

Collaborative Maintenance

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SAP

Public



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Agenda

01 SAP Business Network Introduction



02 SAP Business Network Asset Collaboration



03 Collaborative Maintenance



04 Product Interlock- S/4Hana




05 AI



06 Business Value





SAP Business Network

Introduction

Restricted visibility and collaboration creates hidden risks to your business



Taiwan quake to hit some chip output, disrupt supply chain, analysts say

By Liam Mo and Brenda Goh

April 4, 2024 3:57 AM GMT+2 · Updated 15 days ago



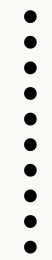
Disconnect between the work that needs to be done and who performs it

Pressing mandates for sustainability and environmental and social responsibility

Disconnect between what I ordered and where it is



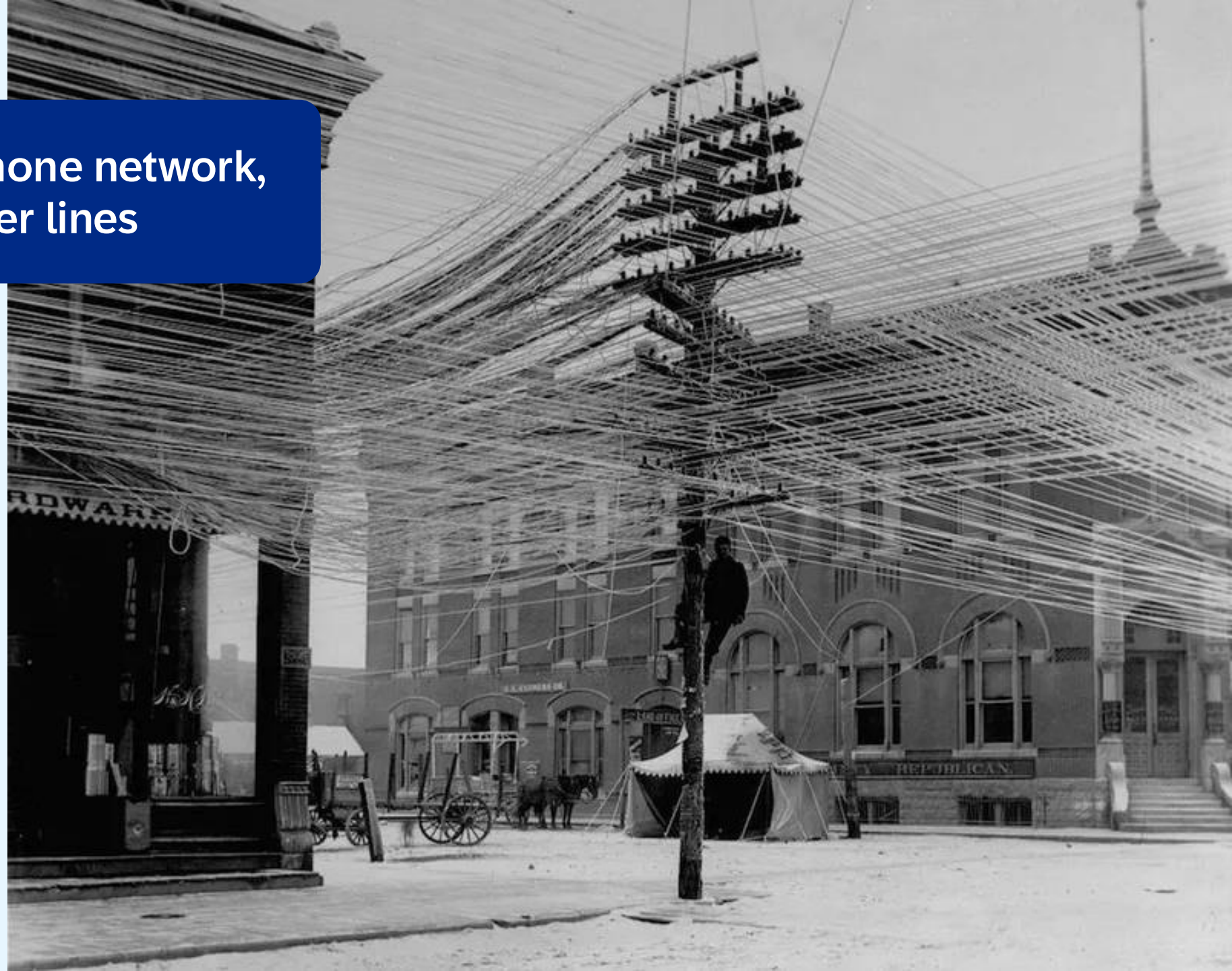
It's like the best Smart Phone
in the world...



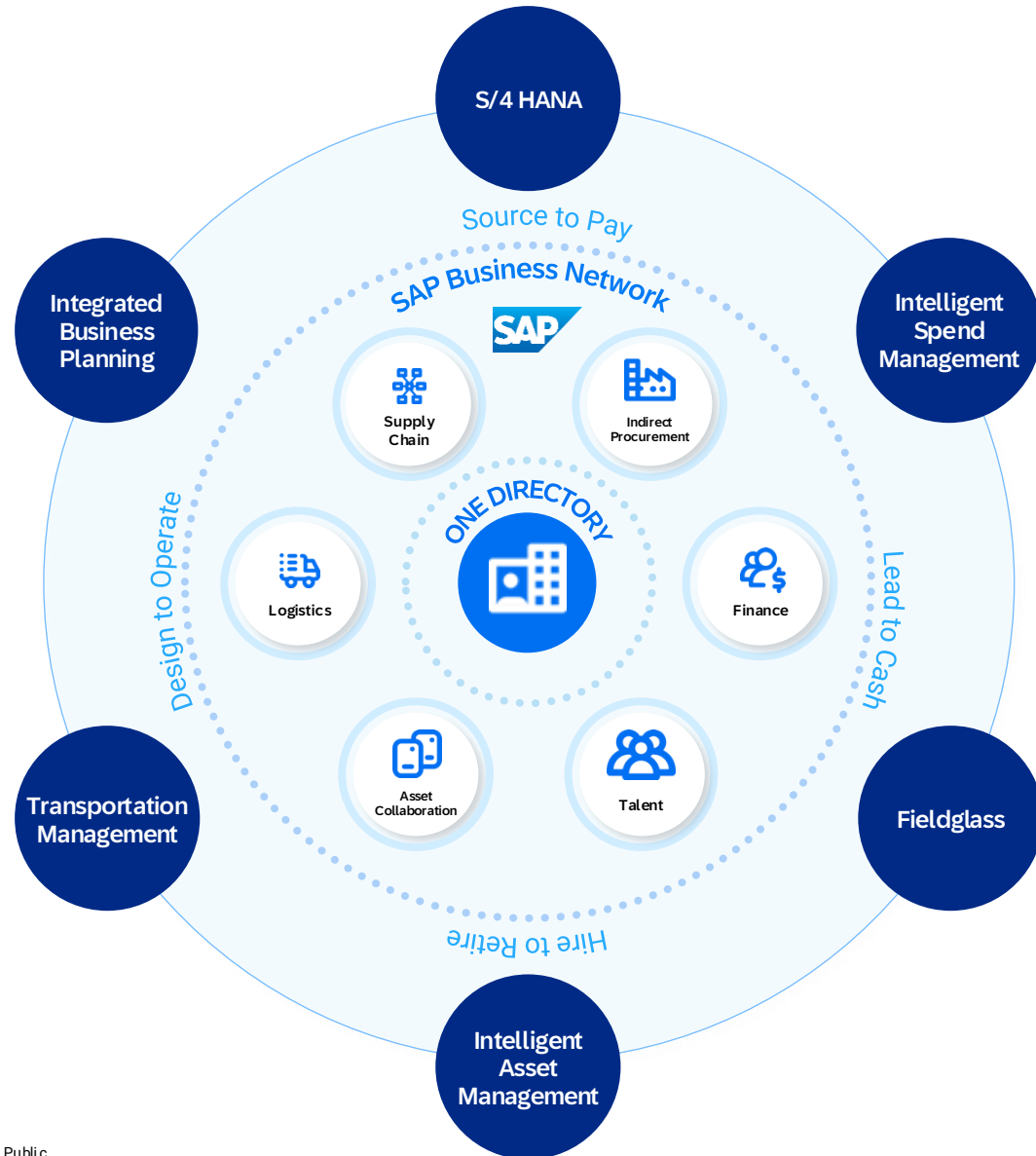
...without the
SIM card



Before we had a phone network,
we had peer-to-peer lines



SAP Business Network | multifaceted & multi-tiered



Tier 1 Network

Digitalize B2B connections to help companies:

- Gain speed and efficiency
- Increase visibility and transparency
- Improve security and compliance
- Achieve working capital goals

B2B Marketplace

Establish a public marketplace to help companies:

- Search and discover for supply and demand
- Trading partner profiles and directory
- Obtain network insights, industry, and category benchmarks

Tier n Network

Build value chain / industry networks to help companies:

- Gain multi-tier visibility
- Become resilient to supply chain disruptions and lower risks
- Achieve sustainability goals

