

MAS Upgrade Considerations

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Agenda

- Introducing MAS 9
- Legacy Maximo Support
- •Upgrade Readiness
- •MAS Licensing
- •Q&A





Introducing Maximo Application Suite v9.0

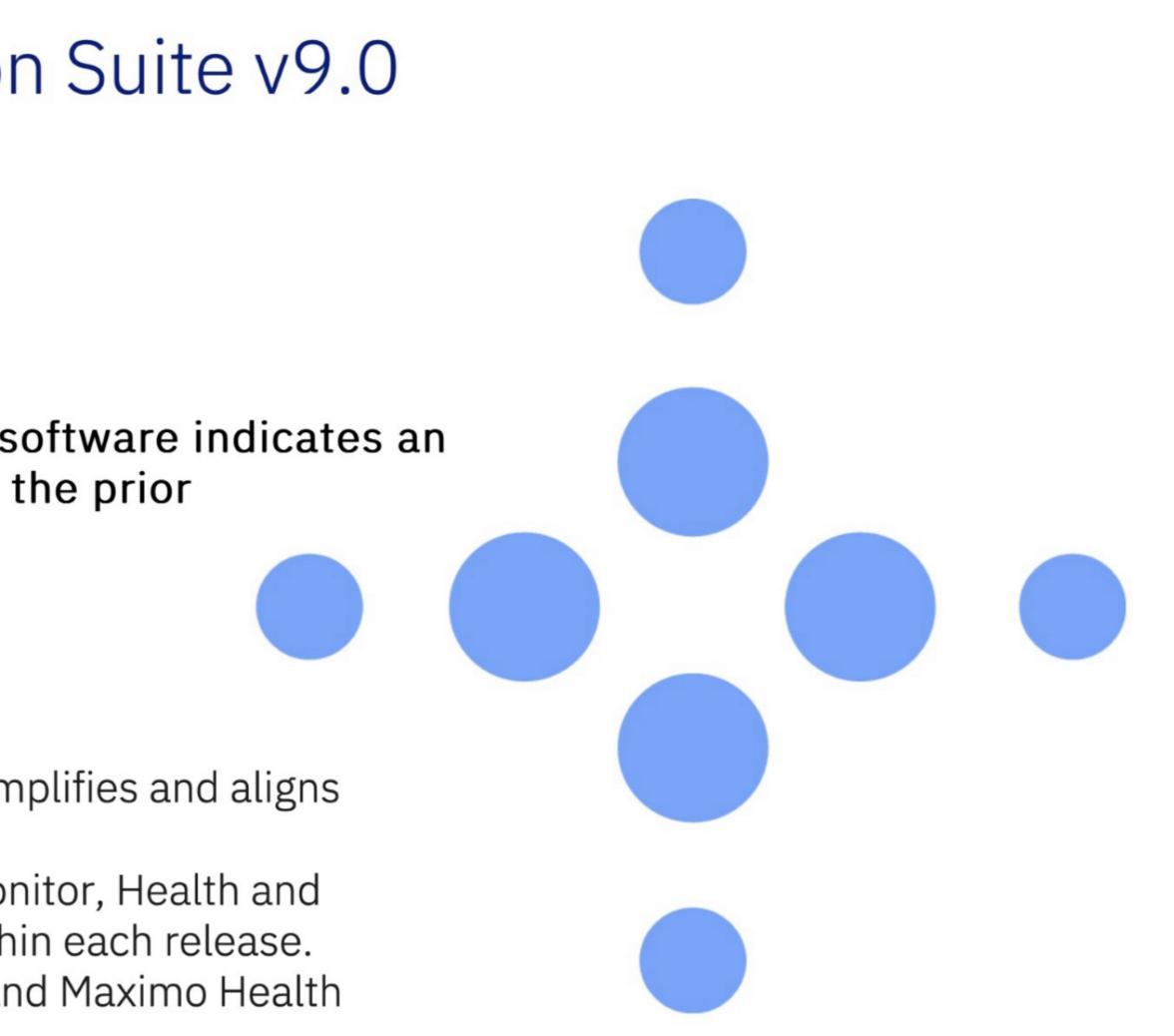
What does it mean?

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)





MAS Applications & Technologies

Maximo Application Suite

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



Manage Intelligent Asset Management

Predict Predictive Failures

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



Mobile Technician Work Execution

Maximo Acc

IBM Cloud Pak for Data | Watson Studio

IBM Cloud

AWS





IBM Sustainability Software - 2024



Monitor Monitor and Detect Anomalies	Health 360 View of Assets
Visual Inspection AI-Powered Insights	IT ITSM and ITAM combined
ooo Assist Prescriptive Assistance	Reliability Strategies Dedicated Reliability Centered Maintenance
Industry Solutions Accelerate time to va	alue
celerators Catalog Complement, extend	or enhance MAS
o Watson ML Watson Discovery Watson	n Assistant App Connect Cognos Analytics
On an Chift	ucture Independent on Operating Environment
re Google Cloud Priv	

What's New in MAS 9.0 for Manage

Dispatching Dashboard

- Emergency Intelligent Assignment
 Workflow
- Integration with Mobile
- Gantt View Improvements
- Map Views of Technician's
 Scheduled Route
- Qualifications Scheduling Dashboard
- Qualifications
- Customer Work Week configurable
 start date
- Support for Multiple Email Address
- Adding Milestone to JP/JT
- Support for not splitting assignments in Graphical Work Week
- Support for gaps in Scheduling Compliance

Operational Dashboard

- New Dashboard Page object
- Creating and editing an Operational Dashboard page
- Multi-page dashboard layout and viewing
- Dashboards added to Security Groups application
- Walk-me content

Work Orders

• New tab on Work Orders RBA for Work Plans: tasks, labor,

Work Queues

- Work Queues supporting different object structures
- End user table column personalization extends standard queue configuration



 Manage New Inspection Form Builder App New Maximo Management Interface (MMI) App Enhancements to Configuration Tool Support for PODMAN deployment as an alternative to Docker Cognos 12 support Reliability Strategy Builder 	 Maximo Mobile Support for Calibration Work Orders Complex Asset Switch (ACM) Enhanced work order assignment updates - ability to accept/reject assignments Device location is now shared with dispatchers Quick WO reporting Support for Linear Assets Data synchronization and error handling updates Storeroom Apps – transferring inventory items, creating shipments and staging
 AI Work Order Intelligence New AI model, broker and inference objects to determine WO problem codes from textual input and store the top 3 results. Work Orders RBA surfaces the AI recommendations for review/accept Demonstration Work Queue surfaces the top recommendation for accept 	 Spatial Tools: Sketch Tool for Mobile Find My Location for Mobile Indoors on Desktop Query Tool enhancements (Save Query, Geofence + Alphanumeric Search) Configuration for Maximo Object Symbology (Icons, Pinpoints) Home Button Tool for Mobile Enhancements: UI Standardization (Mobile and Desktop) ESRI API Migration (New Version) Offline Maps Enhancements (up to 80% faster)

