

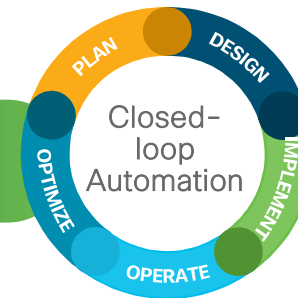


Sifting through the noise with Cisco Crosswork Situation Manager

Paola Arosio, Cisco Mgr. Product Management
Niklas Eklov, Moogsoft Strategic Architect
5th September 2018

Introducing the Cisco Crosswork Solution

The first closed-loop, mass scale automation solution that embraces multi-vendor networks



Mass Awareness



Collect massive amounts of data in a standardized format

Augmented Intelligence



Run analytics, apply machine learning

Proactive Control



Take action with an organized approach

Digital Transformation Creates Scale & Change

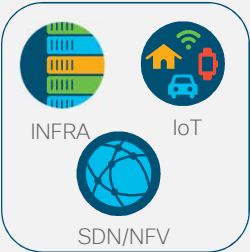
Where are you today?

| | Stone Age | Last Century | Last Decade | This Decade | Today | Tomorrow |
|---------------------------|-------------|---------------|-----------------|-----------------|-----------------|------------------|
| Technology Trends | Mainframe | Client Server | Distributed | Virtualization | Cloud | Digital Business |
| Server Count | 1 | 10s | 100s | 1,000s | 10,000s | 100,000s |
| Deployments/Year | 1 | 2 | 10s | 100s | 1,000s | 10,000s |
| Monitoring Tools | 1 | 3 | 5 | 10 | 25 | 50+ |
| Events/Metrics/Day | 100s | 1000s | 100,000s | Millions | Billions | Trillions |
| Organizational Silos | 1 | 10 | 15 | 25 | 50 | 100 |
| Humans Ability to Cope | Yep | Yep | Kind Of | Not Really | Nope | HELP! |
| Service Availability | 100% | 99.999% | 99.99% | 99.9% | 99% | ? |

Scale & Change Operationalization Challenges

Technology: Multiple Domain, Layers, Vendors

Not have a single root cause but multiple causes and domain/layers to relate



AGILITY

Tools: No Single Pane of Glass

Under-Optimized Collaboration Unable to Properly Correlate Across Monitoring Ecosystem



QUALITY OF END USER EXPERIENCE

Lack of Context and Visibility: Operational Island

Decentralization of operations. Too many duplicate and non-actionable tickets.



COST OF OPERATION

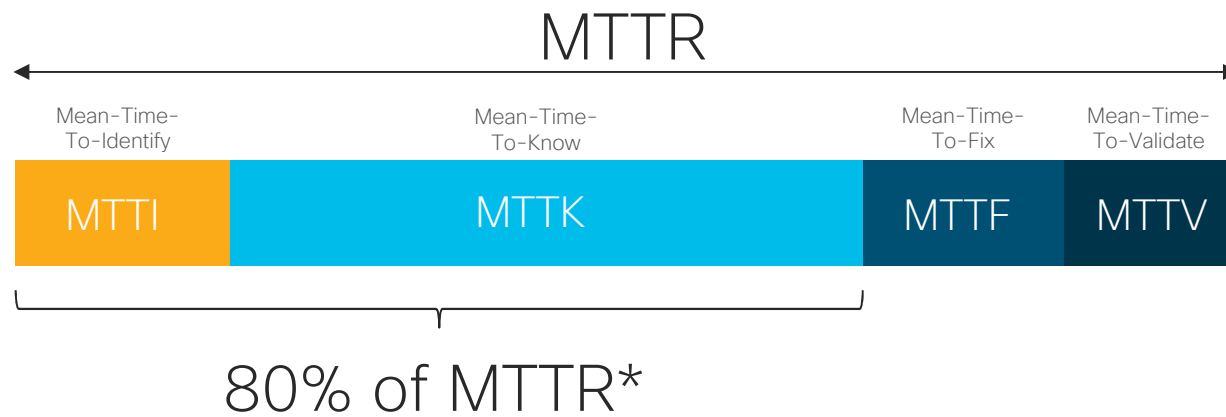
No Knowledge Sharing: No knowledge capture

Lack of Domain Expertise. Knowledge not properly shared and reside in individual.



