

Invoice Collaboration: Self Billing Invoice



Applies to:

Supply Network Collaboration 5.1 with the back end system ERP 5.0 with SP 10 and above.

For more information, visit the [Supply Chain Management homepage](#).

Summary

This Business case speaks and shows about the message flow of self billing invoice from customer's SAP backend system to SAP Supply Network Collaboration (SAP SNC) system through SAP PI system-SAP Net weaver and followed by the flow of remittance advice or payment status note from back end system to SNC system and getting updated the invoice.

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Author Bio



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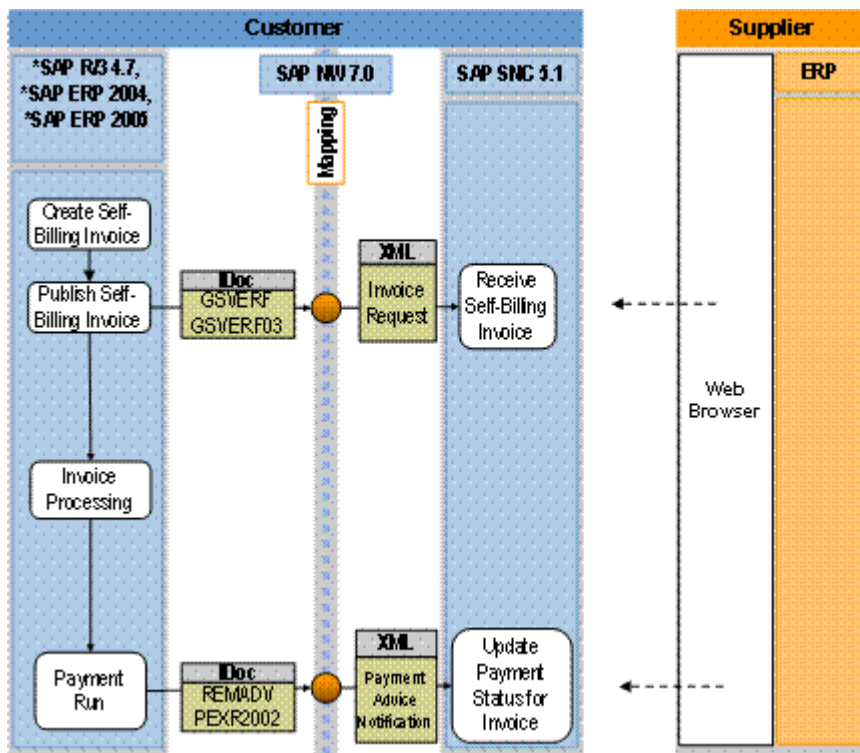
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Business Case

When the customer creates Purchase order in his back end system ECC and sends to the supplier, the supplier will supply the goods. Basing on the relationships with the supplier, the customer will create self invoice billing as Evaluated Receipt Settlement in its back end system. Once the self invoice billing is posted in the back end system, the system will transfer this billing through intermediate document GSVRF to SAP PI system which is based on SAP Net weaver. The partner profile needs to be defined in the back end system accordingly. The SAP PI will convert this Idoc into to XML message type of invoice request and sends to SNC system. This invoice gets the status as published in the SNC system where the supplier can view the invoice.

Later the invoice is processed in the back end system. The payment will be made to the supplier through payment run. Once the payment run is executed a remittance advice or payment status note Idoc REMADV will be generated and send to SAP Process Information based on SAP Net weaver which will convert the Idoc into XML message type payment status notification and sends to SNC system. This notification will update the invoice which is available in SNC system with the status of published. With this the supplier can view the updated status in the SNC system.

The following diagram depicts the business case perfectly.



Procedure

Step1: Vendor Settings

Make the vendor enabled for Evaluated Receipt Settlement.

This can be done by transaction codes XK01, XK02 or by the below Img path.

SAP Menu → Accounting → Financial Accounting → Accounts Payable → Master Data → Create/Change Vendor Master

Vendor	
Company Code	
Purch. Organization	

Give the Vendor Master Number, Company code, Purchasing Organization select all view and press enter.