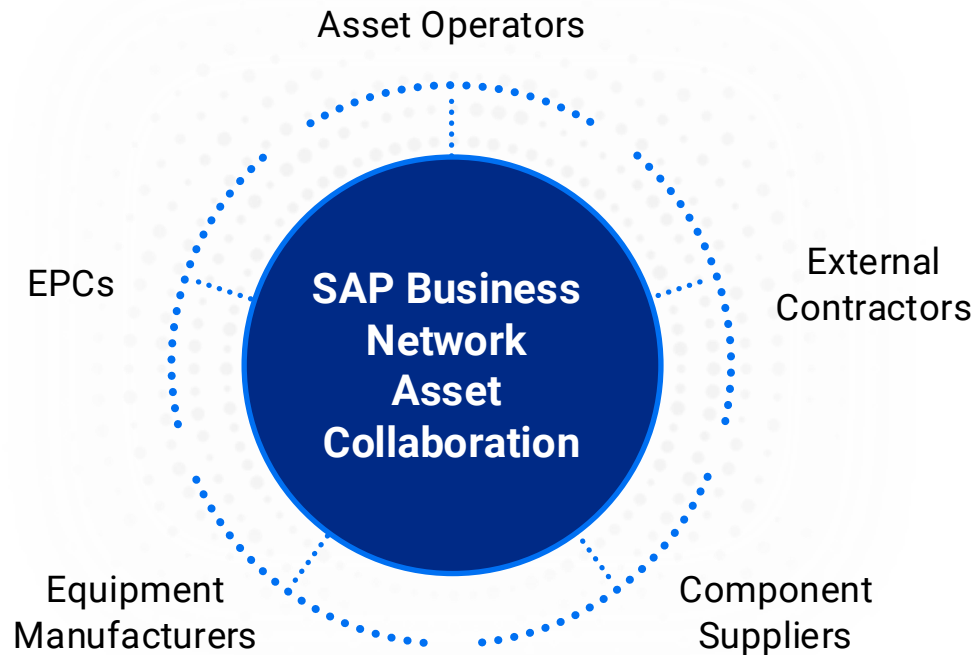


SAP Business Network Asset Collaboration

SAP Business Network Asset Collaboration

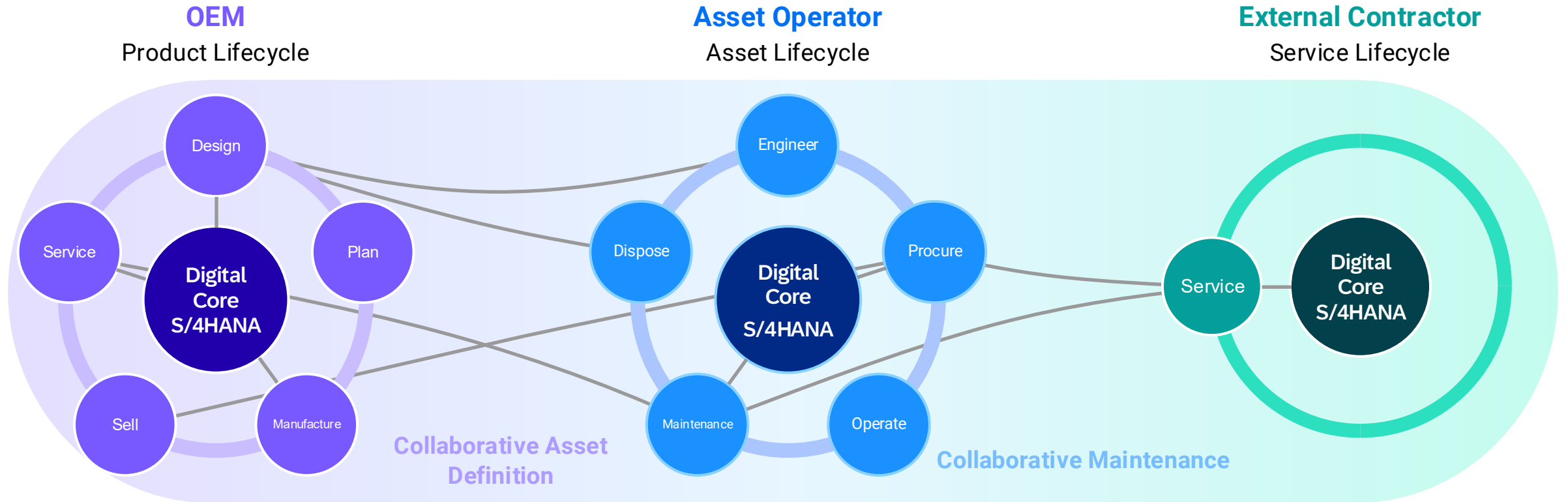
Mission

Connect trading partners to transform highly fragmented asset management practices into **unified and intelligent collaborative processes**, breaking internal and external organizational silos



Asset and Product Lifecycle

BNAC - Connect trading partners to transform highly fragmented asset management practices



SAP Business Network Asset Collaboration

Breaking Asset and Product Lifecycle silos for dedicated asset-management related collaborative scenarios

SAP Business Network Asset Collaboration

Main trading partners and value propositions



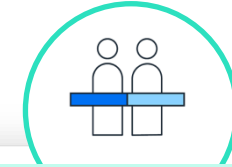
Asset Operator

- breaking internal silos in asset management
- enhancing asset master data quality, completeness and standardization
- reducing time from E&C to O&M
- IT/OT convergence
- reducing TCO and operational risk
- collaborating on one single platform along the complete asset lifecycle
- collaborating on demand, scope and appointment planning, execution and confirmation of maintenance orders
- sharing master data and maintenance history of technical objects to be maintained together with maintenance work demand




OEM / Component Supplier

- increasing customer satisfaction
- monetization of asset master data
- adhering to legal and customer requirements
- reducing time from product demand to sales order
- proactively pushing product catalog to existing and potential future customers
- increasing product and service sales
- increasing visibility on usage and maintenance of products at end customers
- collaborating on one single platform along the complete product lifecycle



External contractor

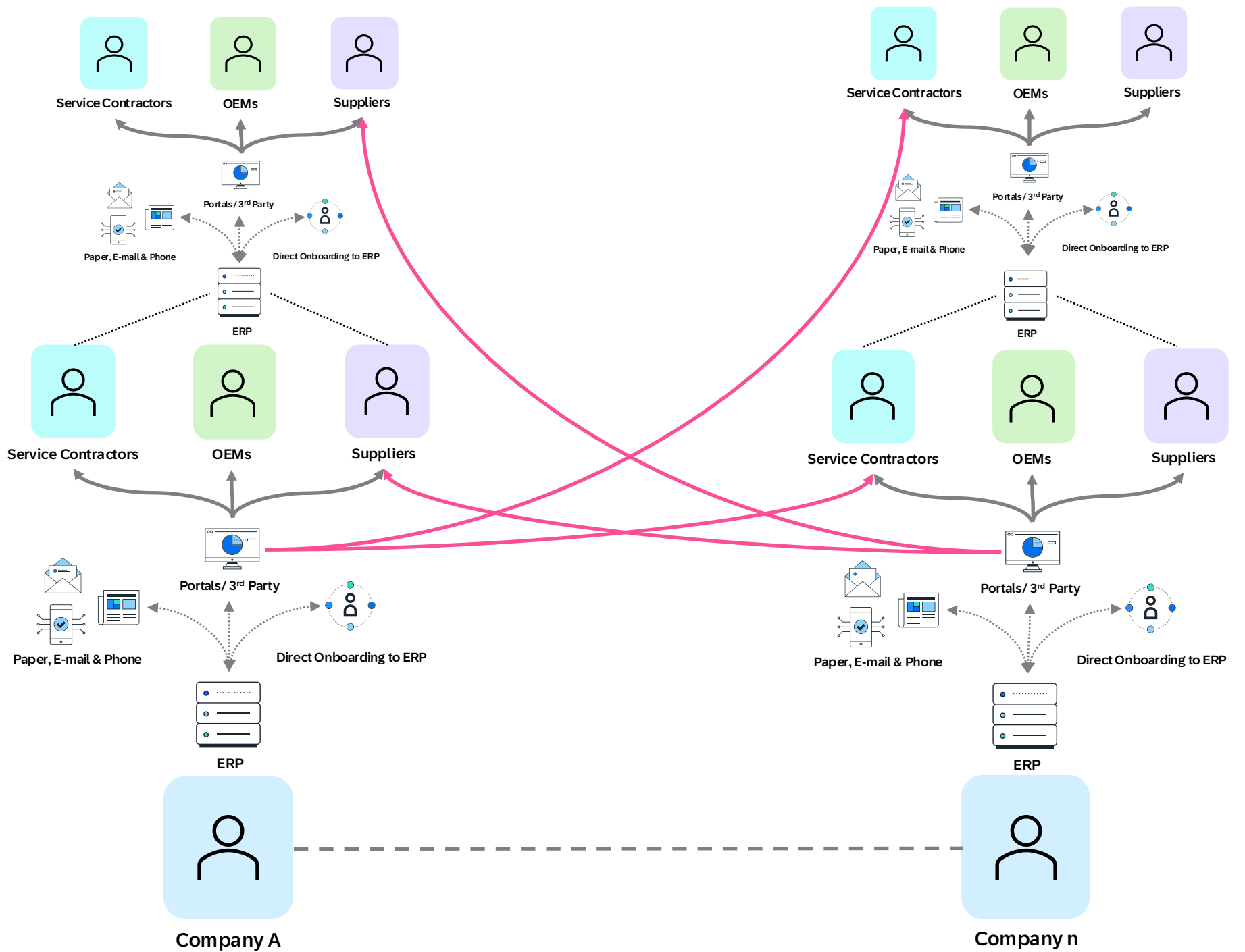
- collaborating on demand, scope and appointment planning, execution and confirmation of maintenance orders
- receiving master data and maintenance history of technical objects to be maintained together with maintenance work demand
- increasing first fix rate and service efficiency
- Increasing customer satisfaction
- collaborating on one single platform along the complete service lifecycle



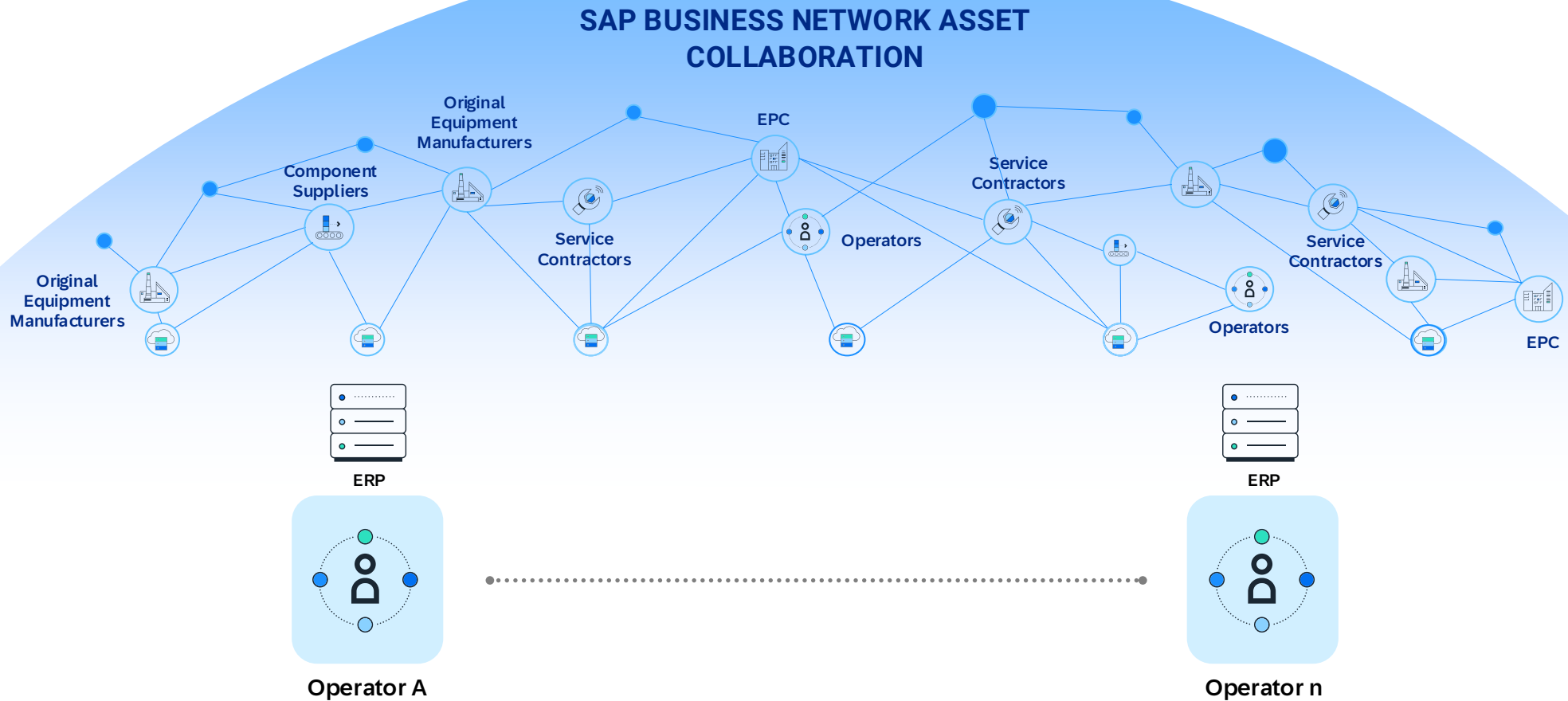
Collaborative Maintenance

Today's Challenge

N-Tier



The Network Effect



- Seamless business process integration
- Multi-tier connectivity with your partners, across the supply chain.