What's New in MAS 9.0 for Monitor, Visual Inspections, Health, Assist, IT and Accelerators

Monitor

- Redesigned the UI to fully integrate EDC and IoTp capabilities into a unified and intuitive user experience in a single user flow
- Easier to administer devices and gateways with detailed views of all the information they need such as connectivity relationships, hierarchy and operational status
- Includes a sample data stream that can be used in demos, trials and provide users with examples to test
- Enhanced Monitor with Workplace Analytics/integration with IBM TRIRIGA. Capabilities and dashboards designed to help space planners monitor and analyze how spaces are utilized

Visual Inspections

- Support GigE Vision cameras providing high-bandwidth, Power Over Ethernet (PoE), Plug-and-Play and Scalability
- Facial Redaction image blurring technology for MVI Edge outside the detection boxes
- Data Lifecycle Management policy manager providing flexibility to enable policies based on metadata and attributes to automate removing historical images and videos



 Health Mean Time Between Failure Identify and Correct Missing Asset Data for KPIs Health Made Easy with Out of the Box Score Calculations Maximo Models for Electric Transformers Health Accelerator Installation supports new automation and UI for MAS Accelerator download, installation, activation and deactivation (run-at) 	 Accelerators Know which accelerators are owned Simplify administration of accelerators Track status of any activated accelerators, including manually activated Know when an accelerator has a new version and what's in it Enhance trust and credibility with an accelerator certification program for partners
 Assist will no longer offer digitized document searching. Watson Discovery and Install AppPoint requirement are removed. Collaboration sessions WILL be supported. 	<list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item>

Key Product Life Cycle Dates

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 30,	September 30,
Maximo 7.6.1.2	Yes	December 2023 – TBD	30, 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

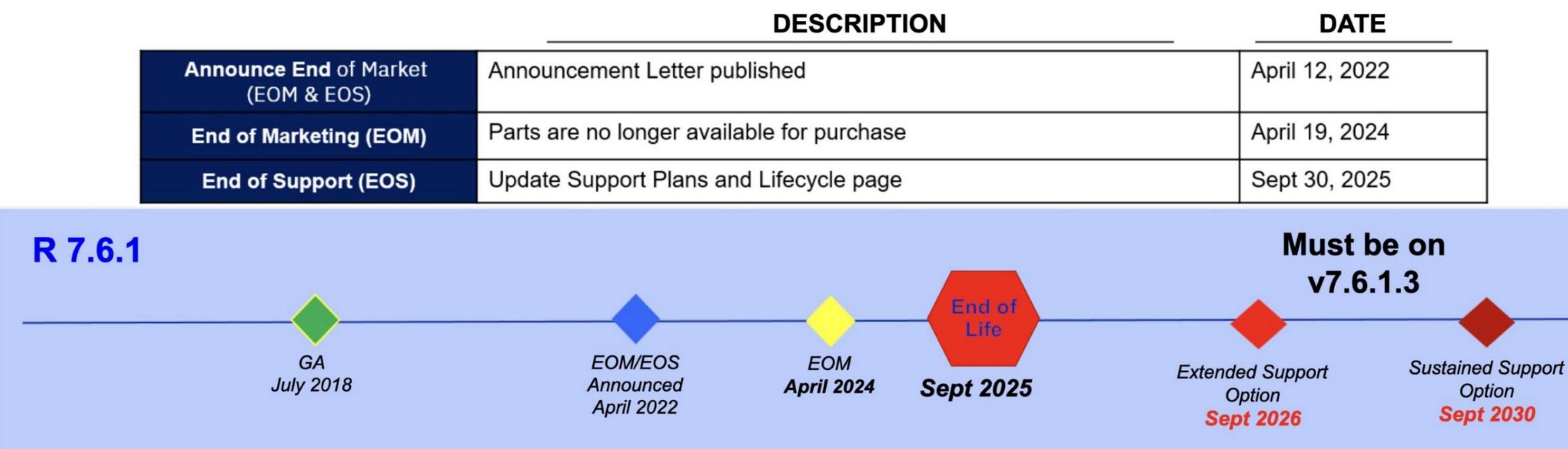
IBM Extended Support: Enables clients continued access to IBM Support for "how to" questions, usage issues, known defects published in IBM Fix Central, and new critical sev1 defects (no security fixes) after IBM standard support ends for 7.6.1.x.

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.

interloc



Maximo 7.6.1.x Support Options



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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.

