



Washington State
**DEPARTMENT OF
ENTERPRISE SERVICES**

February 7, 2024

REQUEST FOR INFORMATION (RFI)

Asset Management Software Solution

ANNOUNCEMENT

Department of Enterprise Services (DES) is in the process of developing requirements and procurement strategy to acquire a commercial off-the-shelf cloud-based asset management software solution. DES is requesting input from the business community via this RFI survey to help formulate a cost-effective procurement approach and ensure the resulting procurement reflects the latest industry developments and standards.

A response to this RFI is not a mandatory requirement for participation in any subsequent solicitations released by the State of Washington.

RFI PROCESS

To participate in this RFI, please complete [this short RFI survey](#) by **February 29, 2024**. *Exhibit A – Functional and Technical Requirements* to this RFI lists some draft functional and technical requirements DES is considering for a future competitive solicitation. Please use this exhibit for reference while responding to the RFI survey.

All business community communications concerning this RFI must be directed to the RFI Coordinator.

Internal Contracting Unit
Phone: (360) 407-2217
Email: DESCPRMInternal@des.wa.gov

To gather some additional industry information, **some responders to the above RFI survey may be invited to provide a 50-minute virtual demonstration of their asset management software solution on March 6 - 7, 2024**. Please make sure to include your contact information and indicate availability or any time restrictions for these days as part of the RFI survey response.

PUBLIC RECORDS

The business community acknowledges that state agencies are subject to [Chapter 42.56 RCW](#), the Public Disclosure Act. Business community responses to this RFI will be subject to public records disclosure as addressed in the RCW. For the purposes of this RFI, do not include any information that is considered confidential or proprietary.

NO OBLIGATION TO CONTRACT

Release of this RFI in no way obligates the State of Washington to conduct a follow-on competitive procurement or award a contract.

Functional and Technical Requirements

This exhibit provides a list of some draft functional and technical requirements contemplated by DES for this solution. This list is provided **FOR REFERENCE ONLY** - these requirements are still in their draft form and the list does not cover all the requirements that might be included in the subsequent procurement.

General Requirements

1. Standards that ensure uniformity of nomenclature, using Uniformat II Level 4, during data import and the subsequent user interface.
2. Include a mobile application that allows handheld devices (phone and tablet) to facilitate information gathering, including photos available for iOS and Android mobile phones and tablets.
3. Vendor to verify that the Facilities Condition Index (FCI) generated by the proposed facility database software meets industry practice standards.
4. Integrated functionality between capital planning, work order and preventative maintenance capability, energy and sustainability reporting, and utility bill payment.
5. The database must be able to be updated by agency staff.
6. Demonstrated ease of use and intuitive operating environment.
7. Permission level management of users.
8. All data available for export to Microsoft Excel.
9. All data must be the property of the agency.
10. All graphics available for export.
11. Software must be available for unlimited users.
12. Software must meet WaTech data sensitivity standards to category three and below.
13. Software must have uptime averages over 99%.
14. Support must be immediately available through the web-based tool, via toll-free number, or email during business hours (7 AM to 500 PM PST). The vendor must commit to a response time of 4 hours after business hours.
15. Must include onsite training.
16. Must include extensive document library functionality, including the ability to upload various file types, multiple file uploads, permission levels assigned to documents, and unlimited storage data.
17. Must include customized leave-behind training documentation.
18. Must conform to WCAG 2.1 AA accessibility guidelines in support of [OCIO Policy 188](#).

System Requirements

1. The proposed solution must be web-based, without any plug-ins or controllers, and available via any standard browser, such as Microsoft Edge, Apple Safari, Google Chrome, and Firefox; this includes complex viewing of architectural and engineering drawings/documents.
2. The system should be configurable without source code modification or IT involvement. Tools should be available to the System Administrator to configure the system without modifying the existing code or hiring additional developers.

3. Software should provide the below functionality either as a core software module or as an optional software module.
4. All software must be commercially available at bid response and provided by the bidding software vendor. DES seeks a 100% Integrated Workplace Management System tool and desires to purchase a scalable system for future growth.
5. The proposed solution must run on current supported OS platforms. What are the OS platforms supported by this solution and what is the SLA for updating when a new OS are released?
6. Describe how and where the proposed solution is hosted.
7. The solution must meet data backup requirements for the business need.
8. Complete Data Set with Read/Write needs to be available via APIs for development of future Interfaces to our financial, human resource systems and for Reporting.
9. Ability to view error logs and monitoring health of application.
10. Describe your software's roadmap for enhancements, upgrades, and end of life/support.

