

SAP User Community - ISBN

Procurement Technology Update

Architecture, Integration, Security & Infrastructure

Peter White, Procurement Solution Architect
Martin Dedina, Cloud Security & Data Privacy Expert

May, 2022

CUSTOMERS & PARTNERS



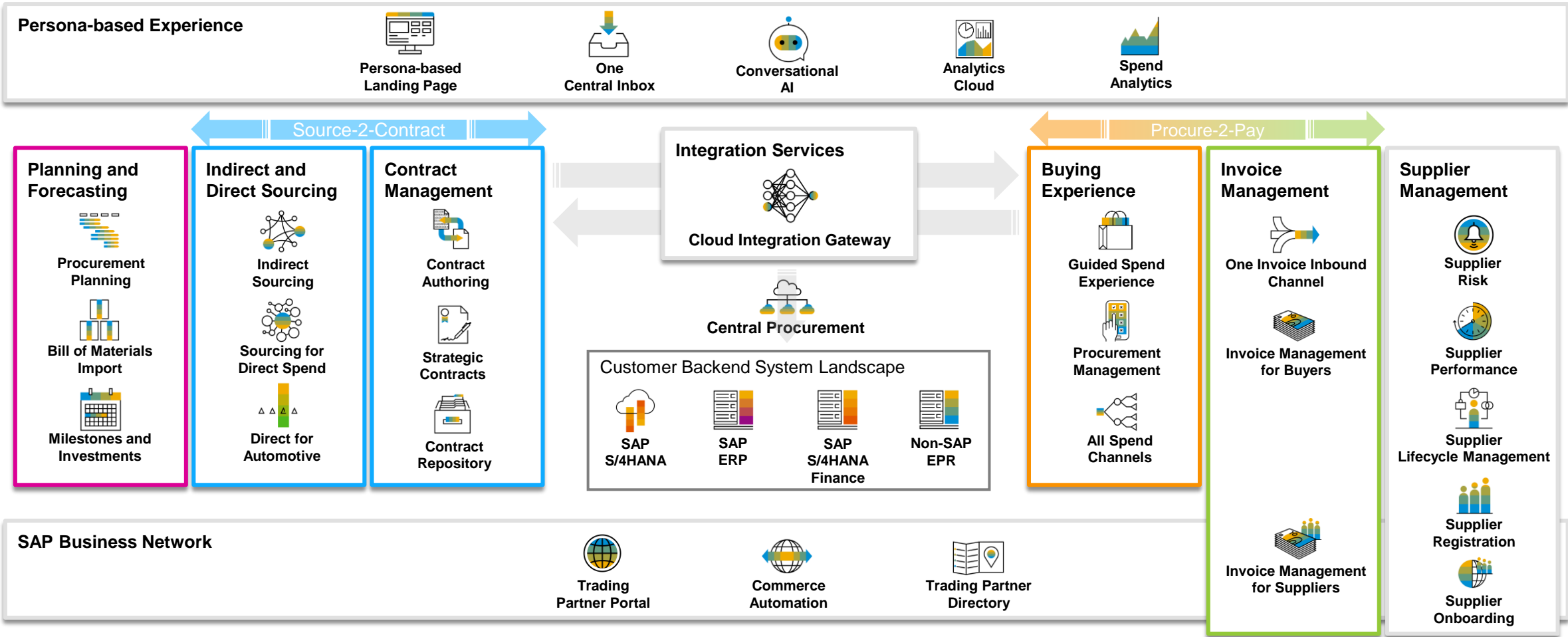
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SAP Spend Management Reference Landscape



SAP Ariba Evolution of Standard Integrations



Cloud Integration Components



Ariba & SAP developed integration components for SAP ECC:

- SAP Transports for ECC
- Standard Mappings for PI/PO
- Integration Toolkit (ITK)



- Required SAP PO/PI middleware for mediation
- Maintenance of standard mappings was customer responsibility
- DMZ Reverse proxy needed for inbound realtime integration

Cloud Integration Gateway



Jointly developed components for SAP ECC & S/4HANA:

- CIG Addon for SAP ERP
- CIG Cloud Service based on BTP Integration Suite for message translation
- SAP Cloud Connector



- Direct connection without middleware available
- SAP maintains standard mappings which customer can extend
- Cloud connector provides secure tunnel for inbound realtime integrations

Intelligent Enterprise Scenarios with Cloud Integration Gateway



API based product native integration scenarios developed with S/4HANA from 2019 releases onwards

- Eliminates need for ERP addon
- CIG Cloud Service (primarily as passthrough)
- SAP Cloud Connector (with S/4HANA OnPrem & Private Cloud editions)



- Turnkey approach to enabling integrated business process scenarios
- Aligned APIs and Domain Model for high fidelity maintenance free integration
- Best Practice guides on <https://rapid.sap.com/>

End-to-end process blueprints

Intuitive guidance for business and IT



[SAP API Business Hub](#)

Customer challenge

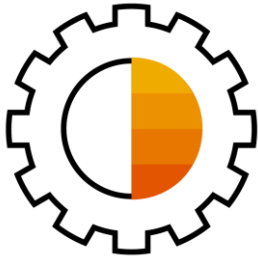
- Lack of understanding on how end-to-end scenarios decompose into applications
- Clear guidance on reference architecture, integrations, and technology

Outcome

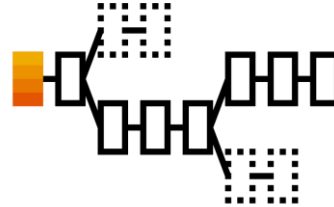
- Consistent overview of end-to-end business process blueprints supported by SAP's integrated intelligent suite
- Enterprise reference architecture with value flow, scenario implementation, and software product collaboration
- End-to-end process blueprints to simplify extensions and changes



