

Transforming ERP Monitoring: Splunk's successful integration of SAP monitoring with PowerConnect

Keith Hontz
Global Head of SAP Alliance at Splunk

Stephen Bangs
SAP Solutions Specialist at SoftwareOne

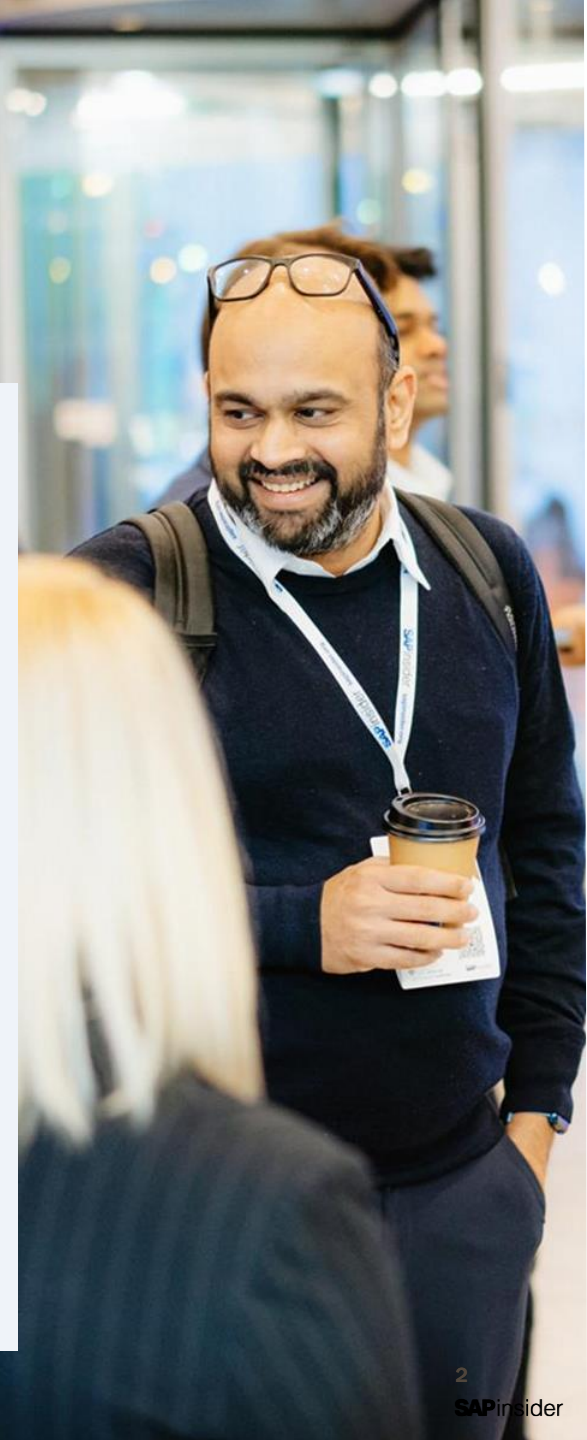
Las Vegas

2024

SAPinsider

What We'll Cover

- Executive welcome and introductions
- Product overview
- Customer success
- Q&A



Executive Welcome and Introductions



Stephen Bangs
SAP Solution Specialist
SoftwareOne



Keith Hontz
Global Head of SAP Alliance
Splunk

Follow the SAP and cloud pioneers

500+

SAP and cloud certified consultants with an average of 15+ years of industry experience serving 30+ countries

600+

SAP client projects with 150+ successful SAP to cloud migrations, SAP S/4HANA conversion engagements, and RISE with SAP engagements

7+ years

of extensive experience in delivering SAP on cloud (Azure, AWS, GCP)

24/7

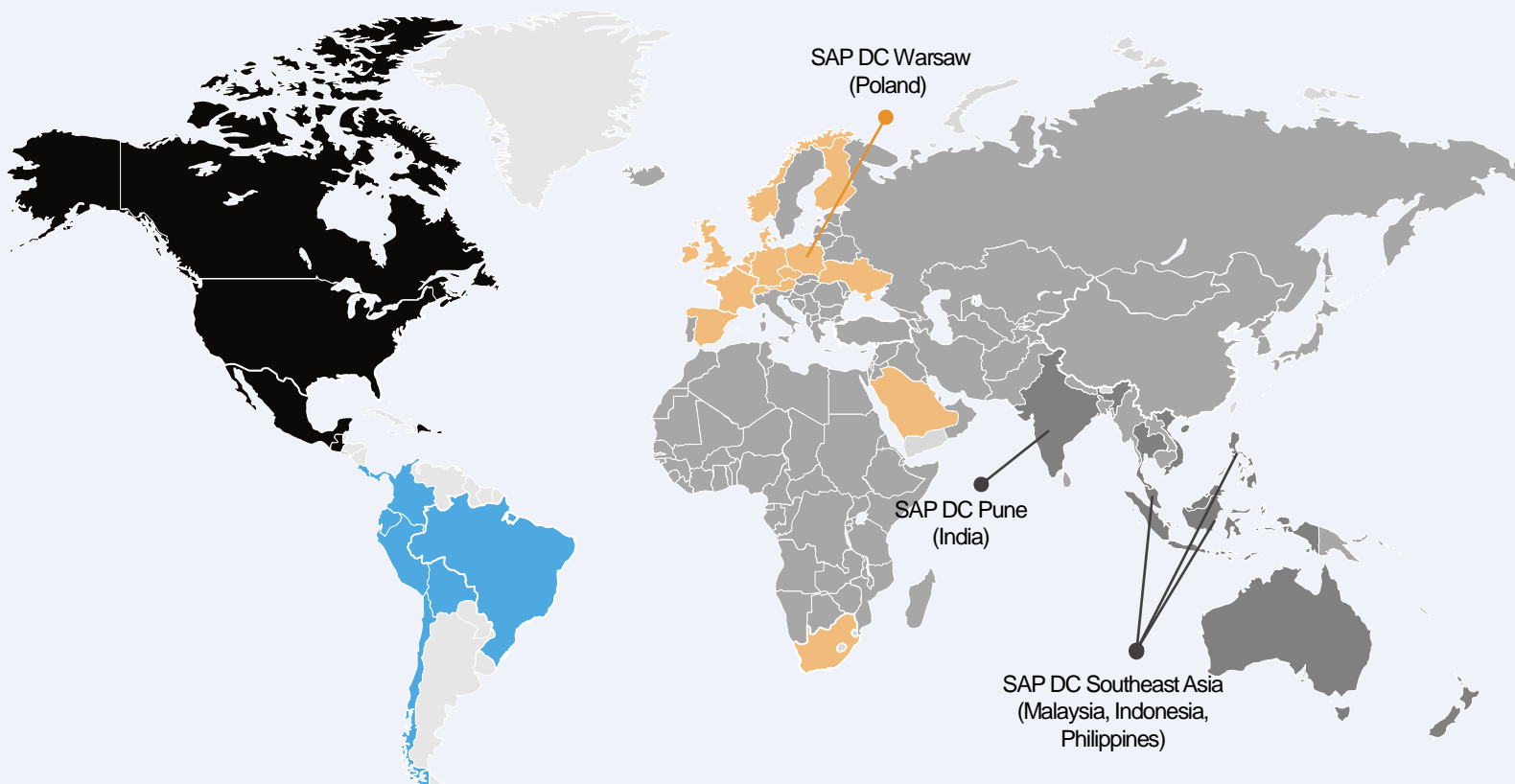
support in 13 languages

30+

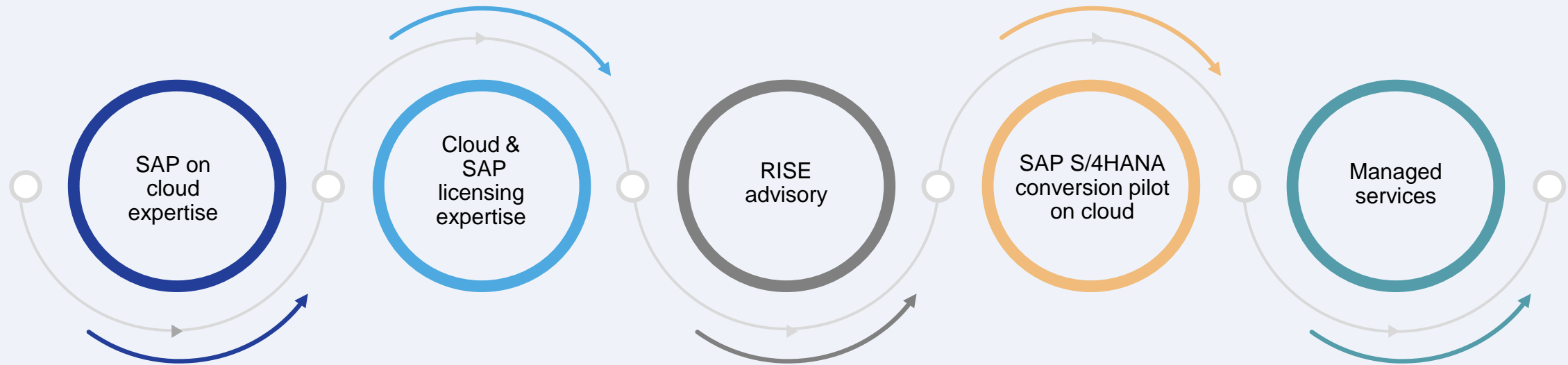
countries with local SAP presence

SAP+

licensing & commercial advisory expertise, covering entire product lifecycle from business need to purchase, adoption and on-going management including negotiation assistance and audits preparation and remediation



How we help clients achieve their goals



One team and a combined services offerings portfolio to address our clients' business challenges

- SAP on cloud expertise since 2015 (Azure, AWS, GCP)
- 100+ SAP to cloud migrations
- Dual certification SAP and cloud
- Advanced SAP on Azure specialisation
- AWS SAP migration competency
- FinOps
- Contract negotiation
- SAP licensing audits
- Indirect licensing
- BTP licensing
- ECC to SAP S/4HANA license conversion
- Understand RISE with SAP scope
- RISE with SAP operating model
- RISE with SAP licensing optimisation
- RISE with SAP or cloud-native
- RISE with SAP authorised resellers
- Prepare SAP S/4HANA conversion
- Expose issues
- Inform preparation program of work
- Experiment SAP S/4HANA on cloud
- Working test and demo environment
- Automate operations
- Unique monitoring solution
- Optimisation across SAP and cloud: technical & commercial

30+ Years of SAP Experience



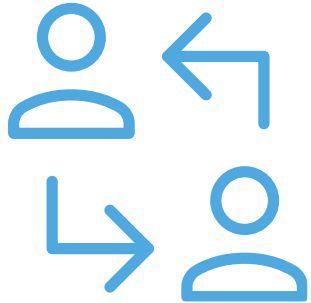
The collage features logos for a wide variety of companies, including:

