The bridge to possible

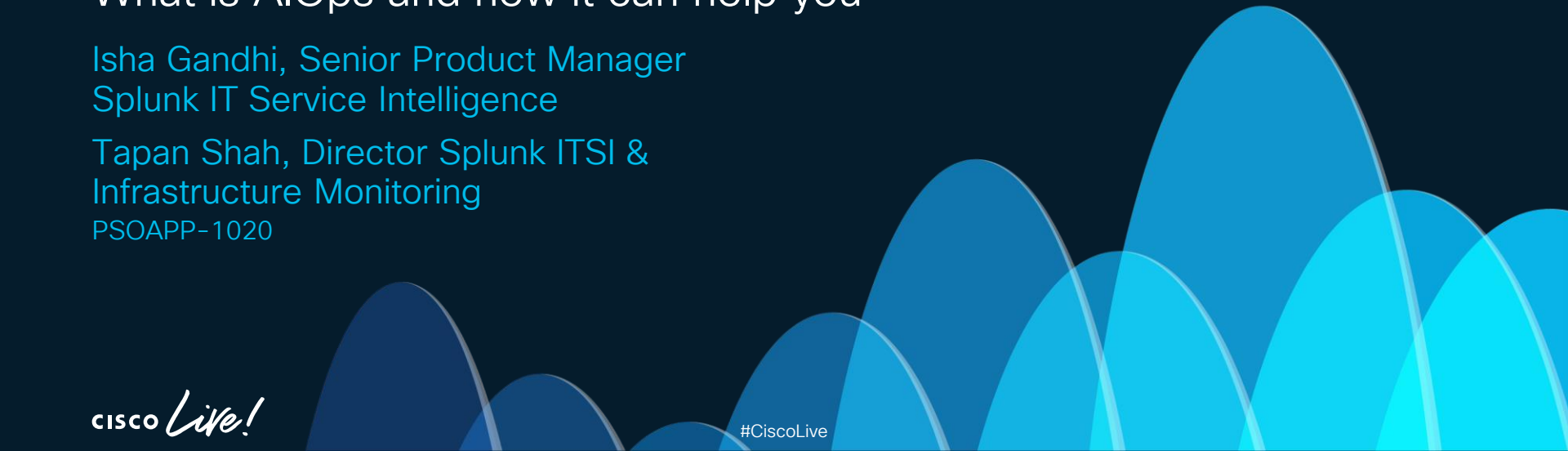
AIOps 101

What is AIOps and how it can help you

Isha Gandhi, Senior Product Manager
Splunk IT Service Intelligence

Tapan Shah, Director Splunk ITSI &
Infrastructure Monitoring

PSOAPP-1020



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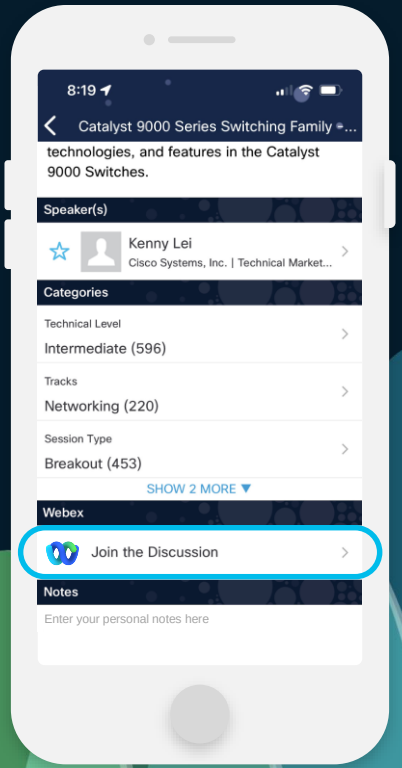

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Agenda

- Why AIOps?
- Our Approach to AIOps
- AIOps Capabilities
- Customer Success Stories

