Webinar: SAP IBP Business Network Collaboration
Meet the Experts - Collaboration with Ariba

SAP IBP BNC Product Management
April 19, 2018

CUSTOMER
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Agenda

❖ Overview of Business Network Collaboration in IBP
❖ Demo: Supply & BNC with Ariba Supply Chain Collaboration
❖ BNC & Ariba Integration Details
❖ Roadmap and Future Scenarios
❖ Q&A
Future: Business Network Collaboration
End-to-end, Multi-tier Collaboration

Business Networks

Private Portals

SAP Ariba

Suppliers

Customers

SAP Integrated Business Planning (IBP)

- Forecast Collaboration
- VMI/SMI
- Inventory Visibility
- ...

Direct Access

This is the current state of planning and may be changed by SAP at any time.
Business Network Collaboration

E2E Processes that Incorporate Information from External Sources

Different Processes

Supplier Collaboration
- Forecast Commit
- Inventory Visibility
- SMI

Customer Collaboration
- Demand Forecast
- VMI

Multiple Channels

File Upload by internal user
SAP Ariba
IBP Web Portal
IBP to SNC Integration
IBP to IBP Integration
IBP to Private Network

Process Management

Alerts
Status Overview

This is the current state of planning and may be changed by SAP at any time.
Supply Side Collaboration – Forecast Commit
New in Release 1705

Forecast Commit
- Forecast in IBP is sent to suppliers who are on-boarded on the SAP Ariba Supply Chain Collaboration platform
- Supplier commits forecast and sends it back to SAP Integrated Business Planning

Integration with SAP Ariba Supply Chain Collaboration
Supply Side Collaboration – Inventory Visibility

New in Release 1708

Inventory visibility

- Provide stock on-hand visibility at supplier side
- Supplier sends actual stock on hand information to SAP Integrated Business Planning

Integration with SAP Ariba Supply Chain Collaboration
New Planning Key Figures to Support Multi-tier Collaboration with Ariba Supply Chain Collaboration **New in Release 1711**

- **Target Stock Level Time Series** (*IBP to Ariba using cXML_ProductActivityMessage_Out*)
  - Specifies the stock level that a buyer expects the supplier to maintain

- **Component Forecast Time Series** (*Ariba to IBP using cXML_ProductReplenishmentMessage_In*)
  - Provides information about the forecast that your suppliers have sent to their suppliers

- **Purchase Order Time Series** (*Ariba to IBP using cXML_ProductReplenishmentMessage_In*)
  - Provides information about the purchase orders that your suppliers have placed with their suppliers

**Remark:**

All key figures can be directly routed to the supplier’s back-end system through the Ariba Network.

The above key figures are currently not visible on the Ariba Supply Chain Collaboration UI.
Shared Data Tracking
New in Release 1711

- Track the evolution of forecast key figure values that are exchanged with suppliers.
- Key figures can be tracked, irrespective of whether they are published to a supplier or received from a supplier.
- History key figures can be viewed in the Change History View.
Data Sharing Plan Outbound
IBP to Ariba Network New in Release 1802

- Optimized message handling for *Data Sharing Plan Outbound* job to limit number of records transmitted per `cXML_ProductActivityMessage`
  - Default limit is 10,000
  - [Optional] New parameter **Max. Records Per Message** has been added to override the default limit (highly unlikely)
  - All time buckets of a combination are accommodated in one message
IBP - Ariba Network Integration
Ariba Credentials and Endpoints New in Release 1802

• New app to Manage Ariba Network Credentials and Endpoints

• Business catalog SAP_CORE_BC_ARB (Ariba Network Integration)

• Contact the administrator of your Buyer account on Ariba Network for what information should be maintained here
Shared Data Tracking
Change-History-Based Calculations New in Release 1802

- Enable *shared data tracking* in Data Sharing Plan [IBP 17011]

- For example, to track the evolution of forecast key figure values that are exchanged with suppliers

- New parameter to enable *Change-History-Based Calculations* for the Planning Area
**Shared Data Tracking**

**Change-History-Based Calculations** *New in Release 1802*

- **New History** dimension is available and can be included in the planning level of the key figure used to track shared data
  - History Attributes
  - Data Sharing Attributes
Shared Data Tracking
Change-History-Based Calculations New in Release 1802

