# IBM Maximo Application Suite

*What's New in MAS v8.11 (there is a lot!)*

# Maximo Application Suite ...

| | | |
|---|---|---|
| **Manage**<br>Intelligent Asset Management | **Schedule**<br>Schedule Work and Resources | **Mobile**<br>Technician Work Execution |
| **Assist**<br>Prescriptive Assistance | **Industry Solutions**<br>Accelerate Time to Value | **Health**<br>360 View of Assets |
| **Visual Inspection**<br>AI-Powered Insights | **Monitor**<br>Monitor and Detect Anomalies | **Predict**<br>Predictive Failures |

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

**RED HAT OPENSHIFT**

Infrastructure Independent
Common Operating Environment

IBM Cloud | aws | Azure | Google Cloud | Edge | Private | Systems

Intelligent Enterprise Asset Management solution to help organizations:

**1** Manage assets, infrastructure, and resources

**2** Monitor and measure operations

**3** Improve product and service quality

## Personas

- Technicians
- Technician Supervisor
- Asset Maintenance Manager
- Plant Manager
- Fleet Manager
- Operations Manager

- Reliability Engineer
- Quality Manager
- Planners / Schedulers
- Dispatchers
- Purchasing Managers

# Reliability Strategies Makes It Easy

A dedicated RCM/FMEA app with included content library. Together, it's a game-changer.

Reliability Strategies **App**
**Manage add-on***
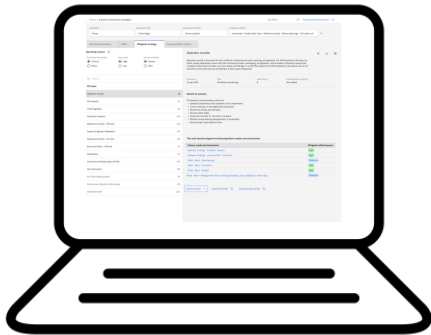


Reliability Strategy **Library*** (Accelerator)

Pre-built reliability strategies

Start implementing RCM 75% faster

*Reliability Strategies can be deployed for existing Manage users *without any additional AppPoints.*
*The Reliability Strategy Library *does not require any additional AppPoints.*

# An Application Purpose-Built for RCM

With rapid time to value, the solution makes it fast and easy to create and optimize reliability strategies

## FMEA Viewer <span style="color:purple">With 8.11</span>

For reviewing equipment failure mechanisms in the Reliability Strategy Library

## Reliability Strategy Composer <span style="color:purple">With 8.11</span>

Rapidly builds Reliability Strategies with corresponding PMs and Job Plan tasks using the Reliability Strategy Library

## Reliability Strategy Builder <span style="color:purple">Upcoming release</span>

Edit or add to the Reliability Strategy Library

## Reliability Strategy Optimizer <span style="color:purple">Upcoming release</span>

For optimizing PM's for both reliability and cost

## Conditioned Based Maintenance with Advanced Analytics <span style="color:purple">Upcoming release</span>

Drive condition-based maintenance further into the asset base with failure mode/parameter coupled machine learning libraries



*FMEA Viewer*

# Pre-Built Strategies for 800+ Asset Types

### …based on 25 years of large-scale RCM studies

## Reliability Strategy Library

- 800+ Equipment Types
- 58,000+ Failure Modes
- 5,000+ PM Tasks with step-by-step instructions

## Features for each asset include…

- Time scales of degradation
- Explicit identification of wear-out & random processes
- Stressor influence on degradation time scales
- PM tasks one to one mapping with failure modes
- PM effectiveness at detecting specific degradation

# IBM Maximo Accelerators Catalog

with content and solutions built for Maximo, with Maximo, by Maximo people

What is an "Accelerator"?

A solution that complements or extends Maximo Application Suite capabilities, experience or accelerates time to value

- Content, configurations, dashboards, attachments, model templates
- Scripts and code patterns
- New applications built on and for the Maximo Application Suite
- Integrations
- And much more....

