

# How to send billing document through EDI-IDoc

By

René Efila Minkoulou (SAP S/4HANA MM/SD Consultant)

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## Topics covered:

- 1) What is EDI
- 2) Create a logical system
- 3) Assign the logical system to the client
- 4) Create the RFC destination with the external system information and login credential
- 5) Create RFC port
- 6) Configuration of output determination
- 7) Define Partner profile
- 8) Business process

## Introduction:

In order to cash process we have different documents that we have to exchange with our customer among them there is the billing document it comes after the shipment of the product to the customer thanks to this document the customer can make the payment now the question that may come from our mind is that by what means we can send the billing document to our customer?

Of course, in SAP there are different ways to send the billing document to the customer, but one that is commonly used in the project is: EDI (Electronic Data Interchange).

And that is exactly what we are going to see today, how to send the billing document by EDI in SAP S/4HANA.

### **1) What is EDI**

EDI means **Electronic Data Interchange** in SAP, EDI makes it possible to exchange business application documents with an external partner's system instead of printing them on paper.

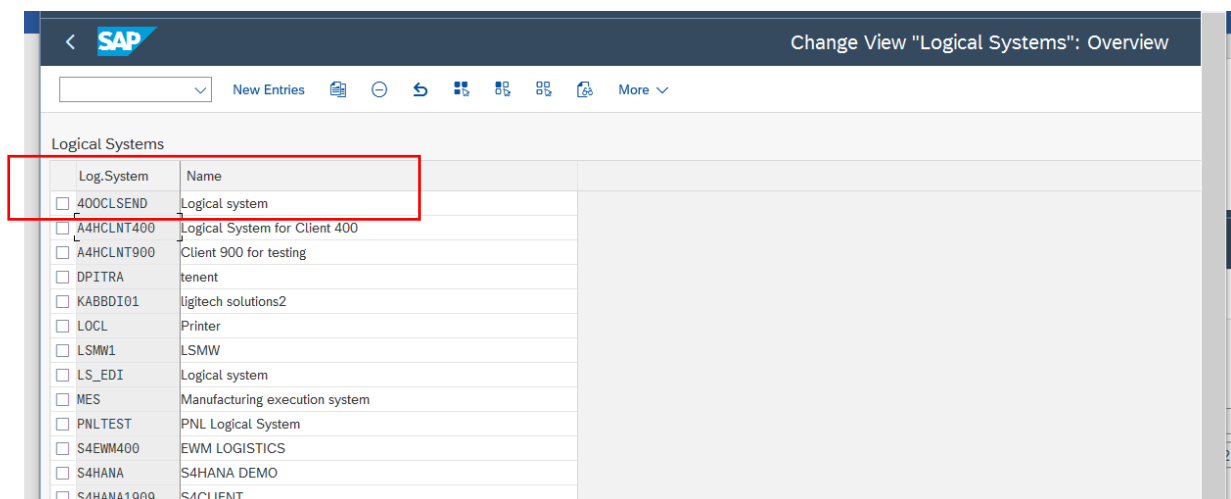
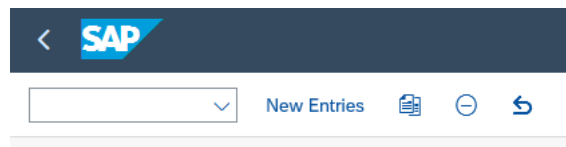
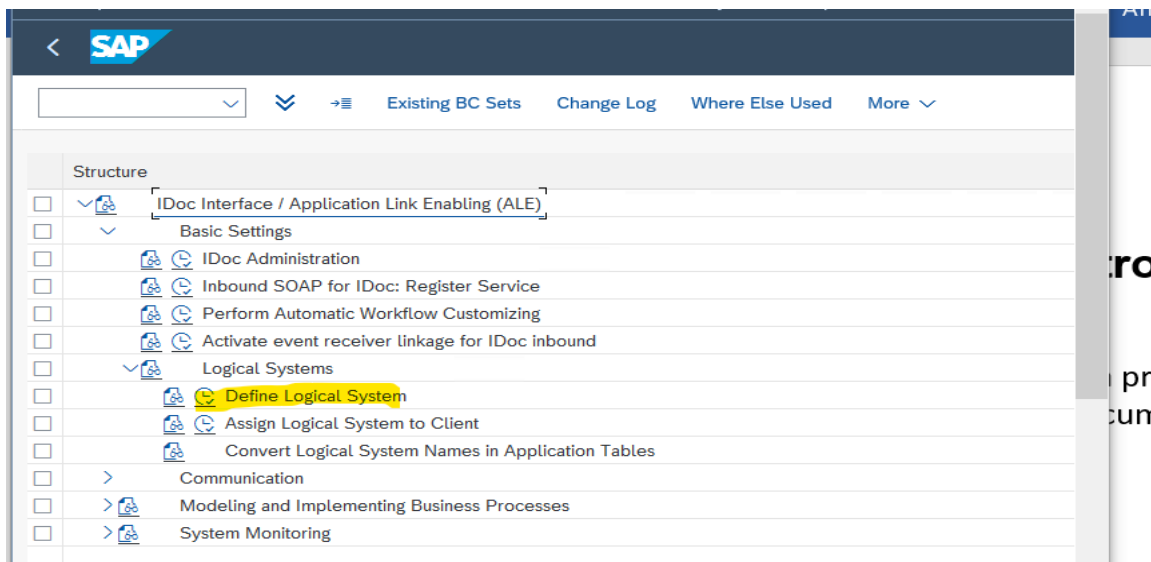
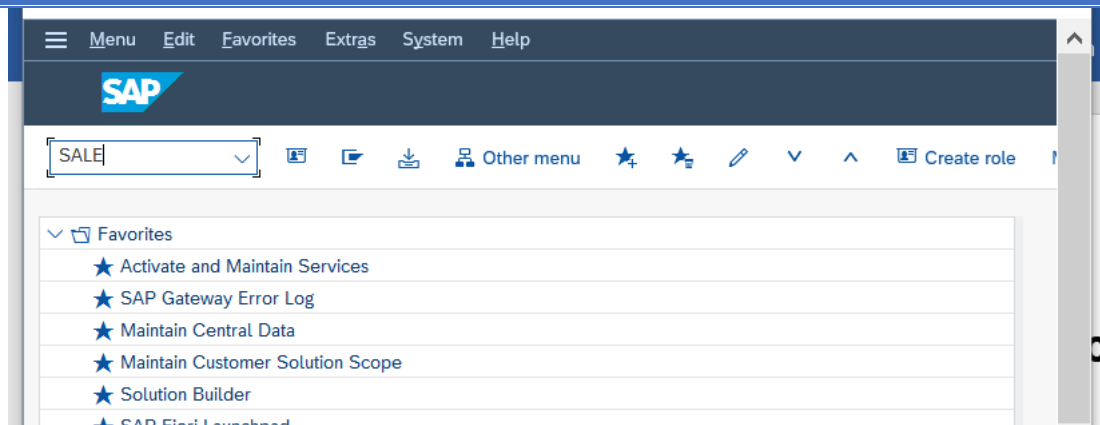
### **2) Create a logical system**