- 3M**, **GENBAND**, **Whirlpool**, **southco** (CONNECT · CREATE · INNOVATE)
- BD**, **NORTHROP GRUMMAN**, **MOHAWK**, **ROHM HAAS**, **Nestlé** (Good Food, Good Life)
- KOHLER**, **Cargill**, **brother** (at your side)
- REXAM**, **LENNOX** (POOR COMFORT SYSTEMS Innovation never felt so good.™)
- Honeywell**, **BOSE**, **Sealed Air** (Our Products Protect Your Products®)
- LINCOLN ELECTRIC**, **Gardner Denver**, **GE Energy**, **AIR PRODUCTS**
- IBM**, **CLEMENS** (Food GROUP™ THE LEADER IN CUSTOMER SOLUTIONS™), **LIVE NATION**, **Days Zimmermann**, **EY**, **ARC LIGHT CINEMAS**
- Bentley**, **AMTRAK**, **Duke UNIVERSITY**, **CORNELL UNIVERSITY** (Joan and Sanford I. Weill Medical College), **SQUARESPACE**
- CDC**, **Direct Relief INTERNATIONAL**, **PA pennsylvania** (STATE OF INDEPENDENCE), **PAYCHEX**
- MICHIGAN STATE UNIVERSITY**, **PennState**, **NESPRESSO**
- HERSHEY** (THE HERSHEY COMPANY), **GENERAL MILLS**, **ESTÉE LAUDER**, **Coca-Cola Enterprises**, **MARS** (incorporated)
- SANOFI**, **AmerisourceBergen**, **COTY**, **L'ORÉAL PARIS**, **COSTCO WHOLESALE**
- Bristol-Myers Squibb**, **FOREST LABORATORIES, INC.**, **THE CHARMER SUNBELT GROUP**, **BEST BUY**, **ACE Hardware**
- MCKESSON**, **POLO RALPH LAUREN**, **CardinalHealth**, **THE HOME DEPOT**, **Panera BREAD**
- ISP/MKIS**, **Sales Workplace**, **Agilent Technologies**

CONSUMER & RETAIL
PUBLIC
FINANCIAL & SERVICES
SERVICE

SAP Operational and Organizational Changes

**Misaligned,
siloed teams**



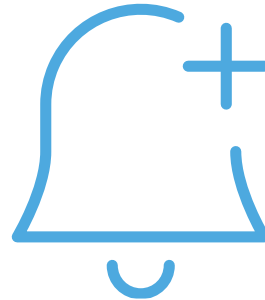
Misalignment and
low-level tech metrics

**Fragmented
Visibility**



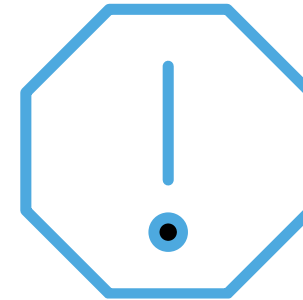
Lack of **full-stack
visibility**

**Reactive
Responses**



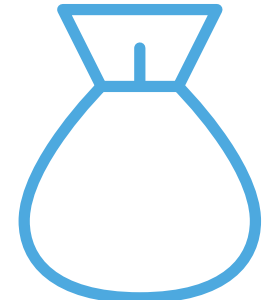
Reactive, **chaotic
response** to service
disruptions

**Poor Customer
Experience**



Root cause analysis
takes **time and effort**

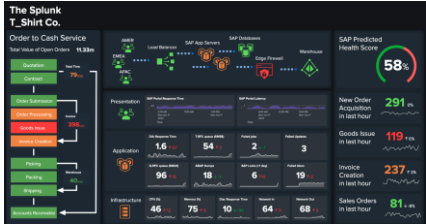
**Risks to
Revenue**



Customer churn and
diminishing loyalty

Product Overview

Splunk ITSI
+ Splunk Service
Intelligence for SAP



546 OOTB AIOps SAP
Adaptive Threshold KPIs



PowerConnect
App for Splunk

1,086 OOTB use cases for
Security, IT, & Business process

splunk

Splunk Enterprise
Security



35 OOTB SAP Notable Event
Correlation Searches

SoftwareOne
PowerConnect for
SAP solutions

SAP ABAP

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

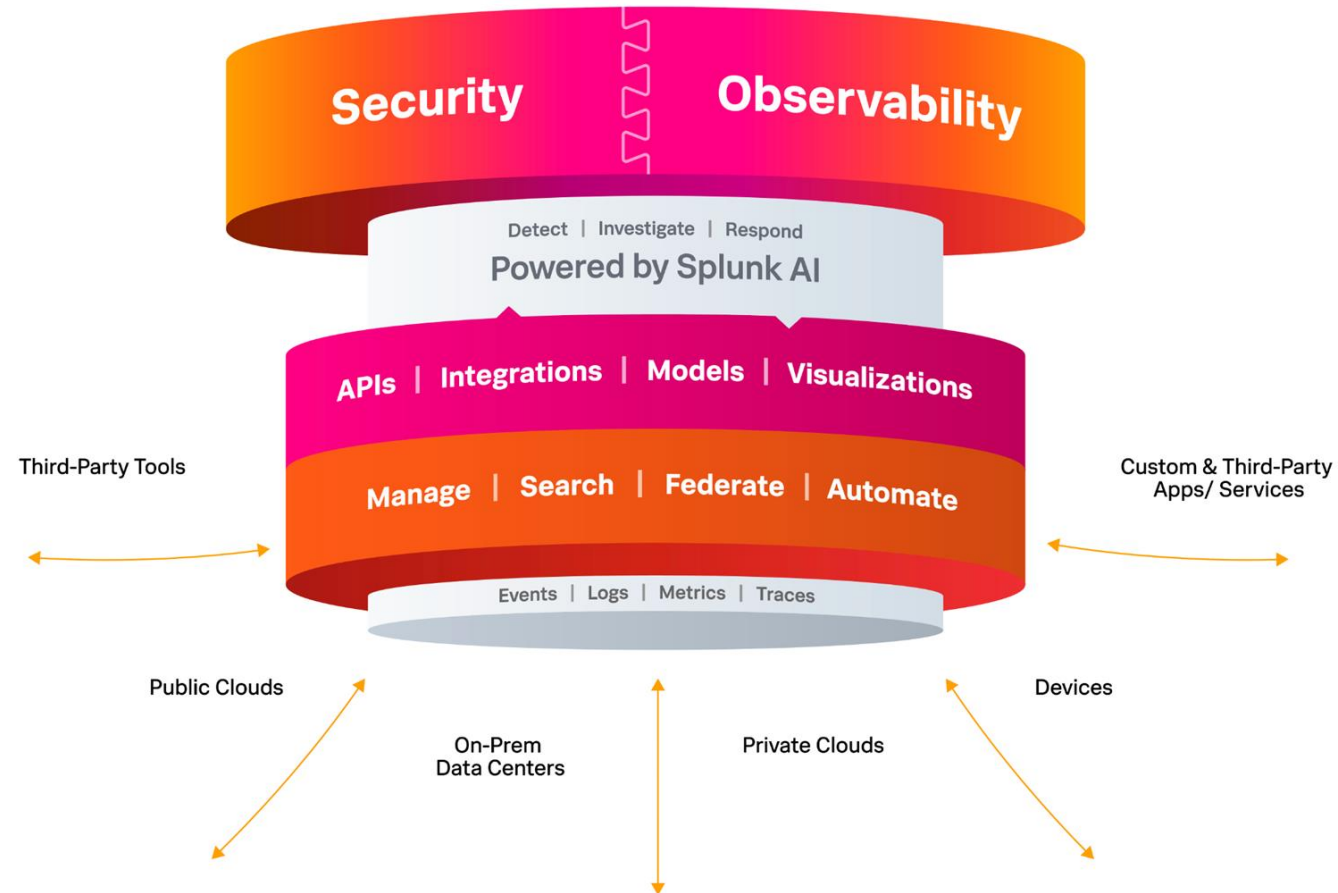
SAP Java

SAP Business Objects SAP PI/PO SAP IDM
SAP Data Services SAP Enterprise Portal
SAP MDM SAP ADS SAP Convergent Charging
SAP Hybris (On Prem) SAP Mobile Platform +++

SAP SaaS & PaaS

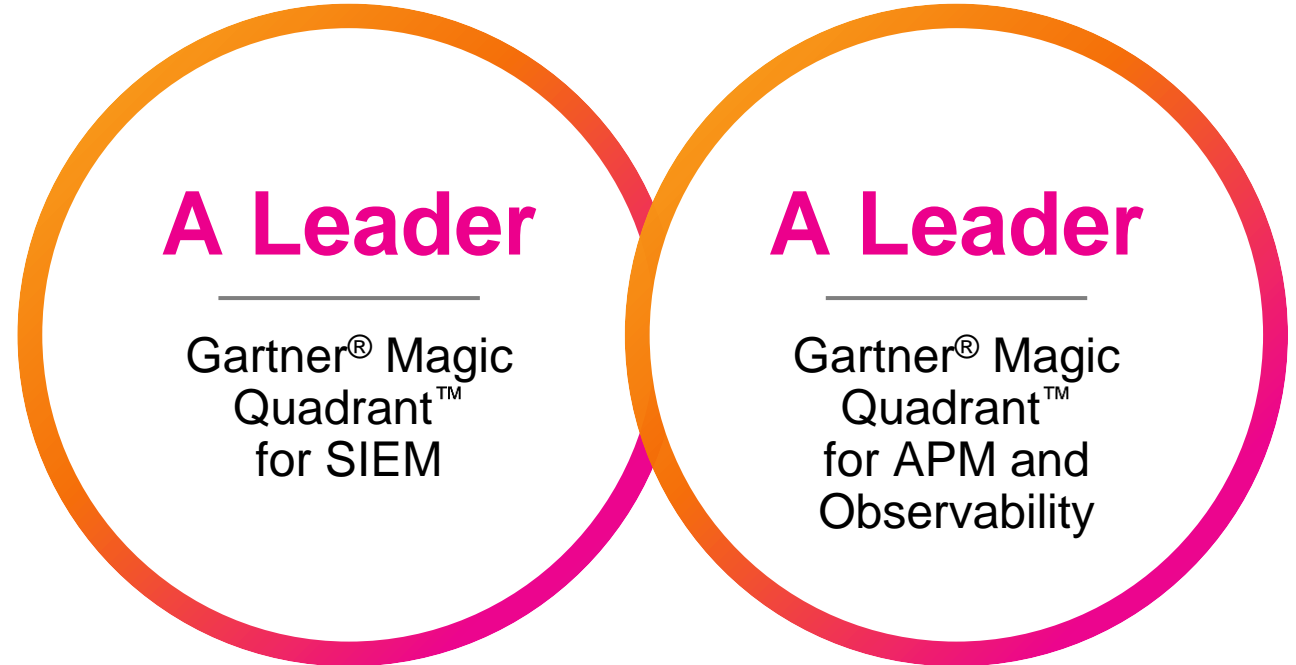
SAP SuccessFactors SAP Ariba
SAP Fieldglass SAP BTP SAP CPI
SAP Cloud Platform SAP API Management
SAP Sales Cloud / CPQ +++