Breakout Focus topics: Recent Key Achievements & 2022 Outlook



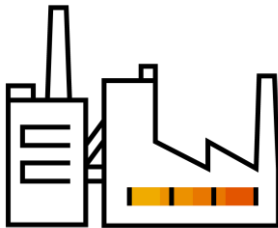
Master Data Integration



Application Lifecycle management



E2E service procurement



Sub-contracting,
SCC processes



Analytics –
Embedded and Cross



Task center

Breakout Teaser **Deep dive into Security & Infrastructure**

Next-Generation Cloud Delivery **Potential Benefits for Customers**

An elevated cloud
experience with
leading technology



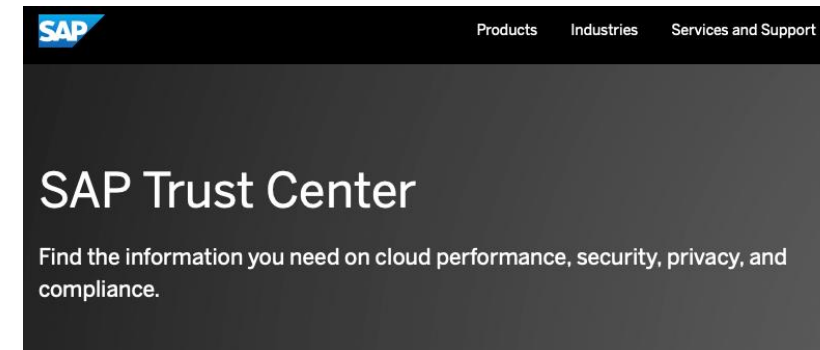
Increased agility by
enabling faster
innovation



Greater resilience
with a state-of-the-
art foundation



Walk-through Trust Center and My Trust Center **Security Guides & Documentation**



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Breakout Session 1: Architecture & Integration

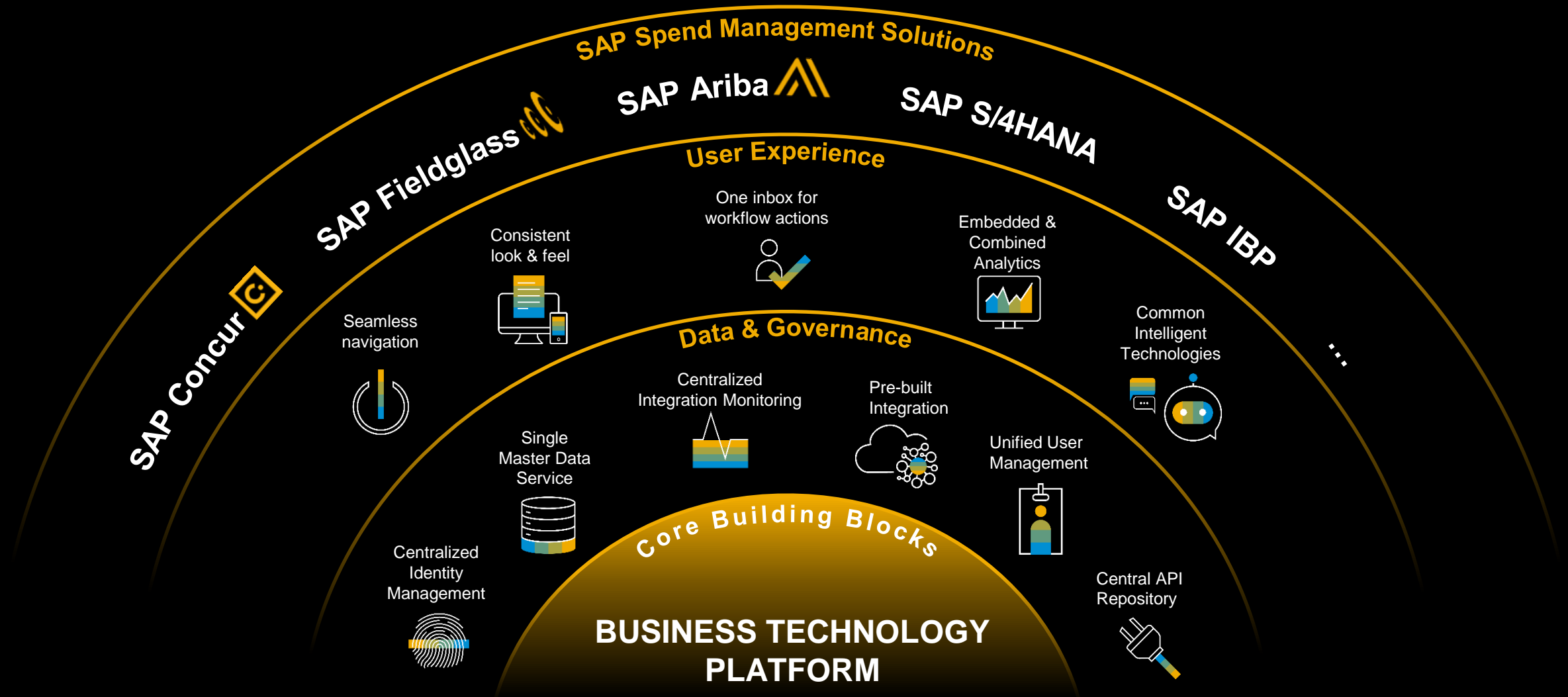
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Building blocks of the SAP Intelligent Spend Management Suite









