

An aerial view of a city skyline at dusk. The sky is a deep blue, and the city lights are beginning to glow. In the center, a tall, slender skyscraper with a green-tinted facade stands out. To its left is a building with a distinctive, angular, green-tinted facade. To the right, a large, white, rectangular building with a grid of windows is prominent. The foreground shows a mix of lower-rise buildings and streets with some traffic. The overall scene is a dense urban landscape.

MAS8 & MAS9

What to Expect

Agenda

- Panel Introductions
- Implementation Pitfalls
- UI Feedback
- Lessons While Live
- Roadmap
- Q&A

Panel Introductions



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Implementation Pitfalls

Technology Landscape Consideration

Tech Stack Service Tiers

- Ensure supporting architecture tiering aligns with product tiering
 - Red Hat OpenShift
 - Oracle DB
 - MongoDB
 - WAS Liberty
 - Suite License Service (SLS)
- Run infrastructure failure scenarios

Air Gap Installs

- Install into a disconnected, offline, or restricted network
- Step 1: Pull & scan image from IBM Container Registry
 - Open firewalls for specific registry URLs
- Step 2: Install using published image from private registry

Avoid Persisting Technical Debt

- Plan to remediate infrastructure challenges
- Consolidate & define sequencing for autoscripts

UAT Test Cases

Incomplete Test Coverage

- UAT focuses mainly on primary flows; negative, edge, and cross-functional scenarios get missed.
- Customizations, workflows, escalations, and integration-triggered events often remain untested until later phases.

Integration Gaps

- UAT scripts may not include true end-to-end scenarios with external systems.
- Mock data differs from actual production patterns → defects surface only after go-live.

Insufficient Focus on Regression Testing

- Regression suites reduced or skipped due to timeline pressure.
- High risk of breaking existing functionality when new MAS 9.x builds are deployed.

Environment Instability During UAT

- Frequent config/code deployments during UAT disrupt test execution.
- Data resets or refreshes invalidate completed scripts.

9.0->9.1 changes/variance

- **Updated operator catalog and feature channels:** improved pod stability and graceful shutdowns; Ensure Core/Manage operator subscriptions use 9.1 channels. Wrong channel or out-of-support OCP → stalled upgrades/pod restarts.
- **UI Enhancements & New Panels:** 9.1 adds Similar WOs/Records and AI suggestions directly in WO screens; Assignment screens now show real-time dispatching statuses, making technician progress easier to track. Asset Data Dictionary removed in 9.1.
- **New AI Assistant (Search & Guided Help):** 9.1 includes integrated AI Assistant across Manage, Health, Dashboards. Example: Ask the assistant Show overdue PMs;
- **Attribute/length changes in places;** Report failures or data truncation if queries/lengths aren't updated.
- **API Keys Behavior Changes:** API keys now support expiry + certificate attachment.
- **Java 17 Alignment (Technical But Important):** 9.1 upgrades underlying platform to Java 17 (affects custom code). Example: A custom integration built in JDK8 may fail in 9.1 unless recompiled for Java 17.

UI configuration changes

Manage UI configuration expectations

- Focus on functionality over esthetics
- Just because you can doesn't mean you should

UI configuration changes

Width vs Size textbox properties

- Historical property used in XML, 'Width' not supported and does not function with same width behavior
- Where possible update to using Size in the textbox properties

Textbox Properties

Label

Hide Label?

Turn Smart Fill Off?

Attribute

GLACCOUNT

Data Source ID

Lookup

GLNAVIGATOR

Go To Applications

Input Mode

Menu Type

Size

17

Icon Menu ID

UI configuration changes

Always Synchronous property updates

- User scenario: User types partial text value and upon tabbing or clicking into another field a spy glass shows on the textbox
- Difficult for user to determine where additional input is needed. Previously there was a read highlight on the box to alert user.

