

Delivering on Federal Compliance Initiatives through ESMS & Maximo Application Suite

Brad Peterson (The Building People),
Zach Ruling (IBM), Joe Kintz (TRM)



PRESENTED BY



SPONSORS



Stantec



TETRA TECH



Delivering on Federal Compliance Initiatives through ESMS & Maximo Application Suite



**Brad Peterson & Daniel Jackson
The Building People**



**Zach Ruland & Keith McCoy
IBM**



**Joe Kintz
Total Resource Management**

Session/Learning Objectives

Federal Compliance impacting enterprise asset management

Leveraging ESMS & Maximo to achieve operational excellence for infrastructure & asset management

IBM Maximo Application Suite & ESMS Benefits

Future State roadmap with best practice approach

Benefits & Outcomes

Session Agenda

**Federal Asset Management Compliance & Strategy Mandates –
Reporting Impacts driving Enterprise Asset Management**

**Exploring the Journey to Maximo Application Suite 9.x & ESMS
Compelling Interoperability**

**Leveraging Best Practice for Data Sustainment
Roadmap for Success**

Federal Asset Management Compliance & Strategy Mandates – Reporting Impacts driving Enterprise Asset Management

Compliance Statutes

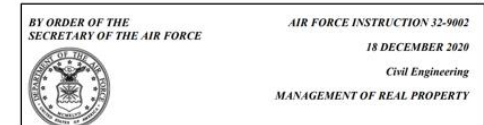
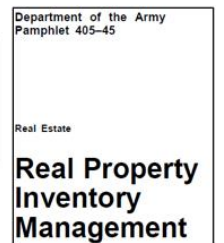
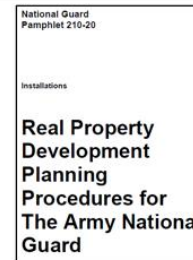
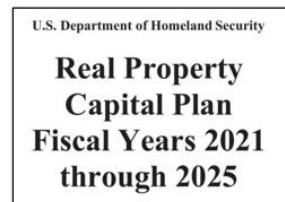
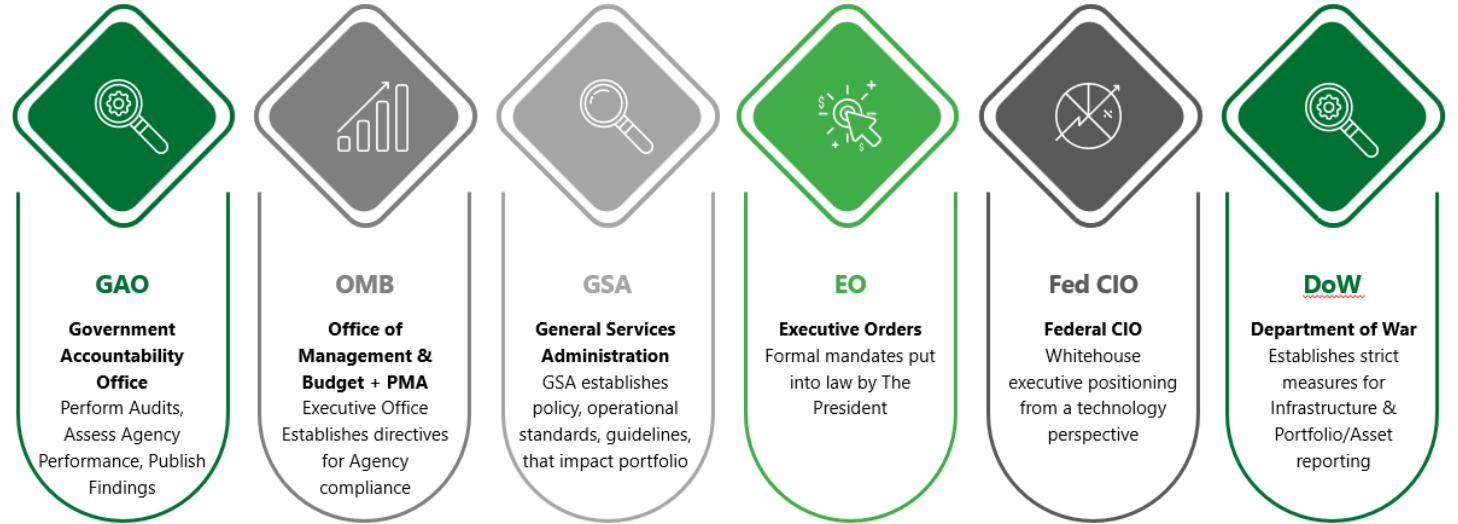
- Mandates enacted
- Executive Office & PMA
 - Executive Orders
 - OMB Guidance
 - GAO Report & Audit Findings