**Tcode : SALE**

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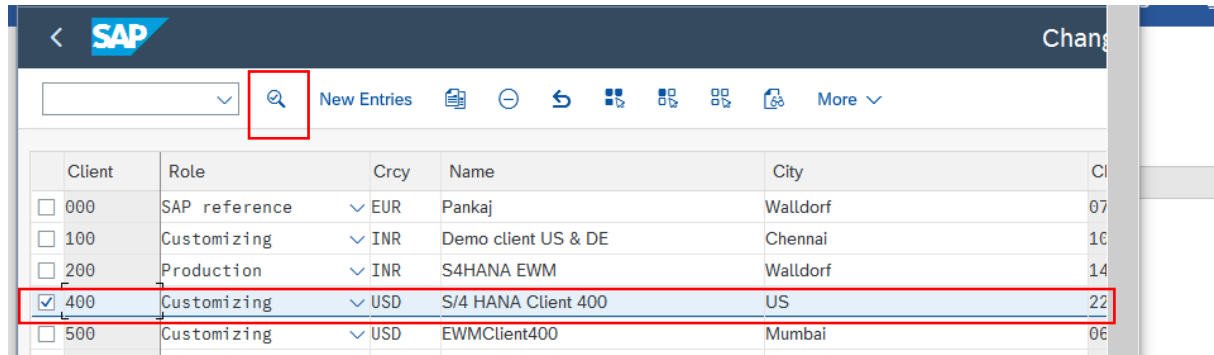
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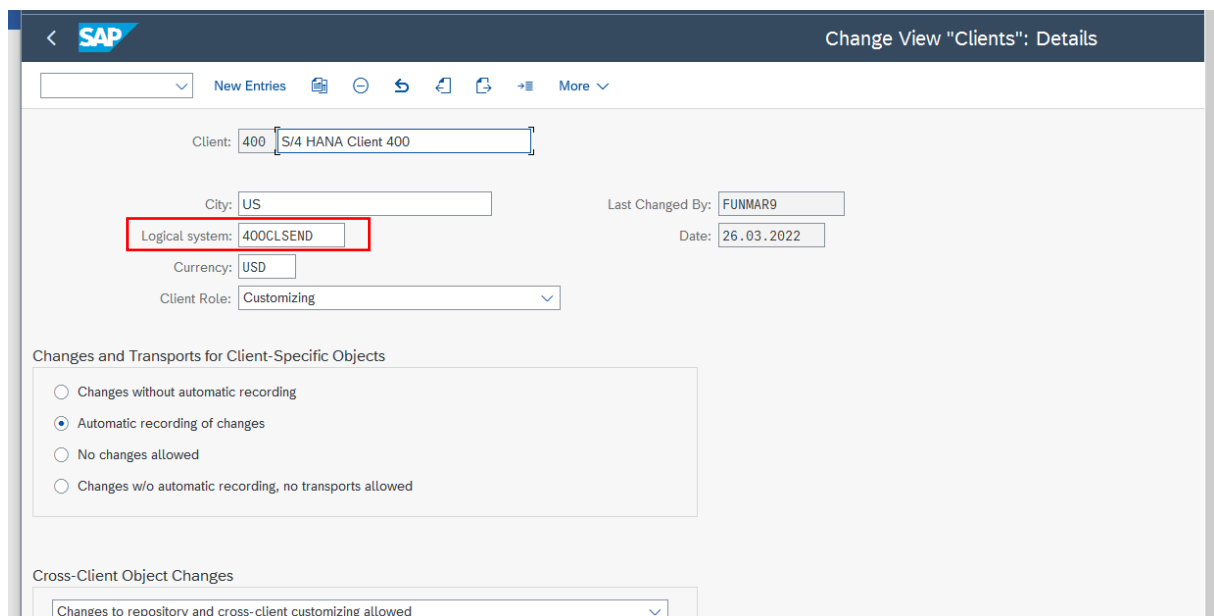
### **3) Assign the logical system to the client**

Select the client and press display



The screenshot shows the SAP Client List interface. A search icon is highlighted with a red box. Below the table, the row for Client 400 is highlighted with a red box.

Client	Role	Crcy	Name	City	Cl
<input type="checkbox"/> 000	SAP reference	EUR	Pankaj	Walldorf	07
<input type="checkbox"/> 100	Customizing	INR	Demo client US & DE	Chennai	10
<input type="checkbox"/> 200	Production	INR	S4HANA EWM	Walldorf	14
<input checked="" type="checkbox"/> 400	Customizing	USD	S/4 HANA Client 400	US	22
<input type="checkbox"/> 500	Customizing	USD	EWMClient400	Mumbai	06



The screenshot shows the SAP Client Details interface. The Client field is set to 400, and the City is set to US. The Logical system field is highlighted with a red box and contains the value 400CLSEND. The Client Role is set to Customizing. The Last Changed By field is set to FUNMAR9, and the Date is set to 26.03.2022.

