

Evolving with Maximo Enterprise Asset Management - Discover IBM's new Maximo EAM Offerings and Roadmap

Watson IoT™

November, 2019

Lisa Stuckless – IBM Maximo Offering Manager



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What you'll take away from this session...

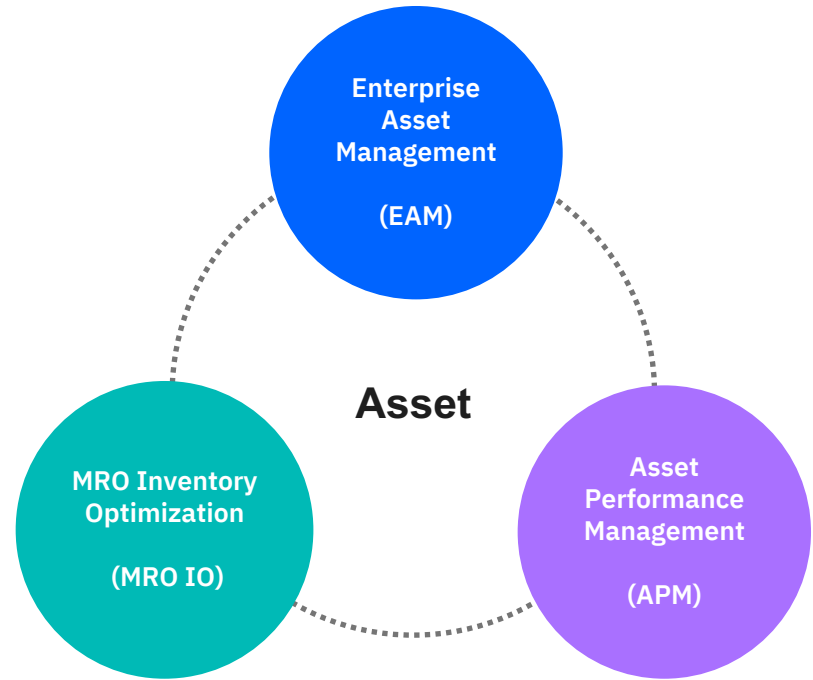
- ❖ Learn about Expanding the Maximo Portfolio
- ❖ IBM's Maximo Investment Strategy
- ❖ Advancing with Innovation
- ❖ Product Roadmap



We are helping customers improve operational effectiveness and efficiency

IBM has identified three major disciplines that help industrial companies respond to the global productivity crisis with improved efficiency, reduced risks, and lower costs:

- **EAM** to capture asset data and manage execution of work
- **APM** to optimize performance through prediction and prescriptive actions
- **MRO IO** to improve uptime and cost with better inventory control



Our expanded portfolio of industry-leading Maximo solutions

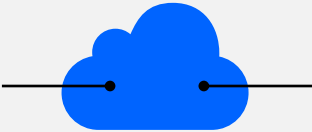
IBM Maximo Solutions	<div>Enterprise Asset Management</div> <div>Keep critical assets operating at maximum efficiency.</div>	<div>Asset Performance Management</div> <div>Improve equipment performance with analytics and AI.</div>	<div>MRO Inventory Optimization</div> <div>Reduce costs and minimize asset downtime.</div>
Core Components	<div><div>– Core Enterprise Asset Management</div><div>– Industry Solutions</div><div>– Service Provider</div><div>– Asset Configuration Manager (ACM)</div><div>– Scheduler / Plus</div><div>– Spatial</div><div>– Linear</div><div>– ERP Adapters</div><div>– Health, Safety, Environment (HSE)</div><div>– Worker Insights</div><div>– Anywhere</div><div>– Assist</div></div>	<div><div>– Monitor</div><div>– Health</div><div>– Predict</div></div>	<div><div>– Spare Parts Inventory Optimization</div></div>
Foundations	<div><div>Watson IoT Platform</div><div>Connect, Collect, Analyze, Optimize, Govern and Deliver</div><div>Tailored insights from AI and analytics models and algorithms (Visual & Acoustic)</div></div>		
	<div><div>IBM Services</div><div>Industry, domain and IoT expertise</div><div>Industry solutions with pre-integrated AI / Machine Learning capabilities</div></div>		

Maximo Portfolio

Core Solution



Maximo
EAM SaaS Flex



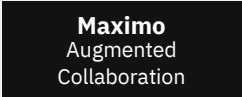
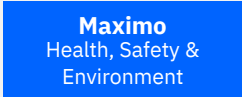
SaaS Solutions

Maximo EAM SaaS
(multi-tenant)

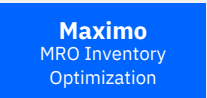
Industry Solutions



Add-on Solutions



Integrations



Maximo on the cloud

- 2 delivery models of SaaS now available to meet customer needs
- Fastest revenue segment and growth
- Wide representation between small and large customers; private and public

Maximo EAM SaaS (Multi-tenant)

- **NexGen Asset Management**, continuing to accelerate our SaaS momentum
- Continuous delivery allows customers to adopt and leverage, new features, functions, updates with cloud service
- **Free trials** – full Digital journey
- **Deploy in minutes** with with **automatic deployment**
- Includes IBM Maximo EAM **Scheduler**
- Integrations supported via **REST APIs**.

Maximo EAM SaaS Flex

- SaaS Flex is a combination of the SaaS economic model with greater flexibility and much more latitude to **configure and customize**
- Offers **Industry Solutions, add-ons and business partner content**.
- Full development environment, with additional non-prod and capacity extension available.
- **VPN for integrations** to other tools and systems
- Backups of data and configurations

Secure, compliant and available with IBM Cloud



Standardized, best-practices-based facilities



Redundant, best-in-class infrastructure



Better power, bandwidth and performance



24/7 on-site security, with rigorous controls



IBM Maximo: Investments and Innovation



1. Maximo EAM Modernization

—
Persona Based Experience
Responsive Work Centers
Configurable



2. Mobility

—
Anywhere
Assist
Augmented Collaboration
Watson Assistant



3. Asset Performance Management

—
Monitor
Health
Predict

Maximo EAM Releases

7.6.1 – July, 2018
7.6.1.1 – May, 2019

New Work Centers and enhancements to existing ones.

*Supervisor
Technician
Inventory Management
Inspections
Service Requests
Administration
Asset Manager
Business Analyst
Maps*



Improving the user experience

*Modernized User Interface
Advanced mapping capabilities
Ease of build and deployment
features – installation videos
Free 3-day online training course*



Strengthen work management with mobility

Artificial Intelligence with Equipment Maintenance Assistance.

Hands- free with Watson conversation.

*Worker Safety
Token Licensing*



Innovation and technology advancements

Updates to meet industry and regulatory requirements.

- Aviation
- Asset Configuration Manager
- Service Provider
- Transportation
- Scheduler
- Spatial / Linear



Continued focus on Industry Solutions

Scheduler Optimization models for capacity planning, resource assignment and dispatching

Business Intelligence using Cognos 11

Business Analyst dashboard and KPIs



Analytic insight for improved decision making

Technical investment to reduce total cost of ownership

Continuing to improve and expand the **foundation** of Maximo.

Providing tools that address **serviceability, integration** and **security** requirements.

Meeting the needs of the modern Maximo customer.

Install/Deployment



Expose object structures through Swagger to enable live testing and documentation. Wizard based initial configuration for cloud deployments. Token based licensing model. Containerization Support.

Serviceability Interface



Monitor Application Health with access to real-time system information to quickly troubleshoot Maximo. Continue to add metric points.

API Security Improvements



API security and Keys provide more robust and enhanced capabilities. Shorten authentication integration time by using published templates. Option to manage security at business logic level in addition to UI.

Configurability

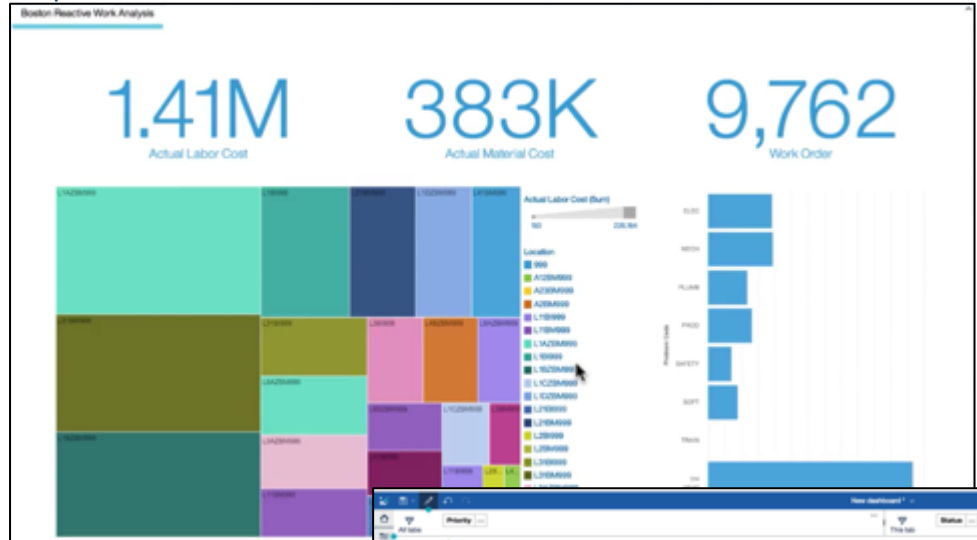


Embedded automation scripting editing tool. Additional trigger points available for scripts.