Strategy Mandates

- Agency-level directives
 - Triggered by Federal Compliance
 - Strategic Plan Objectives
 - Mission Based Objectives

Operational Impacts

- Accountability & Operational Efficiency
- Cloud First/SaaS, Cyber & Cloud Security
- Improve Data Resiliency & Accuracy
- Legacy System Modernization
- System & Data Interoperability



Federal Asset Management Compliance & Strategy Mandates – Reporting Impacts driving Enterprise Asset Management

EO 13800 - Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure (2017)

- Objective: Drove 'Cloud First' Strategy
Enforces Cyber Security/FedRAMP
Expanded into 'Cloud Smart'
- Impact: Cloud based solutions, SaaS based, FedRAMP/ATO security compliance
Technology platforms to capture, maintain & sustain enterprise asset management systems
Drove IT Modernization and Digital Transformation initiatives

PMA Agenda - Data Accountability - Data Strategy and Infrastructure for the Future (2021)

- Objective: Enterprise Data Governance
Four Cross Cutting Drivers of Change → Policy, People, Process, Platform
- Impact: Leverages Data as a Strategic Asset
Enacted heightened data security measures, including CMMC Governance on CUI
EAM Data models impacted by data sensitivity measures & governance

Federal Asset Management Compliance & Strategy Mandates – Reporting Impacts driving Enterprise Asset Management

DOE Order – DOE O 430.IC - Real Property Asset Management (2016)

- Objective: Life-cycle management of real property management to utilize data-driven, risk-informed, performance-based approach to align with DOE Mission
 - Real property asset management planning & budgeting
 - Assess real property portfolio by core capability every five (5) years
 - Real Property Sustainment
 - Establish CMMS & Condition Assessment solutions for DM (deferred maintenance)
 - Establish 5-year forecast for sustainment for DOE real property assets
 - Condition Assessments for each asset for preventive or remedial activity every 5 yrs
 - Functional Assessments for each asset to meet DOE mission every 5 yrs
 - Performance Management
 - Establish Performance metrics to measure real property asset management performance
 - FIMS System for enterprise facility information to consolidate reporting
- Impact: DOE flow down accountability to all DOE offices and contracted Lab operations
 - Extensive actions across DOE facilities involving EAM/CMMS/BUILDER/IWMS platforms
 - DOE established extensive asset management criteria that applies to power grid entities and power coops
 - FCA & BUILDER engagements

Federal Asset Management Compliance & Strategy Mandates – Reporting Impacts driving Enterprise Asset Management

Agency Benefits for Positioning Consolidated Asset Management

Mission Benefits

- Agency Compliance Mandates
- DOD Data Calls
- Authoritative Data Source

Operational Benefits

- Data Quality
- Data Forecasting
- Data Validation
- Reporting accuracy
- KPI's & Data Analytics

Supporting Asset Management Data Calls



Mission Benefits:

Align with DoD Data Strategy Framework
Validated Total Cost of Ownership
Decision Support/Data Analytics/Operational Metrics
Capital Planning & Renovation Budgeting
Critical Infrastructure & Mission Support
Supports OSD & Defense Policy Data Calls
Supports Enterprise Data-Centric

Operational Benefits:

Asset Lifecycle Modeling
Data Analytics & Modeling
Maintain Benchmark CRV/FCI/MDI
EAM Data Accuracy & Consolidation
Authoritative EAM Asset Data Source
Establish & Measure Predictive Analytics
Consolidated & Accurate Integrated Cost Data
Critical Data Monitoring – Metering/Sensor
Cyber Secure Cloud/FedRAMP/GCC High
Benchmarking & Baselining Operational Costs
Incorporates Innovation & Best Practice
Development of Innovative PM Programs
Consolidated Contracts & Leveraging Economies of Scale

