



MAS Upgrade Considerations

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Starting Your Journey to MAS



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MAS Capabilities

Why Upgrade Now?

- 1. Maximo Manage (Core EAM) Improvements Reduce Costs
 - AI-infused technologies
 - User interface, dashboards, scheduling
 - Mobile
 - Reliability Strategies
- 2. Health scoring for critical assets
 - Foundation for condition-based maintenance
 - Reduce asset failures
- 3. Asset Performance Management & Computer Vision Inspections
 - Optimize asset lifecycle & maintenance strategies
 - Reduce inspection costs, while improving the frequency & accuracy
- 4. Access to partner technologies ecosystem that drives time to value.
- 5. New MAS SaaS offerings provide entry level pricing for core maintenance that scales with your business.







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MAS Applications & Technologies



Maximo Application 0 Suite Manage Monitor Health Intelligent Asset Management Monitor and Detect Anomalies 360 View of Assets Best-of-class capabilities to provide complete view of your 0 assets addressing the needs of key personas in your organization. Predict **Visual Inspection** IT **Predictive Failures** Al-Powered Insights ITSM and ITAM combined Technicians _ **Technician Supervisor** Asset Maintenance Manager 000 -Plant Manager -• Fleet Manager -Mobile Assist **Reliability Strategies Operations Manager** Technician Work Execution Dedicated Reliability Centered Prescriptive Assistance **Reliability Engineer** Maintenance Quality Manager -Industry Solutions | Accelerate time to value Planners / Schedulers Maximo Accelerators Catalog | Complement, extend or enhance MAS Dispatchers -**Purchasing Managers** IBM Cloud Pak for Data | Watson Studio | Watson ML | Watson Discovery | Watson Assistant | App Connect | Cognos Analytics Infrastructure Independent 💄 Red Hat OpenShift **Common Operating Environment** IBM Cloud AWS Azure Google Cloud Private Edge Systems 3 čά IBM Sustainability Software - 2024



Why Upgrade Now?

| Maximo Version | Upgradable to MAS | Date of Last iFix for Release | EOM- End of Market Date* | EOS – End of Support Date** |
|-------------------|----------------------|-------------------------------------|--------------------------------|--------------------------------|
| Maximo 7.6.1 | Not available | October 17, 2021 | | |
| Maximo 7.6.1.1 | Not available | December 11, 2022 | April | September 30, |
| Maximo 7.6.1.2 | Yes | December 2023 – TBD | 2024 | 2025 |
| Maximo 7.6.1.3 | Yes | July 2025 - TBD | | |

*End of Market means no longer able to purchase licensing of these products **End of Support means product fixes and support no longer available from IBM

IBM Extended Support: Enables clients continued access to IBM Support for "how to" questions, usage issues, known defects published in IBM Fix Central, and new critical sev1 defects (no security fixes) after IBM standard support ends for 7.6.1.x.

IBM Sustained Support: Enables clients to continue to get support for "how to" questions, usage issues, and known defects published in IBM Fix Central after IBM standard/extended support ends for 7.6.1.x. IBM Sustained Support does not include support for new defects or new security fixes.

Maximo 7.6.1.x product Life Cycle



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IBM Sustained Support does not include support for new defects or new security fixes.

Effective 30 April 2027, dual support under the MAS license for EAM will no longer be available.



Customers on Maximo Application Suite License Agreement Maximo EAM 761x Dual Support in MAS

- For customers that have moved to MAS parts and LI commercially and are in the process of migrating to Manage.
- Dual Support for both EAM 761x and MAS 8.x/9.x up to 18 months past EAM EOS date.
 - NOTE: Customers must move to Manage by April 2027 date if support for both platforms is required.
- EAM 761x Support access is for usage and existing fixes only
 - · Available for the last supported version and fix pack
- No new MAS or EAM part purchase is required IBM is offering this service for our customers to help them during this migration process as part of the S&S of the MAS parts purchased.





Time is Running Short!

- 18 months left of Standard Support
- Approx. 2500 NA Maximo Clients
- Limited Red Hat Open Shift Container Platform Skill Set/Professionals
- Only a small number of consulting firms have the needed skills and experience- If you're not upgrading yourself, find an IBM Business Partner NOW!



ARE YOU READY TO UPGRADE TO MAS?