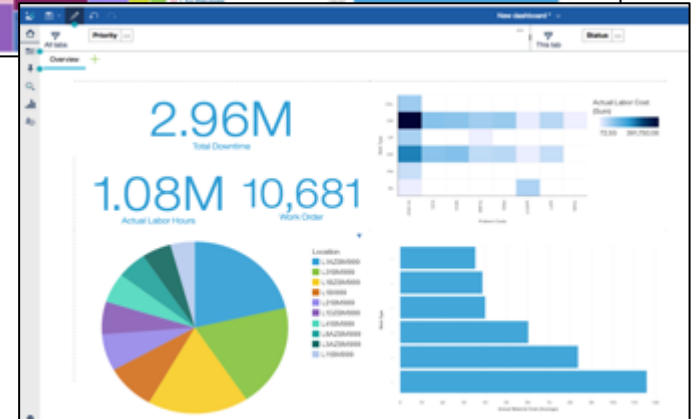
Maximo Analytics enabled by Cognos

- Extend your data analysis capabilities into the Self-Service reporting and dashboard features provided by Cognos Analytics.
- Create insightful reports and dashboards from packages you publish from Maximo or via new web based models.
- Visualize, explore and share insights on your Maximo data in Cognos governed environment.
- Offers Cognos mobile apps
- Sign up for a free trial of Cognos Analytics today <https://ibm.co/2zFQU2U>
- Demo Videos: Google Maximo 761 Cognos Analytics

Reports, Dashboards, Modules



Mobile apps



Maximo Work Centers

Modernized role-based applications



Reimagined Maximo foundation



User-driven design



Streamlined actions and display
for ease of training and use

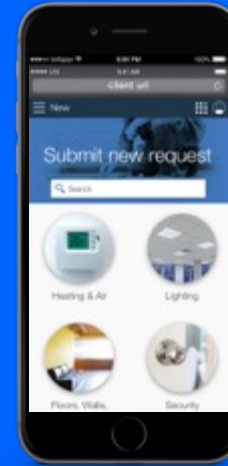


Connected, responsive mobile display

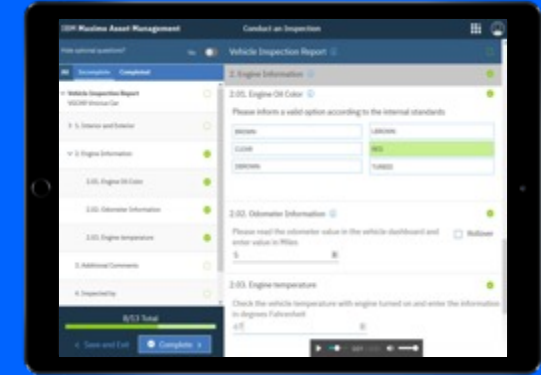


12 Work Centers focusing on Asset,
Work and Inventory management

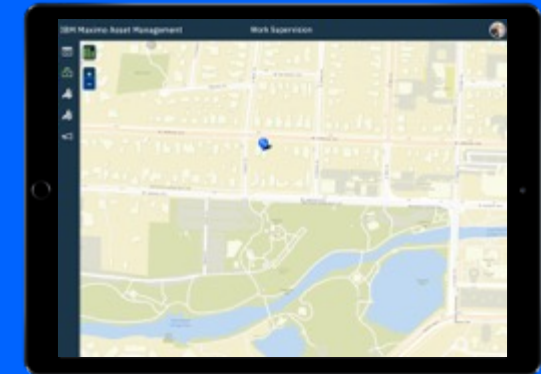
Service Requests



Work Inspection



Work Supervision



Maximo Work Centers



Work Technician, Supervision

—

Daily Work: Works on assignments and reports actuals with minimal effort. Can quickly take follow-up actions to respond to requirements in dynamic work environments.



Inspections

—

Inspecting Assets: Create and manage inspection forms for inspectors to complete inspections quickly and easily.



Inventory Management

—

Manage Demand: Maintaining the storage of inventory with the proper amount of products along with order fulfillment to minimize asset downtime.



Service Requestors

—

Entering in a Request: Ability to submit a problem quickly and efficiently.



Business Analyst

—

Understanding the Data: Knows the Maximo database and sql. Configures queries, kpi's, and charts to analyze Maximo data.

Maximo Work Center Examples

IBM Maximo Asset Management

Work Supervision

Approve Work (7)

Search

Priority

Relocate Guard Rails ... Priority 2

CM 1000
Location: Boiler Room Reciproca...
Asset: Reciprocating Compresso...
Scheduled Start: 30/03/16 15:00

Approve

Remove old pole Priority 3

1043
Location: Electrical Service Pole ...
Asset: Electrical Service Pole #3...
Scheduled Start: Unspecified

Approve

Transfer cables from o... Priority 3

1042
Location: Electrical Service Pole ...
Asset: Electrical Service Pole #3...
Scheduled Start: 30/03/16 15:00

Approve

Install new pole Priority 3

1041
Location: Electrical Service Pole ...

Assign Owner (15)

Search

Priority

HVAC overheating Priority 3

CP 1233
Location: HVAC System- Main Of...
Asset: HVAC System- 50 Ton Co...
Scheduled Start: 30/03/16 15:00
Approved

Find Owner

Inspection Priority 4

PM 40060
Location: Motor- 10hp/1750rpm/TEFC/254T ...
Asset: Motor- 10hp/1750rpm/TEFC/254T Fra...
Scheduled Start: 24/06/00 15:45
Approved

Find Owner

Inspect and Repair Pu... Priority 5

CM 1013
Location: Repair Shop
Asset: Centrifugal Pump 100 GPM, 60 FT-HD
Scheduled Start: Unspecified
Approved

Find Owner

Electric Cast Tube Lin... Priority 7

Monitor Work (8)

Search

Priority

13170 problem Priority 2

CM 30058
Location: #1 Liquid Packagin...
Asset: Top Sealer System
Actual Start: 20/10/01 14:29
Sched...
In Prog

Com...

problem at 13120 Priority 2

CM 30065
Location: #1 Liquid Packaging...
Asset: Bottom Sealing System
Actual Finish: 24/07/18 09:56

Close Work (2)

Search

Priority

Quickly respond to work approval requests

IBM Maximo Asset Management

Work Supervision

CM 1207

Details Plans Assignments Comments Attachments Reported Work

Approve

Sealer is broken

Long description

Status

Waiting on Approval

Priority

1

Asset

13170

Top Sealer System

Location

BPM3100

#1 Liquid Packagin...

Failures

Failure Class

Packaging Line Failures

Problem

Unspecified

Work Type

CM

Corrective Mainten...

Job Plan

JP13140

Revision 1

Sealer repair

Site

Bedford MA Site of EAGLE Inc.

North America

SCHEDULING INFORMATION

Change work order information on the fly with a touch-oriented interface

Inspections – Manage Forms

IBM Maximo Asset Management Manage Inspection Forms

Inspection Form Library

Search inspection forms

Create Form

8 results

- Bridge Inspection Report 1011
Revision 1 - Thu Sep 28 2017
Active
- Daily Maintenance and Inspection Log for Work Equipment 1006
Revision 3 - Thu Sep 28 2017
Active
- Monthly Fire System Inspection 2 1005
Revision 2 - Thu Sep 28 2017
Active
- Portable Ladder Inspection 1001
Revision 3 - Thu Sep 28 2017
Active
- room inspection 1007
Revision 1 - Thu Nov 02 2017
Active
- Sampling Meter Inspection 1004
Revision 1 - Wed Nov 01 2017
Active

Response Fields

- Single Entry
 - Date only
 - Date/Time
 - Time only
- Asset Data
- Meter Readings
- Media
 - File Upload
- Numeric Entry
 - Single Numeric Entry
- Selectable Responses
 - Single Choice
- Text Entry
 - Text Response

Question: Wind Shield (if applicable)

5. Single Choice

Description: Select one Option

Option 1 Require Action? No

Pass

Enter Message

Option 2 Require Action? Yes

Fail

Create a Work Order for repl

Example:
Option 1
Option 2
Option 3

Cancel Done

Provides capabilities to define an electronic inspection form:

- Accommodate requirements of traditional paper based inspections.
 - Group questions, mark required.
 - Attach documents, free form text, meter readings.
 - Conditional Questions
 - Colors and Icons to indicate response
- Revision control.
- Audio guided inspections and follow up actions.
- Used for Job Plans and Routes.
- PM can be set up for recurrent inspection on assets and locations.

Inspections – Conduct an Inspection

IBM Maximo Asset Management Conduct an Inspection

Hide optional questions? No ☐ Vehicle Inspection Report ⓘ

All Incomplete Completed

Vehicle Inspection Report
VGCAR Vinicius Car

> 1. Interior and Exterior

2. Engine Information

2.01. Engine Oil Color

Please inform a valid option according to the internal standards

BROWN LBROWN
CLEAR RED
DBROWN TURBID

2.02. Odometer Information ⓘ

Please read the odometer value in the vehicle dashboard and enter value in Miles ☐ Rollover

5

2.03. Engine temperature

Check the vehicle temperature with engine turned on and enter the information in degrees Fahrenheit

67

8/13 Total

< Save and Exit Complete >

Leverages Watson services to conduct a hands free inspection by just using voice responses.

- Report results in a connected mobile device.
- Inspection statuses are managed automatically and differentiate pending, in progress and completed results.
- Easy and intuitive navigation to report and visualize single or multiple inspection results.
- Search and evaluate individual completed inspection results.
- Associate results to Assets and Locations, WOs and tasks.
- Historical Inspection results are presented in both Assets and Location applications.