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

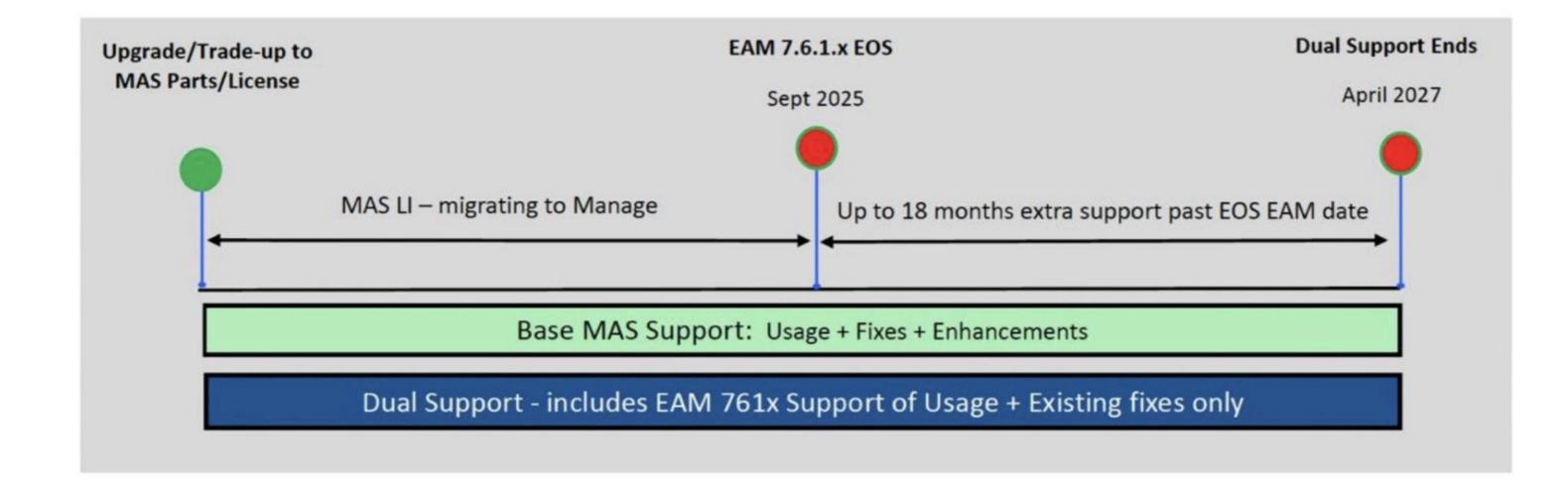




Dual Entitlement

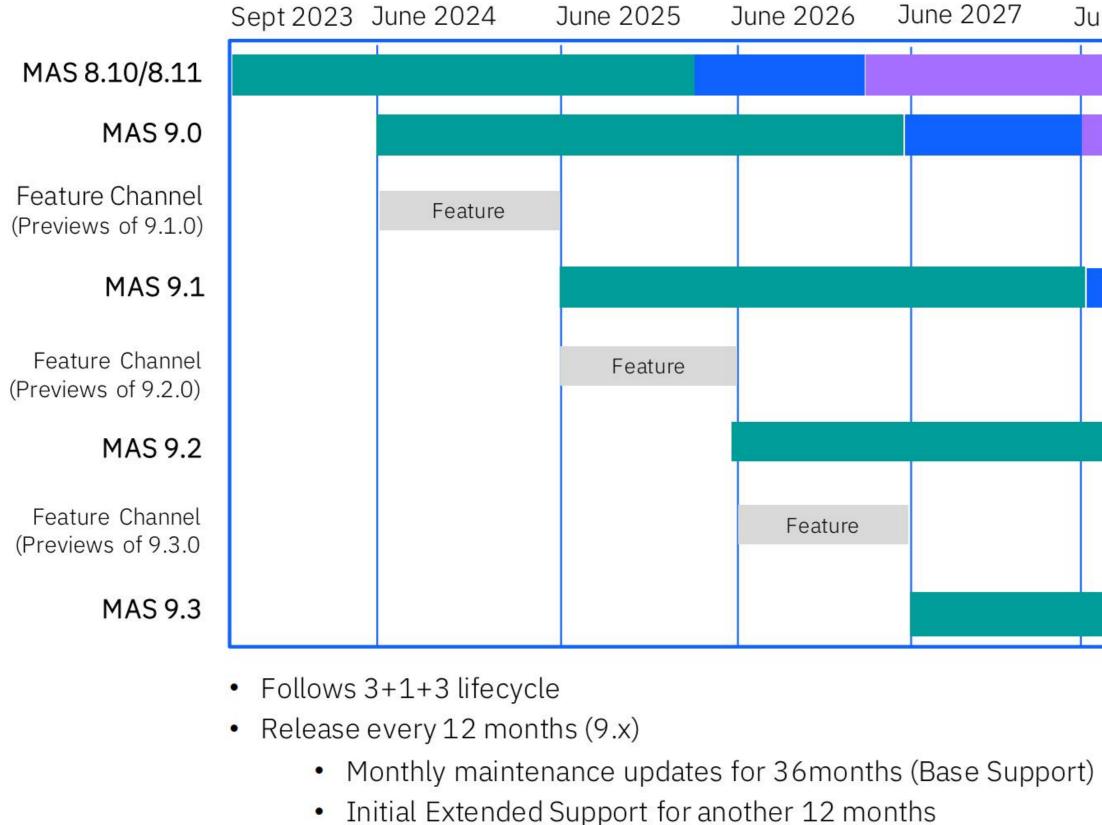
Customers on Maximo Application Suite License Agreement Maximo EAM 761x Dual Support in MAS

- · 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.





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



- Ongoing Extended Support for another 36months
- Feature Channel to explore new features in non-production
 - Builds in the feature channel have short term availability and would never be 'fixed'



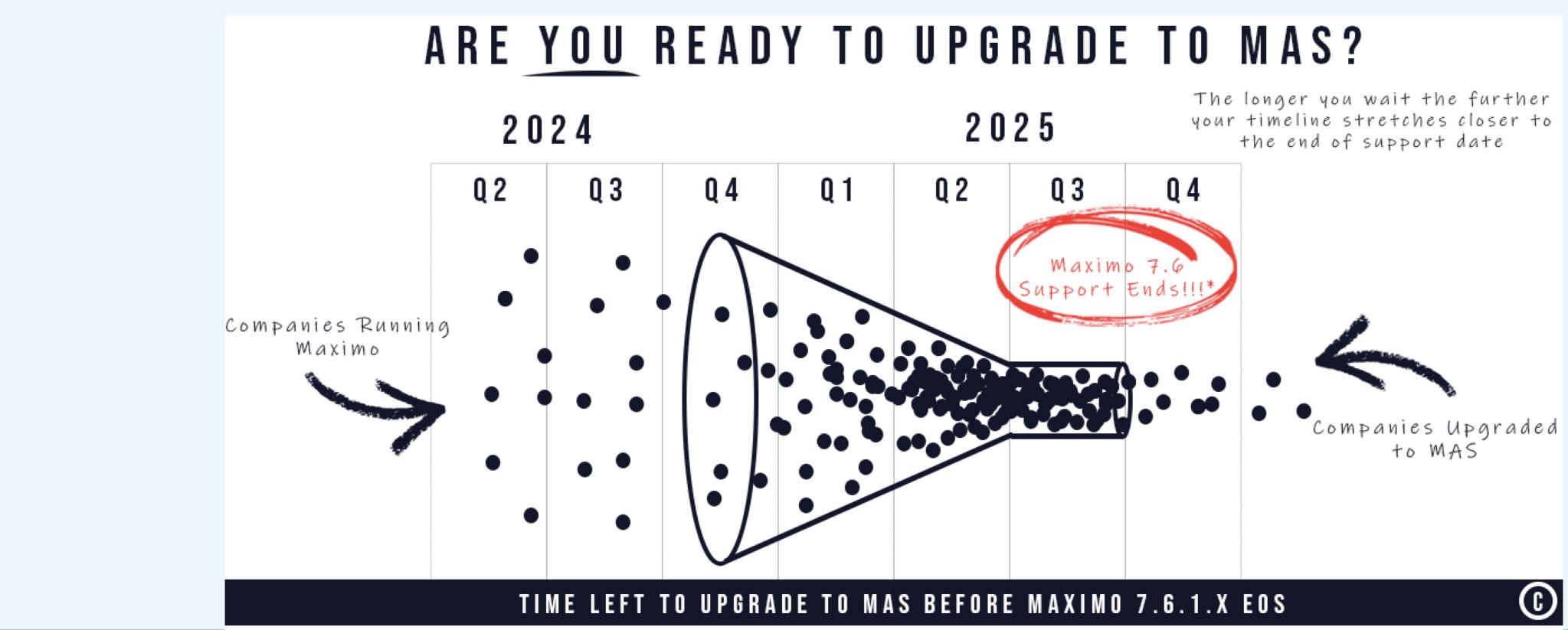
June 2028	June 2029	June 2030	June 2031	June 2032	June 2033	June 2034