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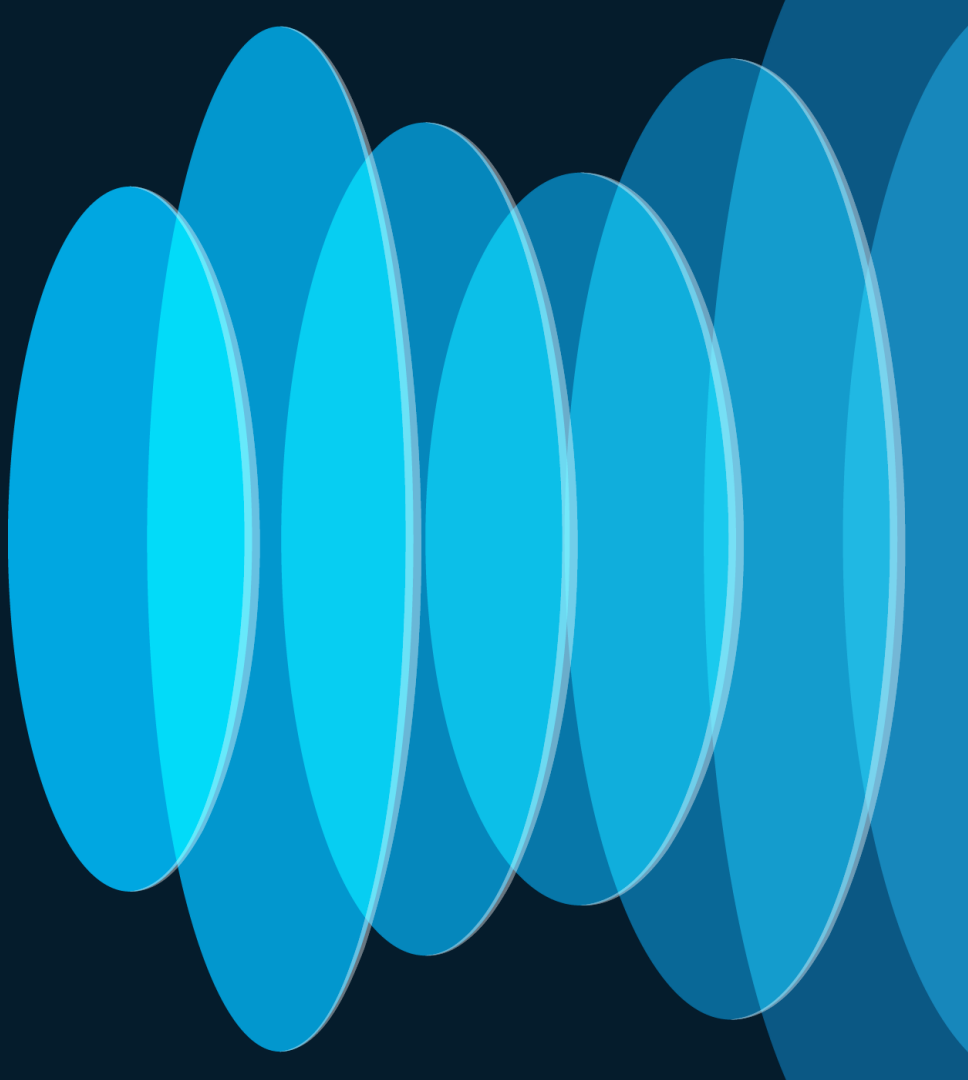
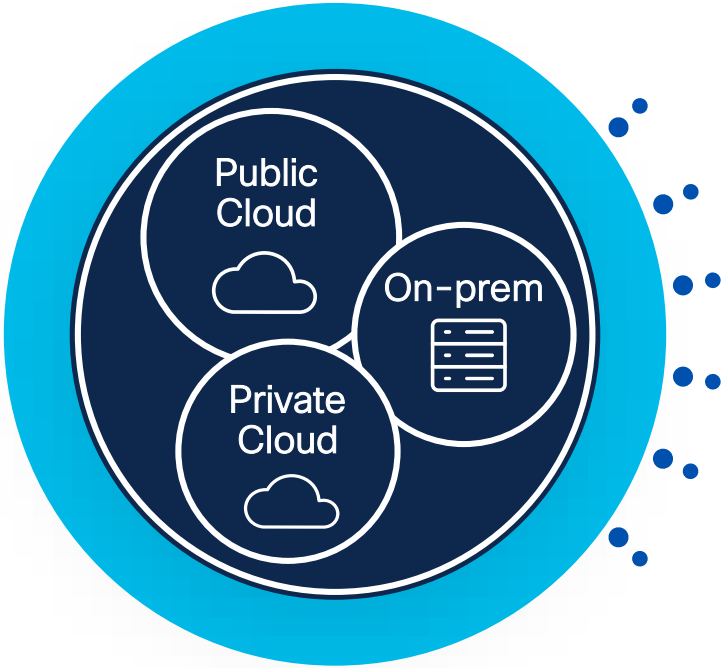
Why AIOps?



New Technology is Stacked on Top of Legacy Leaving a Long Tail of Assets



- **More** services to monitor and secure
- **More** data to analyze & correlate across hybrid architectures
- **More** points of failure and unpredictability
- **More** tools and gaps between systems

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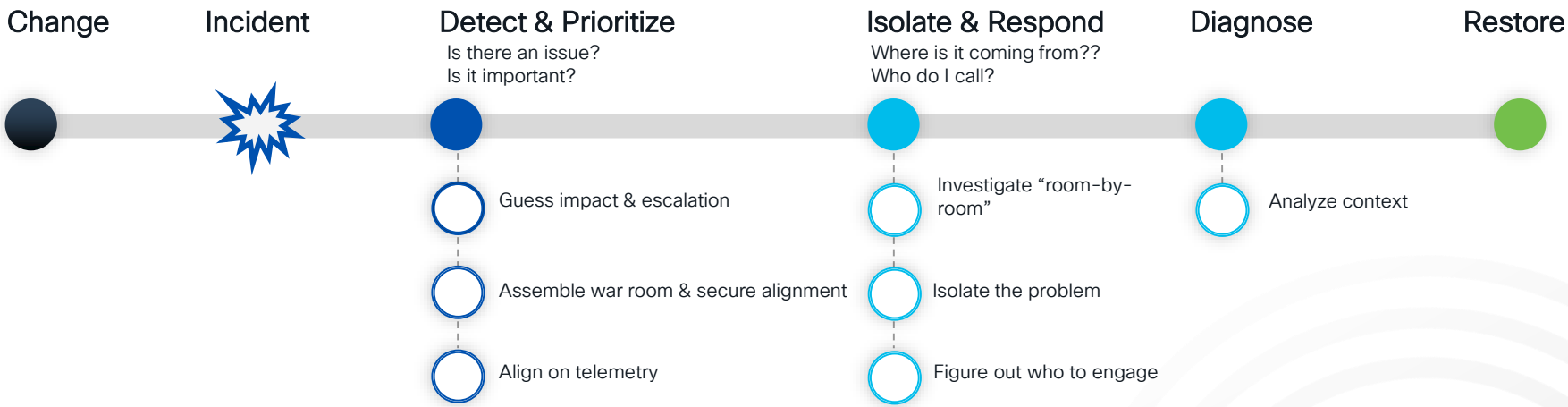
It Takes Too Long to Detect | Investigate | Respond



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The Problems IT Operations Teams are facing