Splunk: The Unified Security and Observability Platform



Gartner

Splunk is the only vendor recognized as a leader in the latest Magic Quadrant™ Reports for SIEM and APM and Observability



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PowerConnect Use Cases

Business Service Insights	Performance & User Experience	Migrations & Upgrade	Security & Compliance	Cloud & SaaS App Observability
<ul style="list-style-type: none">E2E process monitoring	<ul style="list-style-type: none">Root Cause Analysis	<ul style="list-style-type: none">Baseline All metrics	<ul style="list-style-type: none">User Behavior Analytics	<ul style="list-style-type: none">Cloud Security
<ul style="list-style-type: none">Cross-System Data validation	<ul style="list-style-type: none">End-User Experience	<ul style="list-style-type: none">Comparative monitoring	<ul style="list-style-type: none">Automated Audit Reporting	<ul style="list-style-type: none">Observability
<ul style="list-style-type: none">Business Process Monitoring	<ul style="list-style-type: none">Correlation to infrastructure		<ul style="list-style-type: none">Access Monitoring	<ul style="list-style-type: none">Authentications
			<ul style="list-style-type: none">Threat Correlation	<ul style="list-style-type: none">Integrations
				<ul style="list-style-type: none">Events Processes

Business Service Insights

Benefits to Business

- Track integration flows end-to-end between SAP and non-SAP systems
- Provide business context required to prioritize and resolve errors
- Identify if business impact is related to underlying technology or business process

Use Case Examples

- Outbound Deliveries
- iDoc Error Routing using Business Content
- Batch Jobs
- Web Services
- Number Ranges
- PI/PO Messages
- CPI iFlows

Outbound Delivery Monitor

Range

SAP System

Delivery number

Name-of-ship-party

Ship To

Material

Plant

Description

Last 24 hours

IDB

×

•

•

•

•

•

•

Hide Filters

Picking

✓

Picking Confirmation

Loading

Goods Issue

Transportation Planning

537

28

476

235

476

"Picking" Details

Delivery Number	Description	GI Date	Item Number	Material	Material Available	Name of the ship-to party	Number of Items	Overall WM status	Pick Confirmation	Picking Date	Plant	Priority	Processing Time	Quantity	Ship To	Shipping Point	Time	Total Weight	Unit	Weight Unit
0000018066	Scheitel	2020-04-16 00:00:00	000018	T-BW20-28	20220420	Software System Gmb	0	A		2020-04-14 00:00:00	1000	02	0	3.600	T-L63807	1000	2024-03-06 09:12:52	3.600	ST	KG
0000018066		2020-04-16 00:00:00	000000	00000000	00000000	Software System Gmb	1	A		2020-04-14 00:00:00		02	0	0	T-L63807	1000	2024-03-06 09:12:52	3.600		KG
0000018065	Lagerträger	2022-01-25 00:00:00	000018	T-BW05-20	20220121	Software System Gmb	0	A		2022-01-21 00:00:00	1000	02	0	5.000	T-L63807	1000	2024-03-06 09:12:52	11.000	ST	KG
0000018065		2022-01-25 00:00:00	000000	00000000	00000000	Software System Gmb	1	A		2022-01-21 00:00:00		02	0	0	T-L63807	1000	2024-03-06 09:12:52	11.000		KG
0000018064	Lagerträger	2020-04-16 00:00:00	000018	T-BW05-20	20211229	Software System Gmb	0	A		2020-04-14 00:00:00	1000	02	0	4.000	T-L63807	1000	2024-03-06 09:12:52	8.000	ST	KG
0000018064		2020-04-16 00:00:00	000000	00000000	00000000	Software System Gmb	1	A		2020-04-14 00:00:00		02	0	0	T-L63807	1000	2024-03-06 09:12:52	8.000		KG
0000018040	Druckdeckel	2019-04-26 00:00:00	000018	T-BW04-28	20190426	Hallmann Anlagenbau	0	A		2019-04-26 00:00:00	1000	01	0	5.000	T-L69A19	1000	2024-03-06 09:12:52	9.000	ST	KG
0000018040		2019-04-26 00:00:00	000000	00000000	00000000	Hallmann Anlagenbau	1	A		2019-04-26 00:00:00		01	0	0	T-L69A19	1000	2024-03-06 09:12:52	9.000		KG
0000018032	High Speed Basic	2019-05-06 00:00:00	000018	T-ATT11	20190502	Compu-Soft	0	A		2019-05-02 00:00:00	1200	02	0	7.700	T-S66024	1201	2024-03-06 09:12:52	7.700	ST	KG
0000018032		2019-05-06 00:00:00	000000	00000000	00000000	Compu-Soft	1	A		2019-05-02 00:00:00		02	0	0	T-S66024	1201	2024-03-06 09:12:52	7.700		KG

Prev

1

2

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6

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10

Next

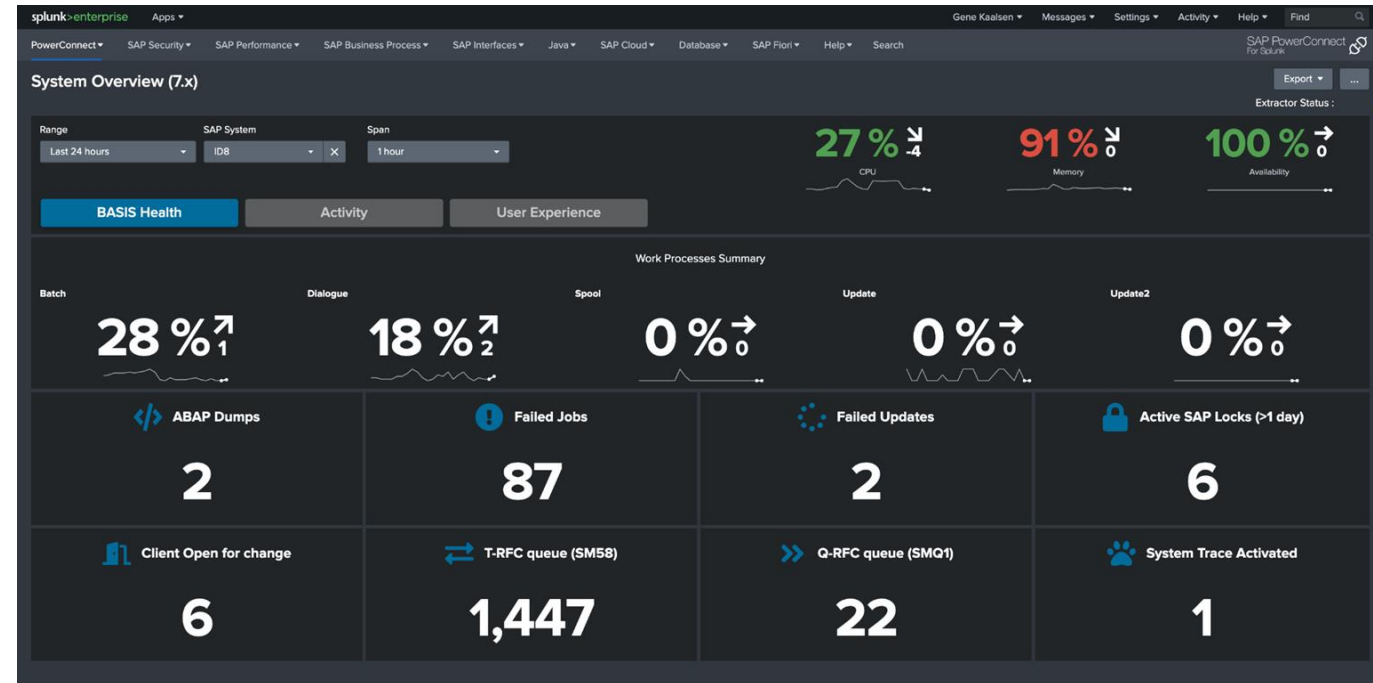
Solution Performance

Benefits to SAP Performance

- Provide the necessary **context to resolve root cause** with alerts
- **Automate** manual health checks
- **Correlate** multiple components of SAP application and infrastructure in single location
- Create **any alert** based on full fidelity data provided
- **Anomaly detection** based on historical telemetry and machine learning

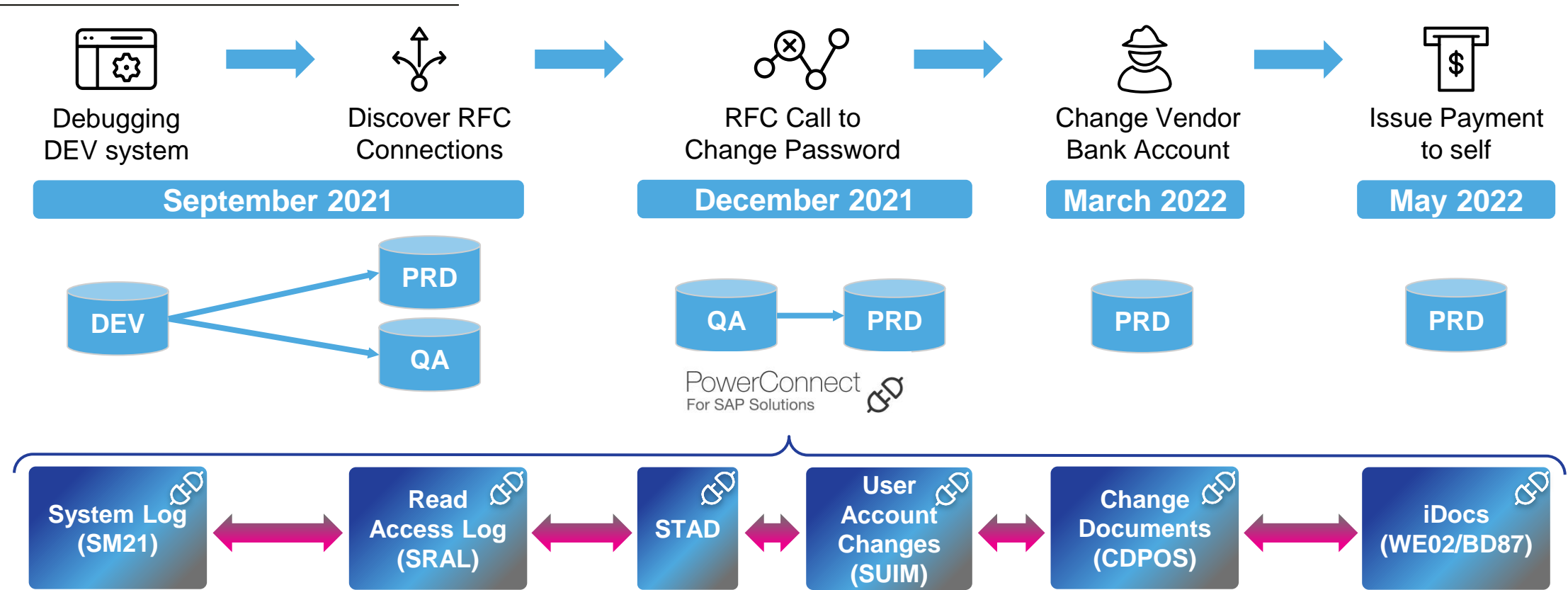
Use Case Examples

- End User Experience Monitoring (STATS)
- Work Process Utilization (SM51)
- RFC Connection Status (SM59)
- Gateway Utilization and Logs (SMGW)
- JVM Load and Memory