# IBM Maximo Accelerator Catalog

A marketplace at the fingertips of
Maximo users

– Discover Accelerators in the navigation or
administrator catalog

– From IBM and the Maximo ecosystem

– Leveraging the RedHat marketplace to
make it easy
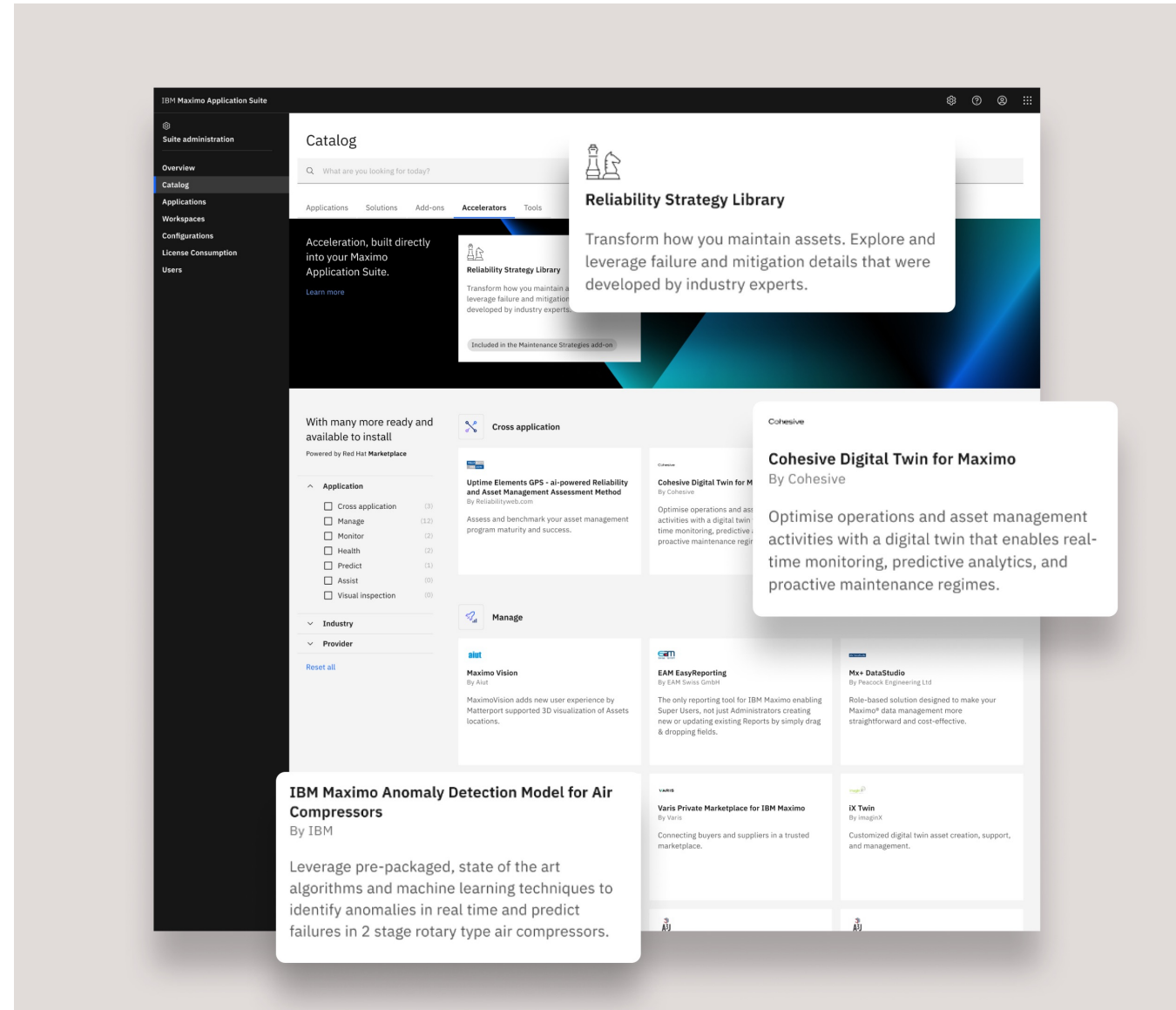
# Discover accelerators that solve business problems

- In the MAS catalog and navigation screens

- Dive deeper into accelerators to learn more

- Secure purchase and from the Red Hat Marketplace

# Accelerators in onboarding process

**Workflow Delegate**

Select a single person to receive all records that are sent to you via workflow in Maximo.

**Easy Reporting**

With EAM EasyReporting, reports for IBM Maximo can be designed in Word or Excel and run directly out of IBM Maximo.

**EAM FlexCalendar**

Integrated, easy to deploy Add-On and a revolutionary new way of visualizing data in Maximo. The Add-On also allows you to create calendar links which users can subscribe to in their standard Mailing tools like Microsoft Outlook.

**iX Twin**

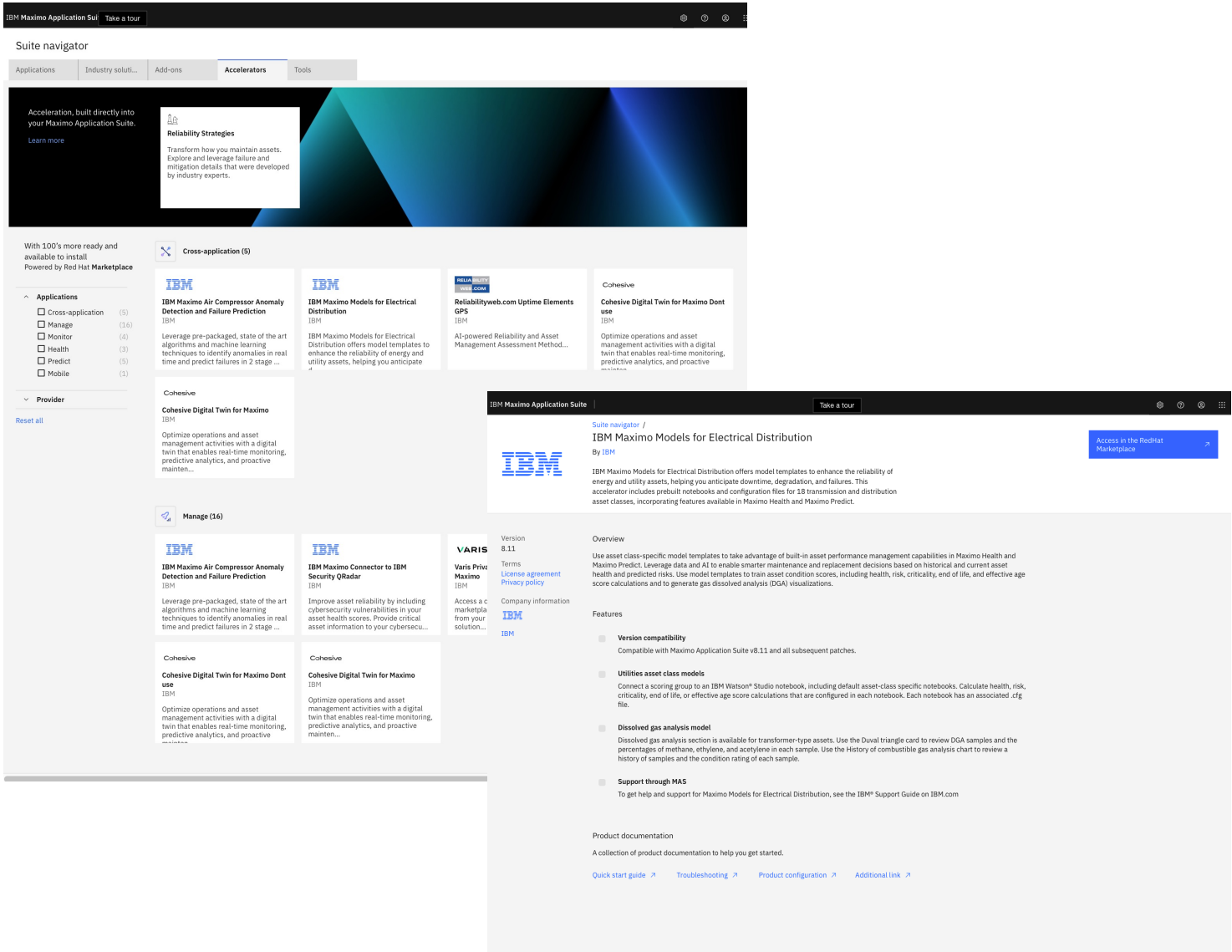Customized digital twin asset creation, support, and management

