative Totals and Skill Resource Overlay (avg. 4.6 index)			117	139	63	3	5	5	8	5	7	4	3	3

Project Schedule and Gantt Chart

This schedule and chart is an estimate based on estimated January 2026 start date. The estimated completion with Training and Go Live estimates for beginning October 2026 (43 weeks). MainStar establishes timelines on the requirements, scope of work contained and over 40 years of similar project experience. These may change with scope of work changes, selection of options, final project plan definitions, and prompt receipt of deliverables and direction from the State of West Virginia.

This scope includes two data conversion processes (for accuracy and high validation), along with requested system integrations. MainStar will assign a seven or eight (custom integration dependent) person deployment team, this allows for concurrent work operations (data ETL, configuration, and integration tasking overlap).

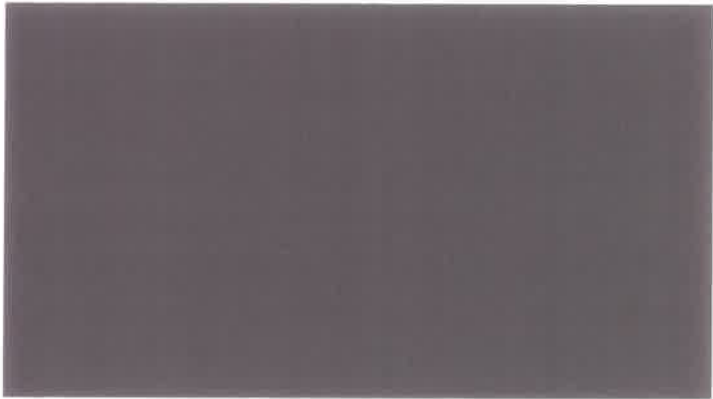




Section 3.1 – Qualifications Response

State of West Virginia

RFP – One-Stop-Shop Permitting Portal



Response to State of West Virginia Vendor Qualifications and Experience

- 4.3 Qualifications and Experience:** Vendor should provide information and documentation regarding its qualifications and experience in providing services or solving problems similar to those requested in this RFP. Information and documentation should include, but is not limited to, copies of any staff certifications or degrees applicable to this project, proposed staffing plans, descriptions of past projects completed (descriptions should include the location of the project, project manager name and contact information, type of project, and what the project goals and objectives were and how they were met.), references for prior projects, and any other information that vendor deems relevant to the items identified as desirable or mandatory below.

MaintStar is providing a point-by-point response below with the details to the qualifications and experience in the following pages of this section.

4.3.1. Qualification and Experience Information: Vendor should describe in its proposal how it meets the desirable qualification and experience requirements listed below.

4.3.1.1. Vendors should highlight a Proven track record designing, deploying, or supporting permitting platforms for state or local agencies.

MaintStar has more than forty years of experience developing Land Management and Asset Management systems for state and local government use. Our solutions are current in place at the States of Colorado (EAMS), Wyoming (LMS), and Kansas (LMS). References and project lists are provided in this section.

4.3.1.2. Vendors should present experience integrating with legacy systems, portals, and third-party tools using APIs, middleware, and secure data exchange protocols.

MaintStar Professional Services retains three integration engineers for integration in the MaintStar DevSecOps CI/CD development environment. Every deployment project MaintStar engages have custom integration to third-party systems. MaintStar LMS offers standard, no cost integration to MS Exchange 365, MS Active Directory SSO, and all Open GIS Consortium standard GIS systems (including ESRI ArcGIS). Standard integrations are developed and maintained with MaintStar Development in the DevSecOps environment.

4.3.1.3. Vendors should describe Familiarity with scalable, secure cloud platforms (e.g., Azure, AWS, Google Cloud) and disaster recovery best practices.

MaintStar has offered a cloud vendor hosted solution for more than ten years. MaintStar Professional Services retains a infrastructure engineering team to design and maintain a mission critical solution for LMS and EAMS applications. MaintStar believes the best approach to disaster recovery is to anticipate a disaster and design a system that can tolerate a disaster and continue to operate. As such our cloud infrastructure operates in an active-active, geo-diverse architecture with automated self recovery if a data target fails.

4.3.1.4. Vendors should explain their experience managing sensitive data with encryption, access controls, and audit trails.

MaintStar LMS encrypts data via AES 256 in transit and rest. MaintStar LMS offers system and record history logs to provide audit trails.