- IBP Excel Add-In can be used to **view Supplier Forecast Waterfall**
  - History Attributes
  - Data Sharing Attributes
  - For example:
    - Proactive or reactive excess and obsolescence analysis

![Supplier Forecast Waterfall](image_url)
SAP Best Practices – supplier commit with SAP Ariba

Process flow

1. Demand Planning
   - Global Demand Plan

2. Demand Sensing
   - Sensed Demand

3. Copy Initial Stock and Unconstrained Forecast
   - Unconstrained Forecast

4. Generate Component Forecast
   - Component Forecast

5. Review & Release Component Forecast
   - Component Forecast

6. Check Alerts
   - Supplier Committed Forecast

7. Analyze Supplier Committed Forecast
   - Supplier Committed Forecast

8. Supply and Allocations Planning
   - Supply Proposals, Product Allocations

9. Publish Supplier Commits
   - Supplier Committed Forecast

10. Review Forecast
    - Component Forecast

11. Generate Component Forecast
    - Component Forecast

12. Review Forecast
    - Component Forecast

13. Publish Supplier Commits
    - Supplier Committed Forecast

14. Supply and Allocations Planning
    - Supply Proposals, Product Allocations

15. Demand Sensing
    - Sensed Demand
SAP Best Practices – supplier commit with SAP Ariba

Description

Business Network Collaboration enables you to share key figure data with your business partners in SAP Ariba Supply Chain Collaboration. In this process, it's used to receive committed quantities for required components from each of your suppliers. The Multilevel Supply Planning Heuristic is used to generate the Supplier Forecast, that is the demand of components which you source from suppliers, from your unconstrained forecast of finished goods. After releasing the Supplier Forecast to SAP Ariba, suppliers commit the confirmed quantities. The commitments are then published in SAP Ariba. Custom alerts inform you about over- and undercommitted components, and predefined charts help you decide on how to react to any deviations from the original Supplier Forecast. The committed quantities are taken as the Supplier Constraint input of the Constrained Forecast operator in the subsequent process of IBP for response and supply – supply and allocations planning.

Scope

Use Case
- Share your component demand with your suppliers in SAP Ariba
- Receive committed quantities from your suppliers and analyze deviations from original component demand
- Use the committed quantities as supplier constraint in your subsequent supply planning

Benefits
- React to changes in supply and demand quickly and efficiently
- Reduce inventory carrying cost by enhancing supplier visibility and interactivity

Technical details

Input
- Global demand plan
- Final sensed demand
- Initial stock

Output
- Supplier committed component forecast

Planning Level
- Product, Location, Ship-To Location

Planning Operator
- Time-Series-Based Supply Planning Heuristic to generate component forecast

User interaction

Planning Views
- Supplier Commit, 4 worksheets

Alerts
- 2 predefined custom alerts: Under-committed demand, Over-committed demand

Analytics
- 1 predefined dashboard ‘Supplier Commit with SAP Ariba’ with 2 charts

Collaboration
- Integration with SAP Ariba Supply Chain Collaboration

Scope

Frequency
- Weekly

Participants
- Supply Planner
- Suppliers
Demo: BNC & Supply
Unconstrained supply planning is run for the Finished goods demand. Demand is propagated through the network, with BOM explosion generating net material forecast for components.

The Customer (Buyer) transmits the unconstrained component forecast to the Suppliers/CM (time series data).

The Supplier receives forecast, reviews and publishes forecast commit back (confirmed quantities – supplier commit) back to the OEM (Buyer).

The Customer (Buyer) receives commits from all Suppliers/CM, analyzes alerts/reports for variances, performs scenario planning to resolves issues and makes adjustments.