Too many tools across the environment

Hard to monitor business services

Difficult to get to a proactive posture

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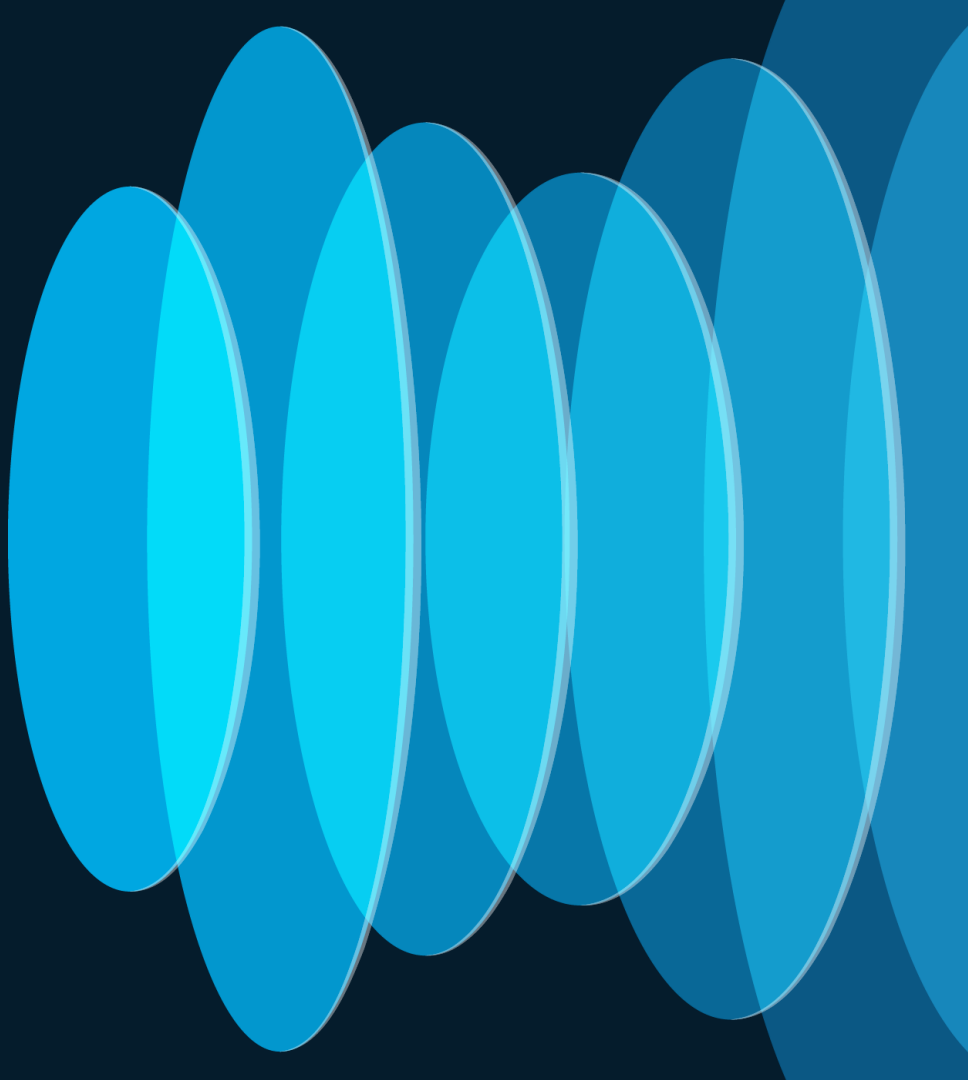
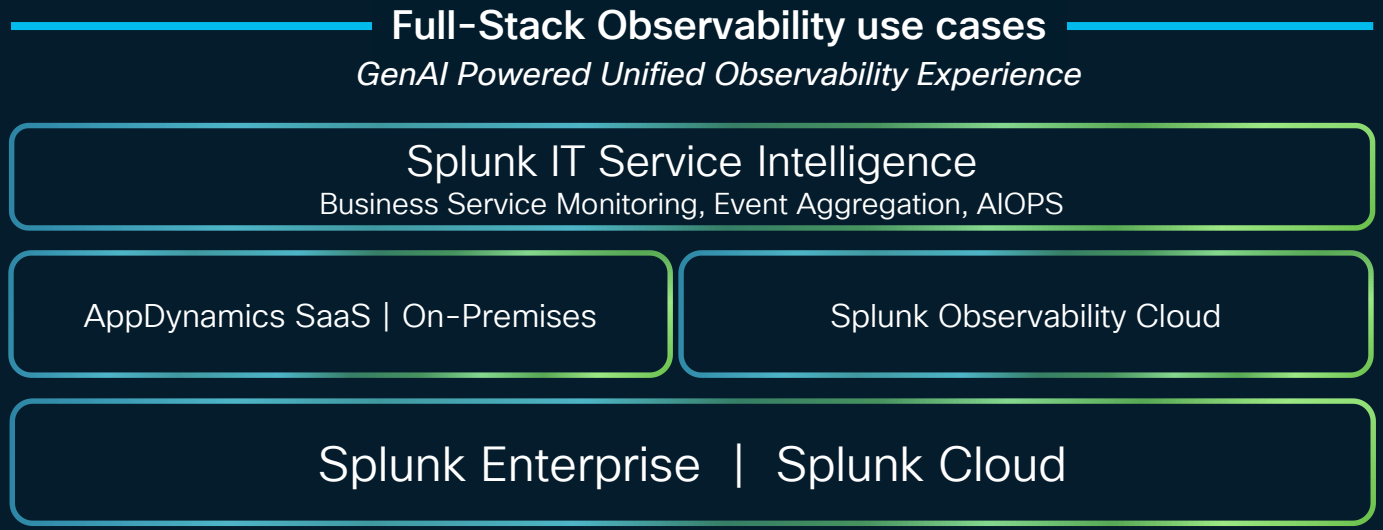
Our approach to AIOps



Our Full-Stack Observability portfolio



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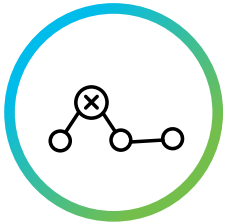
Key AIOps Use Cases

Anomaly Detection



Reduce unplanned downtime by surfacing anomalies and outliers that could be precursors to an outage

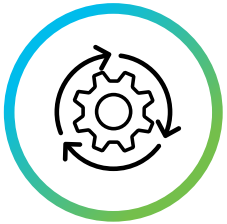
Alert Noise Reduction

Identify and prioritize issues faster by grouping related alerts

Probable Root Cause

Find and fix problems faster by identifying probable root cause and providing directed troubleshooting

Automation & Remediation



Save time and reduce errors by automating common tasks

Proactive Outage Prevention

Optimize services and prevent issues from occurring by forecasting future near-term service health

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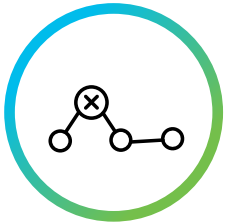

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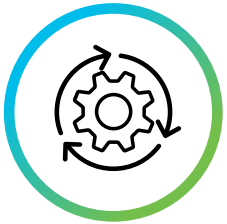

