

SAP Resilience

Gene Kaalsen
SAP Solution Strategist APAC



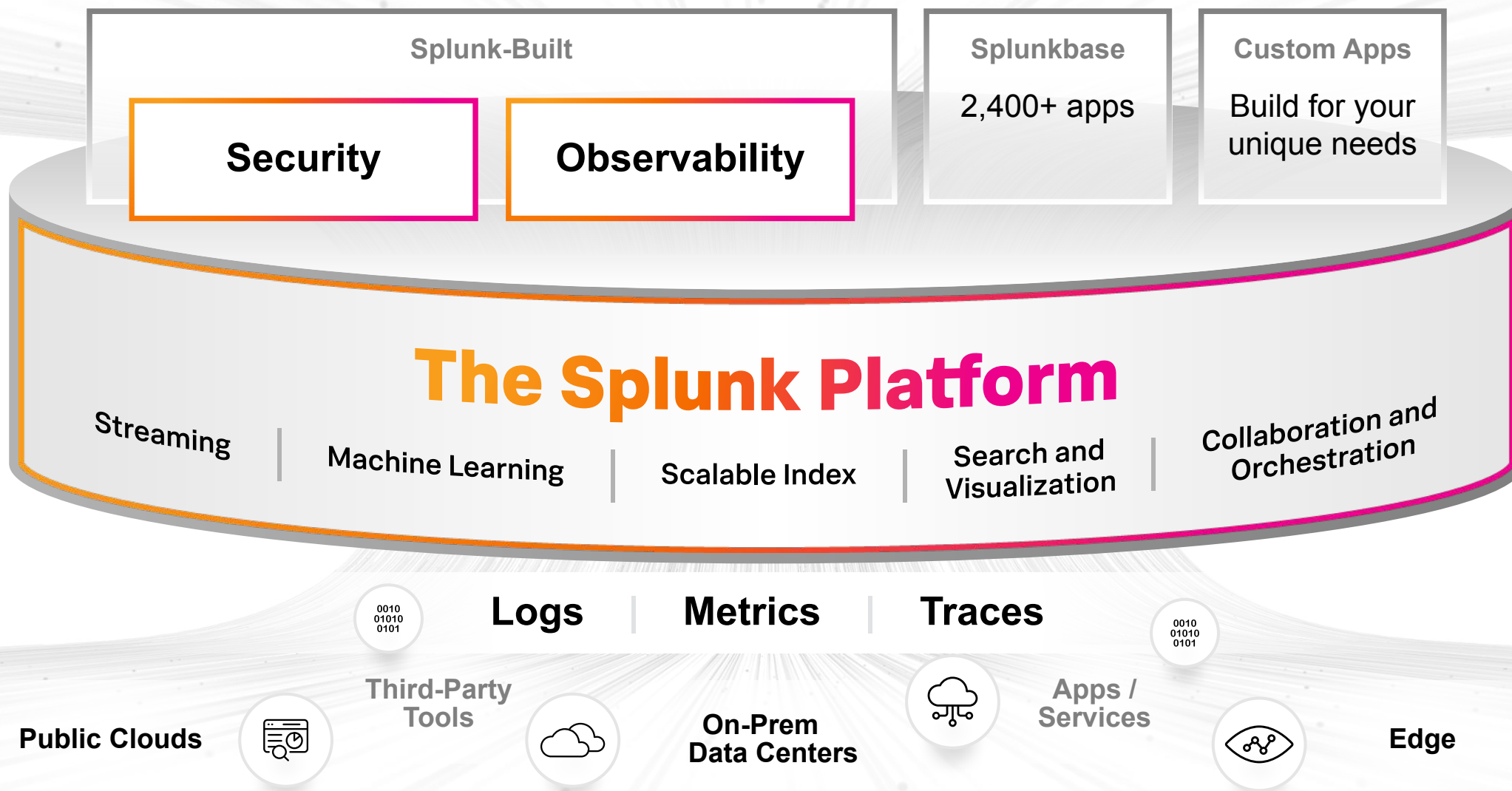
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**We're here to build a safer and
more resilient digital world.**

The Data Platform for the Hybrid World



Splunk Is a Recognized Leader in Security and Observability

Gartner®

A Leader

Gartner® Magic Quadrant™
for Security Information and
Event Management

Gartner® Magic Quadrant™
for APM + Observability

IDC

Ranked #1

in SIEM Market Share
in ITOps and Analytics
Market Share

FORRESTER

A Leader

in Forrester Wave™ Security
Analytics Platforms

GIGAOM

**RESEARCH
IN ACTION**

A Leader

in Cloud Observability, APM,
AIOps and Incident and
Task Management
in Observability and
AIOps Markets

Gartner, Magic Quadrant for Security Information and Event Management (October 2022) | Gartner, Market Share: All Software Markets, Worldwide 2021 (April 2022) | Gartner, Market Share Analysis: ITOM, Performance Analysis Software (October 2022) | IDC, [Worldwide Security Information and Event Management Market Shares, 2021: The Cardinal SIEMs](#), doc #US48506522 (July 2022) | IDC, Worldwide IT Operations Management Software Market Shares, 2021: Market Growth Moderates, doc #US49609921 (September 2022) | Forrester, [The Forrester Wave™: Security Analytics Platforms, Q4 2022](#) (December 2022) | GigaOm, Radar for Cloud Observability Solutions (March 2022) | Research in Action, VSM Observability and AIOps (May 2022)

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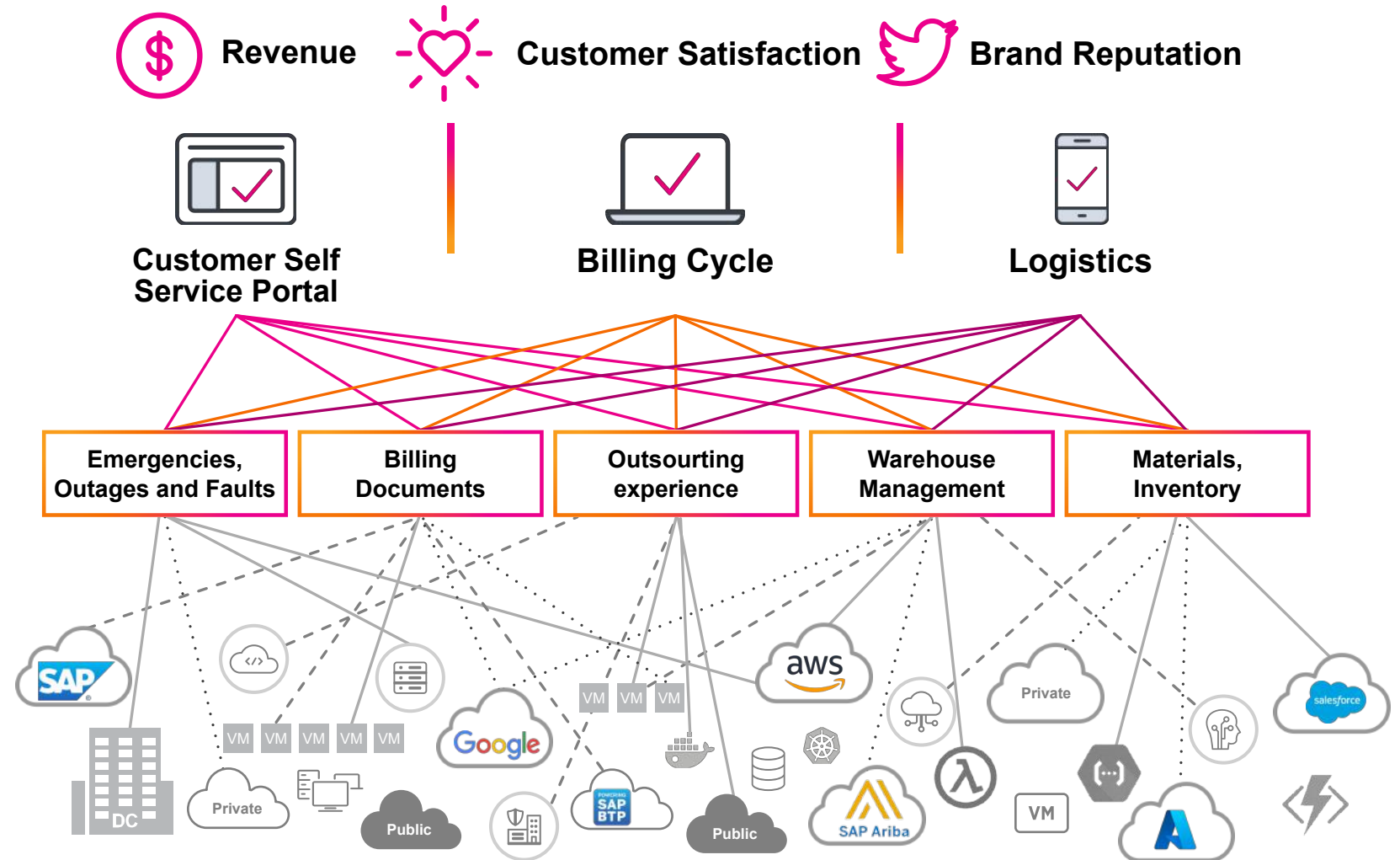
End-to-End SAP Resilience

1 Top-Level Business KPIs

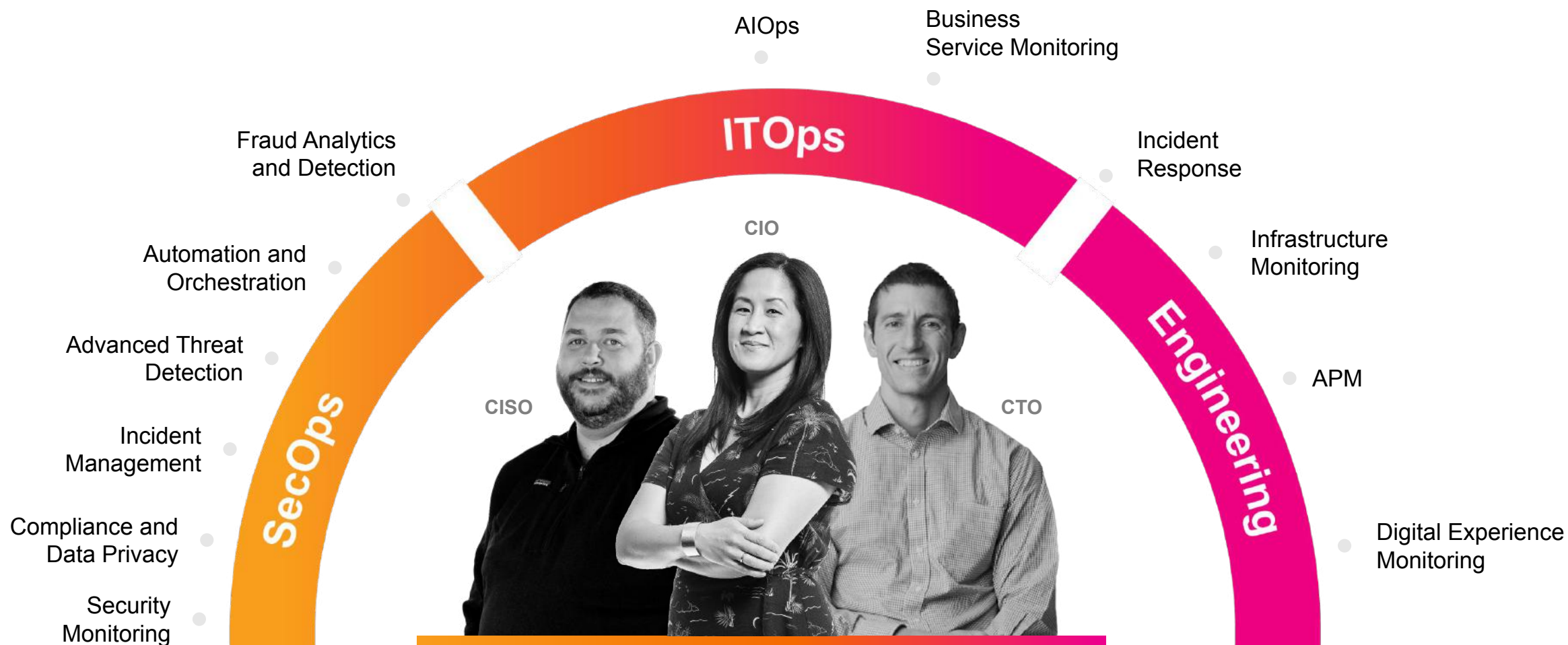
2 Business Services KPIs

3 Service Health and Performance

4 Health of Environments



Empower SecOps, ITOps and Engineering



The Unified Security and Observability Platform

Understanding SAP Service Health

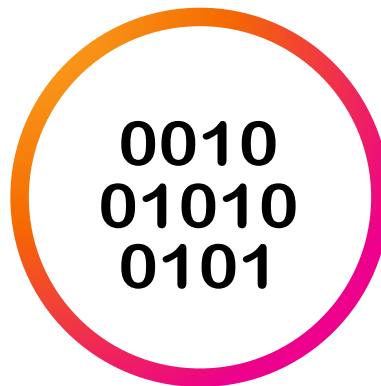
Lack of visibility and insight into SAP services

Increasingly Complex Systems



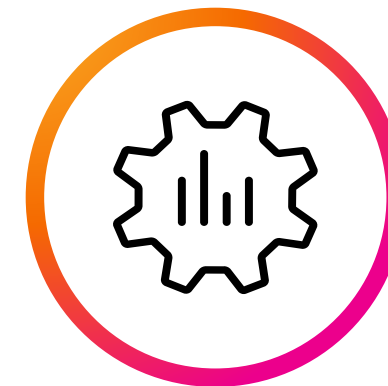
No automated alerts or action. Manual health checks are slow and error-prone

Massive Amounts of Data



Lack of integrations and poor data quality disrupts operations

Lack of Correlated Business Analysis



Difficult to extract SAP data, no easy way to gather insights, silos

SAP Operational & Organizational Challenges

**Misaligned,
siloeed teams**



Misalignment &
low-level tech metrics

**Fragmented
Visibility**



Lack of full-stack
visibility

**Reactive
Responses**



Reactive,chaotic
response to
service
disruptions

**Poor
customer
experience**



Root cause
analysis takes
time and effort

**Risks to
Revenue**



Customer churn
and diminishing
loyalty

Splunk Platform for SAP Use Cases

Hundreds of high value, out-of-the-box use cases in each subject area

Business Service Insights



E2E Process Monitoring
Cross-System Data Validation
Business Process Monitoring

Performance & User Experience



Root Cause Analysis
End-User Experience
Correlation to infrastructure

Migrations & Upgrades



Baseline All Metrics
Comparative monitoring, before, during, and after migrations or upgrades

Security & Compliance



User Behaviour Analytics
Automated Audit Reporting
Access Monitoring
Treat Correlation

Cloud & SaaS App Observability



Cloud Security, Observability, Authentications, Integrations, Events Processes

13 SAP Certifications for all SAP ABAP & Java Solutions

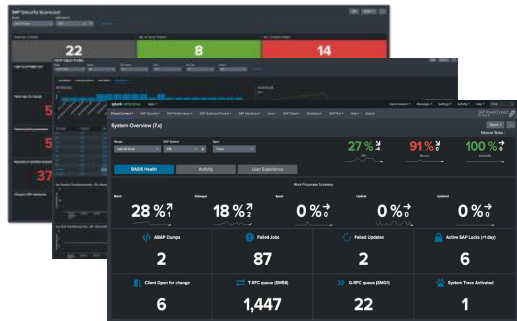
Ensure SAP remains secure with ZERO transports - No exposed RFCs - No exposed APIs

SAP®Certified Integration with SAP S/HANA® Cloud **SAP®Certified** Integration with SAP NetWeaver® **SAP®Certified** Powered by SAP NetWeaver® **SAP®Certified** Integration with SAP S/HANA®

- SAP Certified for **SAP S/4HANA Cloud 2022 Extended Edition**
- SAP Certified for **SAP S/4HANA Cloud 2022 (RISE + HEC)**
- SAP Certified for **SAP S/4HANA Cloud 2021 (RISE + HEC)**
- SAP Certified for **SAP S/4HANA Cloud 1909 (RISE + HEC)**
- SAP Certified for **SAP S/4HANA 2021**
- SAP Certified for **SAP S/4HANA 2020**
- SAP Certified for **SAP S/4HANA 1909**
- SAP Certified for **SAP S/4HANA 1809**
- SAP Certified for **SAP S/4HANA 1709**
- SAP Certified for **SAP S/4HANA 1610**
- SAP Certified for **SAP NetWeaver 7.5 ABAP**
- SAP Certified for **SAP NetWeaver 7.5 ABAP Add-on Deployment**
- SAP Certified for **SAP NetWeaver 7.5 JAVA**

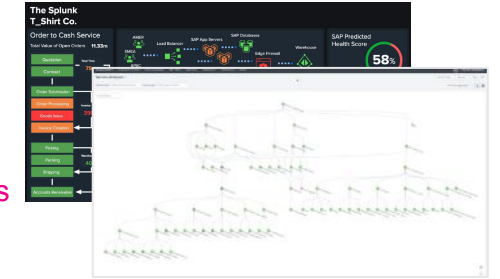
Unlock 1,600+ Out of the box SAP Use Cases With Splunk Platform

All SAP Solutions - Time to value in hours



PowerConnect App For Splunk
1,037 ootb SAP use cases for Security, IT, & Business process

Splunk ITSI + Splunk Service Intelligence for SAP
546 ootb AIOps SAP Adaptive Threshold KPIs



Splunk Enterprise Security
23 ootb SAP Notable Event Correlation Searches



splunk

PowerConnect For Splunk

PowerConnect Cloud For Splunk

SAP ABAP®

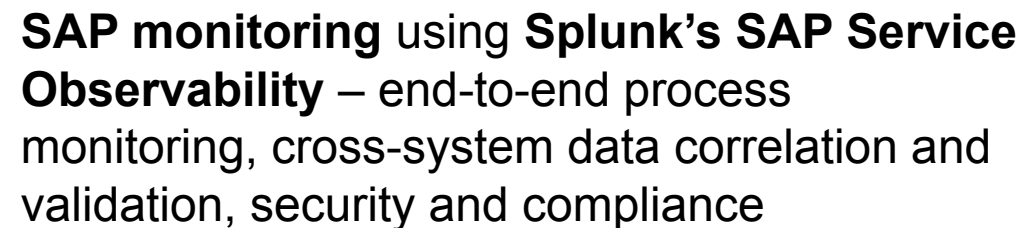
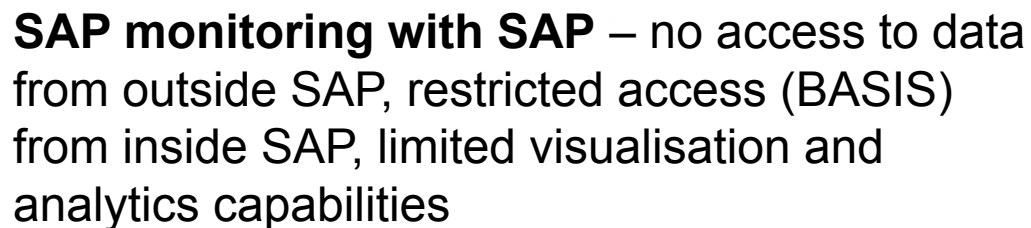
SAP S/4HANA® Cloud SAP® BW/4HANA®
SAP Fiori® SAP® BW SAP® ERP
SAP S/4HANA® SAP NetWeaver®
SAP® CRM SAP® SRM SAP® Gateway
+++

