

Migration to Maximo Application Suite SaaS



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Agenda

- ❑ Migration Readiness Check and Planning
- ❑ Migrating to MAS / MAS SaaS

Migration Readiness Check & Planning

Readiness Assessments Checks

Need to fully understand your current implementation.



- ❑ Need to be on Maximo version 7.6.1.3

- ❑ **Database**

- ❖ MAS SaaS: DB2 and SQL Server supported
- ❖ On-Prem: DB2, Oracle and SQL Server supported
- ❖ Database server time zone needs to match
- ❖ Txt search not supported in DB2 warehouse
- ❖ DB access rules: [MAS SaaS public doc](#)

- ❑ **Attachments**

- ❖ MAS SaaS: From disc storage to S3
- ❖ MAS SaaS: Maximo 76x at folder level and MAS Manage at root level (until 9.0)

- ❑ **Integrations**

- ❖ All integrations needs to be reconfigured
- ❖ MAS SaaS: Flat files in S3 vs SFTP in Maximo SaaS Flex

Readiness Assessments Checks

Need to fully understand your current implementation.



- ❑ Maximo Java class extension files
 - ❖ Convert to automation script ([Guide](#))
 - ❖ MAS SaaS: Only supported in Premium Dedicated tier
- ❑ 3rd party tools deployment
 - ❖ Must be supported on RedHat OpenShift
 - ❖ MAS SaaS: Supported only in Premium Dedicated tier, with limitations
- ❑ Networking
 - ❖ Site to Site VPN will need to be reset up. Per cluster, if needed
- ❑ Maximo Anywhere and Work Center are retired
 - ❖ Conversion to Maximo Mobile

Readiness Assessments Checks

Need to fully understand your current implementation.



☐ **SAML and LDAP**

- ❖ Configured in MAS core vs in Maximo 76x in WebSphere

☐ **User Setup**

MAS SaaS Migration Checklist

Need to fully understand your current implementation.



Pre-Conditions	Essential	Standard	Premium	On Prem
Version is 7613				
Moving from SaaS Flex to ____				
Has Replica DB. If yes, did customer order it in MAS SaaS?				
Has Enhanced DR				
Require Allowlisting (aka Whitelisting)				
Moving from On-Prem to ____				
Run Integrity Checker and fix all errors and warnings				
If converting to DB2 (test on db2, no ora comp mode)				
If converting to DB2, modify queries, sqls and report				
Comm template (convert existing domain)				
DB Type	DB2 Only	No Oracle	No Oracle	
DB Size (FYI only)				
Current DB Server Size (CPU X RAM)				
DB2 TxtSearch (convert to wildcard, ...)				
Require Cognos in MAS SaaS				
Server Timezone App/DB	UTC			
Java Class Extension. Signed Waiver				
3rd Party S/W. Has to be approved SRE and Security			Limited	
Integrations: Non Standard				
Integrations: IFACE in MAS SaaS. External is supported				
Integrations: MIF (JMS/Kafka)				
Require Site to Site VPN				
Require SSO/LDAP				
Required Languages				
Existing IS/Add-ons (match) + Add IS/Add-on (after migration)				
Work Center (deprecated starting 8.9), Migrate to Mobile				
Anywhere (deprecated starting 8.9), Migrate to Mobile				
ICD / Maximo IT				
MAHI (Health on top of Manage)				

Key Considerations in Building the Project Plan

- ☐ Don't use your 6.x to 7.x plan
- ☐ Minimize or stop new development
- ☐ Pre-req task
 - ❖ Fix Integrity Checker errors (not in repair mode)
 - ❖ Replace java class extensions with automation script, possible
 - ❖ If converting database to DB2:
 - Test with converted DB on 761x version you are on
 - Don't forget custom maxrelationships, conditions, escalations, stored queries and reports (tools won't convert these)
 - If converting from Oracle, ora compatibility mode is not supported by Manage/Maximo product



