MAS Upgrade Considerations

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Interloc Solutions

Starting Your Journey to MAS

- The future of Maximo 7
- Preparation is the key to a successful upgrade
- New functionality & capabilities
- The Licensing model has changed significantly
- The technology and necessary skills have changed dramatically
- Where to turn for assistance

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.
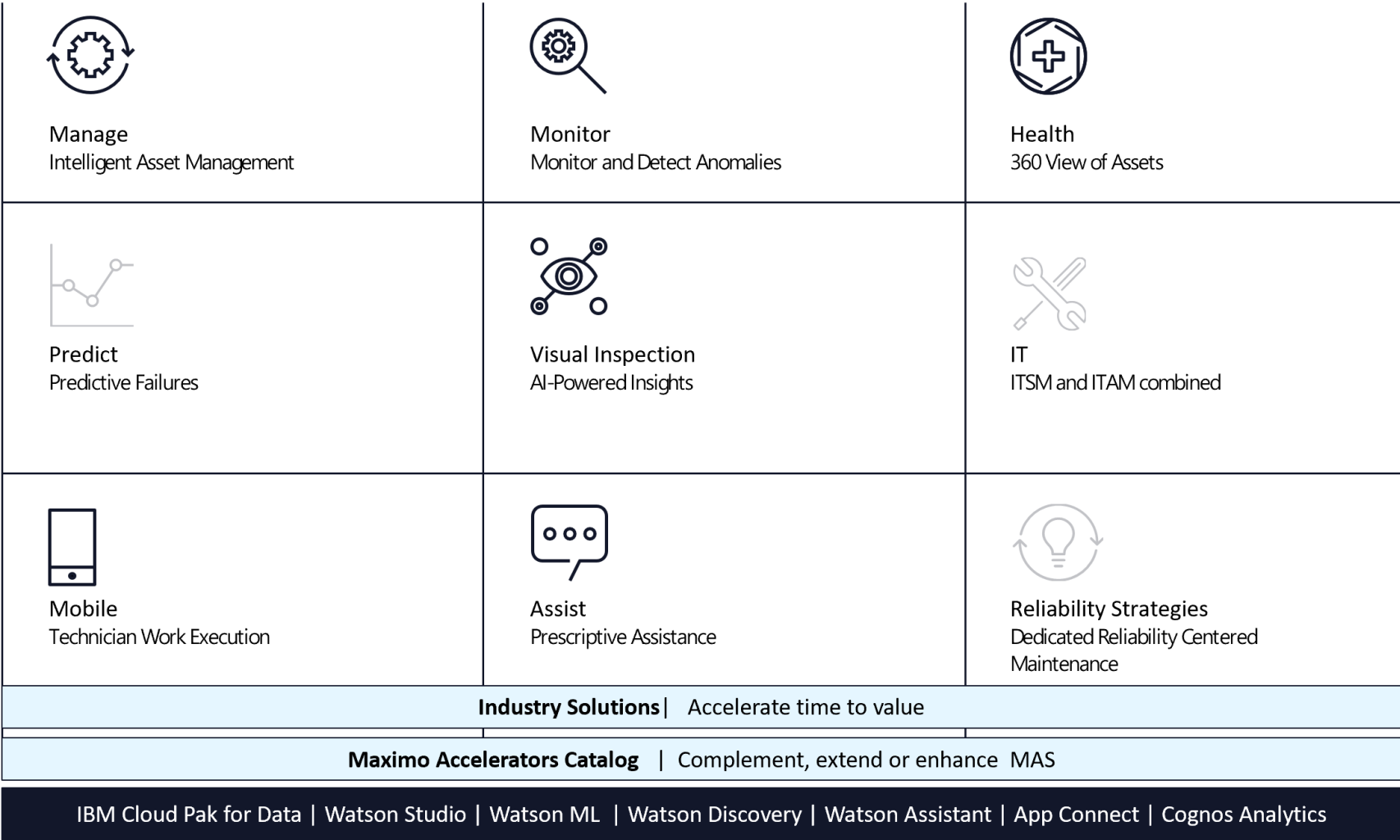
MAS Applications & Technologies

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Maximo Application Suite

Best-of-class capabilities to provide complete view of your assets addressing the needs of key personas in your organization.

- Technicians
- Technician Supervisor
- Asset Maintenance Manager
- Plant Manager
- Fleet Manager
- Operations Manager
- Reliability Engineer
- Quality Manager
- Planners / Schedulers
- Dispatchers
- Purchasing Managers

Manage
Intelligent Asset Management

Monitor
Monitor and Detect Anomalies

Health
360 View of Assets

Predict
Predictive Failures

Visual Inspection
AI-Powered Insights

IT
ITSM and ITAM combined

Mobile
Technician Work Execution

Assist
Prescriptive Assistance

Reliability Strategies
Dedicated Reliability Centered Maintenance

Industry Solutions| Accelerate time to value

Maximo Accelerators Catalog | Complement, extend or enhance MAS

IBM Cloud Pak for Data | Watson Studio | Watson ML | Watson Discovery | Watson Assistant | App Connect | Cognos Analytics