The screenshot displays a configuration page for an asset with the following fields and values:

- Asset:** 11234
- Description:** Valve, Waste Washwater, Filter 2 [Filter Wing 1, Influe]
- Classification:** VALVE
- Serial #:** (empty)
- Asset Tag:** RH-FLT02-DRVLV
- Linear?:** (toggle off)
- Failure Class:** VALVE
- Last Condition:** 2-ACCEPTABLE
- Primary MRC:** (empty, highlighted with a yellow box and a search icon)
- Last Condition Date:** 6/6/24 12:08 PM
- Primary Division:** WPR (highlighted with a blue box)
- Criticality:** (empty)
- Primary Department:** WTR
- Changed By:** CEADES
- Source Feature Class:** (empty)

UI configuration changes

Always Synchronous property updates

- Always Synchronous property adds functionality to automatically pop up the lookup with filtered value options based on what has been typed in the textbox giving a better user experience

Textbox Properties

General **Advanced** ▾

Hover Window ID

Hover Window Attribute

Detail Image

QBE Prepend

Change Event

Always Synchronous?

- MAS requires integration object security be configured which is a change from 7.6
- All objects used for any type of integration will need this configured, including MxLoader
- 2 steps, configure in Objects Structure app

Configure Object Structure Security

Object Structure

MXOPERLOC Operation Location Definition

Authorization Name

MXOPERLOC

Use Object Structure for Authorization Name?

Add/Modify Signature Options (1 - 5 of 5)

	Option	Description	Prerequisite	Visible?	
▼	BMXVIEWMAN/	Sigoption to control the visibility of SQL	READ	<input checked="" type="checkbox"/>	🗑️
▼	DELETE	Delete MXOPERLOC	SAVE	<input type="checkbox"/>	🗑️
▼	INSERT	Insert MXOPERLOC	SAVE	<input checked="" type="checkbox"/>	🗑️
▼	READ	Read MXOPERLOC		<input checked="" type="checkbox"/>	🗑️
▼	SAVE	Save MXOPERLOC		<input checked="" type="checkbox"/>	🗑️

Select Service Option

Integration Object Structures - Configure Security Grants

- Grant the security to the object in Security groups

Group: MAXADMIN, Maximo Administrators (Full License)

Object Structures (1 - 1 of 1)

Object Structure	Description
=mxoperloc	
MXOPERLOC	Operation Location Definition

Options for Operation Location Definition (1 - 4 of 4)

Description	Grant Access?	Condition
Delete MXOPERLOC	<input type="checkbox"/>	>
Insert MXOPERLOC	<input checked="" type="checkbox"/>	>
Read MXOPERLOC	<input checked="" type="checkbox"/>	>
Save MXOPERLOC	<input checked="" type="checkbox"/>	>

Grant Listed Options for This Object Structure

Integration Object Structures - Configure Security Grants

```
protected void Application_Start(object sender, EventArgs e)
{
    ServicePointManager.SecurityProtocol = SecurityProtocolType.Tls12;
    ServicePointManager.ServerCertificateValidationCallback = (s, cert, chain, errors) =>
    {
        File.AppendAllText(Path.Combine(Path.GetTempPath(), "wfe_tls.log"),
            $"{DateTime.UtcNow:o} certSubject={cert?.Subject} errors={errors}{Environment.NewLine}");
        return errors == System.Net.Security.SslPolicyErrors.None;
    };
};
```

- MAS enforces TLS 1.2, so older SOAP integrations using TLS 1.0/1.1 fail after migration.
- Requires early coordination with external systems to upgrade their libraries, cipher suites, or runtime frameworks to support TLS 1.2.

Integration Impacts- SOAP Integrations → TLS 1.2

Cron Task

Cron Task
VMMSYNC Invokes WebSphere VMM APIs to populate database tables with

Class
psdl.security.vmm.VMMSyncCronTask

Access Level
FULL

Cron Task Instances (1 - 1 of 1)

Cron Task Instance Name	Schedule	Run as User
VMMSYNC01	10m,*****	MAXADMIN

1 - 1 of 1

Parameters History

Cron Task Parameters (1 - 5 of 10)

Parameter	Value	Description
ChangePolling	0	Virtual Member Manager (VMM) support
Credential	*****	Virtual Member Manager (VMM) adminis
GroupMapping	<?xml version="1.0" encoding="UTF-8"	The USER XML used by the VMM task.