**Uptime Elements GPS**

Ai-powered Reliability and Asset Management Assessment Service Delivery based on Reliability Web's Uptime Elements

**Varis**

Marketplace that integrates with Maximo Application Suite

**IBM Environmental Intelligence Suite integration for Maximo Spatial Assets**

**IBM Maximo Detection and Prediction for Air Compressors**

**IBM Maximo Models for Electric Distribution**

Model templates to enhance the reliability of energy and utility assets. With predictive capabilities, it enables you to anticipate downtime, degradation, and failures, ensuring the delivery of safe...

With more partner and IBM solutions coming soon

IBM Research

TRM total resource management

strategic maintenance solutions, inc.

KSI DATA SCIENCES

Cohesive

IBM Security

BLACK & VEATCH 100% EMPLOYEE-OWNED

And more...

# Maximo IT

## What it can do for your business

- Maximo IT provides the IT service management (ITSM) and Asset Management needed to simplify support of users and infrastructures.

- Adds capabilities to support IT/OT convergence

- Helps to reduce costs and increase satisfaction through self-service, automated service management and integrated, best practice-based service desk capabilities and IT Asset Management processes.

- Leverage your investment and knowledge of Maximo/MAS Manage

# Maximo IT

## New Add-on to MAS Manage

### Maximo IT

- Complete functionality of IBM Control Desk 7.6.1.5 (ITSM, ITAM)

- Modernized Graphite Self Service, replaces Service Portal

- Integration Foundation
  - Slack – Chatops, Swarm
  - Jira - Devops
  - ManageIQ - Cloud



MAS parts
AppPoints

+

Maximo IT parts
AppPoints

Access to
Applications

Pool of AppPoints
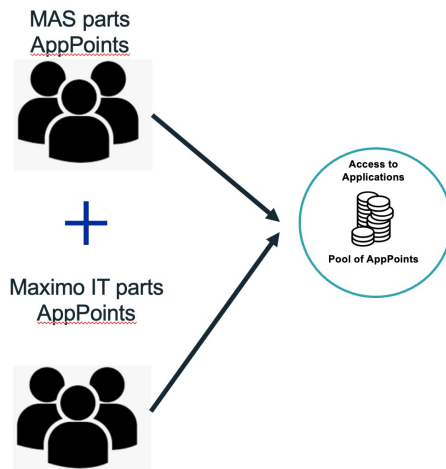
## How Entitled

- "Purchased" add-on to MAS
  - MAS is pre-req for Maximo IT

- New Parts for Maximo IT = AppPoints
  - Align with MAS parts (Perpetual, STL, Monthly), S&S
  - Must be purchased to have access and use
  - Trade up/Upgrade parts available for Existing ICD customers

- Users align to MAS types
  - IT users can be flagged using the Manage User Type field and Application Security

- Deployed as add-on to Manage

- Retain Value of the Suite
  - Flexibility to use expanded MAS functionality (Monitor, Health, etc)

# APM - Maximo Monitor
## *Integrating Omnio Software*

MVP (Phase 1) integration of the capabilities provided by the acquisition of the Omnio software.

- Users can quickly select and configure integrations with a wide range of industrial data sources, including OT devices, Programmable Logic Controllers (PLCs) and Open Platform Communications (OPC) servers.

- Provides a comprehensive UI to configure integrations launched from within Monitor.

- Connector pre-configurations are searchable by manufacturer, product type, and product name.

- Device datapoints are configurable by the user, which automatically transforms the device data into a standardized data model, providing an efficient method to unify data in MAS.

