

 AppDynamics for SAP

Critical Applications Require Flawless Performance





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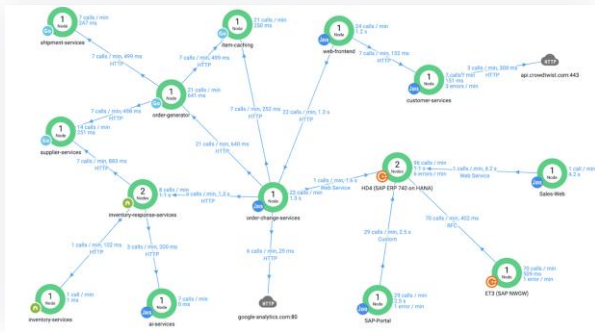
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Agenda

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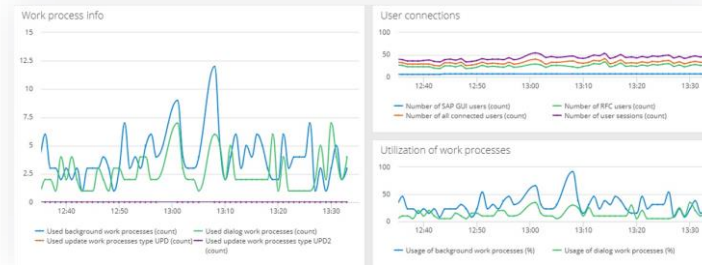
SAP Monitoring with AppDynamics

Visibility to SAP Transactions



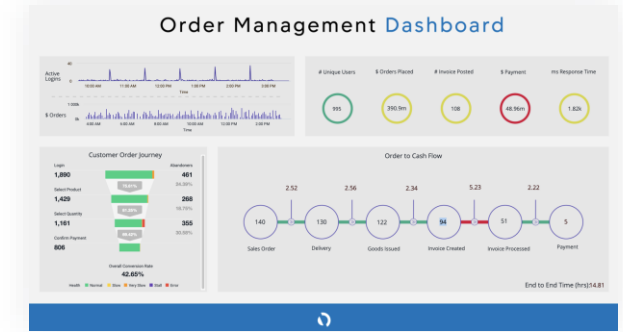
- Auto-generate, real-time Flow Maps
- View SAP and non-SAP components in a single view
- Easily Visualize Bottlenecks
- ...and more

NetWeaver & HANA Insights



- Out of the box dashboards for HANA
- Background Jobs, Database, RFC, Lock Statistics
- Right-size server deployments and overall capacity needs
- ...and more

Business Outcomes via BiQ



- Business Transactions provide end-to-end application context
- Metrics relevant for key business scenarios
- Proactive alerts on business metrics
- ...and more

AppD Container & Cloud Observability

AppDynamics for SAP

Extending our leading APM to SAP applications



Visibility

- Flow Maps of real-time, detailed view of every SAP and non-sap component
- Business Transactions provide end-to-end application context
- Dashboards show health of SAP components including databases (Relational or HANA)
- Easily Visualize Bottlenecks



Troubleshooting

- Monitor and diagnose ABAP code and database performance
- Establish Dynamic Baselines for every metric
- Capture transaction snapshots when performance deviates
- Monitor and diagnose SAPGUI application performance
- Have RCA before user complains

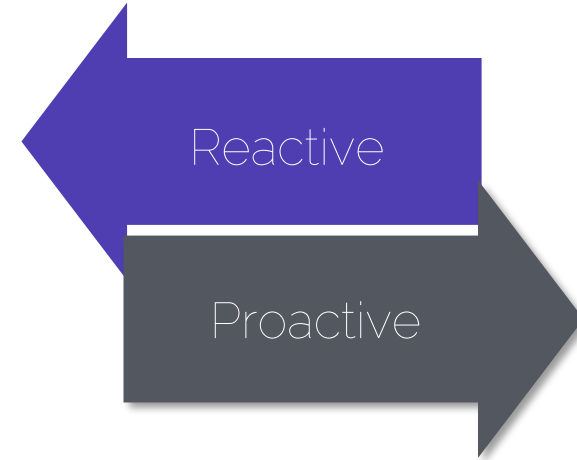
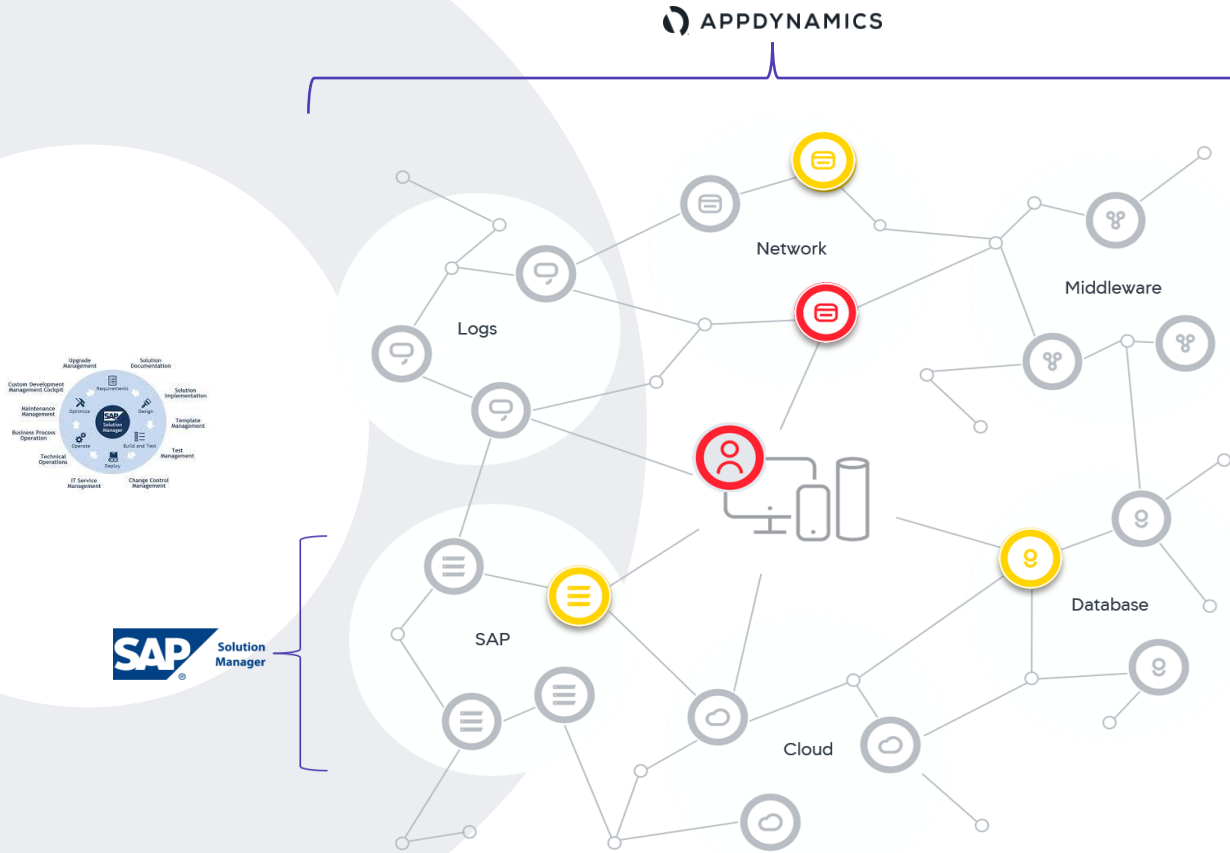


Health Rules and Alerts

- Automatically set for key performance metrics
- Configurable to suit any business need
- Intelligent alerting policies avoid alert storms
- Ties into ITSMs (ServiceNow, PagerDuty, JIRA, etc)

A few words about Solution Manager...