Red Hat OpenShift

Infrastructure Independent
Common Operating Environment

IBM Cloud   AWS   Azure   Google Cloud   Private   Edge   Systems

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	April 30, 2024	September 30, 2025
Maximo 7.6.1.1	Not available	December 11, 2022		
Maximo 7.6.1.2	Yes	December 2023 – TBD		
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.
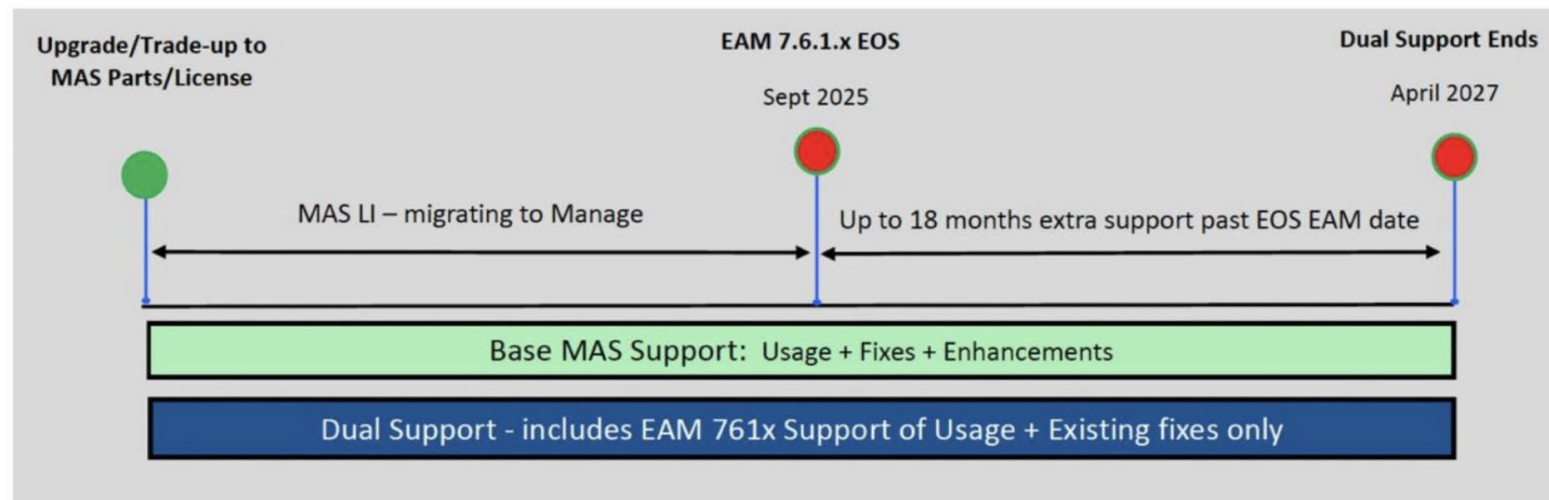
IBM Sustained Support: Enables clients to continue to get support for "how to" questions, usage issues, and known defects published in IBM Fix Central after IBM standard/extended support ends for 7.6.1.x. IBM Sustained Support does not include support for new defects or new security fixes.

Maximo 7.6.1.x product Life Cycle

	DESCRIPTION	DATE
Announce End of Market (EOM & EOS)	Announcement Letter published	April 12, 2022
End of Marketing (EOM)	Parts are no longer available for purchase	April 19, 2024
End of Support (EOS)	Update Support Plans and Lifecycle page	Sept 30, 2025

R 7.6.1

Must be on v7.6.1.3

| GA July 2018 | EOM/EOS Announced April 2022 | EOM April 2024 | End of Life Sept 2025 | Extended Support Option Sept 2026 | Sustained Support Option Sept 2030 |

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.

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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.

Timeline diagram:

Upgrade/Trade-up to MAS Parts/License	EAM 7.6.1.x EOS — Sept 2025	Dual Support Ends — April 2027

MAS LI – migrating to Manage

Up to 18 months extra support past EOS EAM date

Base MAS Support: Usage + Fixes + Enhancements

Dual Support - includes EAM 761x Support of Usage + Existing fixes only

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!
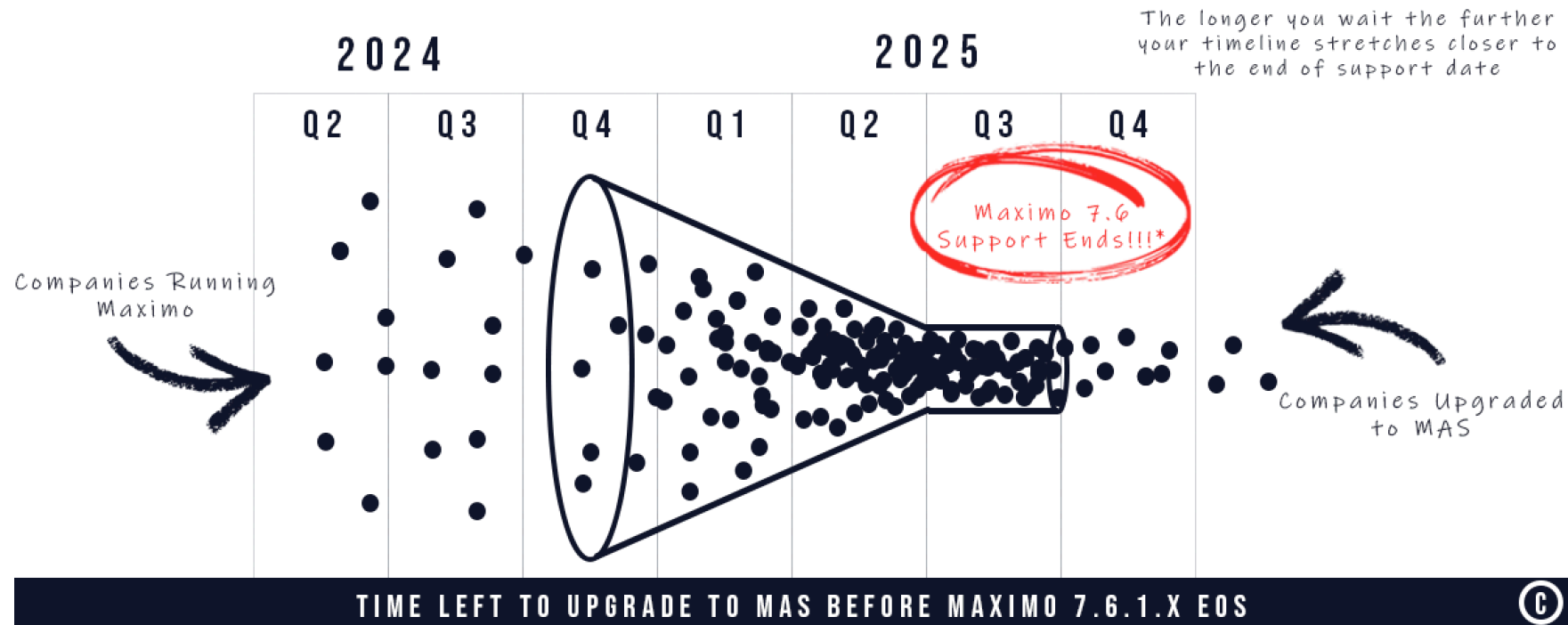
Upgrade Readiness