New in 7.6.1.1: Manage Inventory Work Center



1. Easier set-up

- Add storerooms
- Set up item master
- Define units of measure
- Bins, lots, and rotating items
- Create initial balances



2. Faster transactions

- Update balances
- Issues and transfers
- Fulfill reservations
- Return issued items
- Physical counts

Manage Inventory – Perform actions in context

IBM Maximo Asset Management Manage Inventory

Central Storeroom BEDFORD

Items 20

ID	Description	Bin	Lot	Balance	Available	Reserved	Staged	Shipped	Expired
110102	Fire Extinguisher-Pistol-Ambush	B-3-3		3	3	0	0	0	0
110105	Centronics Renewal Kit	B-4-4		5	5	0	0	0	0
110106	AC Spark Plug	A-5-4		50	50	0	0	0	0
110103	Tool, Mechanical, Self Aligning ...			17	-2	2	0	0	0
	Tool, Mechanical, Self Aligning ...	G-3-3	A-431	1		0			
	Tool, Mechanical, Self Aligning ...	A-4-9	A-431	14		0			
110105	Beating Pulley, SHP-1 In ID	C-3-4		9	9	0	0	0	0
110105	Connecting Link-Rope	A-5-2		6	6	0	0	0	0
110108	Shelf-1 Inch Dia	C-6-2		6	5	1	0	0	0
110103.0-2	110103.0-0 Drive Tire			50	50	0	0	0	0

Inventory Item ID

Manage reorder n

Edit
Issue
Transfer
Manage reorder n

Create, View, Edit, Issue and Transfer directly from a row from Storeroom or Reservation

IBM Maximo Asset Management Manage Inventory

Reservations Reservations Issued Items

From 4/15/19 To 10/31/19 Results: 3

REDFORD-CENTRAL

Type	Date	Work Order	Item	Description	Default Bin	Quantity
APWARD	3/29/19	1224	61-2000	Filter, Secondary Air		3
APWARD	3/29/19	1233	61-2000	Filter, Secondary Air		3
APWARD	3/29/19	1205	110103.0-0	Centrifugal Pump 100 GPM, 60 FT-HD	F-4-2	96

Asset Unspecified Task ID From site BEDFORD From storeroom CENTRAL Item PUMP100 Location DANKS1

Condition code Unspecified To site BEDFORD To storeroom Unspecified Reference work order 110104

Edit
Issue
Transfer
Delete

IBM Maximo Asset Management Manage Inventory

Back

Tubing, Copper-1 In ID X .030 In Wall

Set ID Item set 1

Details Storerooms

Units of Measure	Conversion	Status	Lot Type	Rotating Item
EACH	BOX	12.0	Active	NOLOT
Issue Unit	Order Unit			No
Commodities	Default Vendor			
MECHANICAL				
MECH				
Commodity Group	Commodity Code			
RELATIONSHIPS				
Attachments				

Add or edit units of measure in-context

IBM Maximo EAM SaaS Manage Inventory

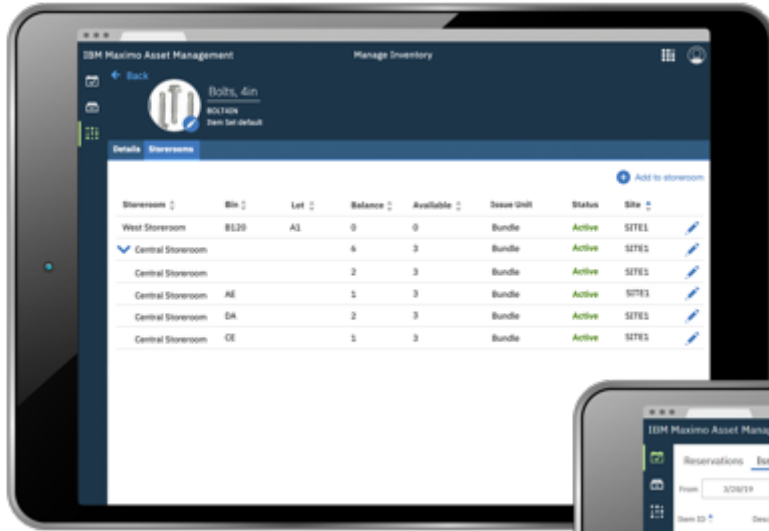
storenew1 SITE1

Balances Counts

ID	Description	Bin	Lot	Count due	New count	Last count	Last date
1101NEW1	4" screw	12		3/26/19	1111	1111	3/26/19 3:44 am
1101NEW6	Itemnew6	12		3/26/19	1	1	3/26/19 4:26 am
1101NEW8	Itemnew8	13	14	3/26/19	2	2	3/26/19 5:28 am
1101NEW9	Itemnew9			3/26/19	1	1	3/26/19 5:28 am
1101NEW10	Itemnew10	16		3/26/19			3/26/19 6:27 am
1101NEW15	Itemnew15	15		3/26/19			
1101NEW16	Itemnew16	15	12	4/3/19			
1101NEW17	Itemnew17	1233	236	4/3/19			
1101NEW17	Itemnew17	19	13	4/3/19			

Intuitive Physical Count with Multi-column sorting

Manage Inventory: Improved summary information



IBM Maximo Asset Management - Manage Inventory

Back Bolt, 4in
ROLTAIN
Item Set default

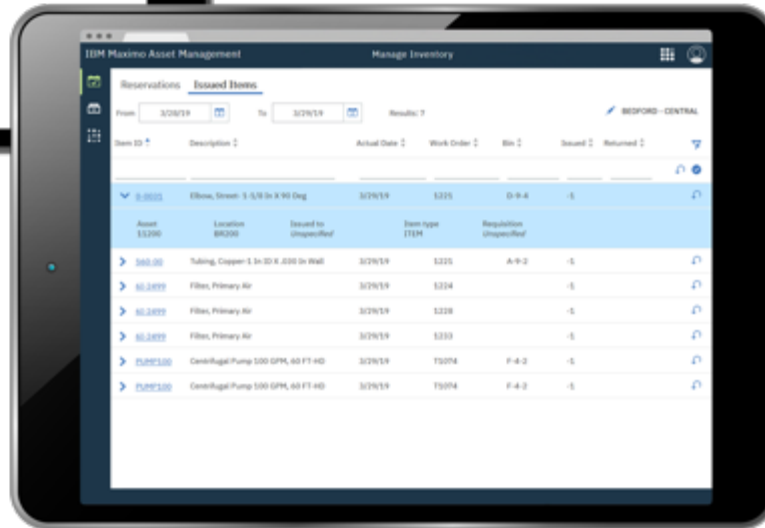
Details Storerooms

1 Add to storeroom

Storeroom	Bin	Lot	Balance	Available	Issue Unit	Status	Site
West Storeroom	B520	A1	0	0	Bundle	Active	SETEL
Central Storeroom			4	3	Bundle	Active	SETEL
Central Storeroom			2	3	Bundle	Active	SETEL
Central Storeroom	A6		1	3	Bundle	Active	SETEL
Central Storeroom	BA		2	3	Bundle	Active	SETEL
Central Storeroom	CE		1	3	Bundle	Active	SETEL

Item storerooms

- Balances for a single item across the org
- Bins as child rows with balance roll-up



IBM Maximo Asset Management - Manage Inventory

Reservations Issued Items

From 3/28/19 To 3/29/19 Results: 7

Item ID Description Actual Date Work Order Bin Issued Returned

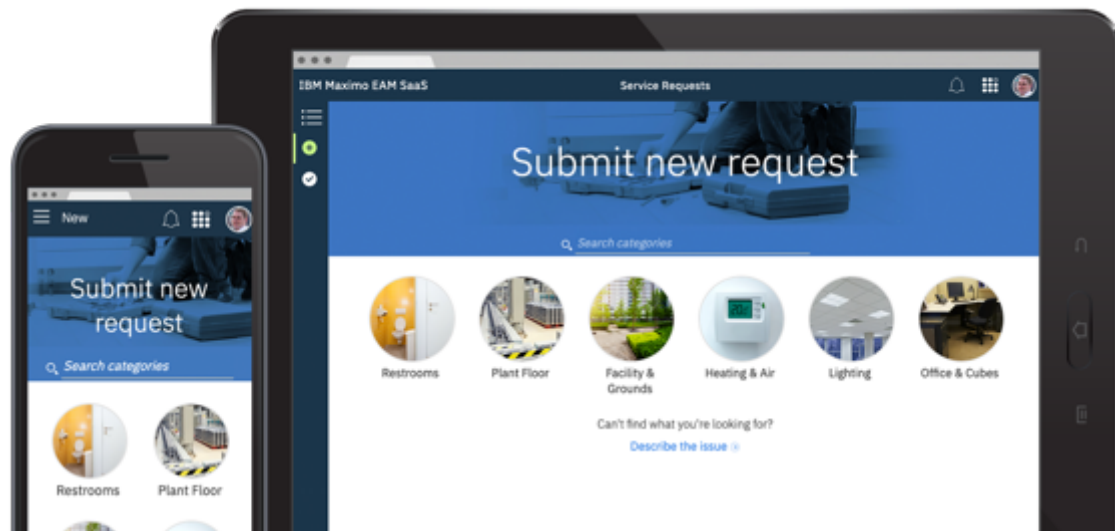
0-0000	Elbow, Steel: 1-1/2 In X 90 Deg	3/29/19	5225	D-9-4	-5	
Asset 51200	Location B5200	Issued to Unspecified	Item type ITEM	Requirement Unspecified		
> 360.00	Tubing, Copper-1/4 In ID X .030 In Wall	3/29/19	5225	A-9-2	-5	
> 60.0000	Filter, Primary 6R	3/29/19	5224		-5	
> 60.0000	Filter, Primary 6R	3/29/19	5228		-5	
> 60.0000	Filter, Primary 6R	3/29/19	5233		-5	
> PUMP100	Centrifugal Pump 100 GPM, 60 FT HD	3/29/19	T3074	F-4-2	-5	
> PUMP200	Centrifugal Pump 100 GPM, 60 FT HD	3/29/19	T3074	F-4-2	-5	

Issued items list

- See what has been issued from your storeroom
- Return items to the bin & lot they came from

Service Requests in 7.6.1.1

- Category search
- Affected user
- Enhanced code scanning
- SR Configuration screen
- SR triage view: Batch-actions
- Performance improvements



IBM Maximo Asset Management

< Back Issue Details Submit

Affected person

Person:
Fran Garcia

Person number:
7134376110

Email:
fran988@us.ibm.com

Service Request Configuration

You can add, modify, or delete category hierarchies for service requests here.