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

SAP Breaches Create Material Risk



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 Cloud Migrations and Upgrades

Baseline **every SAP KPI** and metric - Fast **Time to Value** – Implement in **Days**



Before Migration



Visibility to SAP and all dependent components



Establish business process benchmarks, KPIs, and metrics



Map all SAP services from end to end

During Migration



Compare historical on-prem migration 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



Compare before and after migration KPIs



Enhanced security posture and reduce vulnerabilities



Provide continual 360 degree view to SAP business services

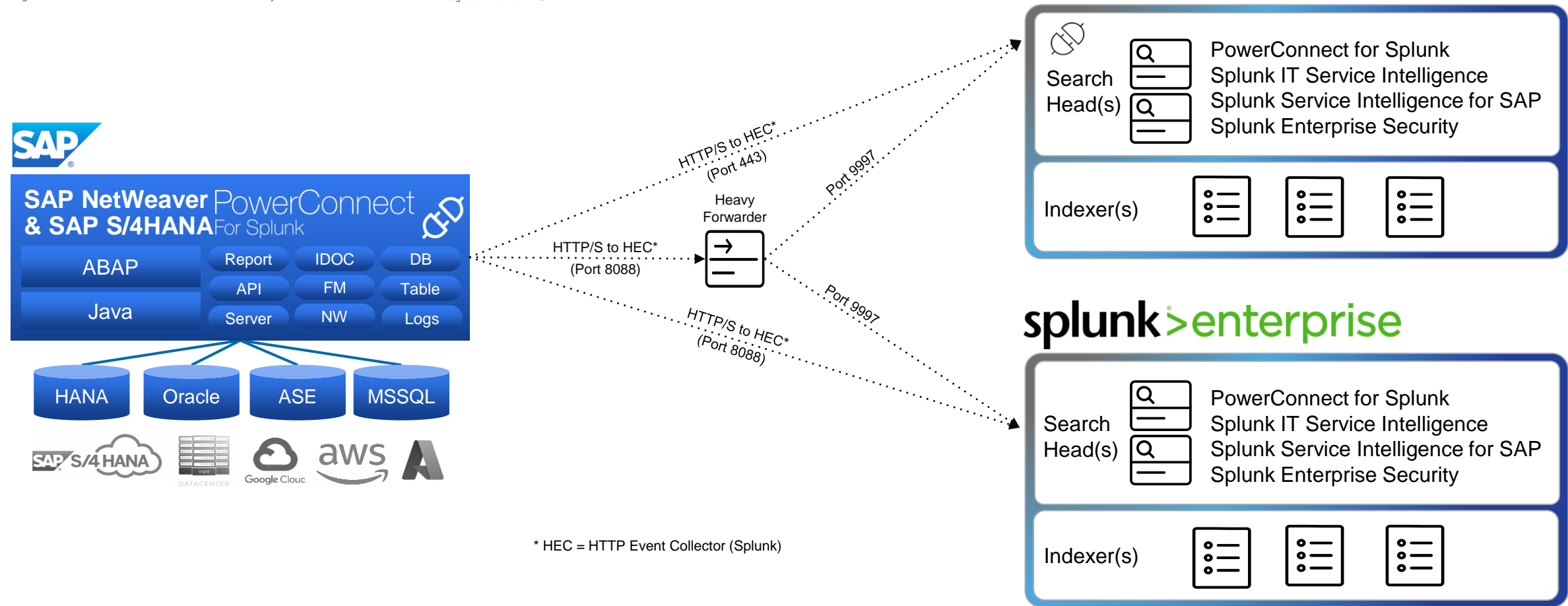


PowerConnect ABAP & Java Architecture

SAP® Certified
Integration with SAP S/HANA® Cloud

SAP® Certified
Powered by SAP Netweaver®

SAP® Certified
Integration with SAP S/HANA®

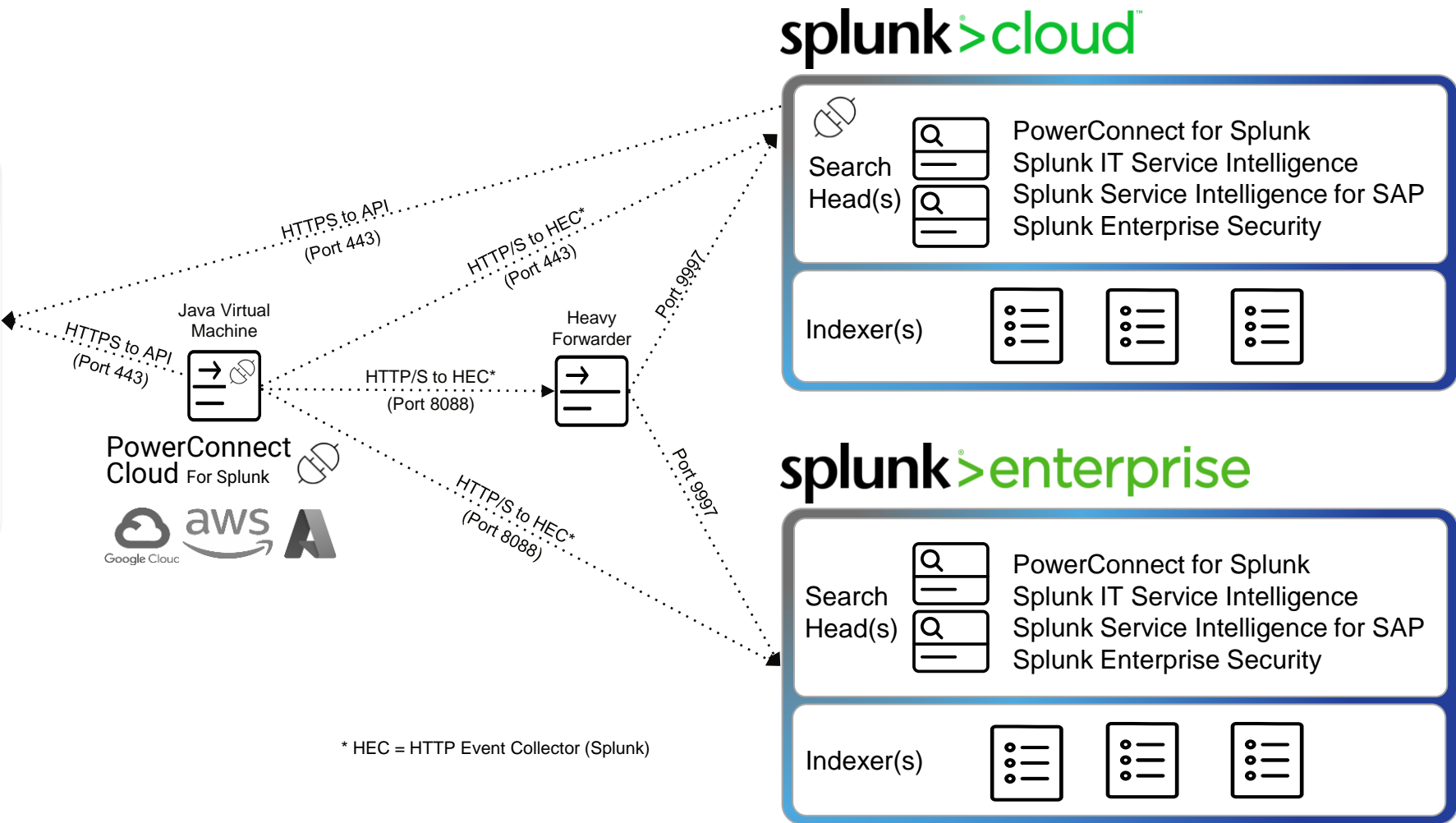


* HEC = HTTP Event Collector (Splunk)

PowerConnect SAP Cloud Architecture

SAP SaaS & PaaS

- SAP Cloud Platform
- SAP Cloud Platform Integration
- SAP Business Technology Platform
- SAP API Management
- SAP Sales Cloud / CPQ
- SAP SuccessFactors
- SAP Ariba
- SAP Fieldglass



PowerConnect is 100% Certified

15 SAP certifications ensure compatibility with SAP products

- SAP certified for **SAP S/HANA cloud 2023 extended edition**
- SAP certified for **SAP S/HANA cloud 2023 (RISE + HEC)**
- SAP certified for **SAP S/HANA cloud 2022 extended edition**
- SAP certified for **SAP S/HANA cloud 2022 (RISE + HEC)**
- SAP certified for **SAP S/HANA cloud 2021 (RISE + HEC)**
- SAP certified for **SAP S/HANA 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 1609**
- 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**