*Usage + Existing + New Sev1 Critical Defect Fixes (no proactive security fixes) *Usage + Existing Fixes only

* Terms and Conditions of Extended Support

Time is Running Short!

15 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?

• Upgrade from 7.6.0.10, 7.6.1.2 or 7.6.1.3

- Are you running FedRAMP Authorized version of 7.6??
- Run Integrity Checker in REPORT mode, not REPAIR mode

Which MAS apps will you implement?

- Manage? Health? Monitor? Predict? Maximo For IT*
- 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





CHECKLIST





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, Backup, availability, Disaster Recovery offerings
 - Cloud versus Managed Services

Review Integrations

- MAS uses API keys for web-based interactions-may require changes in integration(s) authentication and construction methods
- Java extensions to Automation scripts?

Customizations

• Review and determine if need to be modified or replaced with new function or automation scripts Reporting

• Start upgrade at 7.6.1.3 if using complex BIRT reports













Upgrade Readiness

Is this the time to review your data and archive? Could a fresh install be more beneficial than upgrading? 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? What are your testing & validation requirements/scope? 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!





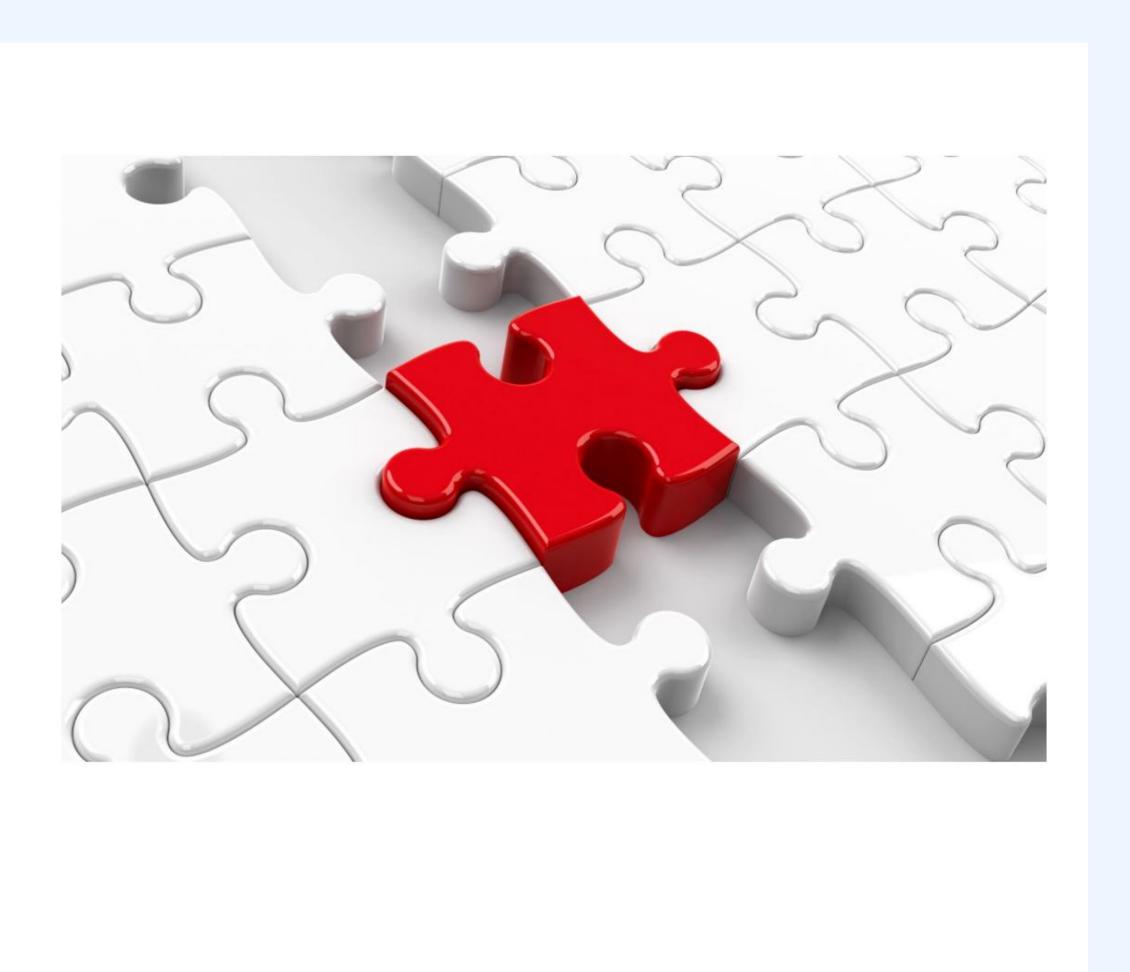


The Licensing Model for MAS has completely changed

- 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 provide a quote for Vour AnnDoint convorcion