Follow-up for "Too Hot"

Follow-up questions ⓘ

+ Add

How long has it been hot?

Required? ☐ No

What is the current room temperature?

Required? ☐ No

Instructions ⓘ

B / **I** **U** **A** **-** **≡** **🔗**

Please check the thermostat is set to **Cool** and fan is set to **Automatic**. For additional troubleshooting steps go to <http://www.ibm.com>

Service Requests in 7.6.1.1 - Improved code scanning



- Camera is now opened in video mode instead of photo
- Red view finder frame is overlaid to help the user focus
- When the code is in focus it snaps to the picture and renders the ID
- An audible beep will sound to indicate success

Supported codes:

- Codabar
- Code-39
- Code-93
- Code-128
- EAN
- EAN-8
- Interleaved 2 of 5
- QR code
- UPC

Devices:

- Android/Chrome
- Apple/Safari
- Windows/Edge

Service Request processing page Enhancements

Perform an action against multiple requests

IBM Maximo Asset Management

Work Supervision

Review Service Requests

Create Work

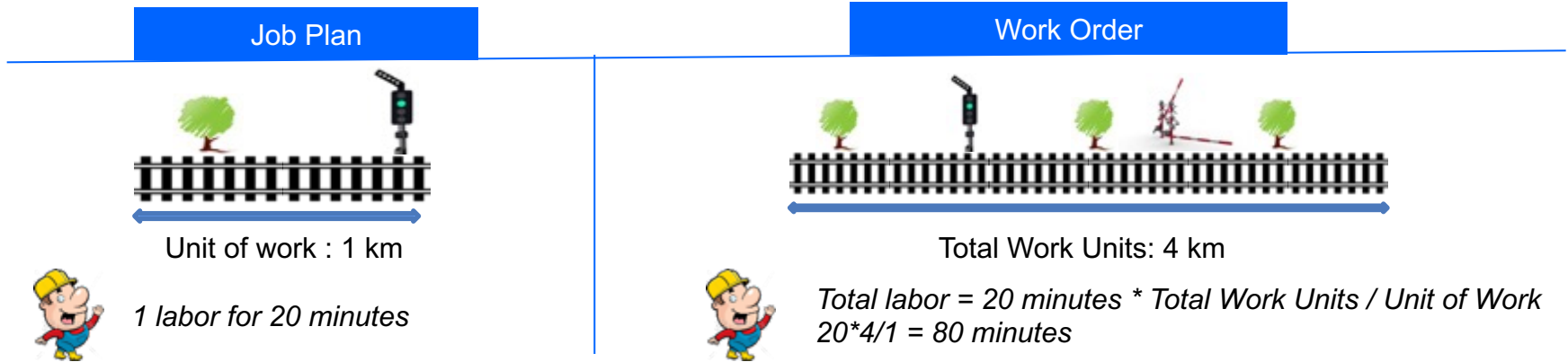
Reject

Edit Status

Assign Owner

<input type="checkbox"/>	ID	Description	Work Order	Priority	Status
<input checked="" type="checkbox"/>	1174	Pipeline Leak Classi...			New
<input checked="" type="checkbox"/>	1173	Leak observed			New
<input checked="" type="checkbox"/>	1172	Pipeline Leak Classificat...			New
<input checked="" type="checkbox"/>	1150	Pile of trash on the shoulder			New

Dynamic Job Plans - 7.6.1.1



A job plan resource (or resources) can be scaled proportionally based on the scope of work

Note: Labor and tools can be scaled by qty or duration or both

Static – Job plan quantity/duration applied directly to work order (standard Maximo option)

Proportional – Calculate the work order quantity/duration by dividing the quantity/duration on the job plan by the job plan work units multiplier for a given work order / asset combination.

Level – Select the quantity/duration based on a pre-defined threshold (for example only one foreman is required for work under 5 miles in length. Any work over 5 miles requires 2 foremen)

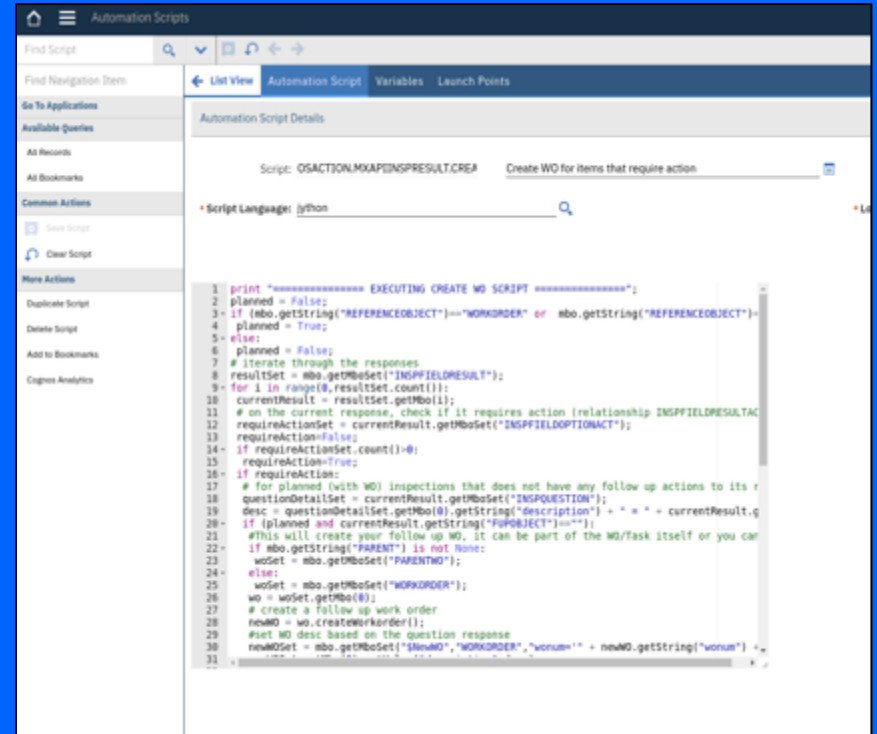
New Action within Job Plan application

- Selection Action > Simulate dynamic job plan

Scripting Editor embedded in Automation Script application

7.6.1.1

- Syntax highlighting and Line numbers for improved readability
- Collapsible code blocks
- JavaScript validations prior to save
- Auto-complete reserved words, common functions, etc for Python and JavaScript
- Supports some auto-completion of existing variables and methods
- Tab will indent the code instead of taking you to the next Maximo Field
- Supports Ctrl-z for Undo