Upgrade Readiness

- Perform a MAS Upgrade Readiness Assessment
- What version are you currently on?
 - Cannot upgrade from MX 7.6.0.x , 7.6.1, or 7.6.1.1. Upgrade from either 7.6.1.2 or 7.6.1.3
 - Are you running FedRAMP Authorized version of 7.6??
- Which MAS apps will you implement?
 - Manage? Health? Monitor? Predict?
 - Do you need to replace legacy work centers?
 - Consider your mobility strategy in light of Maximo Mobile and other 3rd party mobility solutions
- What license types will you need?
 - Limited? Base? Premium?
 - Concurrent versus Authorized/reserved
- How many AppPoints are required?
 - Review existing user permissions and access
 - Utilize AppPoint tooling in legacy Maximo to estimate MAS AppPoint requirements







Upgrade Readiness

- Where to deploy?
 - On-prem?
 - Do you have necessary Red Hat skills?
 - Review hardware sizing and adjust for increased resource requirements
 - Time to move to the Cloud?
 - Which Cloud?
 - Security considerations if moving to the Cloud
 - Backup, availability, Disaster Recovery offerings
- Review Integrations
 - MAS uses API keys for web-based interactions-may require changes in integration(s) authentication and construction methods
 - JMS queues replaced by Kafka
- Customizations
 - Review and determine if need to be modified or replaced with new function or automation scripts







- Do you have all the right stakeholders in the room?
- Have you verified all your 3rd party solutions are MAS compatible?
- Have you scoped out the upgrade Level of Effort (LoE)?
- Do you have a plan for user acceptance and training?
- Testing scope & effort?
- Do you need a sandbox environment for users, others?
- Do. You have a Post Go Live Support plan?

Have a clear, defined upgrade project plan!







Technology Shifts





| Annual Break Annual | | | | | | | 1. A.L. A. |
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| Users | Inbox / Assignments | | | | | | 0 = X |
| Security Groups | Description | Due Date | Priority | Start Date | | Route | Refresh |
| People | | | No Assignments found for | Mike Wilson | | | |
| Person Groups | | | | | | | |
| | KPI Graph | | | | | | 0 = X |
| Workflow Configuration 🥔 😑 : | C Last Run: 2/29/08 3:01 PM | | | | | | Update |
| Workflow Designer | | | S | tatus KPI | Actual | Target | Variance |
| Roles | Current User Sessions | | | Current User Sessions | 1 | 500 | -499 |
| Actions | 300 | 400 500 600 700 | | | | | |
| Communication Templates | 200 | 800 | | | | | |
| Workflow Administration | 100 | -90 | | | | | |
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MAS Infrastructure







MAS Licensing Model

The Licensing Model for MAS has completely changed

- Your existing licenses convert to a pool of AppPoints
- AppPoints can be Authorized or Concurrent User Licenses
- Real-Time License Usage is now tracked and enforced
- What do you need? How do you tell?
- Run MAS License Utilities
- Authorized vs. Concurrent Users
- All new Functionality requires AppPoints

IBM or your license provider can give you a quote for your AppPoint conversion



MAS Application License Model



FedRAMP



- MAS 8.11 is now FISMA compliant
 - Allows for 3rd party hosting path forward
- MAS SaaS FedRAMP 1H2025
 - On AWS Gov Cloud
 - Support for MAS Manage only on initial launch
- Maximo SaaS FedRAMP
 - End of Market (EOM) planned announce in April 2024, effective July 2024
 - End of Support (EOS) moved to 2027, giving time for existing customers to move to the future MAS FedRAMP offering
 - IBM Development to support 7.6.x for Maximo SaaS FedRAMP through 2027





Upgrade Tooling

- MAS Infrastructure Sizing
- Customization Tool
- Integrity Checker
- AppPoint calculator utility
- AppPoint 'Magic' scripts



interloc maximo: mobility. cloud.