MAS AppPoint License Model

USER TYPES	SelfService		L	imited		Base			Ρ	remium
Administration Users (<i>Authorized</i>)	N/A		N/A			10 AppPo	ints		15 /	AppPoints
Application Users (Concurrent)	0 AppPoints		5 AppPoints			10 AppPo	ints		15 /	AppPoints
Application Users (<i>Authorized</i>)	0 AppPoints		2 AppPoints			3 AppPoir	nts		5 A	ppPoints
Applications	 Self Service Applications Service Requests Desktop Requisitions Requests (Oil & Gas) Create/Review Incidents (HSE) Vehicle Requests (Transportation) Graphical Appt Book (Scheduler) Bill review (Service Provious) 	 Manage (Linear/0 Manage Manage IT Maximo 3rd Part 		Mobile		Manage Includes: • Linear • Calibration • Spatial (require • Scheduler • IT Health	es install)		Transpo Nuclear Add-ons • Asset Co Manage Health S Environ	olutions s, Aviation, ortation, Utilities, civil Infrastructure onfiguration r, Service Provider, Safety & ment Manager
Install AppPoints (Production Only)	SAP/Oracle/Wor kday Connectors (80)	Civi Infrastru (50	ucture	Visual Inspection (45) Edge (1)		Spatial (20)		ptimize)) / (22		Location Service for Esri (150) / (220)

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MAS Deployment Options

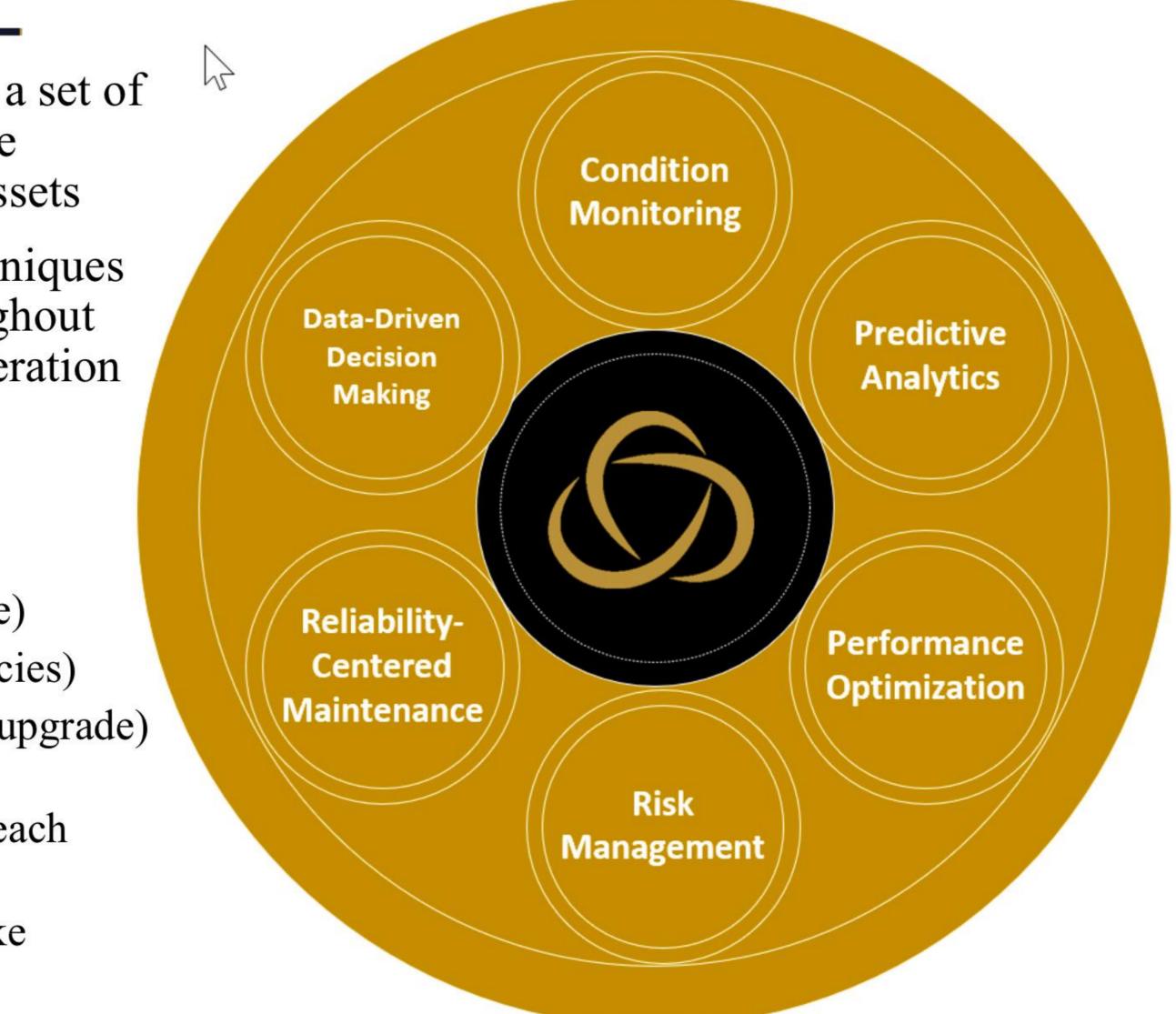
Deployment	Availability	Procure	Provision & Operate	Client Benefits
On Premise Customer Managed	Now	Client purchases MAS from IBM Client provides infrastructure	Client provisions, manages, and operates full stack	 Maximum operational flexibility
Hyperscalers Customer Managed	Now AWS Azure IBM Cloud	BYOL 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
	Now AWS Azure	Paid (Marketplace listing) Client purchases software and infrastructure from Hyperscalers		and operate their environment
SaaS Editions IBM Managed	Now AWS	Client purchase single part (includes software, infrastructure, and operations) from <u>either</u> std IBM sales/channels or AWS Marketplace Essentials	IBM provisions, manages, and operates Client's MAS environment on AWS Cloud using IBM's AWS cloud account Provides a base implementation of Manage or MVI. Limited configuration.	Reduced time-to-value Reduced operational costs Allows clients to focus on business priorities Entry Level for small implementations.
		Standard Premium	Provides full MAS Capability, with limited options and operational options Full MAS with more flexibility.	Targeted at most clients requiring MAS and wanting to focus on standard capabilities. For clients wanting more operational features and flexibility.



What is APM?