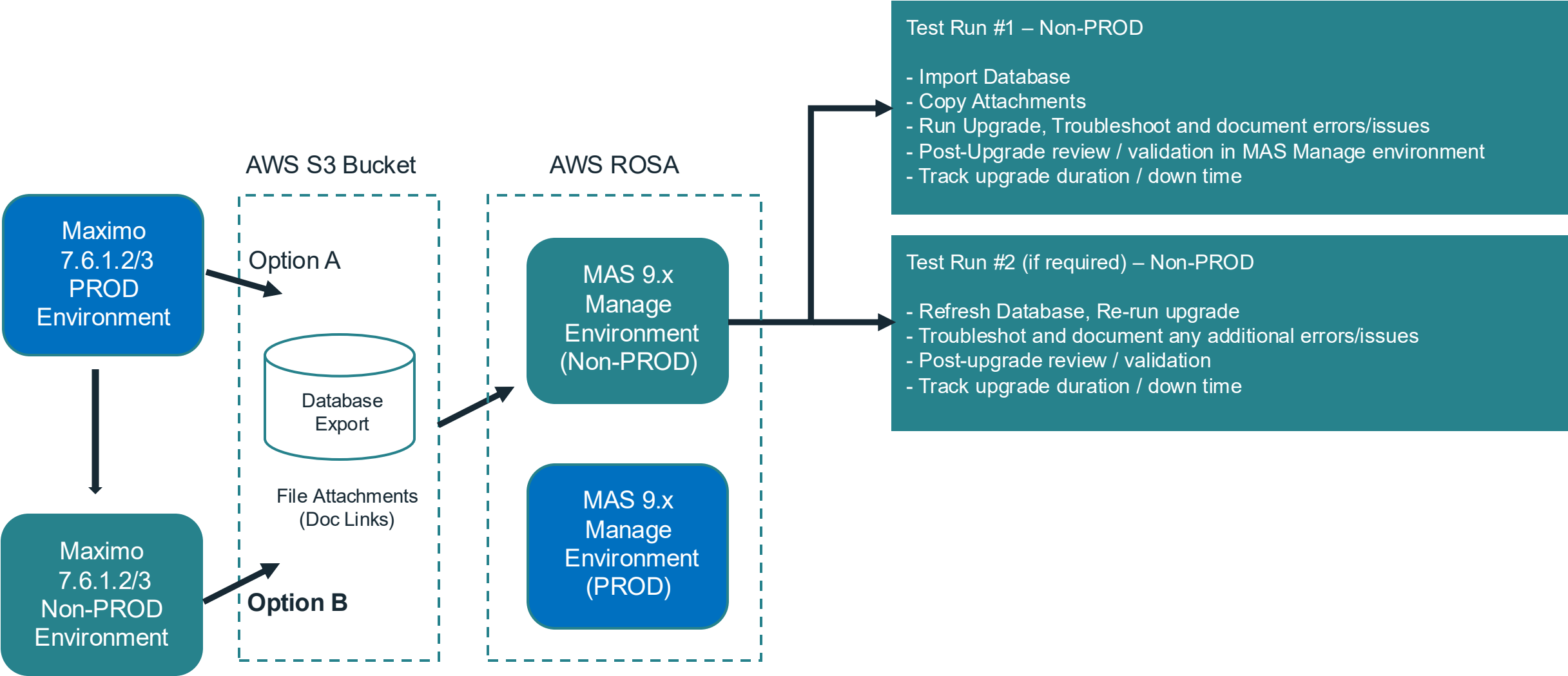
Key Considerations in Building the Project Plan

- ☐ Number of environments
- ☐ Testing
 - ❖ Number of test cycles
 - ❖ Scope of testing: Apps, Reports, Integration, Networking
 - ❖ Test team size
- ☐ Scripting pre-req and post-req changes, with time
- ☐ Task that can be done in parallel along with testing, such as SSO, LDAP, VPN setup
- ☐ Dry run in production
- ☐ Product fixes needed in MAS Manage. Waiting on next patch release, so build plan with buffer
- ☐ User setup
- ☐ Adding new Industry Solutions and Add-ons