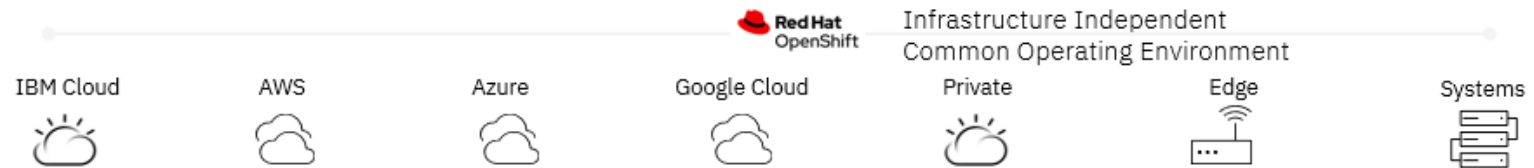
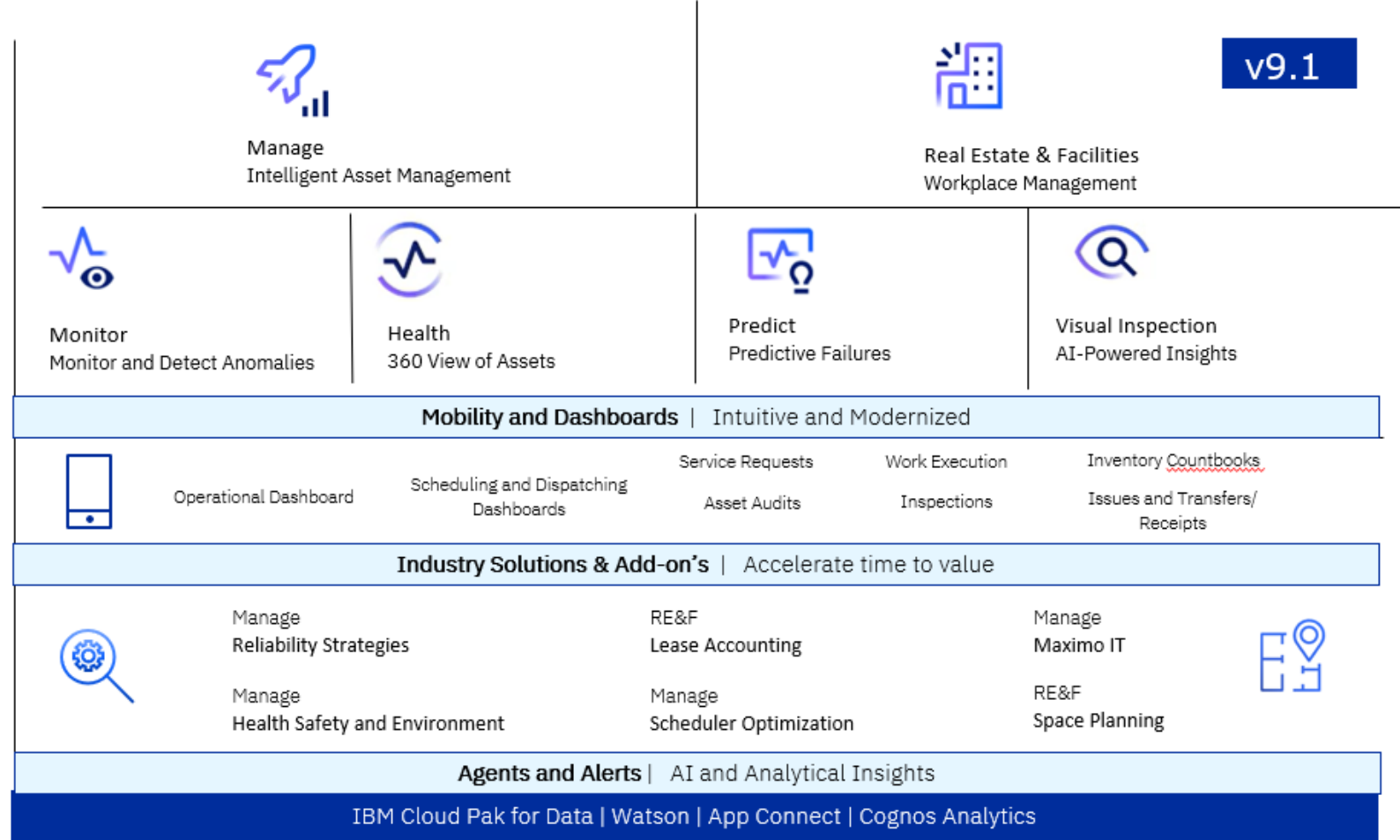
Exploring the Journey to Maximo Application Suite 9.x & ESMS

Compelling Interoperability

Maximo Application Suite

Best-of-class capabilities to provide complete view of your assets addressing the needs of key personas in your organization.