SAP® Certified
Powered by SAP NetWeaver®

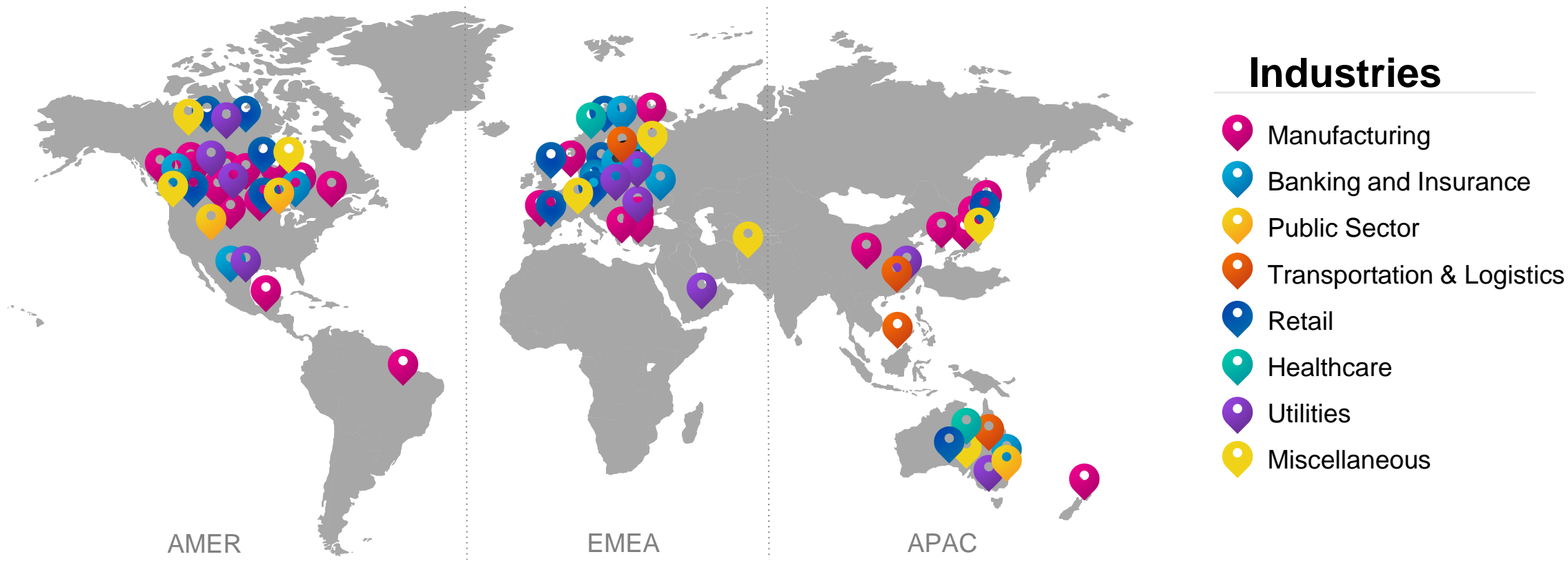
SAP® Certified
Integration with SAP S/4HANA® Cloud

SAP Certified
Integration with SAP S/4HANA



Customer Success

10+ Years in Market with 5K+ Installations with Customers in 24 Countries



PowerConnect Case Study: Outbound Delivery Processing

Industry: Consumer Product Goods

Problem Statement

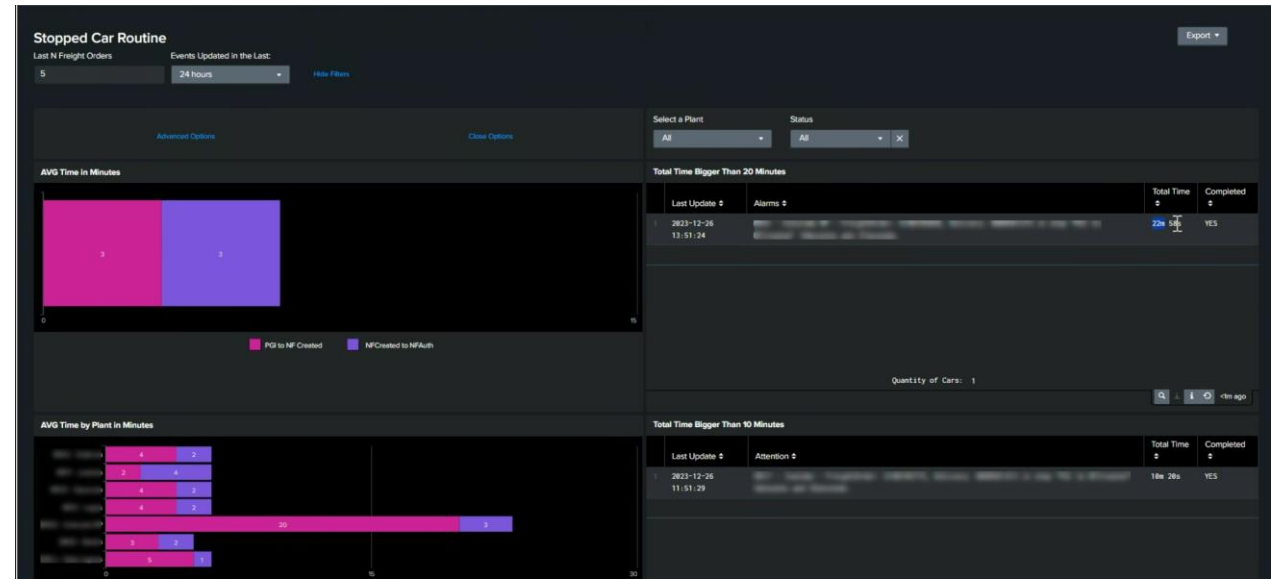
- No method to track end-to-end processing time
- No capability to track and alert on delays in delivery processing

Approach

- PowerConnect data used to extract message payload from PI/PO
- Message payload details used to map the end-to-end business process at a delivery level
- Provides better visibility to potential processing slowdowns, and trends per distribution center

On-Time Delivery Distribution

- Alerts sent to business and IT if deliveries didn't abide by SLAs
- Bottlenecks in the outbound delivery process identified based on processing times for individual steps



PowerConnect Case Study: Material Pricing Reconciliation

Industry: Retail

Problem Statement

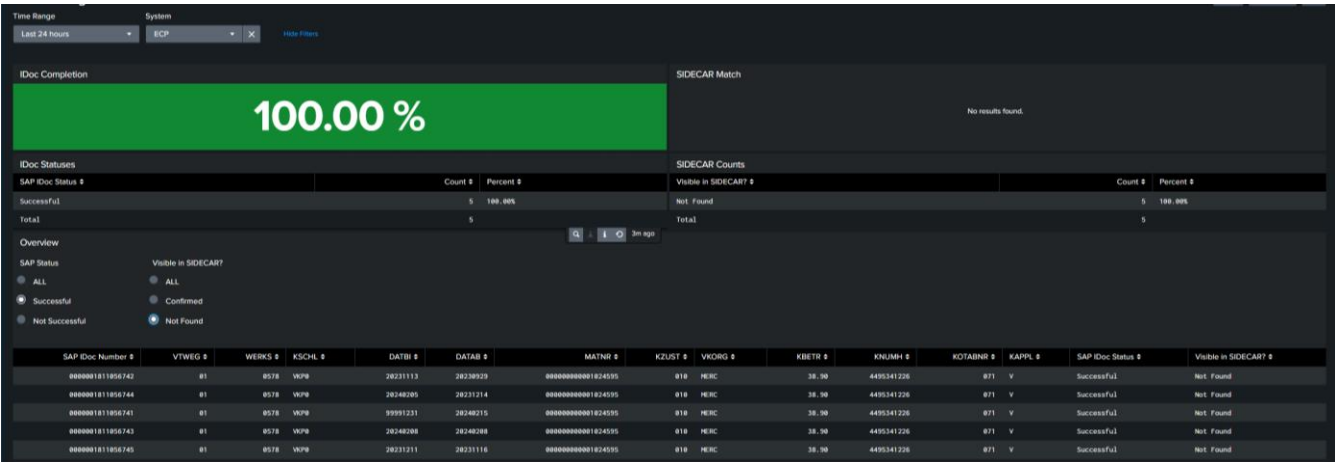
- Daily pricing updates transmitting the pricing updates from SAP to a SIDECAR database, and afterwards to the cash registers
- The customer had multiple failing points along the process and was unaware of where the pricing changes were getting lost

Approach

- Dashboard created to reconcile the prices transmitted by SAP via iDoc with the recipient system
- Proactive alerts created informing IT and business teams of reconciliation mismatches

Improved Material Pricing Accuracy

- Reconciliation of the transmission of prices between the SAP and non-SAP systems ensures that the price at the cash register is accurate for the retail customers
- Accurate pricing directly impacts gross profit margin for the business



North American Implementation Partner: RHONDOS



- First-line 24/7 P1 Support
- Certified Implementation Services
- On-Demand SAP Monitoring Experts



- Reduced SAP Monitoring Costs by **50%**
- Expedited Compliance Audits
- Enhanced SAP Security Posture
- Reduced MTTR & RCA by **70%**
- Eliminate **30%** of P1/P2 Tickets