Plan for alternative user synchronization
VMMSync No longer supported

UI Feedback

Asset Spare Parts Safety Meters Specifications Features Relationships Work Work Zones Service Address Map

Parent >

Location 03-007.01 > Bldg 3-07 1st floor

Linear?

Locale Z-26

Shop ID

Property ID

Asset Tag 024178

Manufacturer SARGENT-WELC >

Vendor >

Model# 1402-B

Serial/VIN#

Misc.Set Codes ++++++

Admin Set Codes ++++++++

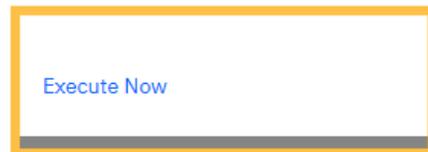
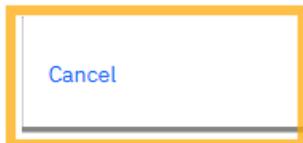
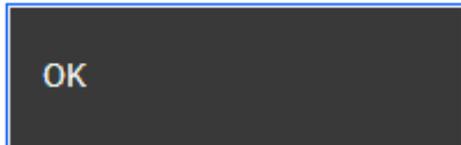
Commodity Code MECHANICAL

Finance

Larger field gaps necessitate more scrolling

- MAS 9's Carbon-based UI increases vertical padding and whitespace, reducing on-screen density and causing users to scroll more on core screens (WO, SR, Asset).

Button behavior inconsistencies



System Properties for UI enhancements

- Show query drop down in toolbar
- Label multi part descriptions
- Add Next and previous record navigation arrows back
- Expand search query box in toolbar
- Table buttons vs action button
- Add logged in user and site back to header

[mx.e.webclient.ShowQueriesInToolbar](#)

[mx.e.webclient.labelMultipartDescription](#)

[mx.e.webclient.showTableHeaderNavKeys](#)

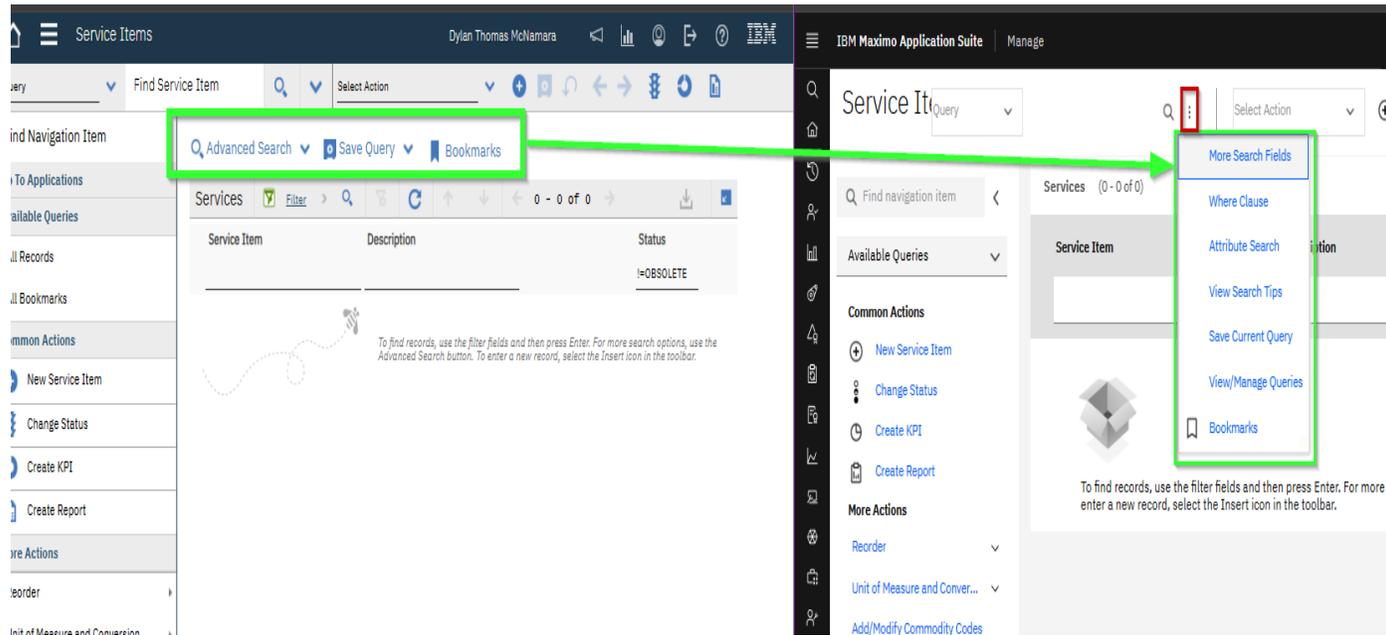
[mx.e.webclient.paginationButtonsPlacement](#)