Client: 400 S/4 HANA Client 400

City: US

Logical system: 400CLSEND

Currency: USD

Client Role: Customizing

Last Changed By: FUNMAR9

Date: 26.03.2022

Changes and Transports for Client-Specific Objects

- ☐ Changes without automatic recording
- ☒ Automatic recording of changes
- ☐ No changes allowed
- ☐ Changes w/o automatic recording, no transports allowed

Cross-Client Object Changes

Changes to repository and cross-client customizing allowed

### **4) Create the RFC destination with the external system information and login credential**

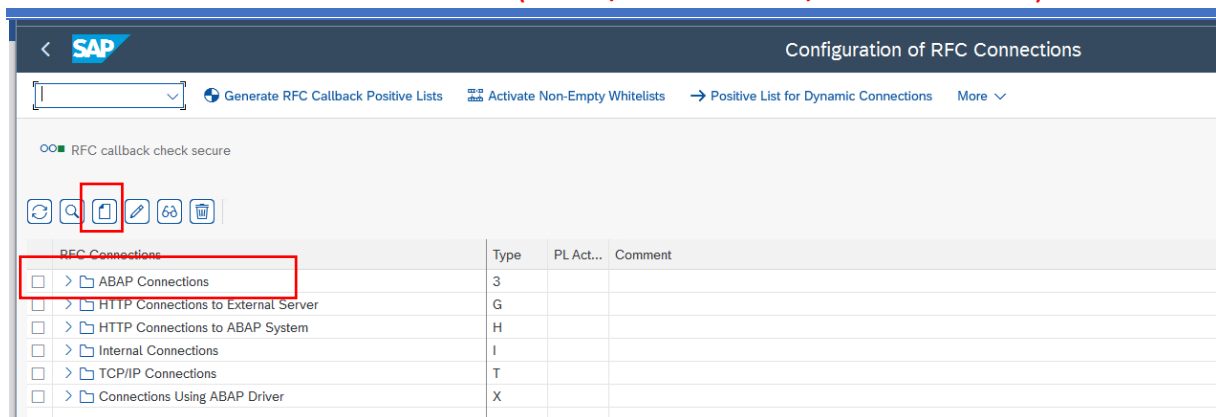
T-code: SM59

Select ABAP connections and click on create button

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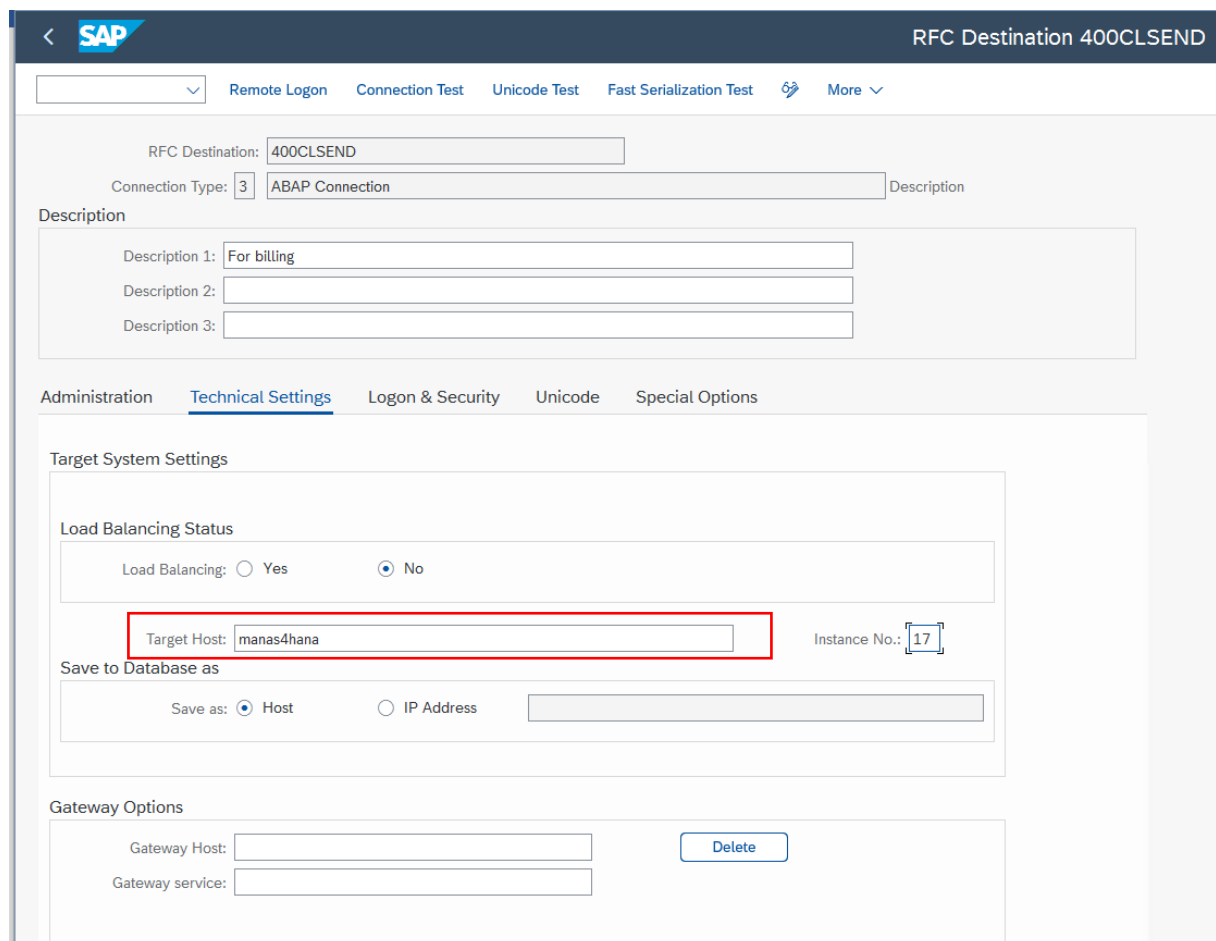
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In the Target Host put the IP address of the receiver system

But for the test purpose I will use the ip address of my own system but it real time scenario you should maintain the IP address of the customer's system



After click on logon and security tab

Here maintain the user id of the customer and password

Click save button

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The screenshot shows the SAP configuration interface for an RFC Destination named '400CLSEND'. The 'Logon & Security' tab is selected. The 'Logon Procedure' section contains the following fields: Language (empty), Client (empty), User (FUMMAR9), PW Status (changed), and Password (masked with dots). There are checkboxes for 'Current User' and 'Logon Screen'. The 'Trust Relationship' section has radio buttons for 'No' (selected), 'Yes', and 'Logon Screen'. The 'Status of Secure Protocol' section has a button for 'SNC' and radio buttons for 'Inactive' (selected) and 'Active'.