IES Key Achievements 2021 - Scope Items Delivered

Scenario	Highlights
Guided Buying incl. Central Procurement (3EN)	Enhanced Limits; Integration/Transfer of Form Fields from GB to S/4HANA; Addition of Material Number as standard fields in catalogs and transfer to S/4HANA; Support of Inventory Reservation in 2NV and 3EN scenarios (LA)
Contracts incl. Central Procurement (4B0)	Lean Services; Transferring Scheduling Agreement; Field Extensibility; Extended scenario starting from sourcing award
Sourcing incl. Central Procurement (4QN)	Lean Services in RFQ; Confirmation interfaces for cRFQ and cSQ; Integration with Guided Sourcing ; Notes and Attachments for cRFQ and cSQ; Use of process flows for Ariba document visibility
Commerce and Quote Automation (42K)	Replace the Discount Management cXMLs by SOAP Services; Contract Reference in Purchase Order Item; Order Collaboration Enhancements; Support of confirmation for Enhanced Limits for Services and Materials; PO Plant and Storage location; SES Revision; Delivery Complete; VAT Number; Non-PO Invoice; Support of quantity and date tolerances in PO; Evaluated Receipt Flag in PO; Support of price tolerance in PO; Support of price changes in Order Confirmation; Price Basis Quantity Factors; Quick Enablement of Supplier
Quote Automation with Central Procurement (5JT)	Phase I delivery; Support of Notes and Attachments; Quick Enablement of Supplier
Collaborative Services (4R2)	Phase I delivery; Support of service items and time object with product master ID; Display accounting data included in S/4 PO in FG; Support of multiline SES and Multiline Invoice / Payment Notices; Support of mix documents (Services, Material, Limits); Request for Estimate; PO Revision in FG; ERS Support; Delivery Complete; Auto-generation of the invoice for services in AN; Ariba Network - Fieldglass Integration –Attachments; ERS - after AN receives the Invoice it should be sent to FG; Integration of Product Hierarchies between Ariba Contracts and FG
Subcontracting (5I2)	Phase I delivery – S/4 Cloud integration to SCC.
Sales and Distribution Integration (4A1)	Enhance the cXML message structure by additional information about the buyer's organizational structure; Enhancement of cXML with Sold-to information; ORDER messages - capture Your Reference and Our Reference in supplier; Provide a flexible Sold-To Determination for the Order Request Inbound; Provide a flexible Sales Area and Order Type Determination for the Order Request Inbound







Additional Recent Integration Enhancements

Scenario	Highlights
S/4 Cloud integration to SLP	Unidirectional integration from S/4HANA Cloud to SLP. Bi-Directional in 2205+
LBN-GTT integration with the Ariba Network	For Buyer managed transport, Buyer in AN can track shipments (ASN) with SSO to GTT.
CIG Data Center in China	China now have a data center hosting CIG.
PEPPOL Integration	CIG now supports PEPPOL messages – mapping from UBL to cxml. See here .
X-Rechnung	SAP Business Network will support the X-Rechnung standard (Feb 2022)
Item Hierarchy Support in Contracts Integration	Integration between Ariba and S/4 Cloud has been enhanced to support service item hierarchies