[mx.e.webclient.keepQueryFieldOpen](#)

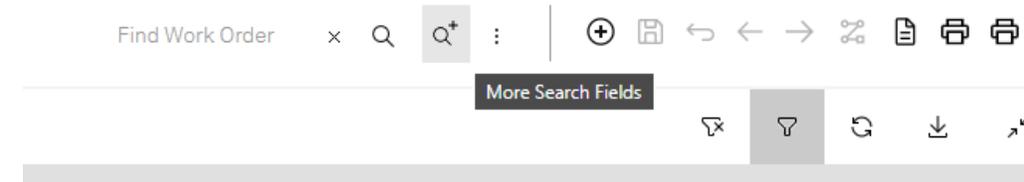
[mx.e.webclient.tableButtonPlacement](#)

[mx.e.webclient.customPageHeader](#)

Advanced Search



Before (MAS 9.0.x)



After (MAS 9.1)

Icon Symbology changes

MAS

Common Actions

-  New Work Order
-  Save Work Order
-  Clear Changes
-  Change Status
-  Select Owner
-  Take Ownership
-  Approve Work Order
-  Initiate Work Order
-  Complete Work Order
-  Close Work Order
-  Create Report

- Icons are monochrome
- New Record and new rows are now plus signs
- Options to update images in installation

With updated images

Common Actions

-  New Work Order (via Quic...
-  Clear Changes
-  Save Work Order
-  Change Status
-  Select Owner
-  Take Ownership

Lessons While Live

Customization Archive

Always update/ include it before every deployment; else your customizations will not work.