SAP Java®

SAP® BusinessObjects™ SAP® PI/PO
SAP® Data Services SAP® Enterprise Portal
SAP® MDM SAP® Convergent Charging
SAP Hybris® (On Prem) SAP® Mobile Platform
+++

SAP SaaS & PaaS

SAP® SuccessFactors® SAP® Ariba®
SAP Fieldglass® SAP® BTP SAP® CPI
SAP® Cloud Platform SAP® API Management
SAP Sales® Cloud / CPQ
+++



1,037 Discrete OOTB SAP Use Cases - Time to value in hours



SAP Security and Compliance

Security Insights Provided

- Monitor, alert, action and automate SAP Compliance Audits and reports with **187 out-of-the-box use cases** across **28 Security Dashboards**
- Analyse and mitigate risks with user behavior analytics of suspicious login activity, execution of sensitive transactions or data theft
- Alert on STRUST Certificate Monitoring, anomalies in system logs, increased message frequency or non-compliant systems
- Detect SAP interface and configurational changes, deleted audit logs, changed destinations, changed roles and access levels, unauthorised downloads



Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Security and Compliance

User Behaviour Analytics Dashboard

- Provides a detailed view into suspicious activities in your SAP systems
- Privileged account abuse
- Sensitive transactions executed
- Monitoring and alerting of suspicious login activity



Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Security and Compliance

Logins, Permissions and Change Events Dashboard

- Provides the much needed overview of the type of user activity in your SAP systems
- Geographic distribution of users
- User with sensitive roles and authorisation objects
- Assignment of sensitive profiles to users and other configurational changes



Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Security and Compliance

Risk Assessment Dashboard

- Risk Assessment Dashboard provides a state of the overall security risk that your SAP systems face
- You can see if your users have well-known passwords or if there is any OS level code injection in one configurable dashboard



Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Security and Compliance

SAP Security Scorecard Dashboard

- Automate all compliance reporting and get ahead of the compliance curve by giving you all information related to security related configurations in your SAP system.
- Detects key SAP interface and configurational changes: Deleted Audit logs, changed destinations, changed roles and access levels, unauthorised downloads



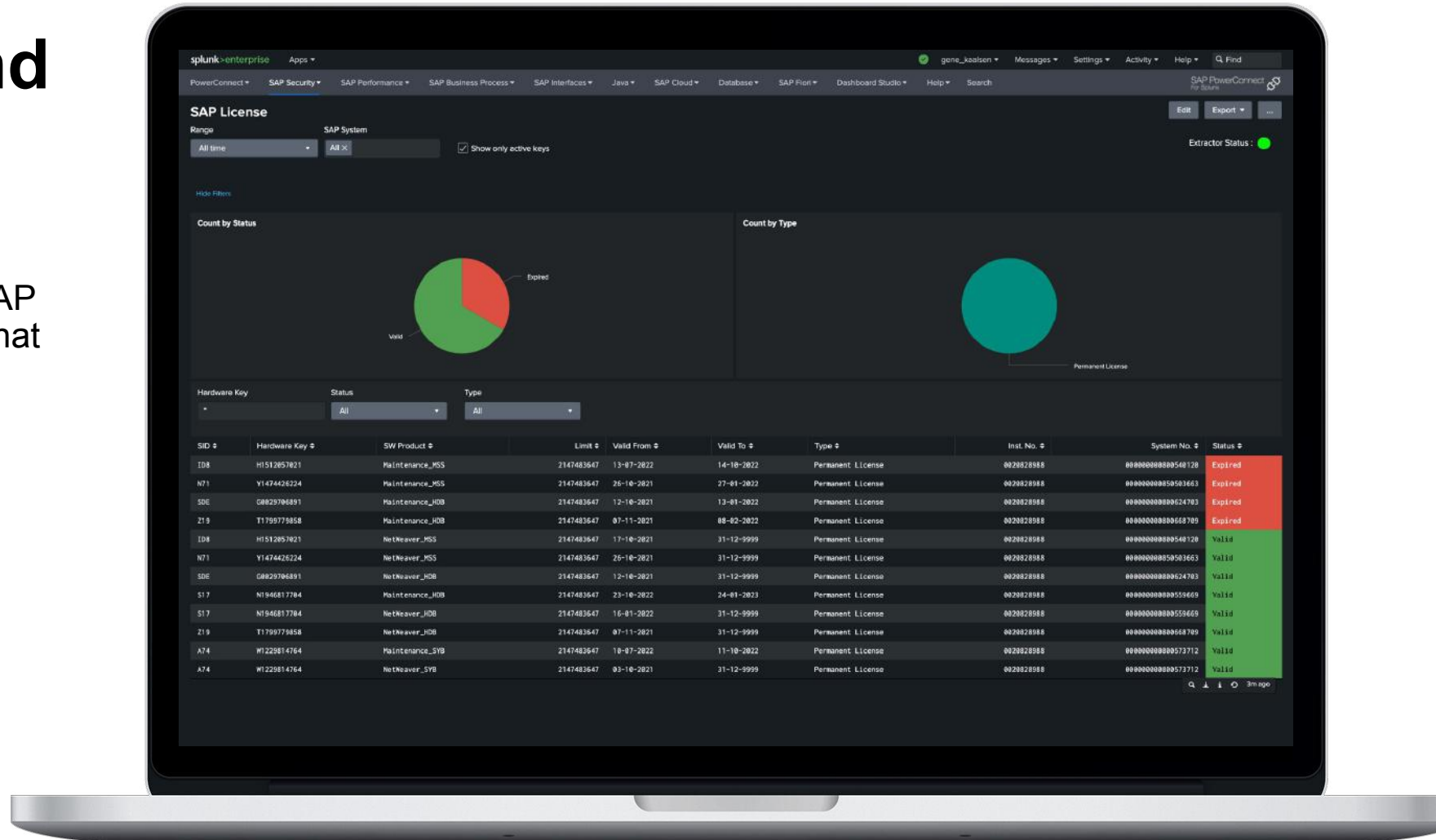
Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Security and Compliance

SAP License Management and Alerting

- Gain visibility into aggregated SAP landscape with license metrics that include:

- SID Name
- Software Product
- Limit
- Valid From & Valid To
- Type of license
- Installation Number
- System Number.



Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Security and Compliance

Vulnerability management for compliance with Rule Processing Framework

- Security Baseline and Profile Parameters identify overall application security based on OS, kernel versions, profile settings and shows the SAP recommended remediation
- Rule types include:
 - TTParam
 - Profile
 - Client
 - GwSec plus more

Rule Processing Framework

Range: SAP System
Previous year | All X | Hide Filters

Extractor Status: ●

Rule Statistics

System #	Group Name	Compliant #	Non-Compliant #
ID8	Security Notes	21586	11528
N71	Security Notes	25382	12322
ID8	Security Baseline	3975	388
N71	Security Baseline	897	287
ID8	Security Baseline	1832	132
N71	Profile parameters	8	2
N71	1111	81	62

Rule Details

Time #	Group Name #	Rule Type #	Rule Name #	Rule Version #	Rule Description #	Instance Name #	Compliant #	SAP Note #	Server Specific #	Priority #
2022-09-30 07:28:18	Security Baseline	Client	SLB1-SYSTEMCHANGE-09	1.0	System change: System has modifiable productive client	sapn7id_N71_00				High
2022-09-18 07:19:23	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-01	1.0	System change: Transport Parameter VERS_AT_EXP is not activated (DEV)	sapn7id_N71_00				Normal
2022-08-11 19:34:12	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-01	1.0	System change: Transport Parameter VERS_AT_EXP is not activated (DEV)	sapn7id_N71_00				Normal
2022-12-28 07:43:56	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-08	1.0	System change: Transport Parameter CHK_CRJOB_AT_EXPORT is not set	sapn7id_N71_00				Normal
2022-12-28 07:43:56	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-06	1.0	System change: Transport Parameter TP_RELEASE is not up to date	sapn7id_N71_00				Normal
2022-12-28 07:43:56	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-03	1.0	System change: Transport Parameter VERS_AT_EXP is not activated (DEV)	sapn7id_N71_00				Normal
2022-09-27 07:20:21	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-08	1.0	System change: Transport Parameter CHK_CRJOB_AT_EXPORT is not set	sapn7id_N71_00				Normal
2022-09-27 07:20:21	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-04	1.0	System change: Transport Parameter VERS_AT_EXP is not activated (PROD)	sapn7id_N71_00				Normal
2022-09-27 07:20:21	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-03	1.0	System change: Transport Parameter VERS_AT_EXP is not activated (DEV)	sapn7id_N71_00				Normal
2022-10-10 07:21:41	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-08	1.0	System change: Transport Parameter CHK_CRJOB_AT_EXPORT is not set	sapn7id_N71_00				Normal
2022-10-10 07:21:41	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-04	1.0	System change: Transport Parameter VERS_AT_EXP is not activated (PROD)	sapn7id_N71_00				Normal
2022-10-10 07:21:41	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-01	1.0	System change: Transport Parameter VERS_AT_EXP is not activated (DEV)	sapn7id_N71_00				Normal
2022-10-04 07:20:53	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-08	1.0	System change: Transport Parameter CHK_CRJOB_AT_EXPORT is not set	sapn7id_N71_00				Normal
2022-10-04 07:20:53	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-04	1.0	System change: Transport Parameter VERS_AT_EXP is not activated (PROD)	sapn7id_N71_00				Normal
2022-10-04 07:20:53	Security Baseline	TTParam	SLB1-SYSTEMCHANGE-01	1.0	System change: Transport Parameter VERS_AT_EXP is not activated (DEV)	sapn7id_N71_00				Normal

Rule Details

Time #	Group Name #	Rule Type #	Rule Name #	Rule Version #	Rule Description #	Instance Name #	Compliant #	SAP Note #	Server Specific #	Priority #
2022-08-10 18:52:25	Profile parameters	Profile	P-0000000001	1.0	auth/check/calltransaction (SAP/ANA 2021)	sapn7id_N71_00		515139	X	Normal
2022-08-10 19:34:29	Profile parameters	Profile	P-0000000001	1.0	auth/check/calltransaction (SAP/ANA 2021)	sapn7id_N71_00		515139	X	Normal

Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Security and Compliance

Vulnerability management for compliance with SAP Security Notes

- Identify missing SAP Patch Day Notes and Support Package Notes based on SAP best-practices to remediate potential vulnerabilities before exploitation
- Note Description details vulnerability details
- Note Number hyperlink routes directly to SAP Support Launchpad for remediation

SAP Security Notes

Time: Last 24 hours | SAP System: All | Security Category: All | SAP Note: | Note Description: | Show Hidden: | Extractor Status: ●

System	Total Applicable	Security Category	SAP Note	Note Description	Medium Priority	Low Priority	HotNews	Not Applicable	Latest Note Date
IDB	515	132	348		23	18	3167		2022-11-16
N71	554	287	266		21	18	3156		2023-01-24

IDB-Total Applicable

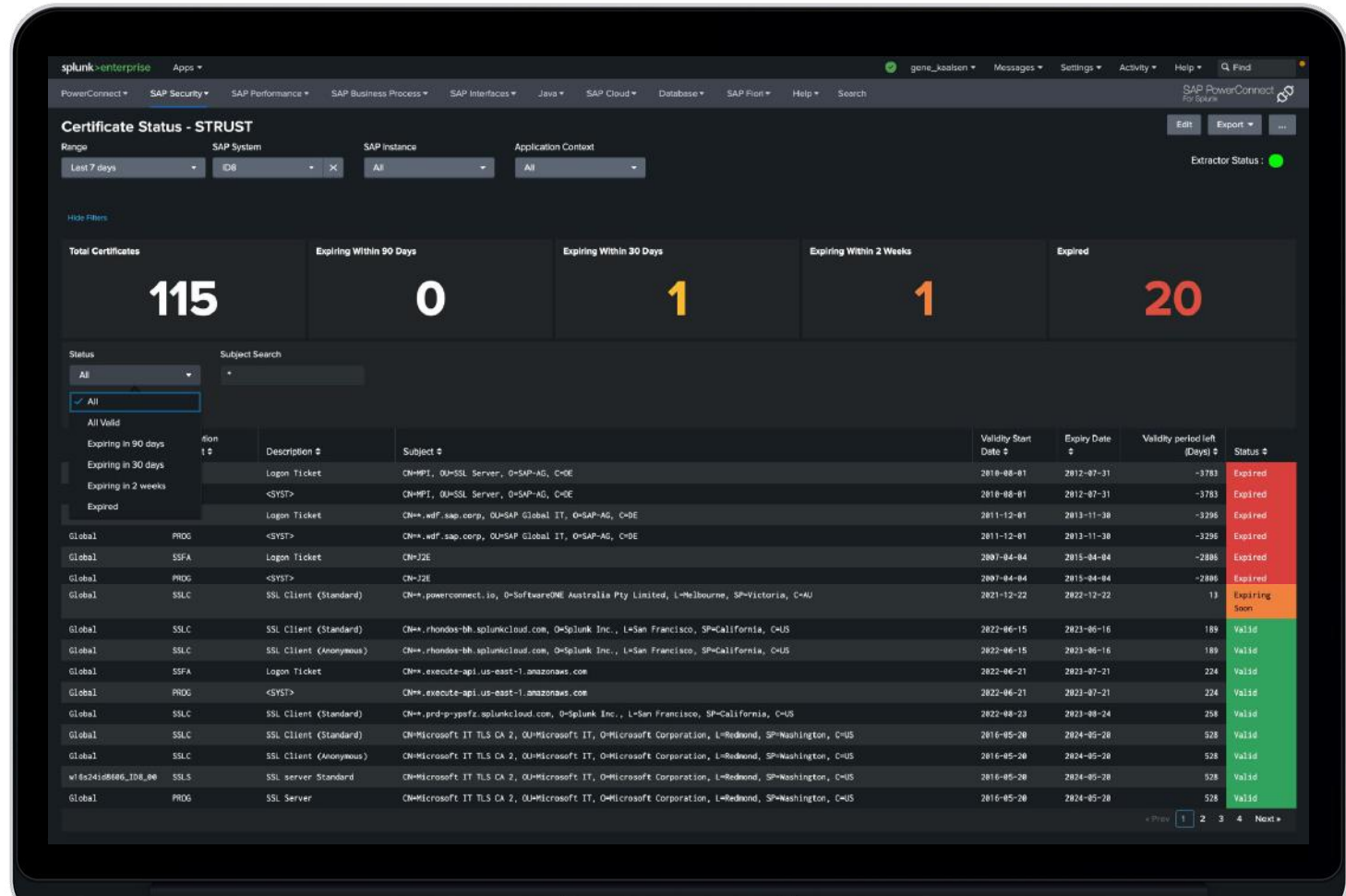
SAP Note	Note Description	Applicable	Components	Priority	Category	CVSS Score	Correction Type	Action
CVE-2022-41214	Multiple vulnerabilities in SAP NetWeaver Application Server ABAP and ABAP Platform	X	BC-CTS-TMS	High	Patch Day Notes	8,7	Automatic	Hide
CVE-2022-41215	URL Redirection vulnerability in SAP NetWeaver ABAP Server and ABAP Platform	X	BC-MID-ICF	Medium	Support Package Notes	4,7	Automatic	Hide
CVE-2022-39881	Insufficient Firefighter Session Expiration in SAP GRC Access Control Emergency Access Management	X	GRC-SAC-EAM	High	Patch Day Notes	7,1	Automatic	Hide
CVE-2022-31583	Information Disclosure vulnerability in Master Data Governance	X	CA-MDG-APP-CLG	Medium	Support Package Notes	4,3	Automatic, Manual	Hide
CVE-2022-31583	Segregation of Duty vulnerability in IL FI-AP File from SHAAN program	X	FI-LOC-FI-IL-AP	Medium	Support Package Notes	5,6	Automatic	Hide
CVE-2022-28215	Update 1 to Security Note 3105333 - [CVE-2022-28215] URL Redirection vulnerability in SAP NetWeaver ABAP Server and ABAP Platform	X	BC-MID-ICF	Medium	Support Package Notes	4,7	Automatic	Hide
CVE-2022-31592	Missing Authorization check in EA-DPPS	X	IS-DFS-HM	Medium	Support Package Notes	4,3	Automatic	Hide
CVE-2022-29412	Server-Side Request Forgery in SAP NetWeaver, ABAP Platform and SAP Host Agent	X	BC-CST-ST5	Medium	Support Package Notes	5,0		Hide
CVE-2022-29611	Missing Authorization check in SAP NetWeaver Application Server for ABAP and ABAP Platform	X	BC-ABA-LI	Medium	Support Package Notes	6,5	Automatic	Hide
CVE-2022-28215	URL Redirection vulnerability in SAP NetWeaver ABAP Server and ABAP Platform	X	BC-MID-ICF	Medium	Support Package Notes	4,7	Automatic, Manual	Hide
CVE-2022-29613	Information Disclosure vulnerability in SAP Employee Self Service(Fiori My Leave Request)	X	PA-FID-LEA	Medium	Support Package Notes	6,5	Automatic	Hide
CVE-2022-29614	Privilege Escalation in SAP startservice of SAP NetWeaver AS ABAP, AS Java, ABAP Platform and HANA Database	X	BC-CST-ST5	Medium	Support Package Notes	4,9		Hide
CVE-2022-27668	Improper Access Control of SAProuter for SAP NetWeaver and ABAP Platform	X	BC-CST-MI	High	Patch Day Notes	8,6		Hide
CVE-2022-29614	Information Disclosure vulnerability in SAP NetWeaver Application Server ABAP and ABAP Platform	X	BC-MID-RFC	Medium	Support Package Notes	4,9	Automatic	Hide
CVE-2022-29616	Memory Corruption vulnerability in SAP Host Agent, SAP NetWeaver and ABAP Platform	X	BC-CST-MS	Medium	Support Package Notes	5,3		Hide
CVE-2022-27668	Cross-Site Scripting (XSS) vulnerability in administration UI of SAP Webdispatcher and SAP NetWeaver AS for ABAP on	X	BC-CST-WDP	High	Patch Day Notes	8,3		Hide
CVE-2022-22548	SQL Injection vulnerability in SAP NetWeaver AS ABAP (Workplace Server)	X	WP-NSR	High	Patch Day Notes	7,1	Automatic	Hide
CVE-2022-22545	Missing Authorization check in SAP ERP HCM	X	PY-BR	Medium	Support Package Notes	6,5	Automatic	Hide
CVE-2022-22545	Information Disclosure vulnerability in SAP NetWeaver Application Server ABAP and ABAP Platform	X	BC-MID-RFC	Medium	Support Package Notes	4,9	Automatic	Hide
CVE-2022-22545	Information Disclosure vulnerability in SAP CRM WebClient	X	CA-WUT-UT-TAG	Medium	Support Package Notes	4,3	Automatic	Hide

Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Security and Compliance

Certificate Status - STRUST

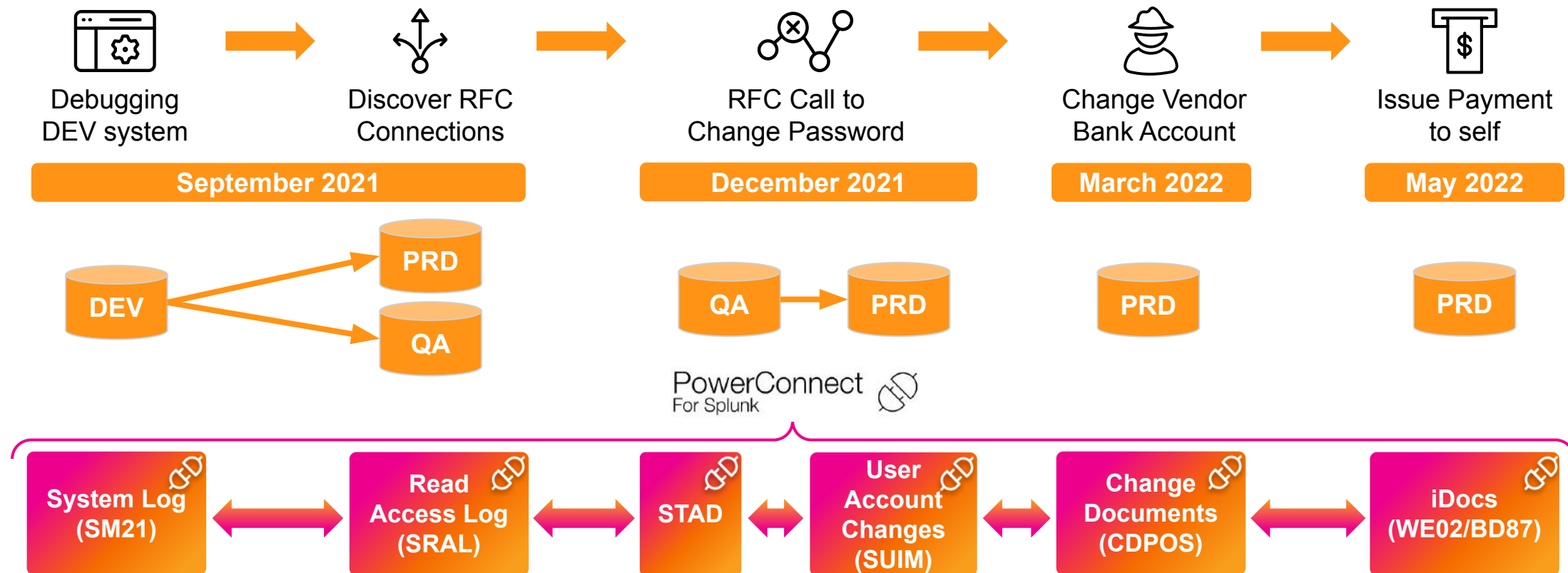
- Identify SSL certificates set to expire without having to page through nodes in the STRUST transaction after receiving a low-context alert
- Route SSL certificates to the appropriate owners before expiration, reducing manual workload, improving operational continuity, and creating a proactive management system



Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Breaches Create Material Risk

Real-world example of SAP breach and fraud timeline



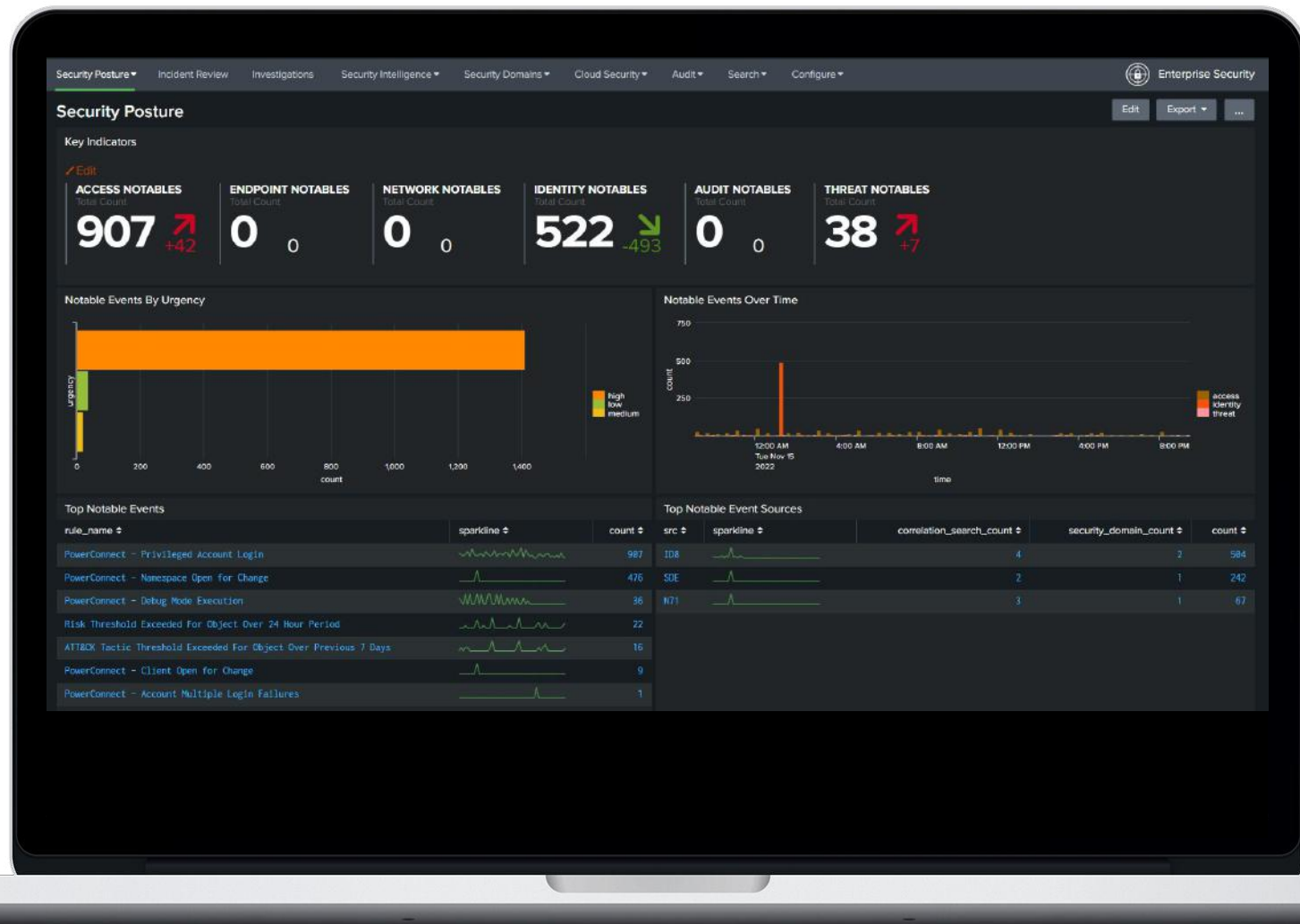
SAP applications are constrained by historical data parameters and Security datasets are only available for a short period of time. Splunk enables historical analysis and correlation across multiple environments and timeframes to create proactive alerts and mitigate risks before fraud or security breaches occur

SAP Content Pack for Splunk Enterprise Security

Correlated Security Insights for SAP threat and vulnerability response

- 23 out-of-the-box SAP Notable Event Correlation Searches
- Leverage ES's comprehensive investigation and auditing features to mitigate risk in SAP environments.
- SAP data exclusively provided by PowerConnect is Splunk Common Information Model (CIM) compliant for native integration and correlation with all other security-focused machine data

<https://splunkbase.splunk.com/app/6674>



Out-of-the-box content driven by **53 SAP transactions** including **SLG1, SLICENSE, RZ10, SCC4, SC06, SM04, SM19, SM20, SU53, ATC, SUIM, STRUST, SRAL + + +**

SAP Security Demo

https://youtu.be/_At3CjQz9gQ

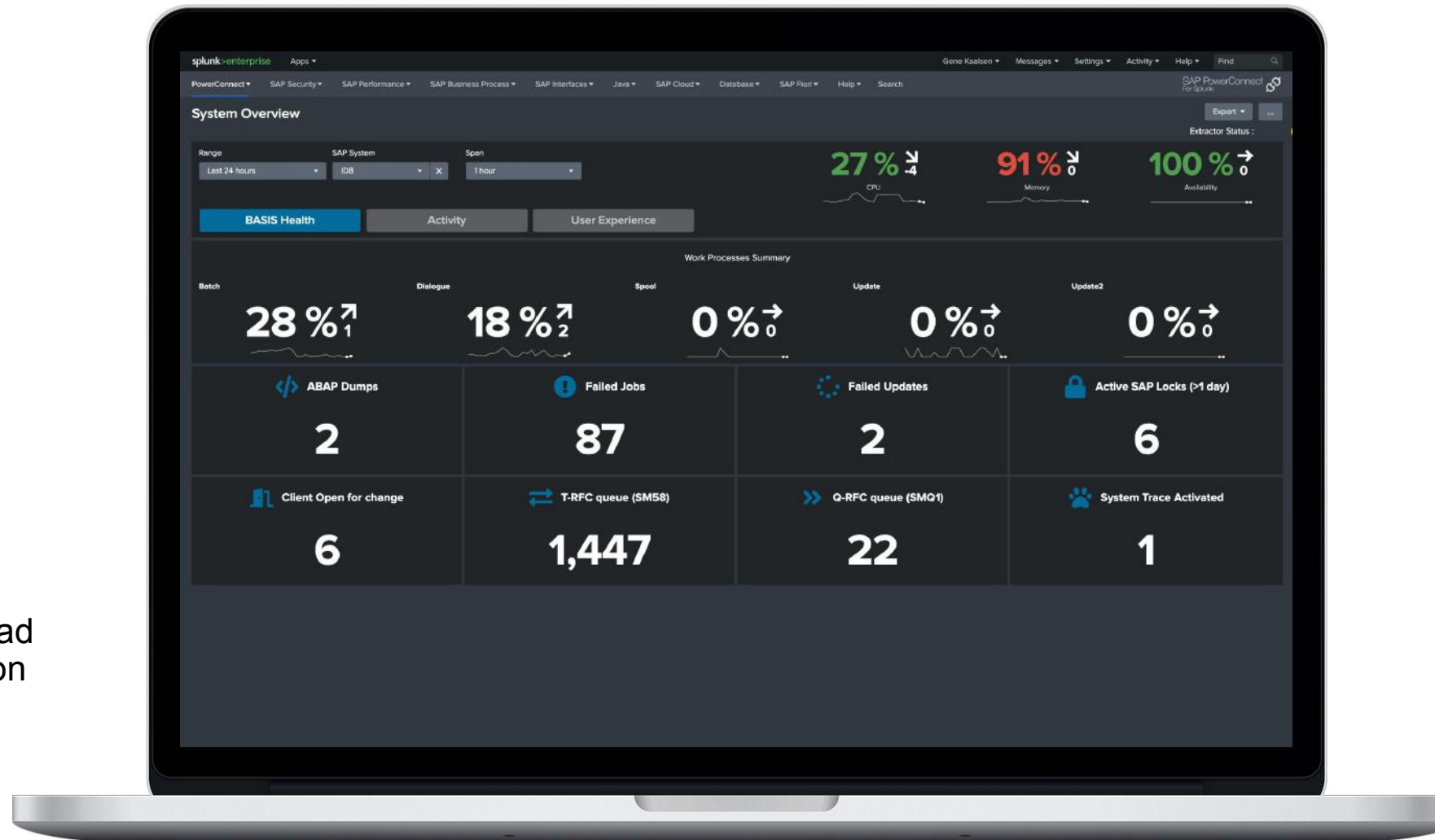
SAP Solution Performance

SAP Data Analysed

- SAP transaction STAD
- Work Process utilisation
- RFC Connection Status
- SAP server availability
- JVM load and memory
- User Transaction Performance
- User Experience by Geo

Insights Provided

- Real-time and historic view of load and response by user, transaction code or any field in the dataset
- Availability of all SAP solution components

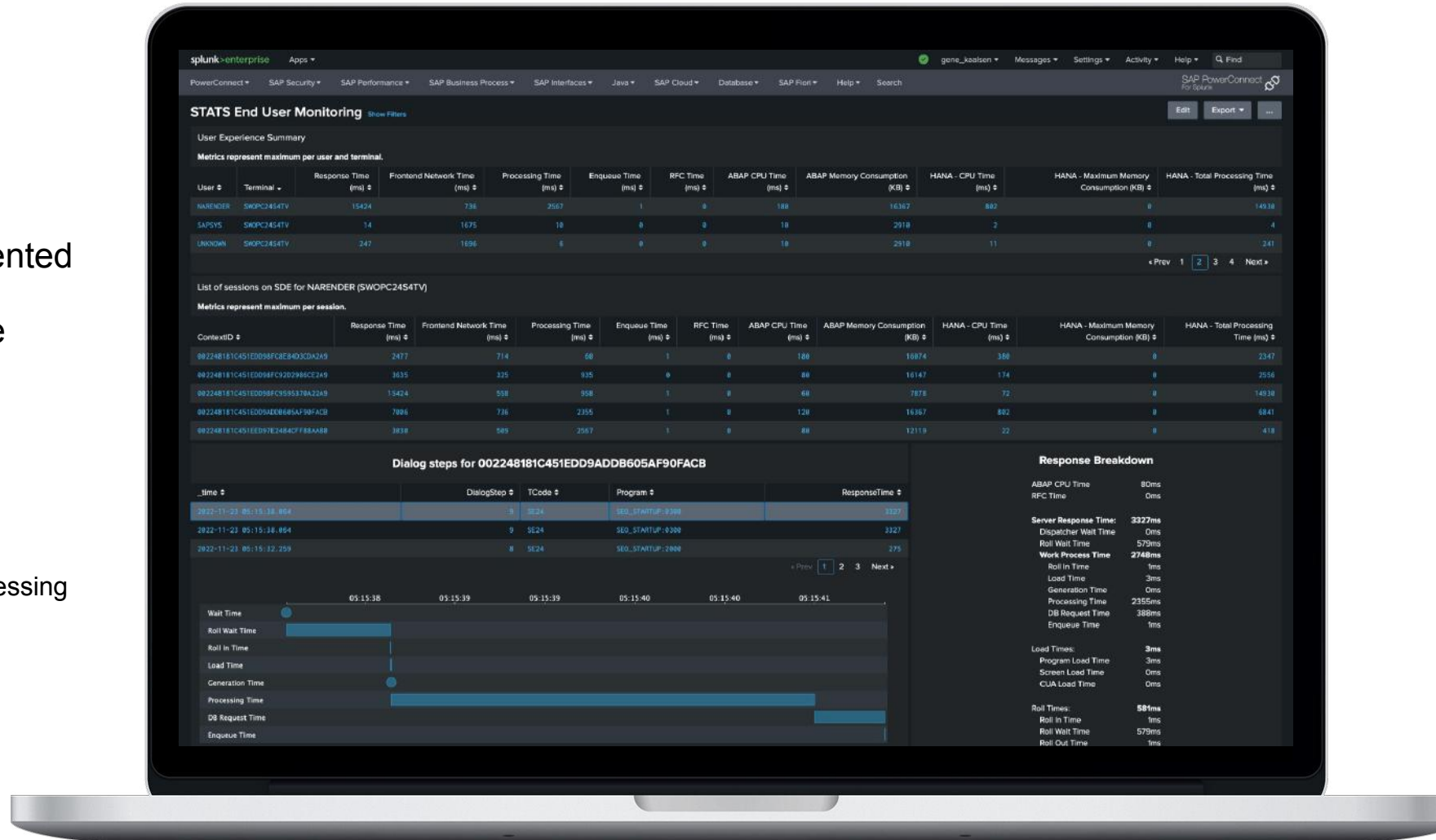


Out-of-the-box content driven by **208 SAP transactions** including **SM04, ST03, SM51, SM58, SMC1, SMQ1, ST22, STAD, STATS, SMGW, +++**

SAP Solution Performance

STATS End User Monitoring

- User experience metrics represented per user, terminal and session
- Millisecond dialog step response breakdown waterfall for:
 - CPU Time
 - RFC Time
 - Server Response Time
 - Dispatcher Wait Time
 - Roll Wait Time
 - Work Process Time
 - Roll In + Load + Generation + Processing + DB Request + Enqueue
 - Load Times
 - Program + Screen +CUA
 - Roll Times
 - Roll In + Roll Wait + Roll Out
 - SAP GUI Frontend Time
 - BTC Input Queue Time
 - DDL Operation Time



SAP Time Machine Dashboard

Side by side comparison views

- Compare any metric across any timescale, any system, any landscape
- View performance before, during and after upgrades and cloud migrations



SAP Background Process Monitoring

SAP Data Analysed

- IDoc & Change documents processing
- PI/PO message – payload, logs
- BI Process Chains
- Batch Processes
- Number Range

Insights Provided

- Status of critical business processes
- Business process context via IDoc content, e.g. sales data or PO without PR



Out-of-the-box content driven by SAP transactions **SM37**, **ST22**, **BGRFC_MON**

SAP Batch Jobs Demo

<https://youtu.be/KzOHHw3Qnx4>

SAP Business Process Monitoring

Insights Provided

- BPM IDOC To Business Object Relationship
- Outbound Delivery Monitor
- Invoices, POs and Goods Movement
- IDOC Status, Segment Details, Contents
- Creation Time, Upload Time
- EDI Partner details