- Technicians
- Technician Supervisor
- Asset Maintenance Manager
- Plant Manager
- Fleet Manager
- Operations Manager
- Reliability Engineer
- Quality Manager
- Planners / Schedulers
- Dispatchers
- Storeroom Managers
- Purchasing Managers



Exploring the Journey to Maximo Application Suite 9.x & ESMS

Compelling Interoperability

Maximo Manage key capabilities



Work management

- Job plans for recurring tasks
- Predictive maintenance
- Manage labor, skills, and qualifications
- Mobile enablement for better point of failure data collection



Asset management

- Location/function, work, and cost history
- Roll-up costs
- Asset modeling
- Improved asset safety



Supply chain

- Manage inventory across storerooms and sites for better visibility
- Eliminate costly off-contract buying
- Improved monitoring of vendor performance
- Fully manage receipts, inspections, and vendor payments



Planning and scheduling

- Ensures assignment of the right person, with the right skills
- Drag-and-drop team assignments and accelerated schedule optimization
- Workflows to manage approvals and business processes



Health & safety environment

- Standardize practices
- Operators log risk assessment and incident management, investigation and correction
- Planning for hazard identification, risk assessment, and risk control



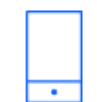
Service management

- Deliver on internal and external contracts
- Track SLA's and performance



Analytics

- Descriptive, predictive, and prescriptive analytics
- Built on industry-leading Cognos business intelligence software
- Available and customizable by user type



Mobility

- Connected and disconnected capabilities
- Ensures data capture at the point of work for better accuracy

Exploring the Journey to Maximo Application Suite 9.x & ESMS

Compelling Interoperability

Representative customers: Federal agencies

50+ Fed Civ customers

National Institutes of Health

Department of Homeland Security

- TSA, CBP
- US Coast Guard

Department of Energy

- 13 sites

Department of the Interior

- NPS, BLM, FWS, BIA, USGS

GSA (Public Building Service)

- All GSA Regions/Facilities

Department of Justice

- Federal Bureau of Investigation

State Department

- Bureau of Admin; Facilities Mgmt Office
- Bureau of Diplomatic Security

NASA

- 10 Space Centers/Labs

Veterans Affairs

Department of the Treasury

Department of Agriculture

Department of Commerce

Architect of the Capital

FDIC

80+ DOD customers

US Air Force

- Air Force Depots
- Range Support
- Base Ops / Facility Support
- Dover Port Mortuary

US Army

- Base Ops / Facility Support
- Army Depots
- Army Corps of Engineers
- Army National Guard
- Range Support
- Madigan Army Hospital