Complementary, not Competitive



- Manual thresholds and alerts
- No visibility into external systems
- Reactive traces to find ABAP issues

AppDynamics Insights



Reliable Monitoring



Fast Issue Resolution



Issue Prevention

- Focus on the overall health of the SAP system
- SAP System Monitoring
- SAP HANA safeguarding
- End to end business visibility with Insights + BiQ
- User and system security monitoring
- Fast and easy to implement
- More than 25 insightful, out of the box dashboards

AppDynamics Insights Capabilities

General Dashboards

- Application server status
- Background Jobs Details
- BW Process Chains
- BW Query Performance
- SAP Database
- Dialog Work Process Details
- Housekeeping
- ICM Monitoring
- IDoc Monitoring
- Lock Statistics
- Logs and Errors
- RFC Monitoring
- SAP connect
- System Changes
- Work processes and users
- SAP Cloud Connector
- SAP Security Insights



HANA Dashboards

- HANA Alerts
- HANA Backups
- HANA CPU, disk and network
- HANA High availability
- HANA Memory
- HANA Savepoints
- HANA SQL statements
- HANA Transactions

PI Dashboards

- PI Communication Channel
- PI Messages

Web Dispatcher Dashboards

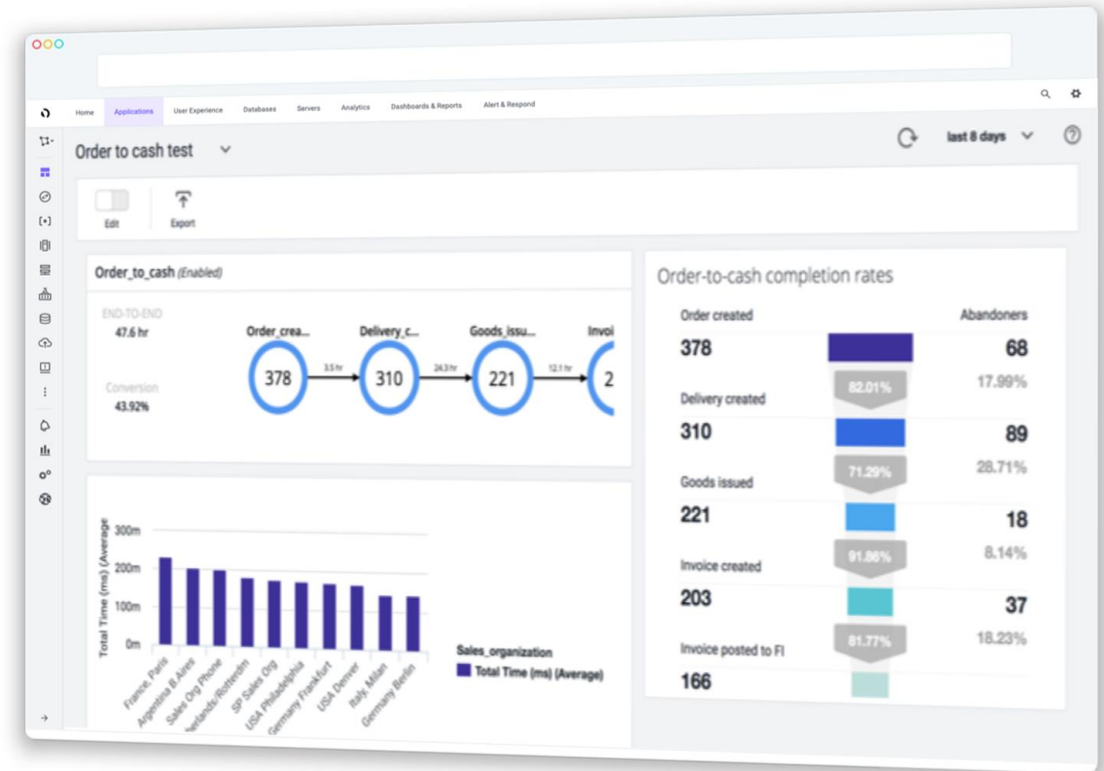
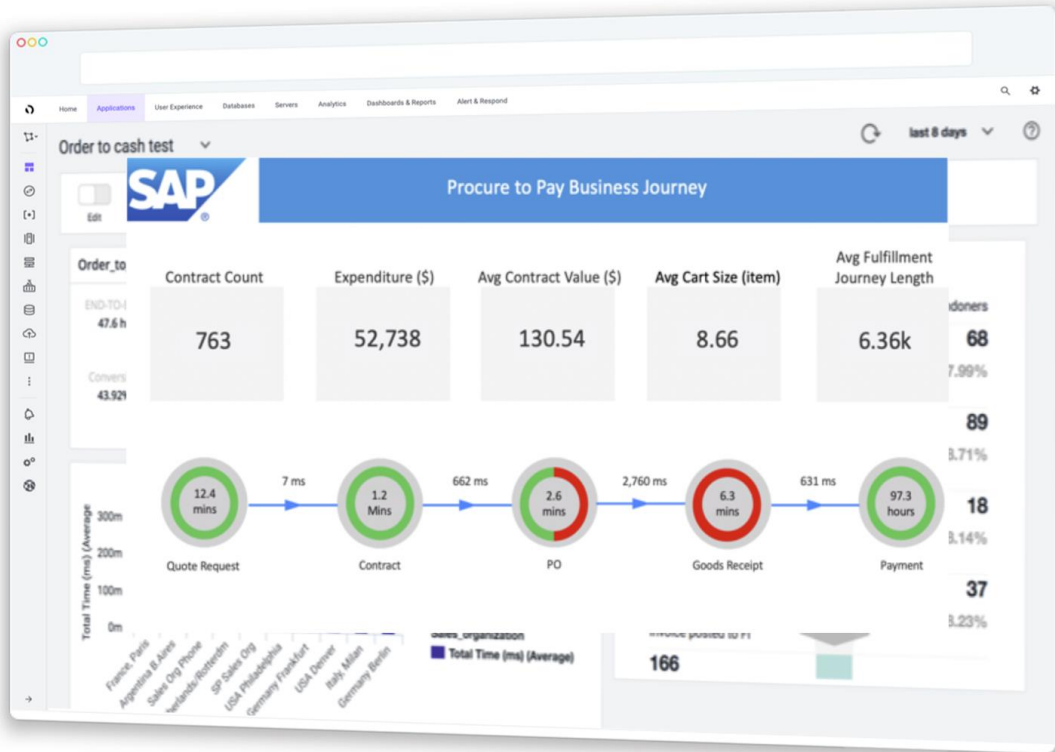
- Web Dispatcher Status