The Customer (Buyer) publishes Constrained Forecast.
Deep Dive in Configuration and Setup
Message-based integration with Ariba Supply Chain Collaboration (SCC)

IBP Data Sharing Management
- Send Outbound
- Poll Inbound

Ariba Add-On
- Synch. Outbound Adapter
- Polling Client

AIF (Application Interface Framework)

IBP

NW Web Services

Synch. Web Service Protocol

Direct Connectivity
- Internet
- cXML HTTP(s) SOAP

Ariba Network Supply Chain Collaboration

Messages:
- cXMLProductActivityMessage
- cXMLProductReplenishmentMessage

Message Exchange Error Handling Capabilities
IBP – Ariba Configuration

- Maintain Certificate Trust List
- Setup Communication Arrangement
- Maintain Ariba Network Credentials and Endpoints
- Assign Recipients to User for message monitoring
- Maintain Data Sharing Plans

Ariba SCC

- cXML Setup
- Supplier enablement
# IBP – Ariba Configuration

<table>
<thead>
<tr>
<th>IBP</th>
<th>Ariba SCC</th>
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</thead>
<tbody>
<tr>
<td>▪ Maintain Certificate Trust List</td>
<td>▪ cXML Setup</td>
</tr>
<tr>
<td>▪ Setup Communication Arrangement</td>
<td>▪ Supplier enablement</td>
</tr>
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<td>▪ Maintain Ariba Network Credentials and Endpoints</td>
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<td></td>
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<tr>
<td>▪ Maintain Data Sharing Plans</td>
<td></td>
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</tbody>
</table>
App: Maintain Certificate Trust List

- Enables TLS (Transport Layer Security) handshake between IBP and Ariba (*network encryption using TLS 1.2*)
- Download certificate from Ariba ([https://connect.ariba.com/toolkit/contentdisplay/1,,176663,00.html](https://connect.ariba.com/toolkit/contentdisplay/1,,176663,00.html))
- Upload the certificate into IBP using the *Maintain Certificate Trust List* app
IBP – Ariba Configuration

- Maintain Certificate Trust List
- Setup Communication Arrangement
- Maintain Ariba Network Credentials and Endpoints
- Assign Recipients to User for message monitoring
- Maintain Data Sharing Plans

- cXML Setup
- Supplier enablement
Setup Communication Management

- When a cXML message is sent to Ariba Supply Chain Collaboration, the sending system must authenticate itself.

- Ariba Supply Chain Collaboration offers two authentication mechanisms:
  - Using a client certificate
  - Using “shared secret” password

- The authentication method must be defined in both SAP Integrated Business Planning and Ariba Supply Chain Collaboration
Setup Communication Management (Authentication Mechanisms)

Authentication Using a Client Certificate

Following steps are required for enabling client-certificate based authentication

1. Create a Communication System

2. Create a Communication Arrangement based on communication scenario SAP_COM_0201

Authentication Using a Shared Secret

Following steps are required for enabling shared-secret based authentication

1. Create a Communication System

2. Create a Communication Arrangement based on communication scenario SAP_COM_0201

3. Define the Shared-Secret
Apps: Communication Management

- Setup direct message-based integration with Ariba Supply Chain Collaboration (SCC).
- Customer managed scenario: SAP_COM_0201 (Planning – Ariba Network Integration)
  - **App: Communication System**
    - Authentication using shared secret
      - Host name: service-2.ariba.com
    - Authentication method: none
    - Authentication using client certificate
      - Host name: certservice-2.ariba.com
      - Authentication method: SSL Client Certificate
      - Download certificate from IBP
  - **App: Communication Arrangement**
    - Outbound services to Ariba Network are automatically created
    - Polling frequency for PREM message (Product Replenishment Message) can be maintained
IBP – Ariba Configuration

**IBP**
- Maintain Certificate Trust List
- Setup Communication Arrangement
- Maintain Ariba Network Credentials and Endpoints
- Assign Recipients to User for message monitoring
- Maintain Data Sharing Plans

**Ariba SCC**
- cXML Setup
- Supplier enablement
The settings maintained here should exactly match how the Buyer account is set up in Ariba Network

Contact the administrator of your Ariba Buyer account or SAP Ariba Customer Support

If shared secret authentication is used, then maintain Shared secret
IBP – Ariba Configuration

- Maintain Certificate Trust List
- Setup Communication Arrangement
- Maintain Ariba Network Credentials and Endpoints
- Assign Recipients to User for message monitoring
- Maintain Data Sharing Plans