IBM Maximo MRO Inventory Optimization

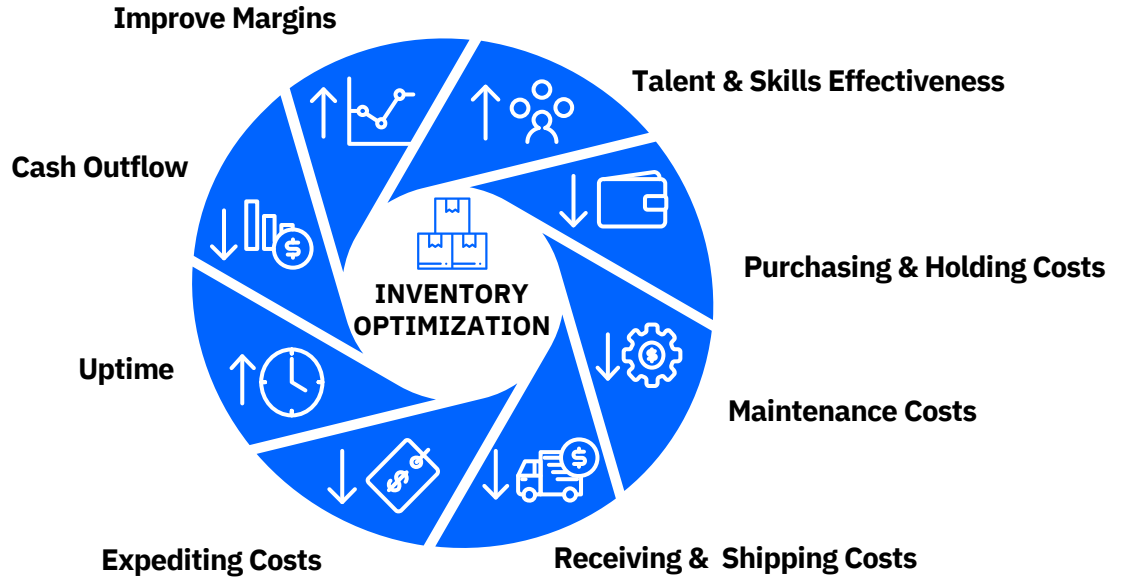


Addressing key
operational challenges



Delivering rapid
payback to fund broader
transformational
operations initiatives

*Typical implementation is 3-5 months
Payback period typically <1 year*



Up to 50% reduction in
unplanned asset downtime



20-40% reduction
in inventory costs



15-35% savings
in maintenance budgets

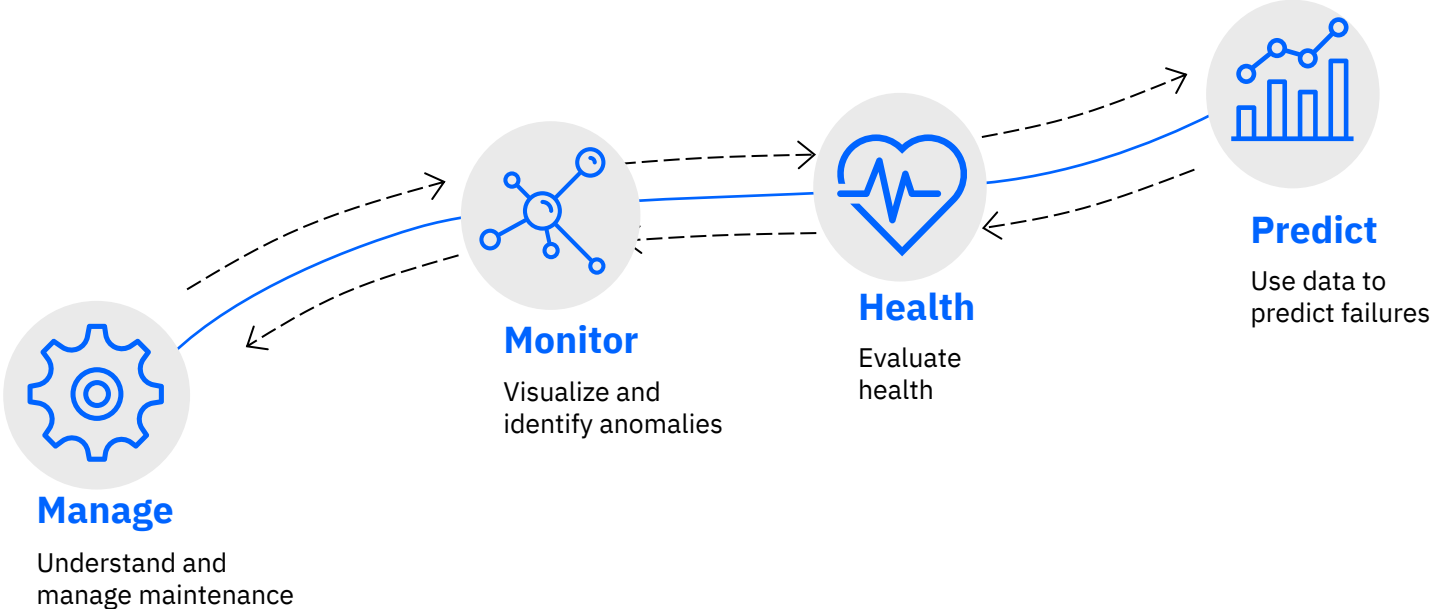


10-25% increase
in service levels



Journey to Predictive

Improves uptime and reduces maintenance costs



IBM Maximo APM

Reduces downtime and maintenance costs with asset health metrics and predictive insights

- **Monitor** - Use sensor and SCADA data alongside machine learning to create custom models. Associate data points, assets, and hierarchies and visualize data over time.
- **Health** - Provides asset health assessments using asset records, sensor data, and other external data to inform maintenance and replacement decisions
- **Predict** - Predicts asset health using statistical models and machine learning. Includes failure date/probability, key drivers, degradation curves, and anomaly detection
- **APM for E&U** – Industry specialized solution for distribution, transmission, and generation companies. Enables the understanding of asset health and criticality



IBM Maximo Mobile

Connecting workforce for
enhanced business efficiencies
and decisions



Continuous need for instant data access driven by

Business

Continuously evolving



Massive amounts of data continuously consumed and analyzed



Causing reactionary impacts throughout entire organization

Assets

Increasingly complex, remote and aging



Digitized, automated assets perform multiple tasks and utilize multiple IoT sensors



Aging infrastructure of assets in water, utility and public works

Work force

Broad range of skills and knowledge



Maturing workforce has extensive internal tribal knowledge



Tech savvy workers expect commercial application experiences

Maximo Mobility

Maximo provides a flexible suite of mobile products.

Everyplace



Enables display of traditional Maximo applications in mobile tablets and phones

Workforce Assistant



Extends mobile applications with virtual assistances to streamline work processes

Anywhere



Critical work, asset and inventory connected and disconnected mobile applications

Work Centers



Modernized, role-based applications featuring IBM Design and agile principles

Workforce Assistance for field technicians



Maximo Augmented Collaboration

Augmented Reality (AR) - enabled interaction between technician and expert



Maximo Assist

Artificial Intelligence (AI) - improves problem diagnosis and provides guidance to help technicians



Maximo Worker Insights

Insuring safety of work technicians through applications and monitoring

Augmented Reality (AR) for field technicians

Maximo Augmented Collaboration

Remote Expert Assistance

A **remotely located expert** or a peer can instruct **a field technician** on how to fix a problem, using a variety of AR-tags (annotations) to communicate via an **AR-enabled visual session**, integrated with **Maximo**.