Data Retention, Security, Access Requirements

The proposed solution must meet all requirements for Category 3 data under OCIO Policy on [Securing Information Technology Assets.](#), including data encryption at rest and in transit and required access controls.

1. Please describe your systems data retention and purging process.
2. Describe how your system will meet the state of Washington's security requirements.
3. Data accessed by vendors or external users/providers through a SaaS application must use Multifactor Authentication. Describe how your system authenticates users using Multifactor Authentication. Application must use Single Sign On for Authentication for On Premise or SaaS solutions.
4. Recovery minimum requirements of 24-hour Recovery Point Objective (RPO).

Reporting Requirements

1. Current and future levels of unfunded maintenance by Portfolio/Building/System.
2. Current and future priorities by critical/high/medium/low.
3. Cost by building discipline.
4. Financial scenarios based on different funding or savings strategies.
5. Facility Condition Index of Portfolio/Building.
6. Building Condition Assessment Reports that detail systems, condition, cost, and action required and include photographs of all systems audited.
7. Asset data by age, replacement cost, and square footage.

Asset Data Extraction, Transformation, and Loading

1. Ability to bulk load asset data from an Excel spreadsheet.
2. Full review process with the ability to make edits before approving asset updates.
3. Ability to add assets to preventative maintenance program via import/approval process.
4. Ability to add assets to Capital Projects via import/approval process.

5. Ability to relocate assets via import/approval process.
6. Ability to build asset hierarchies (parent/child relationship) via import/approval process.
7. Ability to create system-generated IDs for assets imported from spreadsheets.
8. Ability to verify and approve changes made via the mobile application.

Assessment and Capital Planning

1. Track all assets, including systems (i.e., HVAC system) and individual components (i.e., coils, supply fan, variable frequency drives).
2. Create multi-tiered parent-child relationships between buildings, systems, subsystems, and components.
3. Track expected lifecycle data at a system, subsystem, and component level.
4. Forecast future facility renewal costs with the ability to adjust for inflation and complexity.
5. Maintain a Current Replacement Value for every asset as well as be able to calculate Facility Condition Index.
6. Calculate the Renewal Cost for each asset based on the provided renewal costs, unit of measure, and quantity.
7. Analyze and model each facility's standard life cycle deterioration and report on the annual reinvestment rate to replace components as they become unusable.
8. Analyze multiple-year outlooks and various combinations of building-type reinvestment rates.
9. Analyze and project funding requirements for up to 25 years.
10. Bulk apply life cycle model adjustments based upon vendor-provided markups, contingency, and inflation.
11. Export selected renewal and refurbishment records.
12. Import (create and update) renewal and refurbishment records without an external interface.
13. Update asset assessment information in the field via a mobile solution while in offline mode.
14. Associate and track renewal and refurbishment records to work requests and capital projects.
15. Create an assessment execution plan for an individual property.
16. Create a multi-year capital plan for selected property portfolios.
17. Prioritize renewal and refurbishment records based on multiple factors, including property rank, record priority, and days past due.
18. Renewal and refurbishment records may be associated with project and budget requests for funding and execution.
19. Warranty
20. O&M manuals

Energy Management

1. Real-time energy monitoring capabilities, including electricity, gas, water, and other energy sources across all our properties.
2. Energy data should be updated at frequent intervals, providing up-to-the-minute insights into consumption patterns.
3. The system should integrate seamlessly with energy meters and data sources.
4. Data integration should support both automatic and manual data inputs.
5. Normalize energy data to account for variations in units of measurement and data sources.
6. Normalized data should facilitate accurate energy consumption comparisons and analysis.