Technology Guidelines Adoption Key Achievements 2021

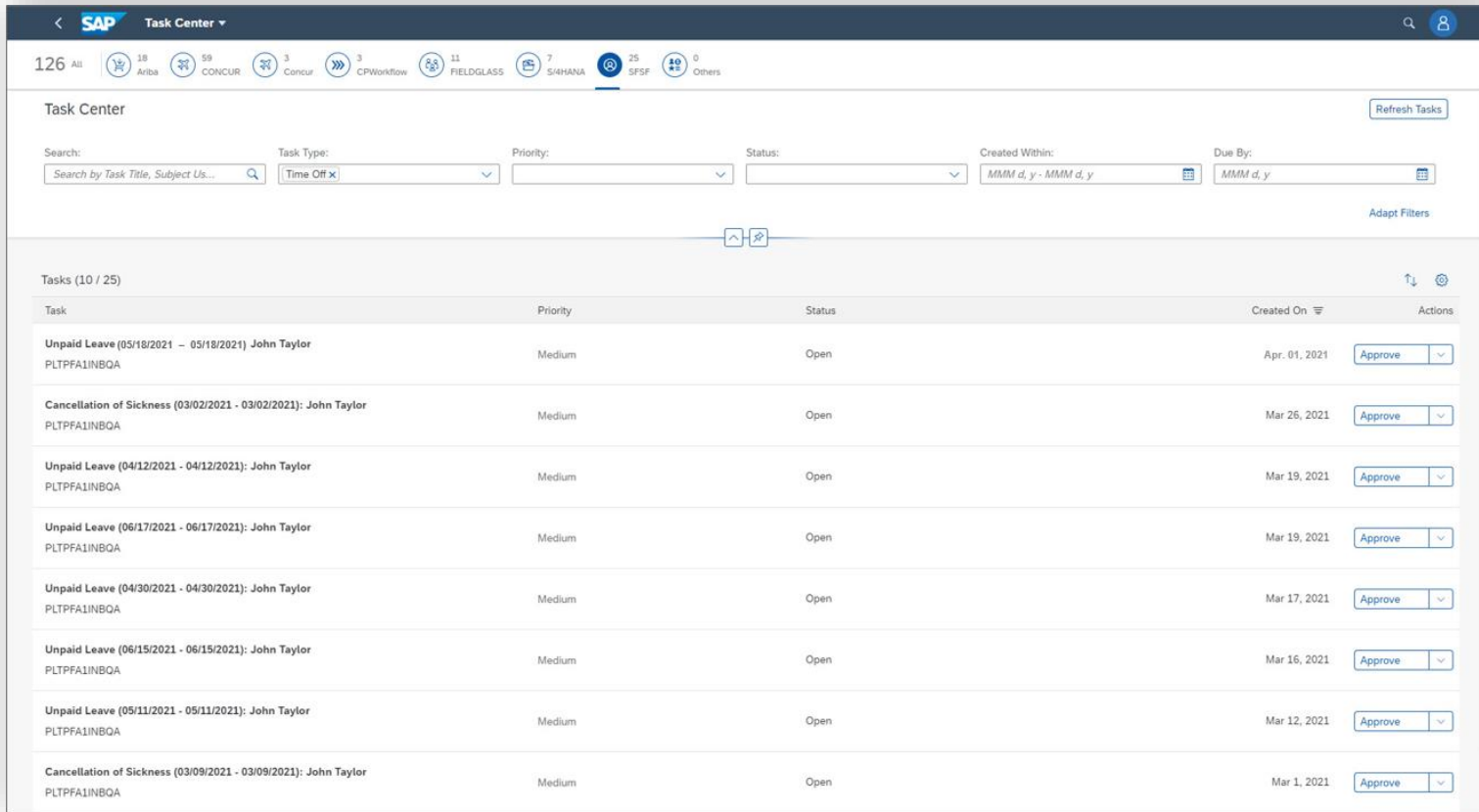
Wave 1 Suite Qualities & Wave 2 Frontrunners	Technology Guidelines and Requirements	Overall Assessment of Adoption status
 Aligned domain model incl. Master Data Integration (MDI)	TG23.R1. TG22.R1	<ul style="list-style-type: none"> • Supplier and Cost Center replication via MDI delivered in Q4 2022. Supported Scope Items 2NV, 4BL, 4AZ and 4R2
 Consistent security & identity Management	TG16.R1	<ul style="list-style-type: none"> • TG16.R1 for Ariba Apps: SCIM 2.0 API with IPS connector delivered for greenfield customers in 2105 • TG16.R1 for Ariba Network – SCIM 2.0 API delivered for AN Buyer accounts in Q2 2021
 Coordinated lifecycle management	TG04.R2	<ul style="list-style-type: none"> • TG04.R2 – Initial enhancements by Ariba Platform achieved for the 2NV sub-process in 2105. Further setup automation scope evaluation from Ariba Apps sub-processes completed in Q3 2021
 Embedded analytics	TG32.R1	<ul style="list-style-type: none"> • Ariba Network: GA in 2105 with the Beta scope released in Q4 2020 with the SAC/ HANA DB direct connectivity architecture – this is currently available for the AN Buyer accounts
 Integration Monitoring	TG11.R1, R2, R4	<ul style="list-style-type: none"> • Frontrunner scope achieved for Ariba Apps (Sourcing, Contracts and GB) and for AN (Buyer accounts: 42K) along with CIG in 2105 covering CALM dashboard visualization of transactional data flows
 SAP Task Center	TG13.R1, TG16.R3	<ul style="list-style-type: none"> • TG13.R1 Frontrunner project LA scope delivered for Ariba Guided Buying and S/4 in 2105 • TG16.R3 adopted for the Ariba Platform in Q2 2021 and for S/4 in Q3 2021 (Communication Scenario 1193 in 2108. Communication Scenario 0193 being enhanced in 2111 with 1193 deprecation)

Technology Guidelines Roadmap 2022 and beyond

Wave 1 Suite Qualities & Wave 2 Frontrunners	Technology Guidelines and Requirements	Overall Assessment of Adoption status
 Aligned domain model incl. Master Data Integration (MDI)	TG23.R1. TG22.R1	<ul style="list-style-type: none"> MDNI improvements: Support of incremental loads, Remove Account Assignment Category post-replication steps (3EN & 2NV), Company Code and GL Account post-replication steps (3EN) MDI adoption: Supplier and Cost Center for Central Procurement; Product, Company Code, Exchange Rates, WBS Element
 Consistent security & identity Management	TG16.R1	<ul style="list-style-type: none"> TG16.R1: Implement the CP IPS connector for the AN SCIM 2.0 API - AN Buyer and Supplier accounts TG16.R2 for Ariba Apps – Preconfigure an IPS tenant per customer by default TG16.R5 - Brownfield migration/ adoption approach for existing CP IPS customers and customers with a 3rd party IPS deployed TG02.R2 for Ariba Apps – Preconfigure an IAS tenant per customer by default
 Coordinated lifecycle management	TG04.R2	<ul style="list-style-type: none"> Phased implementation of the additional automation setup scope identified for the Guided Buying (Q2), Sourcing, Contracts & Commerce Automation (Q4) sub-process scenarios Automated provisioning with SPC – E2E realm, identity (IPS) and authorization (IAS) for Ariba Apps (Q1) and Ariba Network Buyer (Q2) accounts
 Embedded analytics	TG32.R1	<ul style="list-style-type: none"> Q1 2022 Ariba Apps – Beta scope targeting validation of E2E analytical infrastructure and integration with SAC OEM. Planning on Beta showcase to a set of 10 customers and restricted to the EU data center Q3 2022 EAC for the Ariba Buying user stories, starting from the customers in the EU data center. Establish the landscape until end of Q3 2022 for Buyer data only in order to enable the SAC developers to create the stories Q3 2022 Implementation of Ariba Network analytics user stories for Supplier accounts
 Integration Monitoring	TG11.R1, R2, R4	<ul style="list-style-type: none"> Q4 2022 Supplier integration sub-process scenario Master Data replication flows visualization in CALM dashboard
 SAP Task Center	TG13.R1, TG16.R3	<ul style="list-style-type: none"> Q2 2022 GA for Ariba Sourcing Greenfield customers scope (Approval of Sourcing Request to create Sourcing project, Sourcing Project - Approval to Publish Sourcing Event, Approval to Award Sourcing Event) Q2 2022 GA for Ariba Guided Buying Greenfield customers scope (Approvals for Purchase Requisitions and Invoices)