RFC Destination: 400CLSEND

Connection Type: 3 ABAP Connection

Description

Description 1: For billing

Description 2:

Description 3:

Administration Technical Settings **Logon & Security** Unicode Special Options

Logon Procedure

Language: Client: User: FUMMAR9 ☐ Current User

PW Status: changed Password: .....

Trust Relationship: ☒ No ☐ Yes ☐ Logon Screen

Status of Secure Protocol

☒ Inactive ☐ Active

After click on connection test

The screenshot shows the 'Connection Test 400CLSEND' results. The table lists the actions performed and their results in milliseconds.

Action	Result
Logon	8 msec
Transfer of 0 KB	1 msec
Transfer of 10 KB	1 msec
Transfer of 20 KB	1 msec
Transfer of 30 KB	1 msec

## 5) Create RFC port

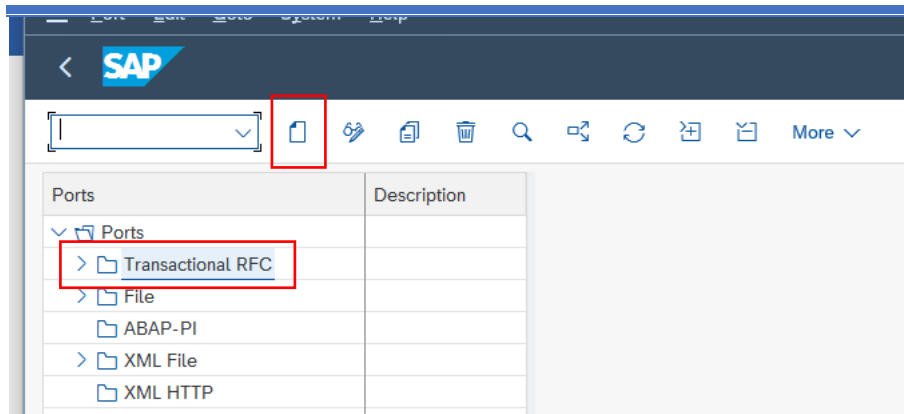
T-code : WE21

Select transactional RFC and click to create button

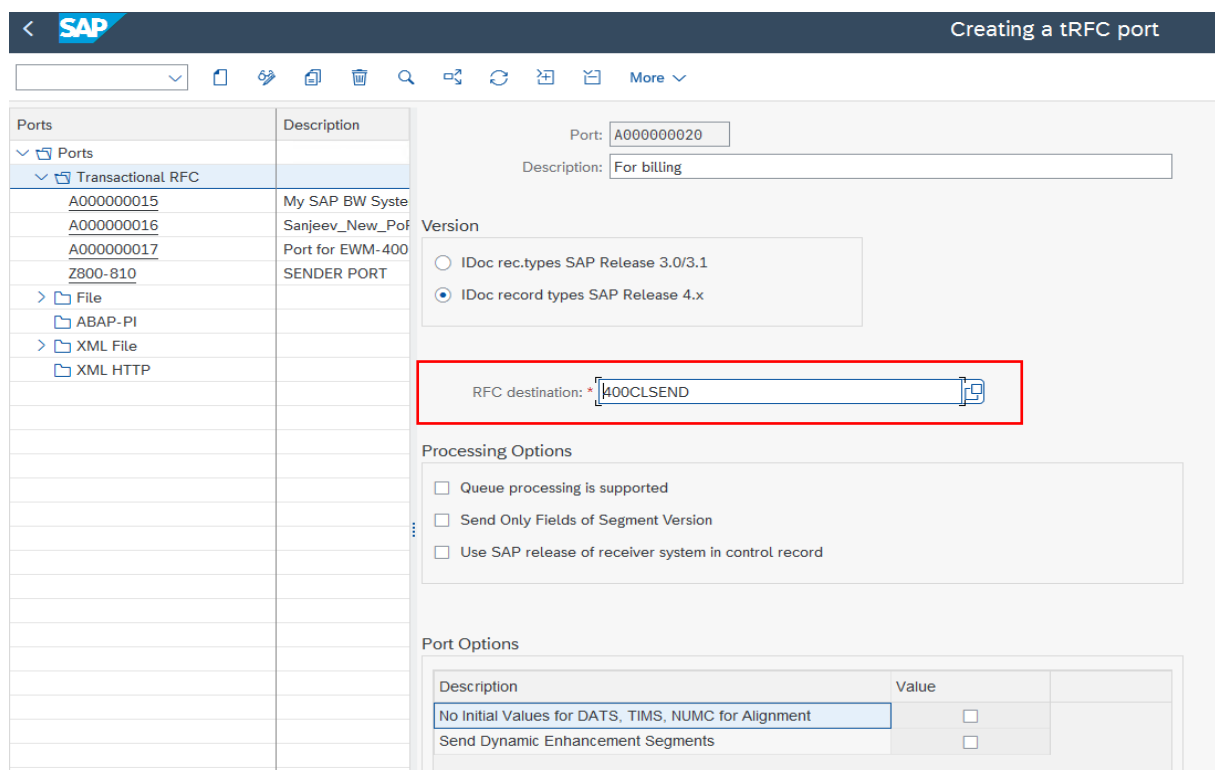
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Fill in the description and assign the RFC destination we created earlier.