MAS Upgrade Overview





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Useful Links

- <u>Product Lifecycle for Maximo 7.6.1.</u>x
- End of Interim Fixes Maximo 7.6.1.2
- End of Support for Maximo 7.6.1.x
- IBM Subscription & Support Overview
- <u>Upgrading from Maximo Asset Management to Maximo Application Suite</u>
- IBM Community for Asset & Facilities Management
- <u>Maximo Application Suite product Documentation</u>
- MAS Installation, Upgrade, and Deployment
- MAS and Red Hat OpenShift
- <u>New IBM Support Offerings</u>
- IBM Licensing Terms



Thank You



Backup

Key RedHat Concepts & Terms



- A node is a bare-metal or virtual server in a Kubernetes cluster
 - Worker nodes host the application containers (grouped in Pods)
 - Control plane node runs the services required to manage the Kubernetes cluster
- Single Node OpenShift (SNO)
 - A single-node cluster with no high availability and limited resources/user size
 - For MAS, SNO is only for Maximo Manage application
- Pod
 - A pod is a collection of one or more application containers with shared storage and networking resources
- Deployment
 - A collection of pods that make up individual application workloads for user consumption
- Cluster
 - A cluster is a collection of nodes/hosts associated with a specific deployment
 - At minimu, clusters have 2 worker nodes and 3 control plane nodes
- Project
 - Delineation of content within OpenShift Container Platform





RedHat Architecture



RedHat Architecture



OpenShift Architecture DiagramApplication Lifecycle
ManagementRed Hat OpenShift
KubernetesOrchestrationRed Hat Enterprise Linux/Linux CoreOS(v4)/CentosInfrastructureBare Metal/VMs/Cloud Provider

Single Noden OpenShift (SNO)



Single Node OpenShift (SNO) is a configuration of a standard OpenShift cluster that consists of a <u>single</u> control plane <u>node</u> that is configured to run workloads on it.

This configuration offers both control and worker node functionality, allowing users to deploy a smaller OpenShift footprint and have minimal to no dependence on a centralized management cluster.

No high-availability and only supports **Manage** at the moment.





IBM MAS Deployment Options

| Deployment | Availability | Procure | Provision & Operate | Client Benefits |
|----------------------------------|--|---|---|--|
| On Premise Customer Managed | Now | Client purchases MAS from IBM Client provides infrastructure | Client provisions, manages, and operates full stack | Maximum operational flexibility |
| Hyperscalers Customer Managed | Now AWS 1Q22 Azure 2Q22 Now AWS 3Q22 Azure 4Q22 | BYOL Client purchases software from IBM and infrastructure from Hyperscalers Paid (Marketplace listing) Client purchases software and infrastructure from Hyperscalers | Client runs IBM-provided automation scripts to deploy MAS on Hyperscalers' cloud Client manages and operates both software and infrastructure | Simplifies procurement and deployment Allows client to select their Hyperscalers Flexibility for clients to manage and operate their environment |
| SaaS IBM Managed | Now AWS 3Q22 | Client purchase single part (includes software, infrastructure, and operations) from <u>either</u> IBM or AWS Marketplace | IBM provisions, manages, and operates Client's MAS environment on AWS Cloud using IBM's AWS cloud account | Reduced time-to-value Reduced operational costs Allows clients to focus on business priorities |



IBM MAS SaaS Options



- Minimum operational flexibility
- Suitable for small on-premises EAM clients



Upgrade Process





Maximo 7 Parts & Licensing Agreements



New PassPort Advantage part purchase required

Maximo 7 Extended Support Year 1



(9/30/25-9/30/26)







Critical/Severity 1 defects in the first year (cumulative fix)



No new proactive security fixes will be provided



No new development analysis of new defects (excluding Sev1 in 1st year)





No new features or enhancements



No support for Supporting Programs and 3rd part components

Maximo 7 Sustained Support 5 Years



(Through 9/30/30)





Access to documentation, technotes & other online product material





Provide existing code patches and fixes



Unlimited number of technical support incidents



Standard SLO's apply (example 24x7 severity 1)