Ariba SCC

- cXML Setup
- Supplier enablement
App: Assign Recipients to User

- New App in 1805: Assign Recipients to User to enable Message Monitoring for users*
- User needs to be assigned to:
  - Namespace: /IBP01
  - Recipient Name: ALL_RECIPIENTS

* With the new App users are no longer automatically assigned when corresponding business catalog is assigned to user.
IBP – Ariba Configuration

IBP

▪ Maintain Certificate Trust List
▪ Setup Communication Arrangement
▪ Maintain Ariba Network Credentials and Endpoints
▪ Assign Recipients to User for message monitoring
▪ Maintain Data Sharing Plans

Ariba SCC

▪ cXML Setup
▪ Supplier enablement
Contact SAP Ariba Customer Support for:

- Buyer AN ID
- Send Vendor ID, SiteID and SiteAuxID in outgoing documents should be enabled
- Allow buyer to activate Collaboration Supply Chain features
  - Allow buyer to enable forecast collaboration features
- Mutli-ERP: Enabled?
- System ID: Enabled?
- Endpoint: Enabled?
Ariba Network: Buyer >> Administration >> Configuration
cXML Setup

Done by customer

- buyer.ariba.com
- Mode: Production or Test?
- Authentication Method: Shared Secret or Certificate?
  - If shared secret is used it has to match the shared secret maintained in Ariba Network Credentials and Endpoints App of IBP
  - If certificate is used, then upload the certificate downloaded from Communication Arrangement App of IBP
- System ID: Deviating?
- Endpoint
IBP – Ariba Configuration

- Maintain Certificate Trust List
- Setup Communication Arrangement
- Maintain Ariba Network Credentials and Endpoints
- Assign Recipients to User for message monitoring
- Maintain Data Sharing Plans

- cXML Setup
- Supplier enablement
Suppliers have to be on-boarded on Ariba Network and have full-use account.

Ariba buyer has to have active trading relationship with supplier(s) with Supply Chain Collaboration enabled.
Ariba Network: Buyer >> Supplier Enablement

- Supplier identifier has to be maintained and has to exactly match the vendor ID maintained in the Data Sharing Arrangement of IBP

- Forecast Collaboration parameters needs to be maintained
### IBP – Ariba Configuration

**IBP**
- Maintain Certificate Trust List
- Setup Communication Arrangement
- Maintain Ariba Network Credentials and Endpoints
- Assign Recipients to User for message monitoring
- Maintain Data Sharing Plans

**Ariba SCC**
- cXML Setup
- Supplier enablement
Manage Data Sharing plans: An agreement between business partners that governs what data is shared, with whom and how, for example:

- What information is shared with external partners?
- Which partners taking part in the collaboration process?
- How is the information shared?
### Data Sharing Plan

#### Manage Data Sharing Plans

- **Response Publish Supplier Forecast**
  - **Plan Name**: SAP_M_PUBLISH_FORECAST

#### General Information

- **Default Communication Arrangement**: 10/28/2017
- **Arbitration Mapping**: MAP_RM_SUPPLIER_FORECAST_PROJECT

#### Plan Attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Alias</th>
<th>Default Value</th>
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<tbody>
<tr>
<td>FREIGHT</td>
<td>PLAN_ATTR_BUYER_LAN_ID</td>
<td>NO0105934887-T</td>
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<tr>
<td>SUPPLIERID</td>
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#### Mappings

<table>
<thead>
<tr>
<th>Mapping ID</th>
<th>Mapping Name</th>
<th>Source</th>
<th>Target</th>
<th>Usage</th>
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<tbody>
<tr>
<td>MAP_RM_SUPPLIER_FORECAST_PROJECT</td>
<td>MAP_RM_SUPPLIER_FORECAST_PROJECT</td>
<td>_BASELINE</td>
<td>CXML_PROJECT</td>
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#### Arrangements

<table>
<thead>
<tr>
<th>Name</th>
<th>Sharing Mode</th>
<th>Communication Arrangement</th>
<th>Mappings</th>
<th>Visibility Filter</th>
<th>Status</th>
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<tr>
<td>Supplier1</td>
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<td>Arba</td>
<td>MAP_RM_SUPPLIER_FORECAST_PROJECT</td>
<td>Enabled</td>
<td>Preview</td>
</tr>
</tbody>
</table>
Outbound: IBP to Ariba
Provider Data Sharing Plan: Mapping