4.3.1.5. Vendors should highlight experience in training in NIST, CIS, FedRAMP, and state-specific security standards, including vulnerability scanning and incident response.

MaintStar AWS GovCloud infrastructure complies with FedRAMP, NIST 800-53 v4, and CNSS 1253. Security is prioritized from the start through our DevSecOps development methodology, which includes continuous security scans. The security priority is enhanced by limiting access to customer environments to the MaintStar infrastructure team and the system's API. AWS's premier security measures are applied, and each client is provisioned with a dedicated environment with separate servers, application/database instances, and IP bandwidth. IP and location whitelisting options are also supported.

4.3.1.6. Vendors should explain their Ability to tailor project management approach to agency needs, with tools like Jira, Smartsheet, or Microsoft Project for example.

MaintStar Professional Services uses a collaborative Project Management Tool which offers a real-time continuously updated GANTT chart, integrated schedule management, file exchange, and acts as a system of record.

4.3.1.7. Vendors should show a history of successful “train-the-trainer” programs and on demand training portals for public and internal users.

MaintStar Professional Services is proposing a training plan with a train-the-trainer approach.

4.3.1.8. Vendors should demonstrate familiarity with uptime guarantees, RTO/RPO metrics, and service-level reporting.

MaintStar AWS GovCloud active-active architecture offers a historical availability performance of 99.9996% (seventeen minutes total downtime in 9 years) and near realtime RTO/RPO. Please see the active-active topology diagram provided in this response.

4.3.1.9. Vendors should explain experience working with multi-agency teams, gathering requirements, and managing change.

12% of MaintStar clients serve populations over 1 million and are large multi-department agencies. Additionally, MaintStar solutions are currently successfully installed in three large state governments.

4.3.2. Mandatory Qualification/Experience Requirements - The following mandatory qualification/experience requirements must be met by the Vendor as a part of its submitted proposal. Vendor should describe how it meets the mandatory requirements and include any areas where it exceeds the mandatory requirements. Failure to comply with mandatory requirements will lead to disqualification, but areas where the mandatory requirements are exceeded will be included in technical scores where appropriate. The mandatory qualifications/experience requirements are listed below.

MaintStar is compliant to the State mandatory qualifications/experience requirements.

4.3.2.1. Vendor’s employees must have security training and Vendor must provide records of such training upon request.

MaintStar employees have annual security testing with minimum score requirements.

4.3.2.2. Vendor must highlight training in WCAG 2.1 and Section 508 compliance for public-facing digital services.

MaintStar LMS is Section 508 compliance and our VPAT v1.3 and Section 508 Lighthouse report are available to any customer for review and as a record. MaintStar VPAT is attached as an appendix to the response.

4.3.2.3. Vendor must show Experience aligning solutions with state IT policies, privacy laws, and accessibility mandates.

MaintStar will comply to all State requirements and mandates.

4.3.2.4. Vendor must demonstrate experience with Vulnerability scanning and reporting, Disaster recovery planning

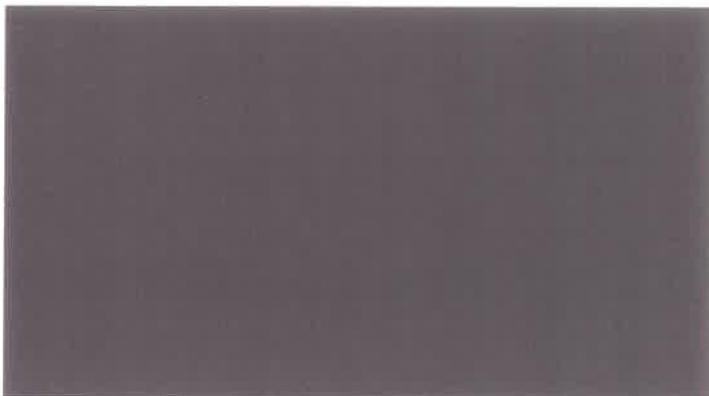
(1) MaintStar LMS is developed in a DevSecOps environment with continuous security and test scanning through out development. (2) All MaintStar customer infrastructure environments include security and performance continuous scanning. Quarterly reports for customer records is available.