SAP Task Center

Central Task Management Across Business Applications



The screenshot displays the SAP Task Center interface. At the top, there's a navigation bar with the SAP logo and 'Task Center' dropdown. Below it, a summary bar shows 126 tasks across various categories like Ariba, CONCUR, CPWorkflow, FIELDGLASS, S/4HANA, SFSF, and Others. The main section features a 'Task Center' header with a 'Refresh Tasks' button. Below this is a search and filter section with fields for 'Search' (placeholder: 'Search by Task Title, Subject Us...'), 'Task Type' (dropdown: 'Time Off x'), 'Priority' (dropdown), 'Status' (dropdown), 'Created Within' (date range: 'MMM d, y - MMM d, y'), and 'Due By' (date: 'MMM d, y'). An 'Adapt Filters' button is also present. The task list is titled 'Tasks (10 / 25)' and includes columns for 'Task', 'Priority', 'Status', 'Created On', and 'Actions'. The tasks listed are all 'Unpaid Leave' or 'Cancellation of Sickiness' for 'John Taylor' with the ID 'PLTPFA1INBQA'. Each task has an 'Approve' button in the actions column.

Task	Priority	Status	Created On	Actions
Unpaid Leave (05/18/2021 - 05/18/2021): John Taylor PLTPFA1INBQA	Medium	Open	Apr. 01, 2021	Approve
Cancellation of Sickiness (03/02/2021 - 03/02/2021): John Taylor PLTPFA1INBQA	Medium	Open	Mar 26, 2021	Approve
Unpaid Leave (04/12/2021 - 04/12/2021): John Taylor PLTPFA1INBQA	Medium	Open	Mar 19, 2021	Approve
Unpaid Leave (06/17/2021 - 06/17/2021): John Taylor PLTPFA1INBQA	Medium	Open	Mar 19, 2021	Approve
Unpaid Leave (04/30/2021 - 04/30/2021): John Taylor PLTPFA1INBQA	Medium	Open	Mar 17, 2021	Approve
Unpaid Leave (06/15/2021 - 06/15/2021): John Taylor PLTPFA1INBQA	Medium	Open	Mar 16, 2021	Approve
Unpaid Leave (05/11/2021 - 05/11/2021): John Taylor PLTPFA1INBQA	Medium	Open	Mar 12, 2021	Approve
Cancellation of Sickiness (03/09/2021 - 03/09/2021): John Taylor PLTPFA1INBQA	Medium	Open	Mar 1, 2021	Approve

Customer Pain Point

- Multiple inboxes for the same user
- Critical tasks buried in e-mail
- Delays in approvals
- Inefficiencies

Outcome

- Federation from tasks across the Intelligent Suite
- Navigation into target applications
- The SAP Task Center for use with Central Fiori Launchpad
- Public APIs for 3rd Party Integration
- Reduce the time spent, Improve the approval time and Improve the quality

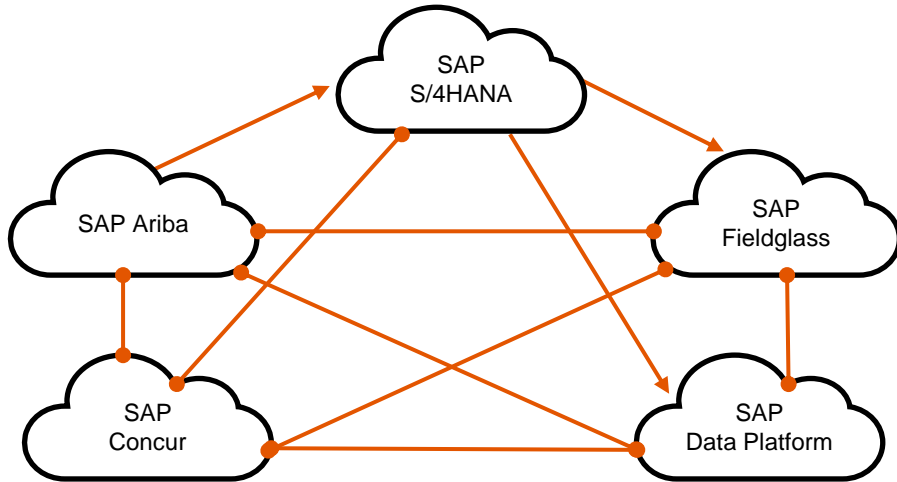
* 2022 Greenfield Roadmap for Ariba Sourcing - Approval of Sourcing Request to create Sourcing project, Sourcing Project - Approval to Publish Sourcing Event, Approval to Award Sourcing Event

* 2022 Greenfield Roadmap for Ariba Guided Buying – Approvals for Purchase Requisitions and Invoices