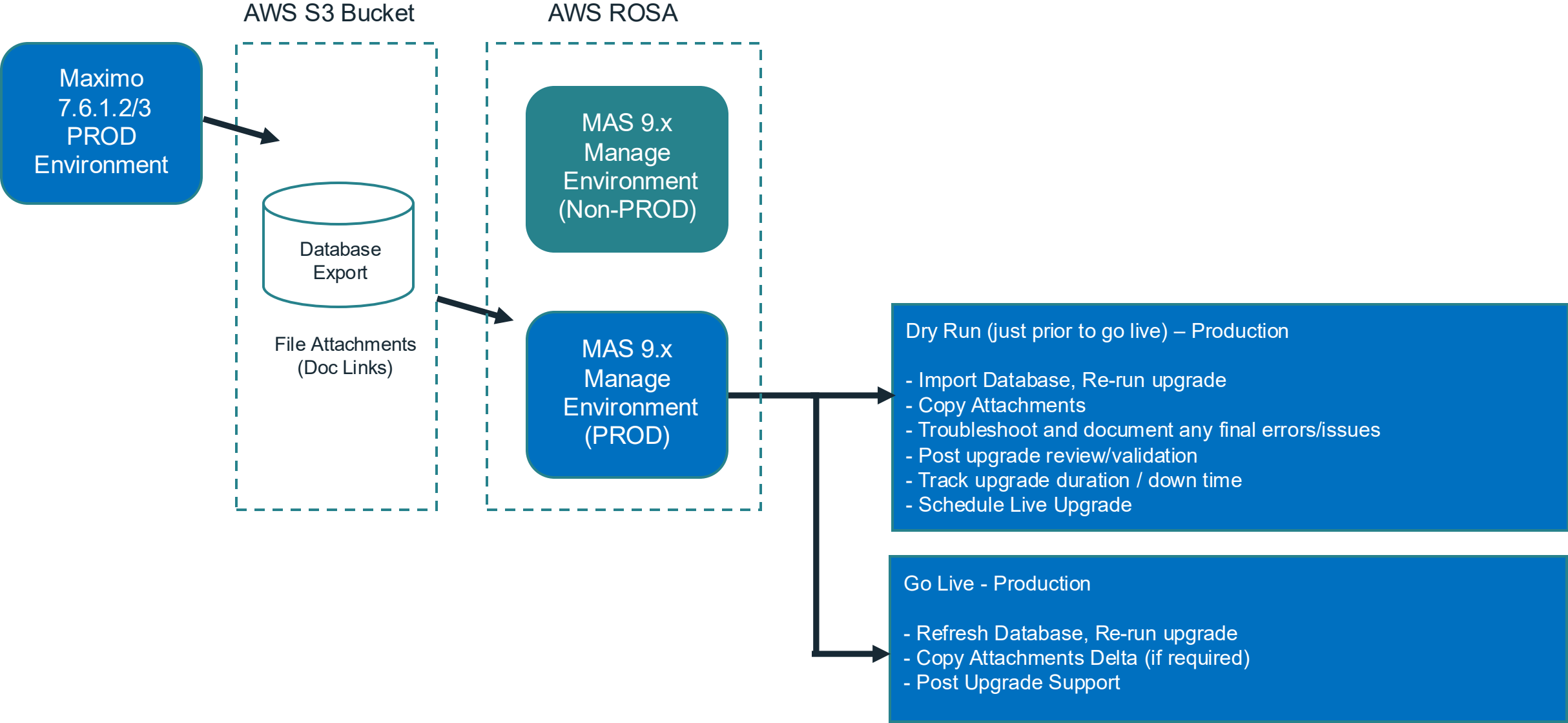


Migrating to MAS SaaS

Migration to Non Prod Environment



Migration to Prod Environment



Migration to MAS SaaS: Challenges Examples

Single Instances:

- ❑ Customer A: On-prem customer has full access to env, deleted a system properties from db that caused first round of migration to fail
- ❑ Customer B:
 - ❖ 3rd party mobile solution to be replaced with Mobile.
 - ❖ 3rd party s/w created maximo services in db, causing login issues with certain users
 - ❖ Converted from Oracle to DB2, didn't account for custom maxrelationship, stored sqls and reports
- ❑ Customer C: Reports not tested. Using Zscaler, causing issues with report download.
- ❑ Customer D: Attachments not tested
- ❑ Customer E: No Java class extensions, as per customer request. The Business Partner utilized the Customization Detection Tool and identified several instances