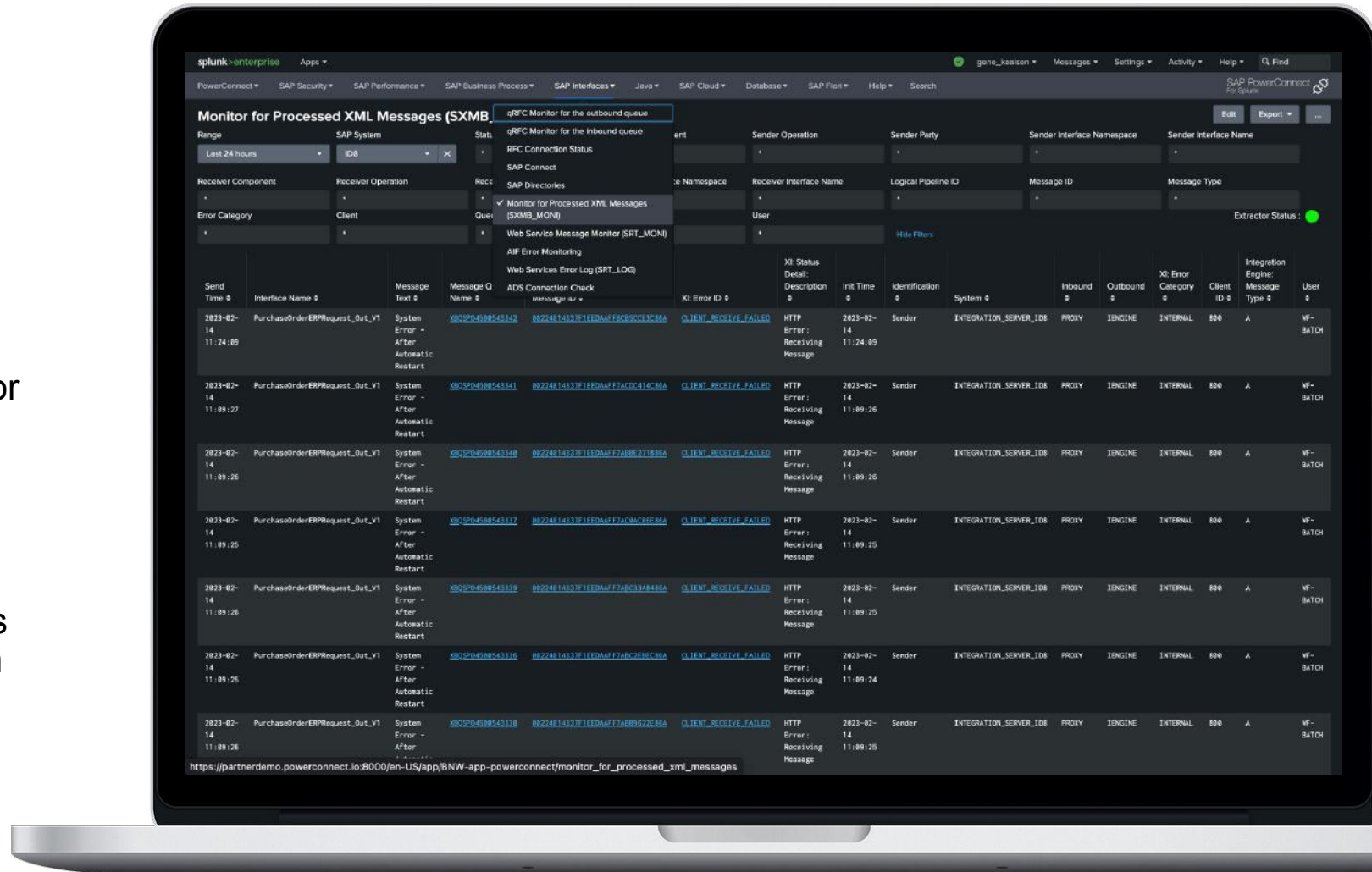


Out-of-the-box content driven by SAP transaction **WE02**, **BD87**, **BD87_DYN**, **BPM_BOR_REL** +++

SAP Interface Monitoring

Monitor for Processed XML Messages (SXMB_MONI)

- Provide the business context for individual message failures from the message payload allowing for correlation across SAP and non-SAP applications
- Automated correlation between SXMB_MONI messages and qRFCs, allowing for automatic identification of where messages are failing in the SAP application layer

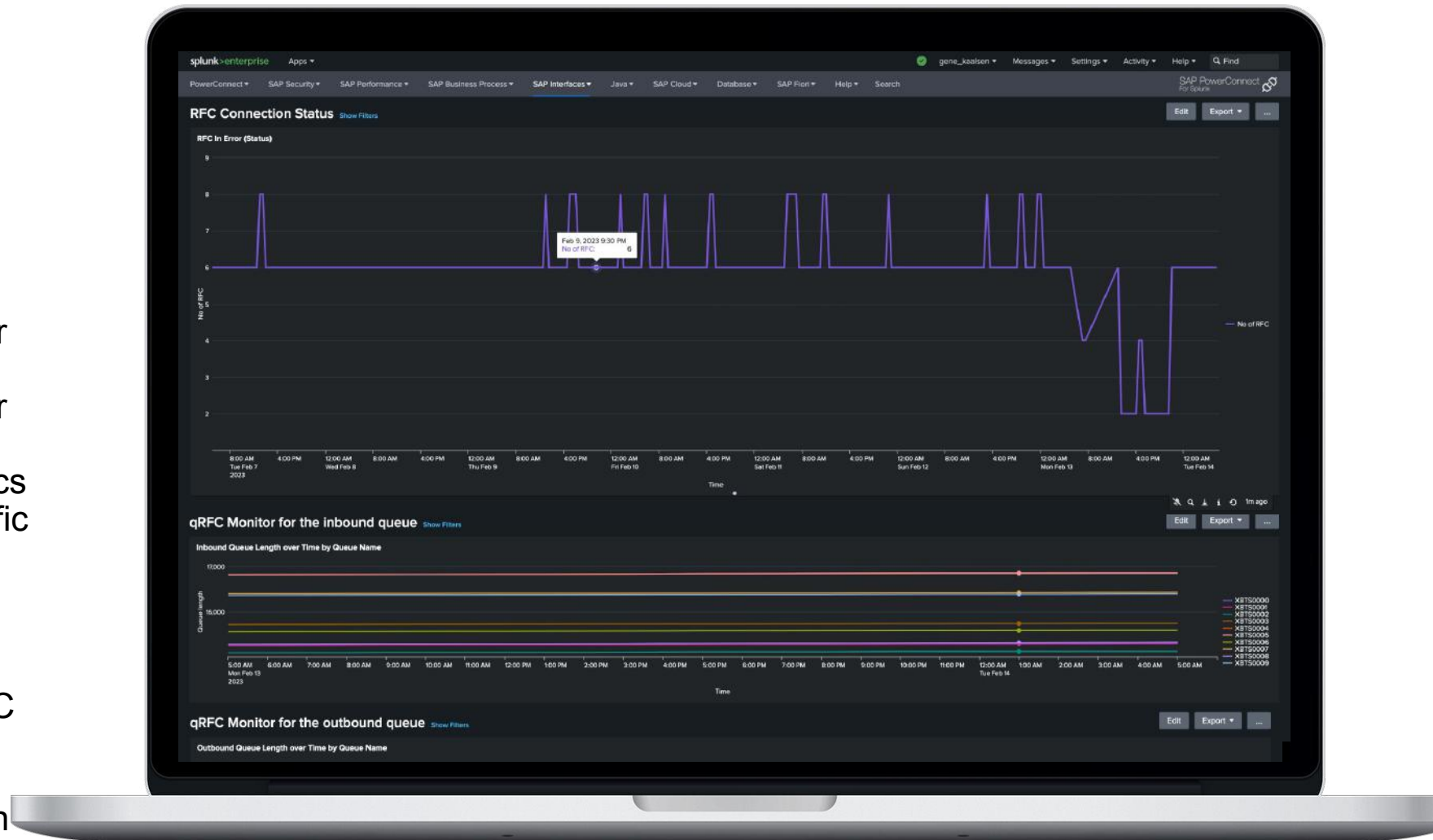


Out-of-the-box content driven by SAP transaction **SXMB_MONI**, **SMQ2** +++

SAP Interface Monitoring

RFC Monitoring

- Visualize and alert RFC connection failures over time
- Correlate qRFC errors with other integration objects like SXMB_MONI messages to other system activities such as tRFC failures and failed outbound iDocs
- Alert on qRFC errors for a specific destination.
- Performance monitoring of RFC client connections
- Measure qRFC depth over time allowing for prioritization of qRFC failures with the greatest impact
- Contextualize qRFC details for inbound and outbound queues in a single location

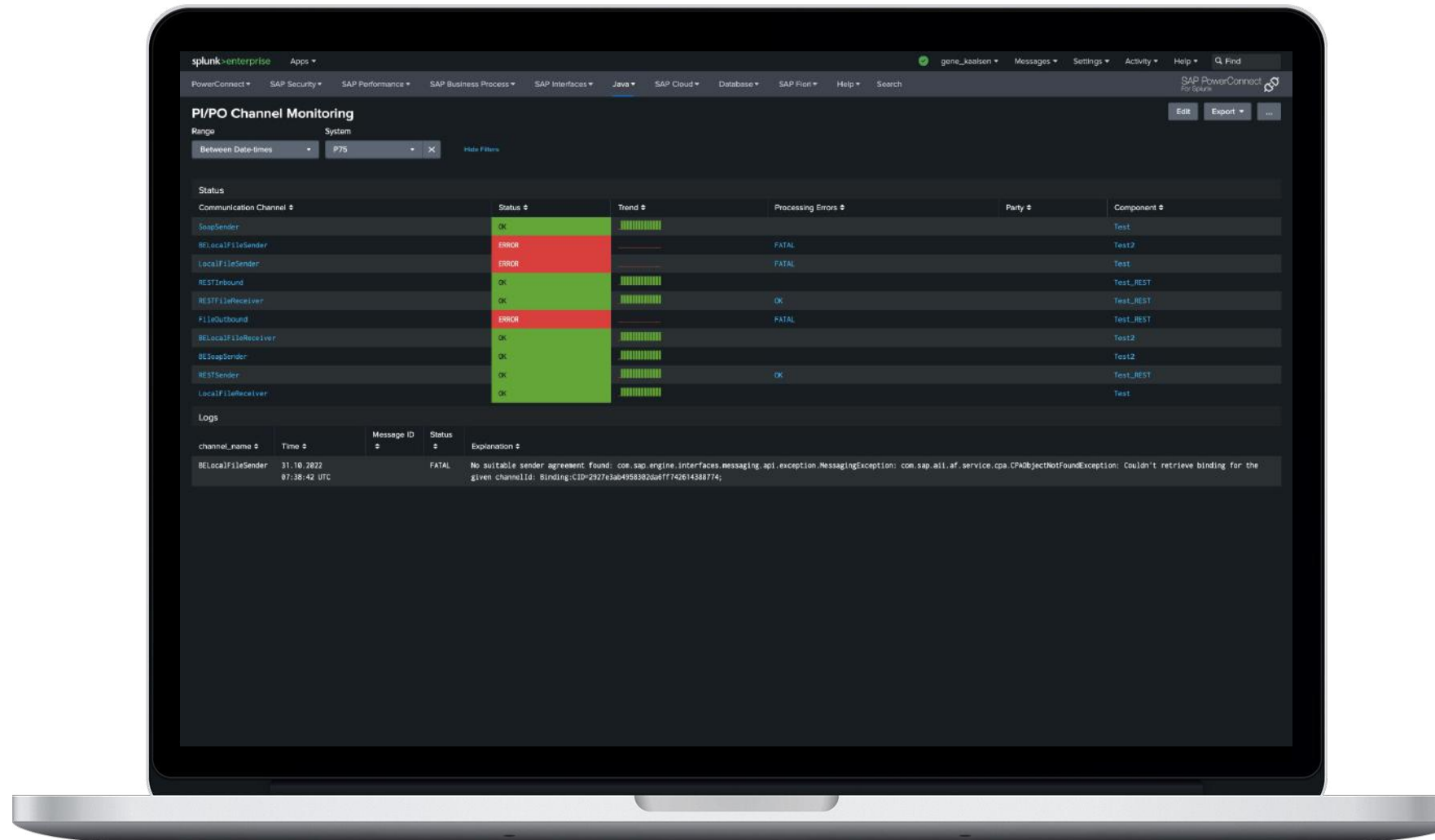


Out-of-the-box content driven by SAP transaction **SM95**, **SMQ1**, **SMQ2**, **ST03_RFCC**, **ST03_RFCS**, **ST03_WEBC**, **ST03_WEB**, **SM51_CBLCK** +++

SAP PI/PO Channel Monitoring

Insights Provided

- Visualize the status of the channels in an SAP system
- See the contents of each channel to open up opportunities for business process analysis

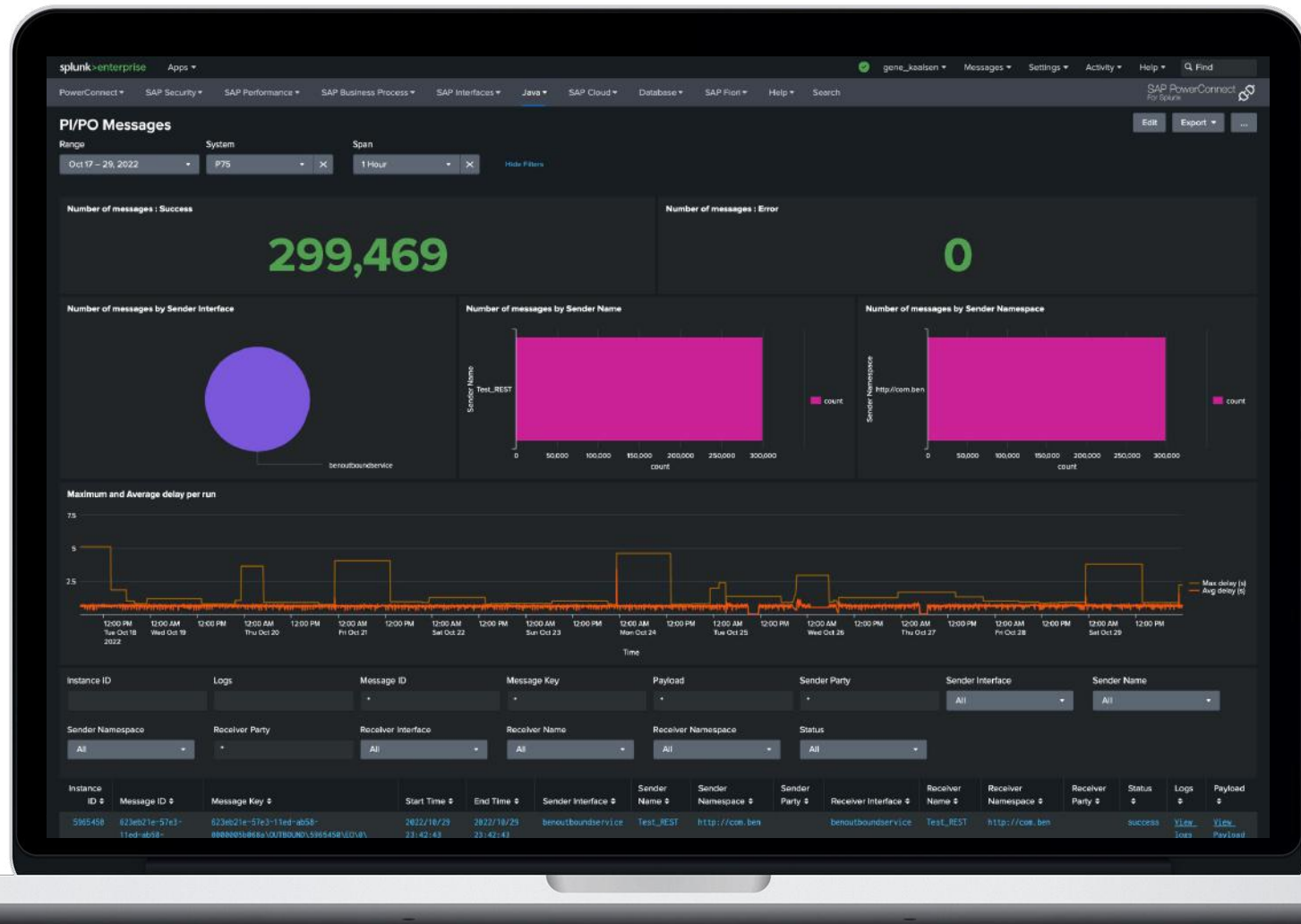


Out-of-the-box content driven by SAP transaction
channel_status, agent_health, pi_queues

SAP PI/PO Message Monitoring

Insights Provided

- Visualize the status of the messages in an SAP system
- See the contents of each message to open up opportunities for business process analysis
- Alert on message failures
- Use data from the message payload in integration monitoring scenarios to quantify business impact
- Understand if messages are in a holding status for an extended period of time
- Correlate message data to iDocs or SXMB_MONI integration components for an SAP ABAP system



Out-of-the-box content driven by SAP transaction
channel_status, agent_health, pi_queues