- Integration is facilitated via Docker using the "Edge Data Collector" software deployed to a IoT Gateway and updated remotely using terminal commands provided in the UI.
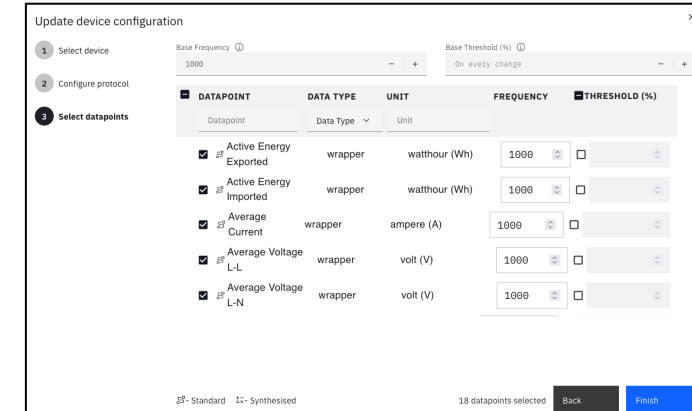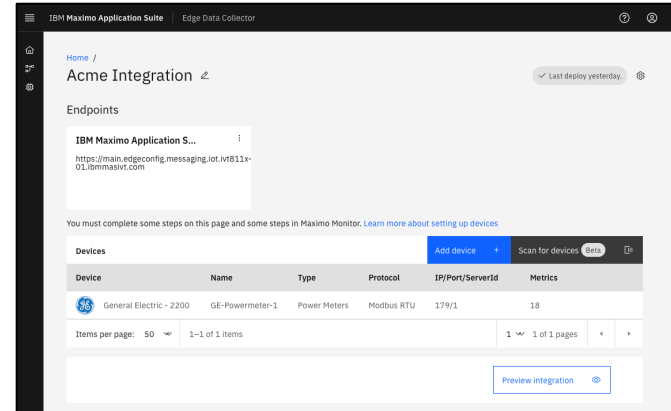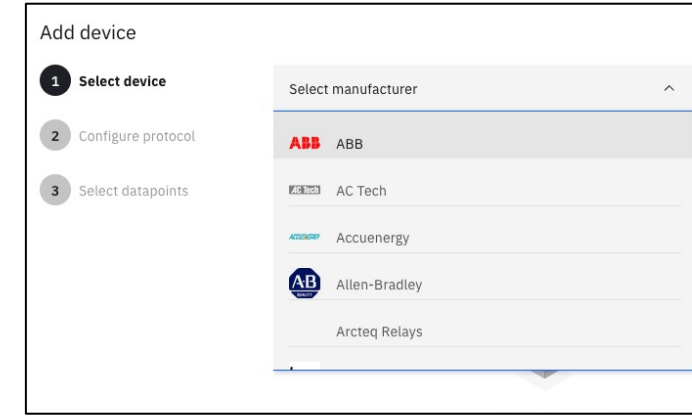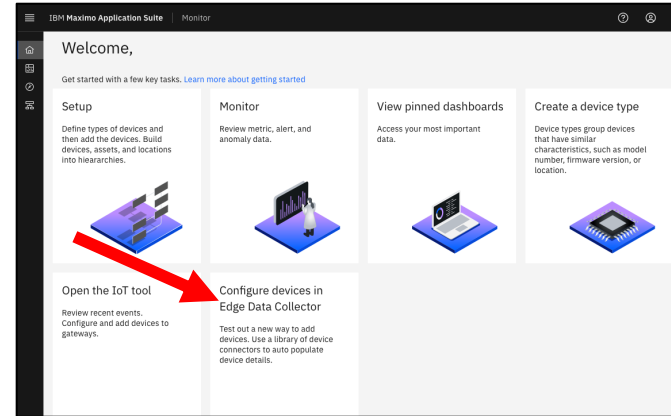
# IBM Software SaaS – Tiers with Options for Expansion

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

# 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

[1] Subject to change
[2] Availability of options will vary. Not all will be available at initial release.

# New MAS SaaS Tiers

## Essentials

### Maximo Maintenance Essentials
**Manage + Mobile + Health**

- 1 environment
- Up to 25 users
- Up to 100 work orders / hour
- Up to 1,000 health scores / hour
- Scheduler included

Add'l purchase options
- Max of 1 add'l environment
- Up to 25 add'l users

**O R**

### Maximo Inspection Essentials
**Visual Inspection**

- 1 GPU
- Up to 2 deployed models
- Up to 5 edge devices
- Up to 10K inferences / hour
- Up to 500 GB storage

Add'l purchase options
- None

## Standard

### Full MAS Suite with Standard Operational Practices (Today's MAS SaaS Offering)

- Select from any MAS application or combination of applications
- Purchase multiple non-production environments; R/W access to non-prod environments is included
- Purchase any capacity of functionality (e.g., Users, Scores/Inferences, I/O Points, etc.)
- Select from preferred AWS regions (US-East, Montreal, Frankfurt or Sydney)
- Most Manage Industry Solutions & Add-ons are available; some may require additional AppPoints

Add'l purchase options[2]
- Non-production environments
- Read-only production DB replica
- Scheduler Optimizer
- Allow Listing[2]

## Premium

### Full MAS Suite with Custom Operational Options[2]

- Flexible scheduling of updates & upgrades (within limits & excluding security updates)
- Support for multiple VPNs
- Deployment validations for regulated industries
- Assigned personnel

Add'l purchase options[2]
- Extended update/upgrade schedules
- Extended data retention periods
- Multi-site / Multi-zone support
- Enhanced Disaster Recovery
- Direct (Private) Connect[2]
- Multi-Workspaces[2]
- Oracle or SQL Server database[2]
- Choice of any AWS data center that offers necessary services[2]

[1] Subject to change
[2] Availability of options will vary. Not all will be available at initial release.

# What's New in MAS 8.11 for Manage

## 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 admin application

## 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

# Maximo Visual Inspection

**Dataset pattern insights** is a new capability that automatically groups images in a dataset according to common visual patterns detected in the images using AI.

**Object storage support**: extends the storage of inspection images to millions of images.

- Current storage in PVC, users can enable Object Storage

**Anomaly detection improvements**: enables the selection of an optimized model based on the available inferencing hardware: servers, edge devices, or hybrid systems.