Section 3.2 – MaintStar History and Qualifications

State of West Virginia

RFP – One-Stop-Shop Permitting Portal



MaintStar History and Qualifications

MaintStar History and Products

MaintStar was established in 1984 and developed one of the first Computerized Maintenance Management Systems (CMMS). MaintStar's first system was sold to the Baltimore County, Maryland. MaintStar was selected over IBM. Over the next 41 years, MaintStar has deployed hundreds of systems throughout the United States. The firm has developed three generations of Asset Management Systems, and in 2016, extended its product line to include Land Management Systems.

MaintStar is the sole developer of its intellectual property, providing all requisite professional services for the implementation and support of its product suite. This integrated business model enables the organization to systematically capture and retain institutional knowledge, which is then applied to the iterative enhancement of both product features and client services. The depth and specificity of MaintStar's expertise, particularly regarding State and Local Government operations, afford the company a distinct competitive advantage. By leveraging advanced domain expertise, MaintStar can design and deliver highly tailored, customer-centric solutions that address complex governmental requirements, thereby consistently surpassing client performance expectations.

Enterprise Asset Management System (EAMS)

MaintStar EAMS is our third-generation asset management system. Many of our current customers have used our early products and chosen MaintStar EAMS based on their experience. MaintStar is renowned for innovation, including mobile applications for real-time field updates, Open GIS Consortium standard GIS integration, and our Mobile Citizen™ application for citizen engagement.

Land Management System (LMS)

MaintStar LMS is our second-generation Land Management System. MaintStar elected to expand our product line in response to requests from our EAMS customers for a land management solution. LMS is more than a permitting solution; it offers an advanced on-board land management database that supports all future land use management, planning, permitting, code enforcement, and business licensing.

MaintStar EAMS and LMS operate seamlessly together, providing municipalities with a single vendor solution for public works and community development. Dozens of communities, small and large, are enjoying the benefits of using a complete MaintStar unified solution for asset and land management.

Innovation

MaintStar consistently pursues product innovation as a core organizational value. In 2018, the company implemented Augmented Reality integration within its Enterprise Asset Management platform through a collaborative initiative with Alameda County, California. By leveraging Augmented Reality technology, users can superimpose digital visualizations of proposed public works projects onto actual sites via their mobile devices, thereby enhancing project planning, stakeholder engagement, and decision-making processes. The significance of this innovation was recognized when MaintStar was awarded the Silver Award at the Microsoft CityNext Expo in Barcelona in 2018. The company's commitment to advancing technological solutions persists, as demonstrated by the forthcoming releases of MaintStar AI and MaintStar CRM, both of which are scheduled to launch in 2025 and are expected to further optimize customer relations practices.

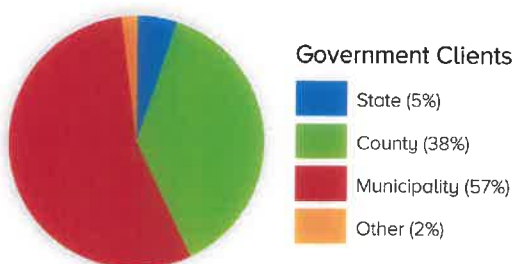
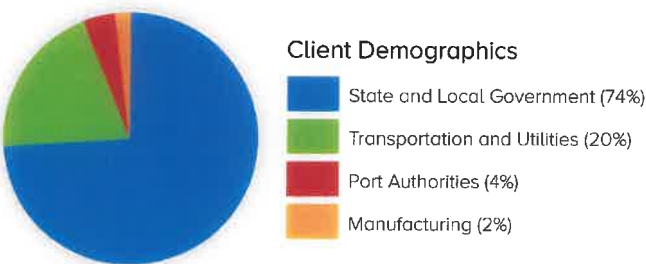
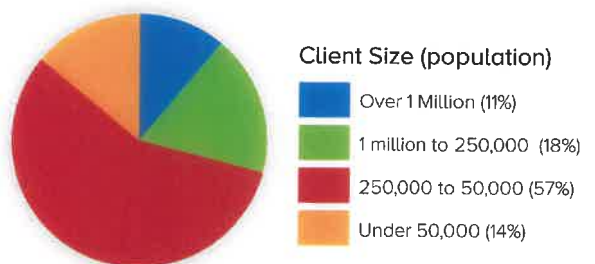
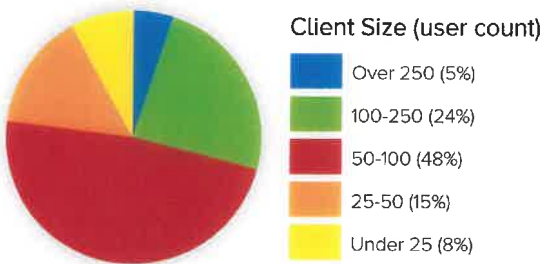
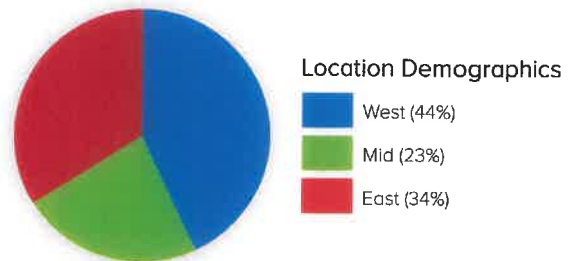
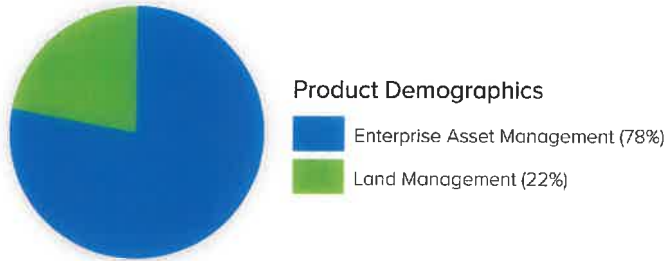
Our Technology