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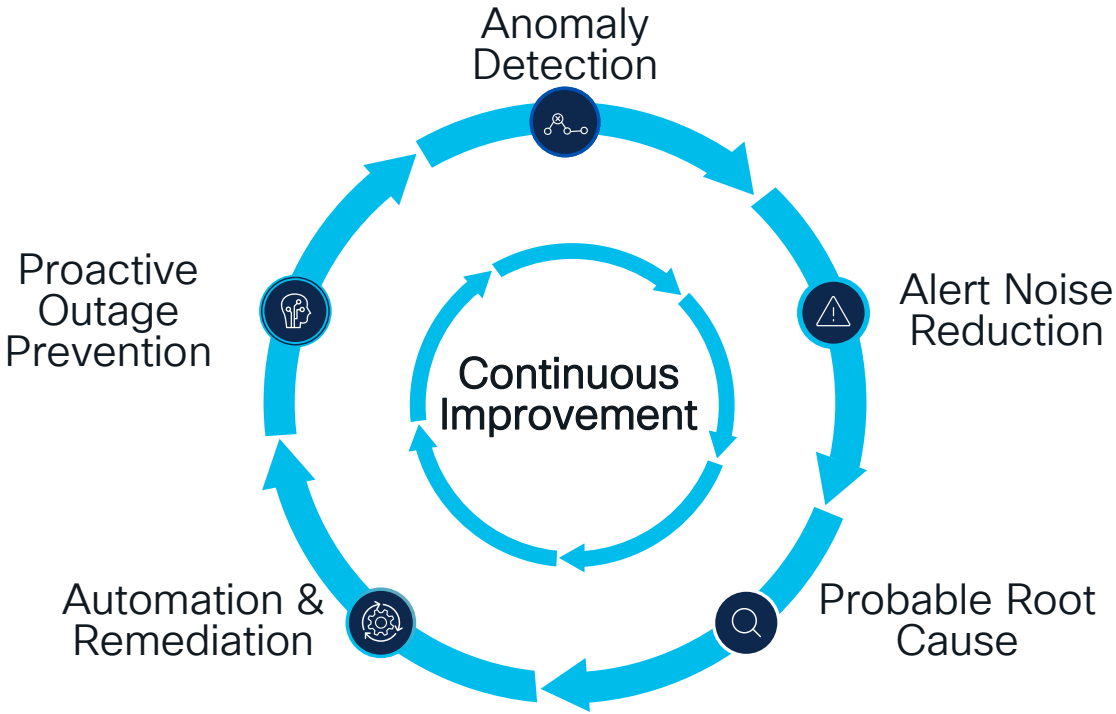

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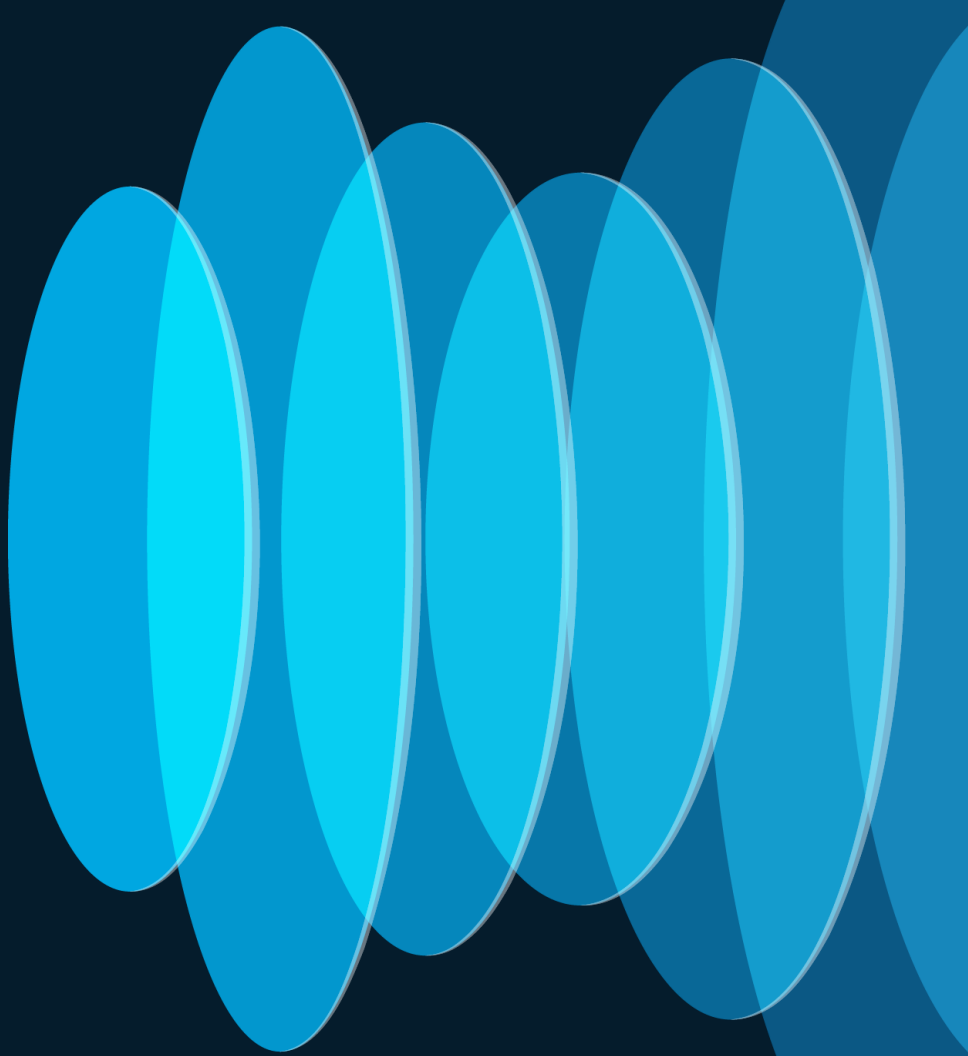
AIOps Capabilities