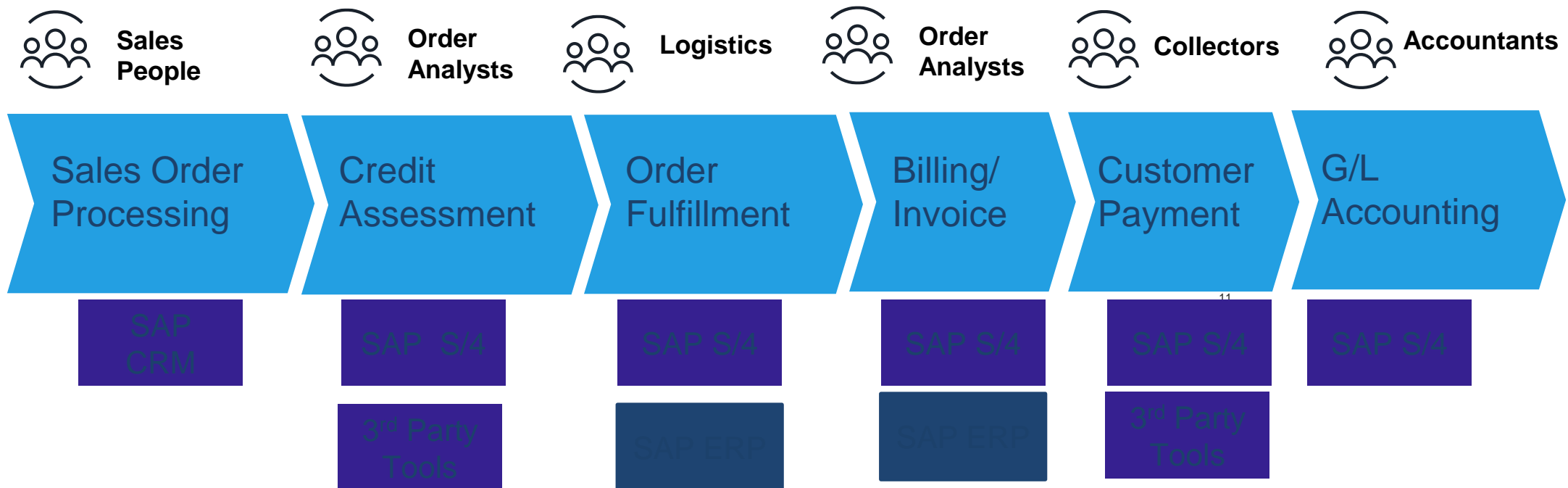
Business Intelligence for SAP

Order to Cash

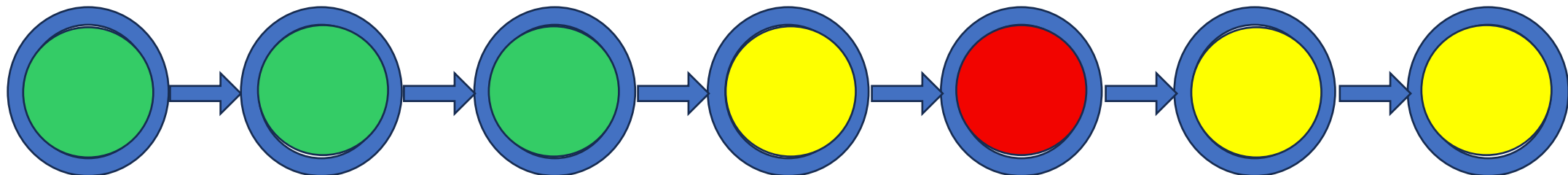
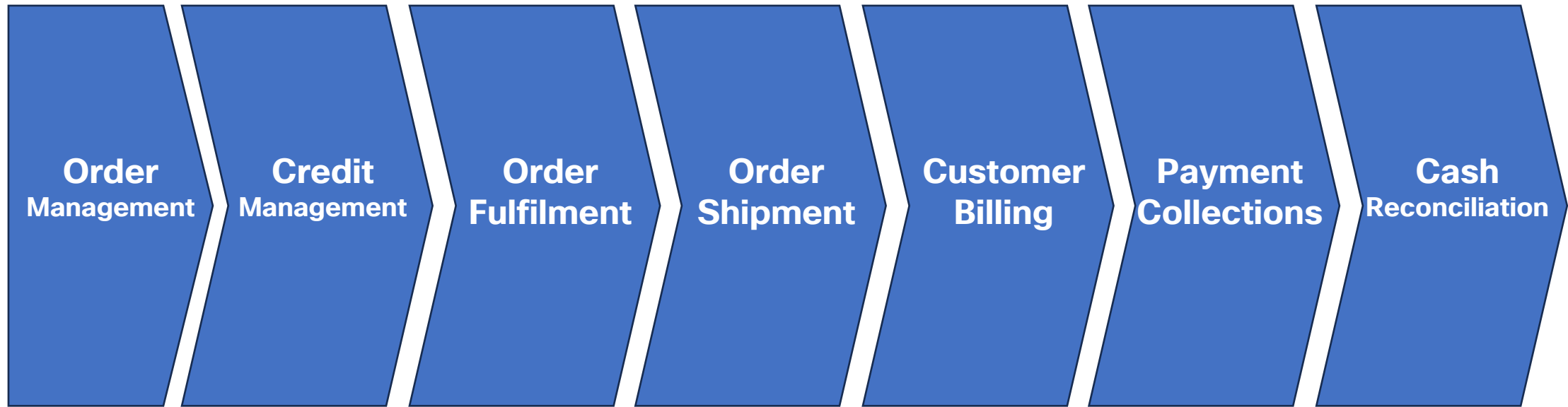
Procure to Pay