SAP BTP Master Data Integration

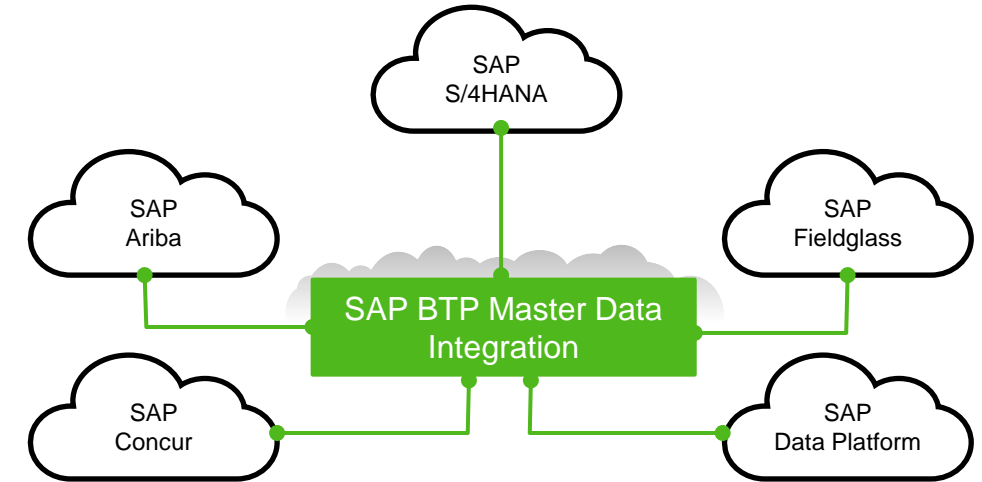
One Central **Master Data Integration Service** across All SAP Business Applications

1:1 integration



- Point to point; hard to synchronize; high maintenance
- Expensive; integration effort required for every implementation
- Inconsistent
- Basic csv load capabilities

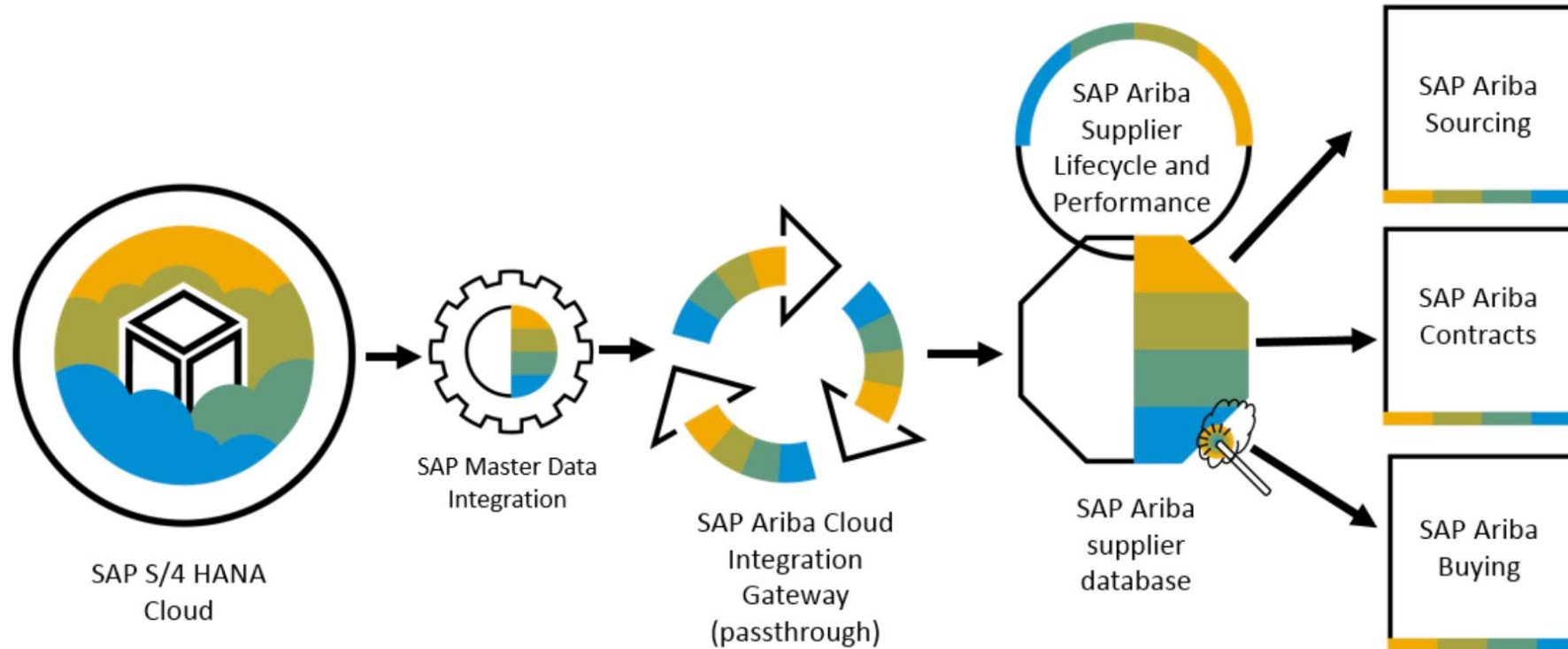
1:many integration



- **Faster:** Efficient centralized distribution
- **Cheaper:** Standardized, out-of-the-box, reusable
- **Better:** Consistent, scalable, compliant: purpose-driven master data replication

IES S2P MDI Adoption

Supplier Data Integration



- Supported for 2NV (Guided Buying), 4BL (Sourcing) and 4AZ (Contracts) for SAP S/4HANA Cloud starting from 2111 CE
- SAP MDI integration to SAP Ariba Supplier Lifecycle and Performance and SAP Ariba Supplier Information and Performance Management (new architecture) is also supported. However, currently only unidirectional replication from SAP S/4HANA Cloud to SAP Ariba is supported.
- [Documentation](#)