PRODUCTIVITY

Leading To...



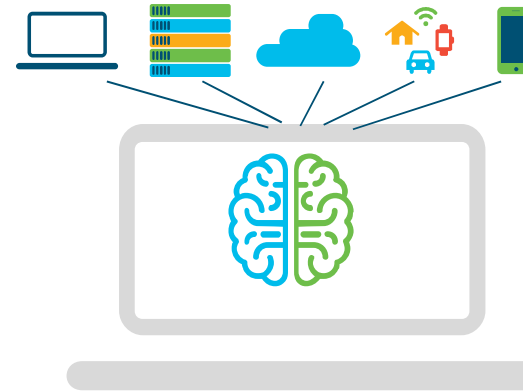
Elongated mean-time-to-identify and mean-time-to-know, which makes up 80% of the total mean-time-to-restore

Transition from the OLD World to the NEW World

OLD World: Physical devices described by rules, mapped out in brittle static representations

NEW World: Virtualization, SDN/NFV, IoT, 5G

Dynamic algorithms replace rules to manage ever-increasing rate of change



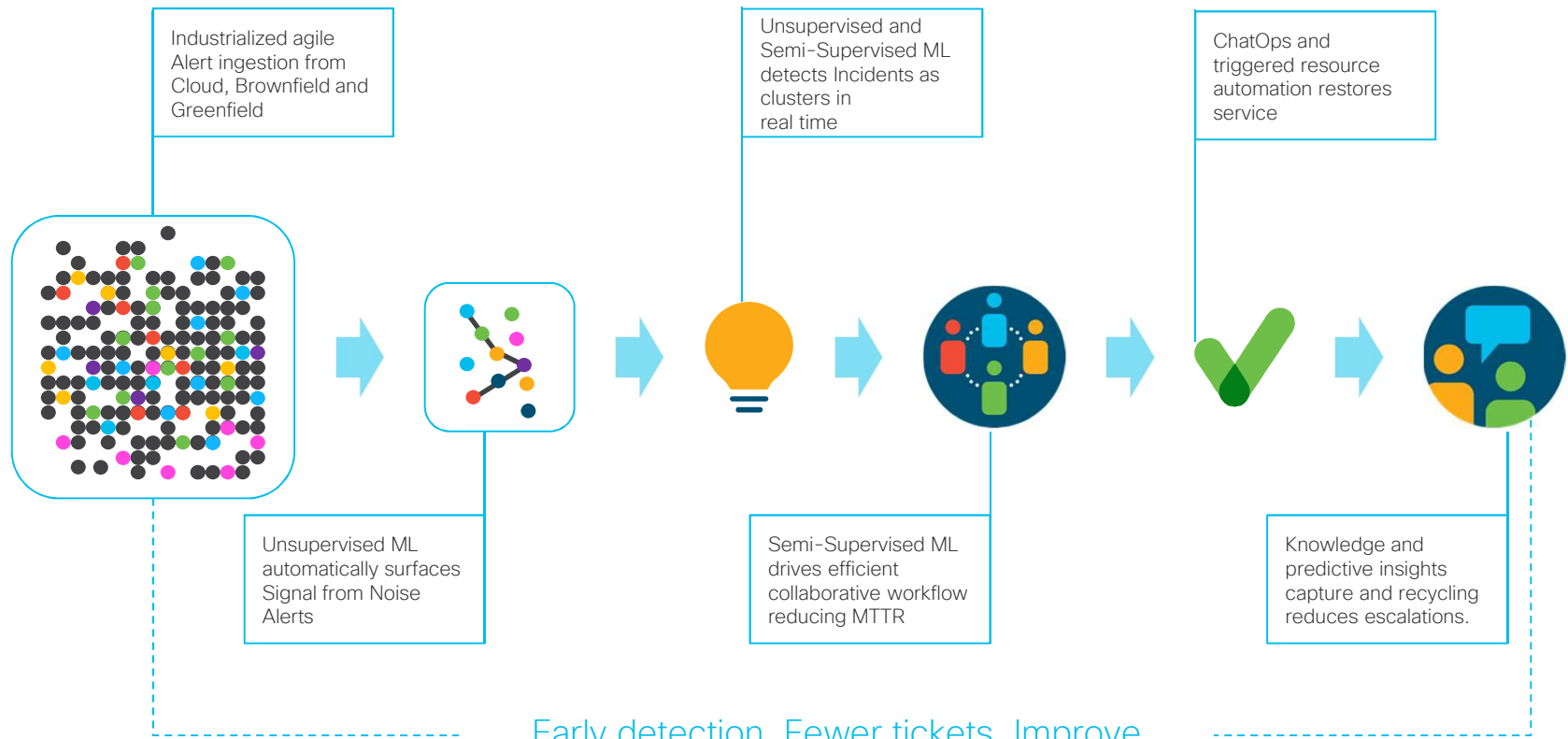
AIOps: Artificial Intelligence for Network Operations