Anomaly Detection

Reduce unplanned downtime by detecting anomalous behavior before an outage

Automated Dynamic Baselining

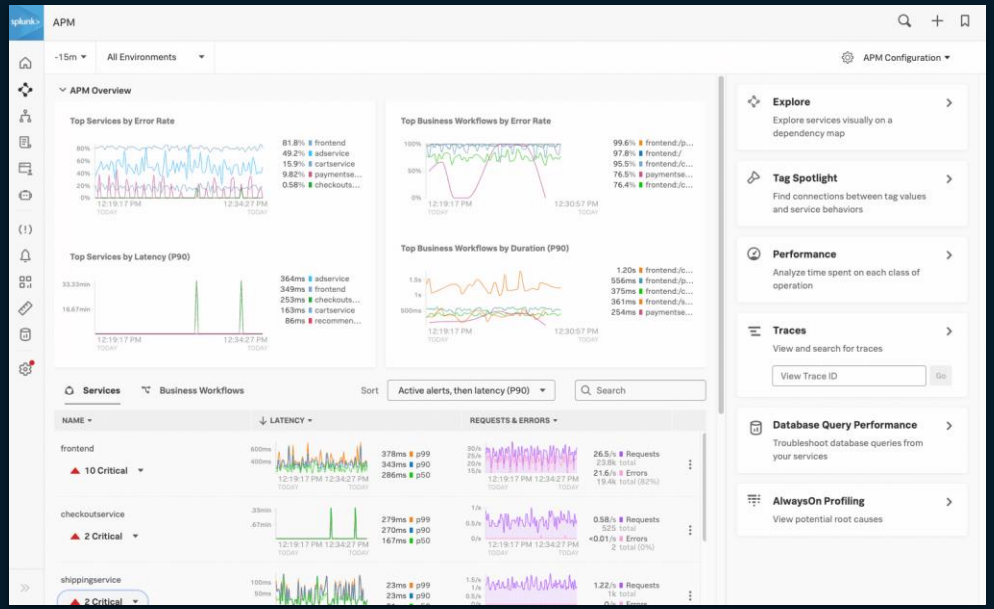
Tailored, more accurate alerting for fewer false positives

- Adaptive thresholding
- Historical alerting

Outlier detection

Peer Group Alerting and Sudden Change

- Identify signals deviating from peers
- Detection of sudden changes e.g. spikes in latency, errors, and resource utilization
- Availability monitoring with heartbeat checks and resource running out
- Customizable detectors



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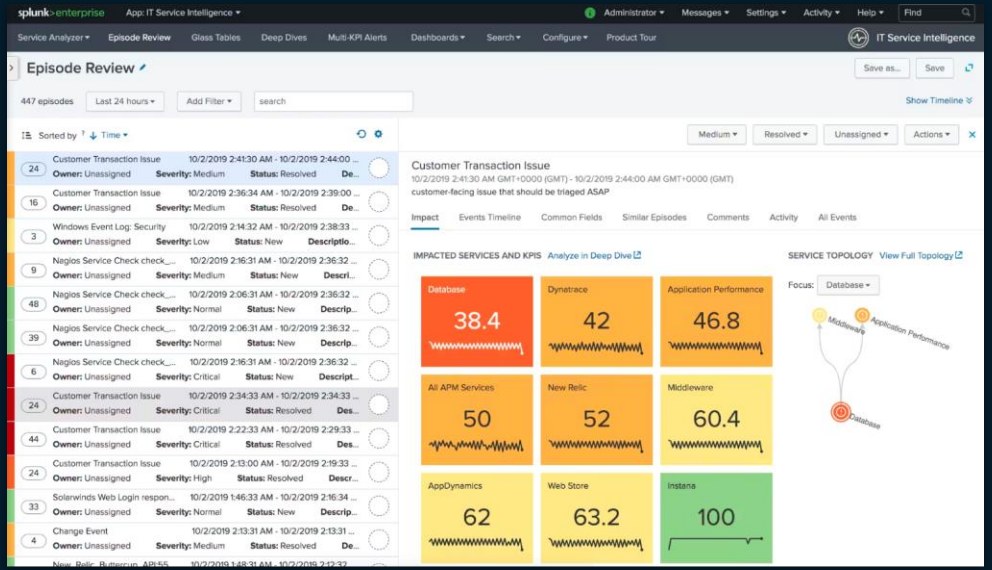
Alert Noise Reduction

Group and prioritize alerts across existing monitoring and incident management tools

Event Analytics

Quickly identify and prioritize actionable alerts and events to reduce impact

- ML and rules/policy driven correlation
- Reduce alert noise up to 90%
- Prioritize issues by severity for faster response
- Unified view for triage, investigation and response
- Insights into historically similar episodes



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Probable Root Cause

Reduce MTTR by quickly identifying probable root cause

Directed Troubleshooting

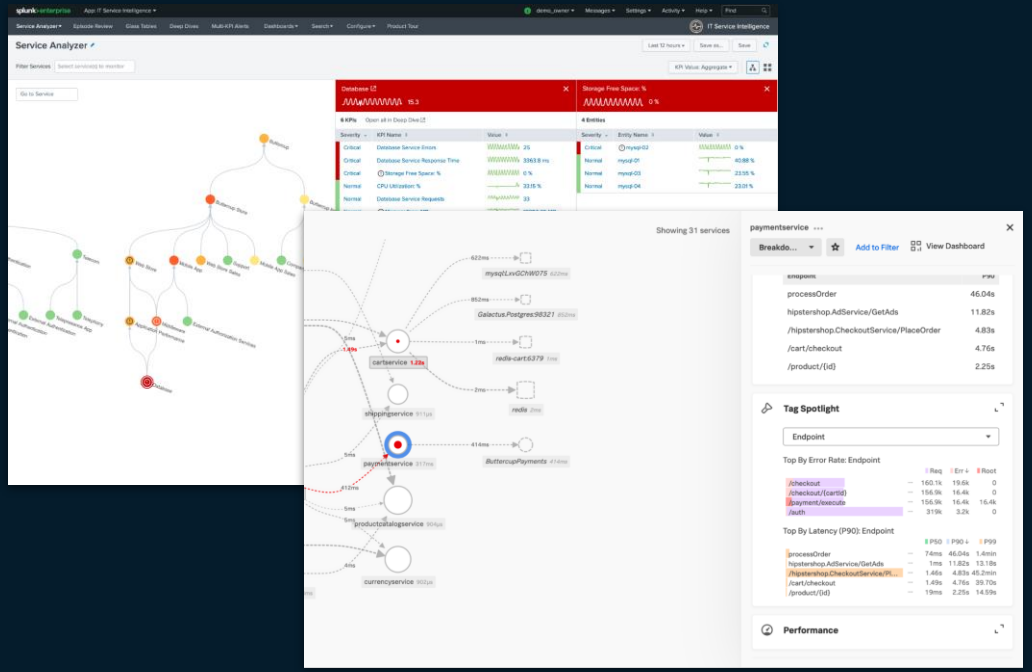
Understand business impact & know where to look

