

The Maximo Application Suite and EAM

Why IBM and Why Now

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Maximo Application Suite
IBM Sustainability Software

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Maximo EAM to MAS upgrade

Why MAS?

- MAS New Architecture – Open shift
- EOL for Maximo 7.6.X

Making the move

- Deployment Options

 - On-prem / Cloud / Hybrid

- Upgrade Process

Sizing calculator tool

- On-prem

- Managed

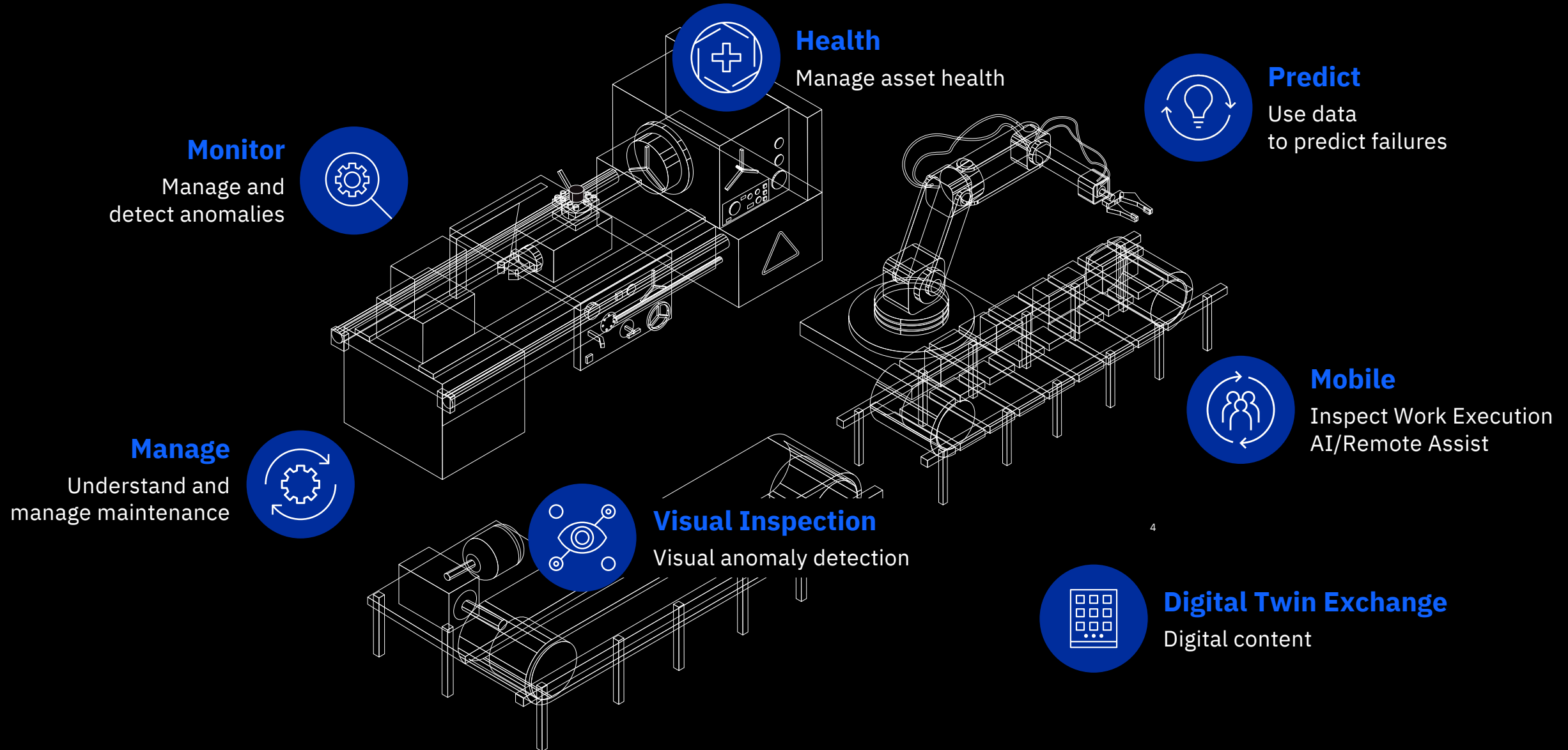
Next Steps

- Sales

- Expert Lab

- Partners

Driving the Automation Journey



More Actions

- Define Maintenance Schedule
- Manage Maintenance Schedule
- Define Operational Schedule
- Manage Operational Schedule
- Asset Details
- Report Downtime
- Manage Downtime History
- Add/Modify Linear Referencing ...
- Create

 View Work Orders and Tickets that are open for this asset. Additional details are available in Work Details.

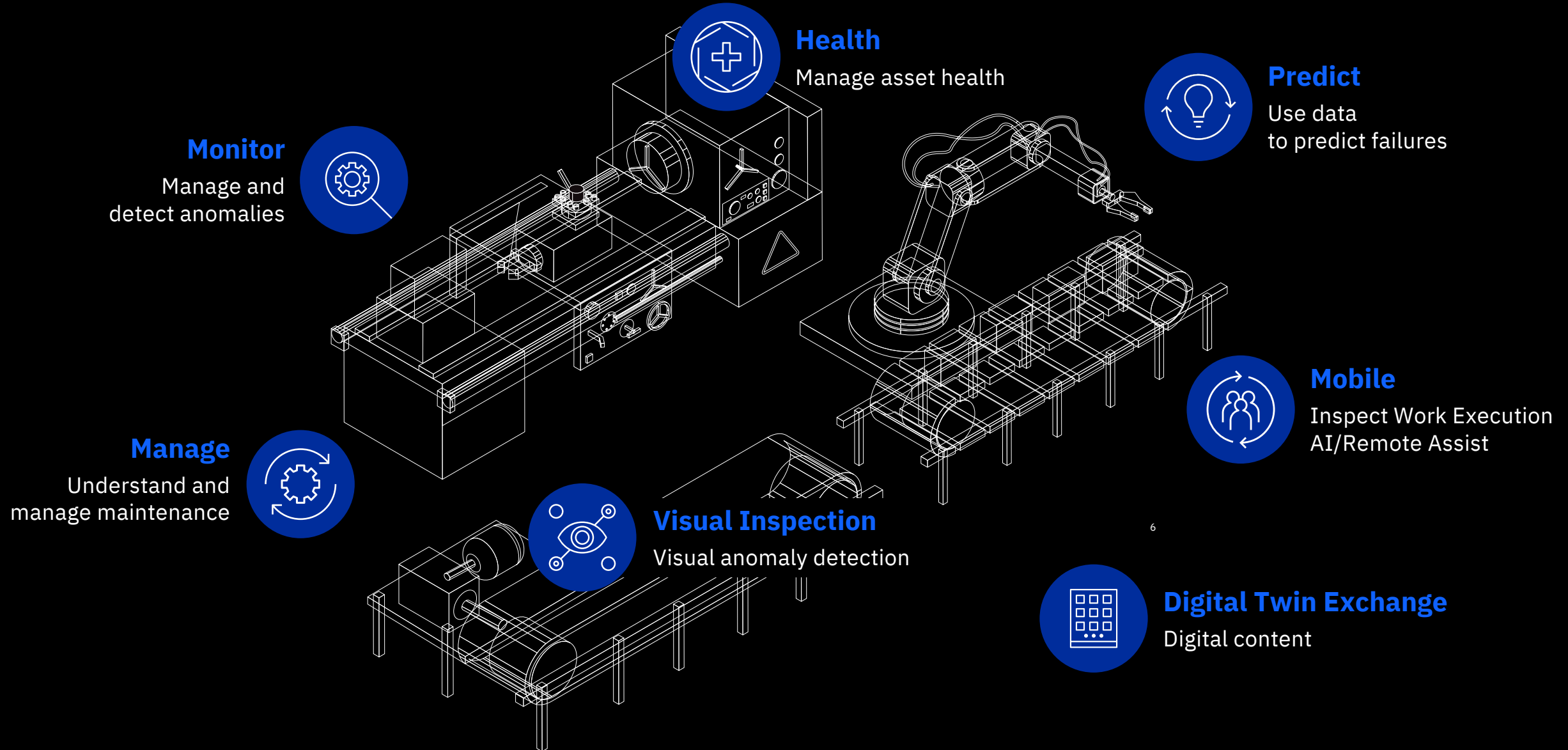
Work Orders Tickets ▾

Work Orders (1 - 10 of 12)