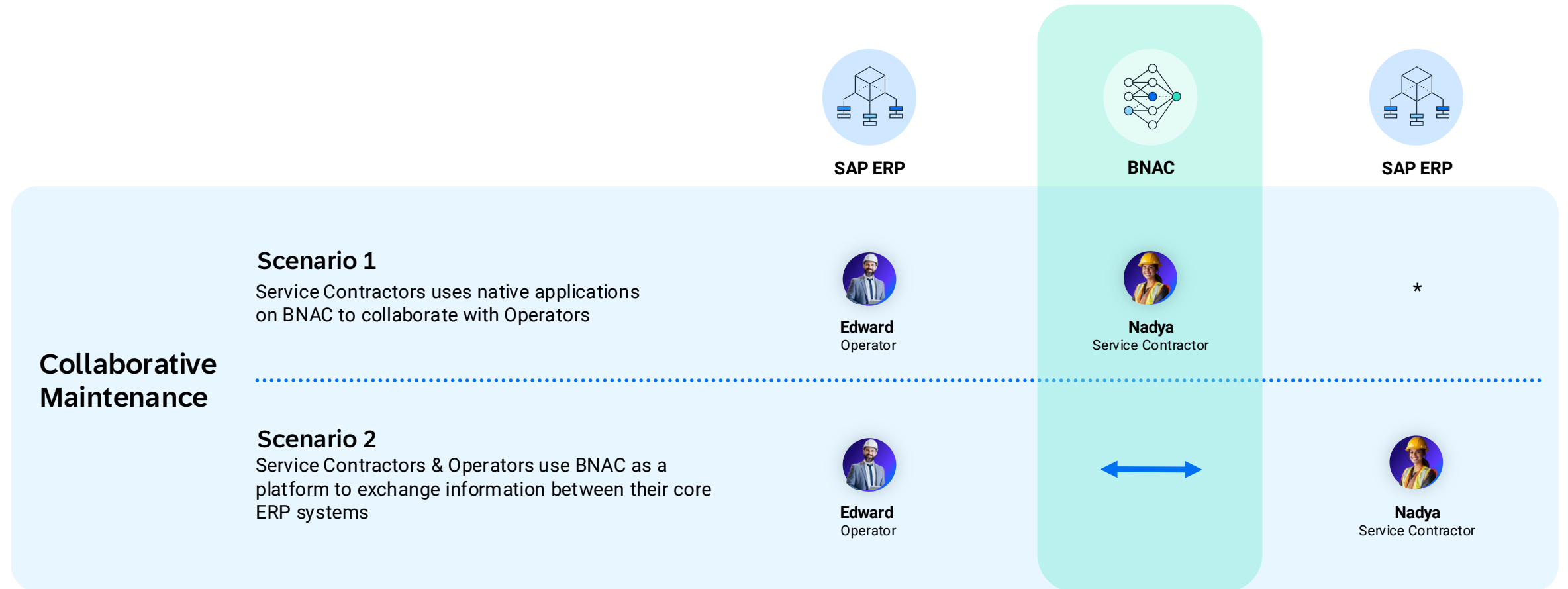
- Shared platform for maintenance execution
- Centralized access to all maintenance information
- Multi-ERP support and API extensibility.

- Improved performance and safety
- Community Intelligence

The Network Advantage Over Isolated Portals

	SAP Business Network Asset Collaboration	Portal Solutions
Operational Data Sharing	End-to-end service & asset data shared in real time across partners	Isolated, operator-specific uploads, no reuse
Contractor Onboarding	Single identity, reusable across all operators on the network	Repeated onboarding in each portal
Maintenance Transparency	Full visibility: processing, compliance, performance	Limited view, siloed reports per portal
Integration with Multi-ERP	Deep SAP integration; updates flow directly into maintenance systems	Manual data entry/export-import required.
Scalability & Network Effect	Many-to-many: suppliers, OEMs, and contractors connected	One-to-one: each operator builds their own silo

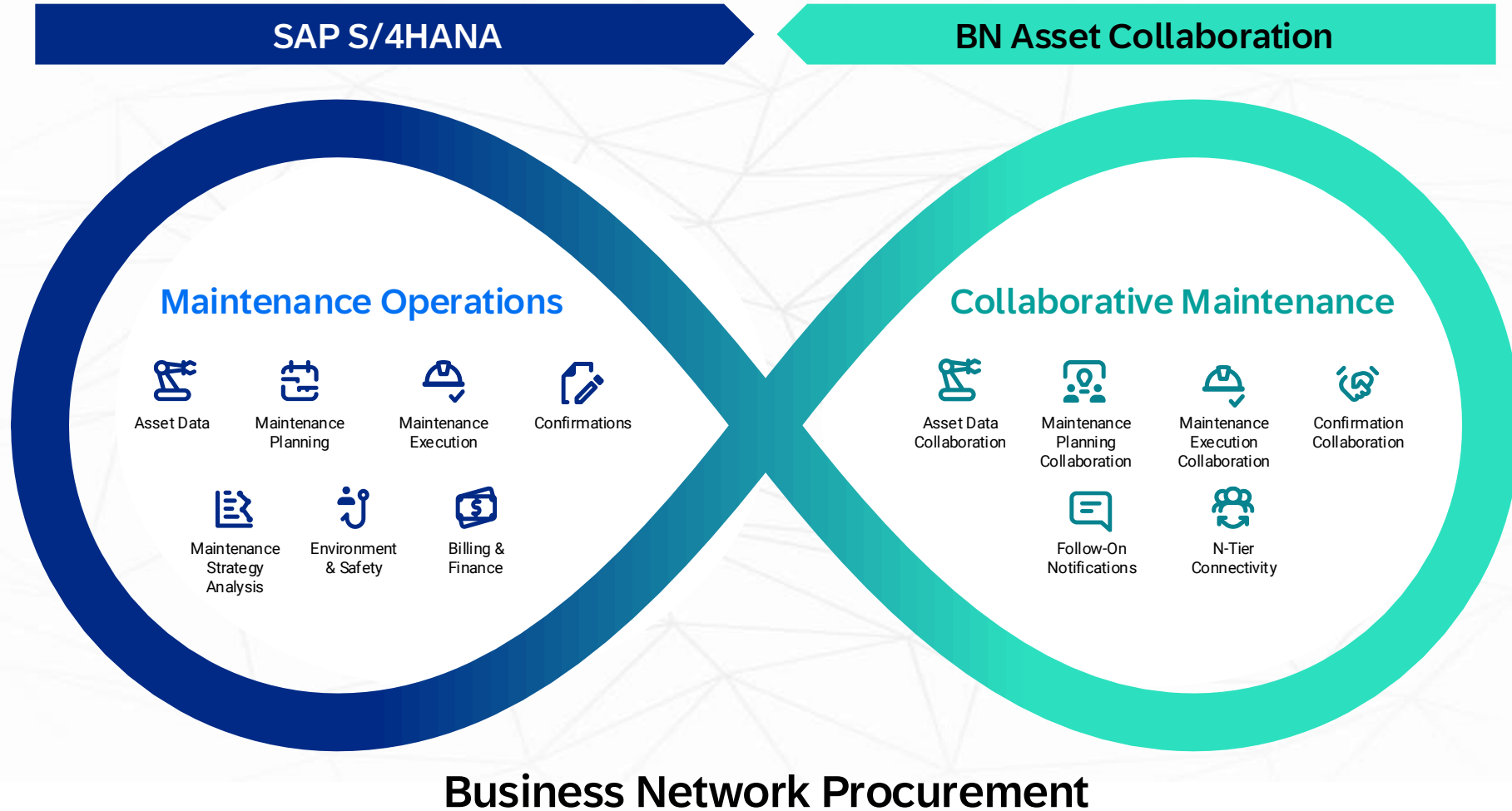
Scenarios for collaborative maintenance



* There is neither a dedicated SAP Asset Management nor a Service Management System in use.