Mapping based on planning area SAP4C

Message Body

Message Header: From / To
Inbound: Ariba to IBP
Consumer Data Sharing Plan: Mapping

Mapping based on planning area SAP4C

Message Body

Message Header: From / To
Runtime

Outbound message IBP to Ariba

Inbound message Ariba to IBP

Message Monitoring
Runtime : Outbound message IBP to Ariba SCC

Option 1:
Using job template *Data Sharing Plan Outbound*

Option 2:
Directly from Excel Add-In
Runtime: Inbound message from Ariba SCC to IBP

- IBP regularly runs a polling job to retrieve data from Ariba SCC
- Prerequisite: communication scenario SAP_COM_0201 is setup
- All messages of type PREM (Product Replenishment Message) that are stored in the Ariba Outbox, are transmitted to IBP by the polling job.
- The frequency of the polling job can be adjusted.
- Consumer Data Sharing Plan has to be setup
Runtime: Message Monitoring

Inbound and outbound messages can be monitored with the Message Dashboard App

- Key features:
  - See general status of interfaces
  - Check message status over time
  - Navigate to the monitoring and error handling to analyze the log messages in detail
  - Create custom hints or message texts for certain log messages
  - Cancel or restart data messages
Business Network Collaboration: Roadmap
SAP Supply Chain Control Tower – Business Network Collaboration
Product road map overview – key themes and capabilities

Supply-side collaboration
- New SAP Fiori app to maintain SAP Ariba network credentials
- Best practice package for business network collaboration

Collaboration foundation
- Message management
- Optimized message handling
- Shared data tracking: Change-history-based calculations

Supply-side collaboration
- SAP Integrated Business Planning to SAP Ariba solutions: 10 SAP Ariba custom quantity key figures
- SAP Ariba solutions to SAP Integrated Business Planning: Additional key figures for manufacturing visibility with SAP Ariba Supply Chain Collaboration for Buyers

Supply-side collaboration
- Excess and obsolescence sample content

Supply-side collaboration
- Enable cloud integration gateway for SAP Ariba Supply Chain Collaboration for Buyers

Demand-side collaboration
- Demand forecast collaboration

Collaboration foundation
- Web UI for interenterprise collaboration

V1802 – Recent innovations
V1805 – Planned Q2/2018
V1808 – Planned Q3/2018
V1811 – Planned Q4/2018

1. Potential data protection and privacy features include simplified deletion of personal data, reporting of personal data to an identified data subject, restricted access to personal data, masking of personal data, read access logging to special categories of personal data, change logging of personal data, and consent management mechanisms.
2. This is the current state of planning and may be changed by SAP at any time without notice.
SAP Integrated Business Planning V1805
Upcoming midterm innovations – SAP Supply Chain Control Tower

Supply-side collaboration

- SAP Integrated Business Planning to SAP Ariba solutions: 10 SAP Ariba custom quantity key figures
  - SAP Ariba Custom Quantity Key Figure 01
  - SAP Ariba Custom Quantity Key Figure 02
  - SAP Ariba Custom Quantity Key Figure 03
  - ...
  - Ariba Custom Quantity Key Figure 10

SAP Ariba to SAP Integrated Business Planning: Additional key figures for manufacturing visibility with SAP Ariba Supply Chain Collaboration for Buyers

- Firm receipt quantity
- Manufacturing order quantity
- Planned receipt quantity
- Projected stock quantity
- Shipment quantity
SAP Integrated Business Planning V1808 and V1811
Upcoming long-term innovations – SAP Supply Chain Control Tower

Supply-side collaboration
- Enable cloud integration gateway for SAP Ariba Supply Chain Collaboration for Buyers
- Integration with SAP Supply Network Collaboration
- Excess and obsolescence sample content for supplier liability analysis

Demand-side collaboration
- Enable demand forecast collaboration with external partners – for example, receive forecasts from external partners and include them in your demand-planning processes
- Enable multienterprise collaborative S&OP processes

Collaboration foundation
- External business partners should be able to visualize and change related data through a Web UI to support collaborative planning
Thank you.

Today’s Presenters from IBP Product Management:

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