7. The system should offer interactive and customizable dashboards for visualizing energy consumption trends, costs, and performance metrics.
8. Users should be able to create personalized energy dashboards based on their roles and responsibilities.
9. Maintain historical energy consumption data for trend analysis and benchmarking.
10. Users should be able to compare energy usage across different timeframes, such as daily, monthly, and annually.
11. Provide configurable alarms and alerts for abnormal energy consumption patterns or deviations from set benchmarks.
12. Alerts should be delivered through email notifications.
13. Benchmarking against industry standards and energy efficiency targets.
14. Users should be able to identify underperforming facilities and prioritize energy-saving initiatives.
15. Calculate and report on carbon emissions associated with energy consumption.
16. Users should have access to tools for tracking progress toward emissions reduction goals.
17. Provide detailed cost breakdowns for energy consumption, including utility bills and associated expenses.
18. Cost analysis tools should assist in budgeting and forecasting.
19. Integrate with sustainability reporting and certification systems, allowing for calculating sustainability metrics such as ENERGY STAR.
20. Enable the identification and tracking of Energy Conservation Measures (ECMs) implemented to improve energy efficiency.
21. Users should be able to evaluate the impact of ECMs on energy consumption.

GIS Integration

1. Display a GIS map that can zoom, pan, and turn individual map layers on/off.
2. Select buildings or assets on the map and create work orders.
3. Select buildings or assets from the map and bring up information about the associated record.
4. View an asset or group assets and display it/them on the GIS map.
5. View a work order and display it on the GIS map.
6. Provide project status reporting by the project managers.
7. Integrate with one or more Esri ArcGIS databases.
8. Import assets and affiliated attribute data from an ArcGIS database.
9. Provide a map-centric interface to visualize the location of assets, work orders, and more.
10. Display asset attributes from ArcGIS within the map-centric interface.
11. Display custom base maps.
12. Leverage Esri Identity to administer user access to layers and base maps.
13. Create a work order while viewing a location or asset in the GIS map.
14. Select an area in the map frame, and the system will filter work orders contained within the area.
15. Select one or more work orders within the system and then display them on a map view.

CAD Integration

1. Query by building, department, organization, or space type and highlight/shade spaces on the CAD drawing based on the query in a web browser.

2. Shade/hatch a drawing to display which locations an asset supports (i.e., air handler 1 supports locations 101, 102, 103, 112, 114,116).
3. Support an interface to AutoCAD that will create rooms in the system from a CAD drawing.
4. The CAD interface will update the square footage for rooms based on the CAD drawing.
5. Deleting rooms off the CAD drawing will inactivate these rooms in the system via the CAD interface.
6. Support planning and stacking reports for the space inside AutoCAD.
7. View a CAD drawing of floors and rooms inside the system.
8. Highlight or shade rooms on the CAD drawing based on location/space type, status, or occupying entities.
9. Within the CAD application, the application should support the ability to hatch and annotate the drawing with work order data.

Inventory

1. Create physical inventory counts by bin range, part classification, or cycle code, and define how many bins to count in each set.
2. Provides the ability to QR code or bar code all items in inventory.
3. Track materials in multiple locations.
4. The application provides the ability to set up user-definable inventory classes and categories.
5. The system should capture and store comprehensive information about each artwork, including:
 - Title
 - Artist
 - Date of creation
 - Medium
 - Dimensions
 - Acquisition date
 - Purchase price or estimated value
 - Condition reports
 - Provenance history
 - Location within the organization
6. Allow for the attachment of high-resolution images and related documentation for each artwork.
7. Users should be able to view images and access associated documents from the inventory database.
8. Support categorization and classification of artworks based on various criteria, such as genre, style, period, or collection type.
9. The system should enable users to record the current physical location of each artwork within the organization's facilities.
10. Location changes should be logged and tracked in the system.
11. Maintain a detailed history of movements and transfers of artworks.
12. Users should be able to view the complete movement history for any artwork.
13. The system should support the tracking of artworks on loan to external institutions or for temporary exhibitions.
14. Record loan agreements, dates, and conditions.
15. The system should allow for recording insurance details for each artwork, including coverage amounts and policy information.
16. Valuation records should be stored for insurance and appraisal purposes.

17. Users should be able to document and track the condition of artworks over time.
18. Conservation notes and treatment history, including dates and responsible conservators, should be recorded.
19. The system should provide customizable reporting and analytics tools for generating inventory reports, including collection summaries, valuation reports, and movement logs.
20. Users should be able to export reports in various formats (PDF, Excel, etc.).
21. Send alerts and notifications for critical events, such as upcoming loan returns, required condition assessments, or overdue movements.