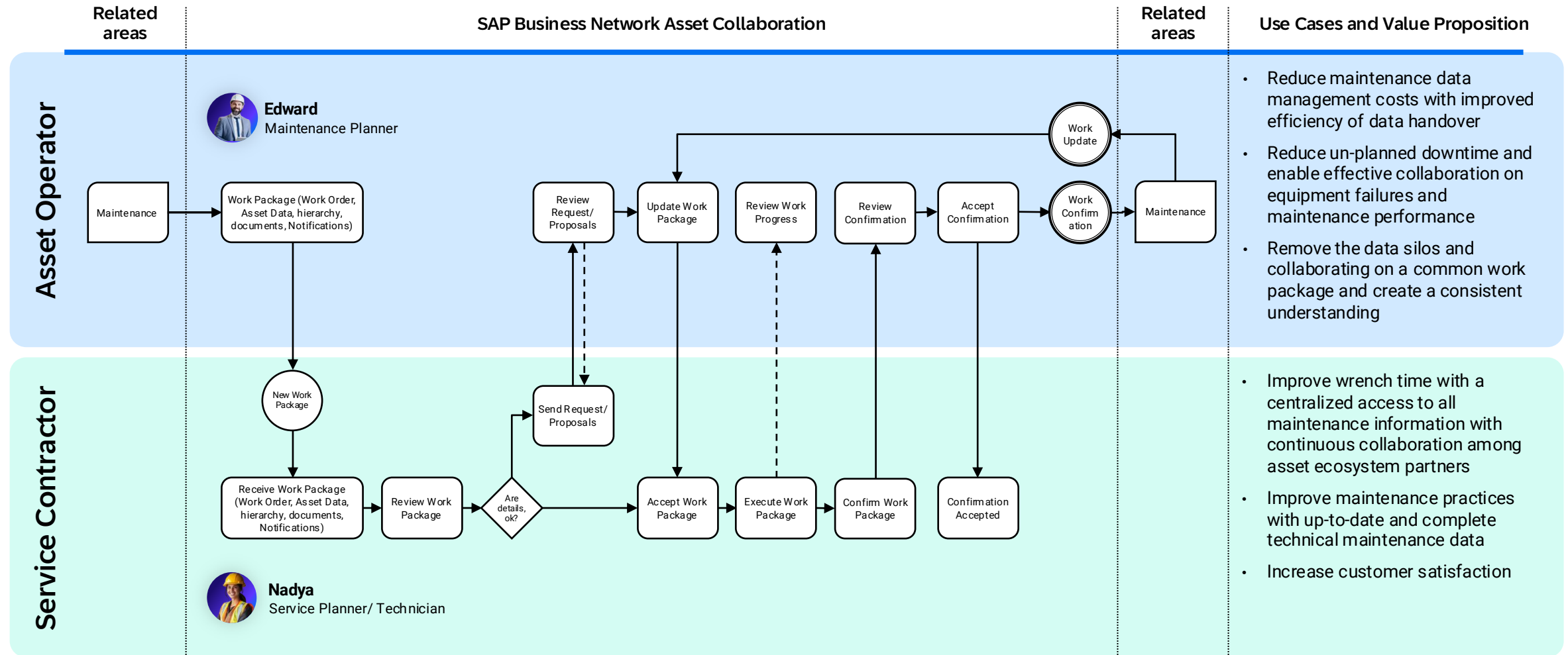
Collaborative Maintenance from SAP

Delivering a Network Platform for Maintenance



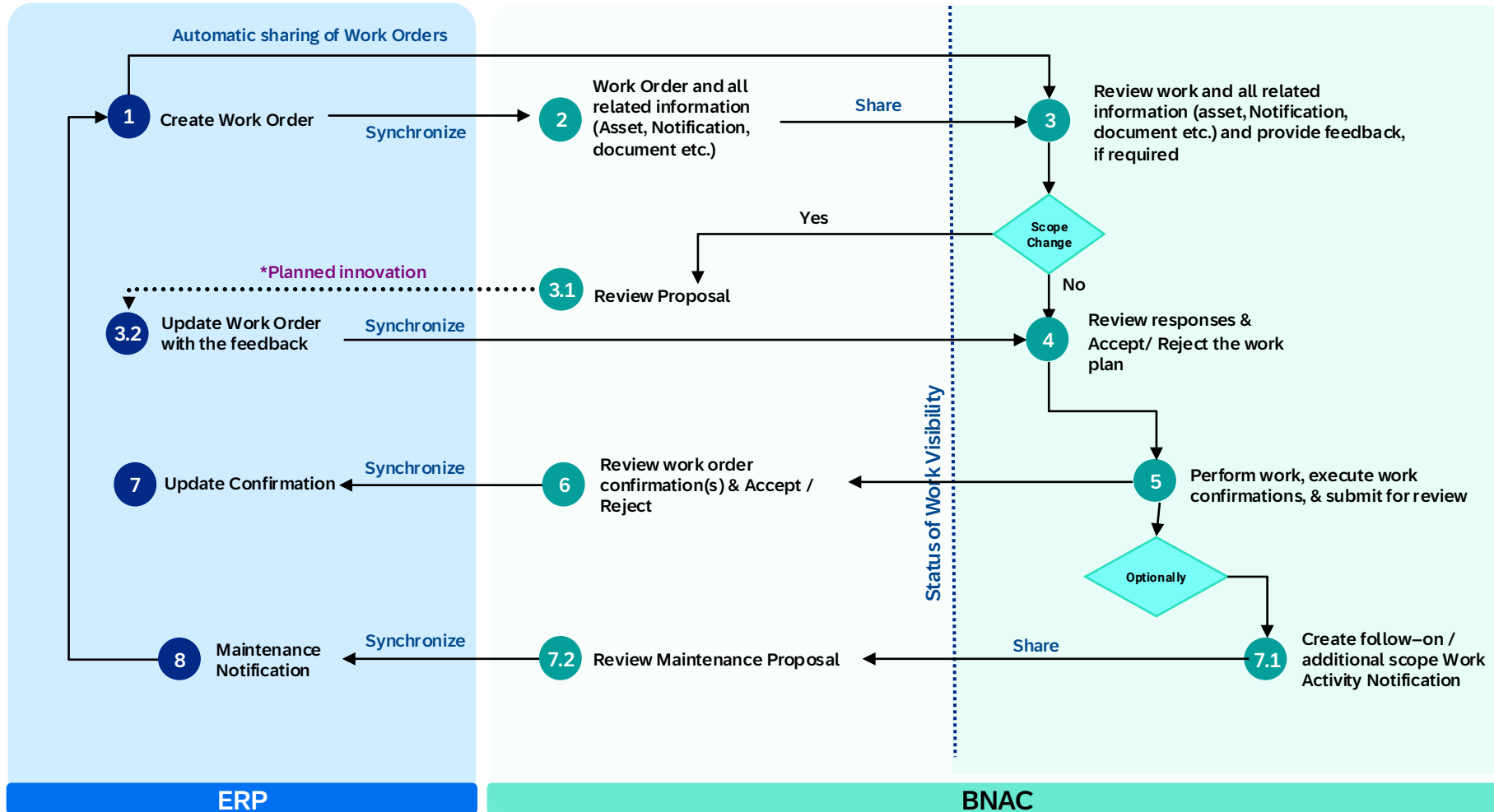
SAP Business Network Asset Collaboration

Collaborative Maintenance




SAP Business Network Asset Collaboration

Collaborative Maintenance – Small/Medium Service Contractors



NEWS



BestRun grocer commits to HFC Free Stores
BestRun grocer commits to HFC Free Stores

PAGES

- Corrective Maintenance Maintenance Processes
- Preventive Maintenance Maintenance Processes
- My Home
- Inventory Processing
- Inventory Management
- Overview Maintenance Supervision
- Master Data Maintenance Supervision
- Overview Maintenance Planning

Apps

Add Apps

Favorites, Most Used, Recently Used

- Find Technical Object
- Create Maintenance Order
- Find Maintenance Orders Completion
- Find Maintenance Orders
- Dynamic Forms
- Create Maintenance Notification
- Find Maintenance Notification
- Display Maintenance Order
- Automatic Creation of Purchase Orders from...

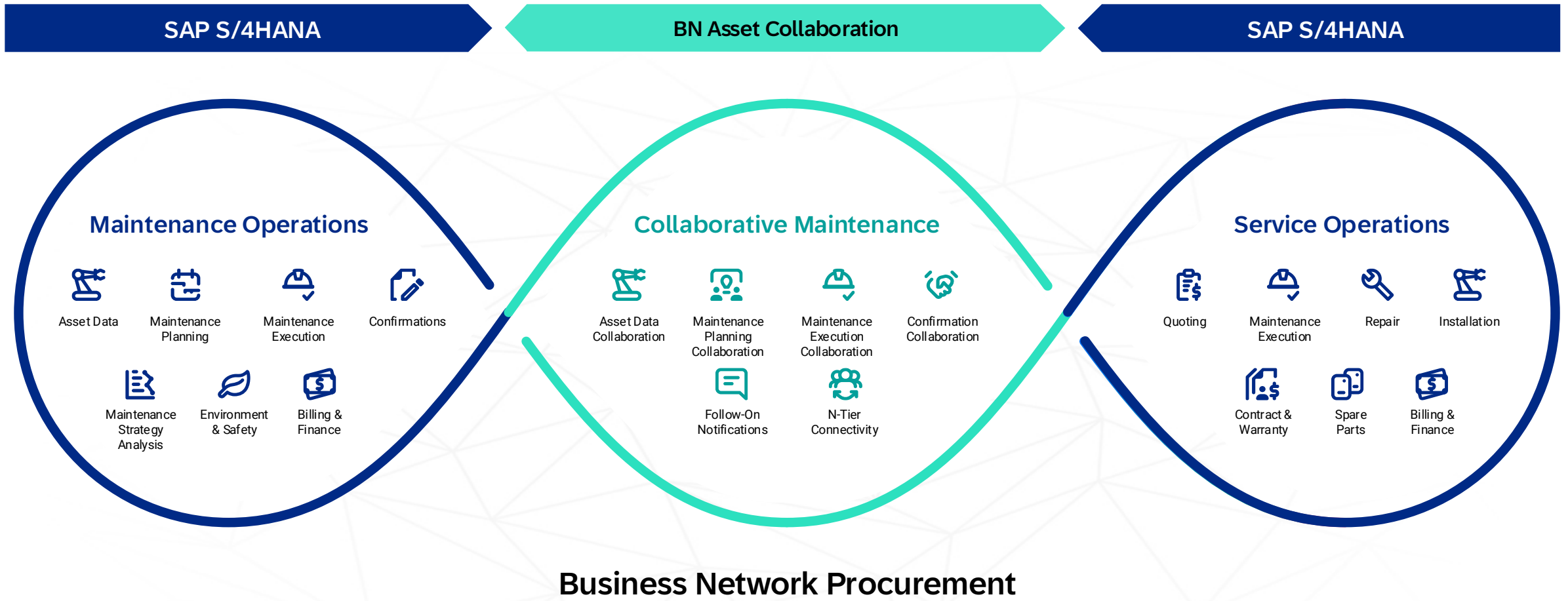
Insights (6)