splunk> 
Partnerverse

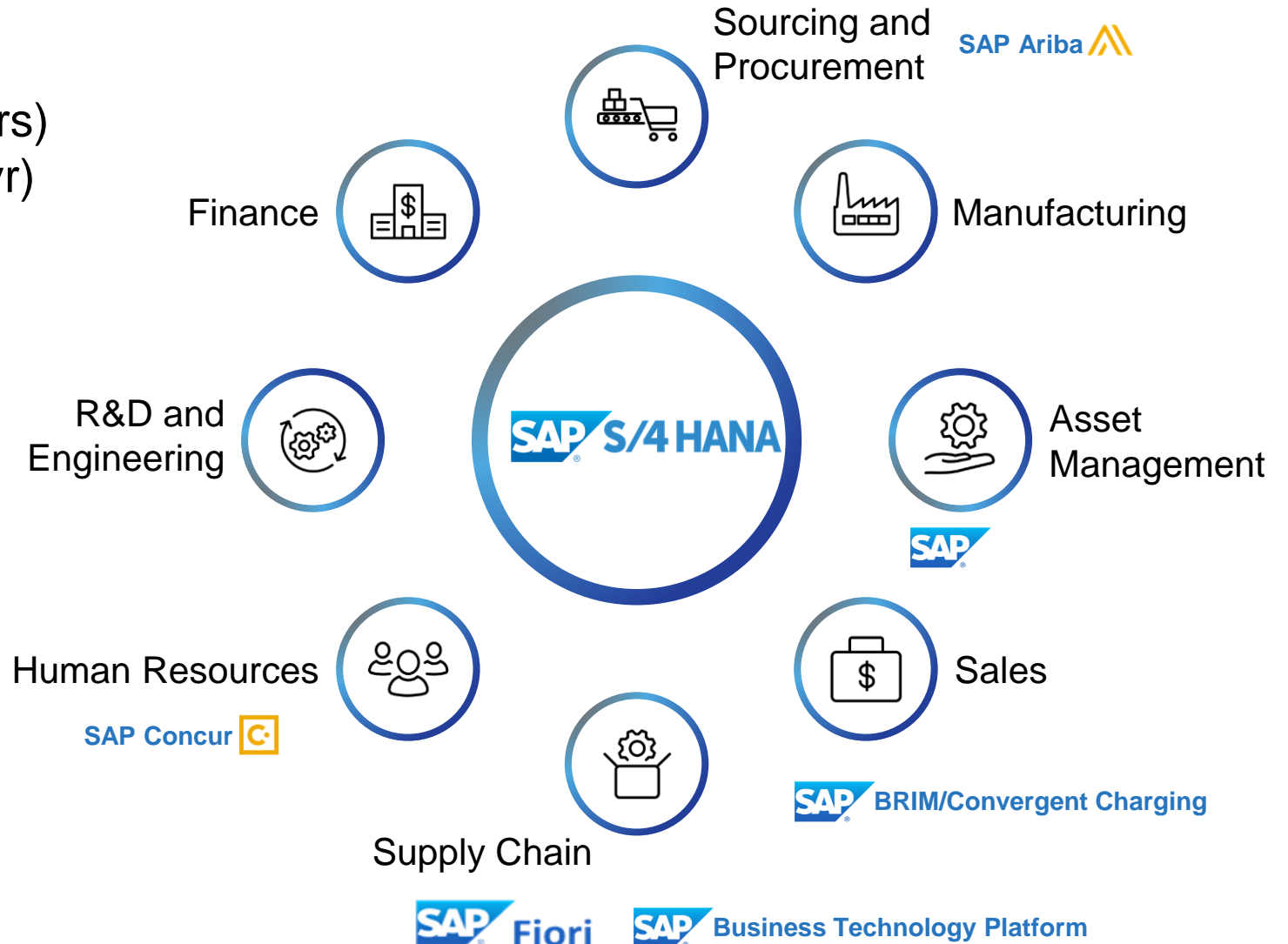
Splunk Runs SAP Globally

SAP

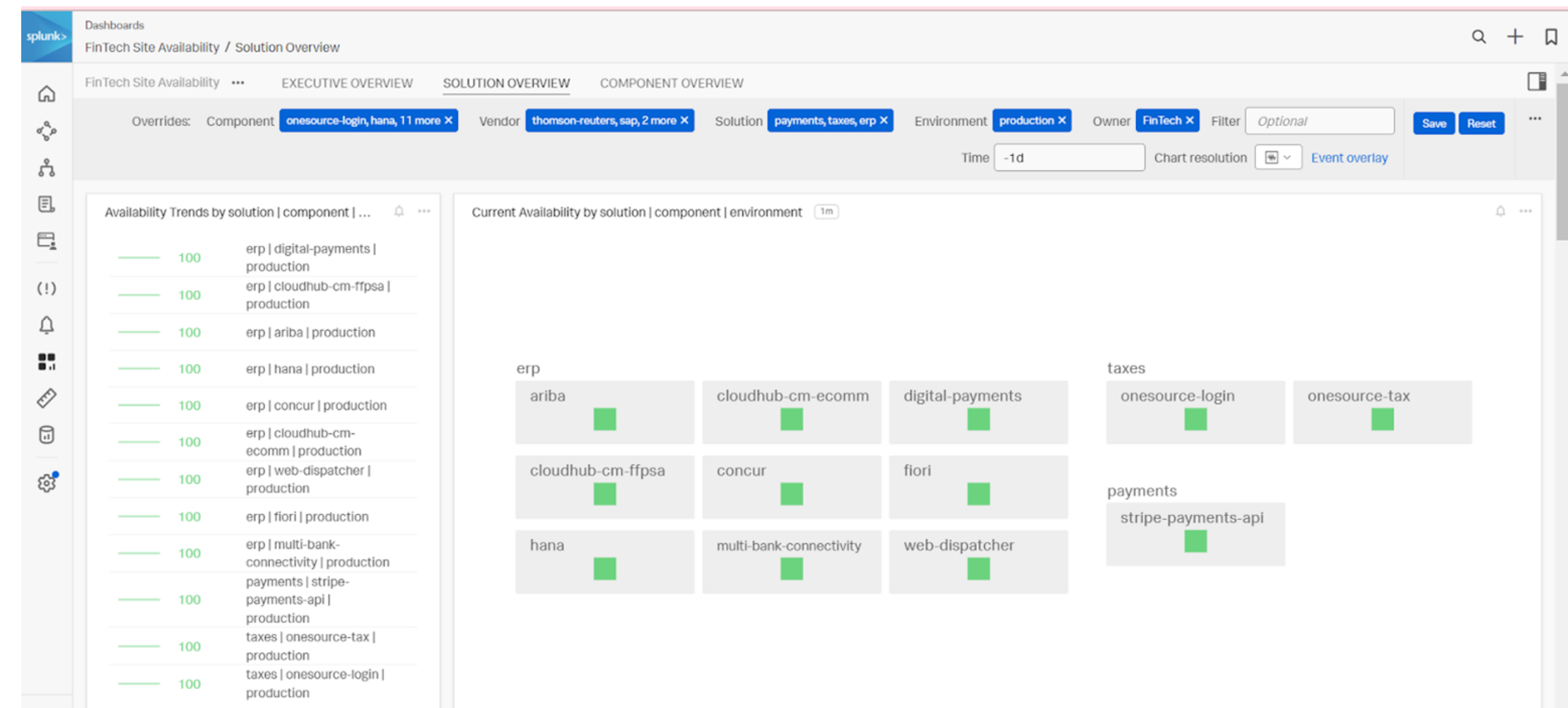
- SAP S/4HANA on GCP (300 Users)
Go Live in Feb 2021 (less than 1yr)
- SAP Ariba (1,500 Users)
- SAP Concur (8,000 users)
- SAP BRIM/Convergent Invoicing
- SAP GRC
- SAP Fiori
- SAP BTP

Non-SAP

- salesforce.com
- Workday
- Splunk



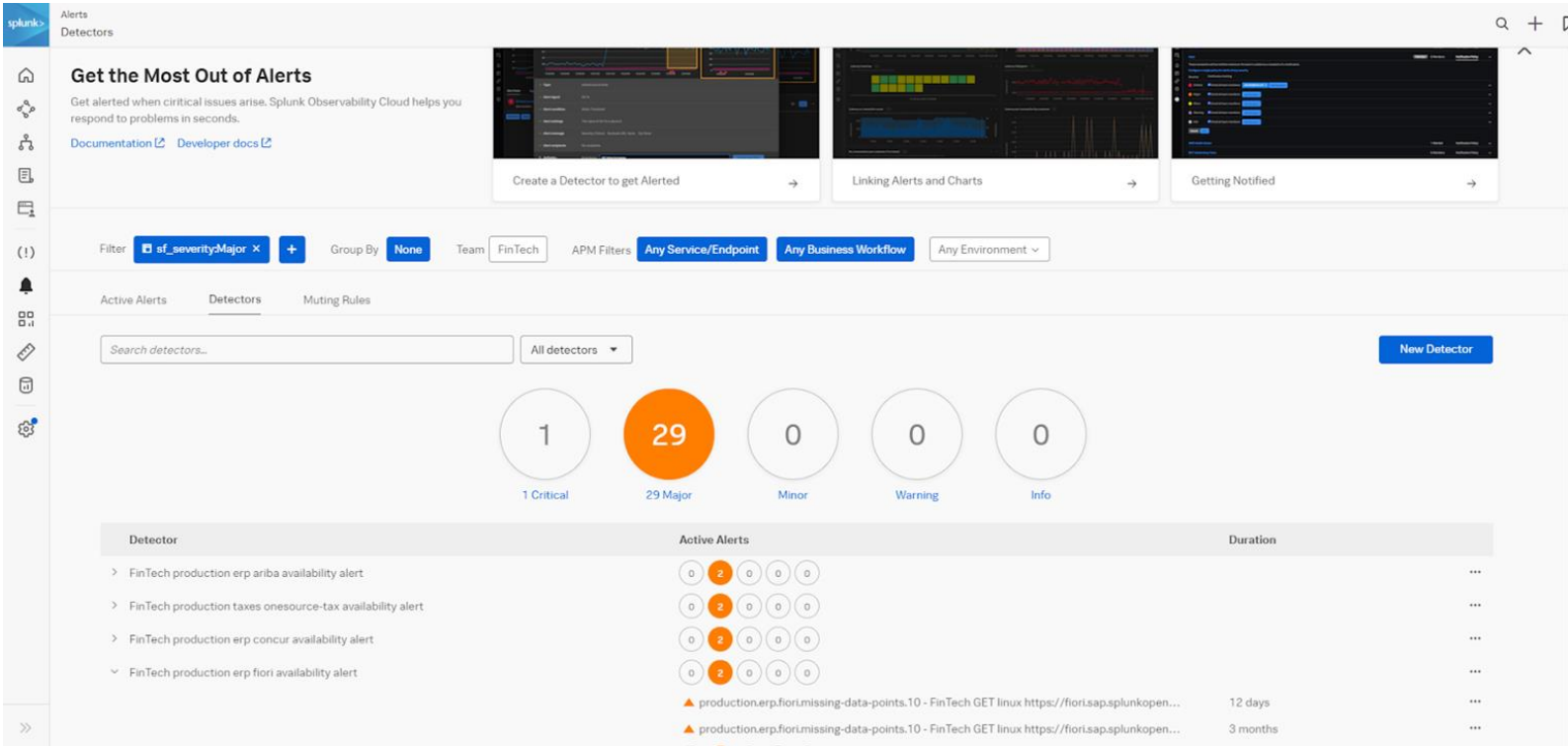
SAP & Integration Applications Monitoring in the Splunk Observability Platform – Availability Dashboard



SAP & Integration Applications Monitoring in the Splunk Observability Platform – Response Time Dashboard



SAP & Integration Applications Monitoring in the Splunk Observability Platform – Alerts/Detectors



“BRIM has standard credit card processing. When a customer has a recently expired credit card, their account goes on block. Customer Service takes 3-4 days to resolve. Splunk for S/4 alert looks at CC expiration events, to proactively decrease our turnaround from 4 days to 10 mins.”