US Marine Corps

- Base Ops / Facility Support
- USMC Depots

US Navy

- NAVFAC
- NAVSEA
- NAVSUP – Fuel Depots
- Navy Shipyards/NAVAIR Depots

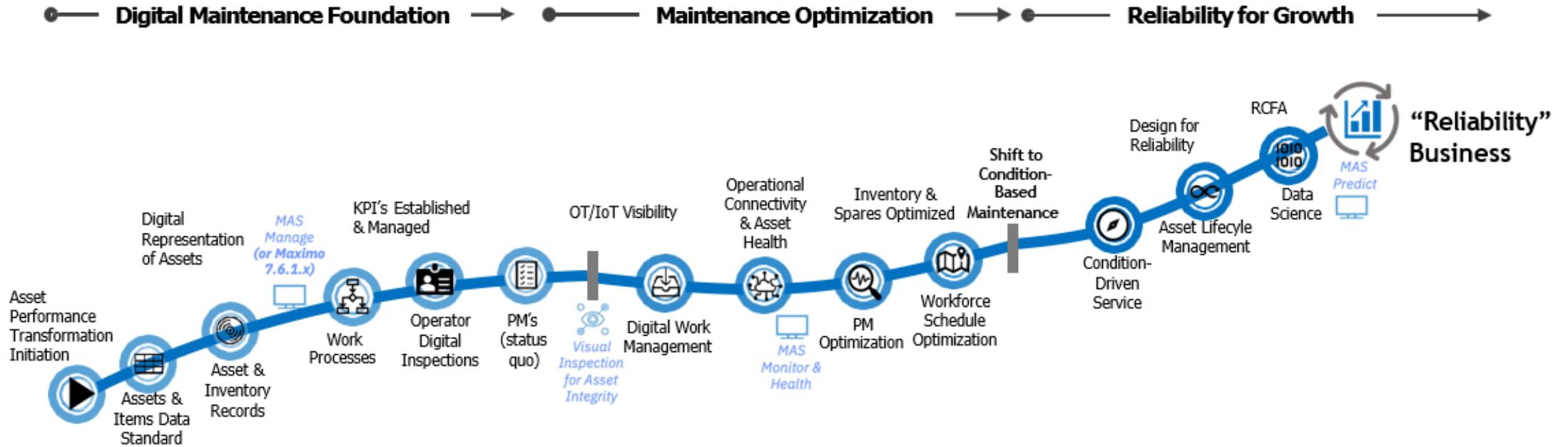
The Pentagon



Exploring the Journey to Maximo Application Suite 9.x & ESMS

Compelling Interoperability

Digital Asset Management Journey



- Assets are at the foundation (ISO 14224)
- Consistent foundational principles – workflow lifecycle, asset classifications & criticality, essential care, and condition monitoring
- Equipment criticality established & scored
- Foundational failure modes & effects analysis (FMEA) mapped to assets

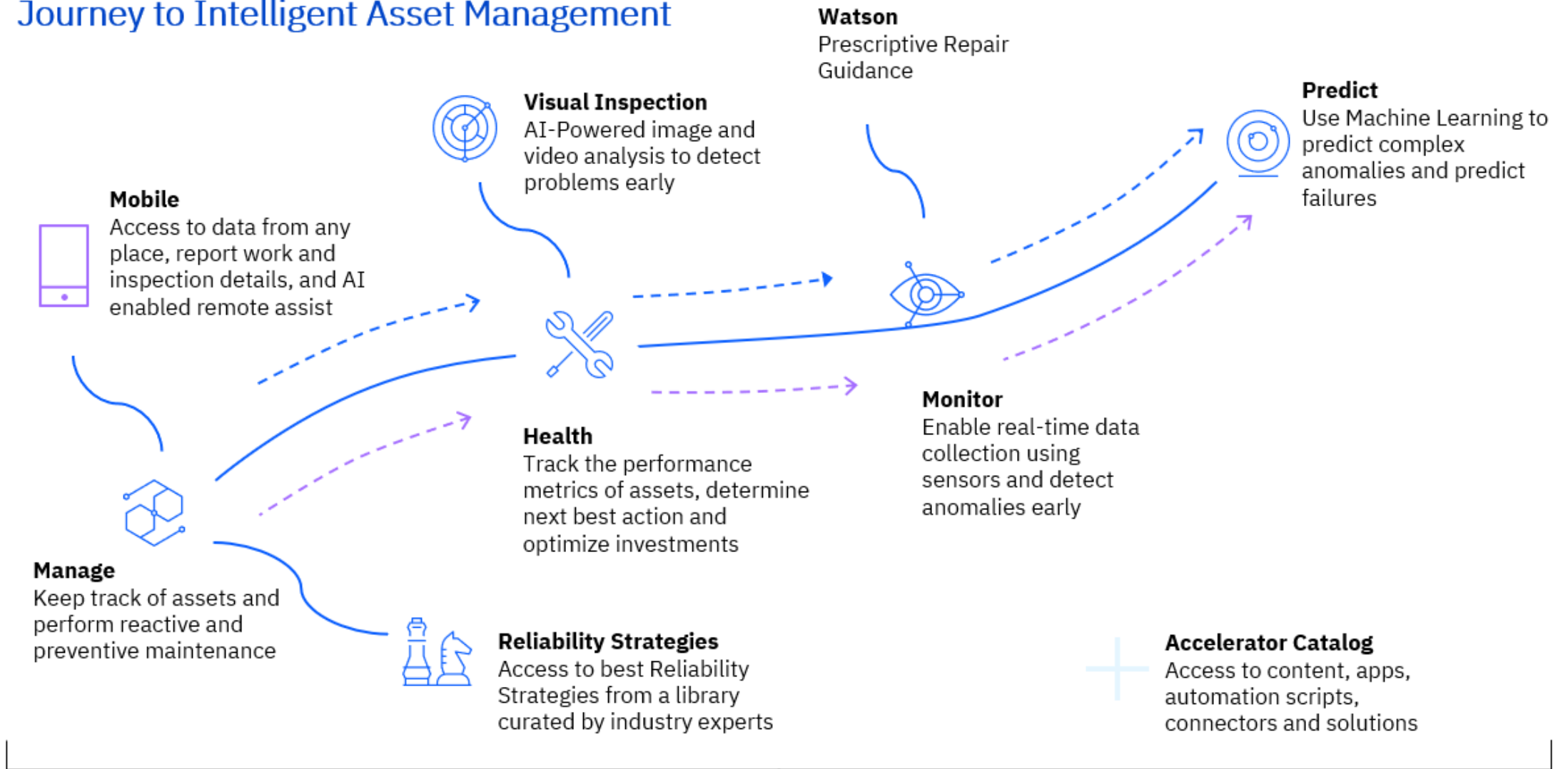
- Operational data integrated (OT + IoT)
- Multivariable objective asset health scoring
- Foundation for optimization – preventive maintenance (PM), workforce scheduling, inventory
- Directionally prescriptive work actions (augmented intelligence)