MaintStar EAMS and LMS are commercial-off-the-shelf (COTS) applications designed with a dedicated Administrative Interface that allows for complete customized configuration of the solution for each customer. MaintStar has embraced cloud and web technology. Our application architecture and development methodology have completely abandoned legacy principles, taking full advantage of cloud technology and application publishing. Cloud technology offers real-time scalability and hardware provisioning, including multiple clustered data center targets for mission-critical replication and fully automated disaster recovery.

Clientele Demographics

MaintStar Clientele Demographics

MaintStar products are primarily use by local and state governments. Asset management systems are in use by Port Authorities, Transit and Transportation, Utilities and Large Manufacturing (General Dynamics/National Steel and Shipbuilding Company). Our product demographics are graphically portrayed below.



MaintStar Scalability

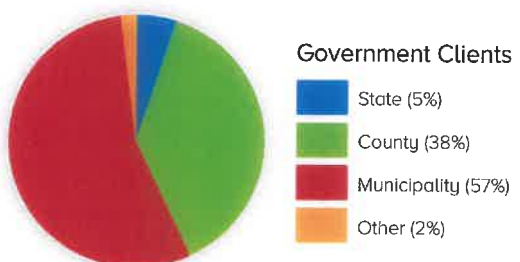
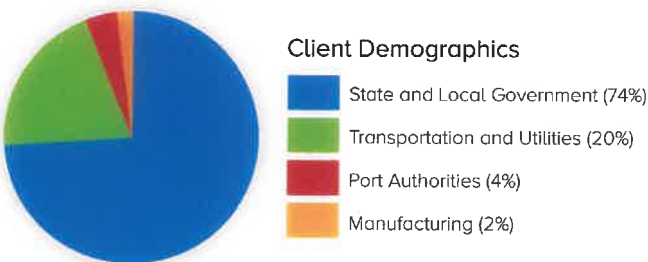
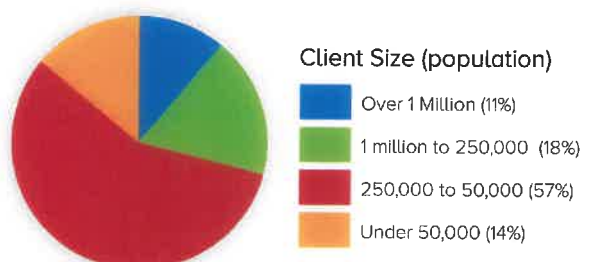
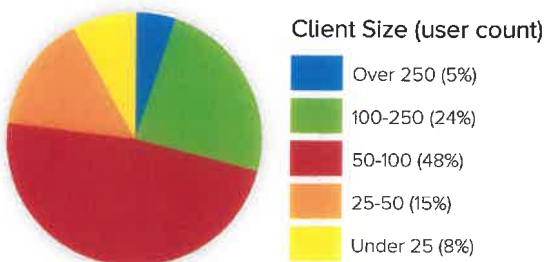
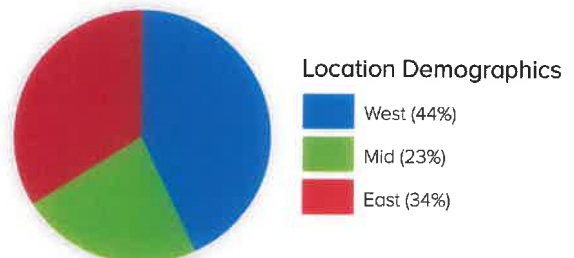
MaintStar's tradition of supplying large government institutions plays a significant role in our selection of architectures and technologies to develop our products. MaintStar's development team applies continuous exploration of available development tools and technology in enhance scalability. MaintStar's five largest clients are detailed at the right.