Work Order		Description	Status	Status Date	Target Start	Target Finish	Scheduled Start	Scheduled Finish	Actual Start	Actual Finish	Start Measure	End Measure
DHD-1038	>	Pump stopped due to failure WAPPR		1/13/22 4:17 AM								
DHD-1048	>	Pump stopped due to failure WAPPR		1/13/22 4:17 AM								
DHD-1051	>	Pump stopped due to failure WAPPR		1/13/22 4:17 AM								
DHD-1057	>	Pump stopped due to failure WAPPR		1/13/22 4:17 AM								
DHD-1063	>	Pump stopped due to failure WAPPR		1/13/22 4:17 AM								
DHD-1069	>	Pump stopped due to failure WAPPR		1/13/22 4:17 AM								
DHD-1077	>	Pump stopped due to failure WAPPR		1/13/22 4:17 AM								
80923	>	Cambio de Sellos	COMP	2/23/22 1:12 PM			2/26/22 10:45 PM	2/27/22 5:00 AM	2/23/22 1:12 PM	2/23/22 1:12 PM		
80942	>	Cambio de filtros	WAPPR	2/23/22 1:18 PM								
82394	>	Reparación de fuga	WAPPR	2/24/22 1:22 AM								

1 - 10 of 12

Driving the Automation Journey



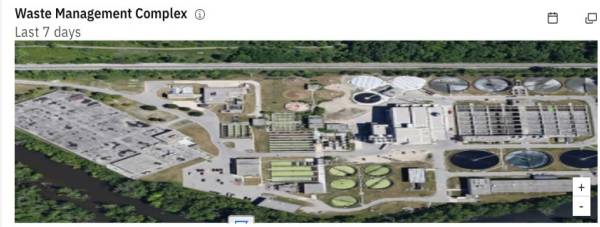
Dashboard /

PMPDEVICE001: Asset Metrics Dashboard

Last updated on: 10/13/2022 05:02:42

View device in Connect

Last 7 days



PRESSURE

Last 7 days

● PRESSURE_Pump_last

92.87

LOAD

Last 7 days

● LOAD_Pump_max

402.68

WINDINGTEMP

Last 7 days

WINDINGTEMP

64.242

MOTORTEMP

Last 7 days

MOTORTEMP

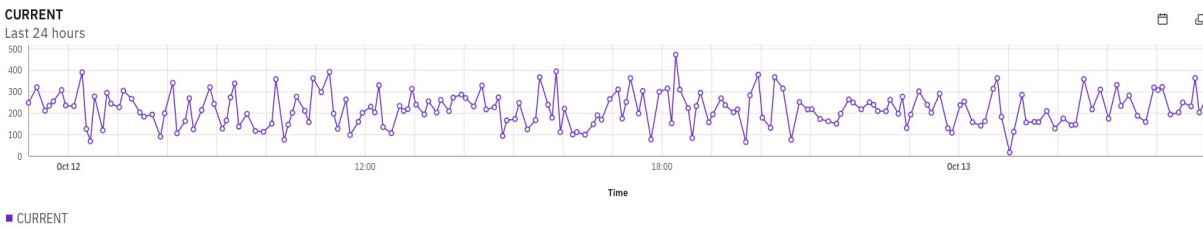
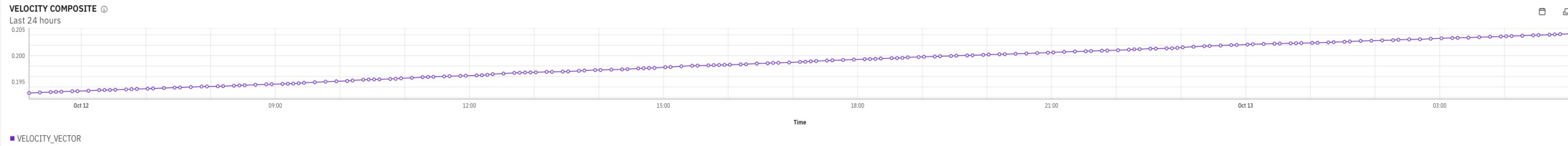
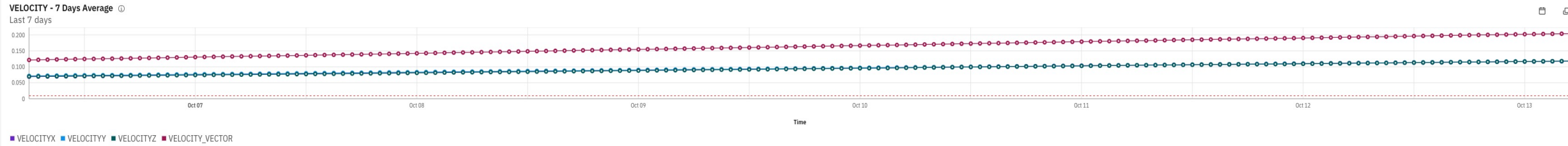
4.995

ALERTS

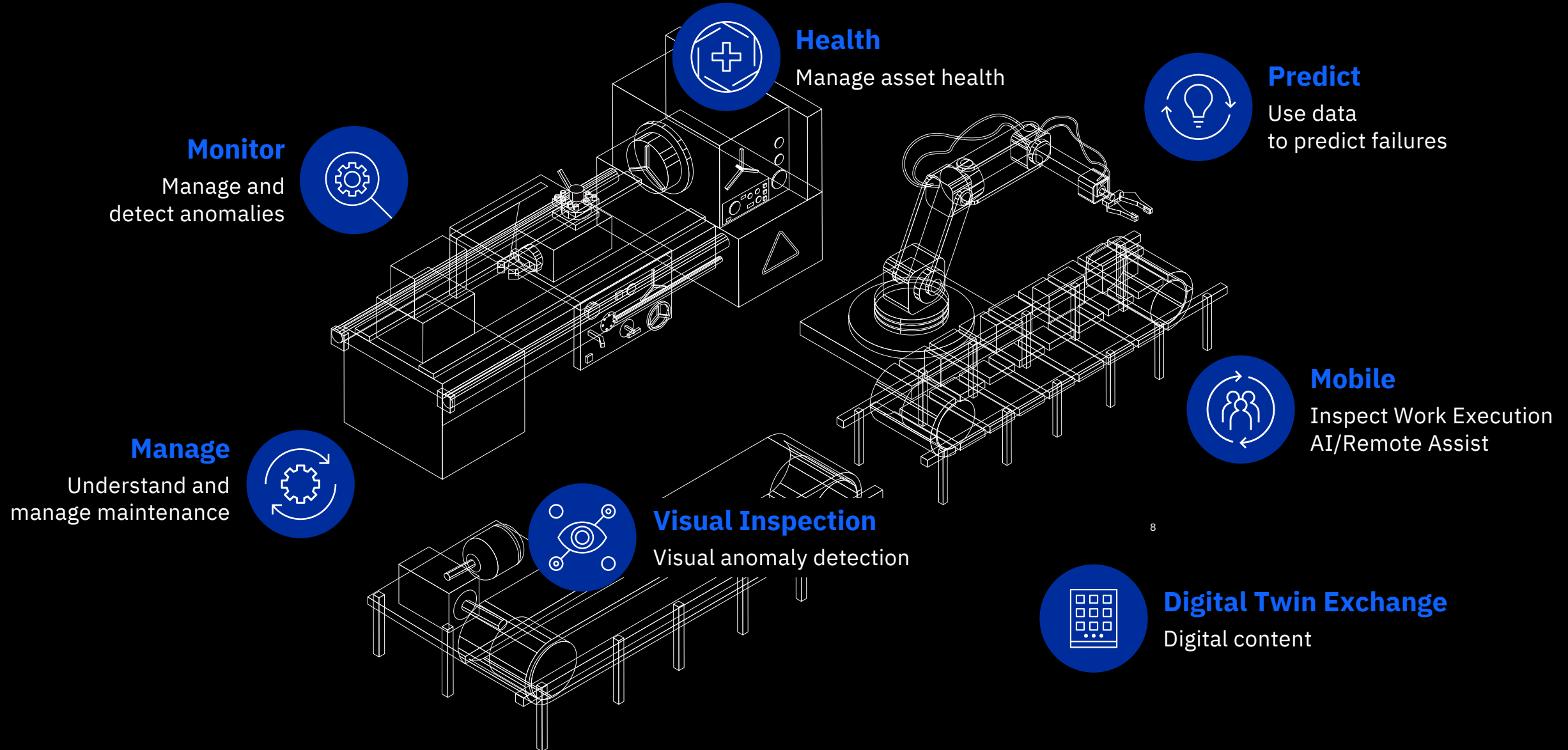
Time	Name	Asset ID	Owner	Severity	Status	Service Request
10/06/2022 05:11:29	WINDINGTEMP_Alert_Low_Value	PMPDEVICE001	Select owner	▲ Medium	New	Create service request
10/06/2022 05:21:32	WINDINGTEMP_Alert_Low_Value	PMPDEVICE001	Select owner	▲ Medium	New	Create service request
10/06/2022 05:36:30	WINDINGTEMP_Alert_Low_Value	PMPDEVICE001	Select owner	▲ Medium	New	Create service request