- Condition-driven approach to asset management
- Lifecycle asset management feedback mechanisms influence future asset design for reliability
- Failure modes & effects analyses (FMEA) governance
- Multivariate analytics & data science competency

Exploring the Journey to Maximo Application Suite 9.x & ESMS

Compelling Interoperability

Journey to Intelligent Asset Management



Exploring the Journey to Maximo Application Suite 9.x & ESMS

Compelling Interoperability

Maximo Application Suite 9.1
GA Targeted Q2 2025



Enhancing MAS

- Cross-Suite Administration
- Cross-Suite Dashboards
- Mobile
- Spatial Mapping
- Field Service Management
- IT Asset and Service Management

Asset Lifecycle Management

- Real Estate and Facilities (Tririga)
- Asset Investment Planning
- Maintenance Cost Insights

Enhanced processes with embedded AI

- Similarity tracking for WO
- Conversational UX
- Reliability Strategies

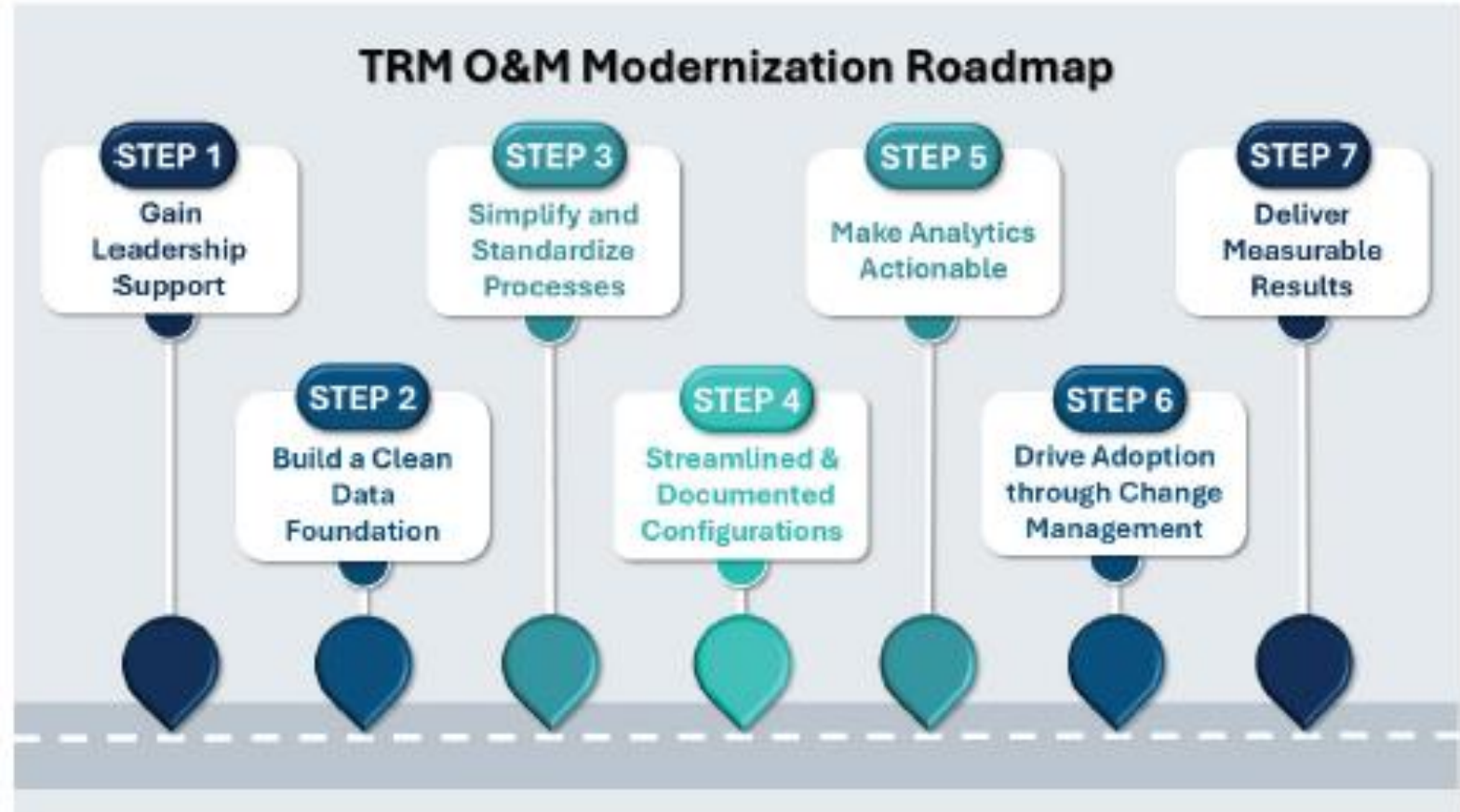
Leveraging Best Practices for Data Sustainment