**Seamless upgrades in MVI Edge**: enables the platform to be smoothly and transparently upgraded from one release to a more recent version.
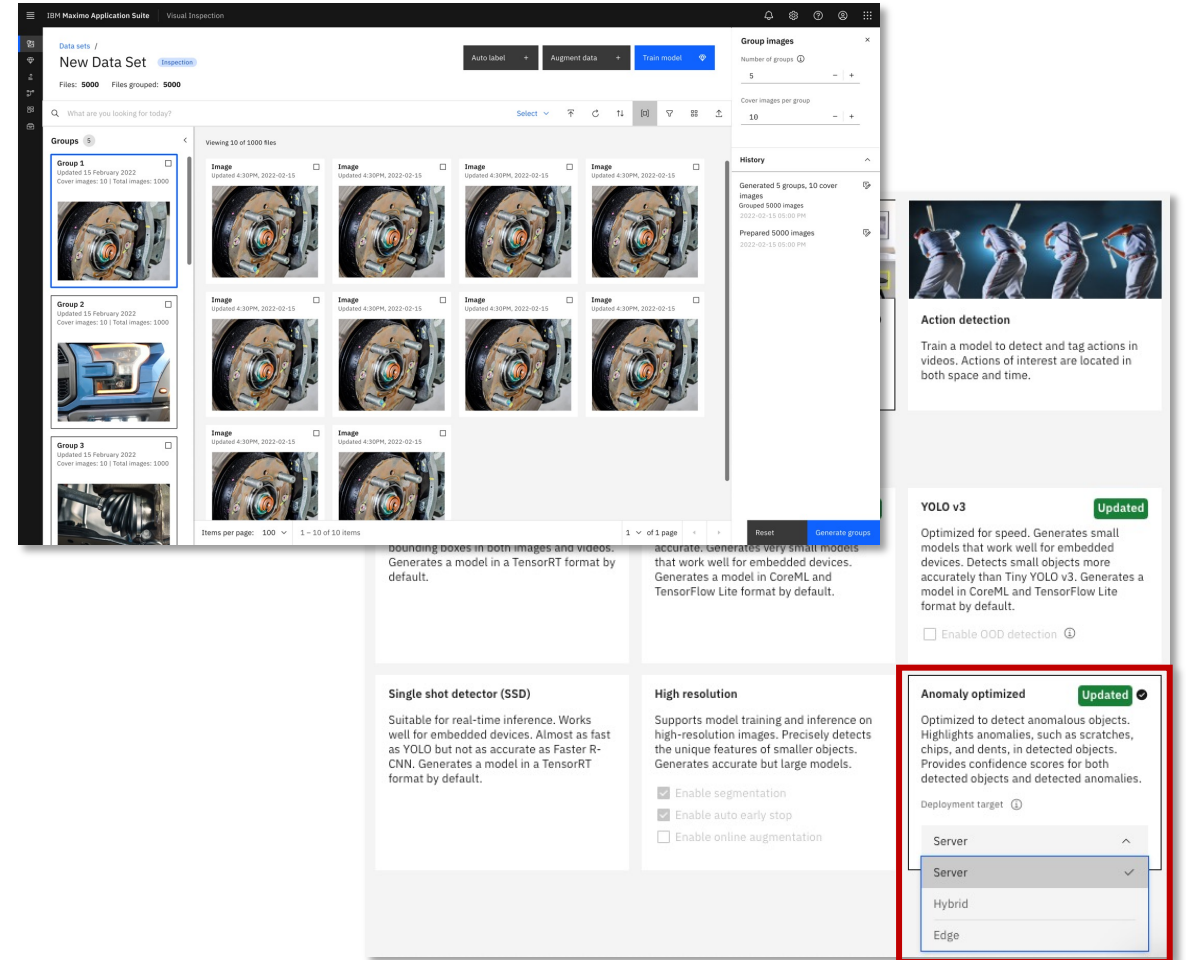
# Maximo Civil Infrastructure Updates

- New 2D Stitching service

  Provides ability to stitch together multiple images taken during an inspection of a large surface into a singlee image for context

- Manually create defect polygon without MVI model

  Provides ability to create and categorize polygons on defect images taken during the inspection when an MVI AI model is not available.  Future vision is to provide this content to MVI for model training.

- Filter inferences by confidence level

- Usability improvements to defect management process

  Mobile performance improvement added which refines the filter of records downloaded to the device.

  Decouple classification from category, type, cause fields to allow support for existing defect classifications and future support of failure classification.

  Simplify recording a new defect observation and viewing defect observation history.
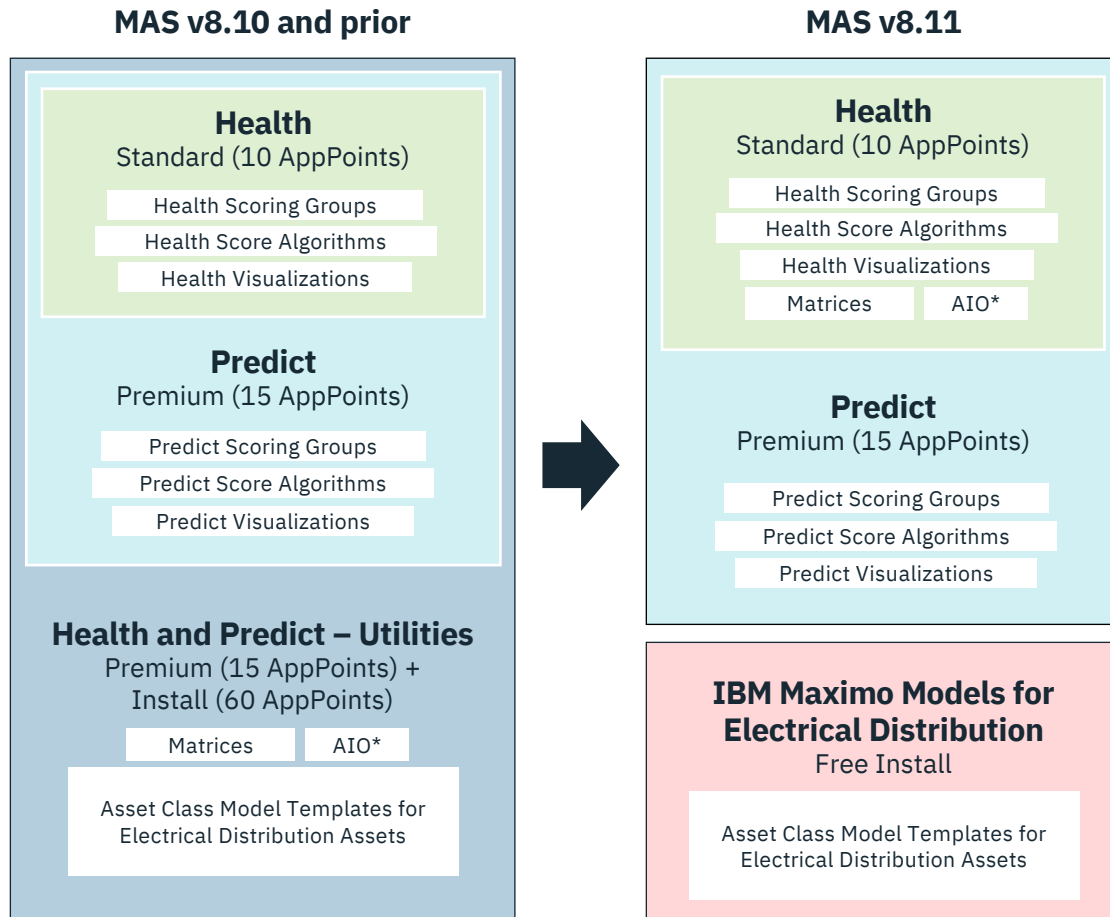
  Associate Defect Detection folder to an existing Work Order, Asset or Location.