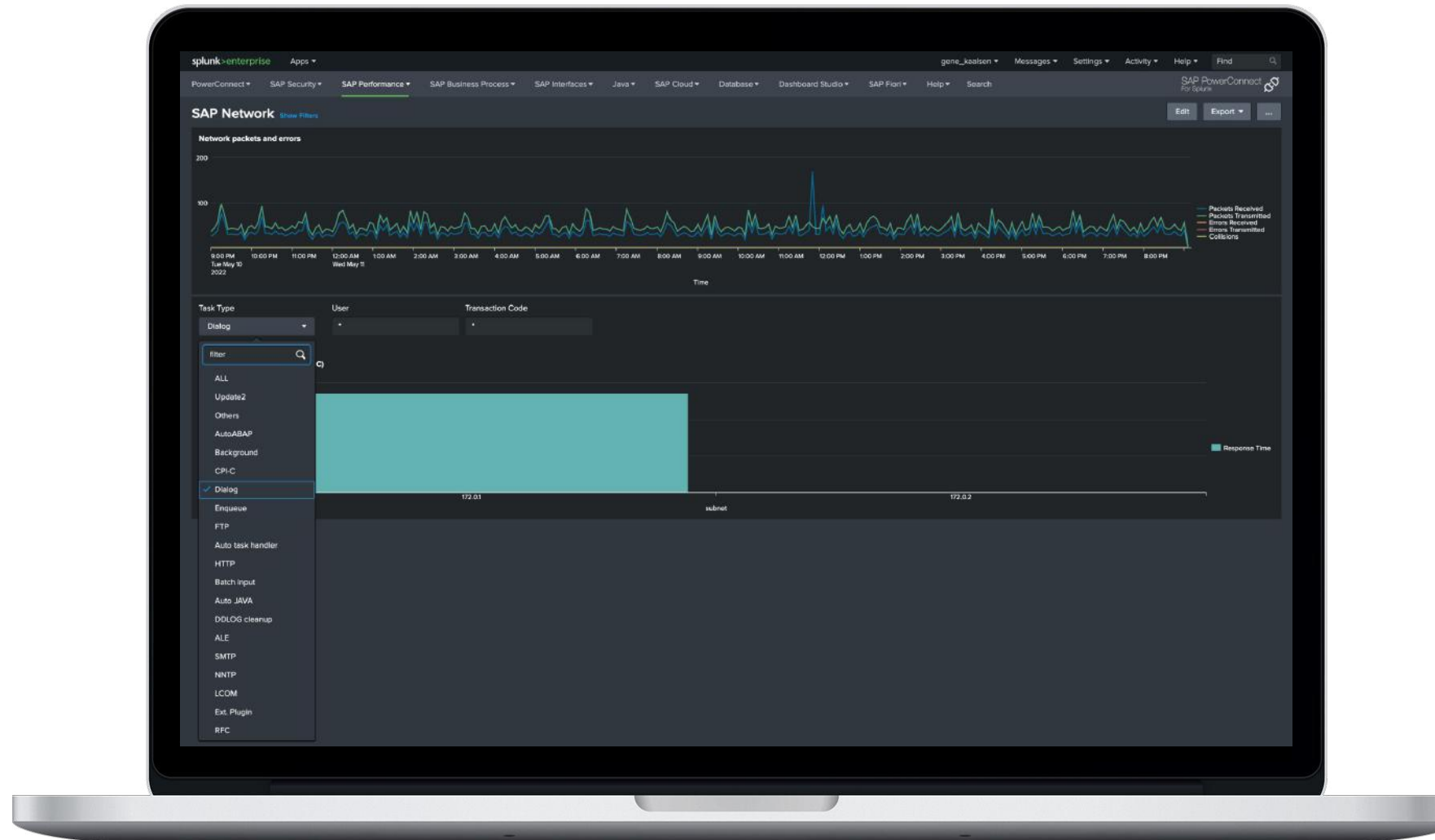
SAP Finance - Outbound Invoices Demo

<https://youtu.be/kOTR2jf2Su0>

SAP Network Monitoring

Insights Provided

- Packets In & Packets Out
- Errors-In per Second
- Errors-Out per Second
- Users by subnet
- System overview



Out-of-the-box content driven by SAP transactions **ST06** and **ST80**

SAP HANA Database Monitoring

SAP Data Analysed

- HANA SQL Queries Collection (note 1969700)
- HANA health & consistency checks

Insights Provided

- HANA Database status
- Real-time and historic performance data
- HANA Database Audit Logs
- HANA Expensive Statements

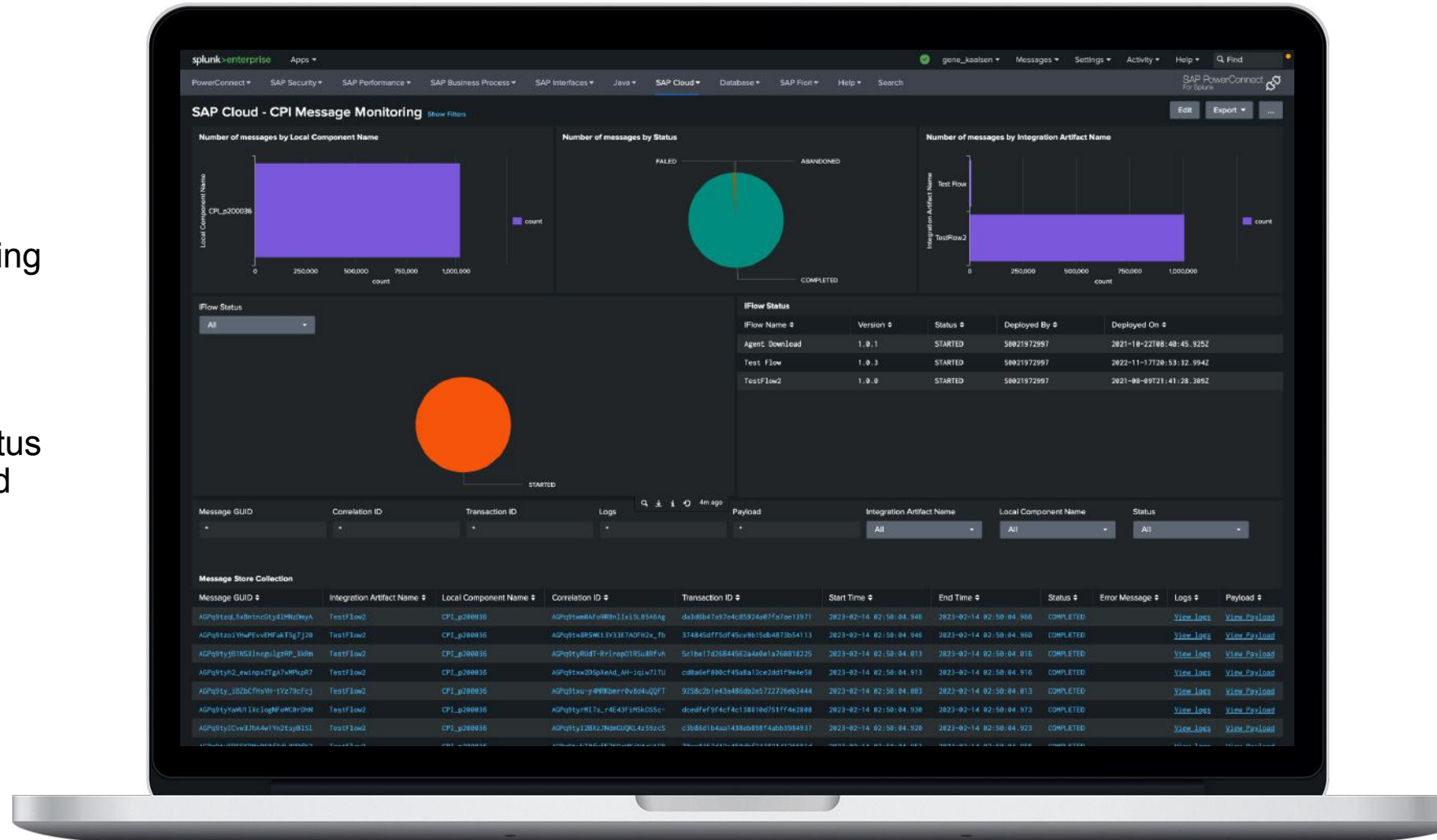


Also includes full coverage for **ASE, SQL, Oracle & DB/2**

SAP CPI & BTP Observability

Insights Provided

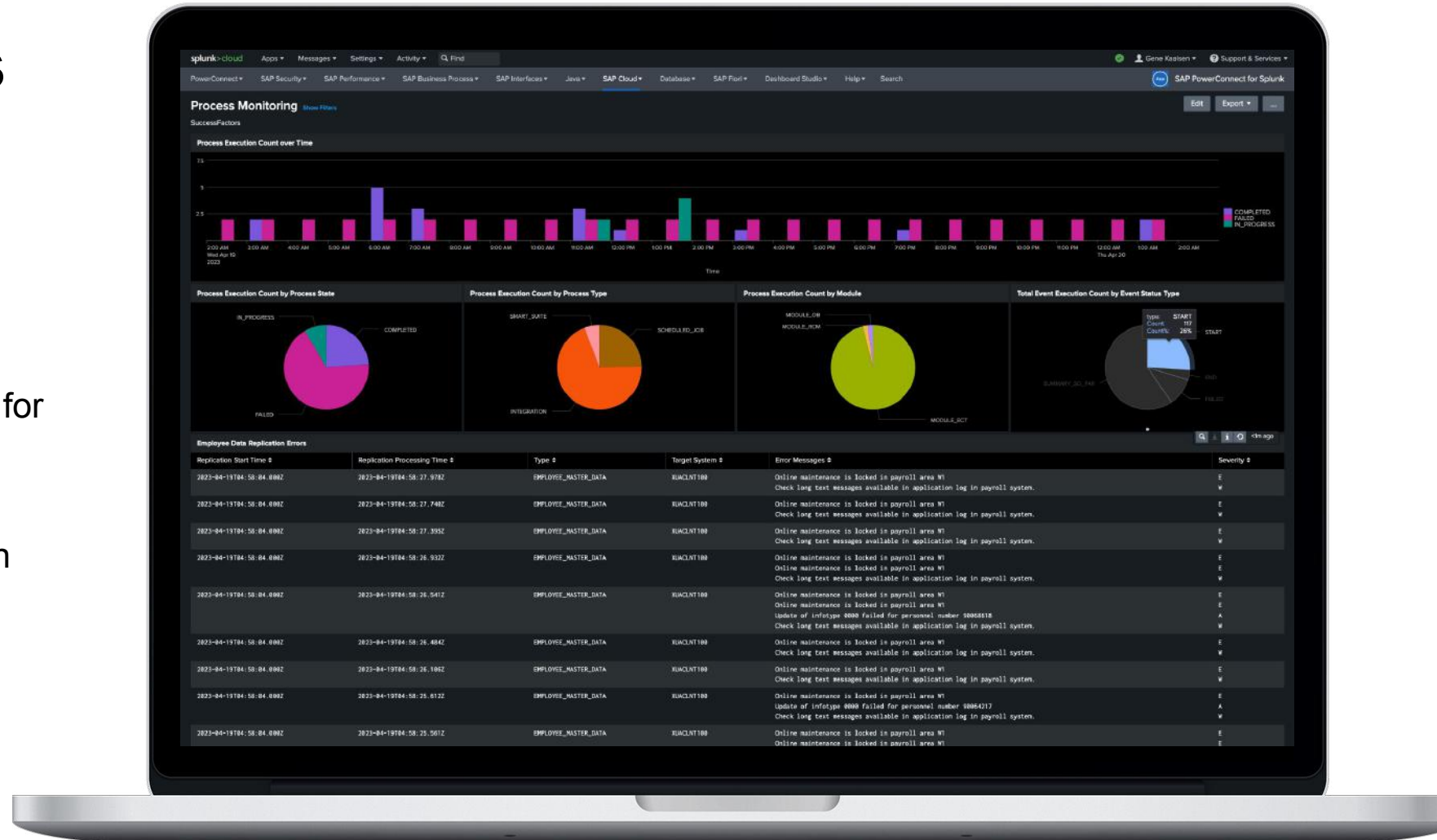
- Monitor Integration Flows including deployments
- Monitor message flow including statuses, errors and step details when a failure occurs
- Analyse types of events and status of Warning, Error, Failed, Started and Progress
- Monitor Integration Services, Authentications and APIs
- Extend OOTB baseline with customer-specific functional use cases from externally available APIs



SuccessFactors Process Monitoring

Solution Differentiators

- Historical data retention in SuccessFactors is limited (e.g. OData API Audit Log is retained for four hours)
- No alerting capability natively within SuccessFactors
- Flexibility in analytics is limited in SuccessFactors (mostly tabular data and fixed reports)

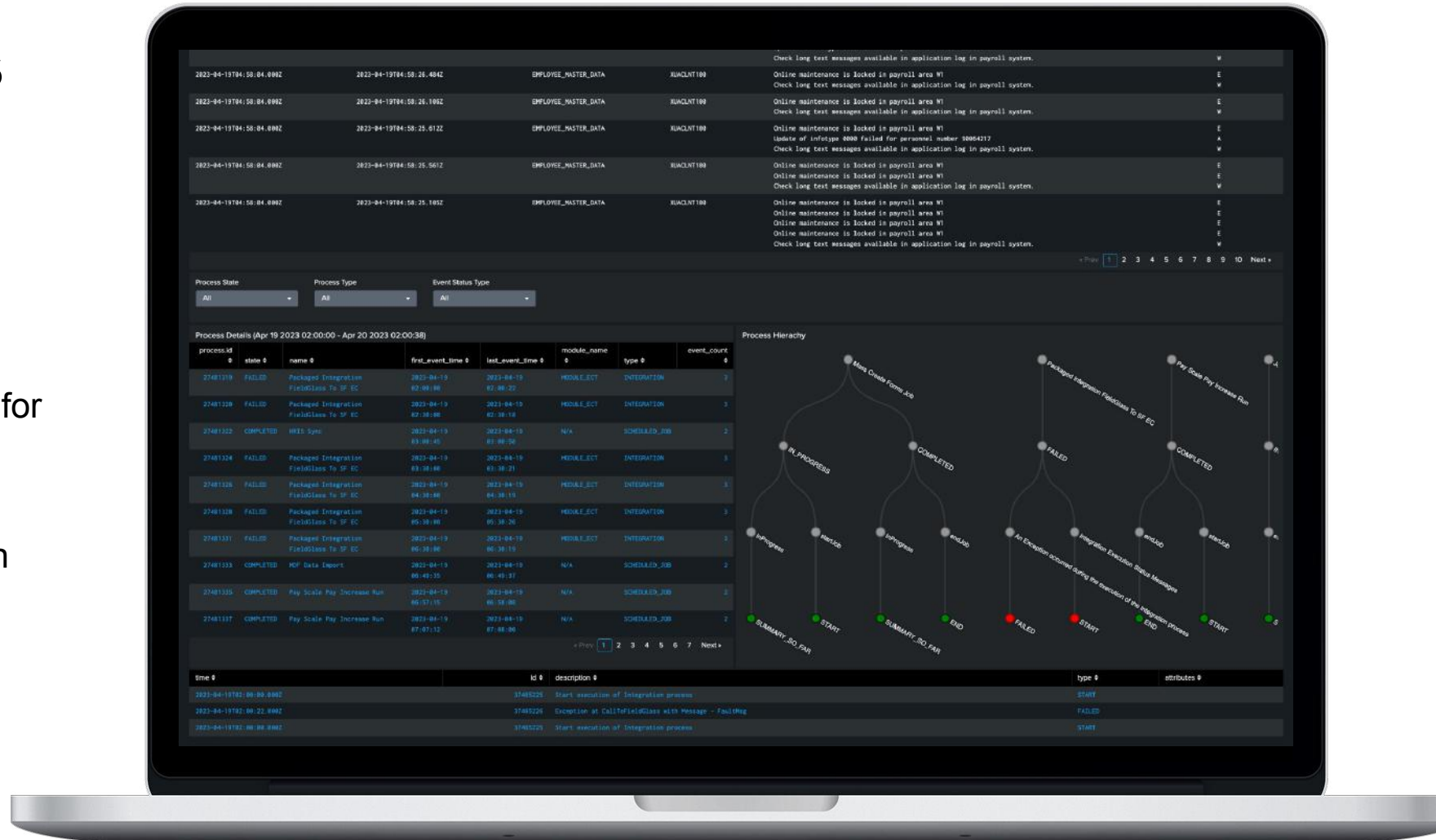


SAP SuccessFactors 

SuccessFactors Process Monitoring

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SAP SuccessFactors 

SuccessFactors Payroll Analytics

Insights Provided

- Identify anomalies and potential fraud scenarios associated with payroll runs
- Summarize spend by company code, department, and other metadata characteristics
- Alert on changes made to the payroll configuration

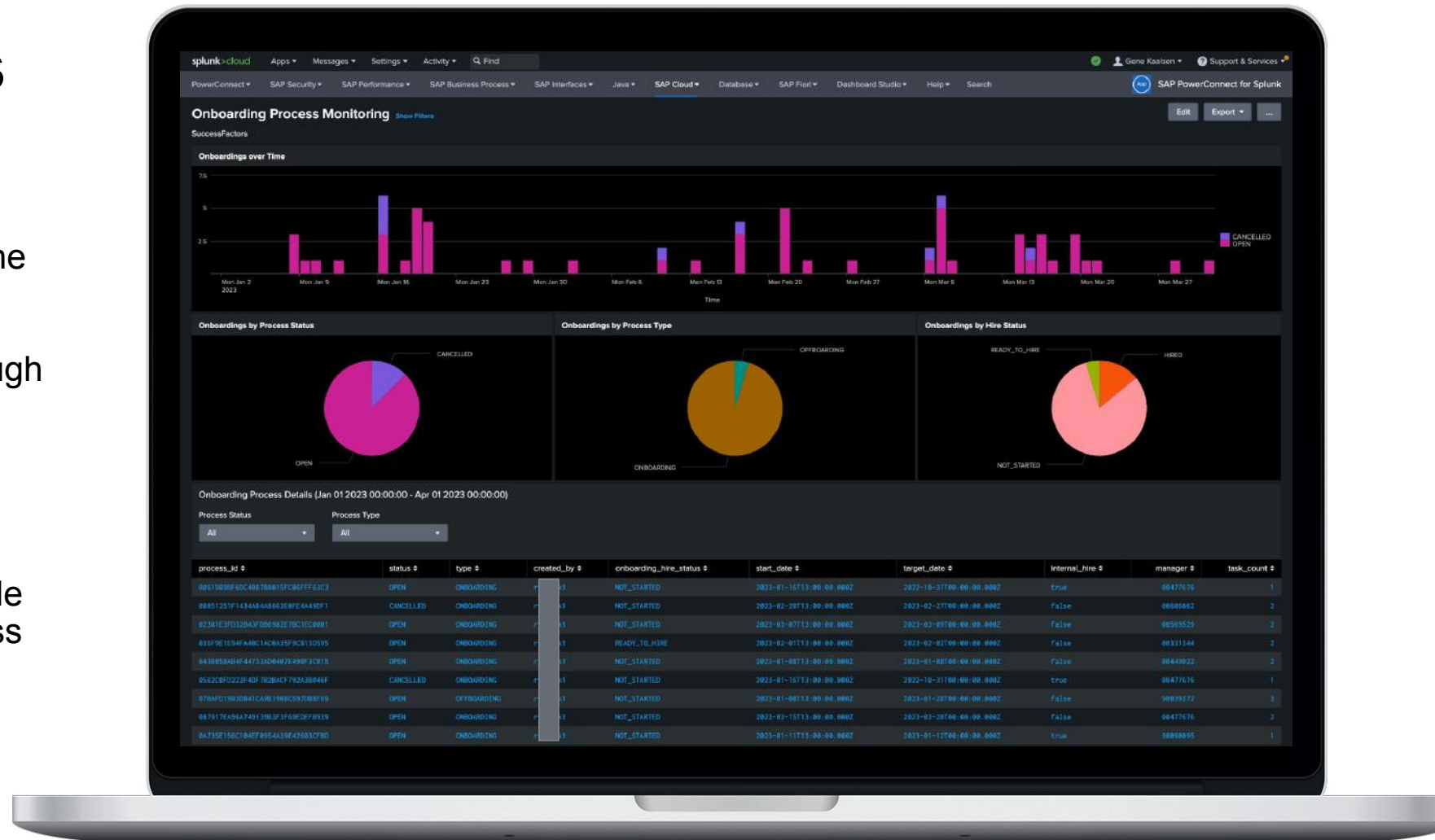


SAP SuccessFactors 

SuccessFactors Onboarding

Insights Provided

- Provide end-to-end visibility to the onboarding and offboarding processes
- Improve process efficiency through proactive notification of overdue onboarding tasks
- Ensure employees are fully offboarded to prevent potential security risks
- Track processing times to provide measurable SLAs to the business