Common Instances:

- ❑ Need for additional indexes
- ❑ Product fix needed
- ❑ Barcode font support in MAS SaaS (Upcoming 9.0.x Free Code 39 <https://www.idautomation.com/free-barcode-products/code39-font/>)

Migration to MAS SaaS: Challenges with Large DB (1.5 TB to 5TB)

- ❑ First run of db migration took 5 days. It was reduced to 13 hours
- ❑ Key actions to reduce overall migration downtime
 - ❖ **DB compression**
 - ❖ **Increase DB servers IOPS ** (IBM Cloud). EBS (AWS)**
 - ❖ **Some fix from product team, so reorg was not needed on some newly added BLOB columns**
 - ❖ **Database backup and restore (DB version and OS must match) VS export and import**
 - ❖ **db2set DB2_PARALLEL_IO=***
 - ❖ **LOGINDEXBUILD (Default = ON) to OFF**



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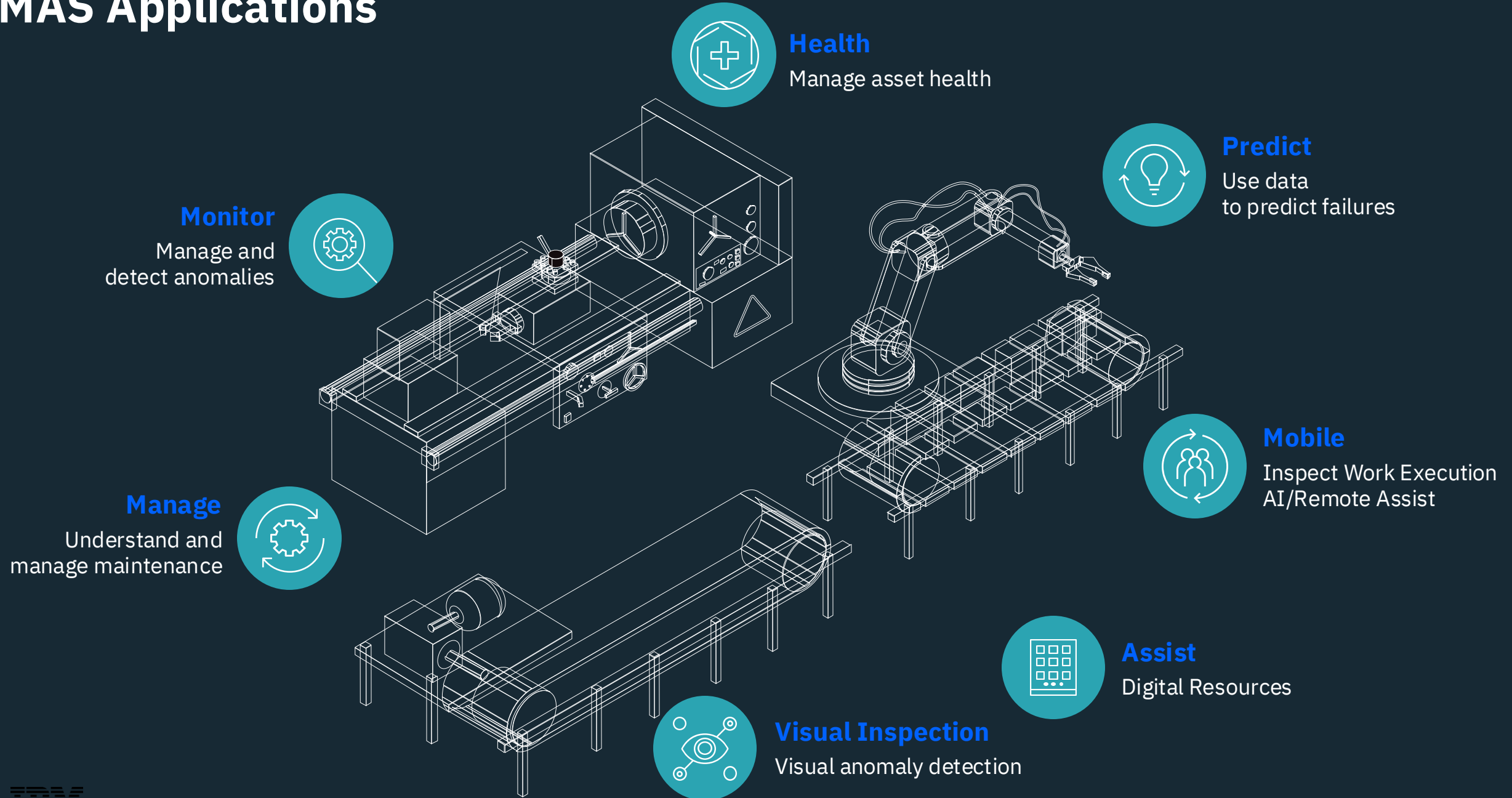
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THANK YOU
ありがとうございました MERCI
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Backup