- Asset Performance Management (APM) refers to a set of practices and technologies aimed at improving the performance, reliability, and lifespan of critical assets
- APM integrates various strategies, tools, and techniques to monitor and manage the health of assets throughout their lifecycle, from design and installation to operation and decommissioning
- Key Aspects of APM:
 - Condition Monitoring (sensors, diagnostic tools)
 - Predictive Analytics (data and AI to predict failure)
 - Performance Optimization (analysis for inefficiencies)
 - Risk Management (assess risk for repair, replace, upgrade)
 - Reliability-Centered Maintenance (determining maintenance approach based on the reliability of each asset)
 - Data-Driven Decision Making (IT/OT data to make decisions)





Key differences between EAM and APM

	EAM
Focus	Broader, covering the entire asset lif
\frown	and focusing on maintenance and o
	management
\sim	
Data Usage	Uses historical data and maintenand
<u>م</u>	records to manage assets effectively
ЦЦЦЦ	
Objective	Aims to ensure assets are properly
പ്രംപ്	maintained and managed throughou
	life
$ \boxtimes = / $	



APM More focused on optimizing asset fecycle perations performance, preventing failures, and improving efficiency using real-time data and analytics Relies heavily on real-time data, condition ce monitoring, and predictive analytics to ly improve asset performance Aims to maximize asset performance by preventing unplanned downtime and ut their improving operational efficiency

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



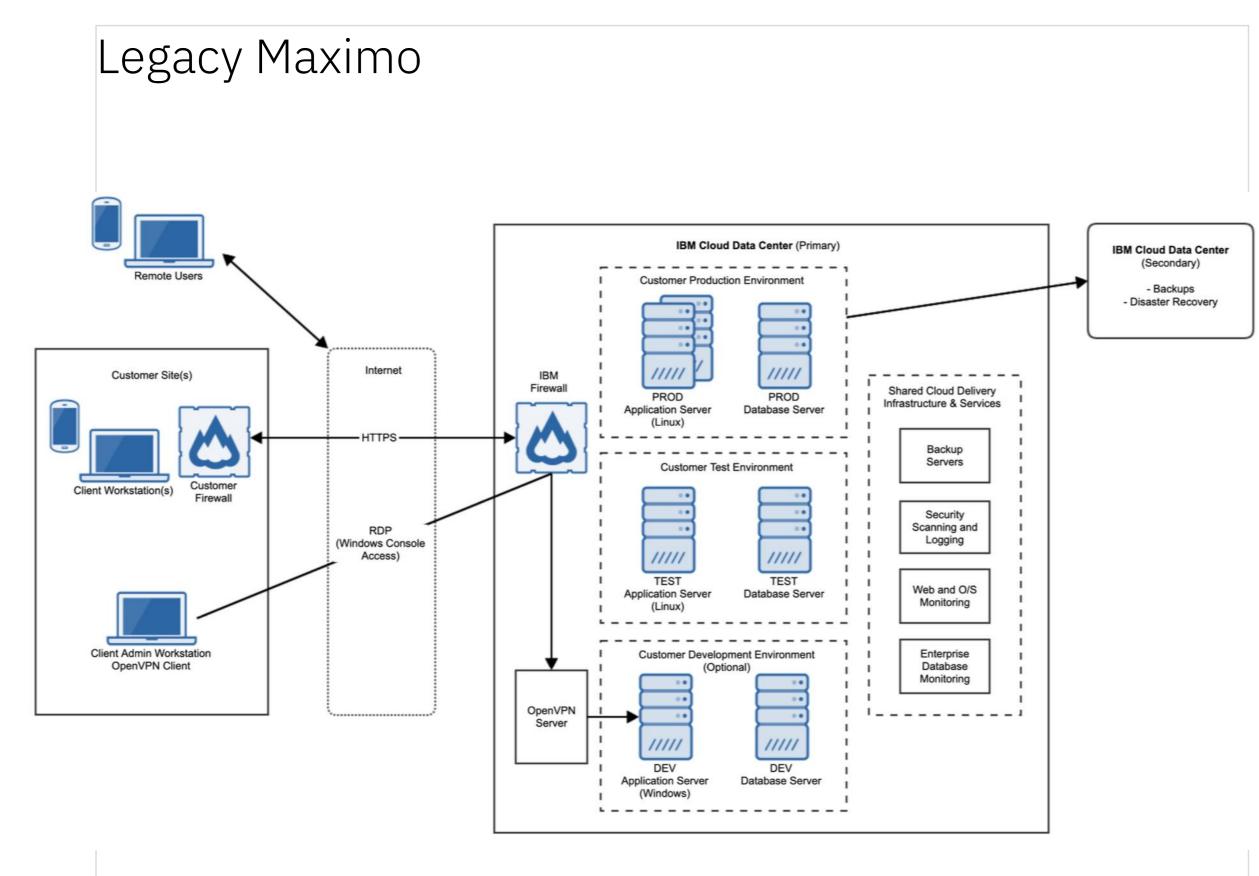
Backup

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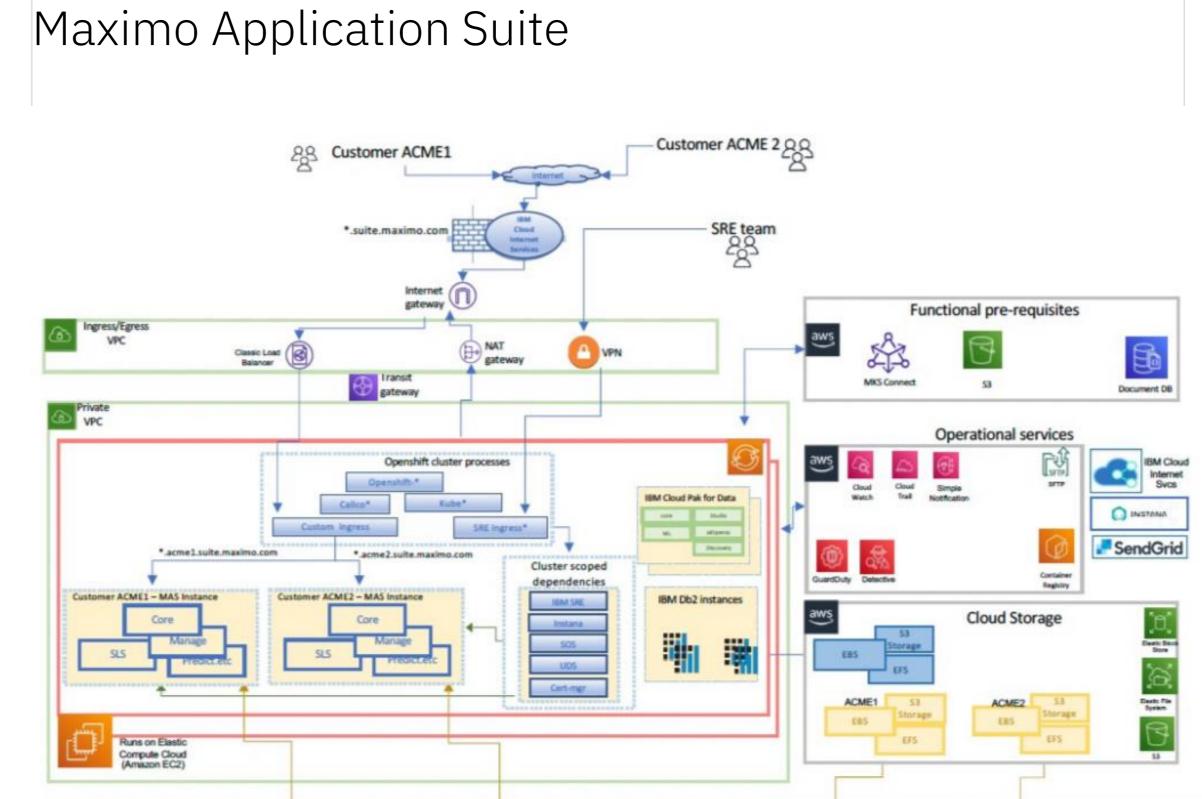