Rank	Agency
1	State of Colorado - Facilities (5.8 million)
2	Orange County CA - Parks and Recreation (3.1 million)
3	State of Kansas - DOT (2.9 million)
4	Alameda County CA - Full County (1.6 million)
5	Hillsborough County FL - Full County (1.5 million)

Clientele Demographics

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Recent Project Matrix

MaintStar Project Team leverages decades of experience to develop, deliver, and support Enterprise Asset Management Systems. The following table showcases twenty-five (25) recent client programs, demonstrating how MaintStar can equip the State of West Virginia with a One-Stop-Shop Permitting Portal and exceed all expectations.

Client	Implementation	Support	EAMS	LMS	Integration	Reporting
States						
State of Wyoming DOT WY	●	●		●	●	●
State of Kansas DOT KS	●	●		●	●	●
State of Colorado CO (facilities)	●	●	●		●	●
Cities						
City of Anaheim CA ★	●	●	●		●	●
Town of Davie FL	●	●	●		●	●
City of Fairfield CA ★	●	●	●		●	●
City of Huntington Beach CA ★	●	●	●		●	●
City of Novato CA ★	●	●		●	●	●
City of Pleasanton CA ★	●	●	●		●	●
Lake Havasu City AZ	●	●		●	●	●
City of New Ulm Utilities MN ★	●	●	●		●	●
City of Orange CA	●	●	●	●	●	●
City of Waco TX	●	●		●	●	●
City of Winter Garden FL ★	●	●	●		●	●
Counties						
Alameda County CA ★ ●	●	●	●	●	●	●
Baltimore County MD ★ ■	●	●	●		●	●
Contra Costa County CA ★	●	●	●		●	●
Hawaii County Mass Transit HI ★	●	●	●		●	●
Hillsborough County FL ★ ■	●	●	●		●	●
Navajo County AZ	●	●	●	●	●	●
Orange County CA ★	●	●	●		●	●
Santa Clara County Transit CA	●	●	●		●	●
San Mateo County CA ●	●	●	●		●	●
Seminole County FL ★ ■	●	●	●		●	●
Ventura County CA ★	●	●	●		●	●
Warren County OH	●	●	●		●	●

★ = Multi-Generation Client

■ = Proposal Reference

● = Proposal Letter of Recommendation

● = Asset and Workorder Management

● = Permitting, Utility Permitting and ROW

● = MaintStar Professional Services

MaintStar LMS References

MaintStar LMS References		
Reference (1)	State of Kansas – KS (p. 2.9 million)	
Contact – Title	Dale Kirmer, P.E. - Engineer, Bureau of Maintenance	
Address	700 S.W. Harrison Floor 9 - Topeka, KS 66603	
Phone Email	(785) 296-6355	Dale.Kirmer@ks.gov
Product Deployment	MaintStar LMS	New statewide permit portal
MaintStar Role	LMS product developer and all professional services (no subcontractors).	
Integrations Deployment	Permitting Activities (reviews, inspections, etc.) Reporting KPI Dashboards	MaintStar Public Portal MaintStar Mobile Application AWS Cloud Hosting ESRI ArcGIS MS Exchange 365 Integration
Reference (2)	State of Wyoming - WY (p. 578,000)	
Contact – Title	Matt Groth - Utilities Section Supervisor	
Address	5300 Bishop Blvd., Cheyenne, WY 82009	
Phone Email	(307) 777-4133	matthew.groth@wyo.gov
Product Deployment	MaintStar LMS	New statewide permit portal
MaintStar Role	LMS product developer and all professional services (no subcontractors).	
Integrations Deployment	Permitting Activities (reviews, inspections, etc.) Reporting KPI Dashboards	MaintStar Public Portal MaintStar Mobile Application AWS Cloud Hosting ESRI ArcGIS MS Exchange 365 Integration
Reference (3)	Alameda County – CA (p. 1.6 million) <i>Letter of Recommendation Attached</i>	
Contact – Title	Alan Tam, P.E., CBO, LEED Building Official	
Address	399 Elmhurst Street - Hayward, CA 94544	
Phone Email	(510) 670-5431	alan@acpwa.org
Product Deployment	MaintStar LMS	Replaced Accela
MaintStar Role	LMS product developer and all professional services (no subcontractors).	
Integrations Deployment	Permitting Planning Activities (reviews, inspections, etc.) Reporting KPI Dashboards	MaintStar Public Portal MaintStar Mobile Application AWS Cloud Hosting ESRI ArcGIS MS Exchange 365 Integration