  Better visibility to details associated to Defect Detection folder.  Fix performance issues with Asset/Location lists.

- Usability improvements to Operational maps in support of Possession/Closure process

  Provides ability to create queries for default user and public sharing, when toggling between List and Map views pass the query from the list to the map, expose the Map functions currently available in mobile apps but in desktop theme

# Restructure of Health and Predict – Utilities (HPU) in 8.11

**MAS v8.10 and prior**

**Health**
Standard (10 AppPoints)

Health Scoring Groups

Health Score Algorithms

Health Visualizations

**Predict**
Premium (15 AppPoints)

Predict Scoring Groups

Predict Score Algorithms

Predict Visualizations

**Health and Predict – Utilities**
Premium (15 AppPoints) +
Install (60 AppPoints)

Matrices | AIO*

Asset Class Model Templates for
Electrical Distribution Assets

**MAS v8.11**

**Health**
Standard (10 AppPoints)

Health Scoring Groups

Health Score Algorithms

Health Visualizations

Matrices | AIO*

**Predict**
Premium (15 AppPoints)

Predict Scoring Groups

Predict Score Algorithms

Predict Visualizations

**IBM Maximo Models for Electrical Distribution**
Free Install

Asset Class Model Templates for
Electrical Distribution Assets

- HPU capabilities and UI (ie. matrices, AIO) move into base Health

- HPU's asset class-specific model templates move into **IBM Maximo Models for Electrical Distribution**, promoted as an accelerator in RedHat Marketplace

- Customers can no longer purchase or use HPU starting MAS v8.11. Steps to upgrade:
  - Deactivate and delete HPU (AppPoints will be returned)
  - Upgrade to MAS v8.11 Predict
  - Activate **Maximo Models for Electrical Distribution**

- **Maximo Models for Electrical Distribution** is available for free through MAS v8.11 upgrade for any Health or Predict users (no install AppPoints required)

- Instructions to activate are available through RedHat Marketplace, PA, and IBM Docs

# Maximo Health and Maximo Predict Updates

**Use and configure matrices (originally in HPU)**

- Identify and drill down into assets at risk using OOTB matrices
- Create new matrix configuration with custom scores, like wear and total cost
- Apply future forecasting of an asset matrix (with Predict)

**Use asset investment optimizer (originally in HPU)**

- Build projects and run replacement scenarios to determine which assets should be replaced and when
- Create and use replacement plan templates
- Compare current plans and optimized strategy

**Configure model templates for electrical distribution assets**

- Activate accelerator: IBM Maximo Models for Electrical Distribution
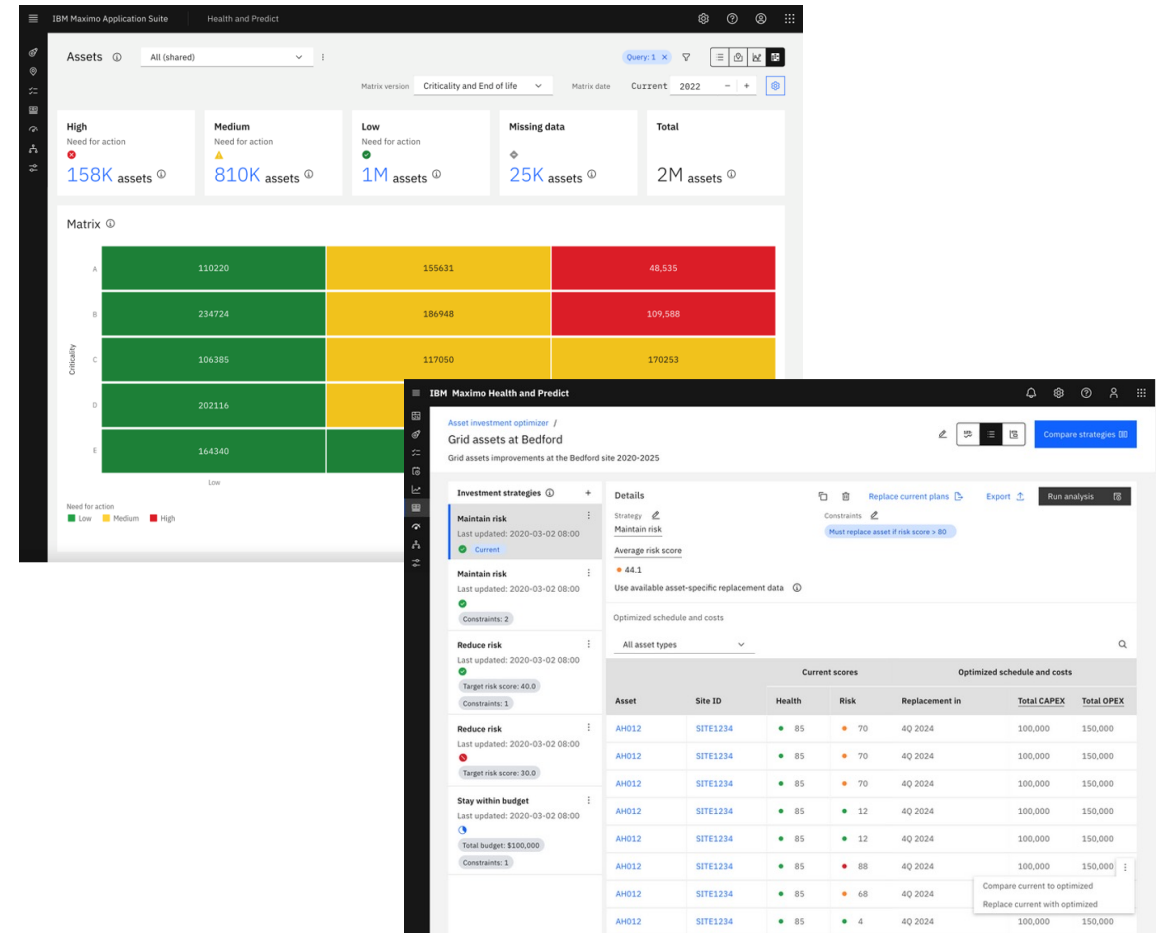
# Maximo Predict Updates