1-10 of 1000 items

11 of 100 pages



Driving the Automation Journey

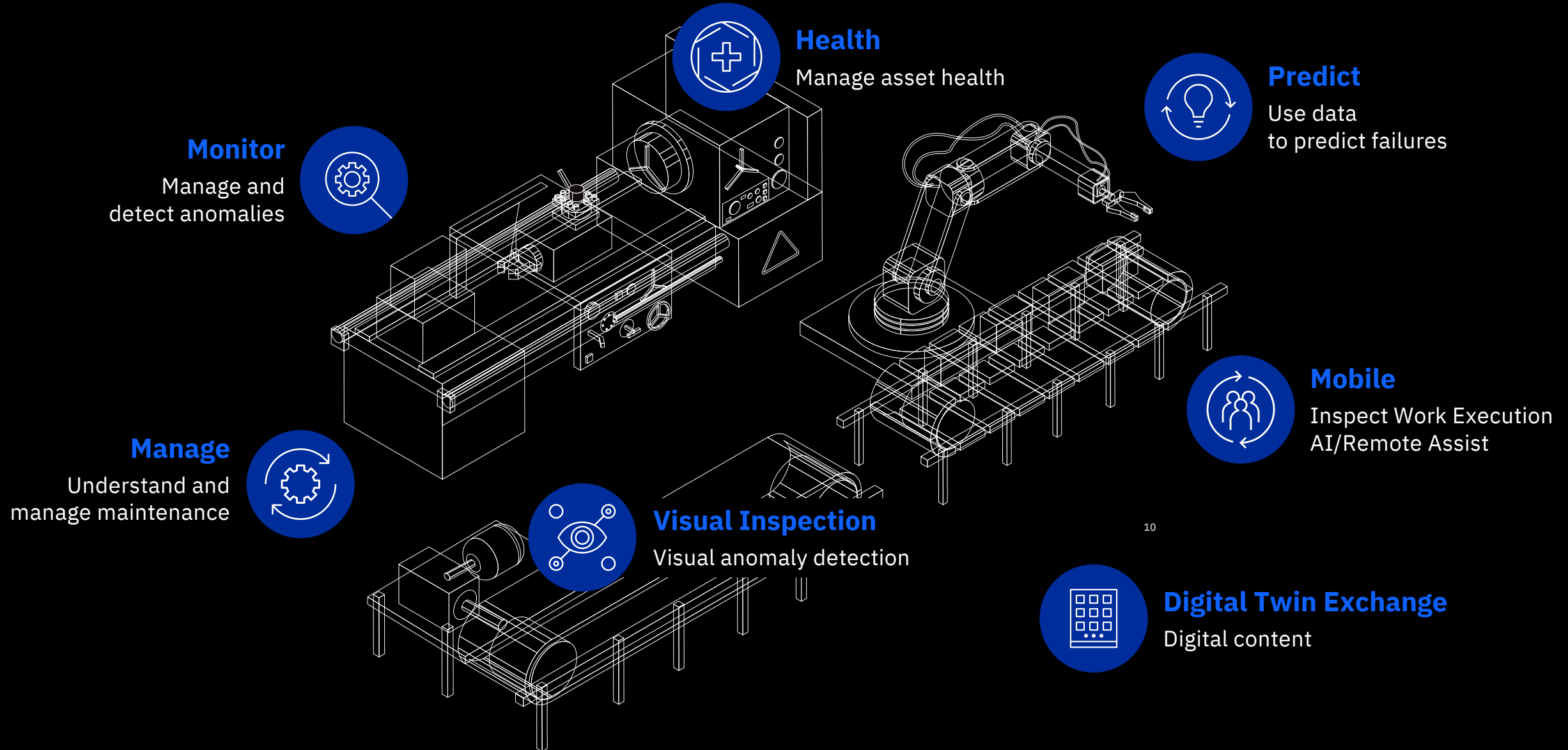





Results: 62 🔍 ☰ + 📄

<input type="checkbox"/>	Asset	Type	Location	Health	↑	Criticality	Days to failure	Installation Date	Age in Years	Total Cost
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 0		100		01/02/2002	20.8	0.00
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 1		100		01/01/2003	19.8	0.00
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 1		100		02/07/2003	19.7	0.00
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 9		100		01/04/2005	17.8	0.00
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 9		100		01/04/2008	14.8	0.00
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 12		100		09/08/2005	17.1	0.00
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 14		100		03/05/2006	16.6	0.00
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 17		100		05/08/2009	13.4	0.00
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 25		100		02/06/2009	13.7	0.00
<input type="checkbox"/>	ZPZ-IIOT-300...	PUMP	NEEDHAM	● 33		100		03/09/2011	11.6	0.00
Items per page: 10 ▾ 1–10 of 62 items									1 ▾ 1 of 7 pages	◀ ▶

Driving the Automation Journey



Work queues / Failing before PM /



PMPDEVICE001

Field Pump 001

NON-OEM DALLAS

Asset 3 of 3

Previous

Next

Actions

Create service request

Create work order

Recalculate health score

Edit source asset record

Criticality ⓘ

3

Health ⓘ

60%

▲9%

Risk ⓘ

0.7

RUL ⓘ

39.8%

Age ⓘ

5.4 years

Next PM ⓘ

42 days

MRR ⓘ

Ratio is 0.3%

Next failure ⓘ

25 days

Health details as of 12:00 AM on 7/17/21 ⓘ

Score	Name	Weight
▼ 40	RUL	60%
▼ 81	Open WO	20%
▼ 100	Meter Health	20%

Asset details

Type
NON-OEM

Model
Unspecified

Serial number
3249873745GA845

Installation date
3/1/16

Predictions

Estimated time to failure ⓘ

Last calculated: 7/16/21 at 7:00 pm

PUMPS/STOPPED

25 ± 1 days

Failure probability ⓘ

Last calculated: 7/16/21 at 7:00 pm

0 %

Anomaly detection ⓘ

Last calculated: 7/12/21 at 7:00 pm

Threshold 3.5

3.7 ⓘ

Date of training data

08 Jan 2008 - 05 Aug 2008

Time window

5 days

Group average

1%

Failure probability trend ⓘ

daily_failure_...