1. Go to purchasing data tab at purchasing organization level and select Evaluation Receipt Settlement as shown in the below screen and Save.

Control data		
<input type="checkbox"/> GR-Based Inv. Verif.	ABC indicator	<input type="checkbox"/> RMA Required
<input checked="" type="checkbox"/> AutoEvalGRSetmnt Del.	ModeOfTrnsprt-Border	
<input type="checkbox"/> AutoEvalGRSetmnt Ret	Office of entry	
<input type="checkbox"/> Acknowledgment Req'd	Sort criterion	By VSR sequence number
<input type="checkbox"/> Automatic purchase order	PROACT control prof.	
<input type="checkbox"/> Subsequent settlement	<input type="checkbox"/> Revaluation allowed	
<input type="checkbox"/> Subseq. sett. index	<input type="checkbox"/> Grant discount in kind	

2. Select Payment Advice by EDI and the payment method C in the payment transaction tab at company code level and Save

Automatic payment transactions		
Payment methods	C	Payment block <input type="checkbox"/> Free for payment
Alternat.payee		House Bank <input type="checkbox"/>
Individual prmnt	<input checked="" type="checkbox"/>	Grouping key <input type="checkbox"/>
B/exch.limit		USD
Pmt adv. by EDI	<input checked="" type="checkbox"/>	

Step 2: Determine Partner Functions

SAP Menu → Tools → ALE → ALE Administration → Runtime Settings (WE20)


1. Go to transaction and maintain the Partner Number, Partner type, Type, Agent and Language for partner type LI or Partner type LS accordingly.

Partner profiles

Partner	Description
Partner Profiles	
Partner Type B	Bank
Partner Type BP	Benefits provider
Partner Type GP	Business Partner
Partner Type KU	Customer
Partner Type LI	Vendor
Partner Type LS	Logical system
Partner Type US	User (first 10 characters, no c

Outbound parmtrs.

Partner Role	Message Type	Message var...	MessageFu...	Test
	REMADV			<input checked="" type="checkbox"/>
PI	GSVERF			<input type="checkbox"/>

2. Click on  under the outbound parameters and maintain the GSVERF Message type and outbound options of Receiver port, Basic Idoc type and select Transfer Idoc Immediately radio button as shown below and Save.

Message Type: Cred. memo procedure

Message code:

Message function: Test

Outbound Options | Message Control | Post Processing: Permitted Agent | Tele...

Receiver port: Transactional RFC SBI Connection

Pack. Size:

Queue Processing

Output Mode

Transfer IDoc Immed. Output Mode 2

Collect IDocs

IDoc Type


Basic type: Cred. memo procedure

Extension:

View:

Cancel Processing After Syntax Error

Seg. release in IDoc type: Segment Appl. Rel.:

- Click on  under the outbound parameters and maintain the REMADV Message type and outbound options of Receiver port, Basic Idoc type and select Transfer Idoc Immediately radio button as shown below and Save.

The screenshot shows the 'Outbound Options' tab in SAP. The 'Message Type' is set to 'REMADV' (Payment advice). The 'Receiver port' is set to 'Transactional RFC'. The 'Pack. Size' is '1'. Under 'Output Mode', 'Transfer IDoc Immed.' is selected, and 'Output Mode' is '2'. Under 'IDoc Type', the 'Basic type' is 'PEXR2002' (Payment/payment advice note/c). The 'Cancel Processing After Syntax Error' checkbox is checked. The 'Seg. release in IDoc type' and 'Segment Appl. Rel.' fields are empty.