Public Works Agency
Alameda County

Daniel Woldesenbet, Ph.D., P.E., Director

399 Elmhurst Street • Hayward, CA 94544-1307 • (510) 670-5480 • www.acpwa.org

May 20, 2025

SUBJECT: Recommendation for MaintStar LMS

To Whom It May Concern:

Alameda County Department of Public Works uses the MaintStar Land Management System (LMS). Our initial implementation of the LMS was strategically focused on right-of-way and utility permits, integrating it with our existing MaintStar EAMS Asset Management System. The efficiencies and improved data flow resulting from this integrated approach were quickly recognized, prompting the County to expand the deployment of MaintStar LMS to cover all county-wide permit and planning processes.

MaintStar LMS provides a solid system for tracking and administering permits and planning applications, while supporting effective public engagement. Furthermore, our residents appreciate the convenience of submitting applications through the Alameda County LMS Citizen Portal.

We are consistently impressed with MaintStar's innovative products and their professional service. MaintStar LMS has thoroughly transformed this aspect of our work, enabling seamless real-time collaboration between our office and field teams. The ability for field personnel to incorporate photos and visual asset condition details directly into inspections is invaluable. Moreover, the real-time updates and insightful data visualization offered by MaintStar's KPI Dashboards are helpful to our operational oversight and decision-making.

Additionally, MaintStar's GIS-centric design is another standout feature. Our users can effortlessly navigate and select records from organized permitting or planning lists or through the visually intuitive GIS viewer. The automatic population of associated data into applications directly from map selections has significantly streamlined our workflows.

Beyond their cutting-edge software, MaintStar provides exceptional professional services, including expert project management, comprehensive training programs, and tailored report development.

Feel free to reach out if you have any questions.

Sincerely,

Alan Tam, P.E., CBO, LEED A.P.,
Building Official

"To Serve and Preserve Our Community"



Appendix 1 – MaintStar LMS VPAT® v1.3

State of West Virginia

RFP – One-Stop-Shop Permitting Portal

WORK ORDER • WORK REQUESTS
WORK PLANNING

VPAT™

Voluntary Product Accessibility Template®

Version 1.3

The purpose of the **Voluntary Product Accessibility Template**, or **VPAT™**, is to assist Federal contracting officials and other buyers in making preliminary assessments regarding the availability of commercial "Electronic and Information Technology" products and services with features that support accessibility. It is assumed and recommended that offerers will provide additional contact information to facilitate more detailed inquiries.

The first table of the Template provides a summary view of the Section 508 Standards. The subsequent tables provide more detailed views of each subsection. There are three columns in each table. Column one of the Summary Table describes the subsections of subparts B and C of the Standards. The second column describes the supporting features of the product or refers you to the corresponding detailed table, e.g., "equivalent facilitation." The third column contains any additional remarks and explanations regarding the product. In the subsequent tables, the first column contains the lettered paragraphs of the subsections. The second column describes the supporting features of the product with regard to that paragraph. The third column contains any additional remarks and explanations regarding the product.