Configuration

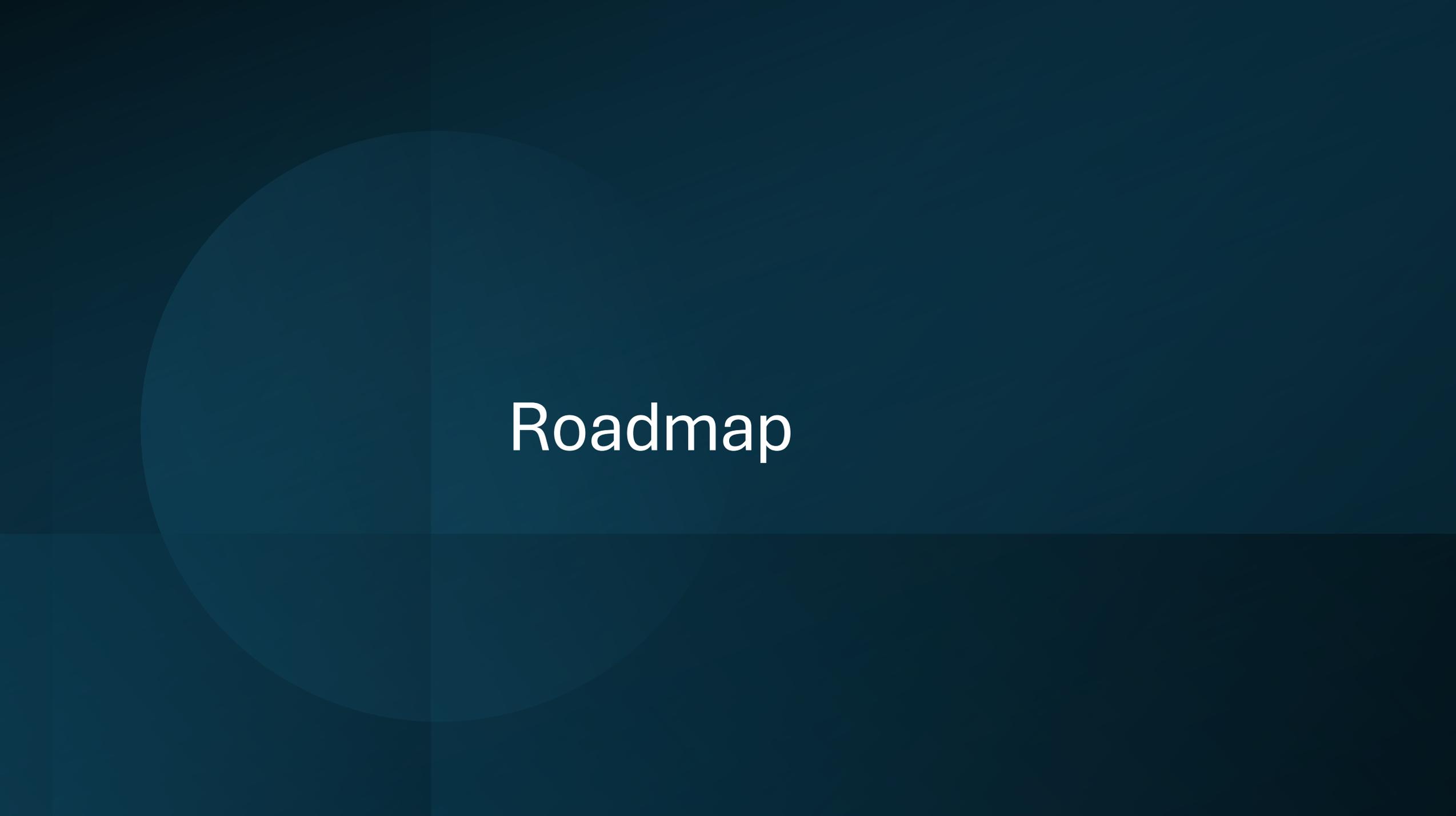
first approach to reduce MAS 9 admin overhead

UI behaviors

(sorting, filtering) changed post-upgrade; later IBM patches corrected these regressions.

Patch Check

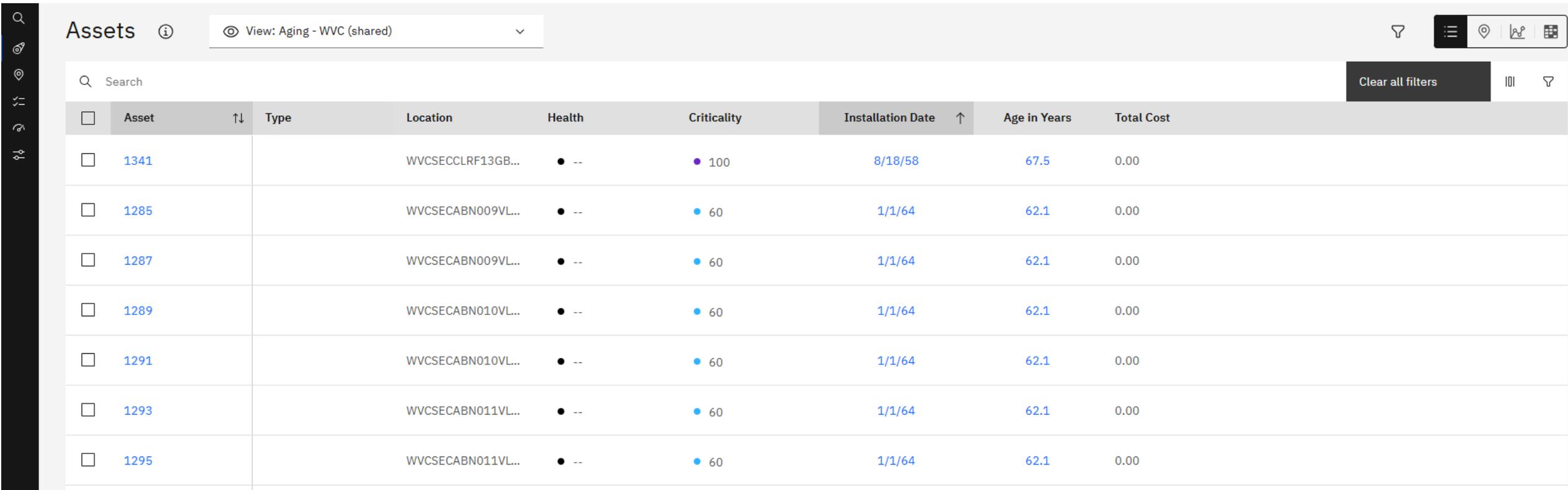
Ensure stable MAS/ Manage patch before cutover.