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MAS Infrastructure

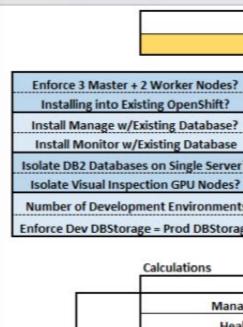


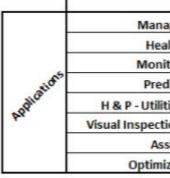




Upgrade Tooling

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







IBM® Maximo® Application Suite Infrastructure Calculator - v8_10 ***For GUIDANCE Purpose Only*** - Enter Inputs in Yellow Cells Only

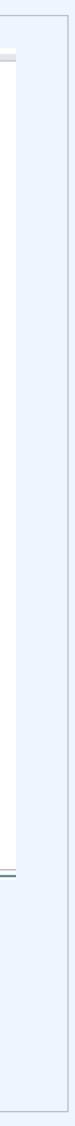
	Y
	N
	у
	N
?	N
	N
s	0
g?	N

¹ Users: Users are defined as *concurrent* users when sizing the infrastructure requirements	 ²When calculating with i/o points, the total is equal to the product of the following three dimensions: Number of devices 2) Number of data points sent in each message 3) Number of messages sent per minute per device 	³ To calculate Predict Data Points, Use the "Predict Data Points" tab	⁴ Existing JVMs Deployed with Maximo EAM v7.6.1.x If both JVMs and Users are defined, the calculation will use the larger of the two outcomes.
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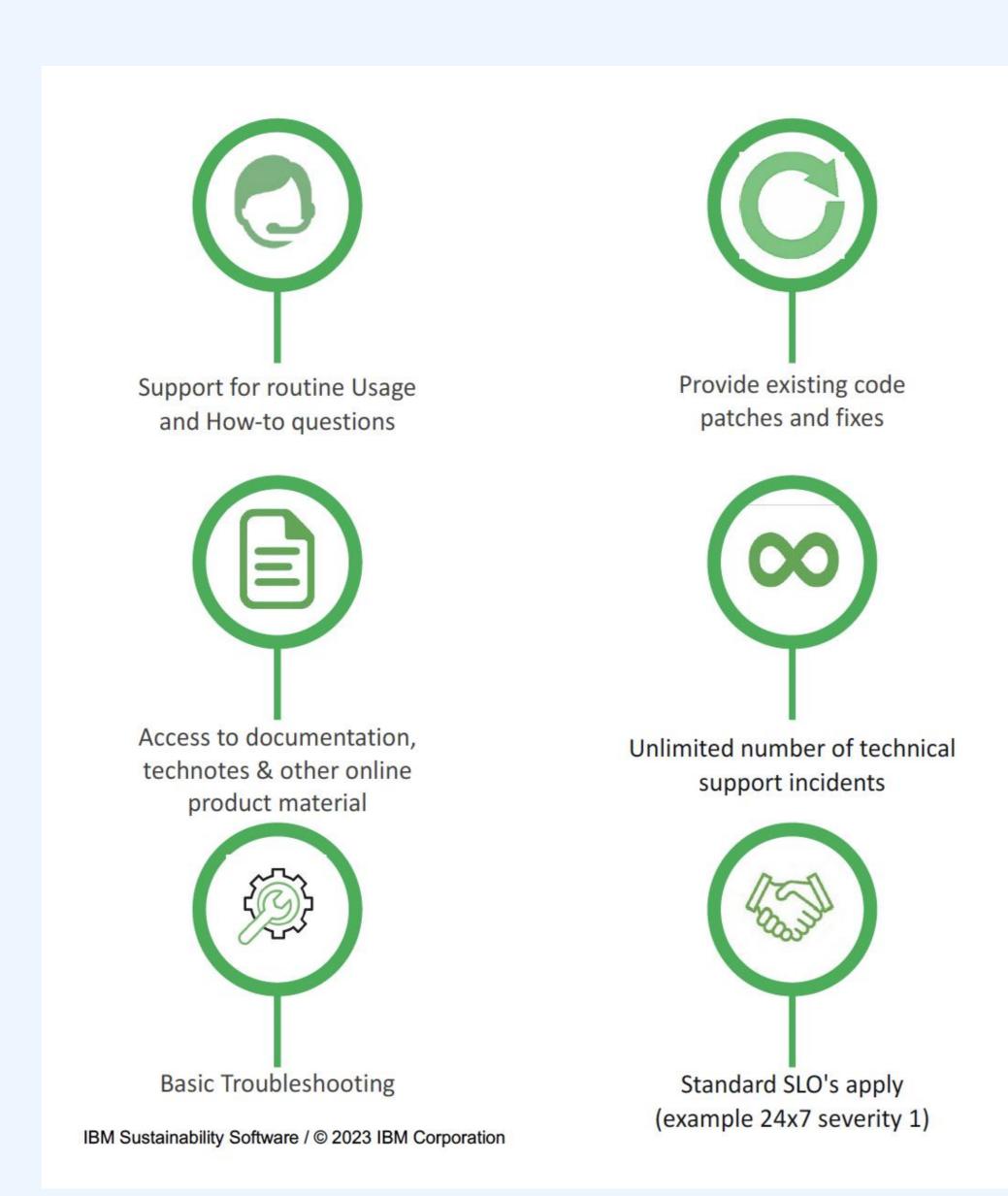
		Prima	ary	Secondary	Optional)
	Use (Y/N)	Size Metric	Quantity	Size Metric	Quantity
age	у	Current	10	Users ¹	
alth	N	UI JVMs ⁴	10	Users ¹	-
itor	N	i/o points ²		Users ¹	-
dict	N	Data Points ³	65,700		14
ties	N	Asset Classes	•		
ion	N	Users ¹	2		
sist	N	Users ¹			
zer	N	Users ¹			