Add Tiles Show More

Recent Inventory Counts 172 Sorted by Count Date 100000499 24.10.2025	Overdue Materials - GR Blocked Stock 2 Sorted by Posting Date	Outbound Delivery List 555112 Sorted by Planned Goods Issue Date 81067883	Inbound Delivery List 3382 Sorted by Delivery Date 180002723	Off-Contract Spend 176 As % of total spend By Material Group Frame 88 %
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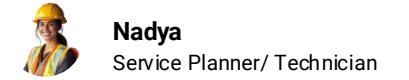
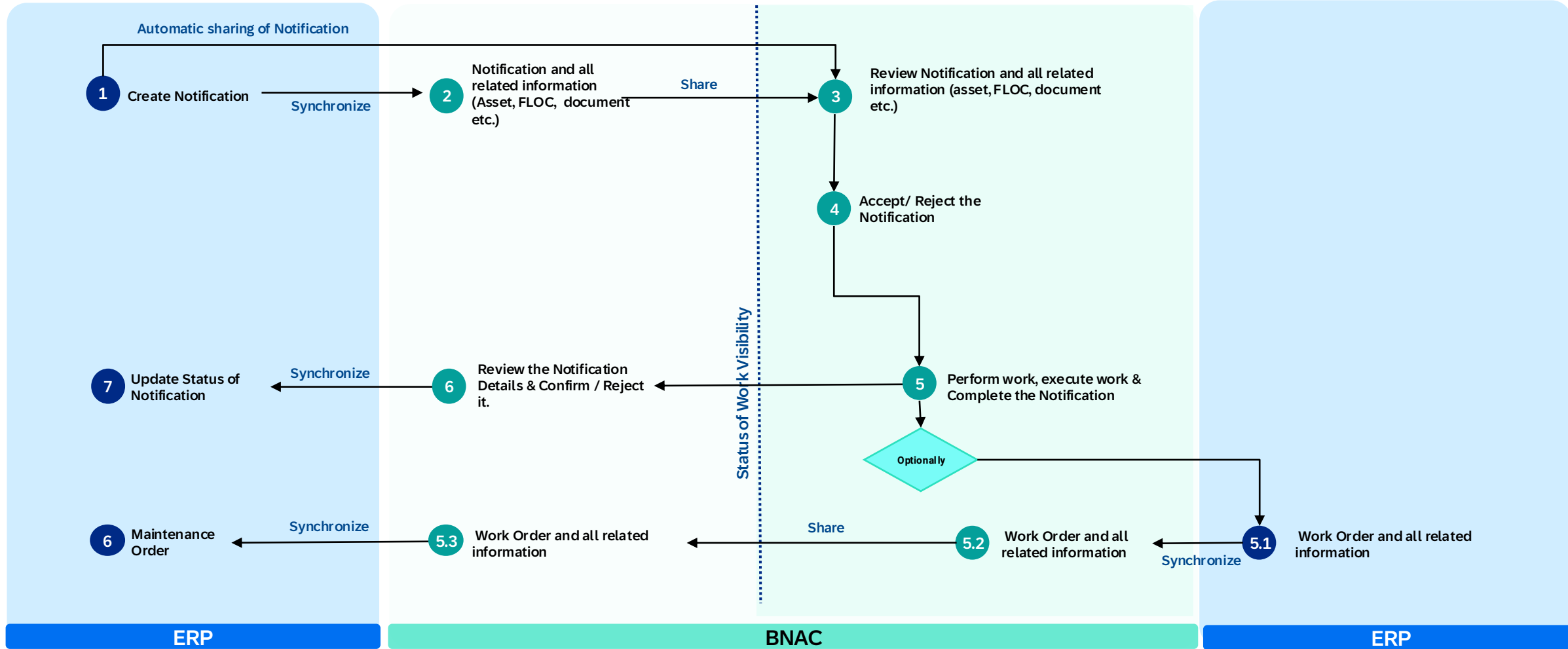
Collaborative Service Execution from SAP

Delivering a Network Platform from Maintenance to Service



SAP Business Network Asset Collaboration

Collaborative Notification



News ▾



A Day in the Life of an Engaged Retail Associate
A Day in the Life of an Engaged Retail Associate

Pages ▾

 Corrective Maintenance Maintenance Processes	 Preventive Maintenance Maintenance Processes	 My Home	 Inventory Processing
 Inventory Management	 Overview Maintenance Supervision	 Master Data Maintenance Supervision	 Overview Maintenance Planning

Apps ▾





[Add Apps](#)

Favorites Most Used Recently Used

 Find Technical Object	 Create Maintenance Order	 Find Maintenance Orders Completion	 Find Maintenance Orders	 Dynamic Forms
 Create Maintenance Notification	 Find Maintenance Notification	 Display Maintenance Order	 Automatic Creation of Purchase Orders from...	

Insights (6) 

[Add Tiles](#) [Show More](#)

Recent Inventory Counts 172 	Overdue Materials - GR Blocked Stock 2 	Outbound Delivery List 555379 	Inbound Delivery List 3401 	Off-Contract Spend 176 
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Product Evolution

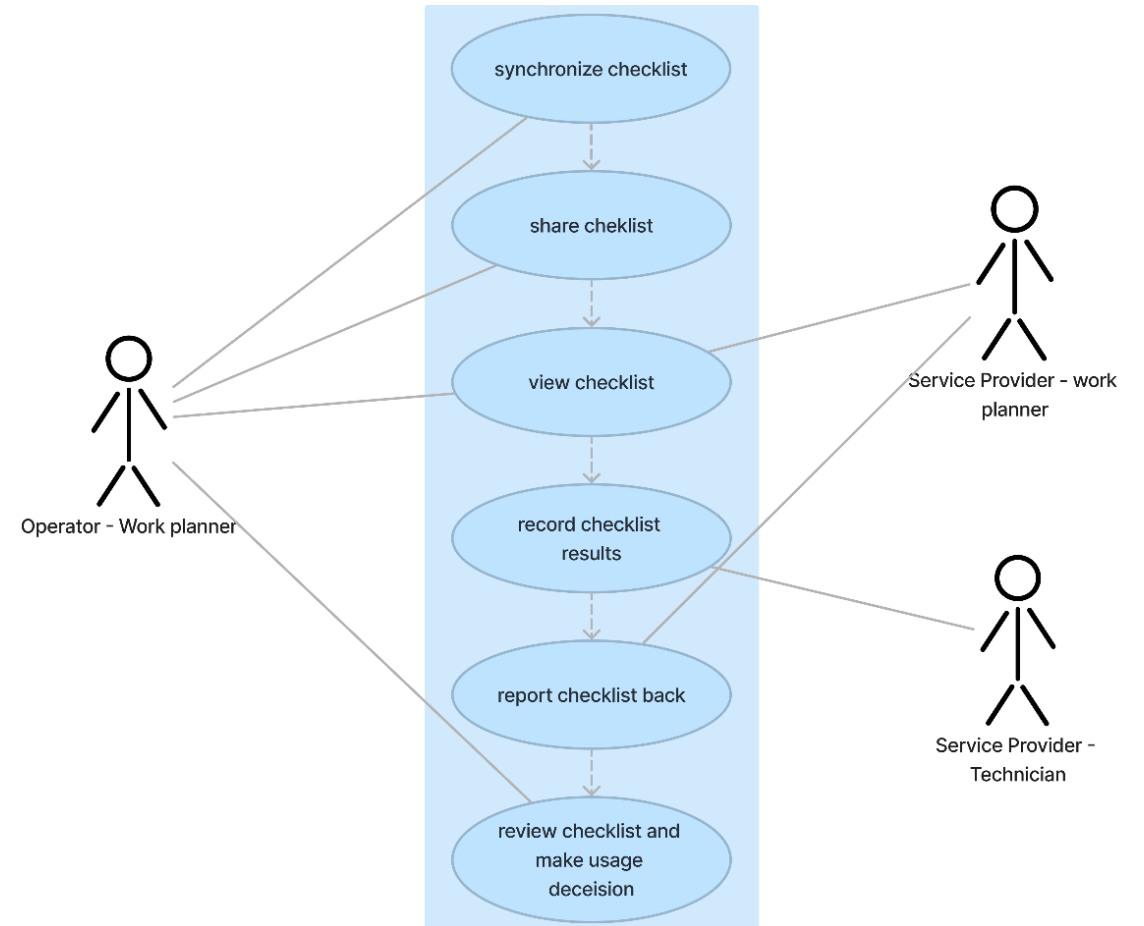
SAP Business Network Asset Collaboration

Collaborative Checklist

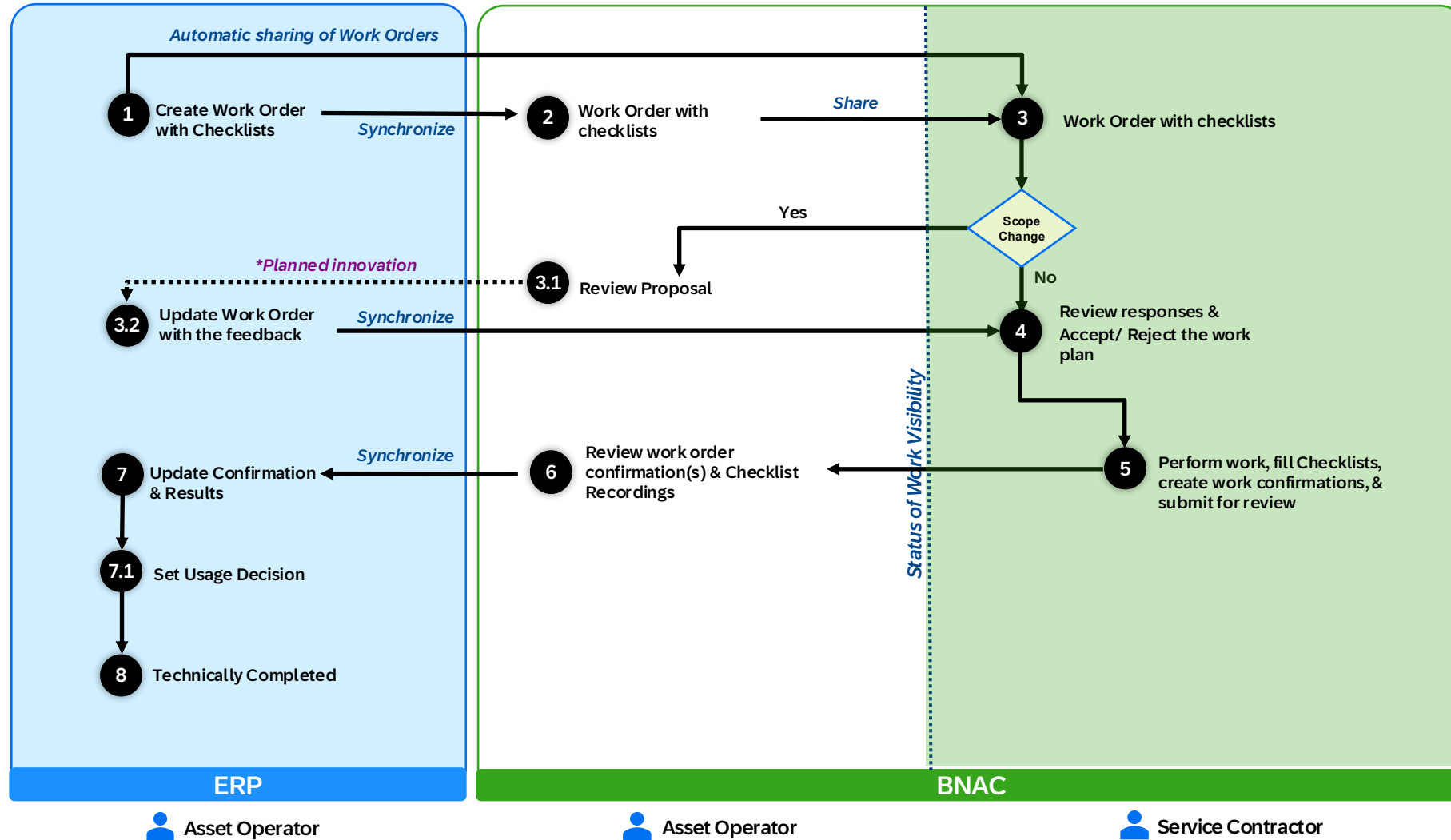
Via BNAC the Operator would like to share the work order and checklist with the service provider, enabling the service provider to view the checklist within BNAC. They operator should be able synchronize them manually or automatically from their ERP.