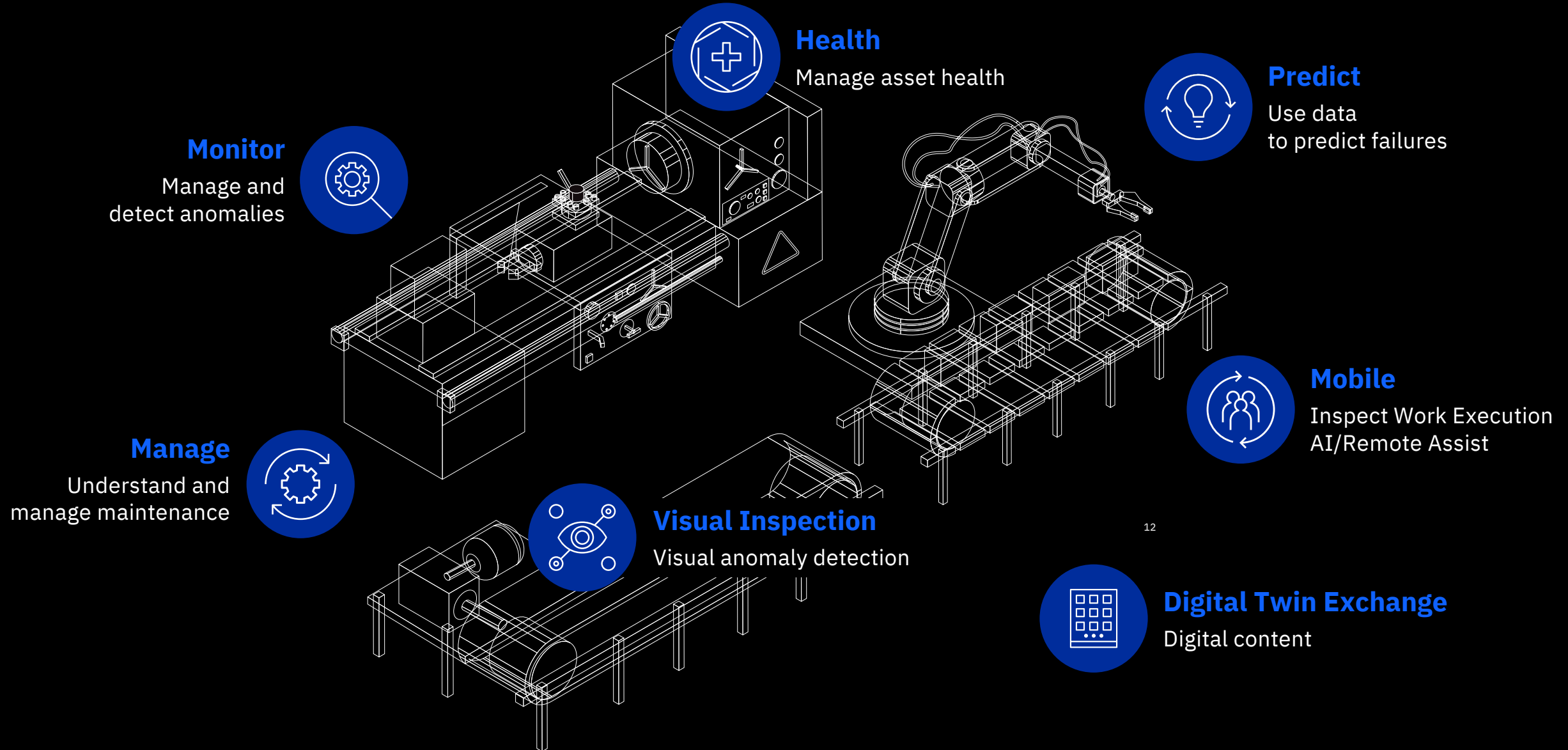
5 days

Last 12 months

Anomaly detection history ⓘ

Last 12 months

Driving the Automation Journey



Work order

Pause work

Start work

Centrifugal pump vibration

CM 1342

Approved

Priority 1

Details

Pump Footing number 3 has bushings that are showing signs of deteriorating. It will need to be replaced. Please double check the Vibration of Pump for possible other issues...

September 22, 2020 at 8:30 AM

September 22, 2020 at 12:00 PM

6 hours, 30 minutes

Start dates and duration

123 Main Street

Orlando, FL

1

10

Asset and location

Down

PUMP 11490

120/240VAC Open Dripproof Centrifugal Pump

Model # 1BF40312

Manufacturer

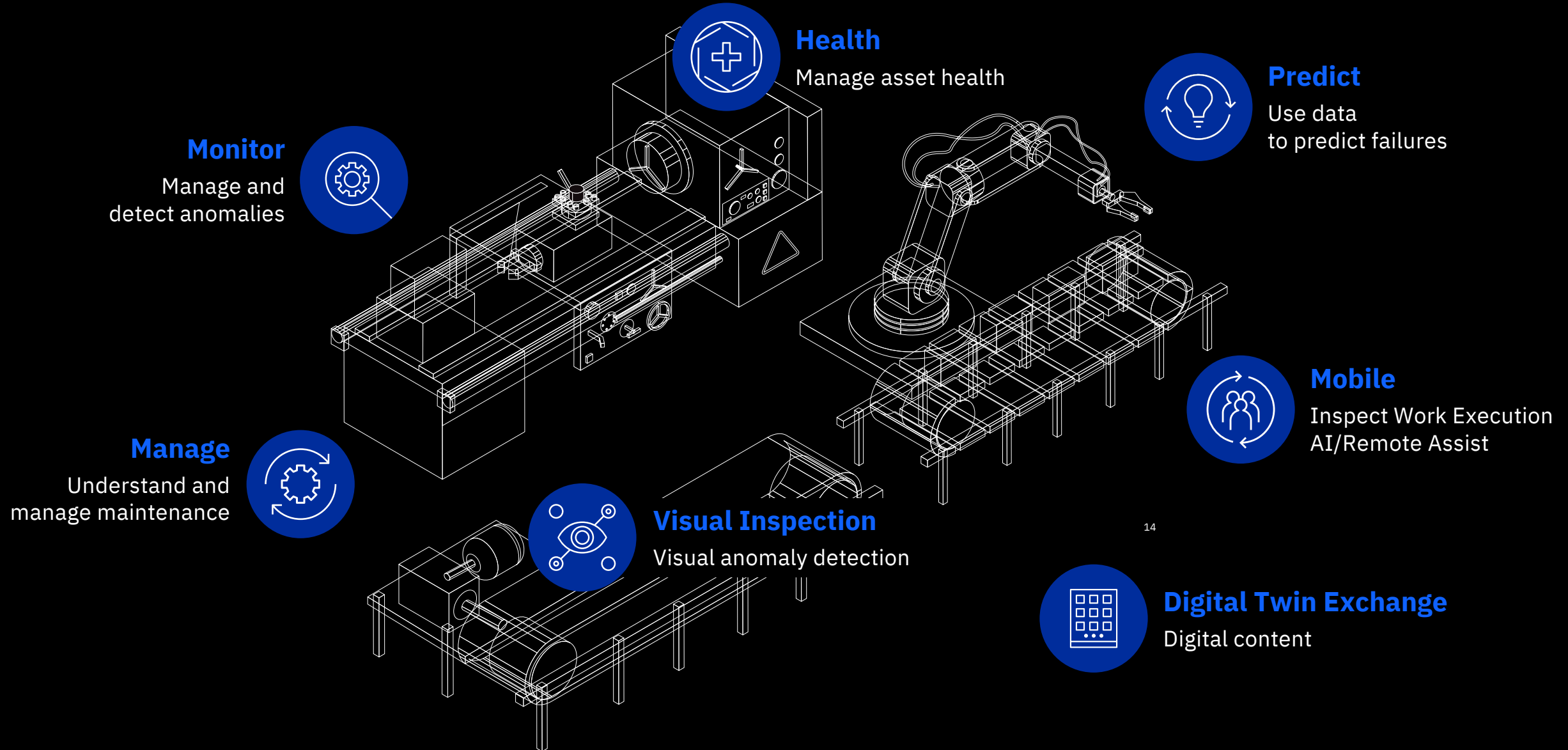
40151503

UNSPSC

Safety plan

IBM Maximo

Driving the Automation Journey





Analyze sedimentation tanks for cleanliness

[Report an issue](#)

by [IBM AI Applications](#)

0 credit(s)

Deep learning model to detect dirty and clean sedimentation/setting tanks at water treatment facilities.