SAP SuccessFactors 

SuccessFactors Security

Insights Provided

- Retain full-fidelity insight to security events made by users or API calls
- Utilize geolocation data to isolate potential threat actors
- Analyze API data volume to identify potential data theft scenarios
- Correlate SuccessFactors security logs with other solutions like SAP CPI
- Discovery anomalous user behavior based on historical data patterns



SAP SuccessFactors 

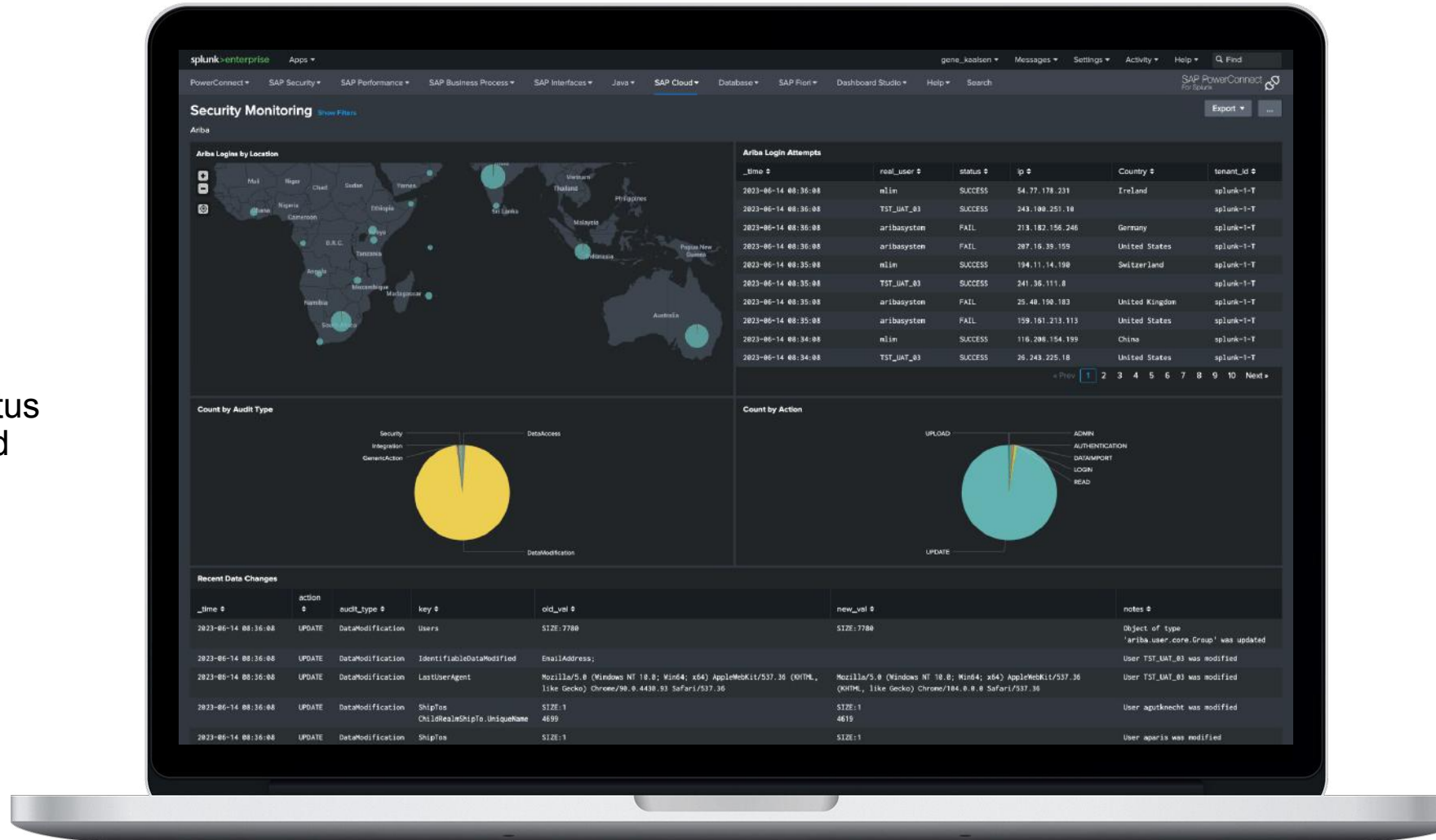
[illegible]

SAP SuccessFactors 

Ariba Observability

Insights Provided

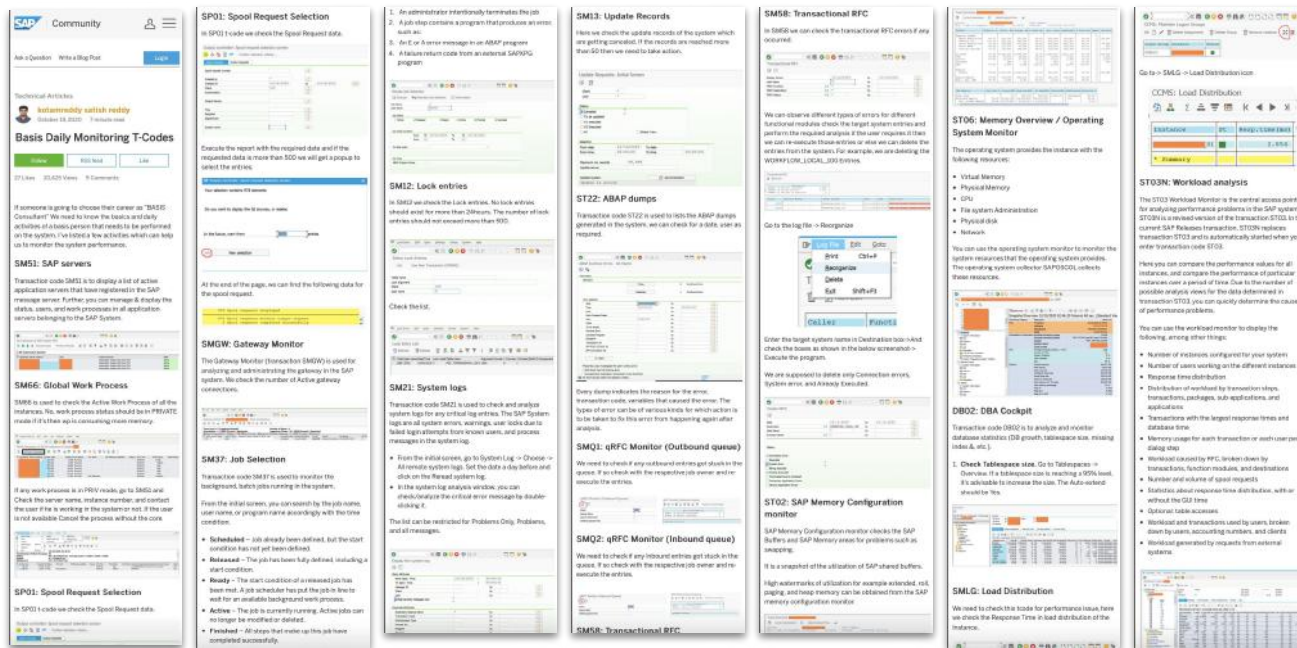
- Monitor, alert and action all user activity within Ariba including logins, data access and data modifications
- Analyse types of events and status of Warning, Error, Failed, Started and Progress
- Monitor Integration Services, Authentications and APIs
- Extend OOTB baseline with customer-specific functional use cases from externally available Ariba APIs



SAP Ariba

Automate 100% of Basis Administrators SAP Daily Health Checks

Before



After



High-level visualizations, customizable with direct access to IT Ops, security, compliance.



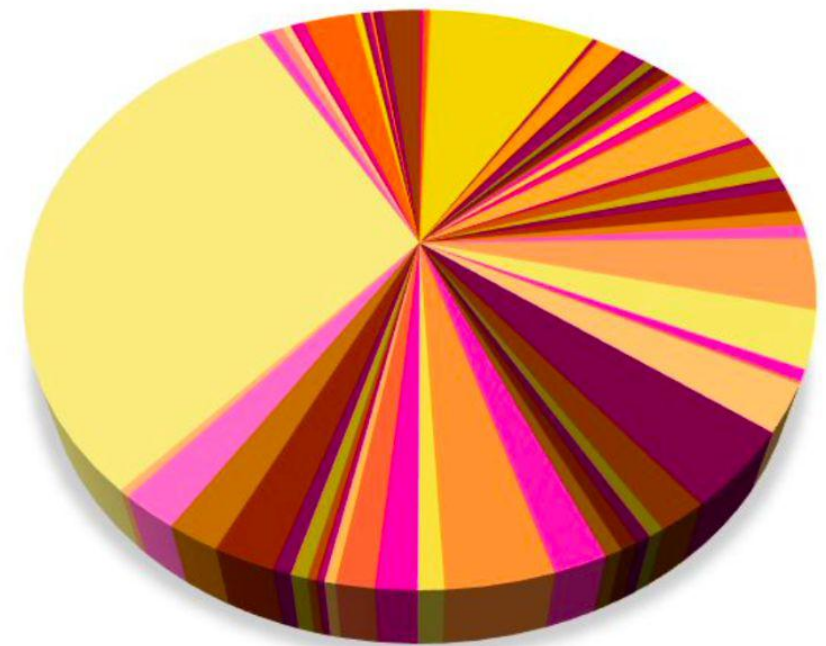
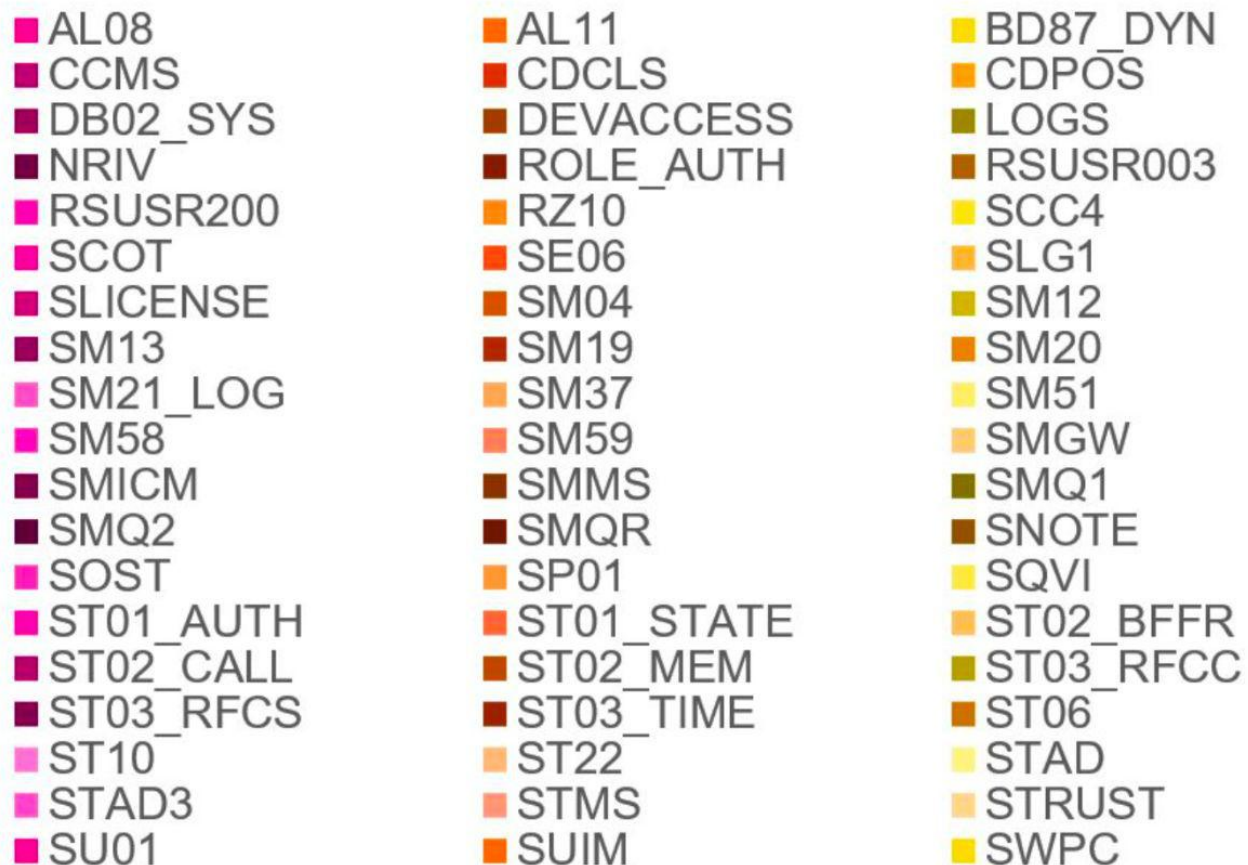
Representation of SAP components organized in a hierarchical way.

Component	Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	Metric 6	Metric 7	Metric 8	Metric 9	Metric 10
Component A	66.6	70	70	70	84.2	85.5	87.5	90.9	93	93.8
Component B	97.1	98.6	98.8	100	100	100	100	100	100	100
Component C	100	100	100	100	100	100	100	100	100	100

Access to important services and KPI's.

SAP Data Collected Out-of-the-Box

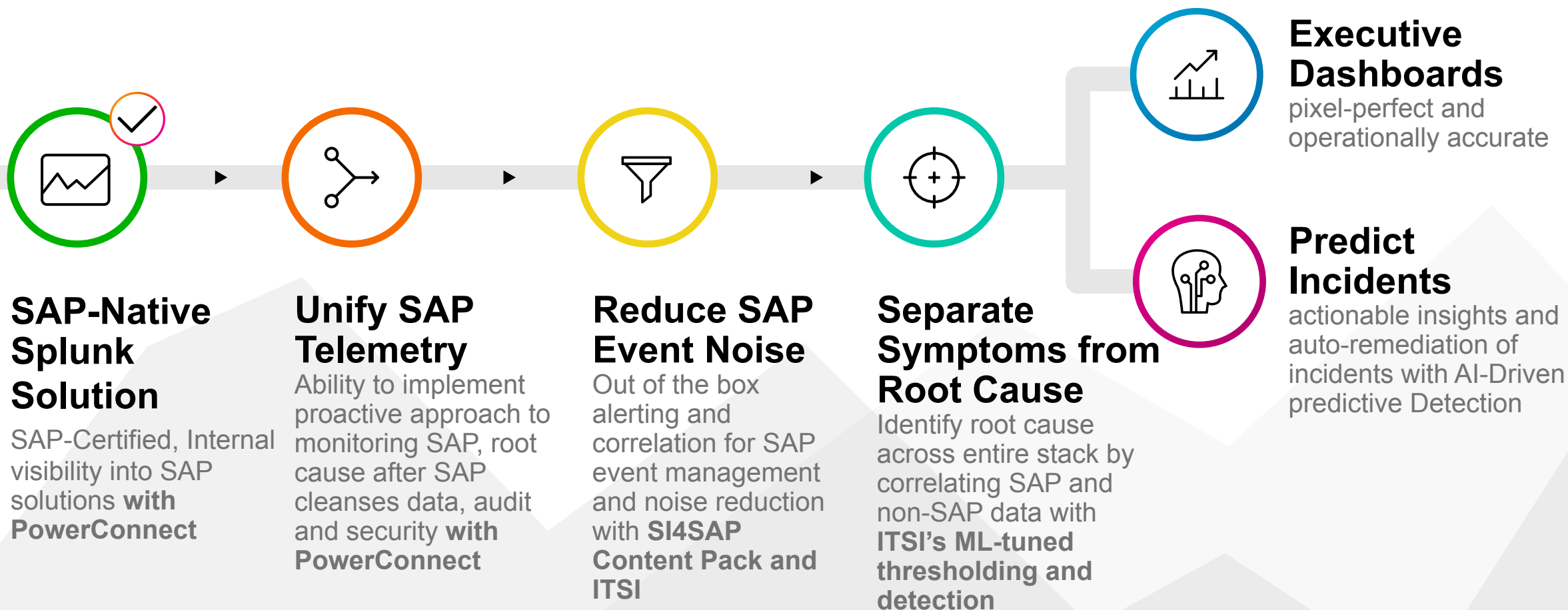
A sampling of some of the 338 SAP extractors for reducing MTTR



SAP AIOps



A Path to Predicting SAP Incidents



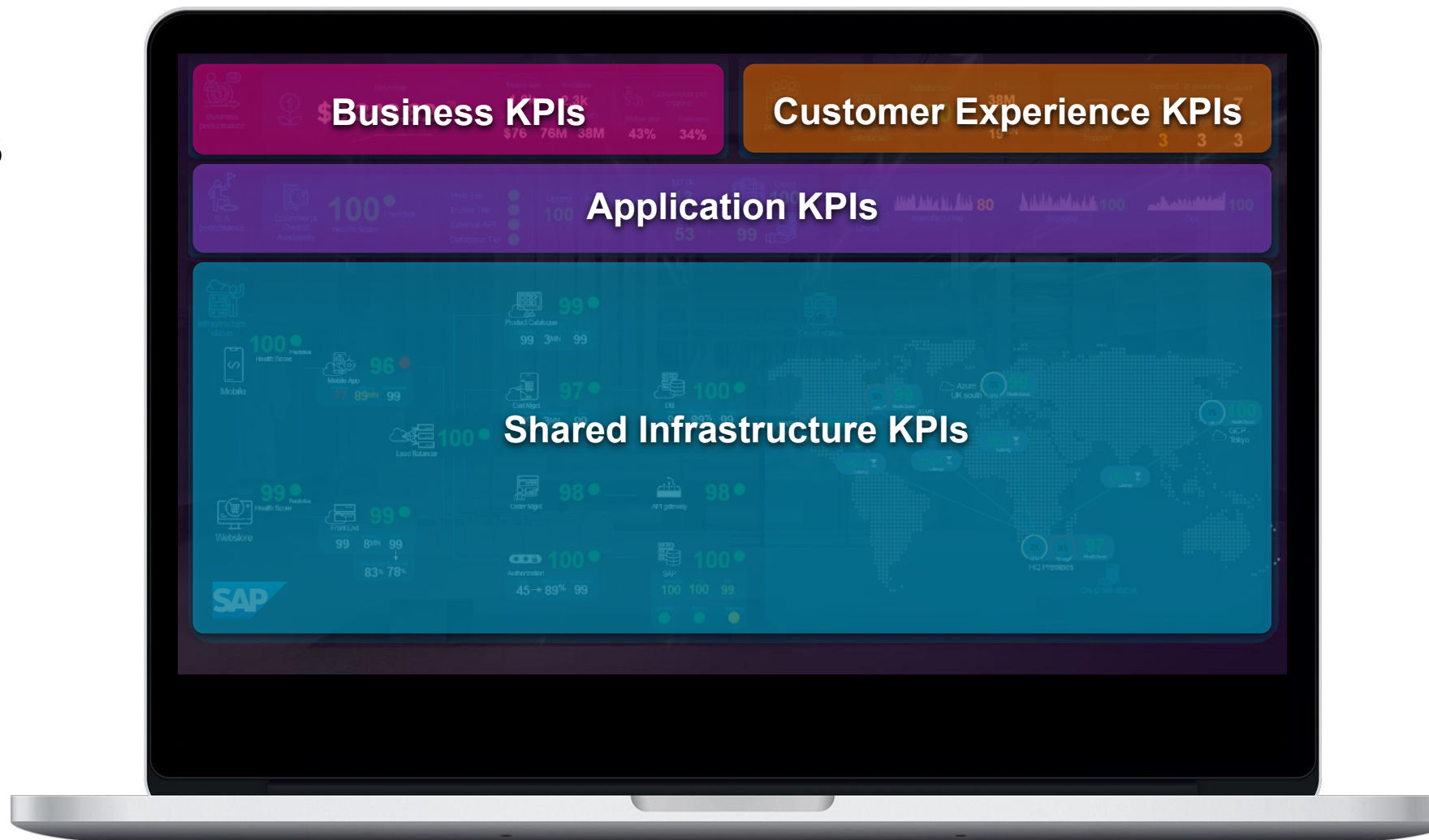
Top-level Business and Service KPI Insights through AI&ML