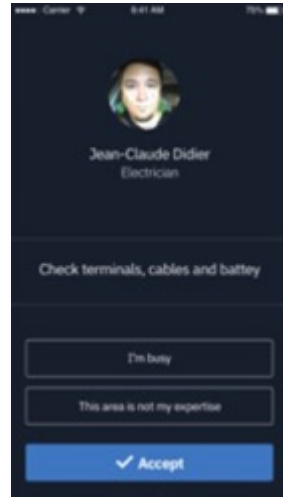
Seek Advice

Seek Advice and Launch from Maximo Work Execution center



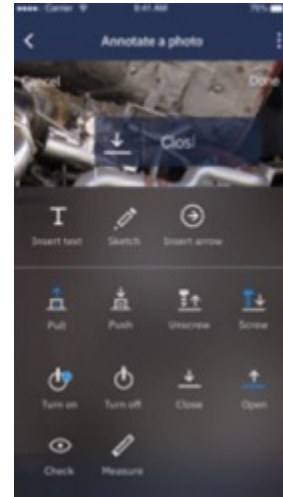
Collaborate

Collaborate with an expert



Guide

Annotate, diagnose and get guidance



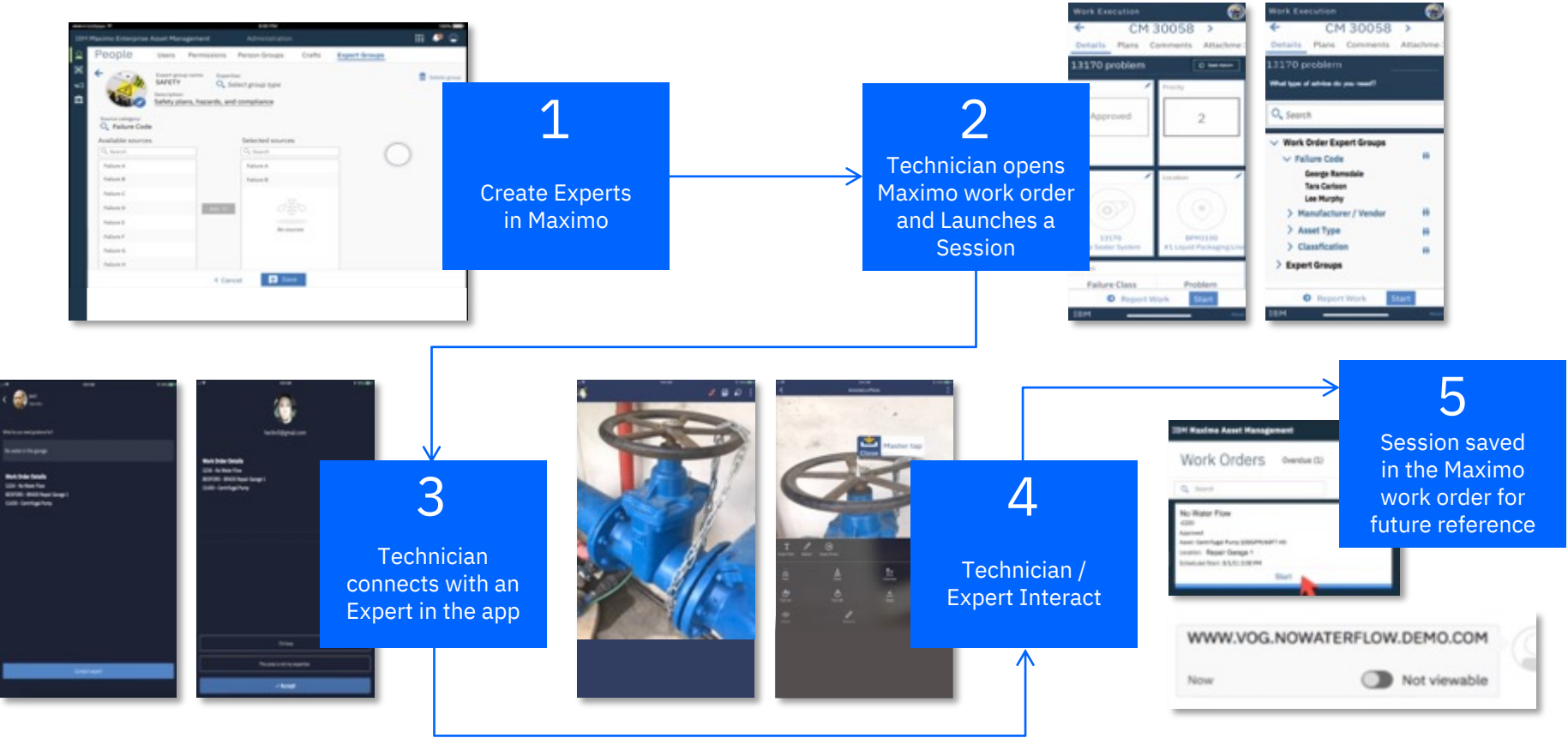
Fix & Learn

Fix and Learn while saving sessions for training



Remote Expert Assistance

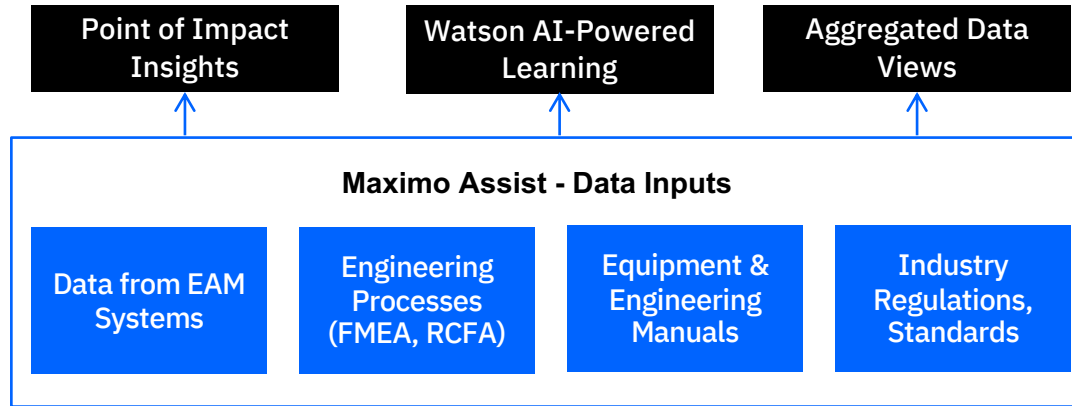
End to End Workflow



Maximo Assist

with Artificial Intelligence(AI) for your field teams

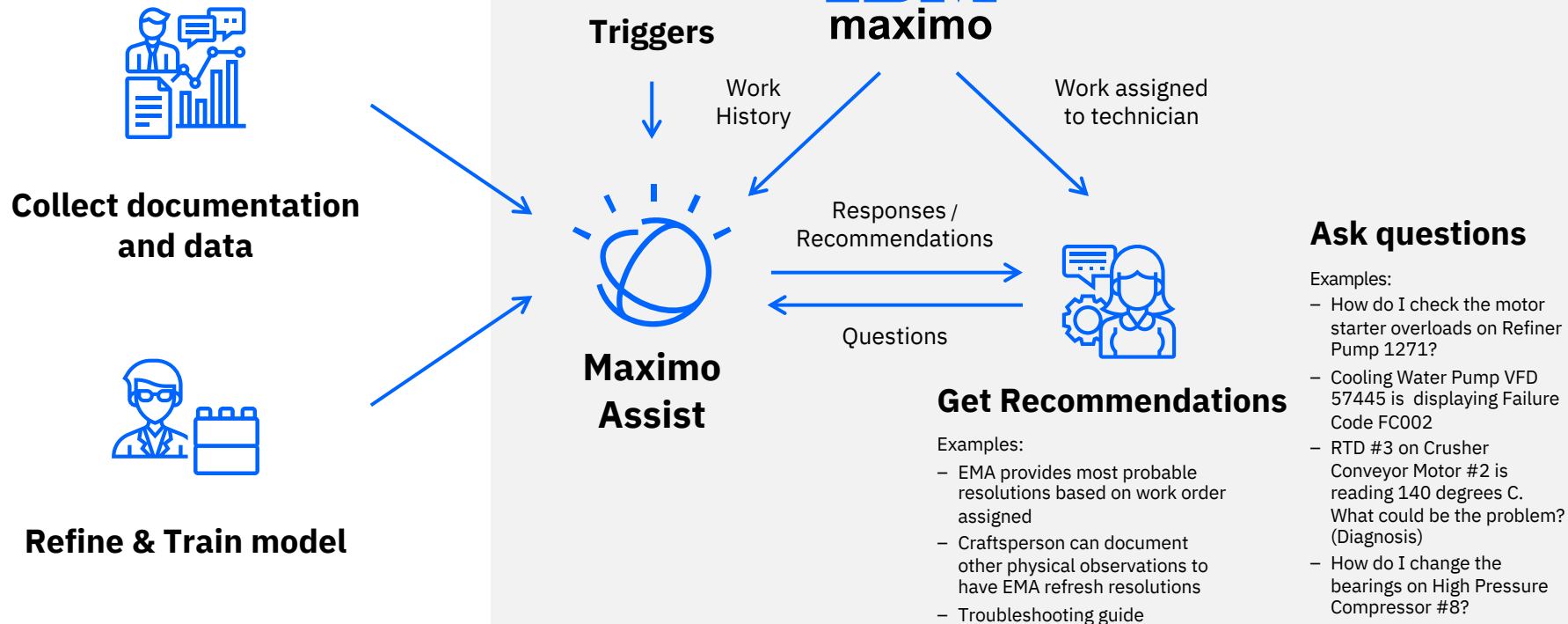
Improve problem diagnosis and provides guidance to help technicians **identify the right action the first time**



Watson learns from trusted sources of information, sharing **expertise to Every Field Technician**



How does Assist work?



Maximo Worker Insight with integration to Maximo Oil & Gas/HSE

- Combining IoT data from wearables, environmental sensors and other data.
- Real-time insights, putting time and place into context, along with trending and forecasting analyses, and worker information.
- See Hazards and Notifications and trigger Incident processes in Maximo HSE.



Visibility during hazardous conditions



Traceability and notification

Putting compliance at the center of safety, helps to identify and eliminate hazards in the workplace.

Maximo Anywhere

Connected and disconnected apps



Accessible anytime – anyplace
(connected and dis-connected mode)



Geo-location and advanced map features
thru Spatial technology



Capitalize on device specific features
including voice-text, photos, bar codes



Available on Apple and Google play stores

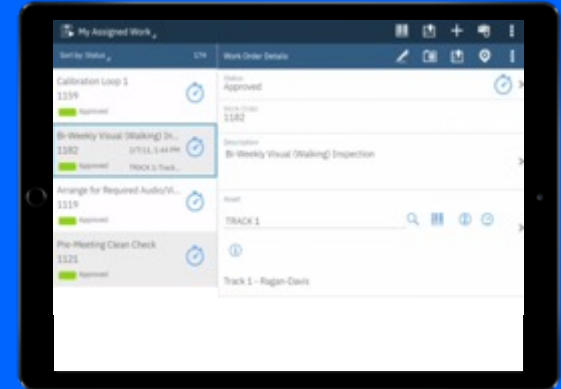
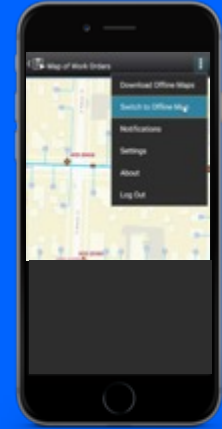
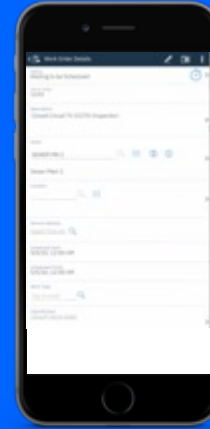


9 applications focusing on Asset, Work
and Inventory management



5 Industry Solutions featuring HSE,
ACM/Aviation and Nuclear

Work Technician: Sample displays



Maximo Anywhere

Strategic Direction

Simplification | Currency | Growth | Preserve Customer Investment



Address key areas

- Continued updates to Anywhere applications and platform
- Deliver new capabilities and application functionality
- Improve the end user experience



Evolving mobile technology and platform

- Simplifying the deployment and reducing infrastructure requirements
- Single shell application distribution
- Foundation for off-line work centers
- Expansion to Windows Store



Plans for initial release of additive capabilities and technology in 2020+



Maximo Anywhere 7.6.x

Strategic Direction

Simplification



Architecture

- Ease of install
- Ease of build
- Ease of deployment



Serviceability

- Direct access to device
- Single support team



Ease of use

- Single Maximo authentication
- Single Administration application

“

This is so good to hear you are doing this! Troubleshooting today the various layers in how data gets to the server can be very difficult! This will make troubleshooting much easier!

Maximo Anywhere Client

Maximo Anywhere 7.6.x

Strategic Direction

Retain Client Investment



Seamless Upgrade

- Delivered applications and features
- Client Configurations
- Client Customizations



End Users

- No Visible Differences
- No additional training

“

Excellent Direction!

Maximo Anywhere Client

Maximo Anywhere 7.6.x

Strategic Direction

Growth



Platform Support

- Maximo platform consistency
- WebSphere 9
- Sql Server



Maximize Value-Add

- Ease of creating new apps via removal of MF license restrictions
- Ease of scaling via reduce middleware administration, maintenance

“

We think this change will be a big step forward towards winning more Maximo Anywhere business!

Maximo Anywhere Client

What's Next....