Our port is : A000000020

## 6) Configuration of output determination

**Output determination** is the process to determine the “**media**” such as printouts, telexes, faxes, e-mails, or EDI that are sent from one business to any of its business partners.

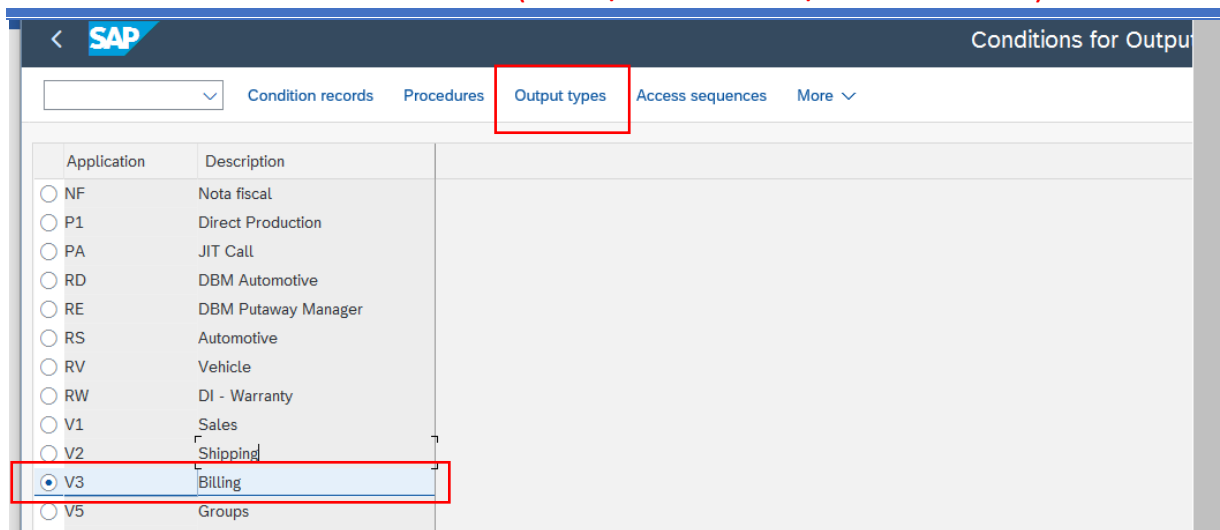
Go to Tcode: NACE

Select Application as: V3 and press output Types.

## How to send billing document through EDI-IDoc

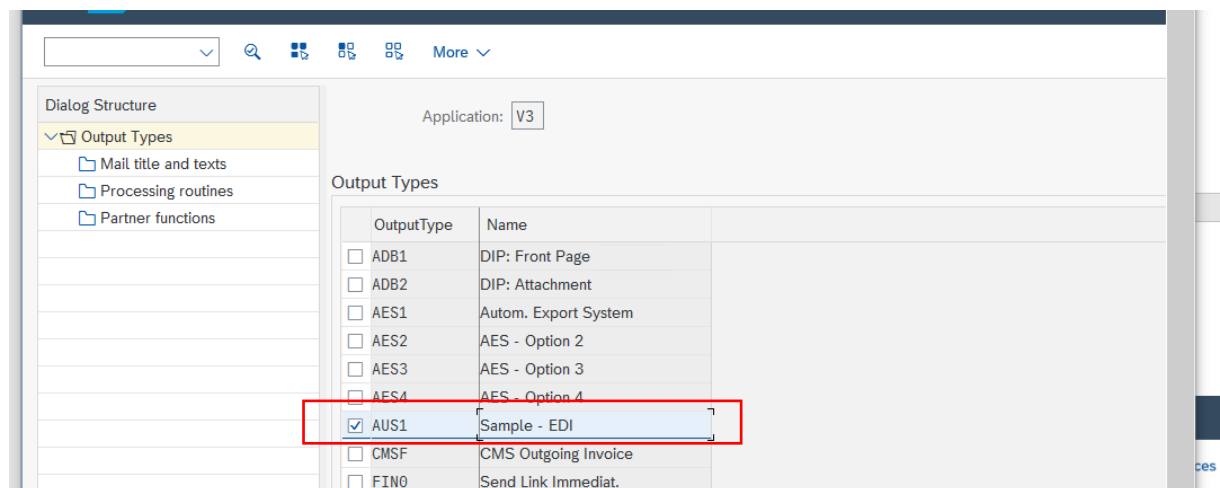
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We will use the standard EDI output type – AUS1

Double click on the output type AUS1



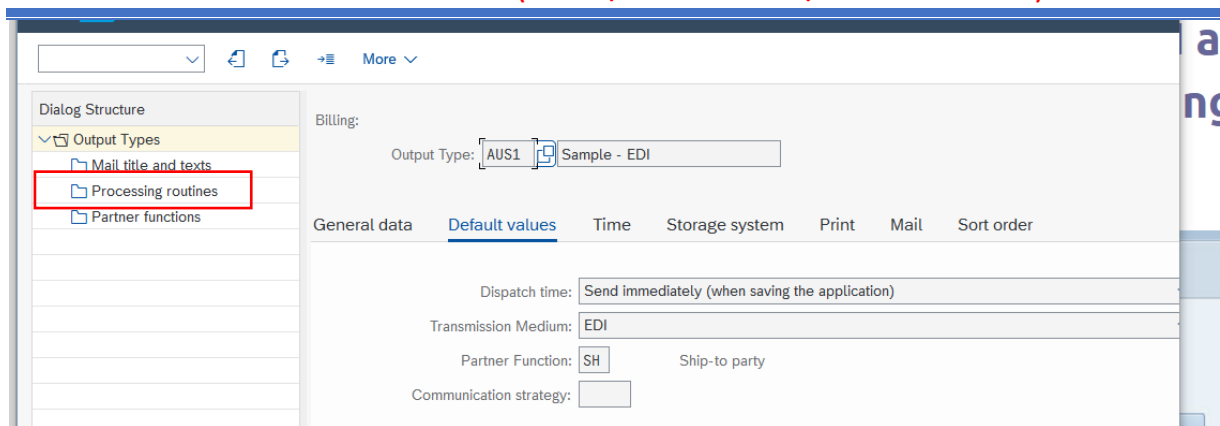
The transmission medium is EDI and partner function is SH- Ship to party