As the service provider progresses with the checklist, they record the results in BNAC upon completion of the work order. The service provider reports the checklist along with the work order back to the Operator on BNAC.

The Operator review the checklist on BNAC and based on the review, the checklist is either accepted and synchronized back to the ERP system or returned to the service provider for revisions. Once the checklist is accepted, in the ERP operator makes a usage decision for the checklist. Finally, the work order is marked as technically complete.

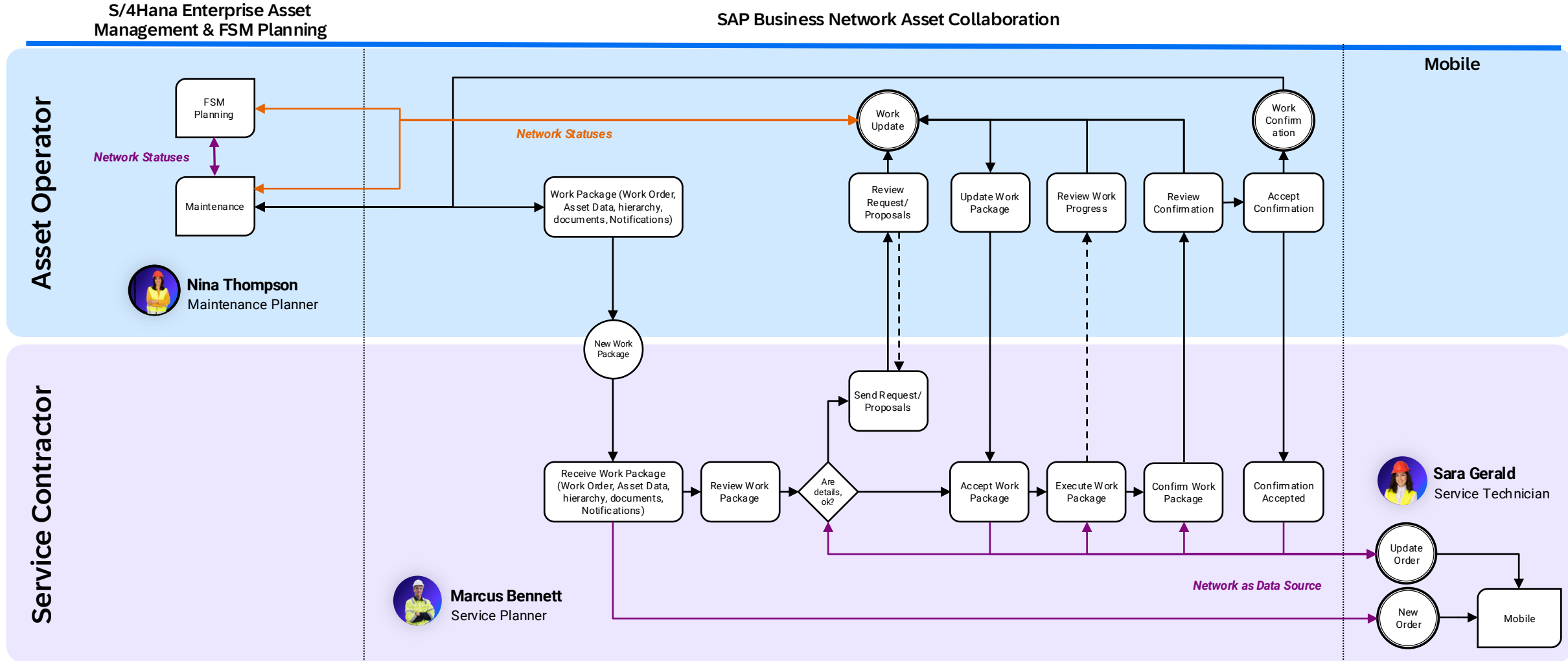


Process Flow



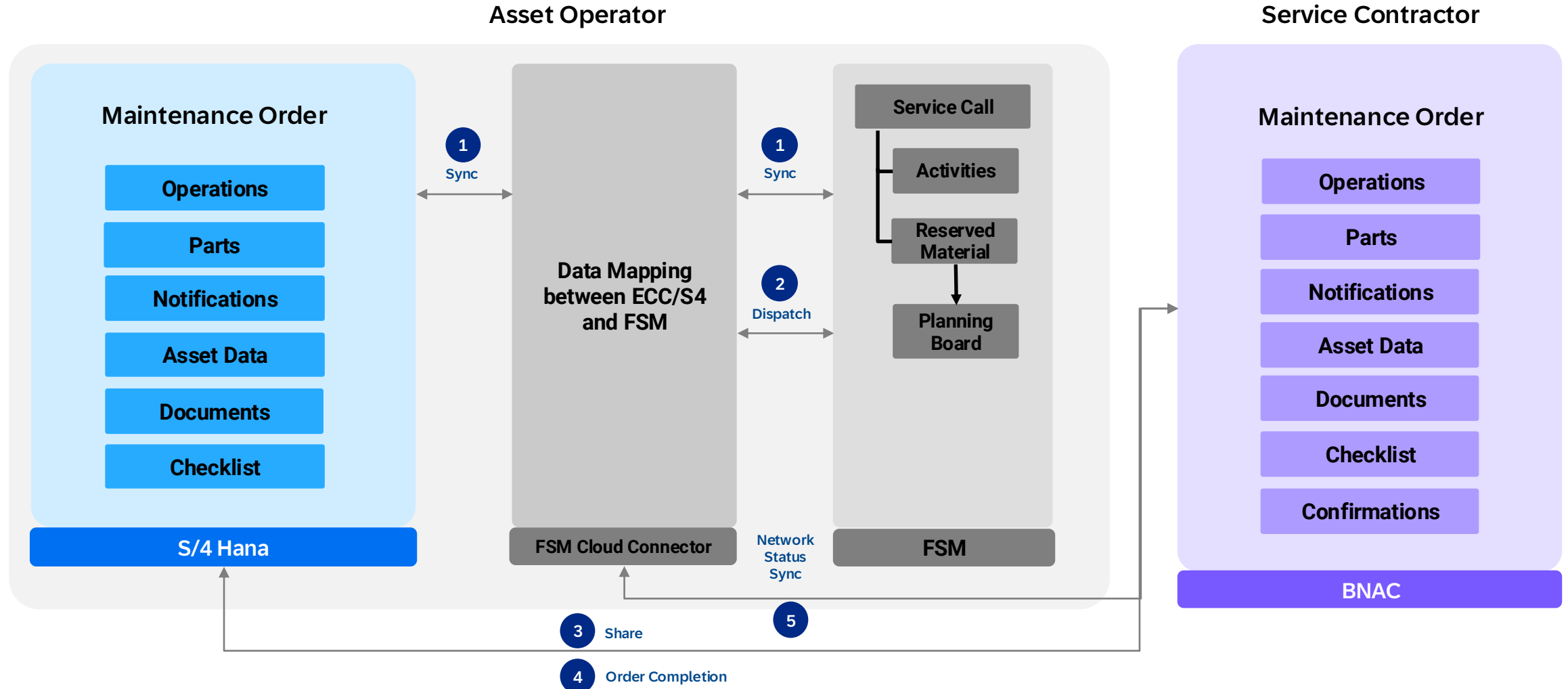
Network Centric Field Service & Assets

Operators use S/4Hana EAM and advanced planning and scheduling capabilities of FSM and service contractors execute the work through BNAC & offline mobile execution capabilities to perform work in areas with limited or no mobile network coverage.

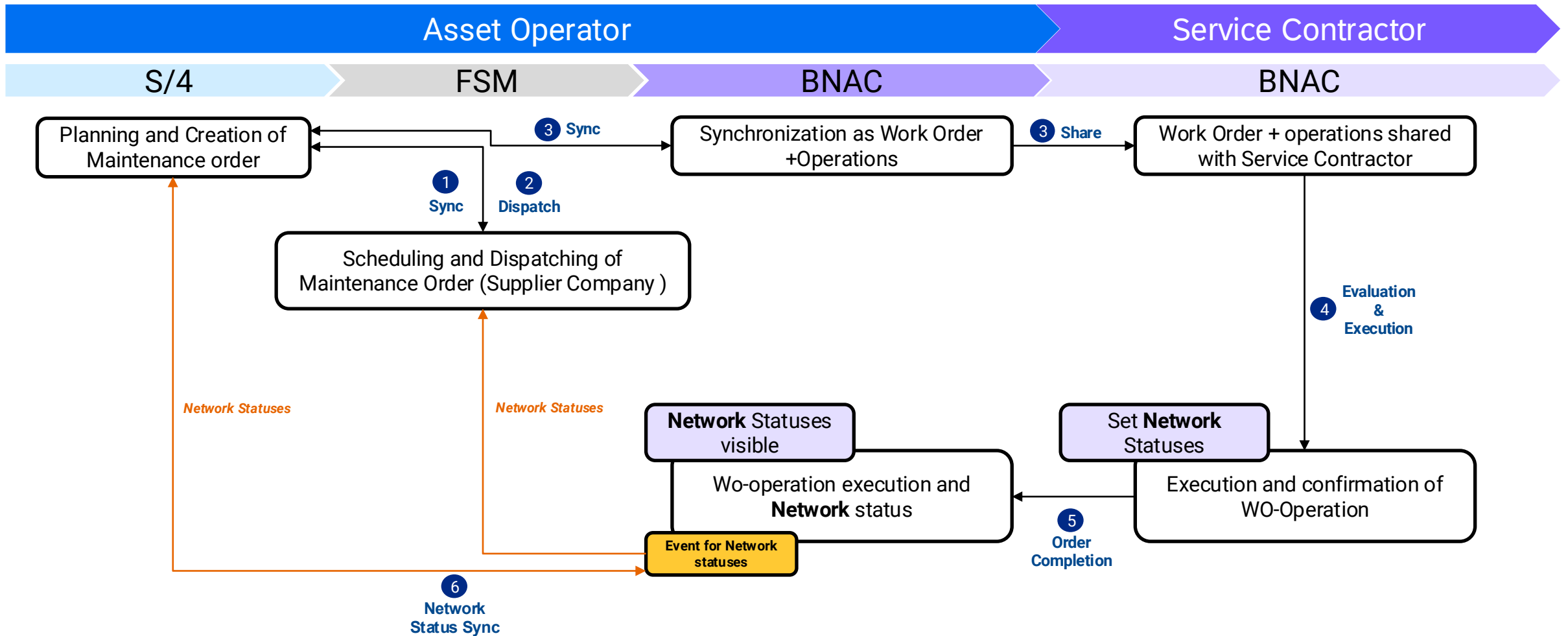


Network Centric Field Service & Assets

Operators use S/4Hana EAM and advanced planning and scheduling capabilities of FSM and service contractors execute the work through BNAC