No Critical/Severity 1 defects



No new proactive security fixes will be provided



No new development analysis of new defects





No new features or enhancements



No support for Supporting Programs and 3rd part components

761x Parts and Licensing - Comparison Chart 6 interloc

Customers on EAM 761x Parts and Licensing - Comparison Chart

| | NEW Extended Support (1st year – Sept 30, 2025 to Sept 30, 2026) | NEW Sustained Support (5 years up to Sept 30, 2030) |
|---|---|--|
| Support for routine Usage and How-to questions | ✓ | ✓ |
| Basic Troubleshooting | √ | ✓ |
| Access to documentation, technotes & other online product material | ✓ | ✓ |
| Standard SLO's apply (i.e., 24/7 severity 1) | ✓ | ✓ |
| Unlimited number of technical support incidents | ✓ | Image: A second s |
| Provide existing code patches and fixes | √ | ✓ |
| Critical Sev 1 defect fixes in first year (delivered via cumulative ifix) | ✓ | x |
| New patches or ifixes | X | X |
| Proactive security fixes | X | X |
| New features or enhancements | X | X |
| New development analysis of new defects (excluding Sev1 in 1st year Extended) | X | X |
| New support for Supporting Programs and 3 rd part components | x | x |



New lifecycle for MAS: 3+1+3 with 12-month release cadence **Please review MAS SaaS policies for their release cadence

June 2023 October 2024 March 2026 July 2027 December 2028 April 2030 August 2031 January 2033 May 2034 MAS 8.9 MAS 8.10 (LTS) MAS 8.11 (LTS) MAS 9.0 Milestone Channel (Previews of 9.1.0) MAS 9.1 Milestone Channel (Previews of 9.2.0) MAS 9.2 Milestone Channel Milestones (Previews of 9.3.0) MAS 9.3 Follow 3+1+3 lifecycle Release every 12 months (9.x) Monthly maintenance updates for 36months (Base Support) *Usage + Existing & Sev1 Critical Defect Fixes • Initial Extended Support for another 12 months *Usage + Existing Fixes · Ongoing Extended Support for another 36months * Terms and Conditions of Extended Support • Milestone Channel to explore new features in non-production Builds in the milestone channel have short term availability and would never be 'fixed'

Note: EAM customers on 7.6.0.10/7.6.1.2/7.6.1.3 will be able to directly upgrade to 9.x All MAS sub-components (i.e., Manage , IS/Add-ons, Health, etc.) will now align to the release version - for example 9.0



Introducing Maximo Application Suite v9.0 -Targeted GA June 2024

What does it mean?

Traditionally, a change to the version number of software indicates an impactful technical or functional difference from the prior release. This is<u>not</u> the case for MAS!

MAS 9.0 will provide:

- Introduction of a new 3+1+3 Lifecycle Policy
- Standardization of MAS product versioning which simplifies and aligns across the MAS portfolio
 - All MAS products (including Maximo Manage, Monitor, Health and Predict) will utilize the same version number within each release. (e.g., MAS 9.0 will contain Maximo Manage 9.0 and Maximo Health 9.0)





| What's New in N for Manage – cu | MAS 8.11 Irrent release | Manage FISMA Readiness Accessibility Compliancy for Manage core, Industry Solutions and Add-ons Continued work on Continuous Delivery items (CICD) and Operator maturity level items Setting Users to Active/Inactive at MAS level | Maximo Mobile New Inventory Issues App Asset app now supports viewing assets in a map, as well as to classify and edit asset specifications in offline mode Performance enhancements on Technician and Inspection apps Deprecation of Parts Identifier Enhancements at the Platform level: Shared device cleanup Switch sites from the device NFC scanning EAudit moment support (capture when changed happened) |
|---|---|--|---|
| Dispatching Dashboard Dashboard KPI view Optimization Action Optimization Report Gantt View visualization Assignment Issues Emergency Work Order definition Emergency Optimization parameters Scheduling Dashboard Resource Leveling improvements My Commit updates | Operational Dashboard Addition of KPI Trend card Addition of KPI Bar Chart card Addition of Work Queue card Addition of integrated Manage/Health KPI Addition of builder capability to edit the dashboard Work Orders Extended edit capability Addition of Communication Log Map view on WO List page for Spatial users New Work Queue Manager | SpatialNew Tools:1 – Show Related Records2 – Result Tool/Panel3 – Batch Attribute Editor4 – Home Button5 – Sync Tool – Operation ReportEnhancements:• Performance on map load and ESRI integration• Offline map Performance• UI enhancement on Mobile and Desktop versions | Civil Infrastructure New 2D Stitching service Manually create defect polygon without MVI model Filter inferences by confidence level Usability improvements to defect management process Usability improvements to Operational maps in support of Possession/Closure process |

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