Select processing routines

## How to send billing document through EDI-IDoc

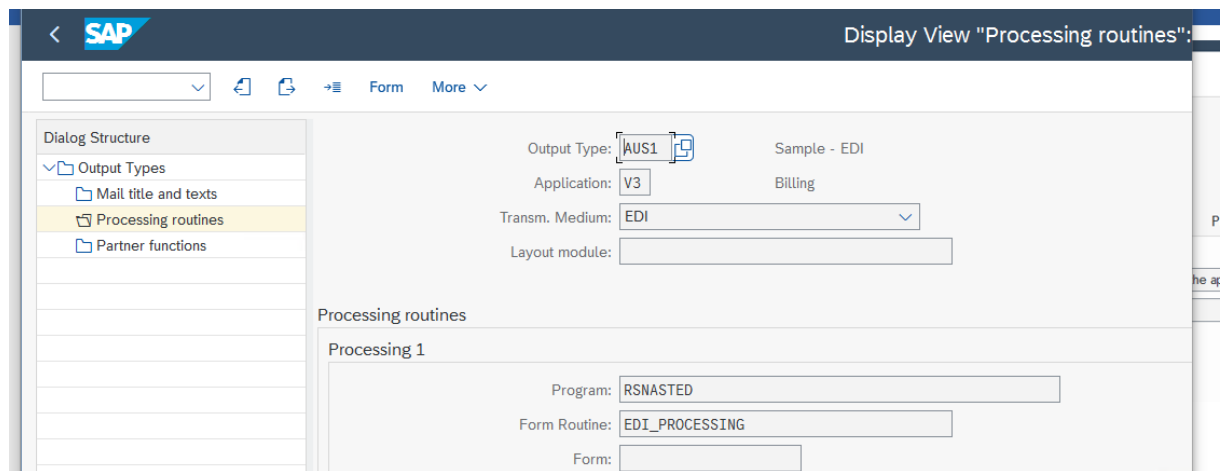
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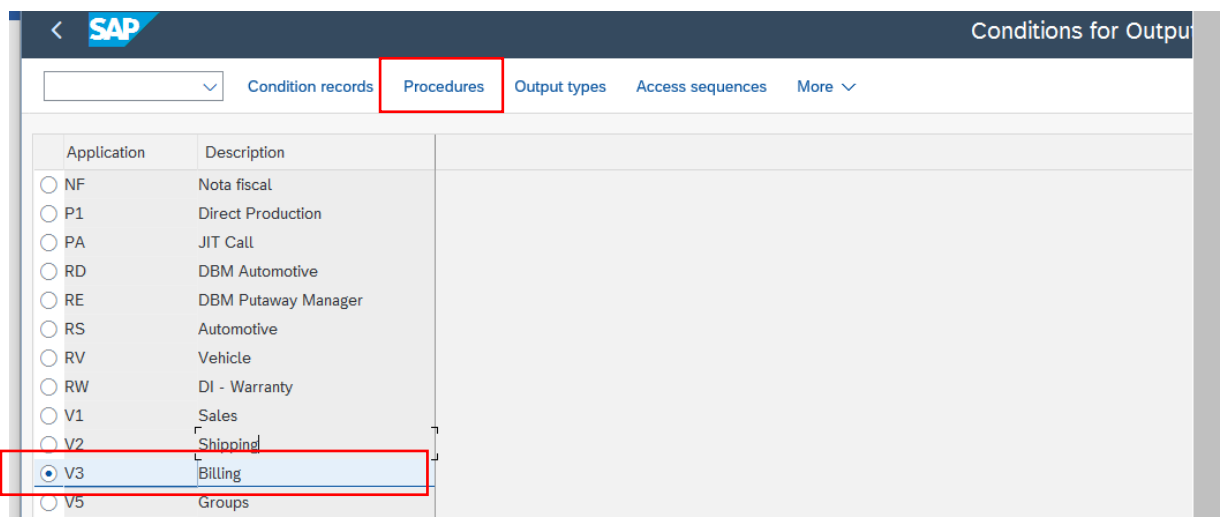
The screenshot shows the 'Billing: Default values' screen in SAP. On the left, the 'Dialog Structure' pane has 'Processing routines' highlighted with a red box. The main area shows 'Output Type: AUS1' and 'Sample - EDI'. Below this, the 'Default values' tab is active, displaying fields for 'Dispatch time' (Send immediately (when saving the application)), 'Transmission Medium' (EDI), 'Partner Function' (SH), and 'Communication strategy'.

So far we don't need to customise anything, we just use the standard tool provided by SAP through the program - RSNASTED, and our customer will receive the invoice document via EDI.



The screenshot shows the 'Display View "Processing routines"' screen. The 'Processing routines' section is active, showing 'Processing 1' with 'Program: RSNASTED' and 'Form Routine: EDI\_PROCESSING'. The 'Output Type' is 'AUS1' and 'Application' is 'V3'.

Go back to Tcode: NACE select application V3 and choose procedures



The screenshot shows the 'Conditions for Output' screen. The 'Procedures' tab is selected and highlighted with a red box. A table lists various applications and their descriptions. The row for 'V3 Billing' is highlighted with a red box.