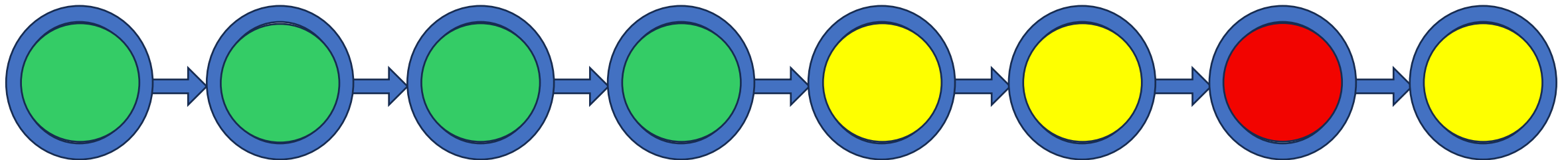
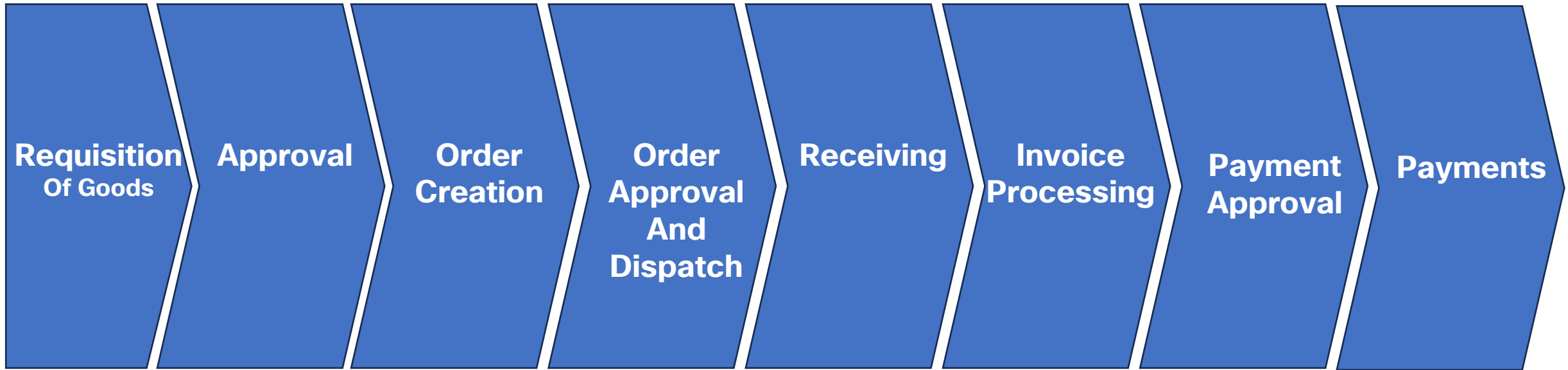
SAP People Work the O2C Process



Execution efficiency example: a repeated
BUSINESS PROCESS
occurs when selling goods, namely the
ORDER TO CASH process



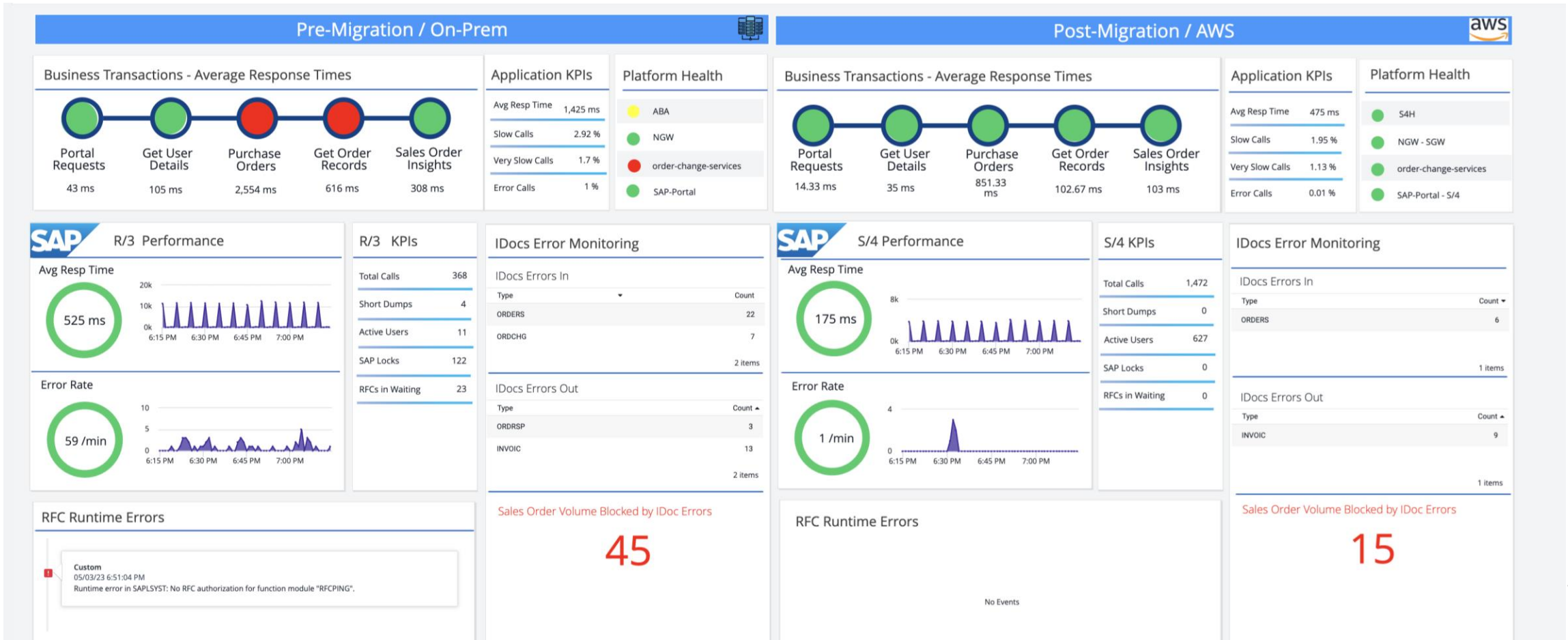
Execution efficiency example: a repeated **BUSINESS PROCESS** occurs when purchasing materials, namely the **PROCURE TO PAY** process