- 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

Upgrade Readiness

- Is this the time to review your data and archive?

- 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

Legacy Maximo
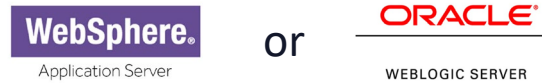
MAS
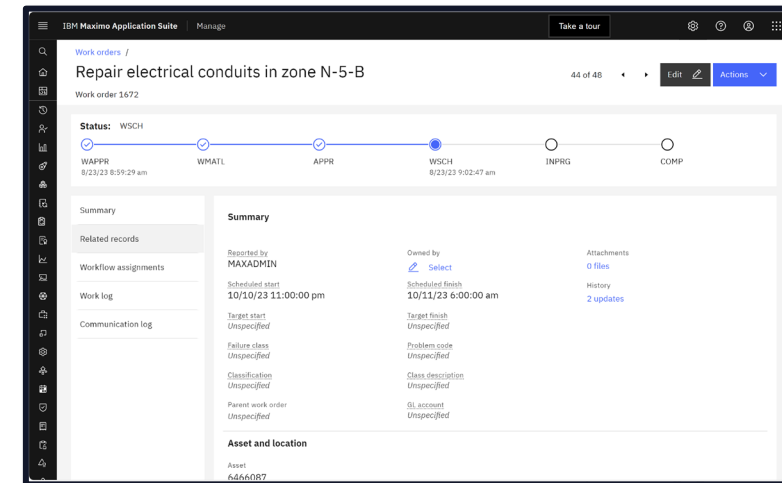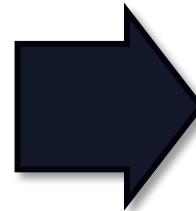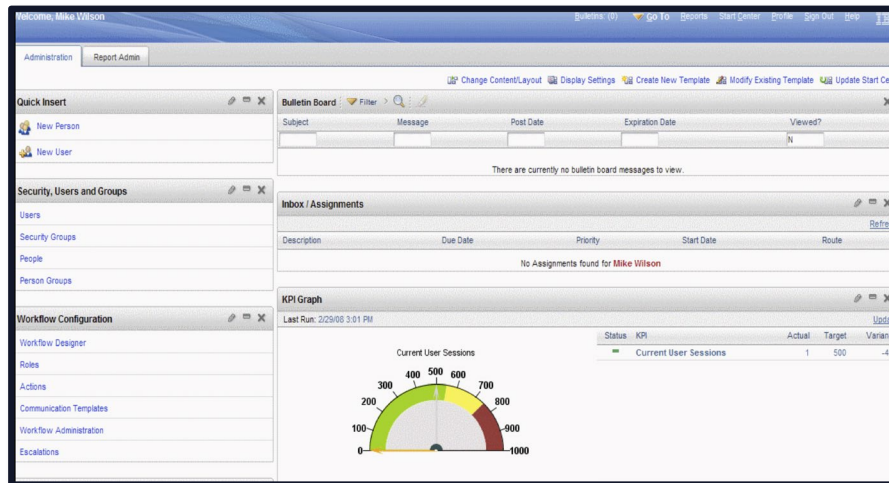
MAS Infrastructure