- Eliminate outages and partner with the business to understand how IT impacts business
- Get 360 degree views of service KPIs across distributed silos
- Predict and prevent outages to get ahead of degradations
- Drill down deep into entities to perform root cause analysis
- Predict the future trends for capacity planning and analyse the past

SAP Business Service Insights

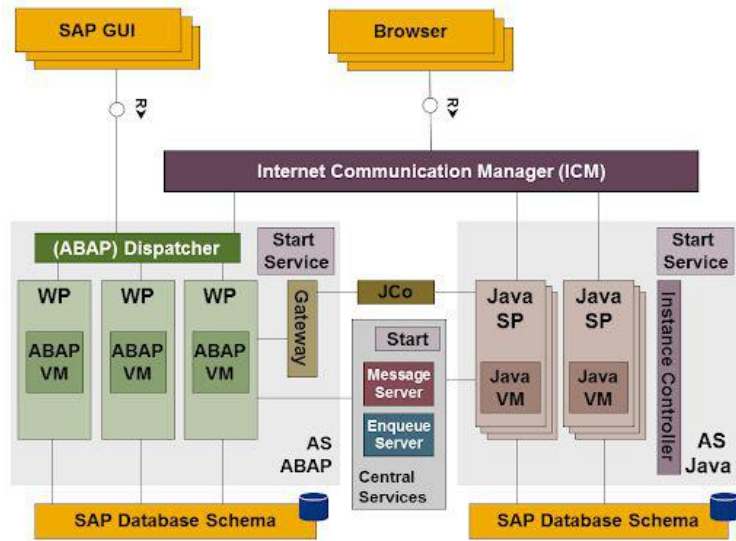
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SAP Business Service Insights

Map SAP landscape to OOTB Dashboards



SAP for SAP Resilience Demo

<https://youtu.be/RCBEdXGuOW8>

SAP Artificial Intelligence for IT Operations (AIOps)

Understand SAP Service Health

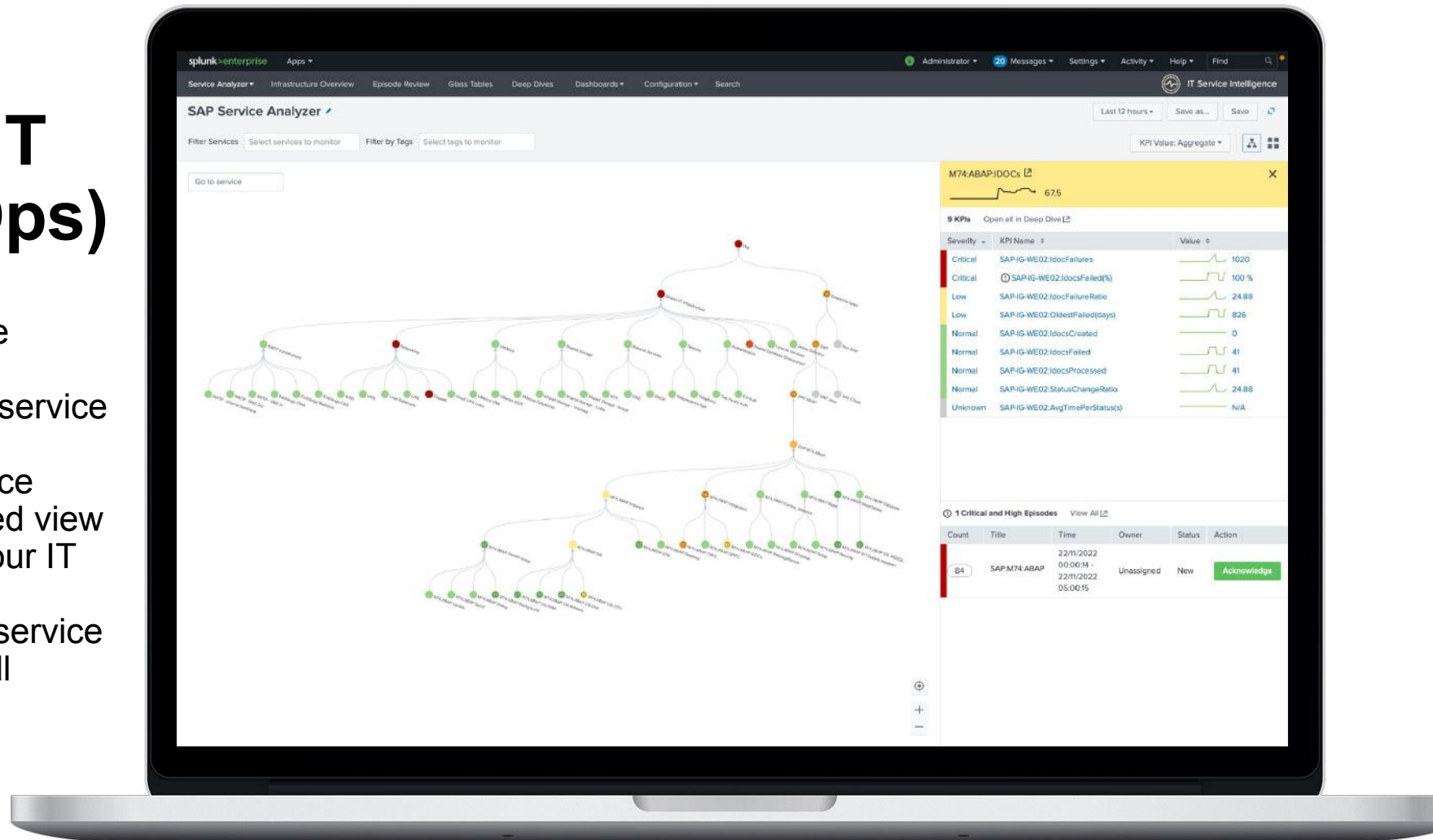
- Predict and prevent SAP issues up to 40 minutes in the future
- Out-of-the-box content pack for SAP with AI/ML 546 adaptive threshold and predictive analytics KPIs
- Auto-discover and map SAP all service dependencies for SIDs across infrastructure tiers, web, application services, database, network tiers etc
- Map business services, such as an online store, with multiple tiers
- Drill down to investigate and with bidirectional ITSM integration



SAP Artificial Intelligence for IT Operations (AIOps)

SAP Service Analyser

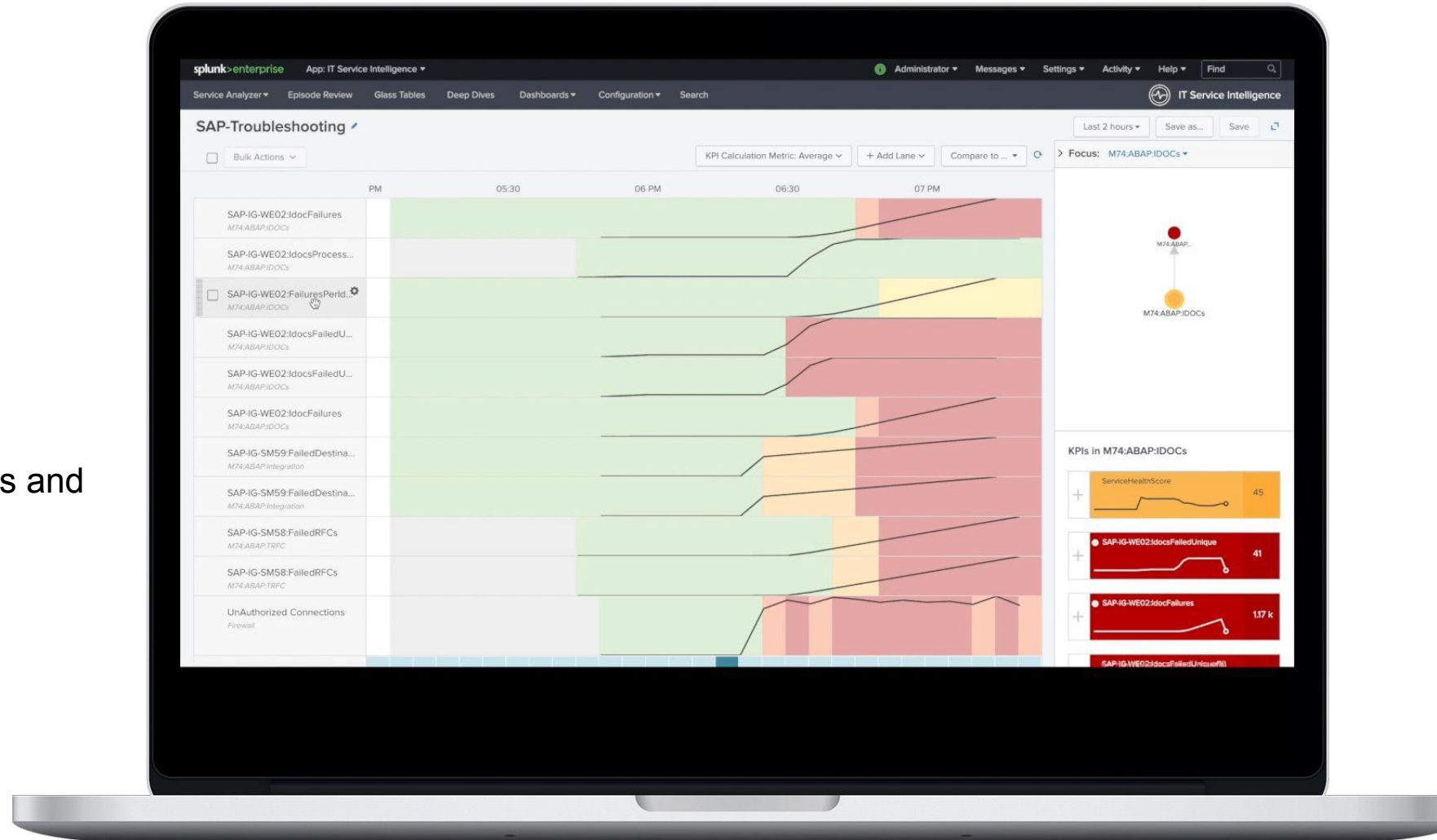
- Monitor what matters most to the organization using performance dashboards that track KPIs and service availability.
- The Service Analyzer in IT Service Intelligence (ITSI) shows a unified view of all the services and KPIs in your IT environment.
- Auto-discover and map SAP all service dependencies for SIDs across all dependent tiers



SAP AI Ops for Root Cause Determination

Deep Dive in Incident Timeline

- AI Ops for detecting breaches of adaptive thresholds
- AI Ops for detecting 'not-normal' performance
- Compare swim-lanes of business and technical KPIs
- Rapid root cause analysis
- Both metrics and events



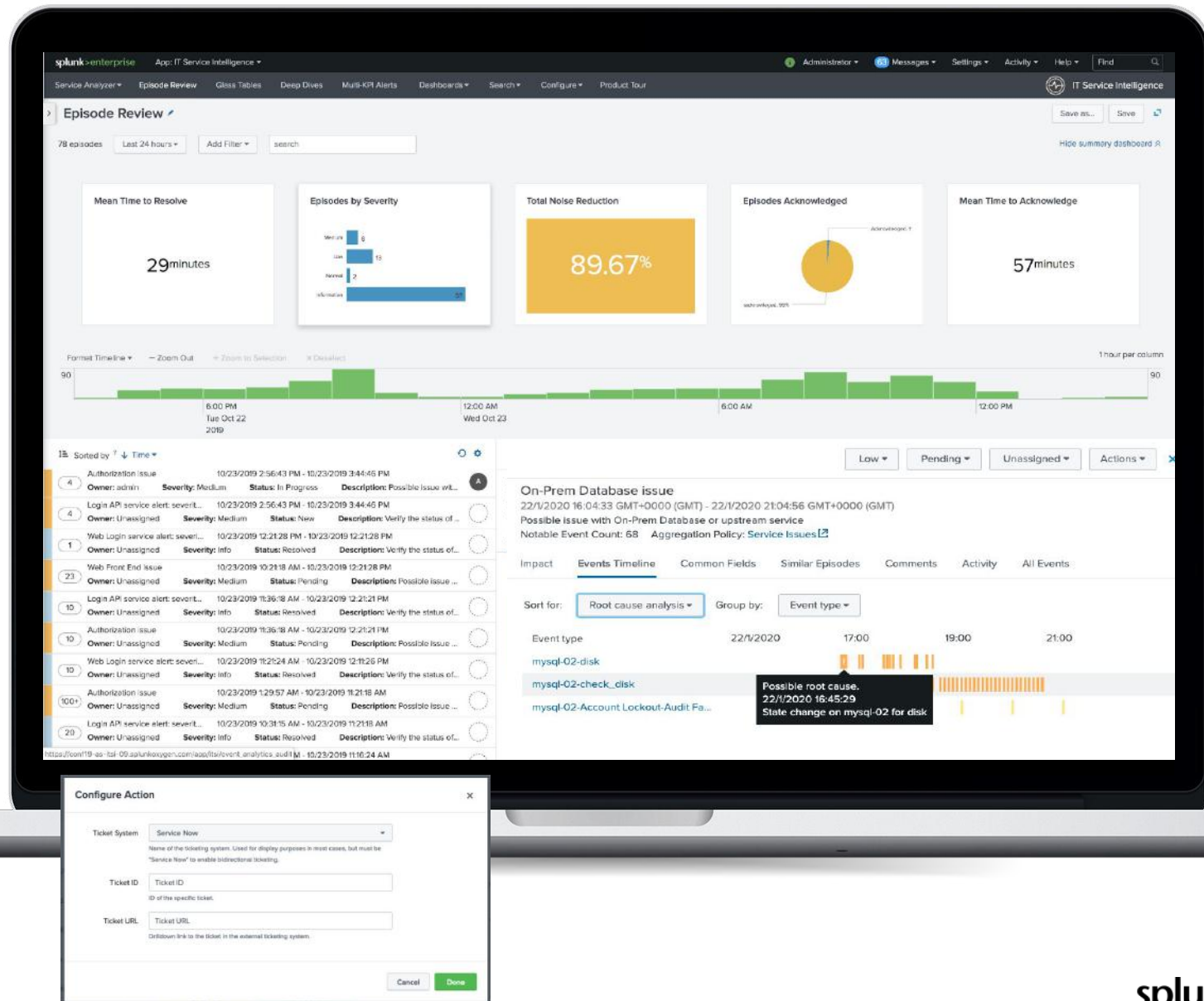
SAP AIOps for Incident Intelligence

AIOps Event Analytics and Management

- Reduce event/alarm noise and cluster events into episodes for better management
- Meet SLAs with additional service context and be more productive with a prioritized approach
- Clean feed into ServiceNow / other ITSM enriched with all SAP telematics
- Launch automated actions

Intelligent Incident Management

- Accelerate MTTR using real-time event correlation, automated incident prioritization and integrations with IT service management (ITSM) tools



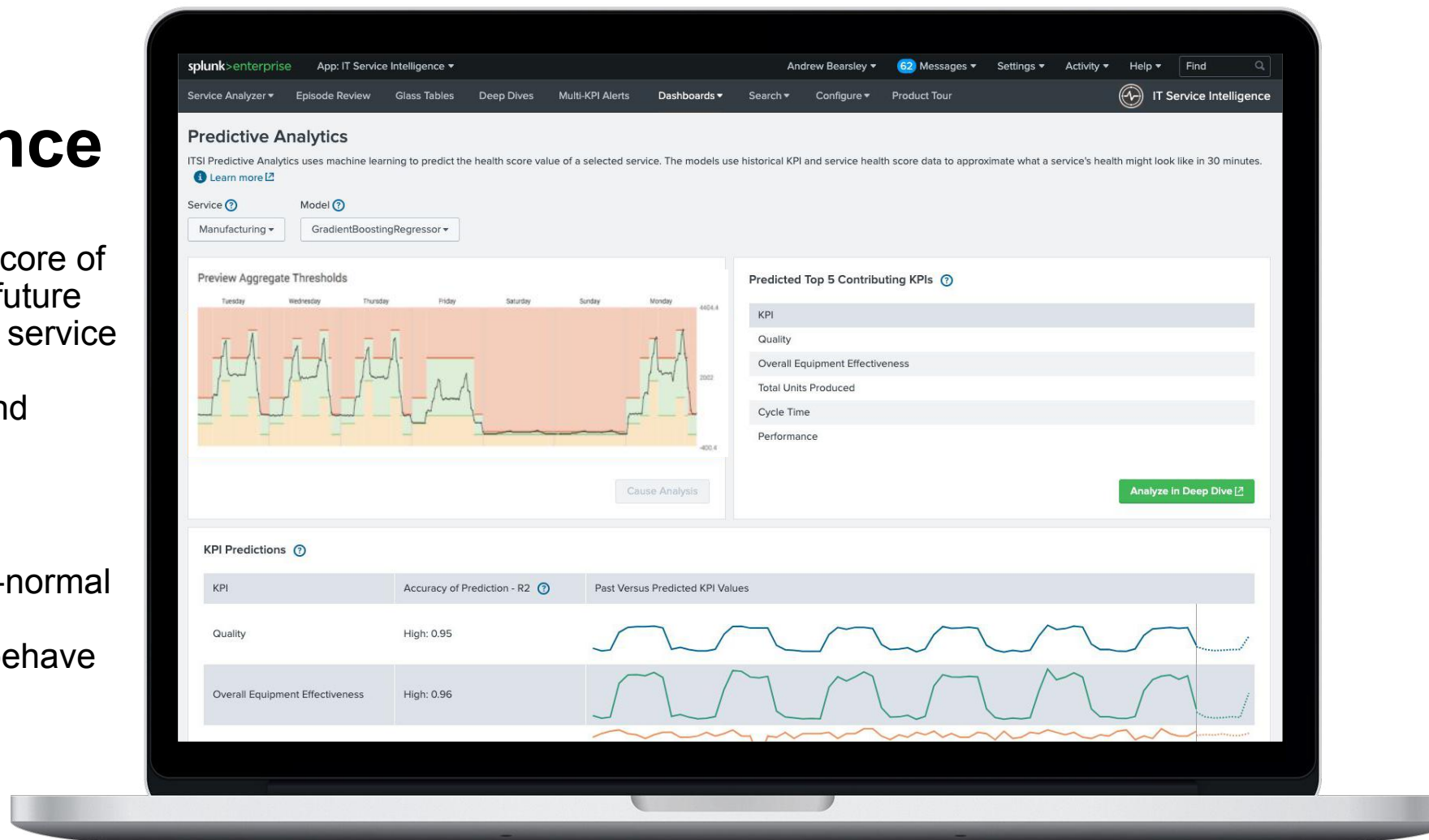
SAP AI Ops for Incident Avoidance

Predictive Analytics

- AI Ops for predicting the health score of SAP services 30 minutes in the future
- Advanced warning for predictive service delivery
- 546 Out-Of-The-Box Adaptive and configurable SAP KPIs