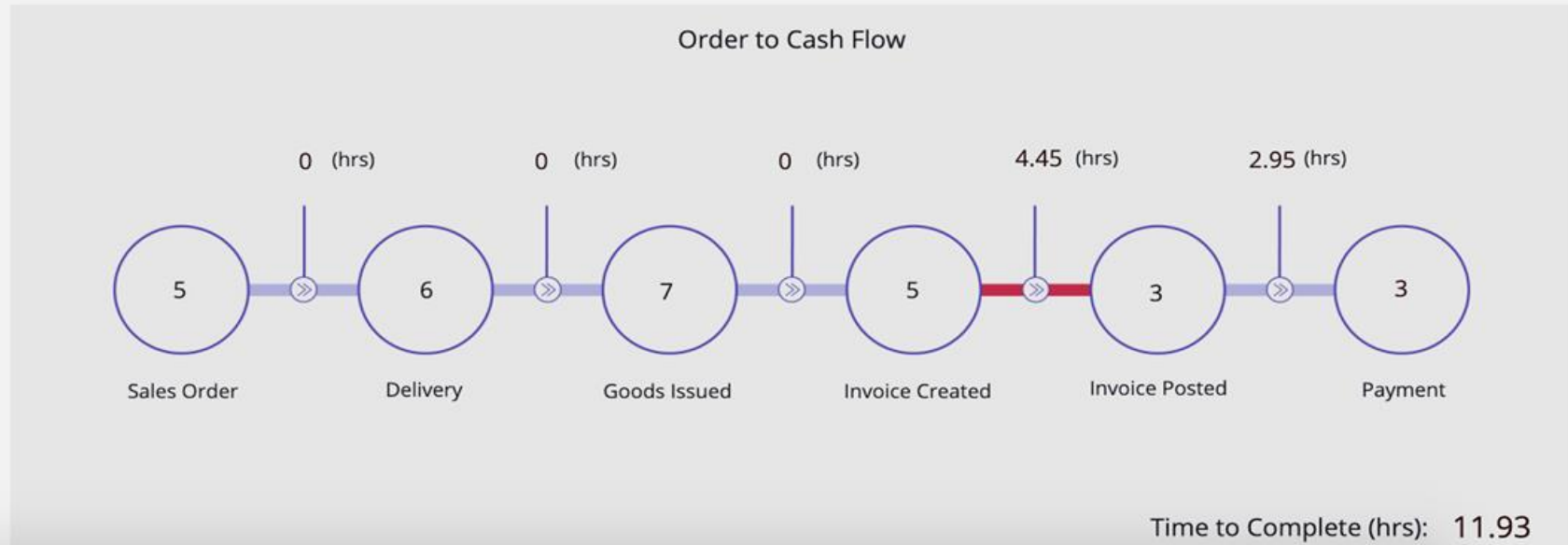
Two-up view shows O2C process with migration impact

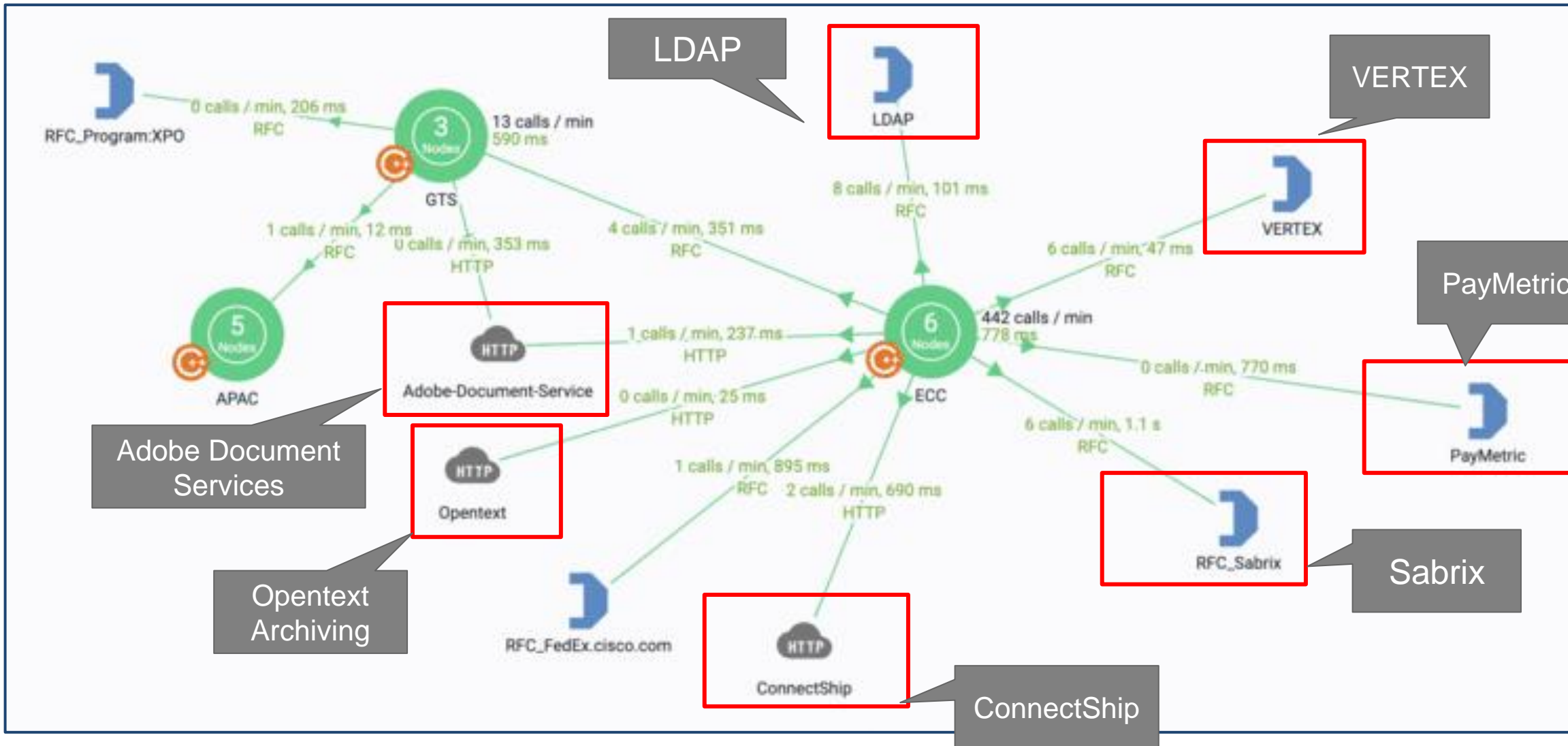
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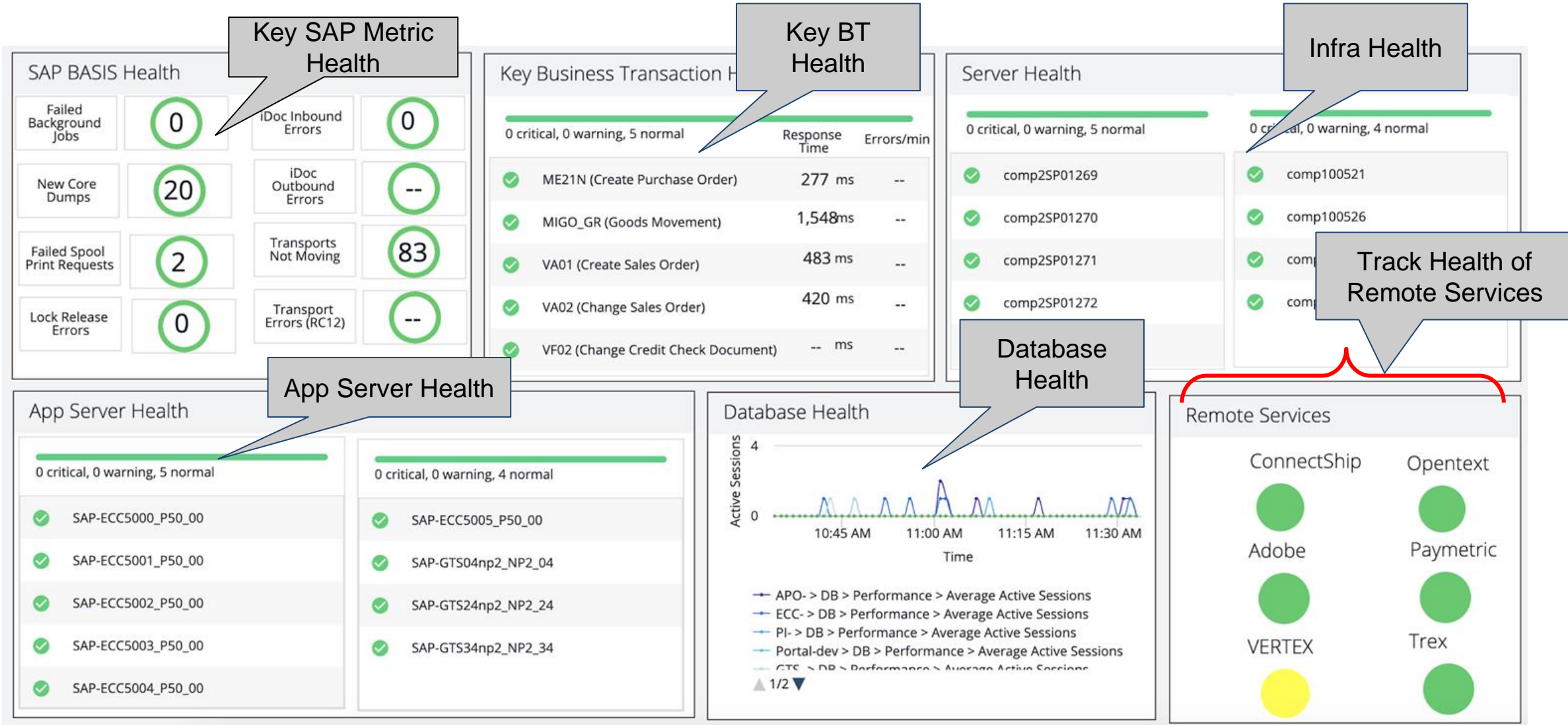
BiQ for SAP