- Identify affected services and blast-radius
- Drill into underlying KPIs to isolate problem areas

Pinpoint root cause of incidents

Identify underlying code-level issues

- Discover granular trends contributing to service issues
- Recommended related content that correlates across application, infrastructure and logs



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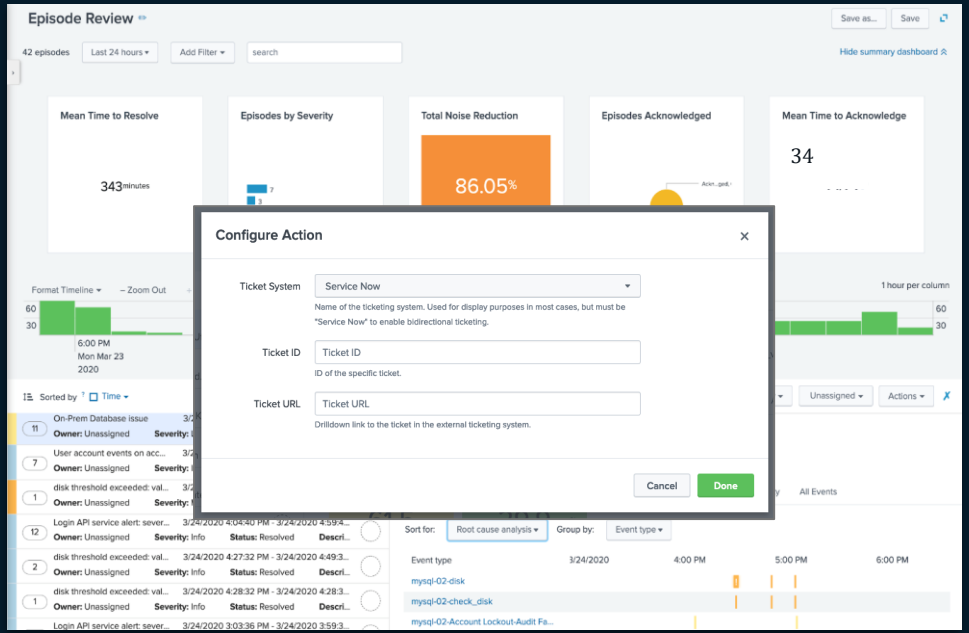
Automation & Remediation

Automation throughout your Ops processes

Accelerate Incident Response

Automated ticketing, remediation & asset synchronization

- Dynamically enrich incidents with CI/asset information
- Notify teams with integrated ticketing to ITSM & incident response tools (ServiceNow, BMC)
- Automated remediation via runbooks with Splunk SOAR or other orchestration & automation tools
- Continuous improvement through IT asset synchronization with post-incident analysis



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Proactive Outage Prevention

Find and fix issues before they impact your end users

Adaptive Thresholds

Self-adjusting, dynamic alert thresholds

- Driven by automated baselining
- Ensures more accurate alerting
- Reduces false positives
- Enables early warning detection (e.g. resource running out)

Predictive Analytics

Applies machine learning to proactively prevent outages

- Predict future KPI health scores
- Find and fix issues up to 30 minutes before they impact your end users

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Align IT with the Business

ITOps teams and the line of business are aligned on common KPIs and metrics, and understand how service health directly impacts business priorities.

- See real-time service health across IT and business services
- Align IT with your lines of business in one dashboard
- Correlate business KPIs across apps, infrastructure and user experience
- Out-of-the-box reporting to identify and track areas for continuous improvement

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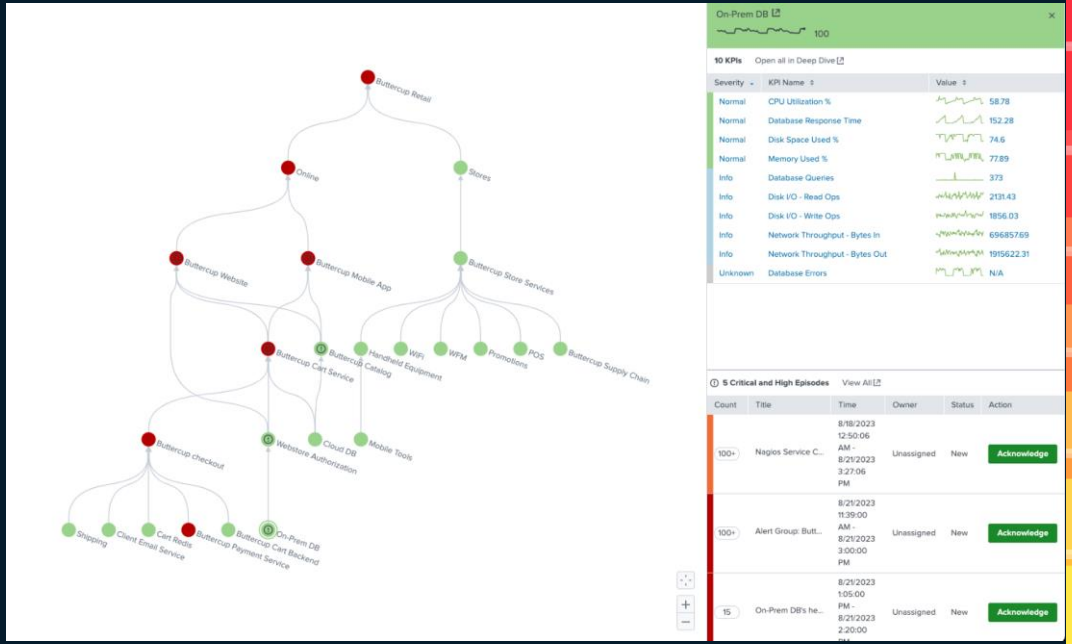