- Legacy Maximo
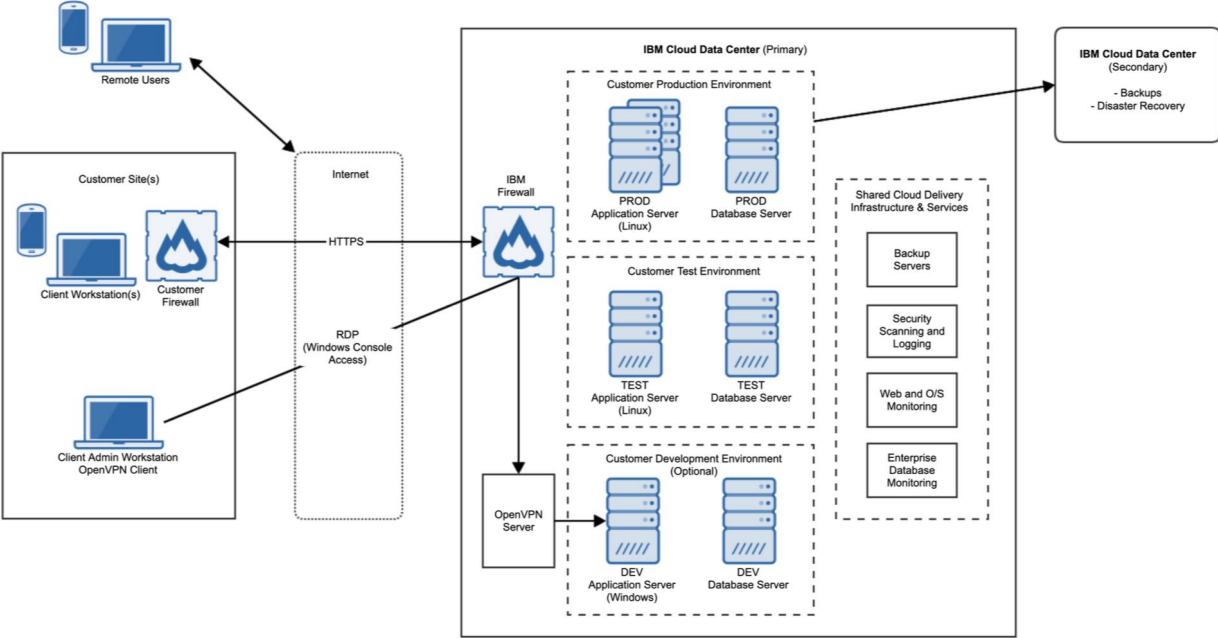
- Maximo Application Suite
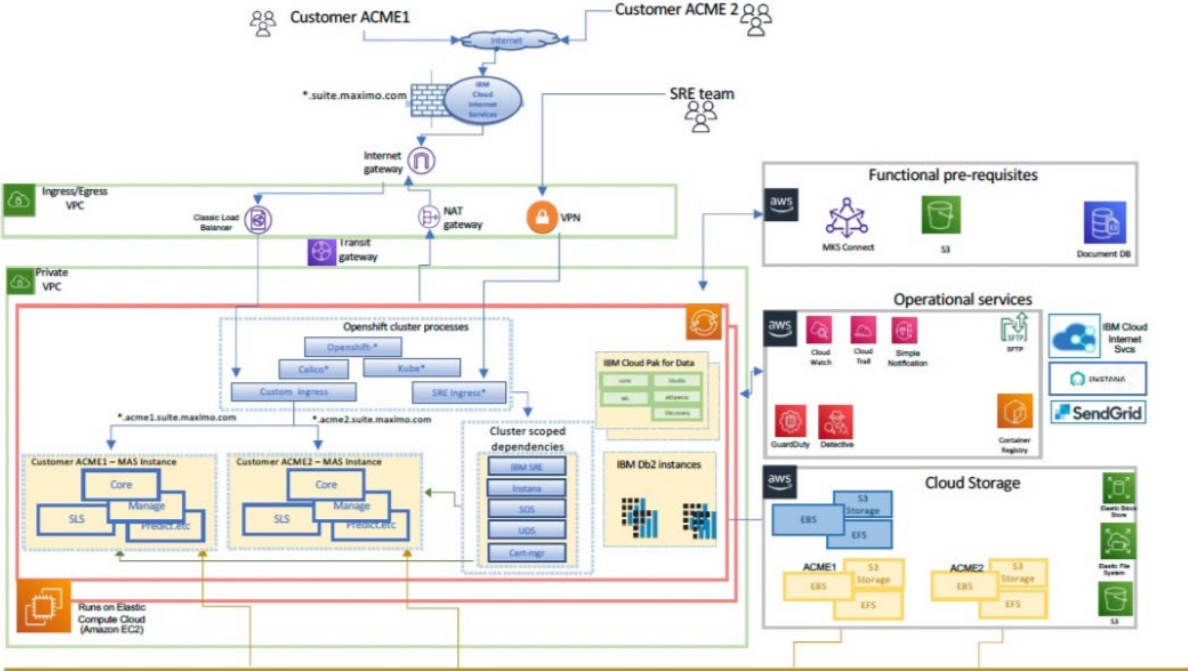
MAS Licensing Model

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

- 4 User types
- Authorized & Concurrent
- Install based

Self Service User

Free
0 AppPoints

Self Service Applications
- Service Requests
- Desktop Requisitions
- Requests (Oil & Gas)
- Create/Review Incidents (HSE)
- Vehicle Requests (Transportation)
- Graphical Appt Book (Scheduler)
- Bill review (Service Provider)

Limited User

Concurrent
5
AppPoints

Authorized
2
AppPoints

3 Modules:
- Manage
- Manage Industry Solutions
- Manage Add-ons

Mobile
- Maximo Mobile
- Assist
- 3rd Party

Monitor

Base User

Concurrent
10
AppPoints

Authorized
3
AppPoints

Manage
Includes:
- Linear
- Calibration
- Spatial (requires install)
- Scheduler

Health

Premium User

Concurrent
15
AppPoints

Authorized
5
AppPoints

Manage
Industry Solutions
- Oil & Gas, Aviation, Transportation, Utilities, Nuclear, Civil Infrastructure

Add-ons
- Asset Configuration Manager, Service Provider, Health, Safety & Environment

Predict
Health and Predict - Utilities
Visual Inspection

Install – 1 AppPoint (x multiplier) Production Only	SAP/Oracle/Workday Connector (x80)	Spatial (x20)	Civil Infrastructure (x50)	Visual Inspection (x45) Edge (1)	Assist (x150)	Health & Predict Utilities (x60)	Optimizer / Optimizer Limited (x220) / (x60)