Capital Improvement and Construction Project Management

1. Track planned, original, and active project budgets.
2. Define closeout checklists for budget line items.
3. Create capital project commitments (including cost controls) for future operations and maintenance jobs.
4. Track baseline, estimated, and actual start and finish dates for project schedule tasks and budget line items.
5. Track both financial and activity-based schedules and milestone information.
6. Track projects by status to include requested and planning projects.
7. Track user-defined activities and milestones for each project.
8. The system shall alert the user if costs exceed the budget.
9. The application must define and manage sources of project funding.
10. Provide a central vendor contact database to store all vendor companies and contacts.
11. Must be able to electronically attach documents (e.g., insurance certificate) to a vendor and enter expiration dates.
12. Have the ability to create and enter user-defined fields.
13. Support multiple contracts per budget line item.
14. Must track associated tax rates and rebates by contractor.
15. Allows for adjusting existing and creating new contract line items upon change.
16. Must track the Change Proposal / Change Directive Process
17. Must track other associated contract documents, including RFIs / ASIs / Submittals / Punch Lists / Commissioning Plans.
18. Have the ability to track the lifecycle of a change from RFI/Issue to Change Proposal to Change Order.
19. Document sharing with external stakeholders.
20. Have the ability to create different dashboards and workflows for different users, agencies, and project types.
21. View everyone working on a project and the permissions, roles, and responsibilities.
22. Automated notification system around custom processes.
23. The ability to connect with external databases using API's.
24. Data validation built into fields.
25. Can store files like contract agreements.
26. Can track Interagency Agreements
27. Be able to store large and various file types.
28. Contain a project's history and what stage the project is at.
29. Be able to track and report performance.

Property/Lease Management

1. Property lease management and storage
2. Designing and generating leases for e-sign
3. Communication portal with tenants
4. Floor plans layouts with color coded sections for tenant, common and leased space
5. Parking stall/lot management

Work Order Management

1. Ability to implement and manage a web-based service request/work order process, assign work, and track against multiple service providers.
2. Ability to manage asset information and scheduled and on-demand maintenance tasks via mobile devices in real-time using an app.
3. Manage assets via QR code or barcode.
4. Unlimited requesters allowed to submit electronic work orders through an internet-based work request portal and check the status of requests online.
5. Work orders will provide features for setting completion deadlines and reporting completion information to requestors.
6. System should provide automated programmable workflow logic and assignments.
7. Work orders must be defined according to the type, trouble report or work order, and scope of work involved.
8. Work orders may be assigned by a supervisor or automatically by the facility.
9. Work orders can be assigned priorities.
10. System must be able to track cost, labor hours, and material tracking.
11. Record information about employees assigned to the work, including name and identification number.
12. Request routed online to personnel authorized for review and approval.
13. Automatically notifies requesters via email as work is assigned and completed.
14. Allows technicians to receive and complete work assignments online.
15. Notifies staff and vendors of new work assignments via email (including email to text pagers or cell phones).
16. Enables technicians to record notes, set reminders, and email supervisors from a work order.
17. Associates budget codes, projects, and equipment with work orders;
18. Tracks all email related to each work order, including system-generated notifications.
19. Records labor and purchase transactions.
20. Generates simple and detailed reports on work order status and costs.
21. Features quick search and detailed, advanced search capabilities.
22. Allows files to be attached to work orders for quick reference.
23. Provide integrated email notification functionality.
24. Ability to create repeatable tasks.
25. Includes functionality for parts and equipment inventory and tracking system that integrates with work order system.
26. Ability to escalate maintenance events.
27. Track all scheduled maintenance.
28. Generate recurring maintenance schedules as necessary daily, weekly, monthly, quarterly, or annually.

29. Track equipment information, including manufacturer, model, serial, service dates, and warranty expirations.
30. The software can maintain preventive maintenance (PM) histories of assets and equipment for at least five years, including associated costs.
31. Interfaces with work order module to automatically generate maintenance work orders.
32. Preventive maintenance activities can be scheduled on specified dates, days of the week, and days of the month and may be restricted to specified seasons.
33. Generate reports of overdue PM orders.
34. Alert staff when preventative maintenance is overdue.
35. Provide the ability to track multiple asset warranties and automatically flag the warranty for the user when creating a work order.
36. Provide the ability to track installed dates, removed dates, and original costs.
37. Provide the ability to store manufacturing information.