Order Management Dashboard





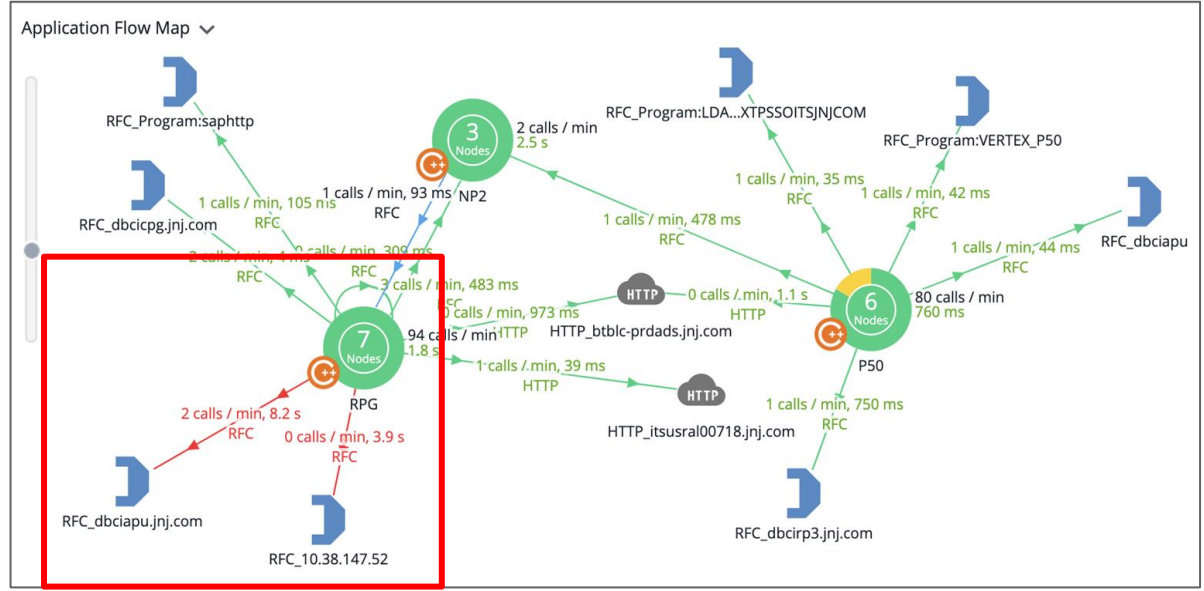
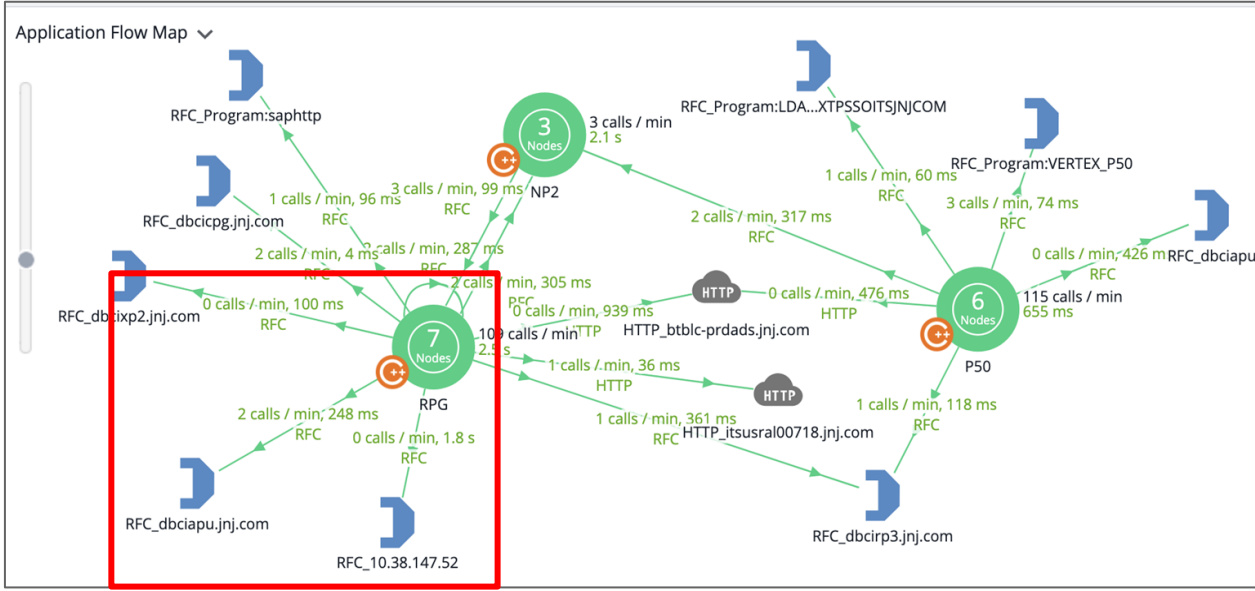
Unified Monitoring



What's Abnormal?