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

MAS Upgrade Overview

Useful Links

- Product Lifecycle for Maximo 7.6.1.x

- End of Interim Fixes Maximo 7.6.1.2

- End of Support for Maximo 7.6.1.x

- IBM Subscription & Support Overview

- Upgrading from Maximo Asset Management to Maximo Application Suite

- IBM Community for Asset & Facilities Management

- Maximo Application Suite product Documentation

- MAS Installation, Upgrade, and Deployment

- MAS and Red Hat OpenShift

- New IBM Support Offerings

- IBM Licensing Terms

Thank You

# Backup

Key RedHat Concepts & Terms

- Node
  - 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
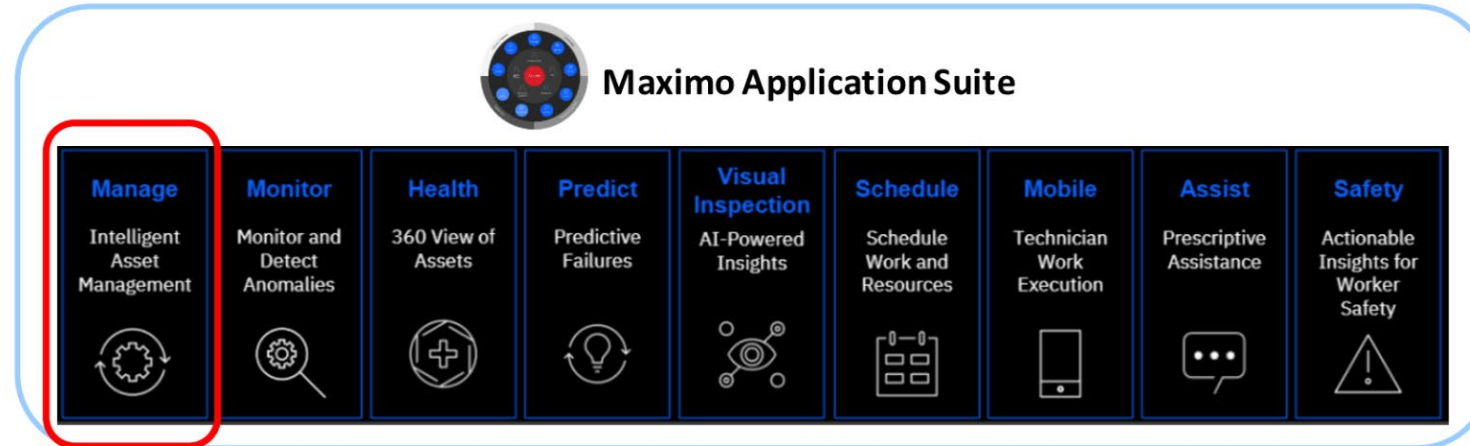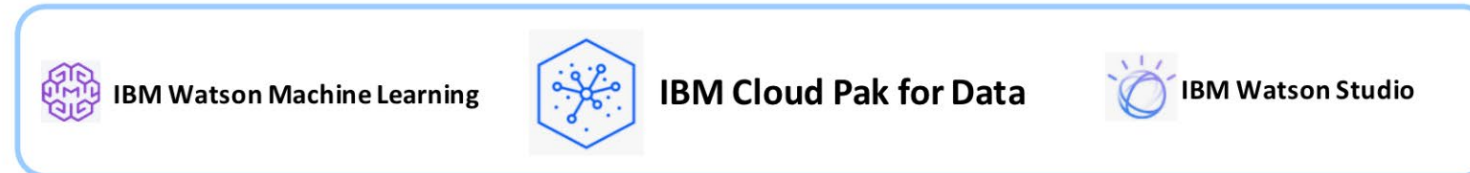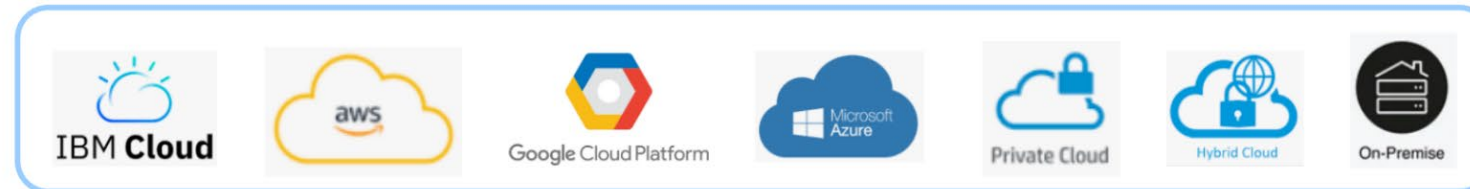
RedHat Architecture
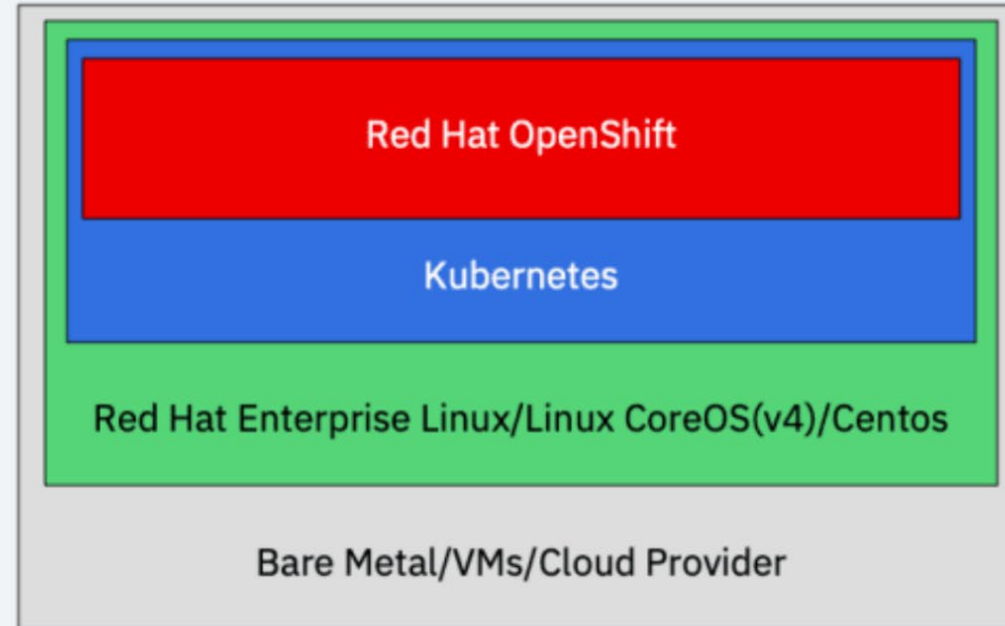
Single Noden OpenShift (SNO)