| Incident Management Process | Humans | AIOps |
|--------------------------------|--------|--------|
| Analyze Millions of Events | Hours | Secs |
| Correlate Millions of Events | Hours | Secs |
| Anomaly Detection | Hours | Secs |
| Detect Repeat Anomalies | Hours | Secs |
| Create/Update Tickets | Mins | Secs |
| Troubleshoot Tens of Incidents | Mins | Assist |
| Determine Root Cause(s) | Mins | Assist |
| Restore | Mins | Secs |
| Learn from Failure | Mins | Secs |

Let algorithms do more of this (arrow pointing to Anomaly Detection)

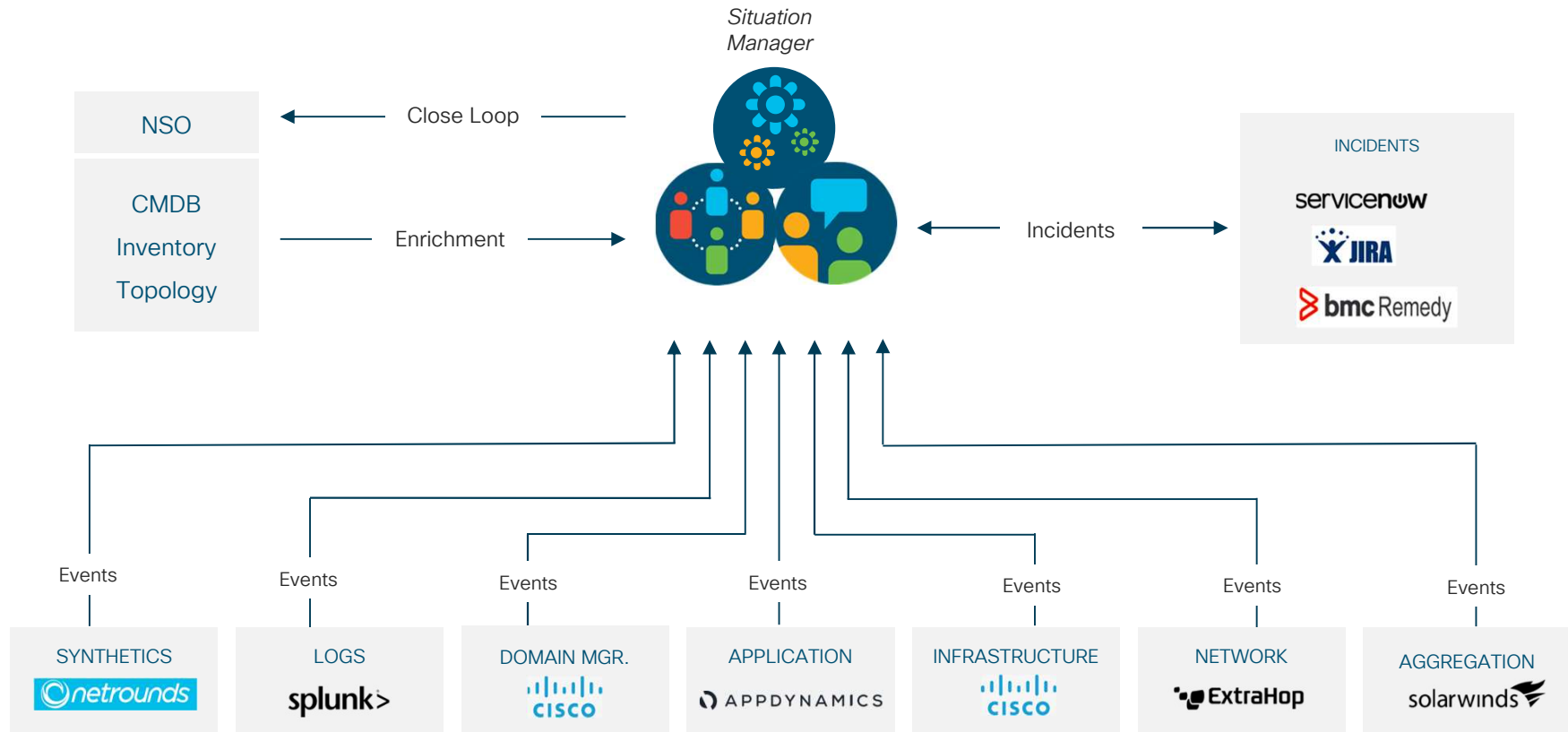
Let humans do more of this (arrow pointing to Learn from Failure)

