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# Integrating Ariba B2I & SCC with S4 HANA for Service Costing

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## 1. Project Background

Client is one of the largest TMT enterprise involved in manufacturing Storage Devices, Servers, and Switches. It also performs repairs, maintenance, and installation of the servers etc. Purpose of the project was standardizing Service Costing and Project Costing by consolidating the systems, automating the processes, and removing redundant processes. Deloitte was selected to partner with client on this engagement to integrate the solution with several different transformation initiatives by adopting S4 HANA, Ariba SCC, Ariba Buying and Invoicing, Concur, EAP and boundary application e.g., Salesforce (SFDC), Legacy system (GCSN-Global Channel Service Network)

Client is engaged in repair, installation, break fix and preventive operation of the servers and electronic components which encompass Service Costing. Client does not have their presence in every country hence they have third party service providers who take care of service repairs. Third party service provider has access to Legacy system (GCSN - Global Channel Service Network) and Salesforce (SFDC) where they can request part and claim labor on completing the activity.

Client is consolidating all SAP ECC systems to one S4 HANA system, objective of the program was to capture all cost related Services in Service Order and integrate with different transformation initiatives.

## 2. Problem Statement

Currently, SAP ECC is integrated with boundary application with limited functionality. Two ECC systems are used to handle Service Costing and Project Costing. All the service cost are charged against the cost center which results in time consuming reconciliation of the balances and often results in audit issues. Moreover, there is no ability to capture individual cost related to break fix, installation and deployment, resident labor charges, miscellaneous charges etc. End to End reporting capability doesn't exist in ECC or BI systems. Process involves lot of manual activity which was not efficient and scalable.

Vendors relied on the transmission of Purchase Orders by email which resulted in deficiency in communication between business units and vendors. Also, it resulted in issues while performing the services and invoices discrepancies. Managing exceptions, Real time collaborations, responding to changes were the pain points of the client.

## 3. Future Architecture
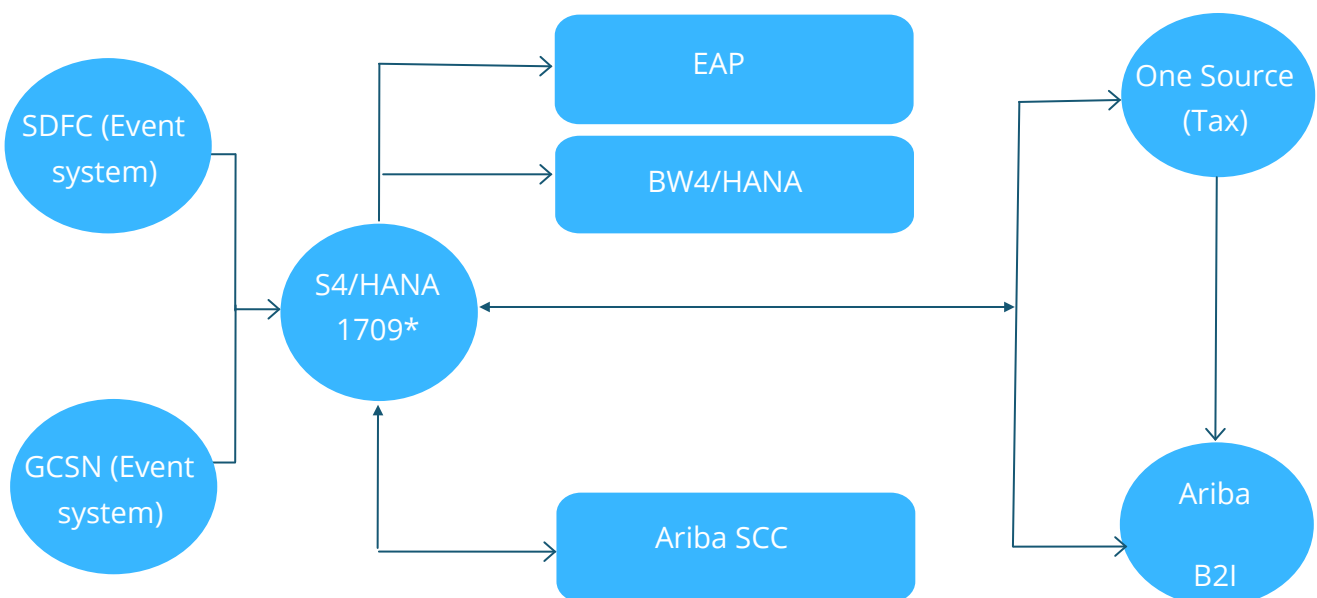
*S4 HANA 1709 upgrade to S4 HANA 2021 planned in April'22

## 4. Pre-Requisites

Before establishing the integration with event systems below activities needs to be performed.