06/10/19 5:50 AM - 06/10/19 7:50 AM

06/17/19 5:50 AM - 06/17/19 7:50 AM



Normal Vs Abnormal Behavior

Transaction: b5810d38-4dda-4b22-ad1d-f712ad5d8a15



Overview Slow Calls and Errors Waterfall View Segment List Data Collectors

Actions

Summary

Legend

User Experience: Very Slow

Execution Time 5.6 s

End to End Latency Time 5.6 s

Timestamp 10/09/23 10:30:36 AM

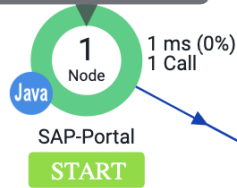
Business Transaction Process Portal Request.ZAPPD_GET_SO_DOCU

More Details

Potential Issues

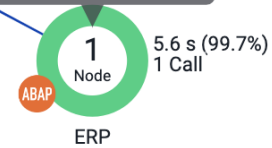
com.appdynamics.apm.appagent.api.AgentDelegate\$AgentDelegateSDKProxy.invoke	5.6 s
RFC	5.6 s
Open SQL.Table: VBAK	5.5 s
Function Group: /DVD/APPD_RFC.Function Module: /DVD/APPD_RFC_END	14 ms
root.root	10 ms

Drill Down



14 ms (0.3%) Custom

Drill Down



Transaction: b5810d38-4dda-4b22-ad1d-f712ad5d8a15

5,565 ms - ERP

- Overview
- Call Graph**
- Slow Calls & Errors
- DB & Remote Service Calls
- Server
- Network
- More

Actions

Execution Time 5.6 s Node SAP-ERP_linux-c8m5_ERP_00 Timestamp 10/09/23 10:30:36 AM

- Details
- Filters
- Set Root**
- Reset Root
- Export

Search input field

Showing 6 of 6

Name	Time (ms)	Percent %	Exit Calls / Threads *
root	10 ms (self)	0.2%	
Runtime Analysis CL_ATRA_TRACE=====CP [CL_ATRA_TRACE=====CM00C]:46	0 ms (self)	0%	
Call Function ZAPPD_GET_SO_DOCUMENT_DETAILS [LZAPPD_DEMO_ORDER_HANDLINGU03]:1	0 ms (self)	0%	
Open SQL VBAK [LZAPPD_DEMO_ORDER_HANDLINGU03]:19	0 ms (self)	0%	
Fetch VBAK [LZAPPD_DEMO_ORDER_HANDLINGU03]:19	5,541 ms (self)	99.6%	
Call Function /DVD/APPD_RFC_END [/DVD/LAPPD_RFCU02]:1	14 ms (self)	0.3%	

Transaction: b5810d38-4dda-4b22-ad1d-f712ad5d8a15

5,565 ms - ERP

Link, Close, and Refresh icons

Overview Call Graph Slow Calls & Errors DB & Remote Service Calls Server Network More

Actions

Overview Processes Volumes Network

linux-c8m5 Host Id

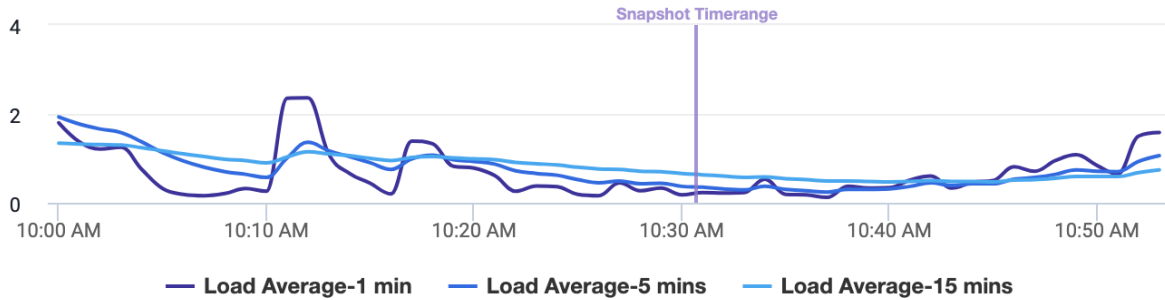
Health

Hierarchy

APM Correlation Link to Node Dashboard

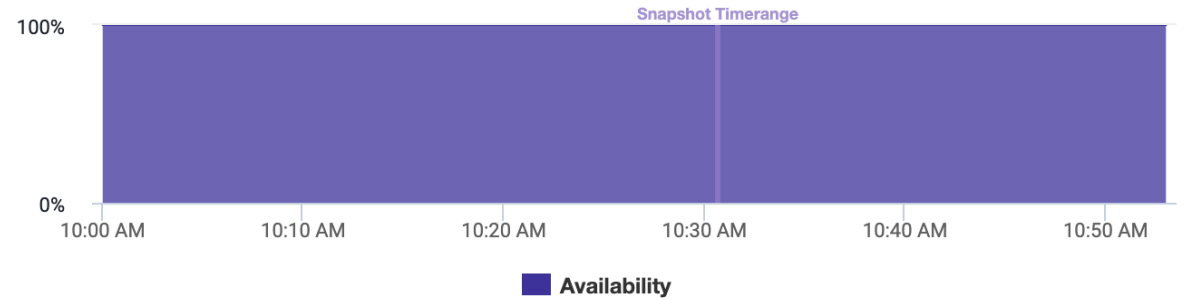
Load Average

0.66 Load Average-1 min 0.74 Load Average-5 mins 0.81 Load Average-15 mins



Availability

100.0%



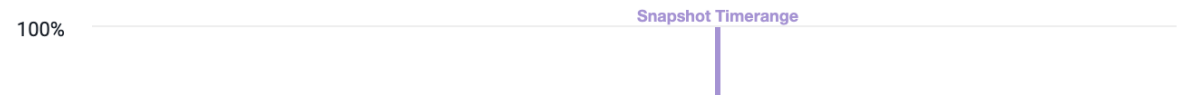
CPU

4 Logical Cores 15.9% Usage 0% Steal 4.4% System



Memory

15.7 GB Installed 27.0% Usage 0% Swap Usage



Transaction: b5810d38-4dda-4b22-ad1d-f712ad5d8a15



Overview Slow Calls and Errors Waterfall View Segment List **Data Collectors**

Actions ▾

Drill Down Filters Find Snapshots Actions

Showing 11 of 11

Name ↑	Value	Tier	Node
... DB read records	187219	ERP	SAP-ERP_linux-c8m5_ERP_00
... DB read time (ms)	5443	ERP	SAP-ERP_linux-c8m5_ERP_00
... DB total time (ms)	5443	ERP	SAP-ERP_linux-c8m5_ERP_00
... RFC function module	[ZAPPD_GET_SO_DOCUMENT_DETAILS]	SAP-Portal	linux-121s.suse
... RFC user	[JCO_PROVIDER]	SAP-Portal	linux-121s.suse
... SAP Client	800	ERP	SAP-ERP_linux-c8m5_ERP_00
... SAP Transaction ID	4531CA4168140070E006520112B639FF	ERP	SAP-ERP_linux-c8m5_ERP_00
... SAP User ID	JCO_PROVIDER	ERP	SAP-ERP_linux-c8m5_ERP_00
... Top ABAP statement 1	5541 ms -Fetch VBAK (LZAPPD_DEMO_ORDER_HANDLINGU03:19)	ERP	SAP-ERP_linux-c8m5_ERP_00
... Top SQL statement 1	4421 ms: SELECT /* FDA READ */ "VBAP" . "MANDT" , "VBAP" . "VBELN" , "VBAP" . "SPART" , "VBAP" . "GSBER" , "VBAP" . "...	ERP	SAP-ERP_linux-c8m5_ERP_00
... Workprocess number	7	ERP	SAP-ERP_linux-c8m5_ERP_00