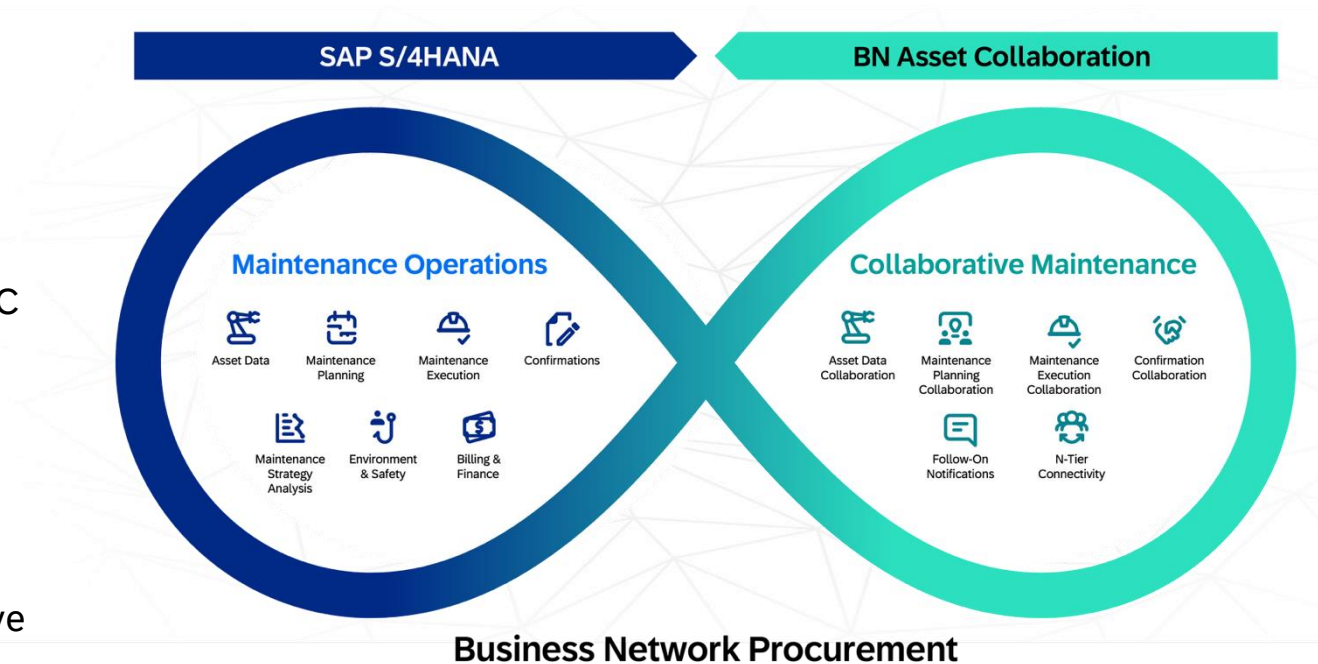
BNAC FSM Integration Process and Assumption



Enhanced Maintenance Collaboration Integration with S/4 Maintenance Management

Context

- Developments will foster the **seamless integration** supporting the collaborative Maintenance and Service processes of our Intelligent Asset Management solution
- “Collaborative” Order and assigned Notifications will be the **created** and **planned** in S/4HANA Asset Management
- Object synchronization is **triggered** and **administrated** by BNAC
- S/4HANA will remain the **master system** for **Orders** and **Notifications**
- Collaboration status will be **shared** between and **visualized** within S/4HANA and BNAC
- **Navigation targets** in the various S/4HANA applications will be introduced to allow a **seamless User Experience** in collaborative scenarios.



MockUp – Manage Maintenance Notifications and Orders (F4604)

Order List View

SAP Maintenance Notifications and Orders

All | Search

SW

Standard

Filter, Sort and Export capabilities should be provided for collaboration fields: Order ID, Shared-Status.

Application Logs

Required Start: 09.04.2025 - 09.05.2025

Maintenance Plant: Plant Section: Planning Plant: Planner Group: Main Work Center: Execution Object: Execution Object Type: Maintenance ...

Order Type: Priority: Priority Type: Subphase:

Go Adapt Filters (2)

Maintenance Notifications and Orders (372) Standard

Create Order Change Responsibility Submit for Approval Edit Orders Assign Order Unassign Order Change Notification Status Change Order Status Open In

Execution Object Type	Execution Object	Priority	Technical Object	Required Start	Final Due Date	Associated With	Order ID	Collaboration Status	Shared
<input type="checkbox"/>	Maint plan 1 670000005953	No Priority	Cooling System (CK01-001-COOL)	02.05.2025, 00:00:00	02.05.2025				
<input checked="" type="checkbox"/>	PUMP MAINTENANCE 670000005173	No Priority	AJ-PUMP (AJ-PUMP)	30.04.2025, 00:00:00	30.04.2025		WO.ABCD.1234	1 1 1	Yes
<input checked="" type="checkbox"/>	FL-New Planning 670000006029	No Priority		29.04.2025, 00:00:00	30.04.2025		WO.ABCD.0815	4	No
<input checked="" type="checkbox"/>	PUMP MAINTENANCE 670000005200	No Priority	AJ-PUMP (AJ-PUMP)	28.04.2025, 00:00:00	28.04.2025		WO.ABCD.4711	2 2	No
<input type="checkbox"/>	Test object list 670000005935	No Priority		28.04.2025, 00:00:00	28.04.2025				

"Open In" should be used to jump-to order-view in BNAC for multiple orders.

Automatically opened when order is selected in F4604)

MockUp – Find Maintenance Orders (F2175)

Order Detail View + Operation List View

< SAP
All | Search
🔍

67000005173
PUMP MAINTENANCE

Order Type: Proactive Maintenance (YA02)

Processing Context: Standard Order

Priority: No Priority

Technical Object: [AJ-PUMP \(AJ-PUMP\)](#)

Notification:

Basic Start: 30.04.2025, 00:00:00

Basic Finish: 30.04.2025, 23:59:59

Order Phase: Preparation

Order Subphase: In Preparation (Order)

Has Open Main Work: Yes

Work Permit Relevance: Not Determined

Active Phase Controls: 0

Estimated Cost: -

Actual Cost: -

Original Files: 0

Operations: 3

Collaboration

Order ID: [WO.ABCD.1234](#)

Progress:

Shared: Yes

Edit Related Apps

General Information Operations Organizational Data Account Assignment Costs System Status Phase Control Original Files History Approval Details

General Information

General	Responsibilities	Dates	Technical Object
Notification: - Task List: strip landing gear (A/9/1) Maintenance Plan: PUMP MAINTENANCE (19624) Long Text: -	Main Work Center: AJ work center (AJ_WC_1) Main Work Center Plant: Plant 0001 (0001) Planner Group: AJ Planner Group (ZAJ) Planning Plant: Plant 0001 (0001) Person Responsible:	Basic Start: 30.04.2025, 00:00:00 Basic Finish: 30.04.2025, 23:59:59 Prev. Final Due Date: -	Technical Object: AJ-PUMP (AJ-PUMP) Material: - Serial Number: - Assembly: - System Condition: -

Operations (3) Standard*

Operation	Operation Description	Control Key	Work Center	Plant	Planned Work	System Status	Oper ID	Collaboration Status	Shared With
oper1 0010	oper1	Plant maintenance - internal (PM01)	A/C Maintenance (ACC_MAIN)	Plant 0001 (0001)	2,000	HR REL	WO.ABCD.1234-10	Finally Confirmed	Industrial Asset Manufacturer
oper2 0020	oper2	Plant maintenance - internal (PM01)	A/C Maintenance (ACC_MAIN)	Plant 0001 (0001)	2,000	HR REL	WO.ABCD.1234-20		-
oper4 0030	oper4	Plant maintenance - internal (PM01)	A/C Maintenance (ACC_MAIN)	Plant 0001 (0001)	0,0	REL	WO.ABCD.1234-30	In Progress	Industrial Asset Manufacturer

Order ID provides Hyperlink to BNAC Order Page.

"Shared With" represents the BNAC-Partner, which might be equivalent to S4 Operation Supplier.

MockUp – Find Maintenance Orders (F2175)

Operation Detail View

67000005173 / **0010**
oper1

Suboperation: –
Execution Stage: MAIN
Notification:
Checklist Type: Monthly Check - Electrician (CL01ME)

Technical Object:
Order Type: Proactive Maintenance (YA02)
Processing Context: Standard Order
External Processing: No external processing

Operation Phase: Preparation
Operation Subphase: In Preparation
Active Phase Controls: 0

Actual Cost: –

Collaboration
Oper ID: [WO.ABCD.1234-10](#)
Progress: Finally Confirmed
Shared With: Industrial Asset Manufacturer

Order ID provides Hyperlink to BNAC Order Page.

“Shared With” represents the BNAC-Partner, which might be equivalent to S4 Operation Supplier.