Production Cluster TOTALS	VCPU	Memory (GiB)	File Storage (GiB)	DB2 Storage (GiB)	GPU
Frouteron cluster formes	29	144.5	290	-	-
OpenShift Master Node Requirements	12	48	360	-	
Application Sizing	VCPU	Memory (GiB)	File Storage (GiB)	GPUs	
Manage - Calculated	15.5	91	-		
Health - Not Selected	-				
Monitor - Not Selected	-	-	-		
Predict - Not Selected	-	-	-		
H & P - Utilities - Not Selected			-		
Visual Inspection - Not Selected	67	-		14	
Assist - Not Selected	12	-	-		
Optimizer - Not Selected	12		-		
Total Application Quantities:	15.5	91	-	-	

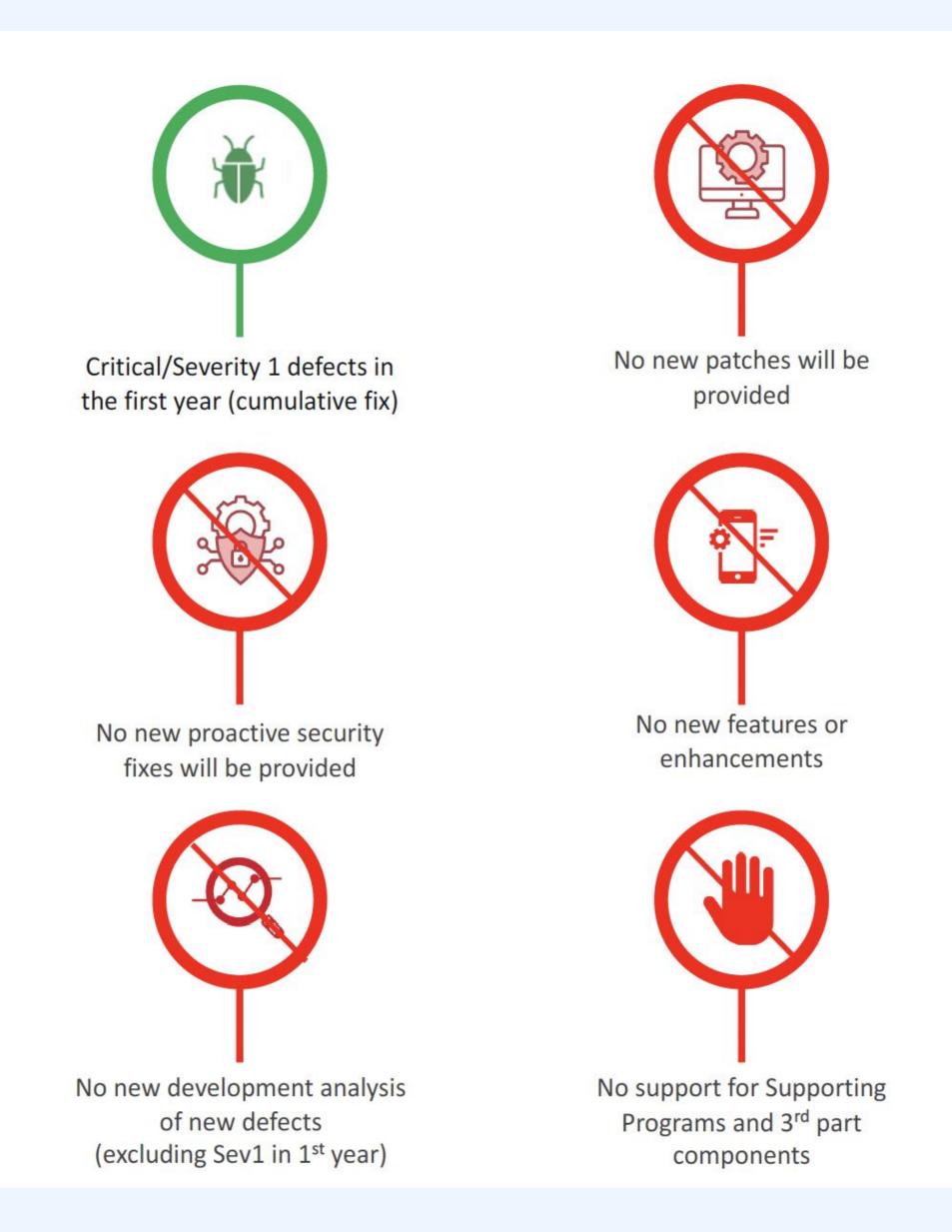
				Additional Application Sizing	VCPU	Memory (GiB)	File Storage (GiB)	DB2 Storage (GiB)
	Additional Manage Options			Manage/Health DB2 - Medium		-	-	-
Deploy	loy Manage Specific JVM Requirements			Monitor DB2 - Not Selected		-		-
Cognos?	MIF	Reporting	Crontask	Manage - (MIF, Rprt, Crontask) + Cognos	6	36	-	-
N	1	1	1 2	Watson Studio - Not Selected	-	-	-	-
				Watson ML - Not Selected	(*	-	-	-
				Watson Discovery - Not Selected	-	-	-	-
				Kafka - Not Selected	S.*	-		-
						1	2	5 2231×
				CouchDB - Not Selected	-	-	-	(-)
				Total Additional Application Quantities:	6	36	•	-
						36 Memory (GiB)	- File Storage (GiB)	
				Total Additional Application Quantities:	6		- File Storage (GiB) 30	- - DB2 Storage (GiB) -
				Total Additional Application Quantities: Cluster Wide Allocations	6 vCPU			•
				Total Additional Application Quantities: Cluster Wide Allocations MongoDB - Medium	6 vCPU 2	Memory (GiB)	30	- DB2 Storage (GiB) -
				Total Additional Application Quantities: Cluster Wide Allocations MongoDB - Medium MAS Core	6 VCPU 2 2	Memory (GiB)	30 20	- DB2 Storage (GiB) - -



Maximo 7 Extended Support Year 1 (9/30/25-9/30/26)







(Through 9/30/30) Maximo 7 Sustained Support 5 Years