Maximo for Anywhere & Work Centers

- Configuration
- Personalization
- Offline Capabilities

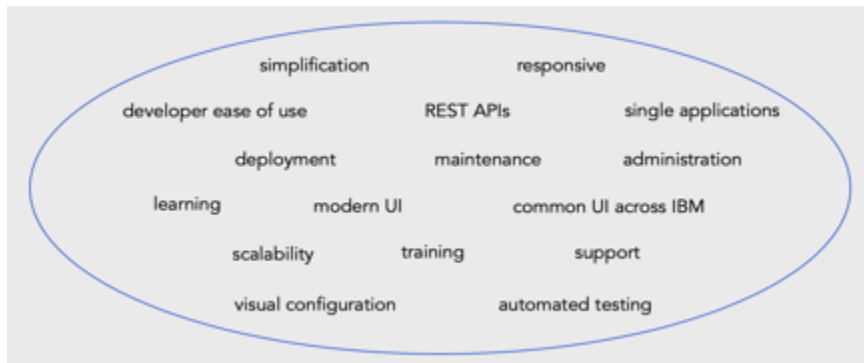
On-going Improvements Modernizing Maximo

Continued focus areas

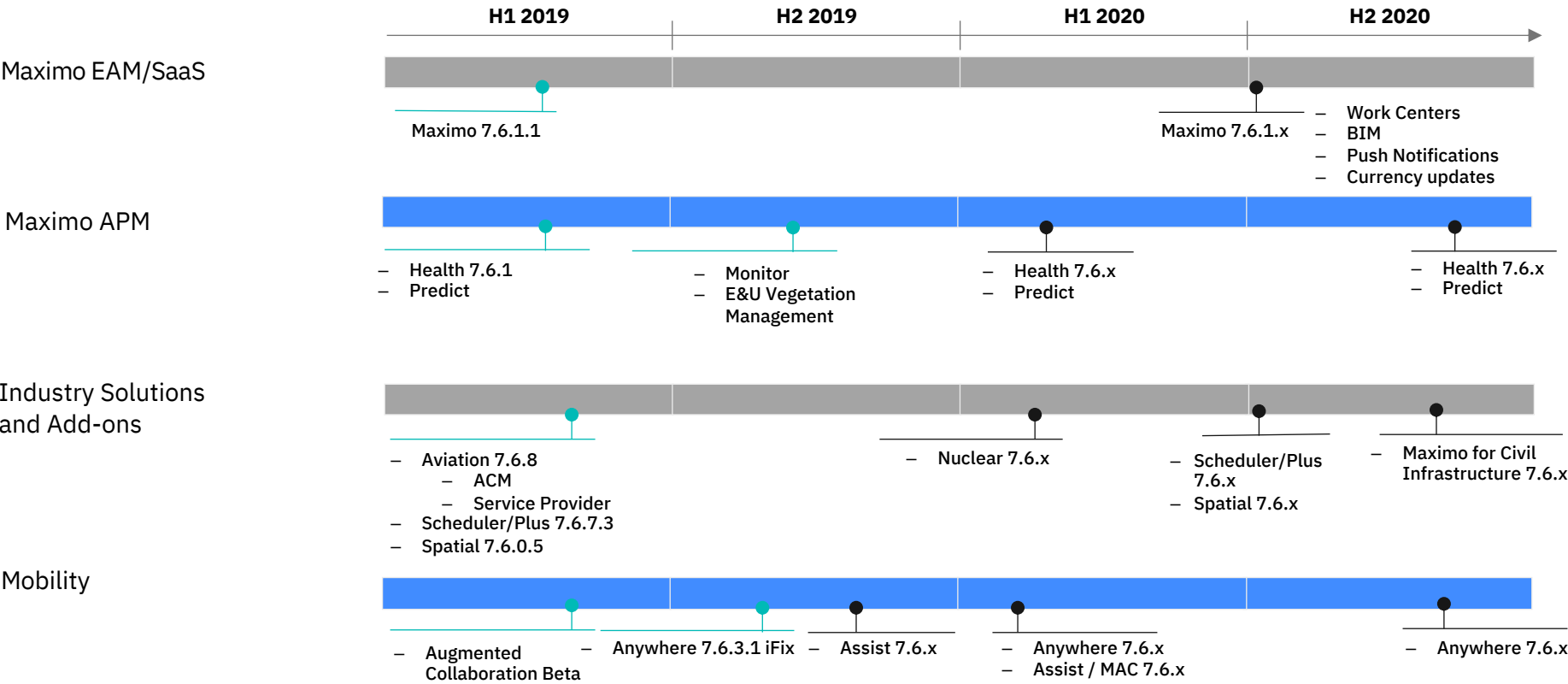
- Improving the end user experience
- Delivering new capabilities and application functionality
- Workflow enablement

Technical progression

- Ability to configure work centers with a visual configuration tool
- End-user personalization areas built into the work center
- Convergence with Anywhere for offline capabilities
- Fully upgradeable
- Alignment with other IBM products



Maximo Roadmap



Maximo Next - 7.6.1.x

Planned 3Q2020

Currency Updates

- SqlServer 2017, Oracle 19c, Windows Server 2019, RHEL 8, JDK 11, Ubuntu 18.04 LTS, Firefox 68 LTS, Safari 12, AIX 7.2, DB2 11.1.4.4, WebSphere 9.0.5 *(DB2 & WebSphere not bundled in the install, certified only)*
- Java 2 Security support

Push Notifications

- Used by Augmented Collaboration and Anywhere.
- Available for core by configuring the User Notification application.
- Support is provided for the following: services:
 - IBM Push Notification Service
 - Google Firebase Cloud Messaging
 - Apple Push Notification Service

BIM Enhancements

- Support for latest FORGE viewer
- Support navigation between Map and BIM view
- Updated Documentation

General enhancements for all Work Centers:

- You can use automation scripts to work with Maximo business objects, attributes, conditions, and actions.
- Work Center users can manage cookie preferences with the Cookies option in the User menu.
- Usability enhancements also include performance improvements for mobile devices, such as tablets and cell phones.
- Enhanced product tour gives the ability to stop or start the tour at any time.

Inventory :

- Reconcile inventory balances after a count of physical inventory and associate inventory with the storeroom GL accounts if item is not already linked to a control and shrinkage GL account.
- Reduce manual data entry by scanning bar codes.
- More places to scan a bar code - to locate a record when reviewing an item list, storeroom balances, storeroom physical counts, counts to reconcile, and reservations.
- New items are auto-numbered but editable, and seeds and prefixes are configurable.

Work Supervision/Work Execution :

- Add crews to work order assignments.
- View multiple assets and locations that are associated with work orders.
- Ability to report downtime and up time for one or more assets using a toggle switch.
- Technicians can add or update scheduled start, scheduled finish, work type, and priority information on a WO.
- Supervisors and technicians now see an Inspections tab only if inspections are associated with a work order.
- When technicians report work, the work order number is now displayed on the Report My Work page.
- Update meter readings for multiple assets
- Additional signature options for Work Execution and Work Supervision Work Centers

Service request configuration for guest users

3 Take Away's...

- ❖ Continued Investment in Maximo
- ❖ Expanding beyond EAM
- ❖ Modernization & Innovation



IBM IoT Exchange 2020

March 17-19, 2020

Hilton Orlando



After successful events in the US, Europe and Australia, the IBM IoT Exchange will hit the road again in 2020 with the latest AI and IoT innovations.

Experience the event that brings IBM, Watson IoT™ clients, and Business Partners together to solve some of IoT's most critical challenges. It will start in Orlando, FL on March 17-19, 2020 at the Hilton Orlando Resort and Orange County Convention Center.

Stay tuned for global cites and dates coming soon.

In the meantime, you can get started here. Sign up for exclusive access to early registration, early bird pricing and call for speakers.

[Sign up for exclusive access](#)



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Maximo Asset Management 7.6.x Feature Packs

7.6.0.1 – Inventory Reports / minimize downtime when you upgrade (updatedblitepreprocessor and updatedblite)

7.6.0.2 –reconcile purchase order and invoice costs, Federated MBO

7.6.0.3 – SAML Support, Asset Depreciation Schedules

7.6.0.4 – JSON Mapping , Remove Direct Printing Applet

7.6.0.5 –Work Center Introduction (Supervisor, Technician, Business Analyst), Object Structure Authorization

7.6.0.6 – SR Work Center, BA Data Set Designer, BIM Applications, License usage Monitor, Workflow Applet Removal

7.6.0.7 – reset passwords without restarting the server.

7.6.0.8 –Time Zone app, Budget Monitoring app, WC Authorization, WC Landing Page, Inspections

7.6.0.9 – Work Center Enhancement

7.6.1 – Inspection Form WC, Cognos 11, New Skin, WAS Liberty Support, Token Licensing

7.6.1.1 – API Keys, Sync Message Tracking, WC Configuration (queries), Dynamic JP, Inventory / Admin WC

Maximo EAM with OpenShift

Documentation

- How to deploy and run IBM® Maximo® Asset Management on Red Hat® OpenShift®.
 - <https://supportcontent.ibm.com/support/pages/node/536449>
- [OpenShift](#) is the RedHat enterprise product for Kubernetes container platform.
- The minimum version of Maximo required to using OpenShift containers is **Maximo 7.6.1.1 with the current Interim Fix pack.**
- Only runs on RedHat Linux, but the administrative workstation to create the docker images can be Microsoft Windows server.

Maximo Anywhere architected for future growth

Next-generation mobile platform utilizes REST APIs
- [setting it apart from the competition](#)

1. REST APIs are stateless.

Their fault tolerant features prevent a user from losing their connection or unsaved data in cases of server crashes.

2. REST APIs are efficient.

They directly communicate to the Maximo Server and do not utilize a RMI layer. Bypassing RMI improves resource utilization and minimizes network traffic.

3. REST APIs are built for growth.

The REST API architecture is built solidly on a foundation supporting containers – enabling continued technology growth.