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.
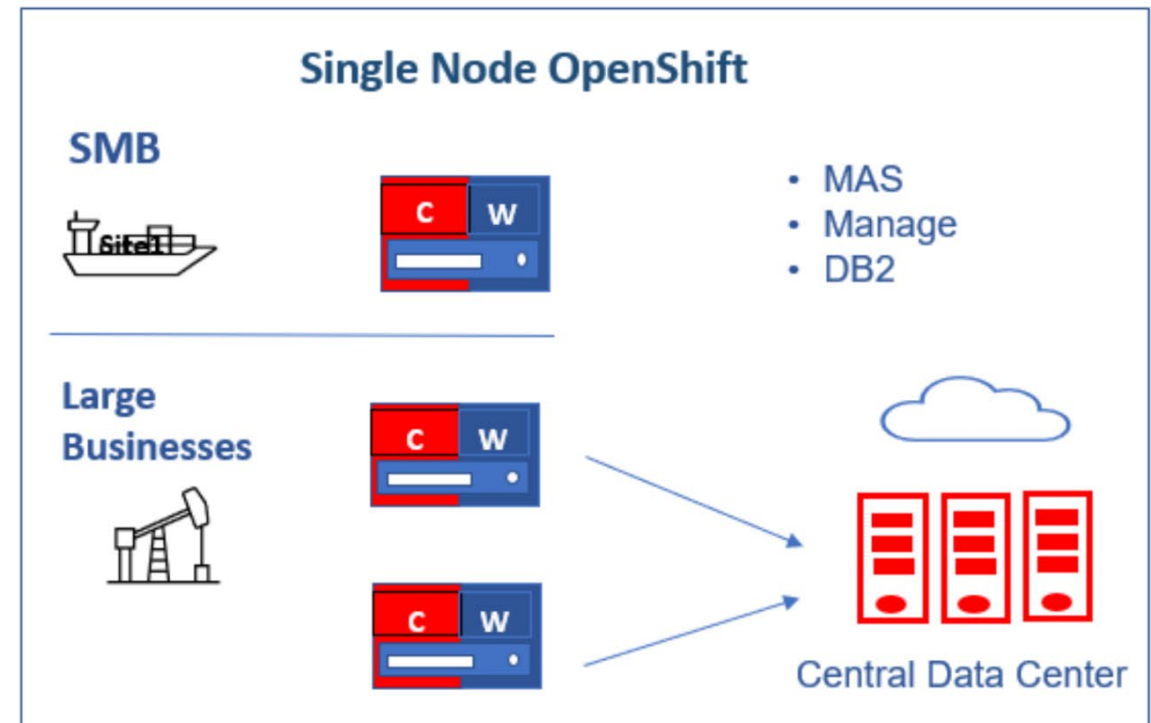
IBM MAS Deployment Options

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	**BYOL** Client purchases software from IBM 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
	Now AWS 3Q22 Azure 4Q22	**Paid (Marketplace listing)** Client purchases software and infrastructure from Hyperscalers		
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

New MAS SaaS Tiers

PREMIUM

Advanced options for clients with specific requirements

- Starting at about $150K per year[1]
- Selection of advanced purchase options[2]
- Broad operational flexibility options[2]
- Tailored configurations for complex deployments
- SaaS alternative to MAS Dedicated

STANDARD

Current MAS SaaS offering

- Starting at about $75K per year
- Select additional purchase options available
- Limited operational flexibility
- Best option for most SaaS Flex clients

ESSENTIALS

Entry level offering for new SaaS clients

- Starting at less than $40K per year
- Fixed configurations at a fixed price
- Minimum operational flexibility
- Suitable for small on-premises EAM clients

Upgrade Process

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What Does The Upgrade Process Look Like?

Upgrade to the minimum Maximo 7.6.1.x level

Duplicate or Backup your existing Maximo Product database

Create customization .zip archive, including TRM Rules CA

Red Hat

Install and configure MAS in RHOS environment

Deploy then configure Manage

Many steps here

Activate Manage (Database upgraded, customizations applied)

Deploy and Activate other components

Test, then enable Production deployment

Formerly known as, "The Playbook"
https://www.ibm.com/docs/en/maximo-manage/continuous-delivery?topic=upgrading-from-maximo-enterprise-asset-management-maximo-manage

https://www.ibm.com/docs/en/mas-cd/continuous-delivery?topic=planning-upgrade-checklist

https://www.ibm.com/docs/en/mas-cd/continuous-delivery?topic=upgrading-from-maximo-asset-management-maximo-manage