SAP & Integration Applications Monitoring in the Splunk Observability Platform – Critical Alert Example

Triggered Critical Alert

production.erp.fiori.5.100

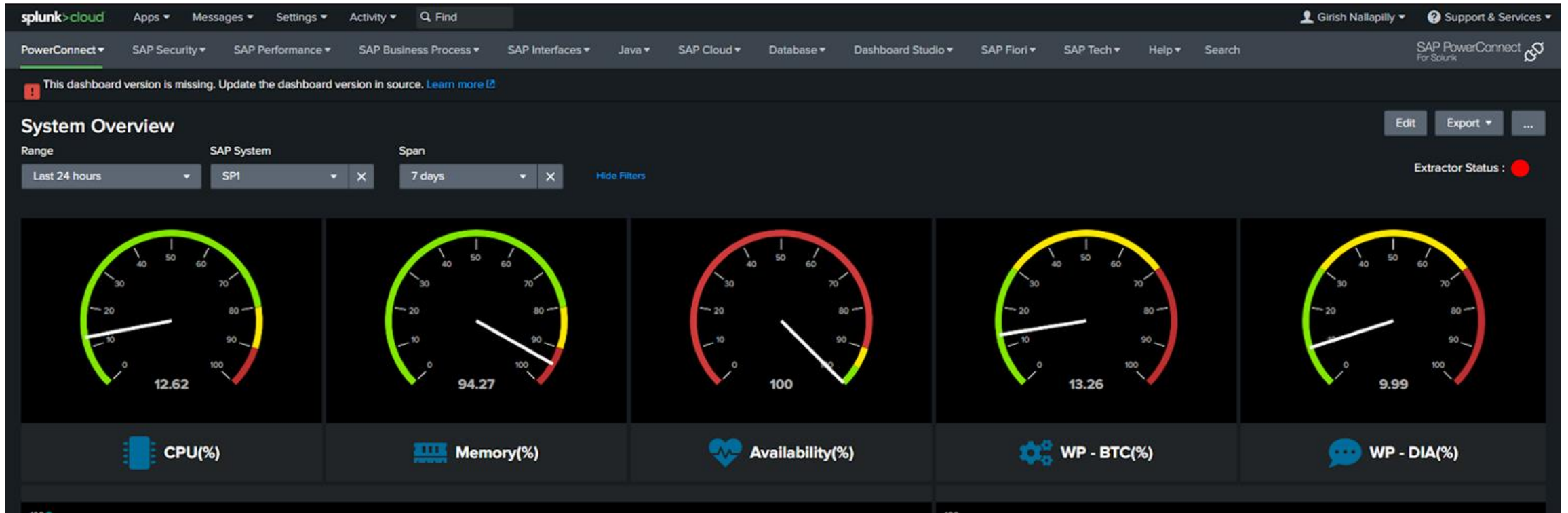
Alert Triggered 6 days ago, on 06/02/2022 at 12:46:00 PM (UTC -07:00)

Time 06/02/2022 06:46:00 am to 06/02/2022 06:46:00 pm



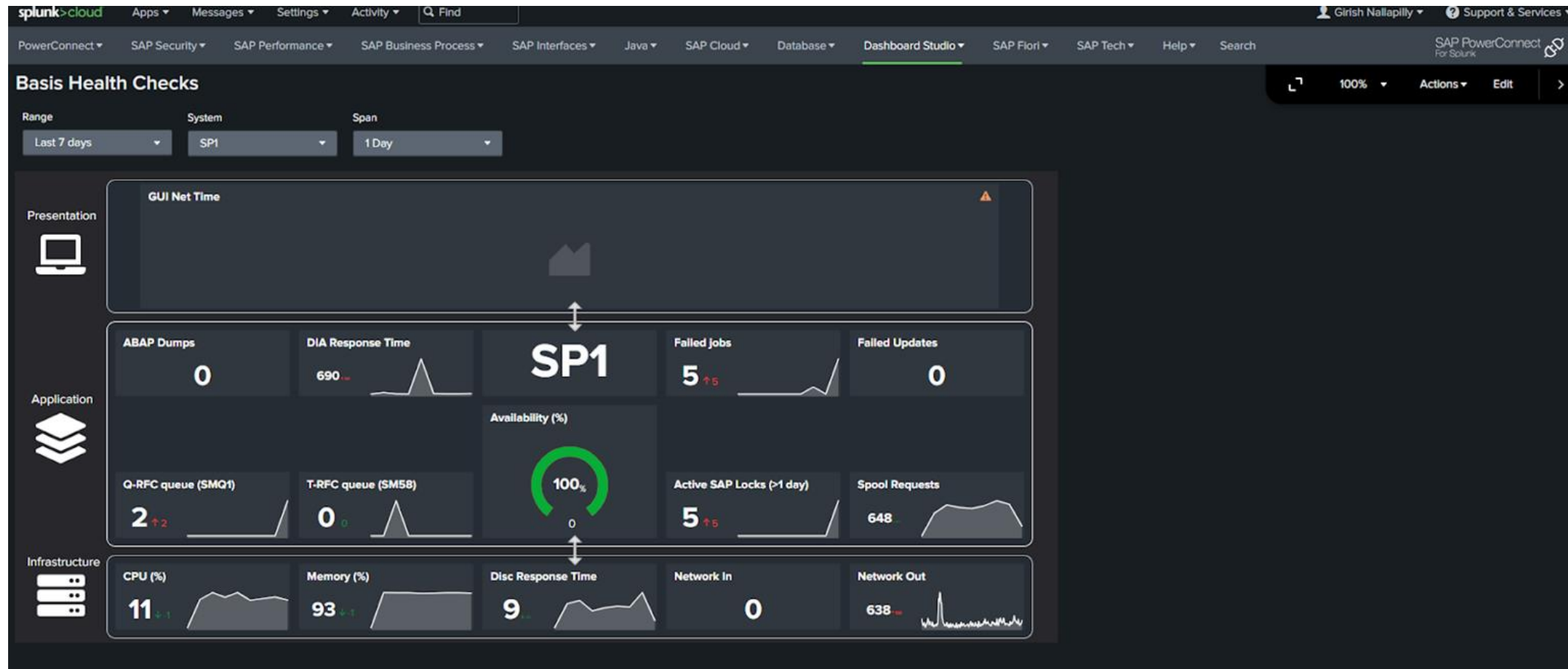
“We had an issue a few months back with GCP, our Fiori RFCs were not working and we needed to restart Fiori server. Splunk Alert Monitoring enabled us to resolve in 10 mins, versus 4 hrs in the past.”

PowerConnect For Splunk – SAP System Overview



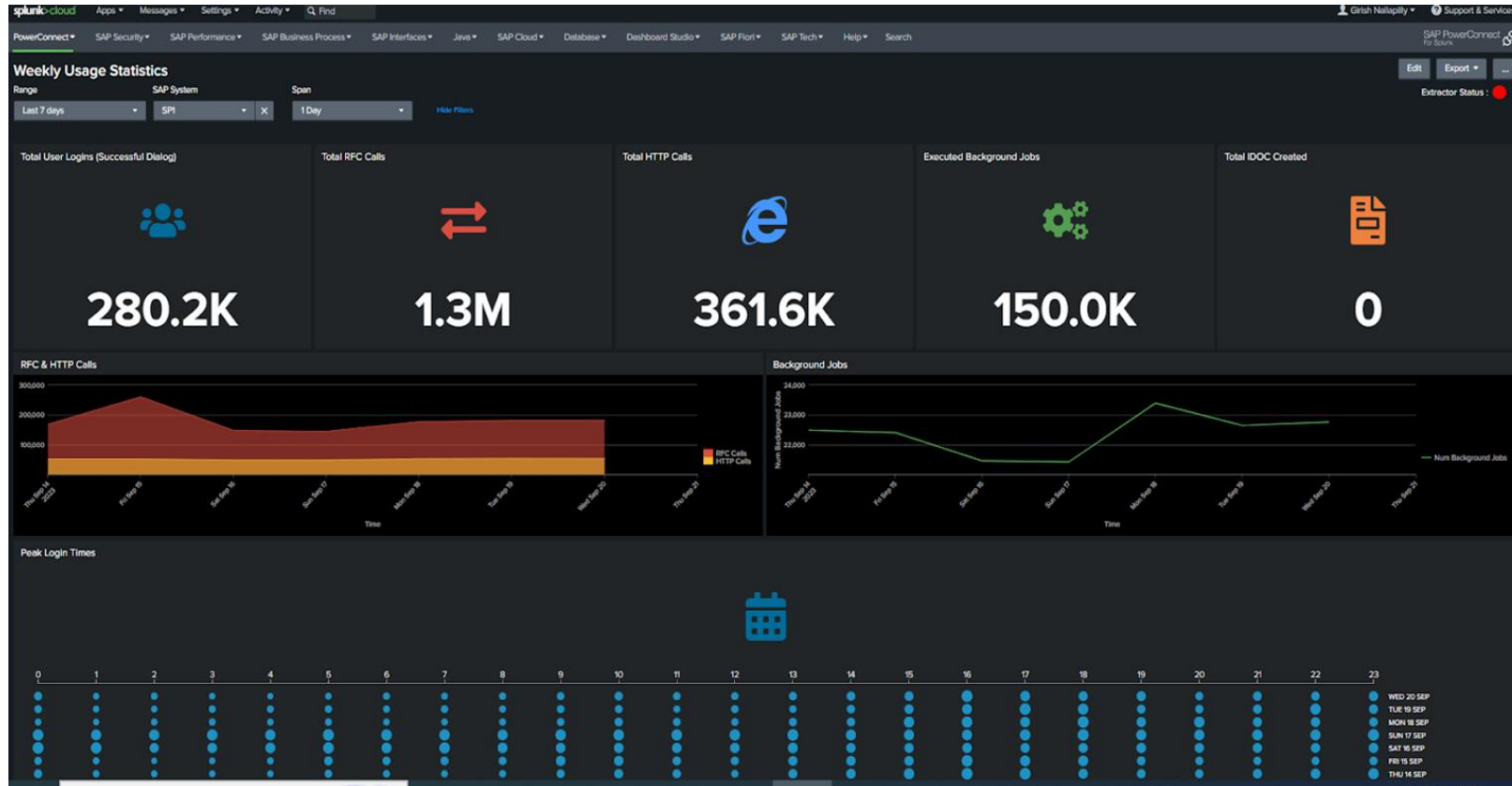
Provides an overview on real-time System Availability, Background and Dialog work processes load and CPU and Memory Consumption.

PowerConnect For Splunk – Health Checks



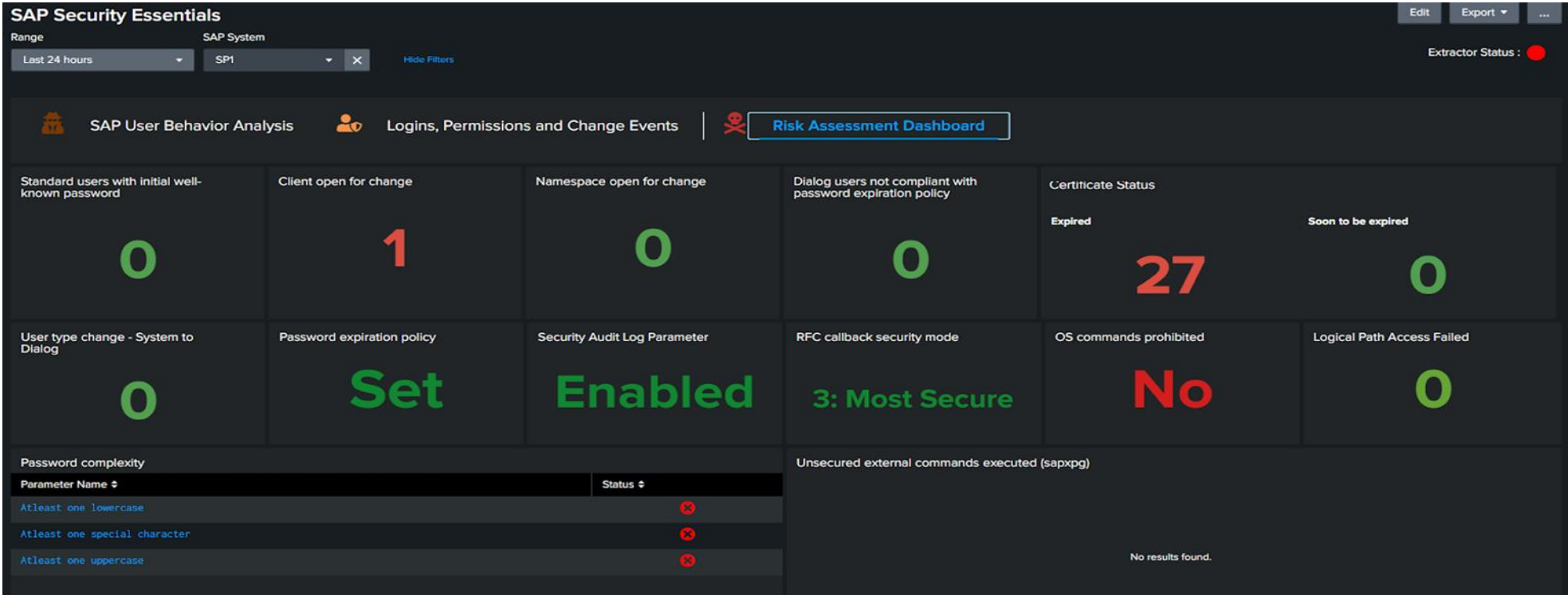
Provides an overview on some of the most important benchmarks like CPU and Memory Usage, ABAP Dumps , Dialog Response time and failed jobs etc.