Back up – APM

IBM Maximo Asset Monitor

Monitoring at Enterprise-Scale



Solution

- Consolidated global view of operational data
- Data visibility and analysis
- AI-based anomalies
- Enterprise scale monitoring



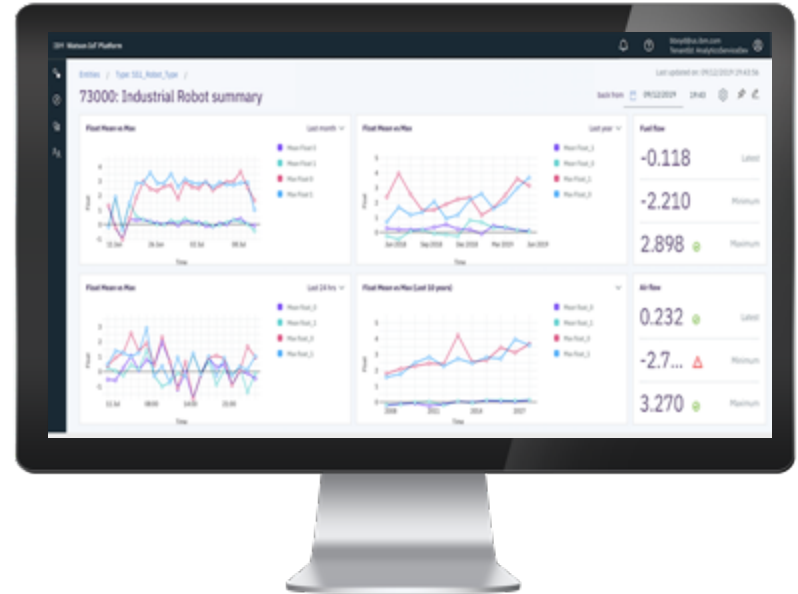
Capabilities

- Configurable dashboards & drill down
- Enterprise wide view of operations
- Rapid data integration
- Hierarchical data filtering and management



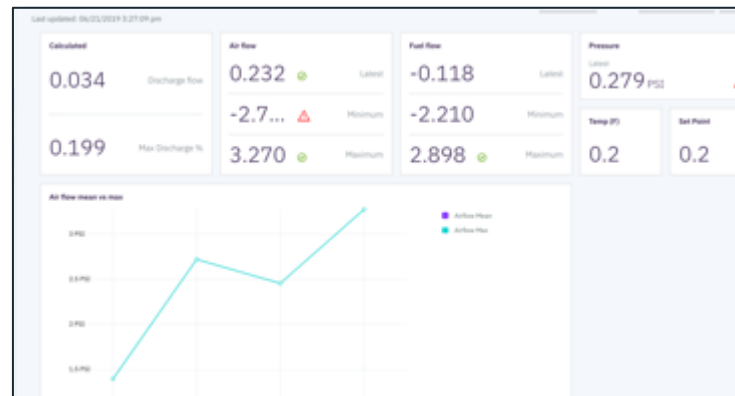
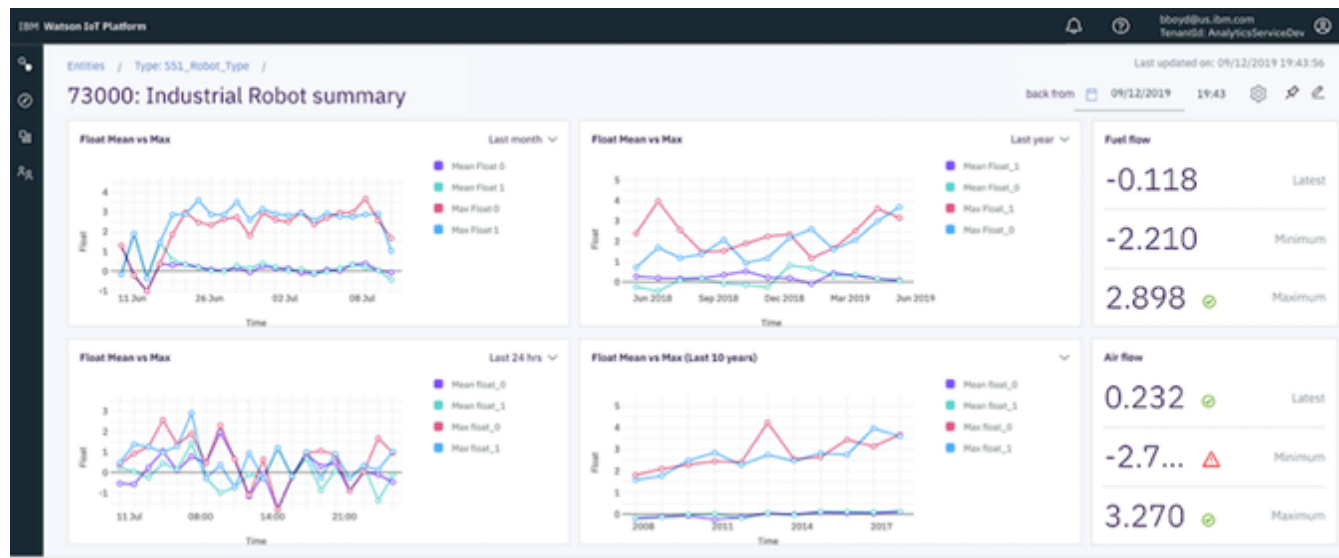
Benefits

- Enterprise level data aggregation & visibility
- Scale operations across processes and sites
- AI-based detection of issues
- Enable drill down analysis for resolution team
- Extensible IoT foundation



Monitor provides a customizable dashboard for your operations and systems

Pre-built widgets, analytics, and visualizations



IBM Maximo APM – Health

IBM Maximo APM - Asset Health Insights



Solution

- Consolidated global view of assets
- Health Visibility and Analysis
- Condition based actions
- Replacement Planning



Capabilities

- Dashboard with cards, map view, spreadsheet view
- Fleet-wide view and health drilldown
- Health based notifications and actions
- Flexible health scoring by asset type or groups
- Sensor data integration
- Job plan efficacy analysis
- Refurbish / replace prioritization



Benefits

- Reduce fleetwide operational risk by focusing on the right assets
- Increase asset availability
- Reduce unnecessary preventive maintenance
- Reduce time to make capital replacement planning decisions

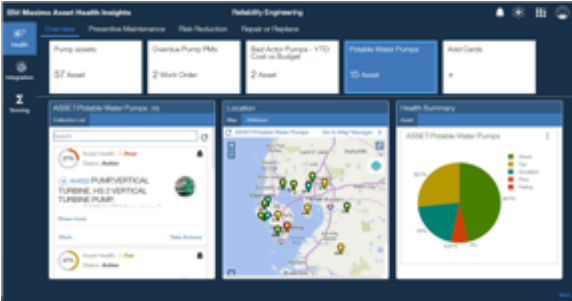


Maximo APM – Health

How it Works

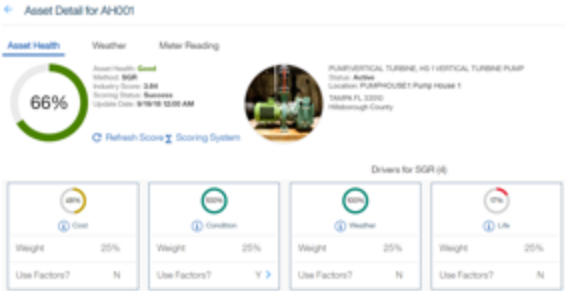
1

Find which assets require attention



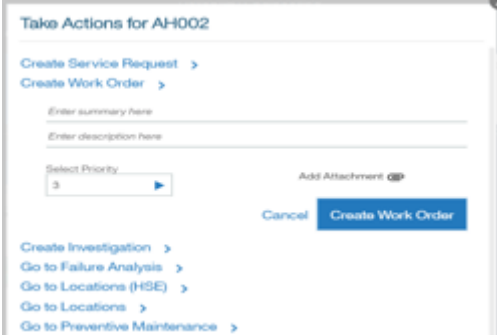
2

Investigate problems with your assets



3

Take action or plan for replacement



IBM Maximo APM – Predict

IBM Maximo APM - Predictive Maintenance Insights



Solution

- Build asset failure models
- Predict failures
- Determine factors that contribute to failure
- Score models with current sensor data



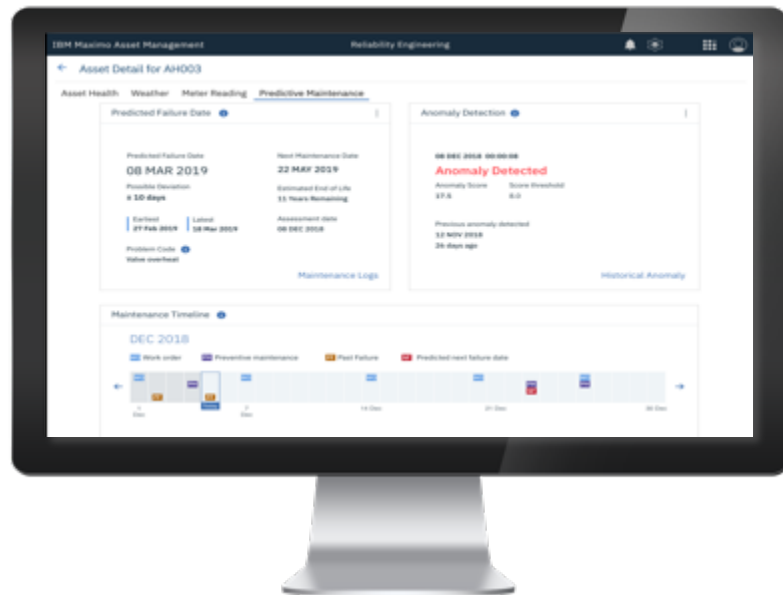
Capabilities

- Templates provided to build 5 common predictive models
- Score predictive models using Watson ML
- View pre-built visualizations for the 5 common models
- Use model scores to assess asset health with Maximo Monitor



Benefits

- Reduced failures
- Reduced maintenance costs
- Improved asset utilization
- Extended life of asset
- Increased production output



Maximo APM – Predict

How it Works

- 1 Define asset groups for modeling
- 2 Develop and train models
 - 5 templates included with PMI
 1. Failure Probability Prediction
 2. Failure Contribution Breakdown
 3. Predicted Failure Date
 4. Anomaly Detection
 5. Failure Probability Curve
- 3 Register the model
- 4 Schedule/score the model
- 5 View results of models on “card” in dashboard