Supply Management

1. Ability to implement and manage a real-time goods and services procurement and inventory management program.
2. Create physical inventory counts by bin range, part classification, or cycle code, and define how many bins to count in each set.
3. Provides the ability to QR code and/or bar code all items in inventory.
4. Tracking and maintaining optimal stock levels of materials in multiple bench stock locations.
5. Ability to set up user-definable inventory classes and categories.
6. The system should capture and store information about each inventory item including:
 - a. Description
 - b. UPC Number
 - c. Part Number
 - d. Units of measure (each, gallon, inch, foot, roll, etc.)
 - e. Acquisition date
 - f. Purchase price and/or retail value
7. Location of item within the organization
8. Allow for the attachment of high-resolution images and related documentation for each good.
9. Users should be able to view images and access associated documents stored in the inventory database.
10. Location changes should be logged and tracked in the system.
11. The system should allow for recording insurance details for service providers.
12. The system should provide customizable reporting and analytics tools for generating inventory reports, highest and lowest quantities of purchase items, vendor logs, and movement logs.
13. Users should be able to export reports in various formats (PDF, Excel, etc.).
14. Send alerts and notifications for critical events, such as physical inventories, quantity below set level – reminder to reorder, etc.
15. Ability to set purchase request approver limits and establish a purchase request workflow from requestor, to Supply team approval, to Manager approval, then the order procured.

16. Ability for the system to automatically notify requestor when goods have arrived, whether an entire order, or a partial order.
17. Ability to maintain all purchase request documents (vendor quotes, purchase order form, received goods, invoice, etc.)
18. Ability to transfer inventory from one department to another or to and from a work order electronically via phone, tablet, computer and/or handheld device.
19. Ability to forecast demand based on order histories, calculate average lead time, analyze trends and current stock levels.
20. Ability to integrate with Workforce.

Preventative Maintenance Management

1. Ability to implement and manage an integrated preventative/scheduled maintenance program.
2. Ability to plan and schedule jobs before assigning to work control, taking into account different skill sets and capacities.
3. Ability to see jobs in all phases of their lifecycle (backlog, planned, scheduled, started, stalled) by shop.
4. Ability to create daily assignments of jobs per technician.
5. Ability to see availability by shop in a graphical/calendar-type format.
6. Ability to pre-define and generate timecards for staff with pre-defined or recurring jobs (e.g., custodial, grounds crews).
7. Track employee attendance and leave.
8. Enable users to create multiple planned work requirements. These can be associated with projects and promoted to the work queue when the scope of work and funding are finalized.
9. Provide the end user the ability to load any document and associate it with the request.
10. Build standard operating procedures/workflows by work category and track/change the statuses online.
11. Associate multiple contractors and contracts with a work order.
12. Assign multiple shops and multiple individuals to a single work order.
13. Assign a work order to a specific property/location without having to associate an equipment or asset ID.
14. Repair multiple pieces of equipment/assets per work order.
15. Supports unlimited user-definable billing rates by shop or shop person.
16. Billing can be performed by specific work order, transaction, or account.
17. Support purchases for items/parts and services, which can be tied to a work order.
18. Plan for material usage that can be transitioned into actual material usage at the appropriate time.
19. Identify the contractor supplying the warranty work and have the contractor automatically defined on a work order when an asset is under contract warranty.
20. Define a schedule for PM work order generation by user-defined frequencies.
21. Define a schedule for seasonal PM work order generation.
22. View forecasts of the materials and labor necessary to support scheduled PM work orders by equipment ID.
23. Exclude holidays, weekends, or user-defined dates from the PM schedule.
24. View current/future deferred workload for PM by the year/week/month and by craft/trade.

25. Maintain a record of unscheduled/unplanned repairs done by PM mechanics and actual time spent.
26. Generate PM by location or trade to facilitate efficient people use and minimize travel.
27. Associate separate labor, material, equipment, and contract estimates to any work order/project task.
28. The application must provide the ability to create detailed estimates for work orders and projects for reuse on multiple records.
29. Associate estimates to typical recurring problems and have them default on a work order automatically.

Hazardous Material Tracking

1. Catalog and track building-based hazardous materials (ex, asbestos).
2. Catalog and track container-based hazardous materials (ex, refrigerants).
3. Track individual lots or containers of hazardous materials.
4. Track release and return/recovery of hazardous materials.
5. Track abatement or disposal of hazardous materials.
6. Classify hazardous materials by type and class.
7. Rate condition of hazardous materials.
8. Record user-defined attributes for hazardous materials.