PowerConnect For Splunk – Weekly Usage



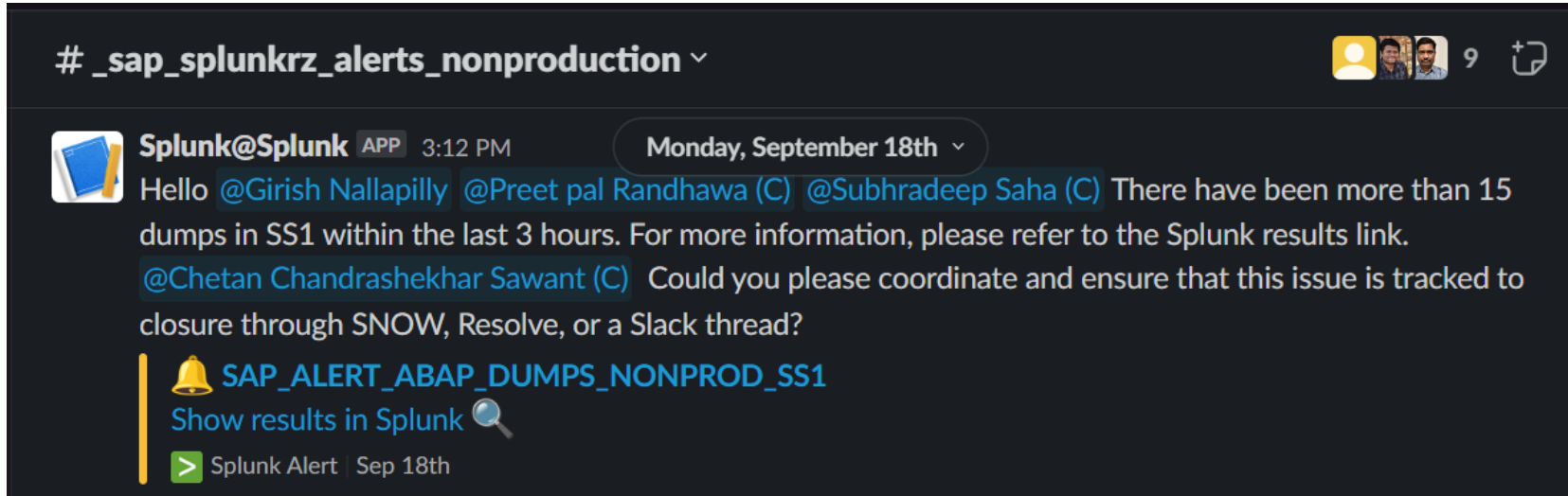
Weekly Total User Logins , RFC and HTTP calls made , Number of background jobs executed and total number of iDocs created can be monitored on a weekly basis.

PowerConnect For Splunk – Security Essentials



Security dashboard for IT General controls which can help in monitoring the access to the SAP system and staying in compliance within the organization policies.

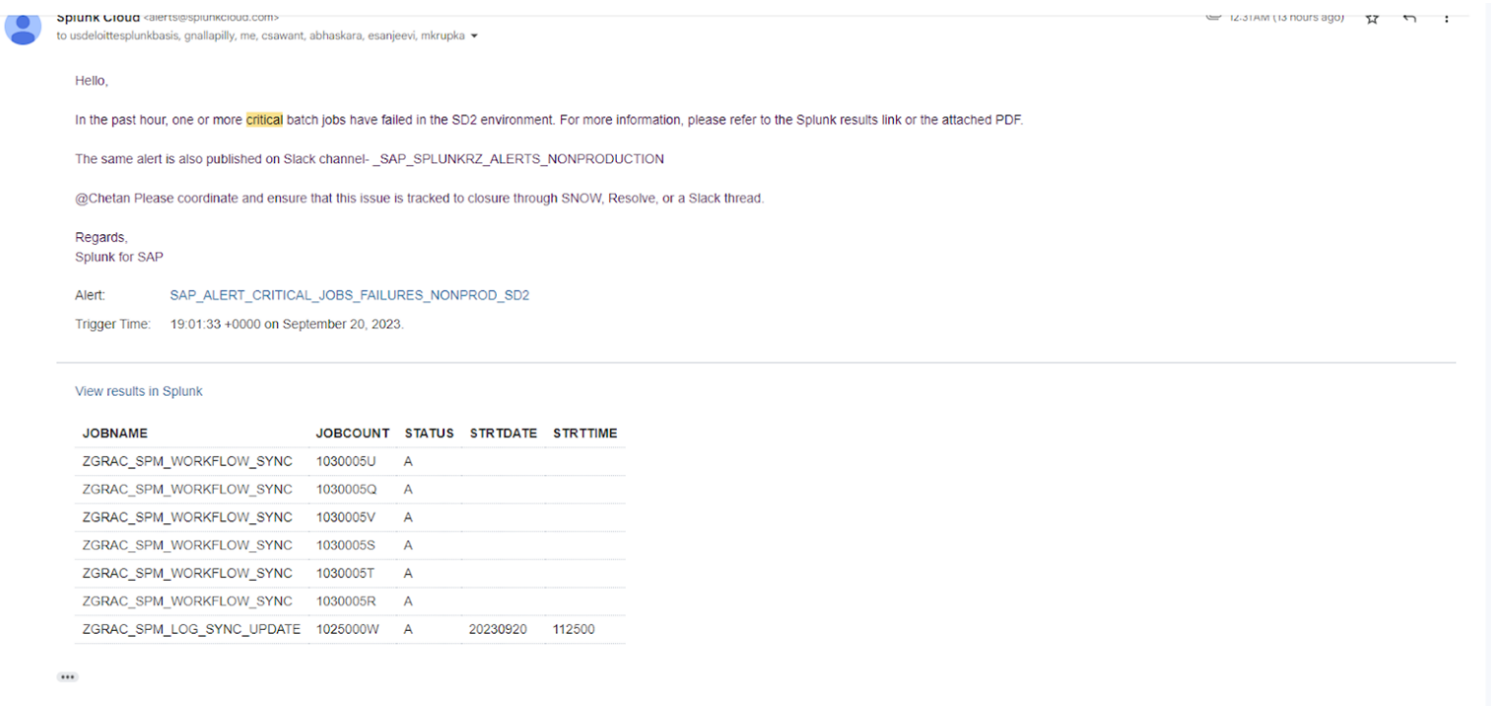
Splunk Integration With Slack – System Alerts



Provides detailed information on audit logs Automated Slack and Email Alerts can be easily configured to be triggered at regular intervals and based on various trigger conditions, for example:

- **ABAP Short Dumps** - Splunk query can be configured to run every 3 hours and trigger alerts if the number of dumps are more than the set threshold.
- **Critical Batch Job Failure** - Splunk query running every 1 hour on the target system data to check if any critical batch job had failed and raise alert.
- **RFC Connection Failure** - Splunk query configured to keep on pinging RFC destinations every minute and raise an alert if any RFC destination fails.

Splunk Integration With Email – System Alerts



Splunk Cloud <alerts@splunkcloud.com>
to usdeloitteplunkbasis, gnallapilly, me, csawant, abhaskara, esanjeevi, mkrupka ▾

12:31 AM (13 hours ago) 📄 📧 ⌵

Hello,

In the past hour, one or more **critical** batch jobs have failed in the SD2 environment. For more information, please refer to the Splunk results link or the attached PDF.

The same alert is also published on Slack channel- `_SAP_SPLUNKRZ_ALERTS_NONPRODUCTION`

@Chetan Please coordinate and ensure that this issue is tracked to closure through SNOW, Resolve, or a Slack thread.

Regards,
Splunk for SAP

Alert: [SAP_ALERT_CRITICAL_JOBS_FAILURES_NONPROD_SD2](#)

Trigger Time: 19:01:33 +0000 on September 20, 2023.

[View results in Splunk](#)

JOBNAME	JOBCOUNT	STATUS	STRTDATE	STRTTIME
ZGRAC_SPM_WORKFLOW_SYNC	1030005U	A		
ZGRAC_SPM_WORKFLOW_SYNC	1030005Q	A		
ZGRAC_SPM_WORKFLOW_SYNC	1030005V	A		
ZGRAC_SPM_WORKFLOW_SYNC	1030005S	A		
ZGRAC_SPM_WORKFLOW_SYNC	1030005T	A		
ZGRAC_SPM_WORKFLOW_SYNC	1030005R	A		
ZGRAC_SPM_LOG_SYNC_UPDATE	1025000W	A	20230920	112500

PowerConnect for Splunk gives flexibility to add custom text for alert messages and can notify a configurable set of users. Here in the above example of alert for critical batch job failures in the SAP system, the email has the list of failed batch jobs which can then be easily tracked.

Key Points to Take Home

- Data siloes within the SAP application and across the broader IT ecosystem can impact business stability
- Monitoring tools needs to span outside of just the SAP environment
- PowerConnect and Splunk provides value across performance, security, business process, and cloud migration use cases for SAP
- Skilled service providers like RHONDOS are available to ensure solution adoption and customer success
- Splunk's use of its own platform with SAP data improved the security and performance of their SAP applications

Where to Find More Information

How Do You Improve
Visibility Into Your SAP
Landscape?



Proactively Monitor
SAP Systems in
the Cloud



Technology
Governing
Technology



Additional Product Information Available at www.powerconnect.io

Thank you! Any Questions?

Keith Hontz

Email: khontz@splunk.com

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Stephen Bangs

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