Roadmap

Health

- Manage the health of your assets to increase asset availability and improve replacement planning.



The screenshot shows a web interface for managing assets. At the top, there is a search bar and a view selector set to 'View: Aging - WVC (shared)'. Below this is a table with columns for Asset ID, Type, Location, Health, Criticality, Installation Date, Age in Years, and Total Cost. The table contains eight rows of data, all with a health status of '● --' and a criticality of 60 or 100. A 'Clear all filters' button is visible in the top right corner of the table area.

<input type="checkbox"/>	Asset	↑↓	Type	Location	Health	Criticality	Installation Date	↑	Age in Years	Total Cost
<input type="checkbox"/>	1341			WVCSECLRF13GB...	● --	● 100	8/18/58		67.5	0.00
<input type="checkbox"/>	1285			WVCSECABN009VL...	● --	● 60	1/1/64		62.1	0.00
<input type="checkbox"/>	1287			WVCSECABN009VL...	● --	● 60	1/1/64		62.1	0.00
<input type="checkbox"/>	1289			WVCSECABN010VL...	● --	● 60	1/1/64		62.1	0.00
<input type="checkbox"/>	1291			WVCSECABN010VL...	● --	● 60	1/1/64		62.1	0.00
<input type="checkbox"/>	1293			WVCSECABN011VL...	● --	● 60	1/1/64		62.1	0.00
<input type="checkbox"/>	1295			WVCSECABN011VL...	● --	● 60	1/1/64		62.1	0.00

Maximo Real Estate & Facilities

Service Request

Submit

Who is this request for?

- Me
- Someone Else

Where is the problem?

Charlotte Watson Center
Charlotte, North Carolina, United States

Floor
02 - Second Floor

Room
02-AU14

What best describes the problem?