Date: August 8, 2024

Product: MaintStar LMS
Version 24.8

Contact for more information: support@maintstar.com

MAINTSTAR

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(800) 255-5675

www.maintstar.com

Summary Table

VPAT™

Voluntary Product Accessibility Template®

Criteria	Supporting Features	Remarks and Explanations
Section 1194.21 <u>Software Applications and Operating Systems</u>	§ 1194.21 (a), (b), (c), (d), (e), (f), (g), (i), (k)	Please refer to the attached MaintStar LMS VPAT
Section 1194.22 <u>Web-based Internet Information and Applications</u>	§ 1194.22 (a), (c), (d), (g), (h), (i), (j), (k), (l), (n)	Please refer to the attached MaintStar LMS VPAT
Section 1194.23 Telecommunications Products	Not Applicable	MaintStar LMS is not considered a telecommunications application according to the definition in 1194.23
Section 1194.24 Video and Multi-media Products	Not Applicable	MaintStar LMS is not considered a multimedia product according to the definition in 1194.24
Section 1194.25 Self-Contained Closed Products	Not Applicable	MaintStar LMS is not considered a self-contained, closed product according to the definition in 1194.25

Criteria	Supporting Features	Remarks and Explanations
Section 1194.26 Desktop and Portable Computers	Not Applicable	MaintStar LMS is not considered a Desktop/ Portable Computer according to the definition in 1194.26
Section 1194.31 Functional Performance Criteria	§ 1194.31 (c), (d), (e), (f)	Please refer to the attached MaintStar LMS VPAT
Section 1194.41 Information, Documentation and Support	§ 1194.31 (a), (b), (c)	Please refer to the attached MaintStar LMS VPAT

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Section 1194. 21 Software Applications and Operating Systems - Detail

VPAT™

Voluntary Product Accessibility Template®

Criteria	Supporting Features	Remarks and Explanations
(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.	Supported	
(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.	Supported	
(c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track focus and focus changes.	Supported	

Criteria	Supporting Features	Remarks and Explanations
(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.	Supported	
(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	Supported	Bitmap images have consistent meanings throughout MaintStar LMS.
(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.	Supported	
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supported	
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the animation option of the user.	Not Applicable	MaintStar LMS does not have animation within the application.
(i) Color coding shall not be used as the only means of conveying information, indicating an action, Supported prompting a response, or distinguishing a visual element.	Supported	Color coding is not used as the only means of conveying information.
(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.	Supported	MaintStar LMS supports Browser accessibility settings for color and contrast.

Criteria	Supporting Features	Remarks and Explanations
(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.	Supported	MaintStar LMS does not use any blinking or flashing elements
(l) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Supported	MaintStar LMS can support when PDF forms are used.

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Section 1194.22 Web-based Internet information and applications - Detail

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Criteria	Supporting Features	Remarks and Explanations
(a) A text equivalent for every non-text element shall be provided (e.g., web-based via "alt", "longdesc", or in element content).	Supported	
(b) Equivalent alternatives for any multimedia presentation shall be web-based synchronized with the presentation.	Not Applicable	MaintStar LMS does not have multimedia presentation within the application.
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	Supported	MaintStar LMS provides textural data for color code elements.
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Supported	
(e) Redundant text links shall be provided for each active region of a server-side image map.	Not Supported	
(f) Client-side image maps shall be provided instead of server-side image maps except where the regions web-based cannot be defined with application. an available geometric shape.	Not Supported	
(g) Row and column headers shall be identified for data web-based tables.	Supported	
(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.	Supported	

Criteria	Supporting Features	Remarks and Explanations
(i) Frames shall be titled with text that facilitates frame web-based identification and navigation.	Supported	MaintStar LMS supports frame web-based identification and navigation
(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Supported	
(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	Supported	
(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.	Supported	MaintStar LMS provides functional text on any page displaying script language
(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (1).	Not Supported	
(n) When electronic forms are designed to be completed on-line, the form shall allow people using Assistive Technology.	Supported	MaintStar LMS forms generated on-line in PDF support Assistive Technology.

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Section 1194. 31 Functional Performance Criteria - Detail

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Criteria	Supporting Features	Remarks and Explanations
(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.	Not Supported	
(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	Not Supported	
(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided.	Supported	MaintStar LMS does use audio to convey information
(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	Supported	MaintStar LMS does use audio to convey information
(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.	Supported	MaintStar LMS does not use speech to input information

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Criteria	Supporting Features	Remarks and Explanations
(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	Supported	MaintStar LMS does not require fine motor control to require limited reach and strength.

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Section 1194.41 Information, Documentation
and Support – Detail

VPAT™

Voluntary Product Accessibility Template®

Criteria	Supporting Features	Remarks and Explanations
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge	Supported	MaintStar LMS documentation is available in multiple formats. Section 508 compliant PDF.
(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.	Supported	MaintStar LMS Section 508 documentation is available at no charge to any user
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supported	MaintStar LMS support services accomodates end-users with disabilities.

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