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Benefits for the Business

Operational Efficiency

Increase flexibility and adaptability to ephemeral environments

Cost Reduction

Reduce redundant point tools

Innovation

From cost center to strategic partner

Business Impact

Connect IT to business-critical services and apps

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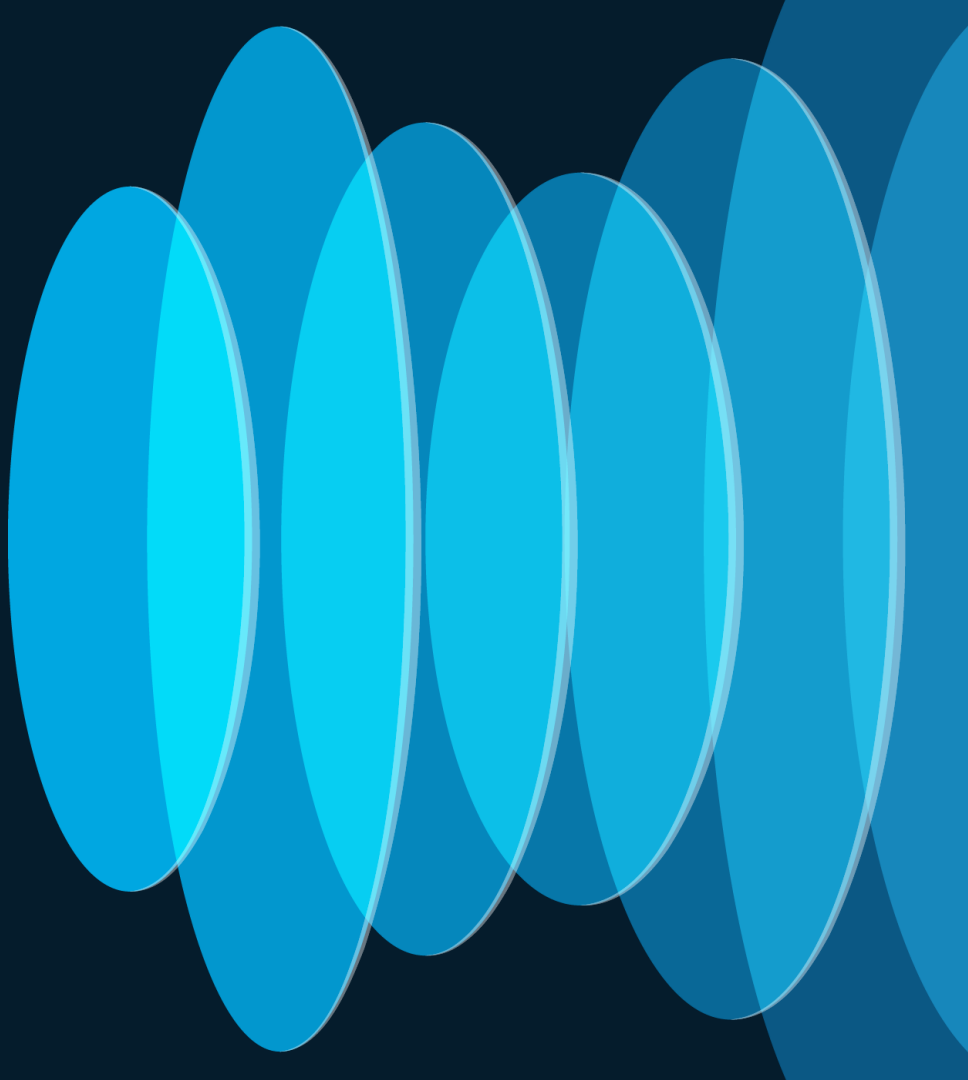
Customer Success Stories



Case of a customer with transport activities

Critical applications faced high number of P1 & P2 issues, leading to monetary losses with ships stuck at ports

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Critical applications faced high number of P1 & P2 issues, leading to monetary losses with ships stuck at ports

Approach

- Aggregating alerts across tools in Splunk for noise reduction
- Service Insights for ability to track business KPIs and metrics and identify IT issues vs business issues.

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TimeRange
Last 60 minutes

Refresh Rate
1 Minute

Container Health

100 Health Score

Notifications

Temperature	15	
Humidity	22	
CO2 Level	5	

Sustainability

Environmental Performance	Extrapolated	Goal	%
Energy Consumption TJ	419,832	400,000	105
CO2 Emissions 1,000 t	31,516	30,000	104
SOx Emissions 1,000 t	514	520	99
NOx Emissions 1,000 t	810	830	97

Shipment App

95 Health Score

75 Predictive Health Score

Active Users	15,064	
Failed Logins	115 ▼5	
Response Time	1,418.5ms	

MyFinance

95 Health Score

97 Predictive Health Score

Active Users	8,851
Failed Logins	71 ▲8
Response Time	1,386.1ms

View your invoices	4,939
Raise you dispute	88
Check your balance	2,947
Pay online	2,904

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Impact of AIOps

Unified view – business problems connected to IT problems for the first time

70% fewer incidents

Reduced MTTR

Hundreds of hours and **millions of dollars saved**

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Why Partner with us?