Problem Category

Description

Write your description of the problem

Comments and Photos

Enter your comment here and select the Post button

Attach a photo

Home

Reminders

1 - Action Items

61 - Notifications

Project Manager Links

Projects

Procurement

Progress

Collaboration and Change

Payment

Projects Hub

Reminders - Capital Projects

Notices

1 - Action Items

61 - Notifications

Change Order and RFIs

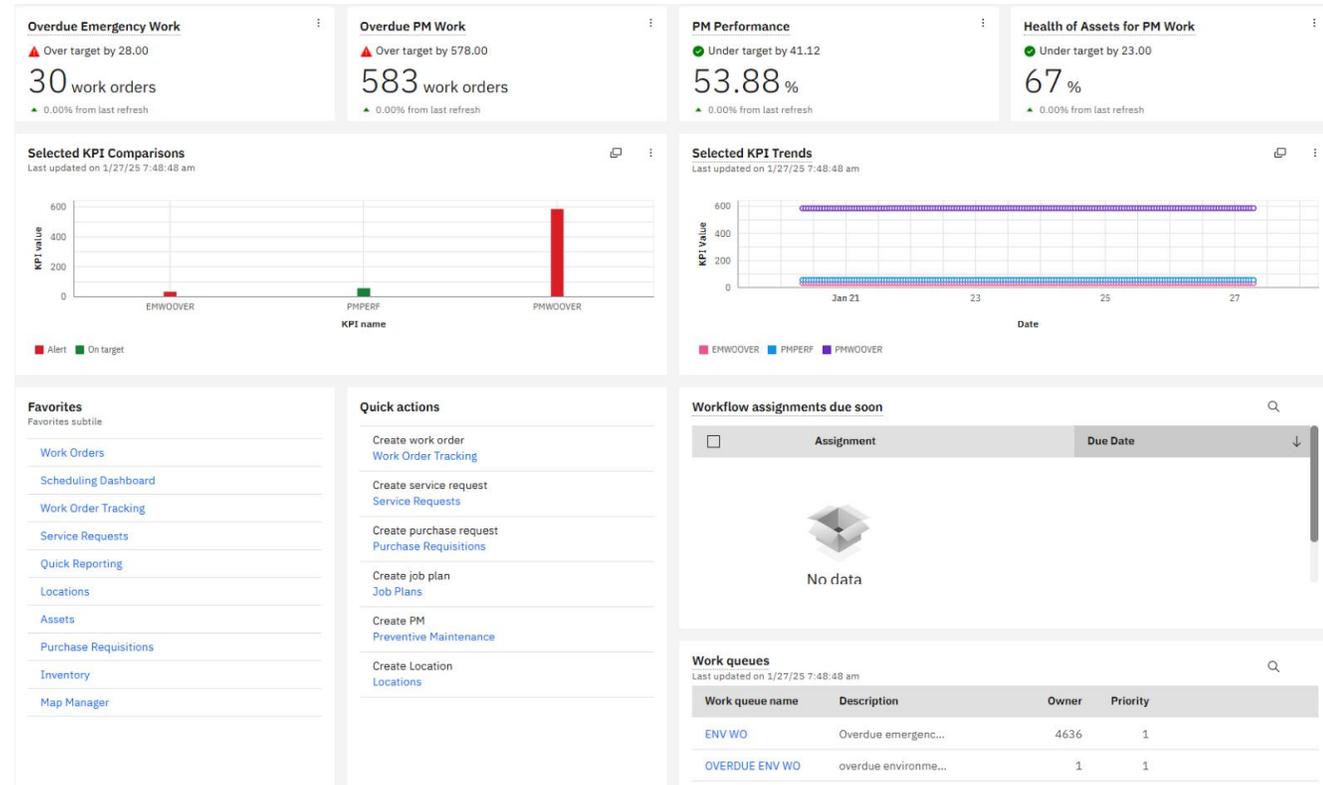
Recent Project: 1000762-Charlotte Watson C

Capital Projects - Budget vs Forecast

Name	Budget	Forecast	Variance Formatted	RAG
SLC01 - 4321 S 1720 W - N...	\$4,410,840.00	\$4,410,840.00	\$0	On Budget
DAL02 - 3000 Executive Par...	\$63,000.00	\$65,700.00	\$2,700	Over Budget
ATL01 - Cooling Tower Repl...	\$94,400.00	\$92,500.00	-\$1,900	Under Budget
ORD06 - HVAC Re-Commis...	\$47,600.00	\$39,100.00	-\$8,500	Under Budget
CLT001 - Renovation Project	\$1,562,795.47	\$247,715.18	-\$1,315,080	Under Budget
PHL08 - 203 N 34th St - Sto...	\$242,819.13	\$242,515.00	-\$304	Under Budget
LAS01 - Remodel	\$1,022,243.73	\$900,404.75	-\$121,839	Under Budget
UK Training Rollout Initiative	£195,600.00	£190,000.00	-£5,600	Under Budget
Clinic Renovation	\$175,700.00	\$156,200.00	-\$19,500	Under Budget
LAS04 - 2120 Sunrise - Ne...	\$4,877,340.00	\$4,461,840.00	-\$415,500	Under Budget
RDU01 - 3421 Six Forks Rd ...	\$4,653,432.00	\$4,431,840.00	-\$221,592	Under Budget
CWC1001 - Office Retro Fit	\$1,355,679.00	\$1,319,866.00	-\$35,813	Under Budget

Operational Dashboards and Work Queues

Will eventually replace
Start Centers



Maximo Mobile

- Maximo Mobile is MAS-native, offline-capable, installs from official app stores, and requires no separate mobile server — making it easy to adopt in our roadmap.