1. Partner profile set up between the two systems
2. Service Order can be created for any country. Hence Z table was created to store a) Event system b) Company Code and c) Plant
3. Responsible Cost center for creating the service order was stored in Z table
4. Based on the task type Service Master was stored in the table. Ex: Control key SM03 in service order for Service Master and SM01 for Material Master

Integration of Ariba SCC and S4 HANA

1. Set up between Ariba SCC and S4 HANA is complete
2. CXML message Orders Request (PO) transmission is successful to Ariba SCC
3. CXML Message Receipt Request (GR) transmission is successful to Ariba SCC

Integration Ariba Buying and Invoicing

1. CXML Invoice Detail Request (Invoice) transmission is successful to Ariba B2I

## 5.Assumptions

1. Material master and Vendor Master must be extended to the required plant and purchasing organization
2. Purchase Order set up and all relevant pricing condition records are in place
3. Configuration for invoicing is complete
4. Service Master will be used for procurement for feed coming from event system Salesforce (SFDC)
5. Material Master will be used for procurement for feed coming from event system Legacy system (GCSN- Global Channel Service Network)
6. Order Confirmation is not applicable in SFDC/GCSN considering as Service Scenario

ASN/Ship Notice is not applicable in SFDC/GCSN considering as Service Scenario

## 6.Solution Overview

### 6.1 Salesforce (SFDC) Integration

Three events are used for Service Costing. Salesforce (SFDC), Proactive Service (Legacy System) and Legacy System (GCSN- Global Channel Service Network). S4 HANA is integrated with all three boundary systems to create Service Order (IW31), Purchase Requisition and Purchase Order. Post Goods Receipt and Invoice posting, TECO and Close is done and the feed is sent to event system for case closure.

As part of this design, we have built one PO upload program which has the capability to load Purchase requisition (created from Salesforce task) in Purchase order as service line followed by Auto Service entry sheet/Goods receipt program for individual PO.

Same program has another capability which will fetch the Purchase requisition created from Legacy system (GCSN- Global Channel Service Network) feed and convert them into single Purchase order or multiple purchase order based on the batching criteria Post PO creation in S4, Goods receipt will be posted in S4 via auto goods receipt program.

**Salesforce (SFDC)**
Services performed by subcontractors are logged as events in Salesforce (SFDC) for claim purposes.

Events in Salesforce (SFDC) can be categorized into Installation, Proactive and repair.

The 3 task types where PO is created for all/any vendors are listed below:

1. Installation Tasks: Pro-active Labor (Installation, de-installation, relocation, etc.)
2. Proactive Tasks (Scheduled maintenance): Pro-active Labor
3. Repair Tasks: Reactive Labor - Event based (Corrective) or Hour based (non-corrective)

Following is the process flow diagram for Salesforce (SFDC):
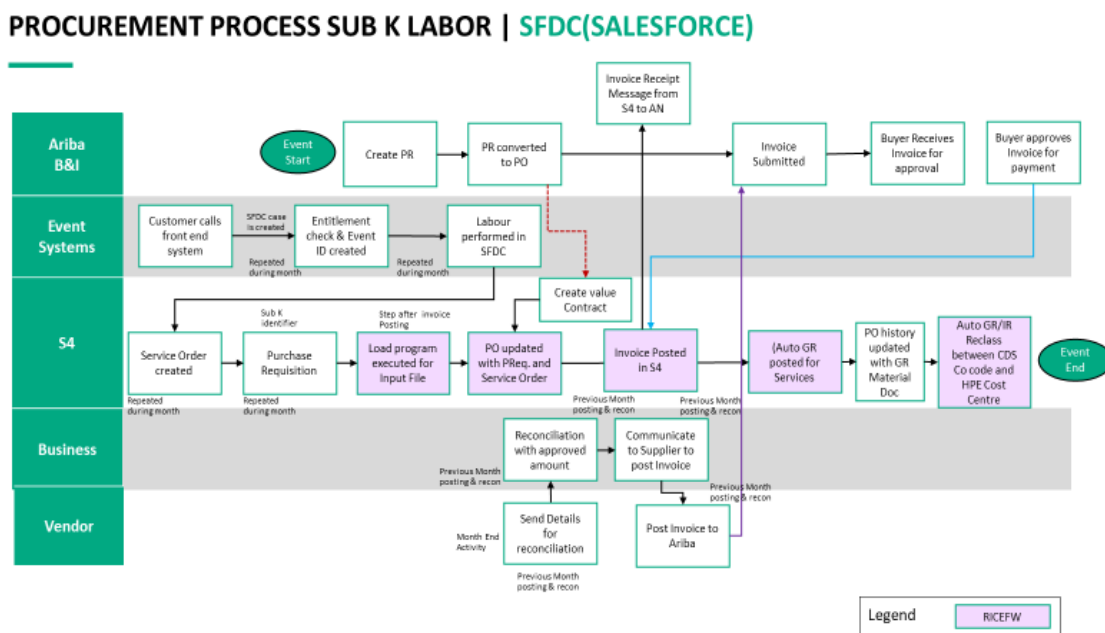


**Process Steps**

1. The process starts in Ariba B2I with the creation of a blanket PO which is then sent to supplier with estimated amount for the services provided by the supplier.