Roadmap for Success - Outcome

O&M Data Modernization Roadmap for Success

ESMS data and results are needed for a more complete view.

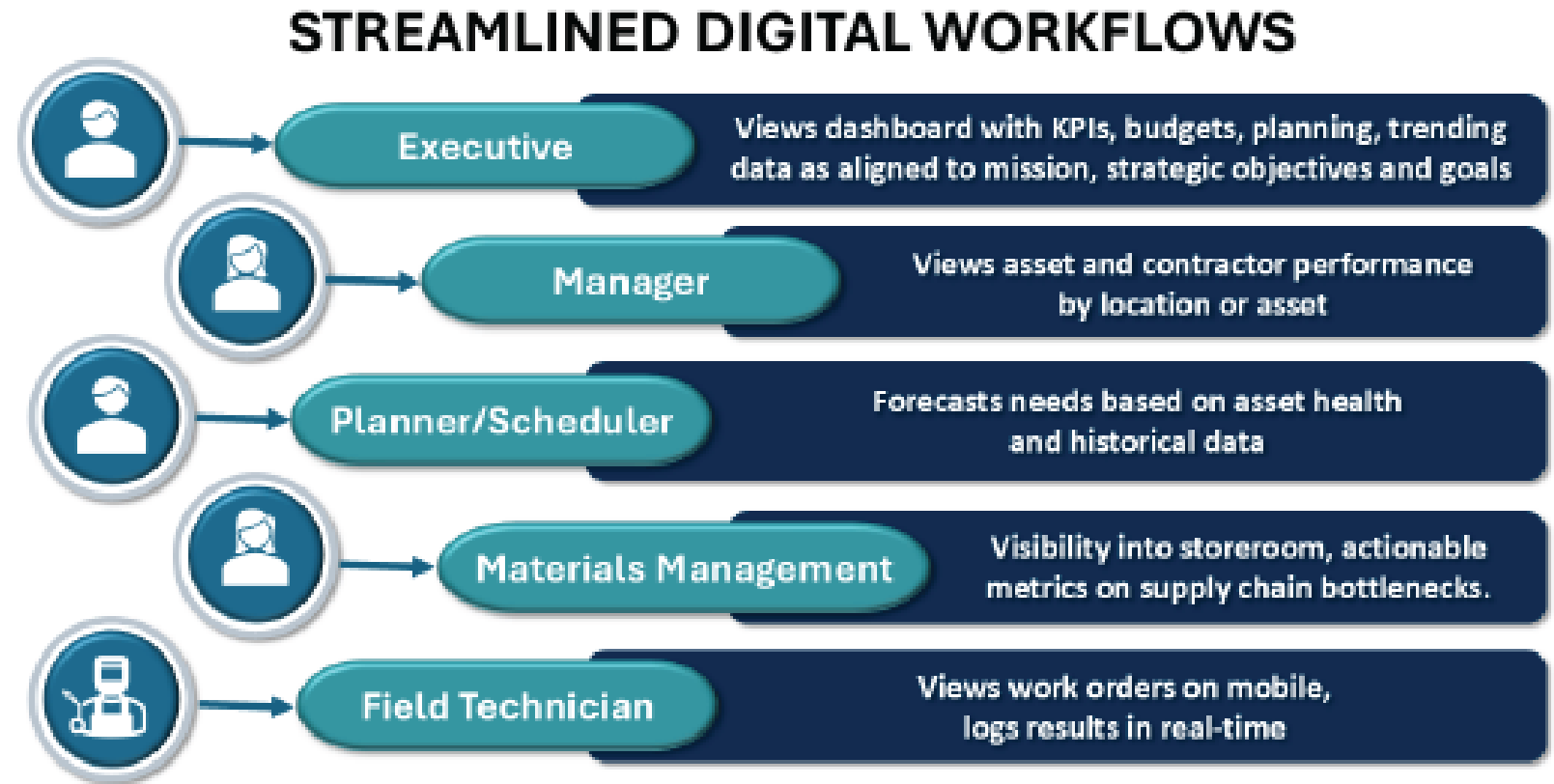
Ensuring your existing data is accurate and Maximo data collection processes are efficient for the users are also important.