Automate event-to-resolution process with AIOps



Early detection, Fewer tickets, Improve Productivity, Reduce MTTR

Integrate in Customer Ecosystem



Cisco Crosswork Situation Manager

Powered by Moogsoft AIOps - Recognized by **Gartner**.

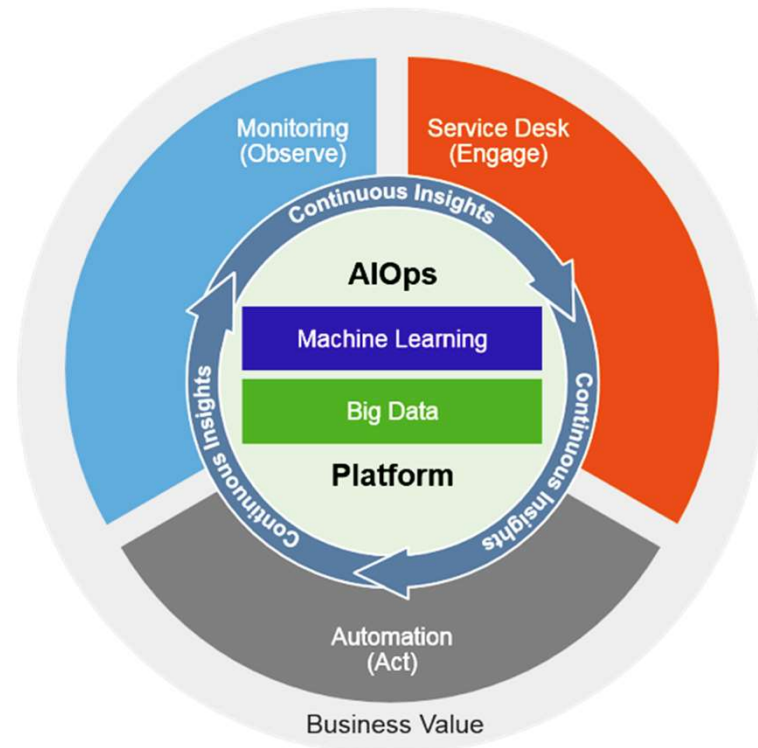
- Key Capabilities
 - Intelligent notification
 - Intelligent collaboration
 - Workflow automation
 - Causal analysis
 - Decision support

Market Guide for AIOps Platforms

Published: 3 August 2017 ID: G00322184

Analyst(s): Will Cappelli, Colin Fletcher, Pankaj Prasad

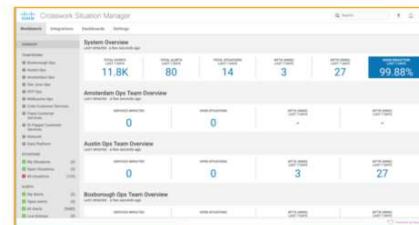
AIOps platforms combine big data and machine learning functionality to support IT operations. I&O leaders should begin the deployment of such platforms to enhance performance monitoring now, but plan extension to service desk and automation over the next five years.