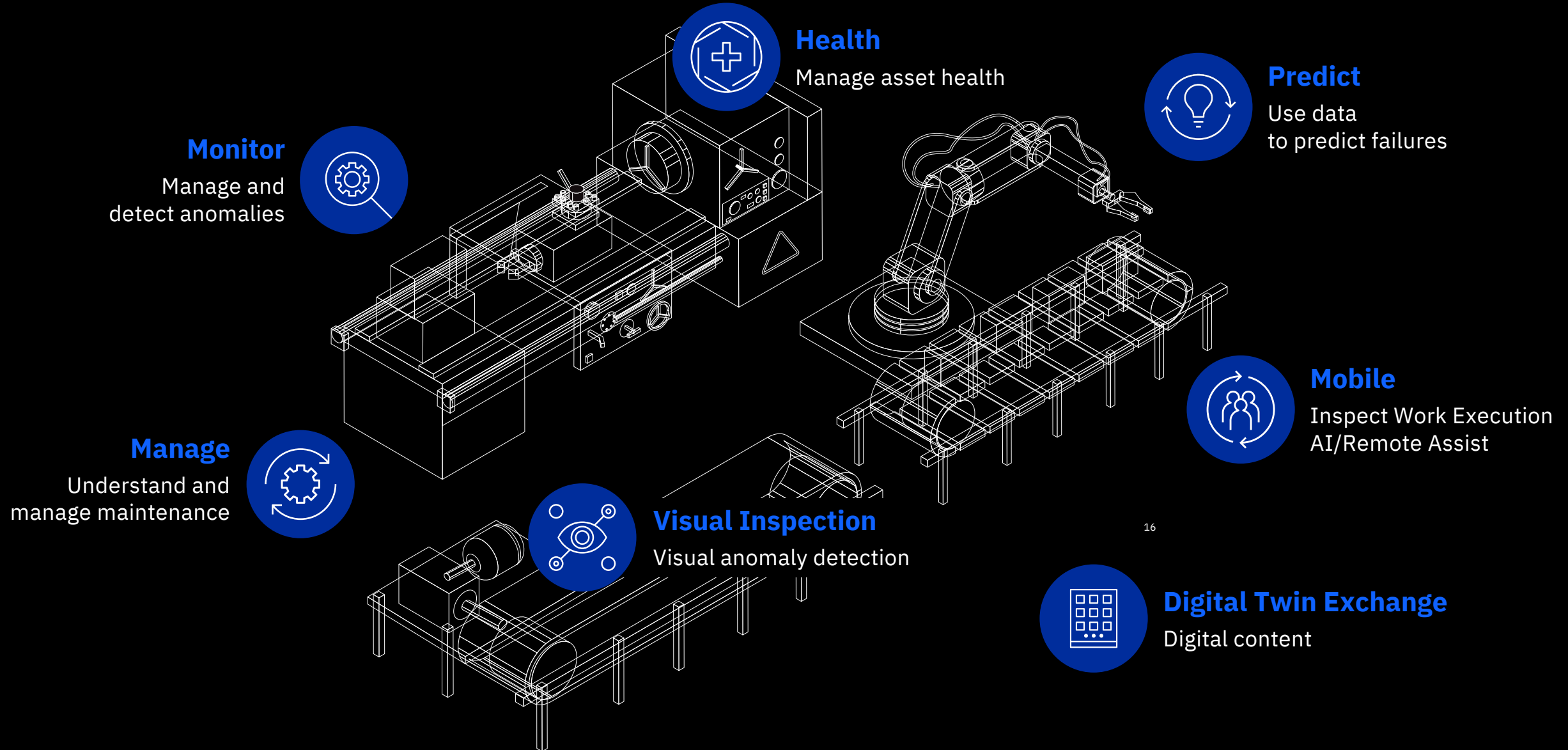
Download limit: unlimited

Download availability: no expiration

Add to cart



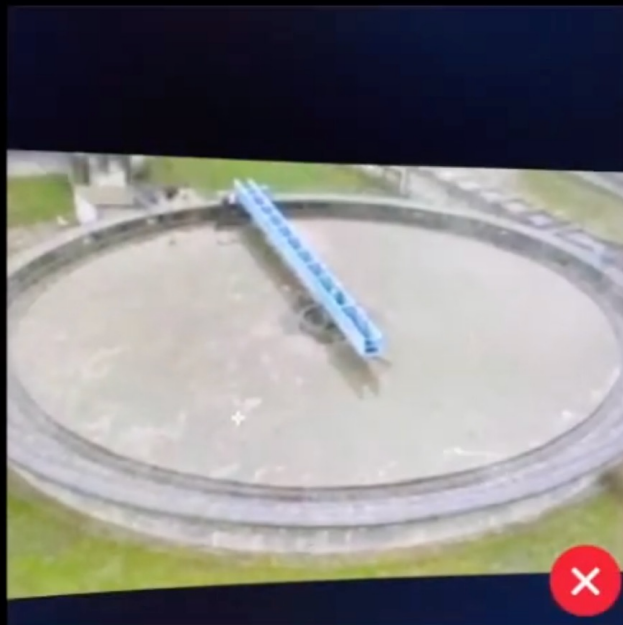
Driving the Automation Journey



10:34



Close



CONFIDENCE LEVEL

clean - 0.0%

Threshold:
Above 75%

dirty - 99.99%

Threshold:
Above 75%

Focusing on key capabilities for 2022 and 2023



Expand deployment options, install, upgrade and management

Expand offerings via hyperscalers, introduce and expand SaaS, 1-Click installation, and improve operations through Software Operations Maturity Model.



Data and AI @ Scale

Significant improvement of ingestion and rendering of sensor and operational data.

AI where valuable and when needed.



Continually improve ease and value of EAM → MAS migration

Continual improvement to the migration experience, ensure legacy function is available and easy to access, and provide new value in Manage and the Suite.



Modernize to improve effectiveness

Expand the new user experience aligning asset management roles with AI enhanced processes for managers, schedulers, dispatchers and mobile users.



Modernize and extend Industry Solutions

Bring modernized user experience to key roles and expand Industry Solutions to leverage MAS capabilities of value to industry customers.

Ease and Value of EAM to MAS Migration

Why Now?

Ensure your competitive advantage with access to additional capabilities and industry models which provide the foundation for intelligent asset management.

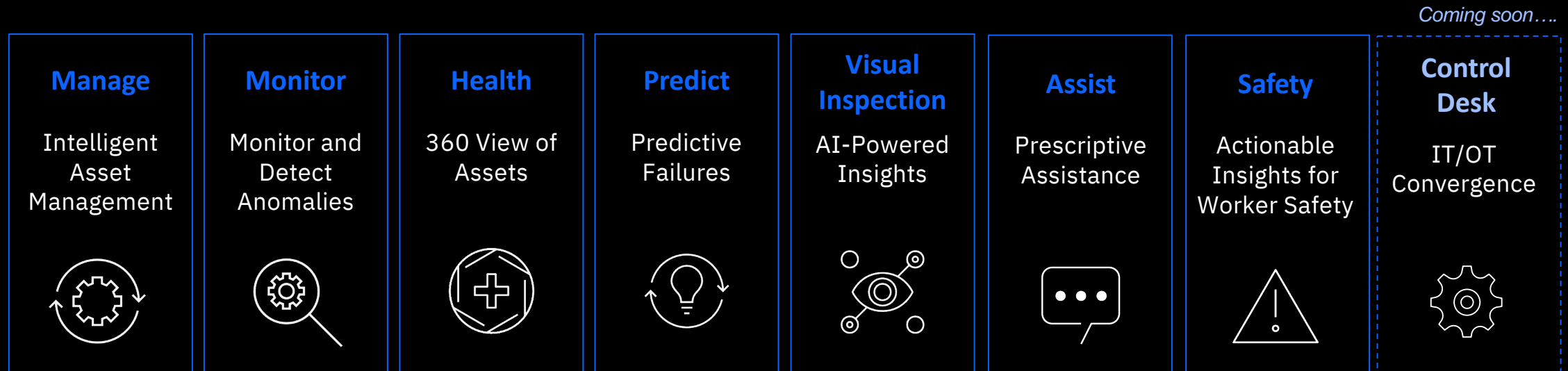
MAS delivers immediate improvements:

- **15%** maintenance cost reduction with elimination of unneeded maintenance and improved remaining repair efficiencies
- Support data driven cross-functional decisions with root cause failure analysis



Maximo Application Suite

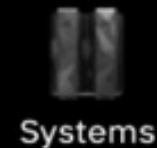
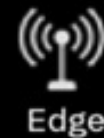
Best of class capabilities to provide complete view of your assets



IBM Cloud Pak for Data | IBM Watson Studio | IBM Watson ML | IBM Watson Discovery

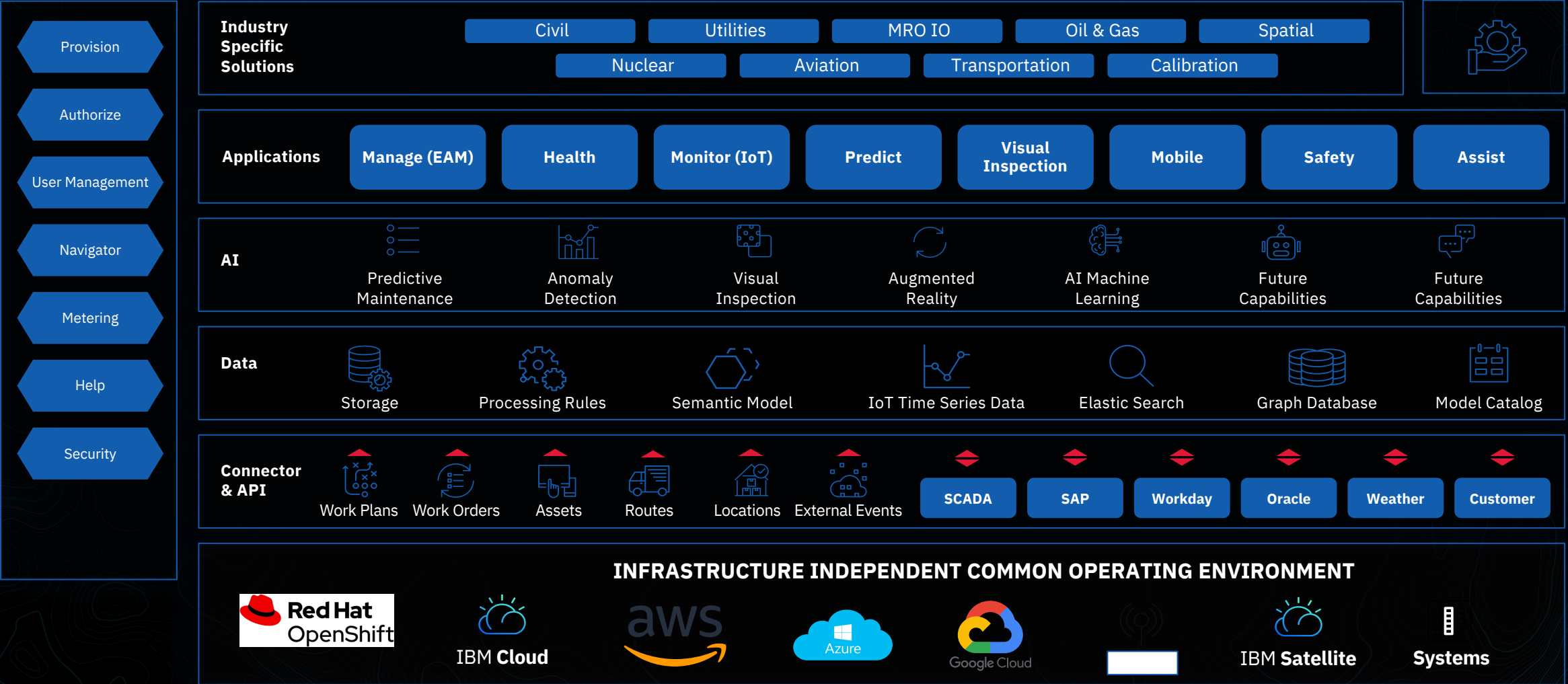


Infrastructure Independent
Common Operating Environment

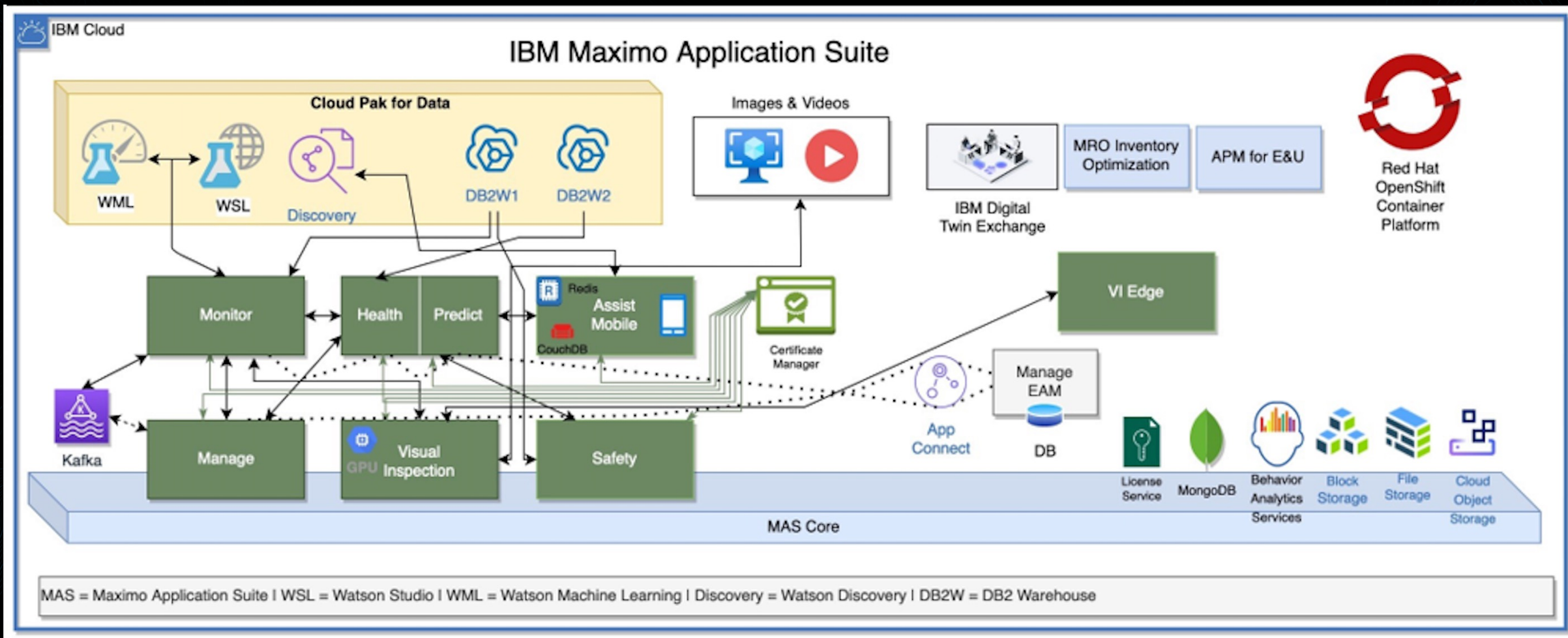


Maximo Application Suite

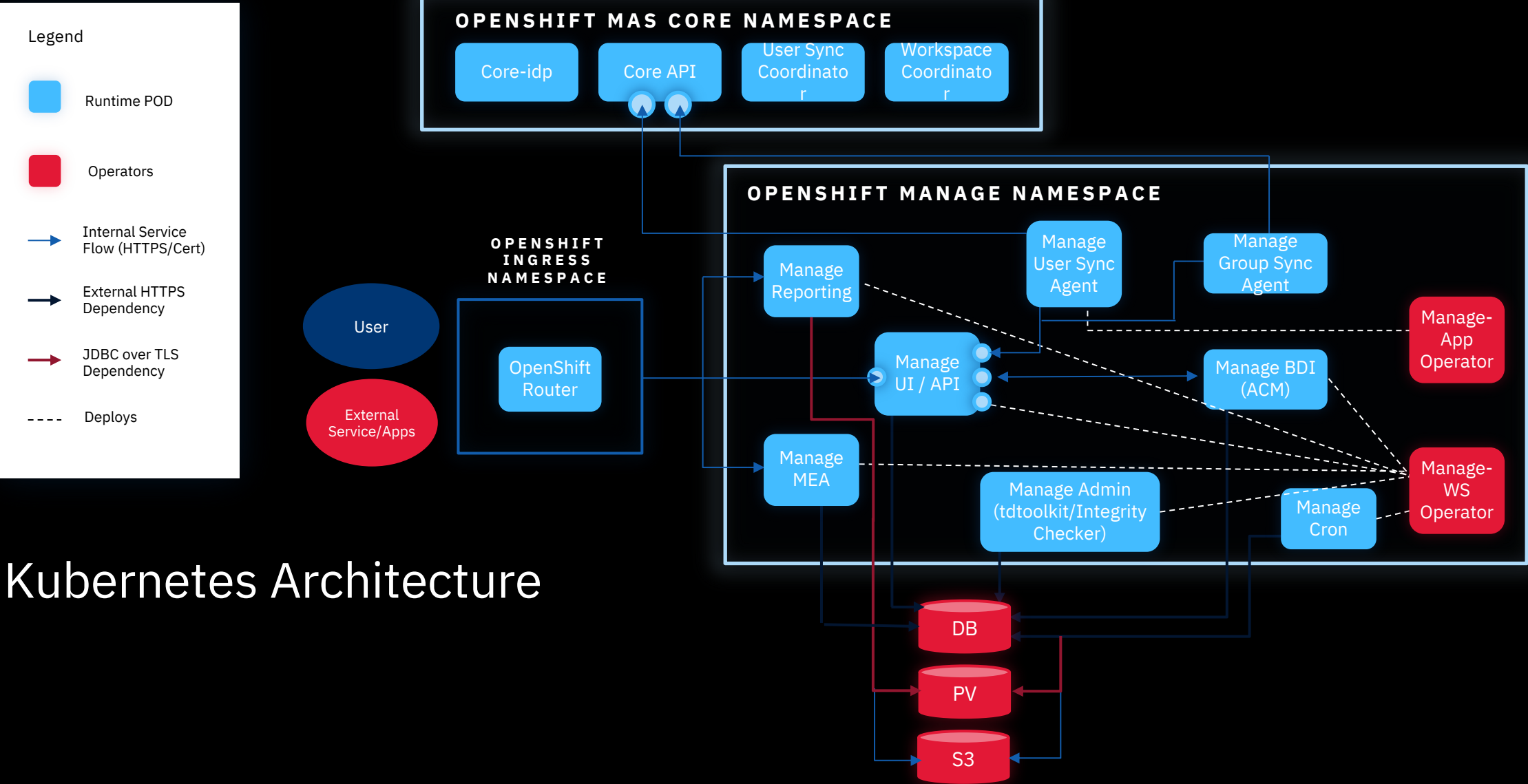
Business Architecture



Maximo Application Suite – Architecture Overview



Manage Application



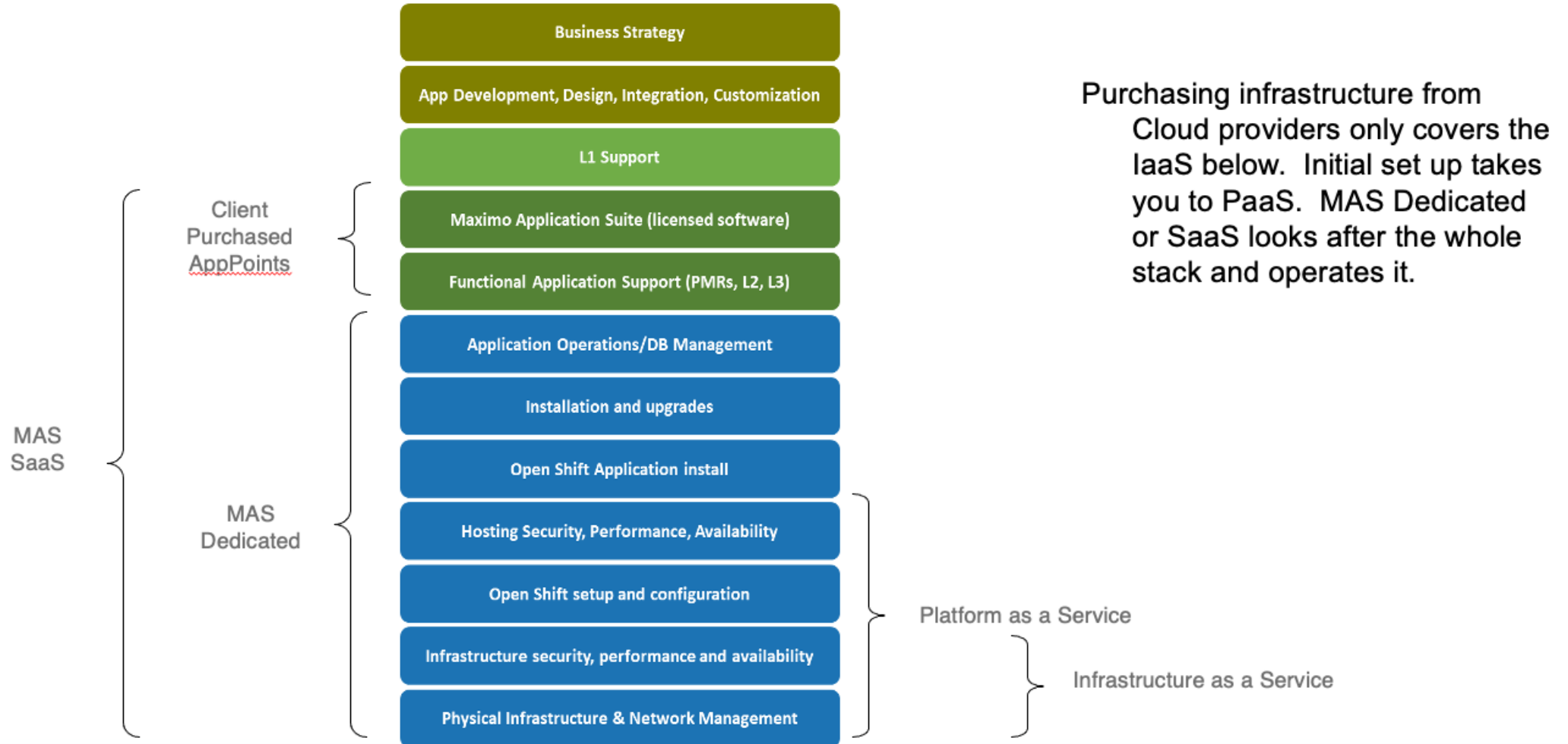
Kubernetes Architecture

MAS Deployment Options

Deployment	Availability	Procure	Provision & Operate	Client Benefits
On Premise	Now	Client purchases MAS from IBM Client provides infrastructure	Client provisions, manages, and operates full stack	<ul style="list-style-type: none"> Maximum operational flexibility
Hyperscalers	Now AWS 1Q22 Azure 2Q22	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	<ul style="list-style-type: none"> Simplifies procurement and deployment Allows client to select their Hyperscalers Flexibility for clients to manage and operate their environment
	Now AWS 3Q22 Azure 4Q22	Paid (Marketplace listing) Client purchases software and infrastructure from Hyperscalers		
SaaS	Now AWS 3Q22	Client purchase single part (includes software, infrastructure, and operations) from <u>either</u> IBM or AWS Marketplace	IBM provisions, manages, and operates Client's MAS environment on AWS Cloud using IBM's AWS cloud account	<ul style="list-style-type: none"> Reduced time-to-value Reduced operational costs Allows clients to focus on business priorities
Dedicated (Managed Service)	Now IBM 2021 AWS 1Q23*	Client purchases software and managed service (including infrastructure) from IBM	IBM provisions, manages, and operates Client's MAS environment on IBM Cloud or AWS in an IBM owned account	<ul style="list-style-type: none"> Simplifies deployment and operations Provides more flexibility, than SaaS, to customize environment Provides more operational flexibility than SaaS