Step 3: Settings in Payment Program for Automatic Payment Run

- Attach the Payment Advice form in paying company code and provide the Sender Details
 SAP IMG → Financial Accounting (New) → Accounts payable and Receivable → Business Transactions → Outgoing payments → Automatic Outgoing Payments → Payment Method/Bank Selection for Payment Program → Set Up Paying Company Codes for Payment Transactions

The screenshot shows the 'Forms' and 'Sender Details' configuration in SAP. Under 'Forms', the 'Form for the Payment Advice' is set to 'SAPscript' with form 'F110_US_AVIS', and the 'EDI accompanying sheet form' is set to 'SAPscript' with form 'F110 EDI_01'. Under 'Sender Details for SAPscript Forms', the 'Text ID' is 'ADRS', 'Letter header' is 'REGUD-TXTKO', 'Footer' is 'REGUD-TXTAB', 'Signature text' is 'REGUD-TXTKO', and 'Sender' is 'REGUD-TXTFU'.

2. Attach the print program in the payment method per country.

SAP IMG → Financial Accounting (New) → Accounts payable and Receivable → Business Transactions → Outgoing payments → Automatic Outgoing Payments → Payment Method/Bank Selection for Payment Program → Set Up Payment Method per country for Payment Transaction

Use classic payment medium programs (RFFO*)

Payment medium program	RFFOUS_C	Key in code line	<input type="checkbox"/>
Name of print dataset	LIST1S	Print dataset for b/exch.	<input type="checkbox"/>

3. Select Always Payment advice Note in payment method for company code

SAP IMG → Financial Accounting (New) → Accounts payable and Receivable → Business Transactions → Outgoing payments → Automatic Outgoing Payments → Payment Method/Bank Selection for Payment Program → Set Up Payment Method per Company Code for Payment Transaction

Pyt adv.ctrl

Payment advice note control

Note to payee lines on the form

restricted to Rows

None

as many as req

Payment advice output according to no. of lines

Pymt adv. after ... lines

Always pyt adv

NoPytAdv

Payment advice note in all instances

The note to payee on the payment medium can comprise as many lines as you like. In addition, a payment advice note is always created to inform the business partner of the purpose of the payment. Therefore, the payment information is transmitted via the payment medium as well as the payment advice note.

Testing

1. Create Purchase Order by flagging ERS indicator for self Invoice Billing

SAP Menu → Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/ Supplying Plant Known – ME21N

Supply all the details in Purchase Order and select ERS indicator and provide Tax code in Invoice Tab. Save

Created by Srinivas Vannepaga

Document Overview On | Print Preview | Messages | Personal Setting

Kellogg SNC | Switch On Document Overview (F8) | Doc. date 07.06.2010

Header

S	Itm	A	I	Material	Short Text	PO Quantity	O...	C	Deliv. Date	Net Price	Curr...	Per	O...	M
	10						22	CS	D 07.06.2010	9,22	USD	1	CS	F
	20						22	CS	D 07.06.2010	9,22	USD	1	CS	F

Item: [10] 100000080, BN All Natural Granola Fruit an

Material Data | Quantities/Weights | Delivery Schedule | Delivery | **Invoice** | Conditions | Purchase Order History | Texts

Inv. Receipt | Tax Code V1 | Taxes

Final Invoice

GR-Bsd IV

ERS

2. Post Goods Receipt referring the posted PO.

SAP Menu → Logistics → Materials Management → Inventory Management → Goods Movement → Goods Movement (MIGO)

Supply all the details in Goods Receipt and Post.

Display Material Document [redacted] - Srinivas Vannepaga

Show Overview | Hold | Check | Post | Help

Display | Material Document [redacted] | 2010

General | Vendor | Doc. info

Document Date: 08.06.2010 | Delivery Note: TEST | Vendor: [redacted]
 Posting Date: 08.06.2010 | Bill of Lading: | HeaderText: [redacted]
 Individual Slip

Line	Mat. Short Text	Qty in UnE	E..	SLoc	Profit Center	Batch	Valuation
1	BN All Natural Granola Fruit and Nut	22	CS	Raw/Pack Receipt	PC200000		

Material | Quantity | Where | Purchase Order Data | Partner | Account Assignment

Movement Type: 101 + GR goods receipt | Stock type: Unrestricted use
 Plant: Manufacturing Plant #1 | P110
 Storage Location: Raw/Pack Receipt | P110
 Unloading Point:

3. Post Invoice through ERS reference with PO and GR.

SAP Menu → Logistics → Materials Management → Logistic Invoice Verification → Automatic Settlement → Evaluated Receipt Settlement (MRRL)

Provide company code, Vendor Number and GR Document and Execute. Select the item and Tag 'X' and save for posting the self billing invoice.