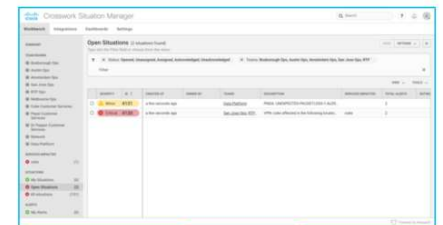
Ref: Innovation Insight for Algorithmic IT Operations Platforms by Gartner 2016

Poll Question

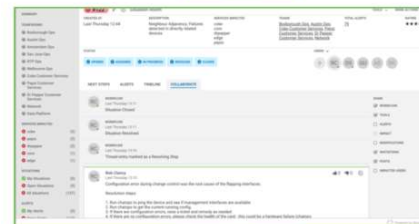
Demo



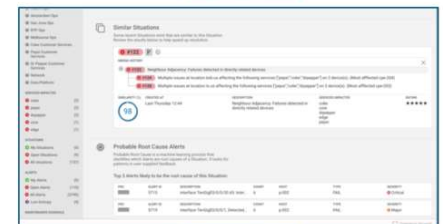
FILTER



DETECT



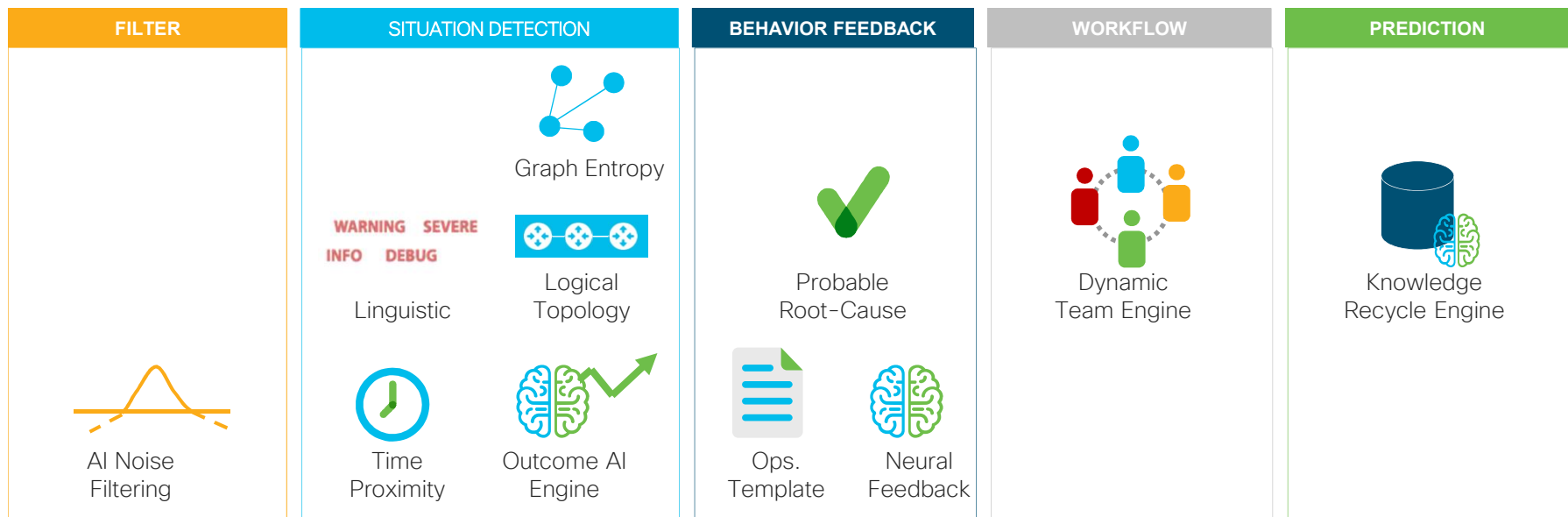
ACT



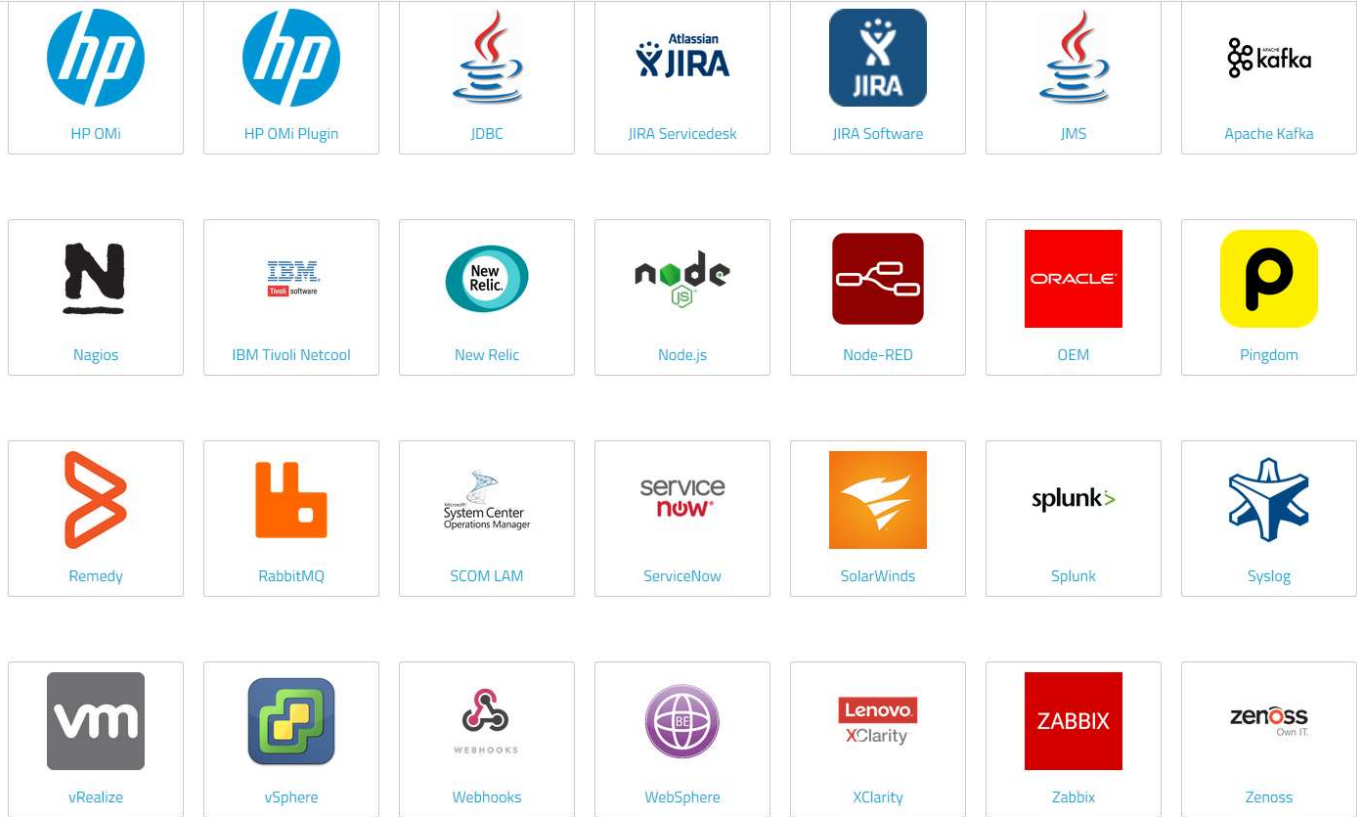
DIAGNOSE

Cisco Crosswork Situation Manager

Algorithmic Clustering Engine (ACE)



Integration Adapters



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... and more

Poll Question

Proven Value and Scale

75%

Reduction in
Operational Noise

66%

Reduction in Customer
Reported Incidents

34%

Reduction in Incident
Tickets

43%

Reduction in
MTTR

* Source: Feedback from 4 Customers

Proven Value

Agility Time to Value

Faster Deployment & Integration

Reduced time and cost of deployment.

Easy integration in existing customer ecosystem. API/SDK availability.

Easily integrate with Customer Multi-Vendor Ecosystem.