Application	Description
<input type="radio"/> NF	Nota fiscal
<input type="radio"/> P1	Direct Production
<input type="radio"/> PA	JIT Call
<input type="radio"/> RD	DBM Automotive
<input type="radio"/> RE	DBM Putaway Manager
<input type="radio"/> RS	Automotive
<input type="radio"/> RV	Vehicle
<input type="radio"/> RW	DI - Warranty
<input type="radio"/> V1	Sales
<input type="radio"/> V2	Shipping
<input checked="" type="radio"/> V3	Billing
<input type="radio"/> V5	Groups

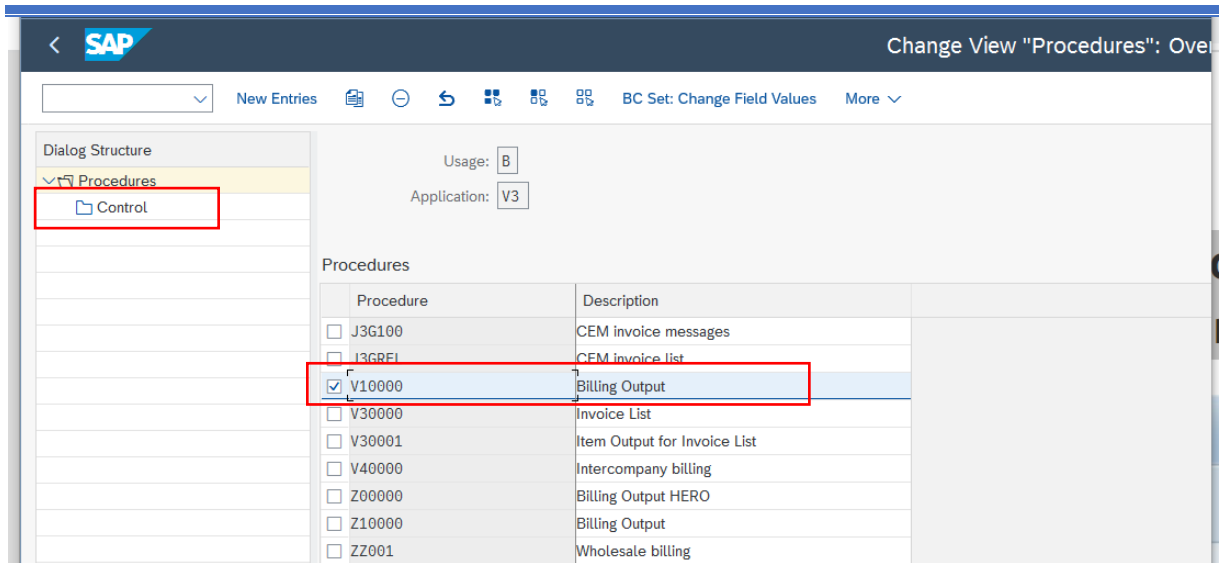
Choose the procedure V10000 and press control button



# How to send billing document through EDI-IDoc

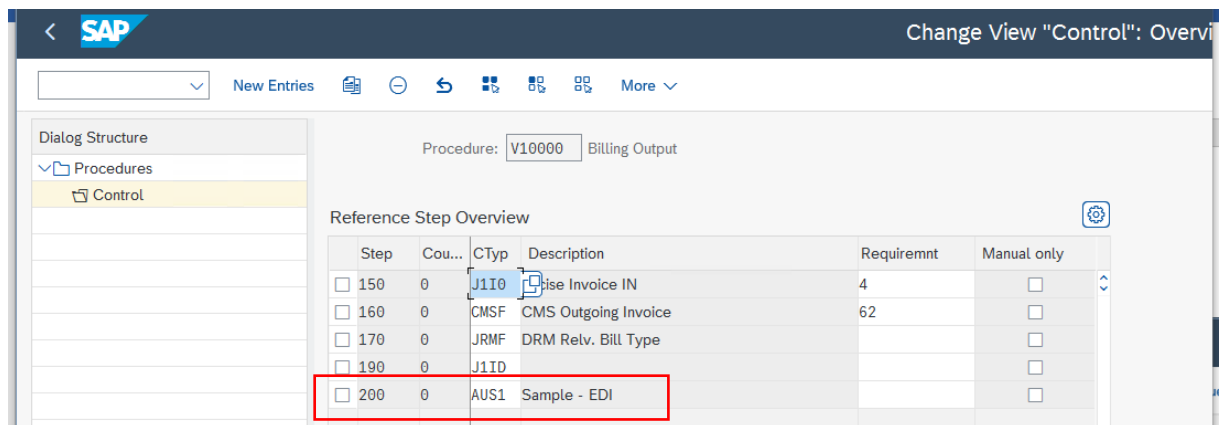
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Remember we already manage the standard EDI output type – AUS1

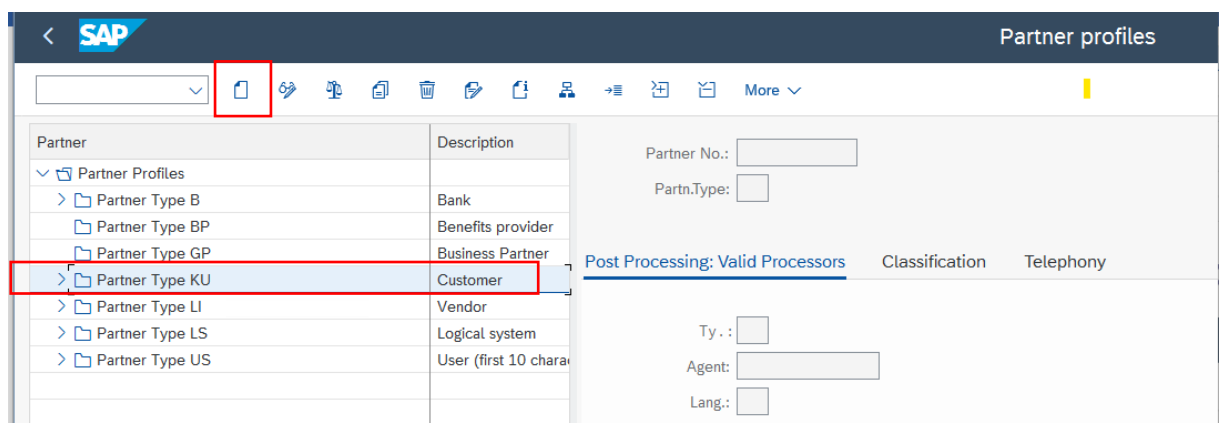
Just add it here and save



## 7) Define Partner Profile

T-code: WE20

Choose Create.