General Information | Requirements | External Data | Planned Dates and Times | Material | Production Resources/Tools | System Status | Phase Control | Original Files

General Information					
Long Text: –	Order Type: Proactive Maintenance (YA02)	Assembly: –	Operation System Condition: –	Work Center: A/C Maintenance (ACC_MAIN)	Planned Work: 2,000 HR
	Technical Object: –	Notification: –		Plant: Plant 0001 (0001)	Normal Duration: 0,0
				Activity Type: –	Percent: 0
				Control Key: Plant maintenance - internal (PM01)	Number of Required Capacities: 0
				Calculation Key: –	Personnel Number: –

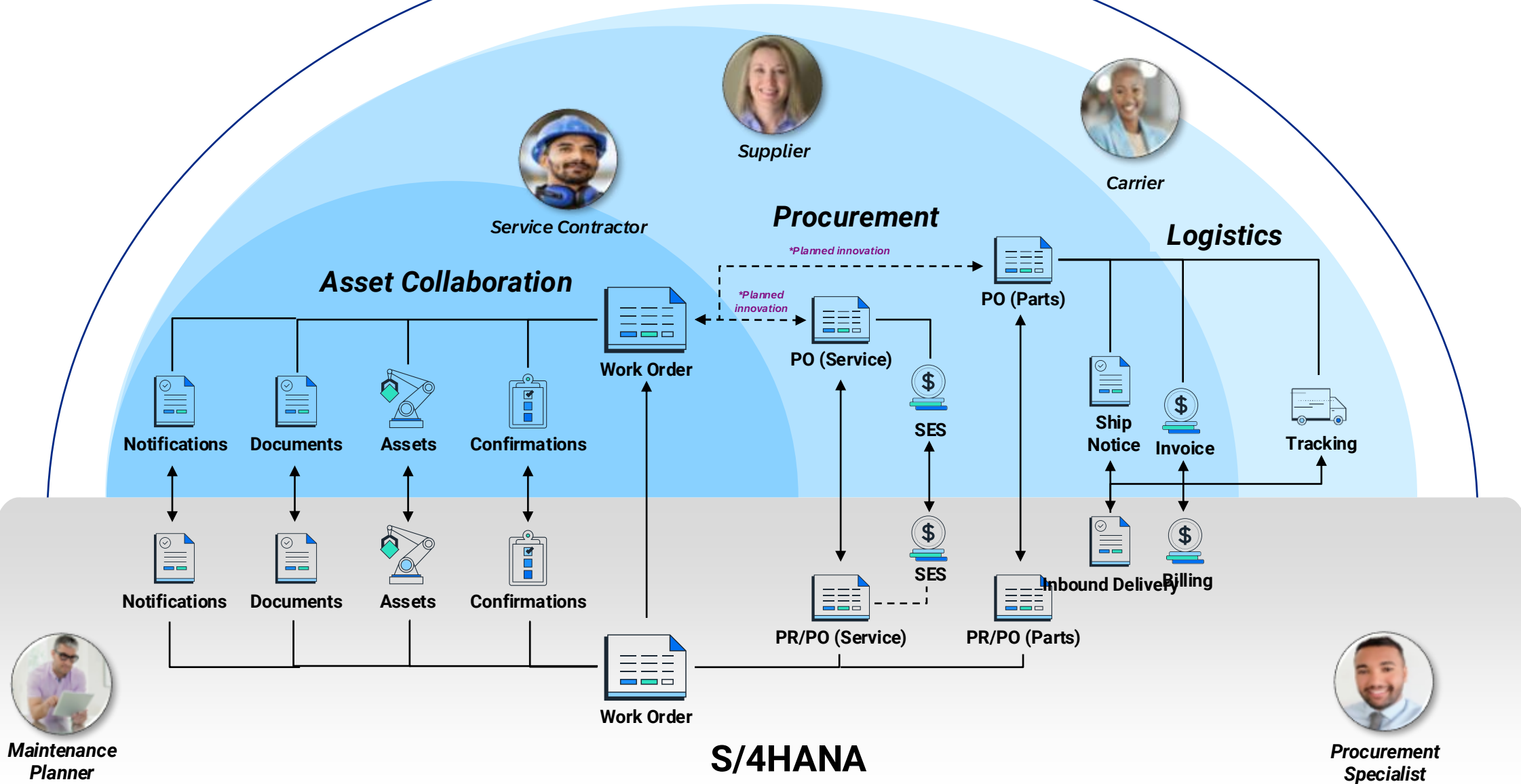


Network Convergence

Create a foundation for maintenance collaboration

* Planned innovations subject to change

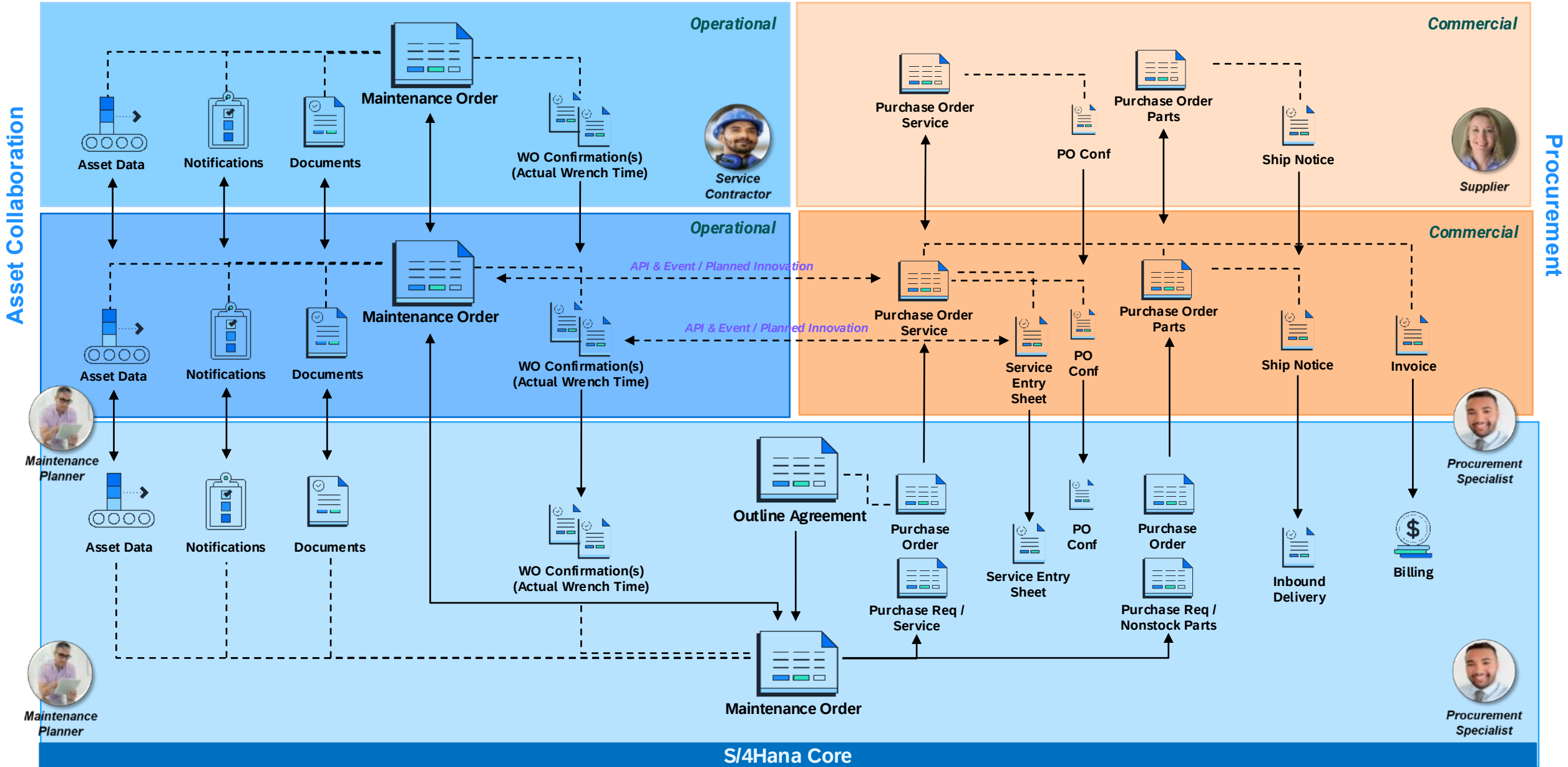
Business Network



Collaborative Maintenance

Business Process Flow

SAP Business Network SAP Business Network





Business Value

Key Operational Wins Enabled by BNAC

10%

Savings in Job pack creation

BNAC sends digital Work Orders directly from integrated ERPs, removing manual job-pack creation, printing, and distribution. Configurable sharing rules further cut effort, speeding preparation, reducing admin overhead, and improving compliance.

10%

Increase in time on tools

BNAC removes daily handover meetings and printed job packs by giving contractors direct digital access to all work details before arriving onsite. With one always-updated digital work package, contractors go straight to the job, increasing productive wrench time and reducing delays.

5%

Savings in Work Order close out

BNAC removes double entry by letting contractors record readings, findings, and completion data directly in the system for approval. With emails replaced by automated workflows, operators get faster approvals, quicker contractor payouts, and a far more efficient closeout process.

* SAP customer benchmarking

SAP Business Network Asset Collaboration

Customer Adoption Metrics

How can SAP solutions enable you to change the game?

SAP Asset Intelligence Network provides a network solution for effective collaboration between asset manufacturers, asset operators, service providers, and other stakeholders on asset definition, asset data handover and maintenance collaboration. It is an asset business network that enables the next generation of Asset management and a foundation for Industry 4.0

Target Customer / Industry

- Operator / Owners of industrial equipment
- Companies providing services like providers of maintenance services or Engineering and Construction services

What are the benefits?

- Through collaborative asset management – improving overall equipment and maintenance processes effectiveness by leveraging the network effect through a closer collaboration between the asset owners, manufacturers and service providers
- Find asset information you need in one place - Increase “wrench time” - access a single repository for all information about your physical assets to enable effective asset management and customer service processes
- Integrate maintenance operations between business partners - Connect with manufacturers, operators, or service providers to share work order planning and execution to maximize asset performance, safety operations and minimize the mean time of repair

Why SAP?

- Global scale and SAP's existing footprint in asset-intensive industries, OEMs, and maintenance service providers
- Native integration with maintenance planning and execution (S/4HANA or ECC)
- Normalized asset data model across the business partner with common taxonomy and flexible asset hierarchy
- Unified SAP Business Network enables a comprehensive end-to-end asset collaboration between its trading partners acting in real time and promoting streamline processes and workflows across the different SAP business networks

+165 partners
+35 Millions assets
>9.2M Transactions

+25 Countries

Simplified

Collaboration between asset stakeholders for asset definition, asset data handover and work order collaboration

One

Entry point for service providers, contractors, manufacturers, suppliers, and maintenance engineers



Using SAP Intelligent Asset Management solutions, SBB can enhance the management of our fleets. We're optimizing train maintenance activities and enhancing rolling stock reliability, helping us deliver a better-quality experience for rail travelers.

Urs Gehrig, Head of Enterprise Asset Management S/4, SBB AG

Public

Challenges

- Managing a vast infrastructure of tracks and trains, SBB faced the challenge of minimizing downtime while supporting seamless stakeholder collaboration.
- The need to minimize unplanned outages to ensure timely travel and safety.

Results

- Gain asset performance insights, detect anomalies, schedule field service, and execute field work with asset management solutions from SAP.
- Collaborate with vendors on work orders for maintenance and service, minimize downtime for SBB's substantial infrastructure, and gain maximum transparency across SBB's energy operations and those of its service partners with SAP Business Network Asset Collaboration.

Thank you.



Rajarshi Ghosh
Area Product Manager,
SAP Business Network Asset Collaboration

SAP Bring out your best.