90% Reduction in Operational Noise (fewer incidents) after 45 days.

Quality of Experience Reduce MTTR

Early Detection & Faster Restoration

Push notification versus watching a Sea of Red with existing tools and, a reduced Signal to Noise ratio increases quality and productivity

Integration with Automation Engine to reduce time to fix and validate detected issues.

Proactive Customer Impact detection up to **24 hours before** legacy incident system.

Cost of Operations Productivity/Efficiency

Increase Productivity

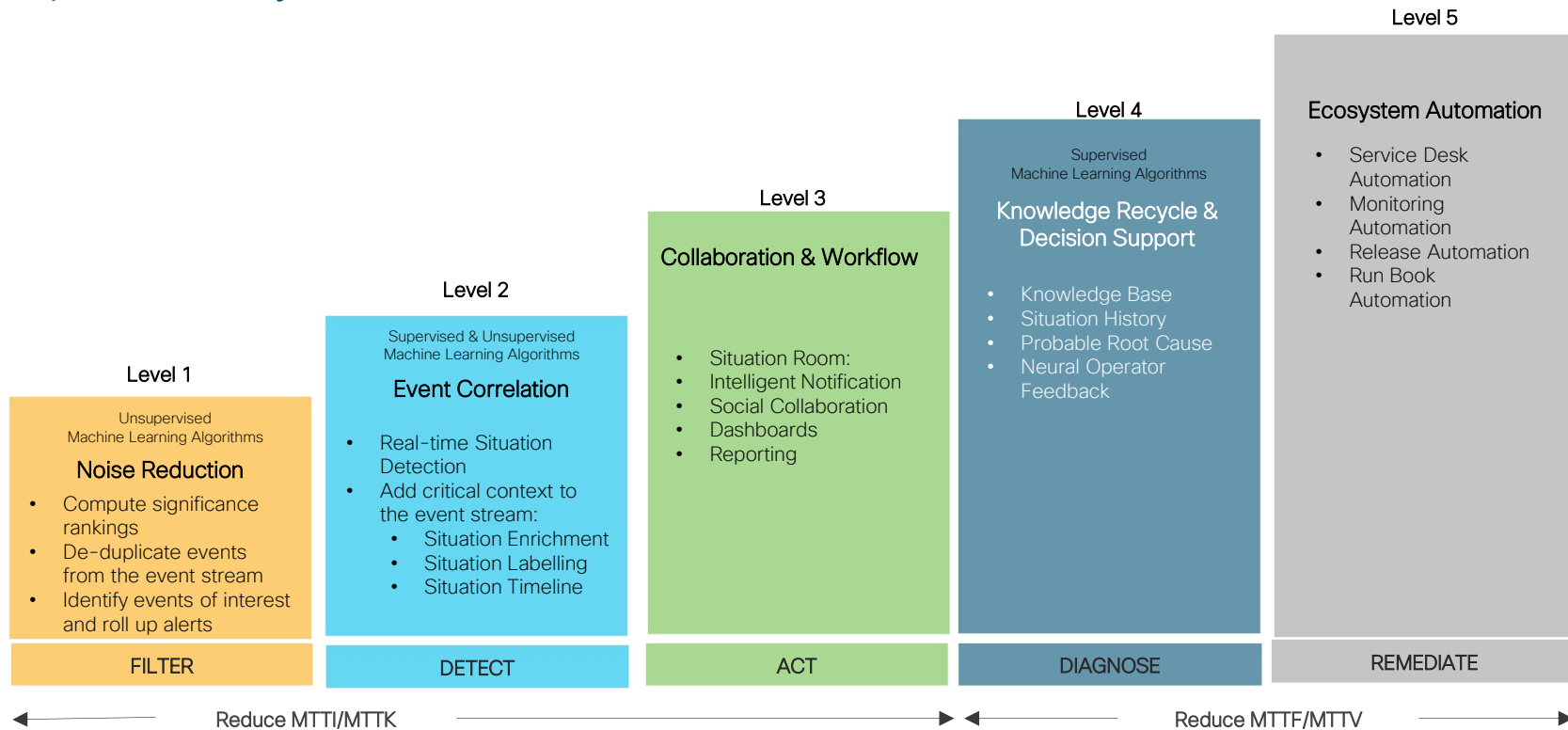
No complex models to maintain reduces the cost of ownership and allows the customer to increase change frequency.