Leveraging Best Practices for Data Sustainment

Roadmap for Success - Outcome

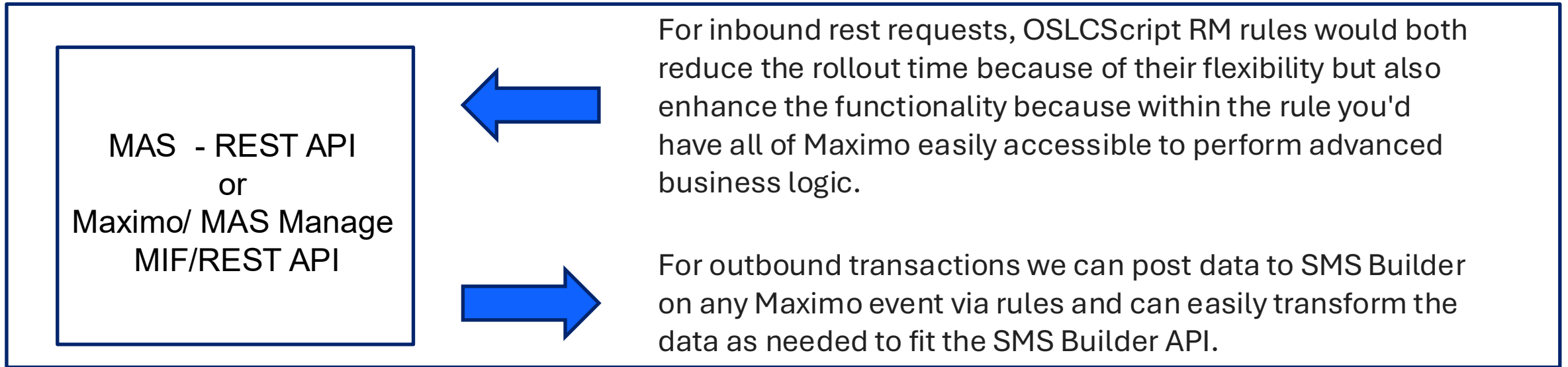
Working towards all your data in addition to ESMS is collected or generated digitally will provide greater visibility across multiple user roles in an organization.



Leveraging Best Practices for Data Sustainment

Roadmap for Success - Outcome

TRM RulesManager (RM) business rules tools can simplify and enhance a Maximo Application Suite – SMS BUILDER/ESMS API interface.



TRM RulesLibrary, e.g.

- Outbound Rules - Org1/Site1/xxx rules, Org1/Site 2, etc.
- Inbound Rules – Org1/Site 1/xxx rules, Org1/site 2, etc.

TRM RulesLibrary, e.g.

- Org 1 – Outbound, Inbound Rules
- Org 2 – Outbound, Inbound Rules

Delivering on Federal Compliance Initiatives through ESMS & Maximo Application Suite



Brad Peterson
The Building People
brad.peterson@thebuildingpeople.com



Zach Ruland
IBM
zmruland@ibm.com

Keith McCoy
IBM
keith.mccoy@ibm.com



Joe Kintz
Total Resource Management
joe.kintz@trmgroup.com