Dynamic Thresholding

- Show health of critical services
- AI Ops for detecting normal / not-normal behavior
- Proactive alerts when services behave abnormally



SAP Cloud Migrations & Upgrades



SAP Cloud Migrations and Upgrades

Baseline every SAP KPI and metric - Fast Time to Value - Days to implement



Google Cloud



Microsoft Azure



IBM Cloud

**RISE
WITH
SAP**

During Migration

**SAP HANA
Enterprise Cloud** 

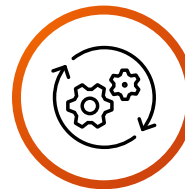
Before Migration



Compare historical on-prem to destination environments



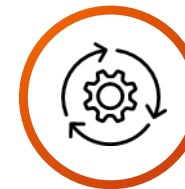
Ensure migration of dependent services



Continually monitor SAP system health



Ensure uptime of business critical services



Monitor performance improvements and provide data analytics

After Migration



Visibility to SAP and all dependent components



Establish business process benchmarks, KPIs, and metrics



Map all SAP services from end to end



Compare before and after migration KPIs



Enhanced security posture and reduce vulnerabilities

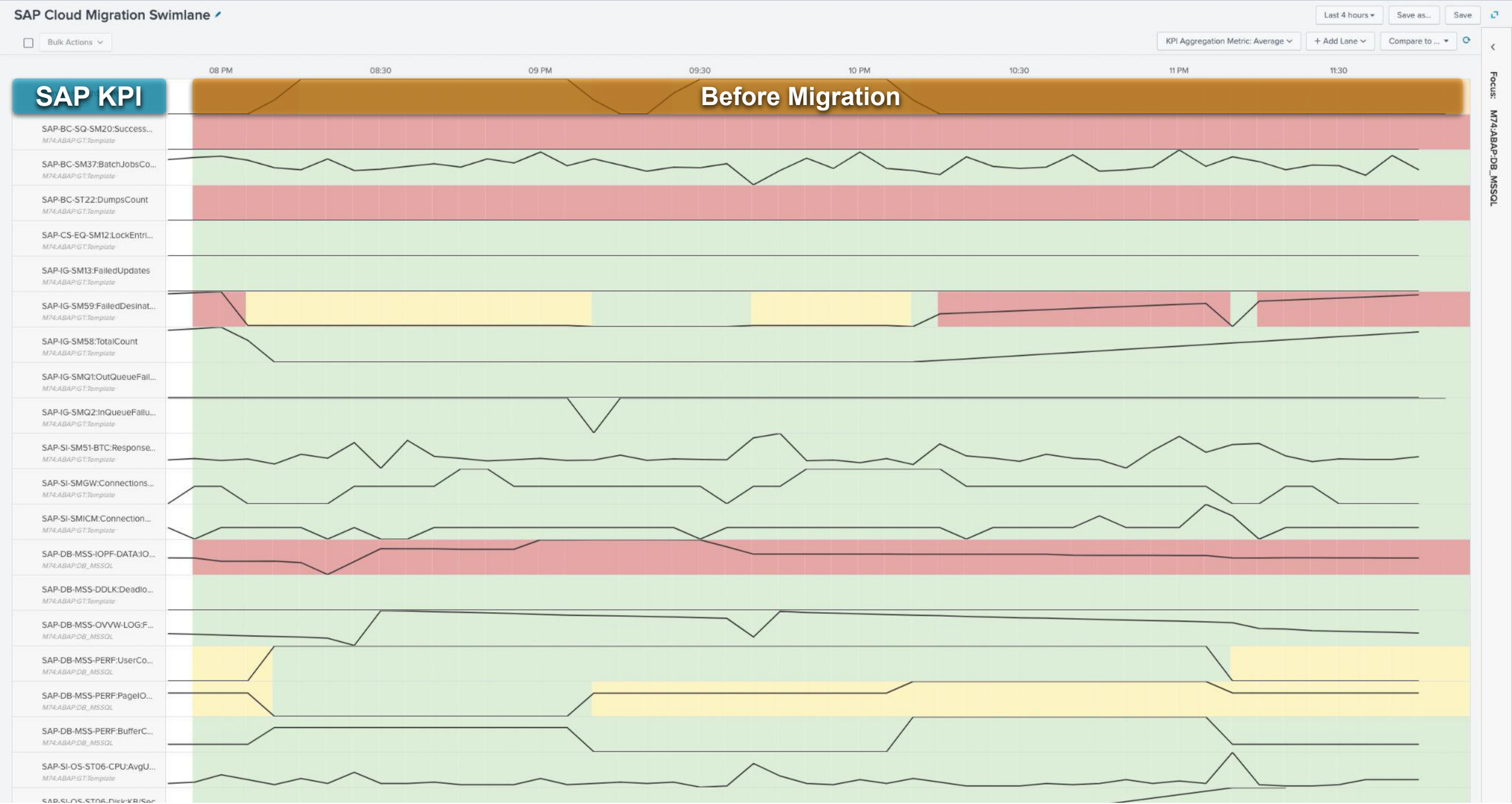


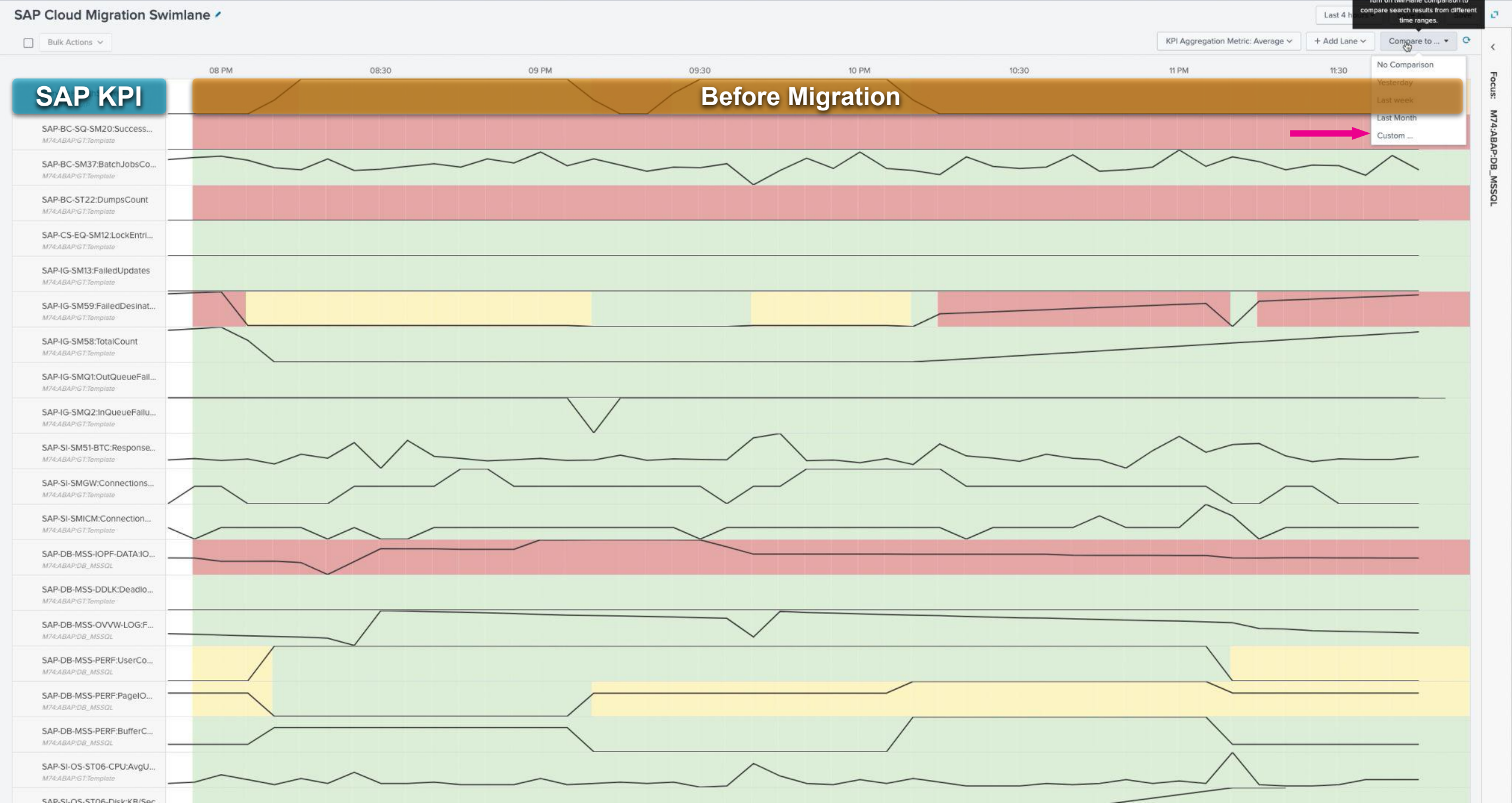
Provide continual 360 degree view to SAP business services



SAP Cloud Migrations and Upgrades Demo

<https://youtu.be/scYKcgijljw>

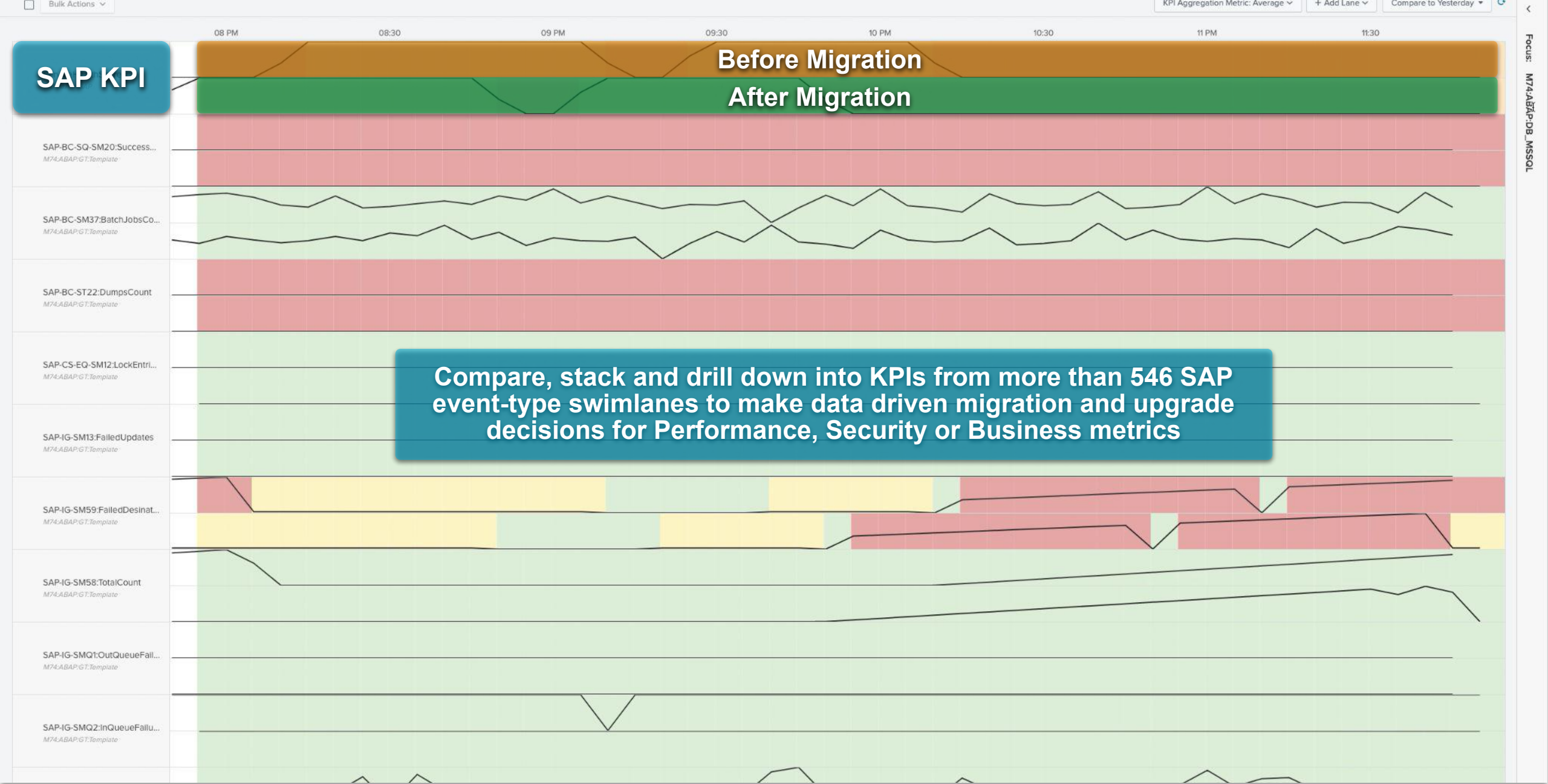


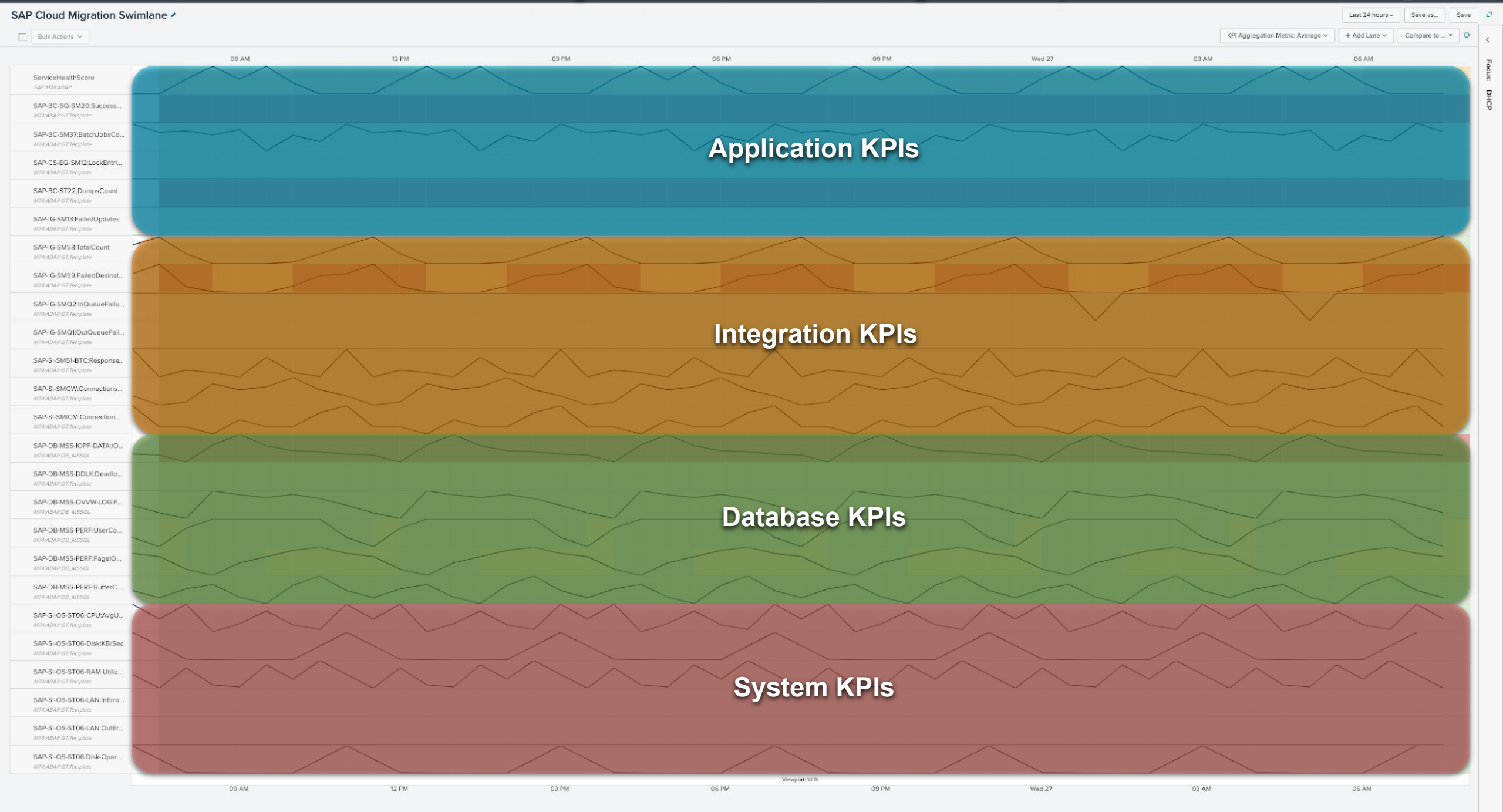


SAP Cloud Migration Swimlane

Last 4 hours Save as... Save

KPI Aggregation Metric: Average + Add Lane Compare to Yesterday





Thank You