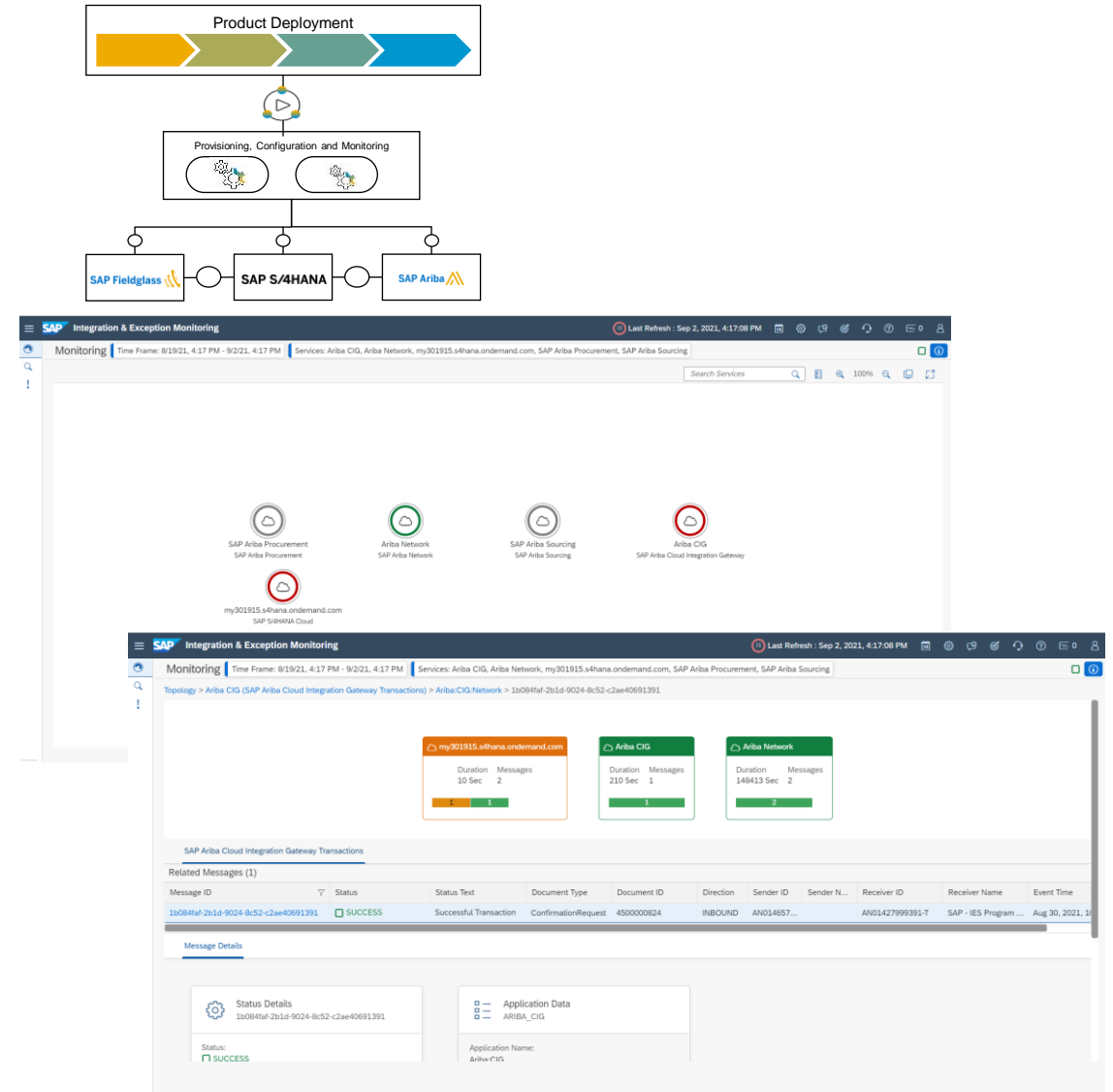
Coordinated lifecycle management

Customer challenge

- So far, the scenario integration of cloud solutions from SAP was a manual process based on integration guides.
- There was no correlation between messages in different systems that belong to the same request.

Outcome

- With automated provisioning, products are able to deliver ready-to-use tenants and avoid complicated manual setup.
- Our Cloud Integration Automation service provides a guided workflow for automated execution capabilities.
- Integration scenario execution is orchestrated by the SAP Workflow Management service.
- Central collection of distributed data for end-to-end analysis and visualization is required.