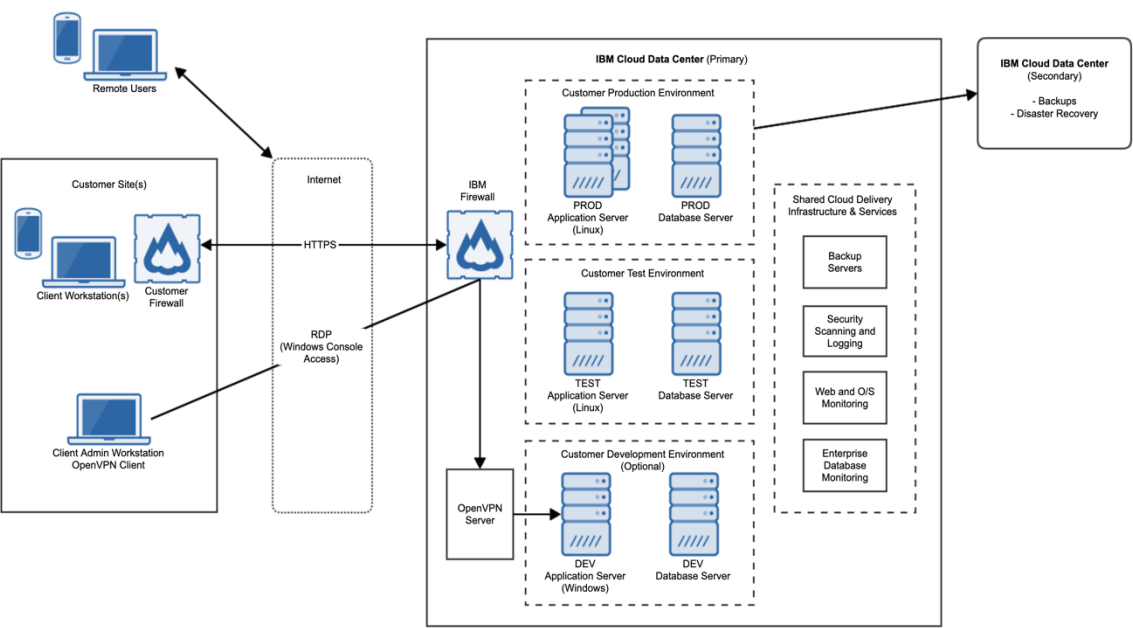
What is MAS & MAS SaaS?