Maximo 7 Parts & Licensing Agreements

Sustained Support: Replaces Base S&S Support	Extended Support: available for first year after EOS date
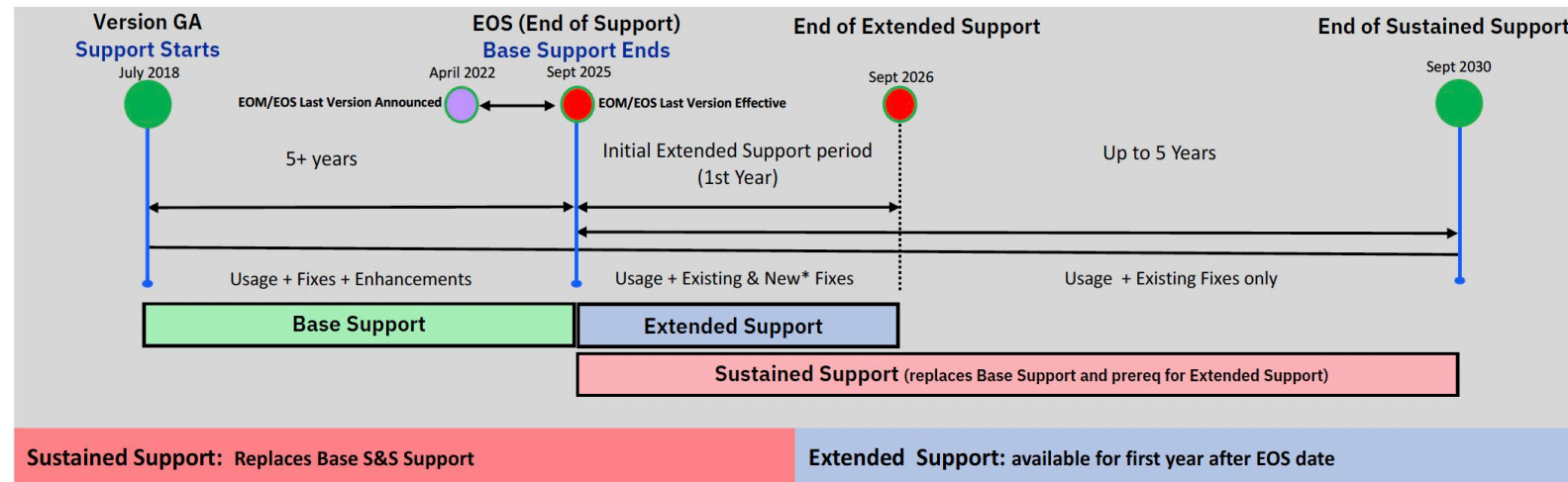
- Available up to 5 years after EOS date – ends Sept 30, 2030.

- Available for the last supported version and fix pack.
  - EAM 7613 and latest IS/Add-on releases/fix pack

- Support access for usage and existing fixes only, no security fixes.

- New PassPort Advantage part purchase required

- Extended Support is be sold with Sustained Support.

- Available for 1 year after EOS date – ends Sept 30, 2026.

- Available for the last supported version and fix pack.
  - EAM 7613 and latest IS/Add-on releases/fix pack

- Support access for usage, existing and new critical Sev1 bug fixes, no proactive security fixes.

- New PassPort Advantage part purchase required

Maximo 7 Extended Support Year 1

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

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Support for routine Usage and How-to questions

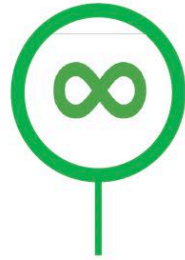Provide existing code patches and fixes

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

No new patches will be provided

Access to documentation, technotes & other online product material

Unlimited number of technical support incidents

No new proactive security fixes will be provided

No new features or enhancements

Basic Troubleshooting

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

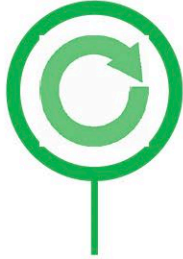No new development analysis of new defects (excluding Sev1 in 1st year)

No support for Supporting Programs and 3rd part components

Maximo 7 Sustained Support 5 Years

(Through 9/30/30)