## View historical anomaly scores of an asset on a more than daily basis

- Get anomaly scores on the asset details page calculated at various frequencies and durations:
  - 5-minute frequency looking back the past 10 days
  - hourly frequency looking back over the last 125 days
  - daily frequency looking back over the last 1 year
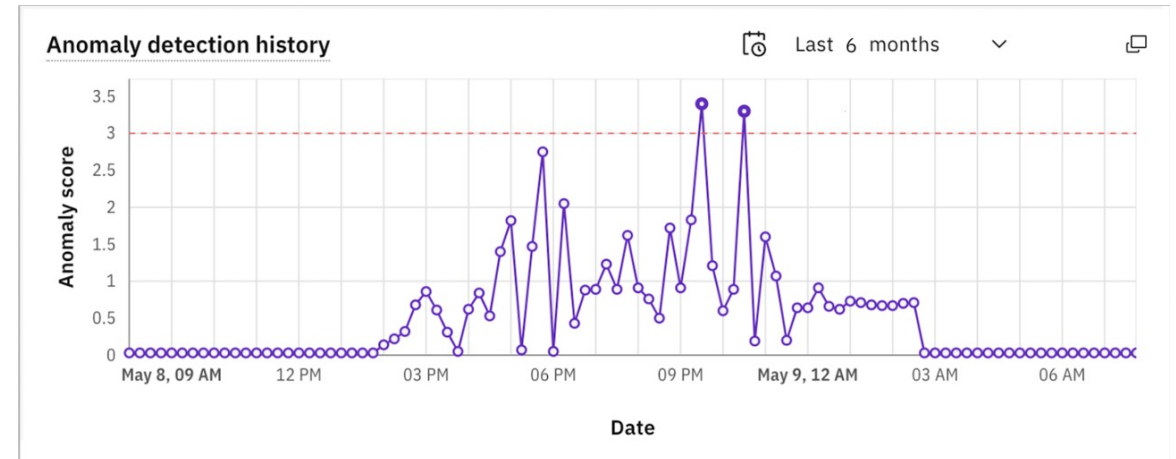
# MAS v8.11 is a Long-Term Support Release

- The release of v8.11 signifies the end of maintenance for v8.9

- v8.11 is a Long-Term Support Release

- We are aligning the support clock for v8.11 with v8.10 such that base support will end for both releases in March 2026

- In compliance with the new IBM support lifecycle requirements:

  - Both releases will offer 'initial extended' support for an additional 1 year (at additional cost)

  - Both releases will offer 'ongoing extended' support for an additional 3 years (at additional cost)

# MAS v8.11 Login enhancements (Phase 1)

The MAS Admin can now configure local, SAML, or LDAP authentication to provide multiple login options that users can authenticate to when they login.

SAML authentication can now be set as a default login route with a seamless login option:

- Seamless login disabled - The option to log in by using SAML is available on the Maximo Application Suite login page as the primary login option.

- Seamless login enabled - The authentication occurs directly in the SAML IdP. With seamless login, users are directed to the SAML IdP to authenticate instead of the Maximo Application Suite login page.

# Login System Message

You can create and display a system message on the login page to provide security and privacy information to users.

NOTE: If you configure SAML as the default identity provider and enable seamless login, users do not see any system notification that might be shown on the login page.

# Support users in active/inactive state

The MAS admin can change the user account status by activating or deactivating it on the User management page.

You can also deactivate the user account by a specific date or after a duration of inactivity from that account.