2. With reference to the blanket PO in Ariba, blanket contract is created in S4 and Ariba PO number is updated in the reference field of blanket contract to tie the Ariba and S4 process.

3. Customer calls front end system perform entitlement check and create Case/Event id for SFDC.

4. Labor task is performed in Salesforce (SFDC) and service order is created in S4 with task details.

5. Purchase Requisition is created from Service order and will sit in the S4.

6. Before submitting the invoice, buyer and supplier will do the invoice reconciliation manually and arrived at approved amounts.

7. Buyer prepares the input file with details of external events/tasks along with the labor rates for each event.

8. Input file is uploaded in the PO program which creates the purchase order first, fetches the PRs (Created in Step 3) based on identifiers like (external task id: to be stored in requirement tracking number field of PR) and update them in the PO service lines.

9. Supplier would submit Invoice in Ariba, after which AP (Accounts Payable) will post the invoice in Ariba. This will trigger a notification to buyer for Service Receipt Approval.

10. B2I sends the invoice to S4. Following events takes place after the invoice is posted. This process will be part of object - Automation Goods Receipt against Service PO FDS.

11. Buyer approves the invoice confirming the Service Receipt.

12. Invoice FI document will then be posted in S4, containing Ariba PO Number, Supplier Invoice Number and Ariba Invoice Reference Number.

13. The Ariba PO Number and Supplier Invoice Number is used to fetch the S4 PO Number and Line Item to post the Service Receipt.

14. Once Invoice FI document is posted in S4, output will be triggered to post GR for corresponding PO (Note: Output will be set-up as a Batch Job), GR/IR re-class, and auto-clearing of GR/IR.

15. Input file having external task Id (linked to the PR) will be grouped based on supplier legal invoice number and Ariba invoice line-item number.

16. This will ensure the Tax determination from Ariba invoice line items will match with S4 PO and PO Item number. The Address in the PO will not be used for the tax determination.

17. S/4 PO line-item delivery address will have plant address as default.

## 6.2 Legacy System (GCSN- Global Channel Service Network) Integration

**GCSN**

Legacy System (GCSN- Global Channel Service Network) is a tool developed for channel partner to process the claims. Currently, Legacy System (GCSN- Global Channel Service Network) allows the channel partner to enter the claim for both parts and labor. GCSN (GCSN- Global Channel Service Network) has a labor payment engine which considers various parameters maintained at customer, customer group, product hierarchy etc. and calculates how much channel partner should be paid.

Following is the process flow diagram for Legacy System (GCSN- Global Channel Service Network):

## PROCUREMENT PROCESS | LEGACY SYSTEM(GCSN)
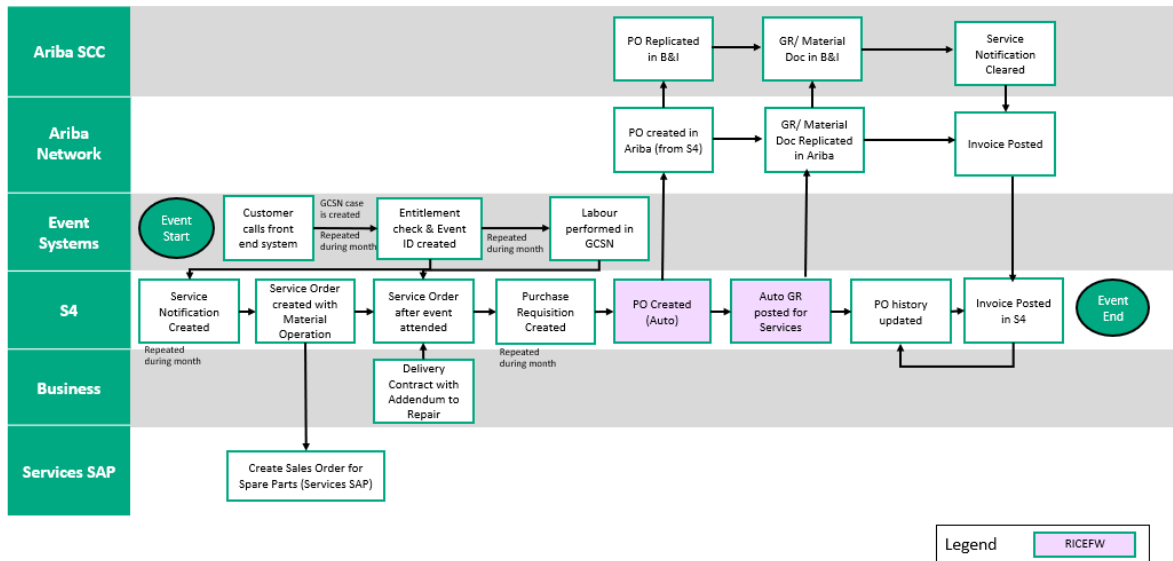


### Process Steps

1. In the Client environment, S4 system configuration is maintained to convert a Service Order into a Purchase Requisition.