AppDynamics for S/4 HANA/Cloud Migration



BUSINESS TRANSACTIONS

- Auto Discovery
- Proactive Alerts
- User Experience



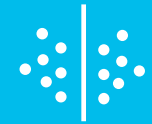
UNIFIED MONITORING

- Single Source of Truth
- Java, .Net, ABAP, etc.
- Stop Blame Game



FASTER MTTR

- Fix Issues Faster
- Rapid RCA and MTTI
- Meet Deadlines

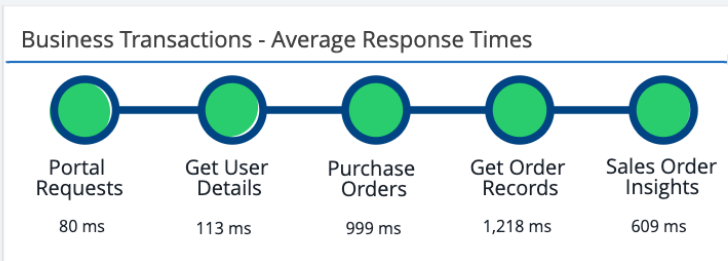


PRE & POST COMPARISON

- Reduce Risk!
- Deal In Facts!
- Prove Success!

Migration Dashboard

Pre-Migration / On-Prem



Application KPIs

Avg Resp Time	1,085 ms
Slow Calls	58.51 %
Very Slow Calls	23.65 %
Error Calls	1 %

Platform Health

- ABA
- NGW
- order-change-services
- SAP-Portal

Post-Migration / AWS

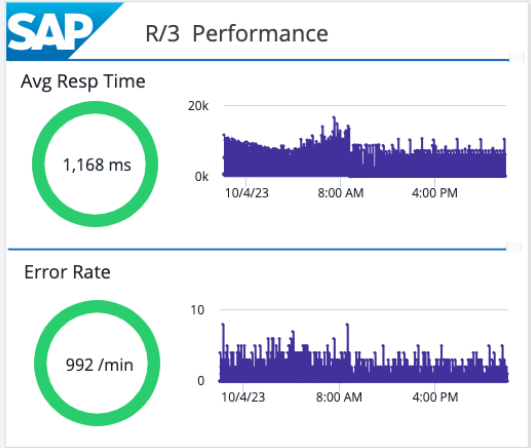


Application KPIs

Avg Resp Time	361.67 ms
Slow Calls	39.01 %
Very Slow Calls	15.77 %
Error Calls	0.01 %

Platform Health

- S4H
- NGW - SGW
- order-change-services
- SAP-Portal - S/4



R/3 KPIs

Total Calls	254
Short Dumps	28,437
Active Users	13
SAP Locks	141
RFCs in Waiting	23

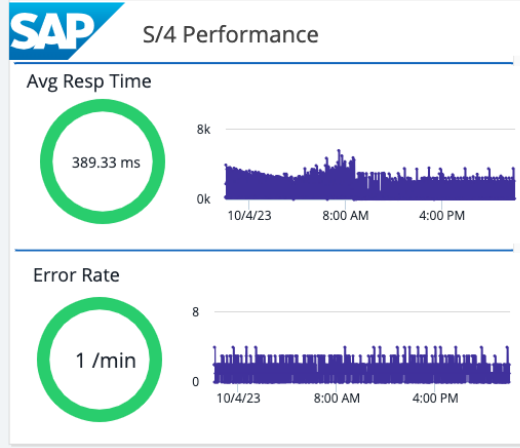
IDocs Error Monitoring

IDocs Errors In

Type	Count
ORDERS	508
ORDCHG	203

IDocs Errors Out

Type	Count
ORDRSP	51
INVOIC	281



S/4 KPIs

Total Calls	1,016
Short Dumps	22
Active Users	16,647
SAP Locks	0
RFCs in Waiting	0

IDocs Error Monitoring

IDocs Errors In

Type	Count
ORDERS	96
ORDCHG	49

IDocs Errors Out

Type	Count
INVOIC	175

RFC Runtime Errors

Custom	10/04/23 9:11:48 PM	Runtime error in SAPLSYST, package SABP_FILE: No RFC authorization for function module "RFCPING".
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Sales Order Volume Blocked by IDoc Errors

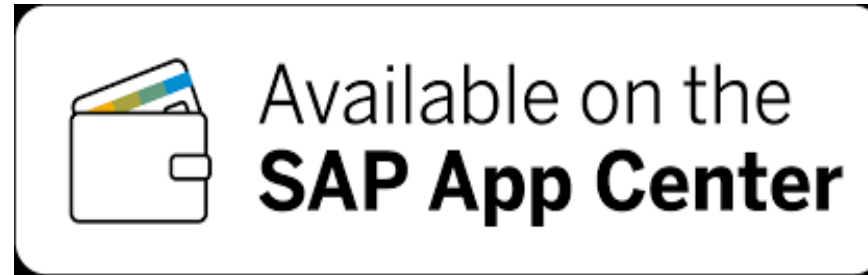
1.04k

RFC Runtime Errors

No Events

Sales Order Volume Blocked by IDoc Errors

320



SAP Premium Certified
Integration with SAP Applications



- SAP certification for ABAP add-on
- SAP Premium certification with high security
- Certified for both ECC and S/4 HANA

Partnering with the Partners

360 Observability – Operate & Optimize

AppDynamics on SAP

Superior visibility into critical business functionality

NTT's combined expertise across AppDynamics, ThousandEyes, and the SAP platform creates unmatched ability to generate value from Full Stack Observability



Business process
focused deployment



Understand how user
experience impacts the
business' bottom line



Align application
performance with
business metrics

Summary

- AppDynamics is a comprehensive platform for monitoring SAP
- One of its kind ABAP agent for SAP
- Insights for BASIS teams
- Extend visibility to SAP adjacent systems
- BiQ to E2E monitoring of key Business processes
- Leverage the AppDynamics platform & integration with partner ecosystem



Thank you!