IES S2P Integration and Exception Monitoring on SAP CALM

Available Monitoring Content

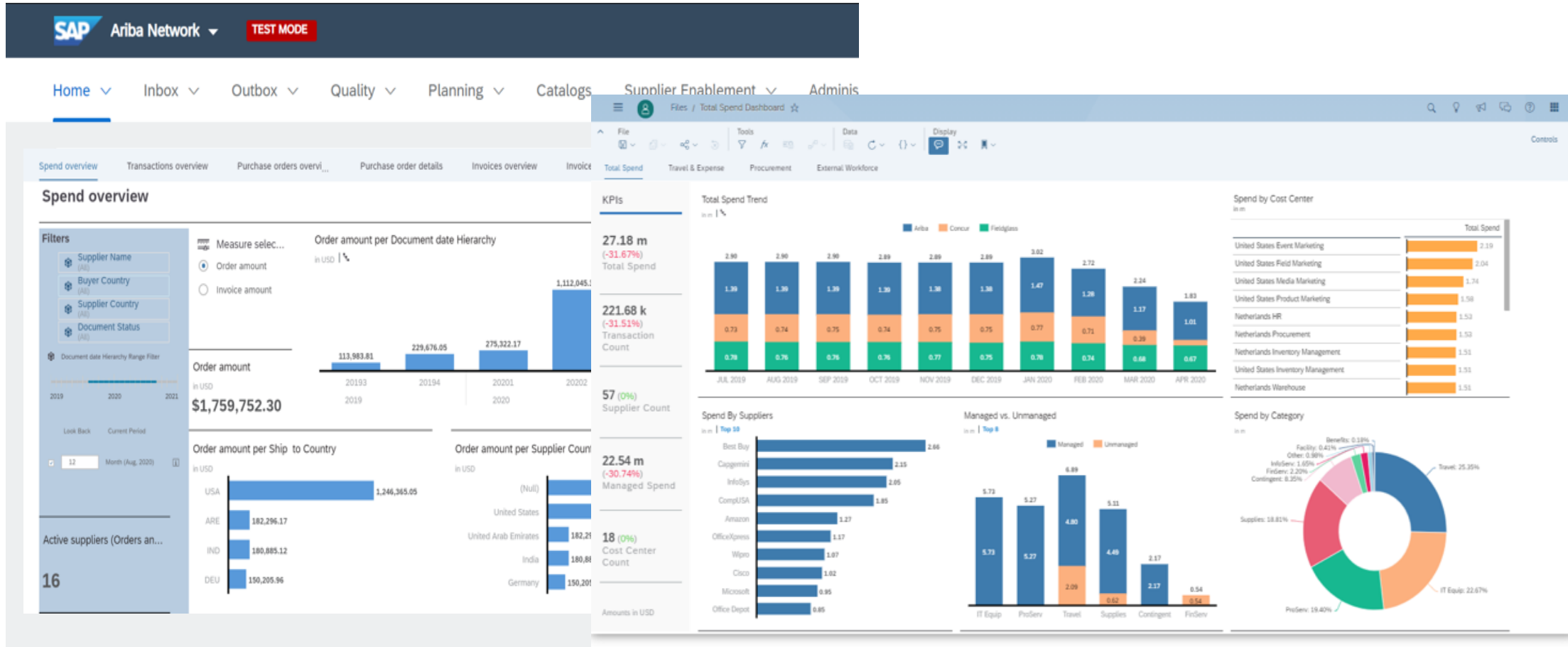
[Cloud Application Lifecycle Management]

Category	Type	Description	Supported Process
SAP Ariba Cloud Integration Gateway Transactions	Messages	Messages send via SAP Ariba Cloud Integration Gateway	✓ Integration
SAP Ariba Network Messages	Messages	Messages send via SAP Ariba Network	✓ Setting Up Automation of Order-to-Invoice with Ariba Network (4A1) ✓ Setting Up Automation of Source-to-Pay with Ariba Network (42K)
SAP Ariba Procurement Integration Messages	Messages	Messages send from and to SAP Ariba Procurement	✓ Setting Up Guided Buying Capability with SAP Ariba Buying (2NV) ✓ Setting Up Guided Buying for Central Procurement with SAP Ariba Buying (3EN)
SAP Ariba Sourcing Integration Messages	Messages	Messages send from and to SAP Ariba Sourcing	✓ Setting Up Contract Management with SAP Ariba Contracts (4AZ) ✓ Setting Up Contract for Central Procurement with SAP Ariba Contracts (4B0) ✓ Setting Up Sourcing with SAP Ariba Sourcing (4BL) ✓ Setting Up Central Procurement with SAP Ariba Sourcing (4QN)

[Blog](#)

[Documentation](#)

Analytics



Embedded Analytics

Cross Application Analytics

SAP Road Maps for the Intelligent Enterprise

[SAP Road Map Explorer](#)



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Intelligent Enterprise Scenarios

Design to Operate
Recruit to Retire
Source to Pay
Lead to Cash

SAP Road Maps support the journey to SAP's future platform.
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LEAD TO CASH
Customer

ROAD MAP



SOURCE TO PAY
Finance & Procurement

ROAD MAP



RECRUIT TO RETIRE
Human Resources

ROAD MAP



DESIGN TO OPERATE
Manufacturing &
Supply Chain

ROAD MAP



More information on public SAP websites..

- SAP Community: www.sap.com/community
- SAP Products: www.sap.com/products
- SAP Road Map Explorer - <https://roadmaps.sap.com/index.html#/>
- SAP API Business Hub – api.sap.com
- SAP Community (SAP Integration Strategy) - E2E process/ suite quality recordings – <https://webinars.sap.com/sap-user-groups-k4u/en/integration>
- Source to Pay process updates - <https://www.youtube.com/watch?v=7-Cyn380xsl>
- Integration Whitepaper – <https://www.sap.com/documents/2020/02/520ea921-847d-0010-87a3-c30de2ffd8ff.html>
- Blog (high level and sub processes specific) - <https://news.sap.com/?p=181236>

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Breakout Session 1: Security & Infrastructure

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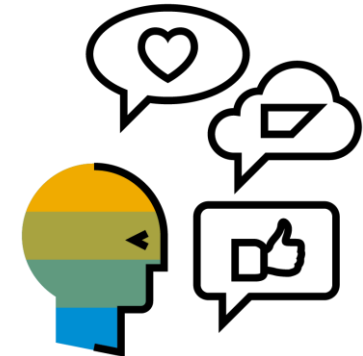
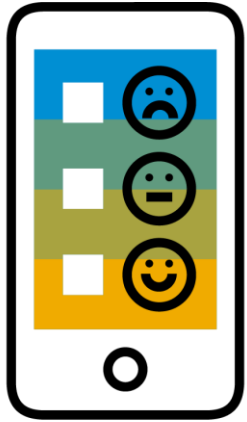
May, 2022

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Event Survey

Please scan the QR with your smartphone and kindly let us know your feedback:



Thank you.

THE BEST RUN 

Thank you.

Contact information:

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