Evaluated Receipt Settlement (ERS) with Logistics Invoice Verification

Document Selection

Company Code	<input type="text" value="██████████"/>	to	<input type="text"/>	
Plant	<input type="text"/>	to	<input type="text"/>	
Posting Date of Goods Receipt	<input type="text"/>	to	<input type="text"/>	
Goods Receipt Document	<input type="text"/>	to	<input type="text"/>	
Fiscal Year of Goods Receipt	<input type="text"/>	to	<input type="text"/>	
Vendor	<input type="text"/>	to	<input type="text"/>	
Purchasing Document	<input type="text"/>	to	<input type="text"/>	
Item	<input type="text"/>	to	<input type="text"/>	

Processing Options

Doc. selection Document selection per order item

Test Run

Settle Goods Items + Planned Delivery Costs

Display Options

Layout

Evaluated Receipt Settlement (ERS) with Logistics Invoice Verification

Pstable	Vendor	Ref. Doc.	FYrRef	Rfl	Purch.Doc.	Item	Reference	Doc. No.	Year	InfoText	FI Doc.	DC	BI/Lading	Smart No.
X	██████████					20								
						10	ASN000000057							

Here once the Invoice is saved an accounting document will be generated where the BSEG table gets updated with Reference field XBLNR, which will be used further in Idoc REMADV for carrying the invoice number.

Go to SE11 transaction, give the table BKPF and provide the document type RE and can execute and check whether the Invoice number is updated or not. If the invoice is posted in normal transaction MIRO then this invoice reference XBLNR will not get updated. Only the Reference key (AWKEY) will get updated with the Year.

TCODE	MRRL
BVORG	
XBLNR	
DBBLG	
STBLG	
STJAH	
BKTX	
WAERS	USD
WIDEE	1 000000

After the self billing invoice is posted the system will generate the Idoc GSVERF and sends to the SAP PI system which is based on SAP Net weaver. SAP PI converts the Idoc into XML message type of invoice request and sends to SNC system. The SNC system should be ready with required configuration.

Check for the Idoc generation

SAP Menu → Tools → ALE → → ALE Administration → Monitoring →IDoc Display →Display (WE02/WE05)

Go to WE05 and check for the Idoc

	30	41			GSVERF03	08.06.2010	07:11:59	GSVERF	Outbox	
--	----	----	--	--	----------	------------	----------	--------	--------	--

4. Execute the Payment Run

SAP Menu → Accounting → Financial Accounting →Accounts Payable →Periodic Processing → Payments (F110)

Provide all the parameters in all required tabs.

Automatic Payment Transactions: Parameters

B.ex./pmt request...

Run Date	08.06.2010
Identification	TEST1

Status	Parameter	Free selection	Additional Log	Printout/data medium
---------------	------------------	-----------------------	-----------------------	-----------------------------

Posting Date	08.06.2010	Docs entered up to	08.06.2010
		Customer items due by	

Payments control		
Company codes	Pmt meths	Next p/date
[REDACTED]	C	09.06.2010

Accounts				
Vendor	[REDACTED]	to		➔
Customer		to		➔

Foreign currencies	
Exchange rate type	

Automatic Payment Transactions: Additional Log

Run Date: 08.06.2010
 Identification: TEST1



Status Parameter Free selection **Additional Log** Printout/data medium

Required logging type



- Due date check
- Payment method selection in all cases
- Pmnt method selection if not successful
- Line items of the payment documents

Accounts required

Vendors (from/to)		Customers (from/to)	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

-  Proposal run log
-  Payment run log

Automatic Payment Transactions: Printout and DME


  Maintain Variants

Maintain Variants (F5)

Run Date	08.06.2010
Identification	TEST1

Status | Parameter | Free selection | Additional Log | Printout/data medium

Form printing/data medium exchange

Program	Variant	Variant	Variant	Variant	
RFF0AVIS					→
RFF0EDI1					→
RFF0US_C	TEST				→ 

◀ ▶ ◀ ▶

Lists

Program name	Variant	Variant	Variant	Variant

Maintain the parameters in the print variant Payment Run, Date, Payment Method, Bank, Bank Account number and check lot if it is through RFFOUS_C along with the parameters shown in the below screen.