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Support for routine Usage and How-to questions
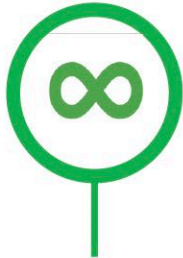
Provide existing code patches and fixes
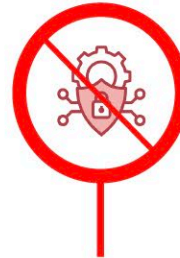
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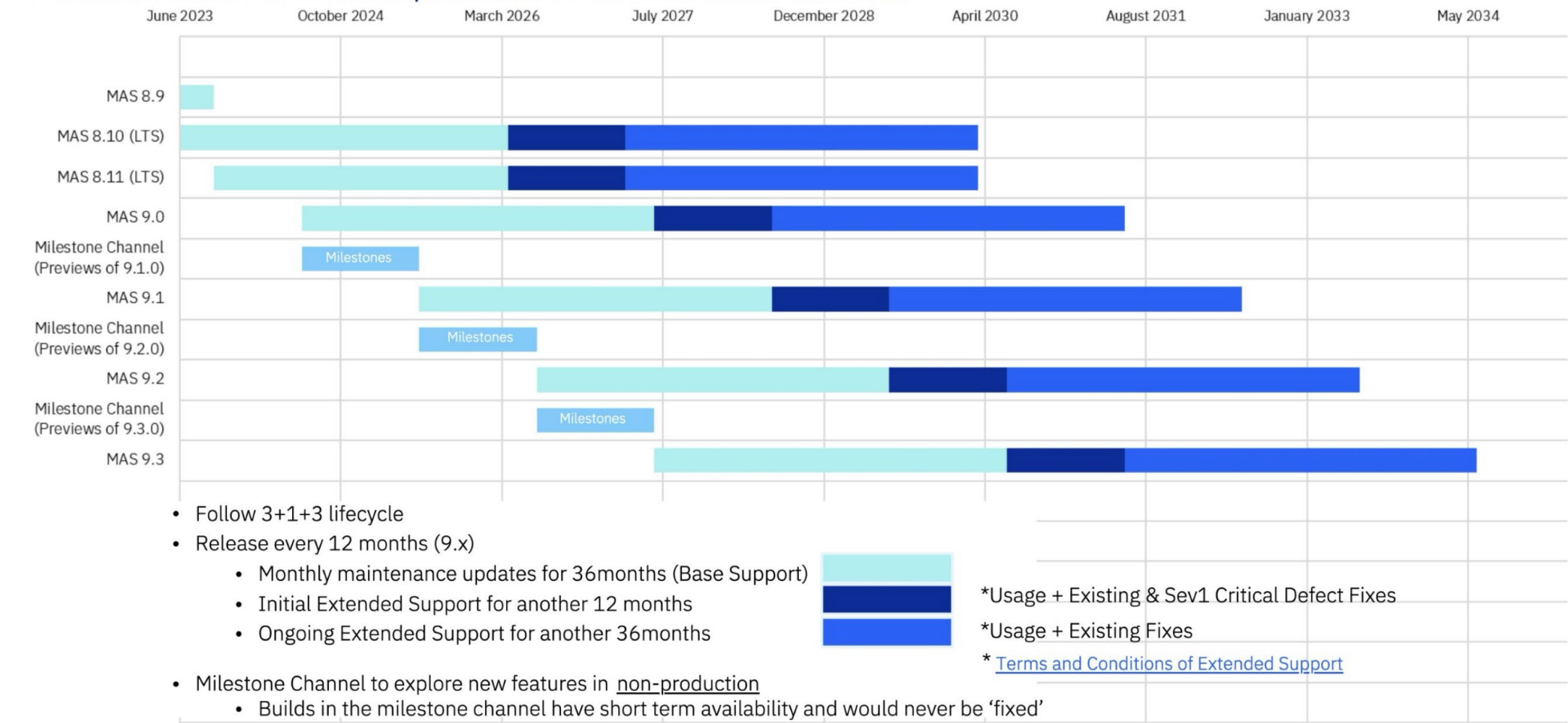
761x Parts and Licensing - Comparison Chart

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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	✔	✔
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 3rd 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

- Follow 3+1+3 lifecycle
- Release every 12 months (9.x)
  - Monthly maintenance updates for 36months (Base Support)
  - Initial Extended Support for another 12 months
  - Ongoing Extended Support for another 36months
- Milestone Channel to explore new features in <u>non-production</u>
  - Builds in the milestone channel have short term availability and would never be 'fixed'

*Usage + Existing & Sev1 Critical Defect Fixes

*Usage + Existing Fixes

* Terms and Conditions of Extended Support

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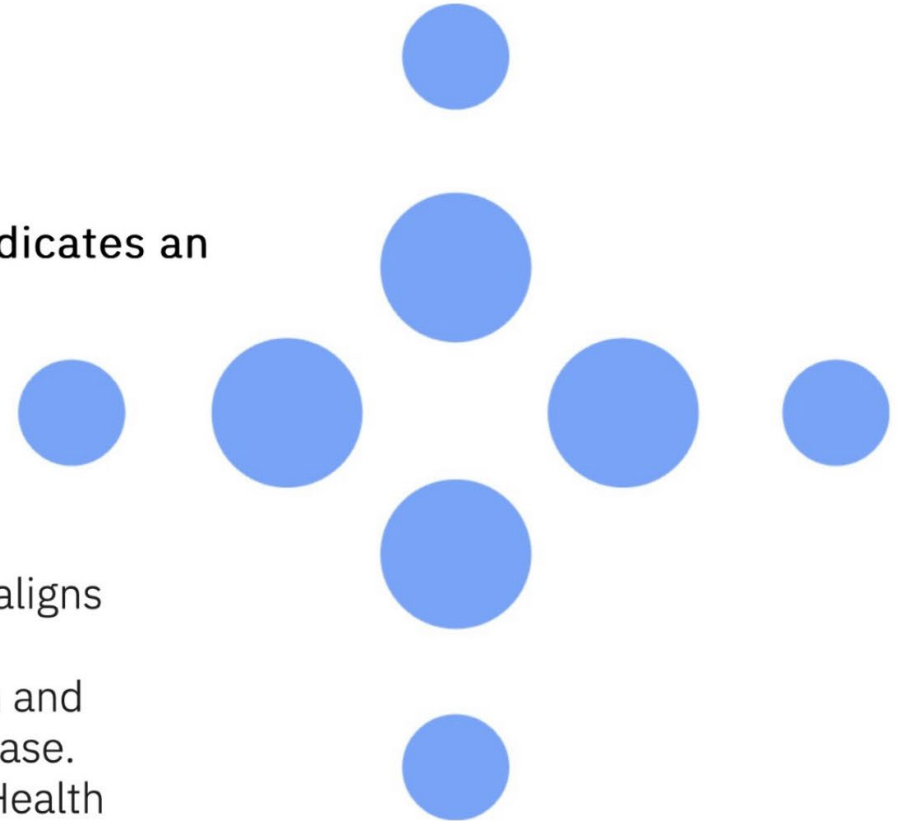
Introducing Maximo Application Suite v9.0
-Targeted GA June 2024

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!

<u>MAS 9.0 will provide:</u>

- 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 MAS 8.11 for Manage – current 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

Spatial
New Tools:
1 – Show Related Records
2 – Result Tool/Panel
3 – Batch Attribute Editor
4 – Home Button
5 – Sync Tool – Operation Report

Enhancements:
- 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

New Work Queue Manager admin application

15