Realized business value from ITOps teams from around the world

64%

▼ Unplanned Downtime

Cost Optimization

Improved availability by preventing costly incidents

3M

97%

▼ Reduced Alerts

Operational Efficiency

Staff devoted to the issues that matter most

leidos

90%

▼ MTTR

Business Impact

Strengthened brand reputation with 360° service visibility

TalkTalk For Everyone

75%

▼Customer Facing Errors

Innovation

Successfully transformed the organization with modern technology

BELONG

Customer Benchmarks

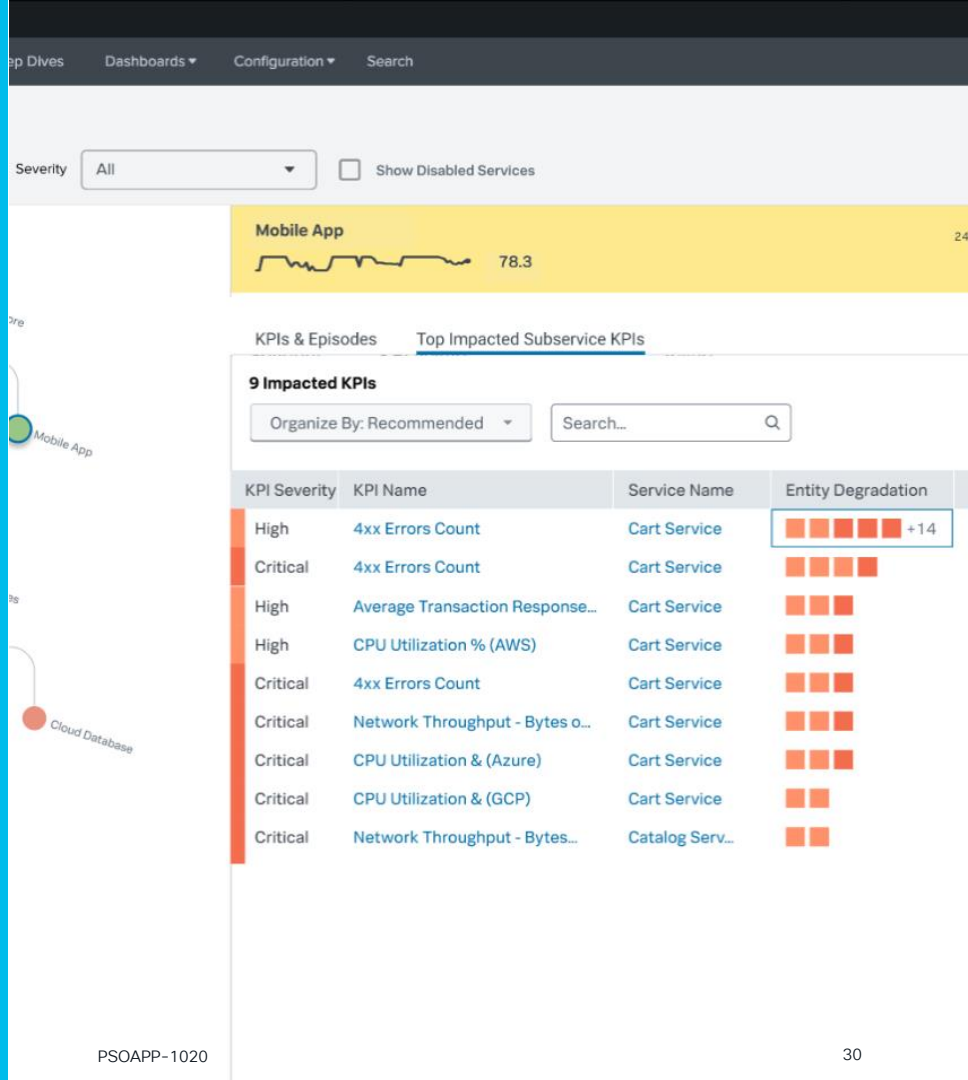
▼15% - 45%
Reduction in high priority incidents

▼70% - 90%
Reduction in investigation time

▼67% - 82%
Reduction in negative business impact

Come visit the **AIOps demo** at the Cisco Showcase

to see more!



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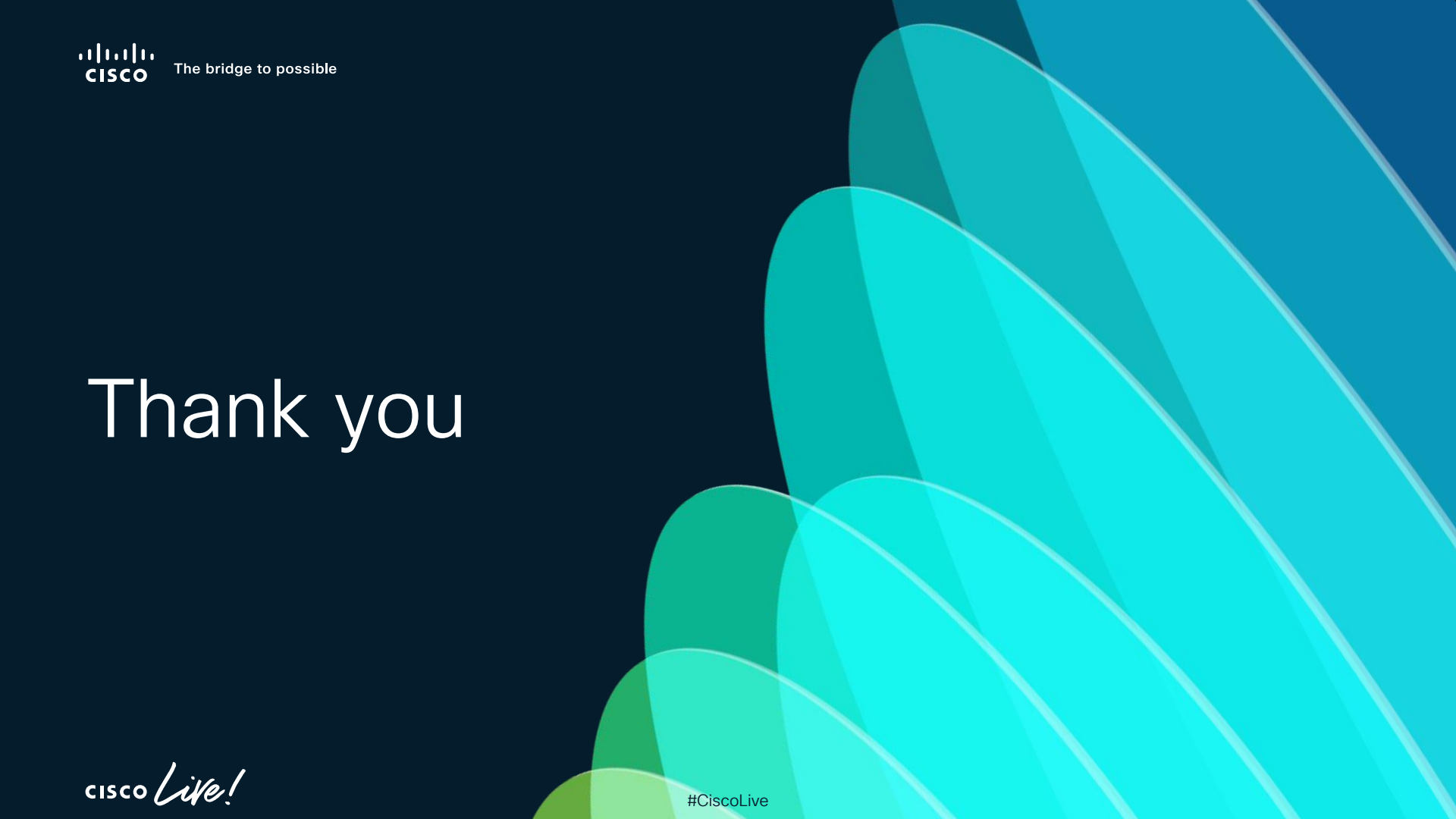
The bridge to possible
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