International Payment Medium - Check (with check management)

Program run date	08.06.2010
Identification feature	TEST1
<input type="checkbox"/> Proposal run only	
Company code selection	
Paying company code	[Redacted]
Sending company code	[Redacted] to []
Further selections	
Payment method	C to []
Pmt meth. supplement	[] to []
Business Area	[] to []
House Bank	DB
Account ID	GIRO
Check lot number	01
Restart from Check Number	[]
Currency	[] to []
Payment document no.	[] to []
Print control	
<input checked="" type="checkbox"/> Print checks	Printer LP01 <input checked="" type="checkbox"/> Print Immediately
<input checked="" type="checkbox"/> Print payment advice notes	Printer LP01 <input checked="" type="checkbox"/> Print Immediately
<input type="checkbox"/> Print Payment Summary	Printer [] <input type="checkbox"/> Print Immediately
Output control	
Alternative check form	[]
Filler for digits in words	[]
Number of sample printouts	0
No. of items in payment summary	9999

Then after the Print medium, the system will generate the Idoc REMADV carrying the invoice number as reference and sent to SAP PI system which in turn converts the Idoc into XML message type payment advice notification and sends to SNC system.

SAP Menu → Tools → ALE → → ALE Administration → Monitoring → IDoc Display → Display (WE02/WE05)

[Redacted]	22	39		[Redacted]	PEXR2002	28.05.2010	13:55:51	REMADV	Outbox	[Redacted]
------------	----	----	--	------------	----------	------------	----------	--------	--------	------------

This XML message type received from SAP PI system will go to SNC system and update the invoice status. The supplier can view this status in SNC system. As shown below.

Login to SNC system and check for the updated invoice. The SNC system should be ready with required configuration.

The screenshot displays the 'Invoice Overview' interface in SAP. At the top, there is a navigation bar with 'Supply Network Collaboration' and a search field. Below this is a menu with options: Exceptions, Demand, Release, Purchase Order, Replenishment, Work Order, SNI, Delivery, Invoice, Master Data, and Tools.

The 'Selection Area' section contains various input fields for search criteria, including Invoice No., External Reference, Invoice Recipient, Invoicing Party, Customer, Invoice Type, Invoice Item Type, Invoice Status, Product, and My Product Number. Each field has a search icon and a 'To' field.

The 'Invoices' section shows a table of invoice items. The table has columns for Invoice No., Item, Doc. Date, Inv. Type, Item Type, Status, Acc. Status, Product, Quantity, UoM, Gross, and Net. The first cell of the 'Invoice No.' column is redacted with a blue box.

Invoice No.	Item	Doc. Date	Inv. Type	Item Type	Status	Acc. Status	Product	Quantity	UoM	Gross	Net
[Redacted]	000010	05/29/2010	Self-Billing Invoice	Credit Memo	Published		100000080	125	CV	0.00	1,152.50
[Redacted]	000010	05/28/2010	Self-Billing Invoice	Invoice	Paid		100000080	125	CV	0.00	1,152.50
[Redacted]	000010	06/08/2010	Self-Billing Invoice	Invoice	Paid		100000080	22	CV	0.00	202.84

Related Content

Please refer the following help links for more details.

For SNC:

http://help.sap.com/saphelp_snc70/helpdata/EN/46/3a4f6a903800c0e1000000a11466f/frameset.htm

For ECC:

http://help.sap.com/saphelp_erp60_sp/helpdata/en/a8/b99f58452b11d189430000e829fbbd/frameset.htm

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