MAS Applications

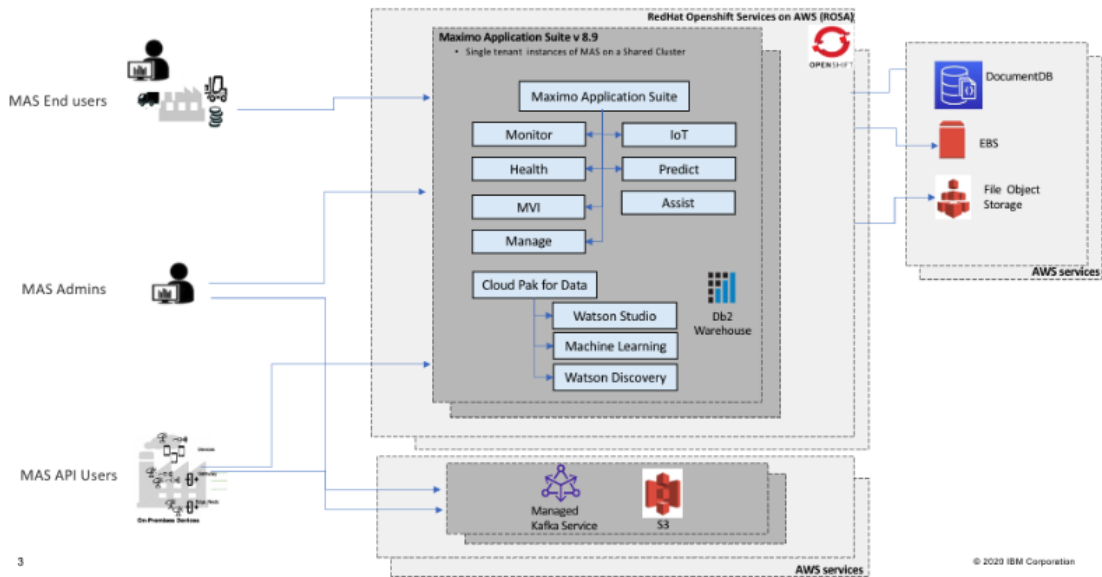


Maximo 7.6.1.3 to MAS Manage 9.x

Moving From



Moving To



Largest architectural changes since Maximo v5.2
+
Infra changes from Maximo SaaS Flex (IBM Cloud) to MAS SaaS (AWS)

MAS SaaS Tiers





	Defining Characteristics	Value
ESSENTIALS	Easy to acquire & simple to adopt Key EAM & Mobile features Fixed configurations at an affordable price	Reduced time to value Minimum operational costs Enables clients to focus on business priorities
STANDARD	Essentials + incremental features Solid foundation of features / usage that serves a broad range of capabilities Standardized configurations at a moderate price	Simplified deployment & operations Broader capabilities, basic integrations & flexible capacity Vertical & horizontal scaling as client's needs grow
PREMIUM	Standard + incremental features Enterprise offering with maximum flexibility Large set of core features with numerous additional options for tailored solutions	Most configurable package well-suited for clients with custom & complex deployment requirements Provides maximum operational flexibility Offers maximum capacity & options for integration

- ❖ Runs on AWS
- ❖ Comparison Chart: <https://www.ibm.com/docs/en/mas/saas?topic=editions-comparison-chart>

Migrating to MAS SaaS: Roles and Responsibility

Task	Support	Dev	SRE	Client / SI
Project Plan			C	R
Environment migration (DB and DocLinks)			R	C
VPN for Integration			R	R
SSO/LDAP setup			R	R
Integrations (MIF)	C			R
Testing (Apps, Reports, Integrations, Performance ..)	C			R
Custom java class conversion	C			R
3rd party tools and s/w				R

Links:

- ❑ MAS SaaS documentation center for more details 
- ❑ Keep Request Lead Time in mind when building project plan 
- ❑ Understand RACI 
- ❑ Migration 

DB Migration Options

❑ DB Export & Import

- ❖ Used exclusively for transferring data into the Maximo schema, without including database properties. Intended for migrations to MAS SaaS

❑ DB Backup & Restore

- ❖ Includes the transfer of all schemas along with associated database properties.

❑ DB HADR

- ❖ Intended for use during large database migrations to reduce overall downtime during the production cutover.

❑ Data loading via MIF

- ❖ Typically used when only a limited subset of data needs to be transferred. Such as only some site specific data

Cutover and Post Go Live

Cut Over and Post Go Live

- ❑ Contingency plans
 - ❖ Be ready to cut back to the Maximo 76x
 - ❖ Determine if manual tracking is possible for a short period of time.
- ❑ Keep Maximo 76x production site but disable access for most users. Use to check and compare data for the next two – three weeks
- ❑ MAS SaaS: Ensure all problems are reported via a ticket to IBM to ensure they are tracked