A single pane of glass for all diagnostics activities, knowledge capture and team based collaboration reduce cost per incident (avoid duplicate / wasted effort)

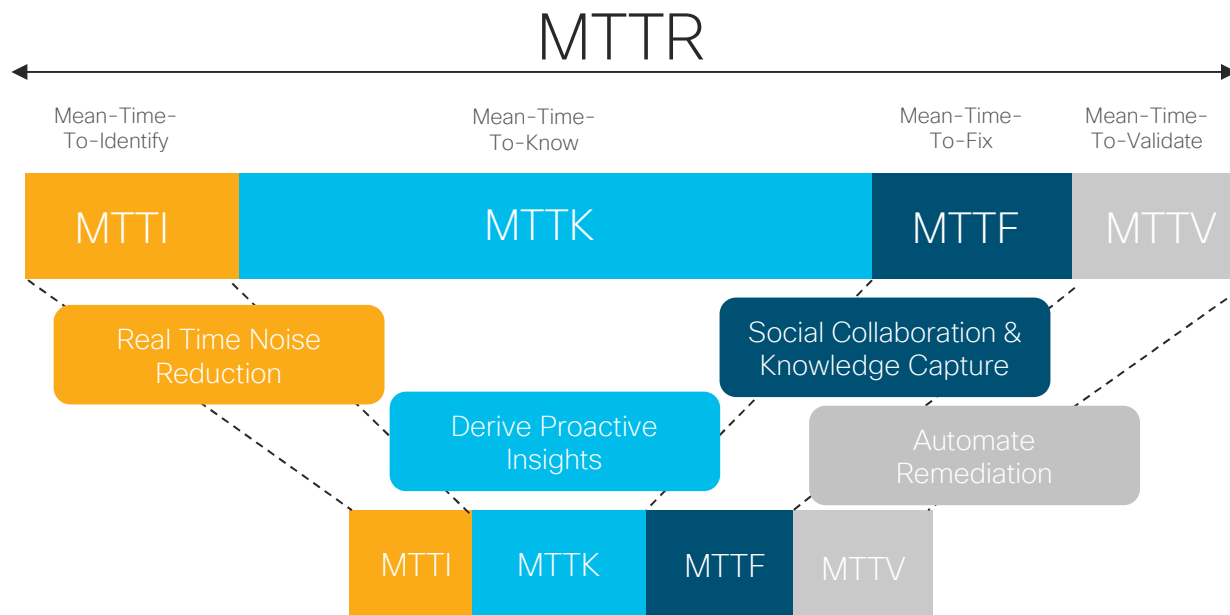
Example of **50x Operator Productivity** improvement through noise reduction and knowledge capture.

Cisco Crosswork Situation Manager

AIOps Maturity Model



AIOps Benefit



Poll Question

More Information

www.cisco.com/go/crosswork

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Introducing Cisco Crosswork: Mass Scale Automation Delivered

Automation that's intelligent. Architecture that's open. A network that's aware.

[Watch the Video](#)

Cisco Crosswork

The first closed-loop, mass scale automation solution that embraces multi-vendor networks. Built on the proven foundation of open APIs in Cisco Network Service Orchestrator and WAE, Cisco Crosswork now incorporates advanced data consolidation, machine learning, event correlation, and change automation down to the individual network slice – and soon even across domains.

Cisco Crosswork is about being proactive, not just in actions, but in vision. It's about enabling networks to ultimately self-heal, self-optimize, and self-protect, by repairing and optimizing infrastructure from the inside – without interruption or human intervention.

Mass Awareness

Collecting information from every corner of your network. Across your network, in near real time, at mass scale.

[Learn more >](#)

Augmented Intelligence

Constantly and excessively evaluating the collected data for you. Finding the outliers—the red flags and soon to be red flags—and letting you know.

[Learn how >](#)

Proactive Control

Staying ahead of things. Becoming more efficient and secure. So you can do one thing at once, for once.

[Explore more >](#)



stay on top