You can also change the user account status in bulk from the User management page or by importing .csv file.
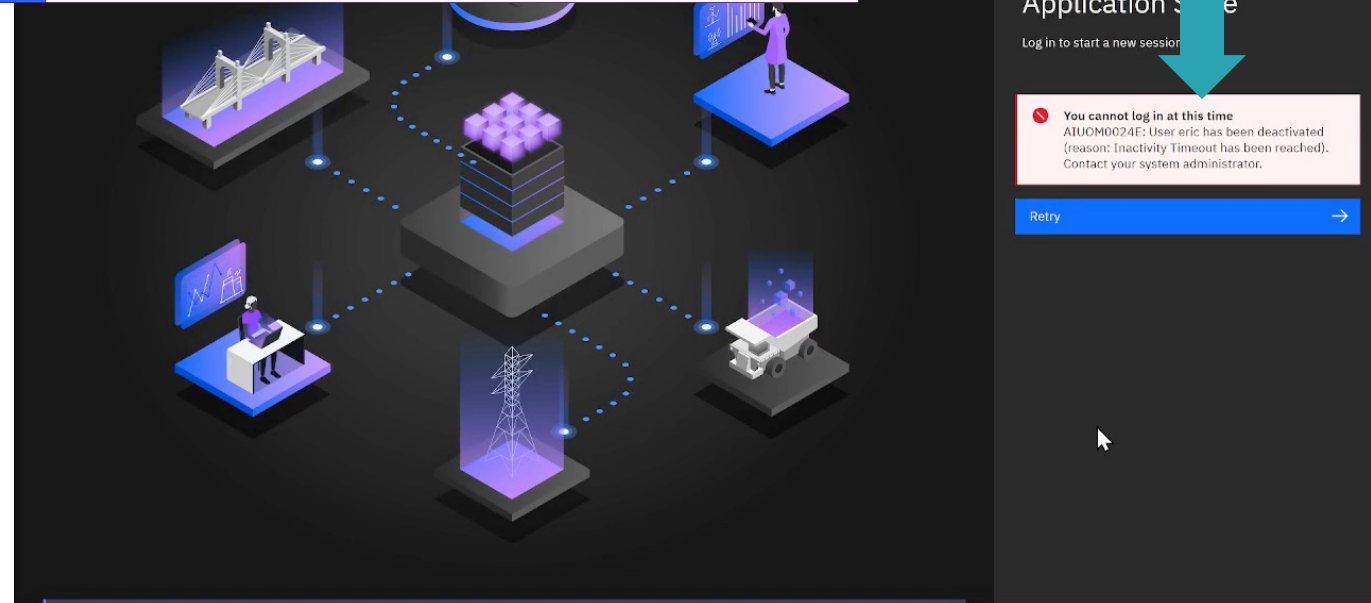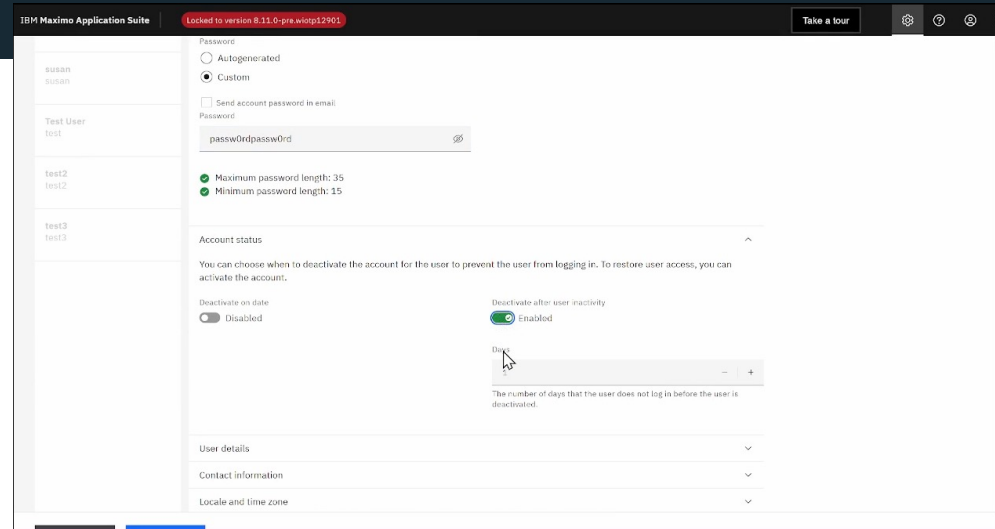
# API authentication keys for MAS Core

As a suite administrator, you can create, edit, or delete API keys in Maximo Application Suite.

You can activate, deactivate, or refresh authentication tokens for the API keys.

The API keys are used in user management for automation processes.

# Other updates

- ## Audit Log generation
  Maximo Application Suite and its applications now support the generation of audit logs for some controls to support the Federal Information Security Management Act (FISMA).
  As a Suite administrator, you can forward all logging from Red Hat® OpenShift® into an external system so that logs can be aggregated and securely stored.

- ## Control which CAs you trust
  Disable the trust in the default certificate authority (CA) certificates, by updating the CR.
  If you disable the default trust, then you need to specifically configure certificates and certificate authorities for all external systems that Maximo Application Suite connects to.

- ## Upgrade of dependencies via MAS CLI

- ## Rollback & Version Lock
  As an administrator, you can roll back Maximo Application Suite to an earlier version. Maximo Application Suite can be locked to use a specific version even when the operator is updated or upgraded.

- ## Customizing the workload
  As an administrator, you can manually configure workloads so that Maximo Application Suite can scale them to match demand. You can modify the supported pod's specifications, such as replicas, container resources, affinity, anti-affinity, and tolerations.

# MAS v8.11 introduces a change to our OCP support posture

## Background

- Since launch, MAS has followed the same OCP support posture as the IBM Cloud Paks

    - We only support MAS on even numbered releases of Red Hat Openshift

    - We only support even numbered releases after CP4D has added their support

- This policy has caused some confusion with clients and is of particular concern for clients wishing to use OCP managed services such as ROSA or ARO

## Going Forward

- MAS clients will be supported to run on any supported release of OCP upto the latest even release support by CP4D

    - So MAS v8.11 will support OCP v4.11 & v4.12.

    - We are also adding OCP v4.11 support to the MAS v8.10 compatibility matrix.

- When CP4D update their support to adopt the next even release, we will also add support for the preceding odd release.

# Storage Fusion Advanced Compatibility

- Storage Fusion Advanced is a Supporting Program for MAS w-e-f MAS v8.11.

- This was previously removed from MAS 8.10 and replaced with $0 storage part due to starter terms of 12 months creating contracting issues for perpetual licenses and subscriptions > 1 year. New usage with limitations (Data Foundation, 12TB per cluster) address the issue.

Questions?