2. Purchase Requisition is converted into PO; each Purchase Requisition is being consolidated into a single PO according to the grouping conditions. Batching criteria. Legacy System (GCSN- Global Channel Service Network) will be sending the batch number as part of the feed to S4 for service order creation. For each GCSN Batch new PO will be created in S4.

3. PO once created will be sent to supplier via Ariba SCC.

4. Legacy System (GCSN- Global Channel Service Network) PO will also be created using input file upload template.

5. After PO creation in S4, Goods receipt will be posted in S4 via auto goods receipt program. Supplier will then send the invoice to Ariba and Ariba will send it back to S4. Invoice receipt will take place in S4 via a three-way match.

## 7. Limitations

1. Invoices created in Ariba B2I needs to be settled at line-item level instead at header. To reduce inconvenience to suppliers, if the PO had multiple lines for identical batch po price was rolled up in base material

2. Number of cases for a month in Salesforce (SFDC) system is ~20,000 every month for one vendor resulting in ~20,000 Service Orders and Purchase Requisitions every month. All PRs are accumulated, and single PO was created for the Vendor. Single PO cannot handle such large volume with GR and IR. Hence Service PO (Item Category: D with Service Master was used an alternative

3. Number Line items in Service Tab of Service PO (Item Category: D) cannot exceed more than 99 if service order (AUFNR) was used. Hence after 99 service line items, new PO line item is created with 99 Service Lines
4. Account Assignment Category F was already used in Ariba B2I for internal orders. Since Service Order was not passed in PO interface to Ariba workaround was done by creating internal order for each company and exporting it to Ariba



5. To enable vendor invoices with +999 line items, multiple notes were needed to be implemented which could impacted existing programs and solution that is live in Production. Hence alternative approach was used to post invoice without reference to PO and then perform Service Entry Sheet, Material Doc, Reclass and Clearing

## 8. Accomplishments

1. Ability to accelerate Services Led new business scenarios and integrate with core physical Fulfilment services. Enables faster deployment of the solution to that country keeping global solution intact
2. Enhanced user experience with focused on End-to-End automation
3. Streamline processes to reduce the high manual effort required today due to multiple environments
4. Reduce IT costs by retiring legacy applications
5. Integrations with Current & Future Systems in place
6. Reconciliation Report was developed in S4 to display PO, Service Entry Sheet, Material Doc, Invoice Reclass Doc, Clearing Doc etc. for both Legacy system (GCSN-Global Channel Service Network) and Salesforce (SFDC) at summary and line-item details on the actual spend in a month using vendor, company code etc. as selection options
7. Real time collaboration with Suppliers by using Ariba SCC and B2I by increasing the automation

8. Reducing manual touches: By Implementing this solution around 4 to 5 Manpower Efforts were reduced and increasing overall process efficiency by 30%.

| Rationale | Before Solution | After Solution |
|---|---|---|
| Efficiency | 0 | 30% |
| FTE | 8 | 3 |

9. Respond to the demand changes and capacity utilization and better utilization of IT Cost

## 9. Lessons Learnt

1. Ariba Supplier onboarding and training should start early in project since we experienced some supplier had higher lead time to onboard as compared to others
2. Decision on whether to use integrated supplier vs Portal supplier in Ariba SCC took some time to decide considering same supplier can supply hardware fulfilment orders
3. Field Usage and Mapping: Since solution was integrated with existing solution, we found that Requirement Tracking Number in PO in S4 is in Line-Item level however in Ariba SCC it was mapped in header. Hence, this field was used for a value which is unique in PO
4. New UNSPSC code was used in Ariba exclusively for Service Procurement since UNSPSC code is tied to specific GL account. To differentiate Service Procurement new UNSPC code was used
5. Invoices posted from Ariba Buying and Invoicing were not getting differentiated with indirect procurement vis a vis service procurement. Due to this Service Entry Sheet, Material Doc, Invoice Reclass Doc, Clearing Doc were not getting posted. New field "SUBK"- Yes/No was added in requisition for Ariba Buying and Invoicing to overcome this challenge

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