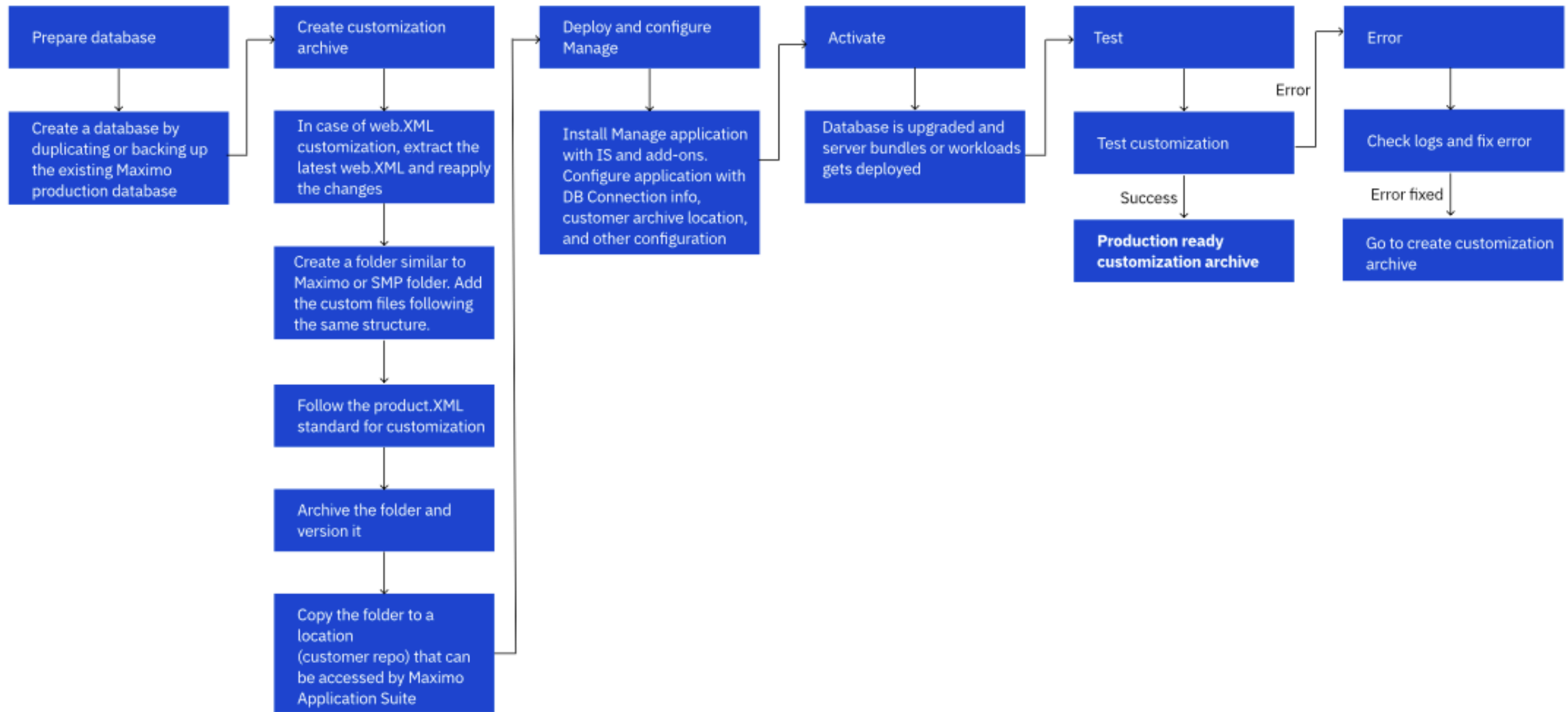
MAS Deployment Options

MAS SaaS vs. MAS Dedicated



Maximo Upgrade Process

EAM to Manage



Path to moving Maximo EAM customers to MAS

Start



Is this an Existing
Maximo
Customer?

(Perpetual, Token, SaaS)

No

New footprint

Buy STL or
Perpetual Part;
Deploy Suite

Yes



Do they want
other Suite
functionality?

(Monitor, Health, Predict)

Not Yet

Phased
Approach

Remain on Existing
License
Entitlement for
now
(Perpetual,
Tokens, SaaS)

Yes



Are they moving
to STL Model
(Suite AppPoints,
OpenShift)

Not Yet

Coexistence

EAM remains on
current license
entitlement and
integrates with
Suite

Yes



Migrate to Suite
Customer

EAM
upgrade/trade-up
to MAS
entitlement;
Deploys OpenShift
Suite Components

Implications

- Suite AppPoints
- License Key Server deployed within OpenShift.

No Changes. Existing
Token customers
continue to use current
Fixed Term Entitlement
& Maximo Tokens.

For Maximo Perpetual & SaaS
customers: No change to
existing Maximo.

Maximo Token customers:
maintain two non-
interoperable Flexera LKS
instances. Users pull from
one or the other LKS
depending on function
they're using. No
interchangeability between
Maximo tokens and Suite pts.

For Maximo Perpetual, use
STL Upgrade or Trade-up
parts.

SaaS & Token customers run
out contracts.

Point to new Suite LKS; No
more use of Maximo tokens.
All Suite 'AppPoint' based.

MAS AppPoint Consumption

Self Service, Limited, Base, Premium Users, Installs

Self Service User

Free

0 AppPoints

Self Service Applications

- Service Requests
- Desktop Requisitions
- Requests (Oil & Gas)
- Create/Review Incidents (HSE)
- Vehicle Requests (Transportation)
- Graphical Appt Book (Scheduler)
- Bill review (Service Provider)
- Data Transfer via devices and sensors (Safety)

Limited User

Concurrent

5

AppPoints

Authorized

2

AppPoints

3 Modules:

- Manage
- Manage Industry Solutions
- Manage Add-ons

Mobile

- Maximo Mobile
- Assist
- Anywhere
- 3rd Party

Monitor

Base User

Concurrent

10

AppPoints

Authorized

3

AppPoints

Manage

Includes:

- Linear
- Calibration
- Spatial (requires install)

Scheduler

Health

Safety

Premium User

Concurrent

15

AppPoints

Authorized

5

AppPoints

Manage

Industry Solutions

- O&G, Aviation, Transportation, Utilities, Nuclear, Civil Infrastructure

Add-ons

- ACM, SP, HSE

Predict

Health and Predict - Utilities

Visual Inspection

Install – 1 AppPoint
(x multiplier)

SAP/Oracle Connector
(x80)

Spatial
(x20)

Civil Infrastructure
(x50)

Visual Inspection
(x45) Edge (1 pkg 5)

Assist
(x150)

Health & Predict - Utilities
(x60)

Maximo EAM to MAS upgrade

Sizing calculator tool

IBM has tools to help you determine how many points you will need based on current usage in 7.6.1.x

Magic Scripts

IBM has tools to help you determine how your environment should be sized.

Maximo EAM to MAS upgrade

Next Steps

Talk to your IBM Brand Specialist (Sales Rep.)

Talk to your IBM Brand Technical Specialist (Sales Engineer)

Talk to you IBM Business Partner

Talk to your IBM Expert Labs Representative

An aerial photograph of a city skyline, likely New York City, with a dense forest of green trees in the foreground. The sky is blue with scattered white clouds. The text is overlaid on the top half of the image.

IBM Sustainability Software

Maximo Application Suite

Thank You!