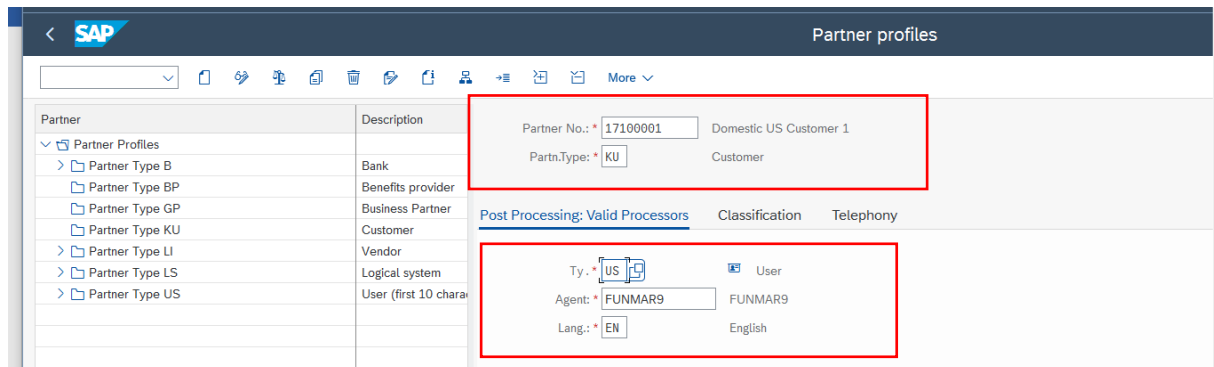


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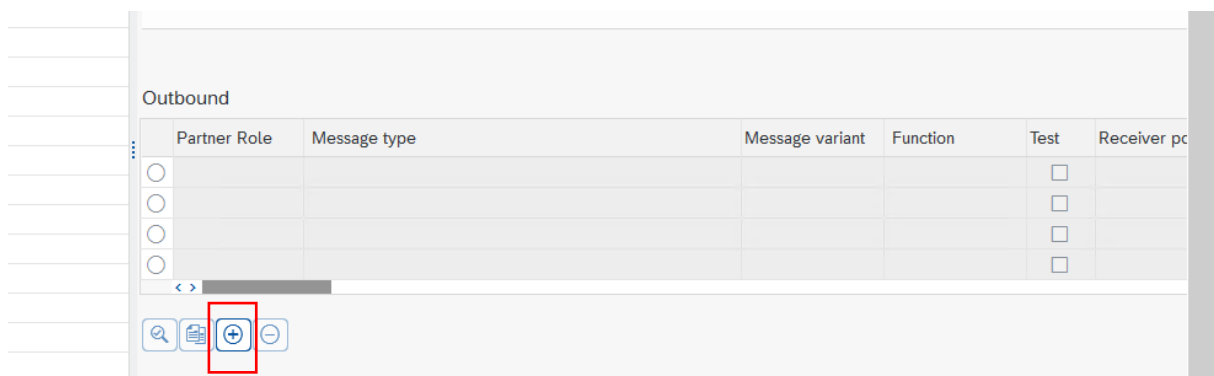
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The partner number is the number of the customer to whom we want to send the invoice. Partner type: KU- Customer. And click to save button



The screenshot shows the SAP 'Partner profiles' interface. On the left, a tree view lists partner types: 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), and Partner Type US (User). The main area displays details for Partner No.: 17100001 (Domestic US Customer 1) and Partn.Type: KU (Customer). Below this, there are tabs for 'Post Processing: Valid Processors', 'Classification', and 'Telephony'. The 'Valid Processors' tab is active, showing fields for Ty.: US (User), Agent: FUNMAR9 (FUNMAR9), and Lang.: EN (English). Red boxes highlight the partner details and the valid processors section.

Select + button to fill the outbound parameters because our purpose is to send the billing document to our customer to make a payment



The screenshot shows the 'Outbound' table in SAP. The table has columns: Partner Role, Message type, Message variant, Function, Test, and Receiver po. There are four rows, each with a radio button in the Partner Role column. Below the table, there are navigation buttons: a magnifying glass, a document icon, a plus sign (+) in a red box, and a minus sign (-).

This screen appears.

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The screenshot shows the SAP 'Partner profiles: Outbound parameters' configuration screen. The top header includes the SAP logo and the title 'Partner profiles: Outbound parameters'. Below the header, there are several input fields and tabs. The 'Outbound Options' tab is selected. The 'Partner No.' field is set to '17100001', and the 'Partn.Type' is set to 'KU'. The 'Message Type' field is empty, and the 'Message code' and 'Message function' fields are also empty. The 'Test' checkbox is unchecked. The 'Receiver port' field is empty. The 'Output Mode' section has two radio buttons: 'Pass IDoc Immediately' (selected) and 'Collect IDocs'. The 'IDoc Type' section has three input fields: 'Basic type', 'Extension', and 'View'. The 'Cancel Processing After Syntax Error' checkbox is checked. The 'Seg. release in IDoc type' and 'Segment Appl. Rel.' fields are empty.

Partner No.: 17100001 Domestic US Customer 1  
Partn.Type: KU Customer  
Partner Role: ☐  
Message Type: \*  
Message code: ☐  
Message function: ☐ ☐ Test

Outbound Options Message Control Post Processing: Valid Processors Telephony EDI Standard

Receiver port: \*

Output Mode

☐ Pass IDoc Immediately ☐ Start subsystem Output Mode:  
☒ Collect IDocs ☒ Do not start subsystem

IDoc Type

Basic type: \*  
Extension:  
View:

☒ Cancel Processing After Syntax Error  
Seg. release in IDoc type: ☐ Segment Appl. Rel.: ☐

Provide this information

Output Mode: select Pass IDoc Immediately

Partner role: SH- Ship to party.

Message type: INVOIC

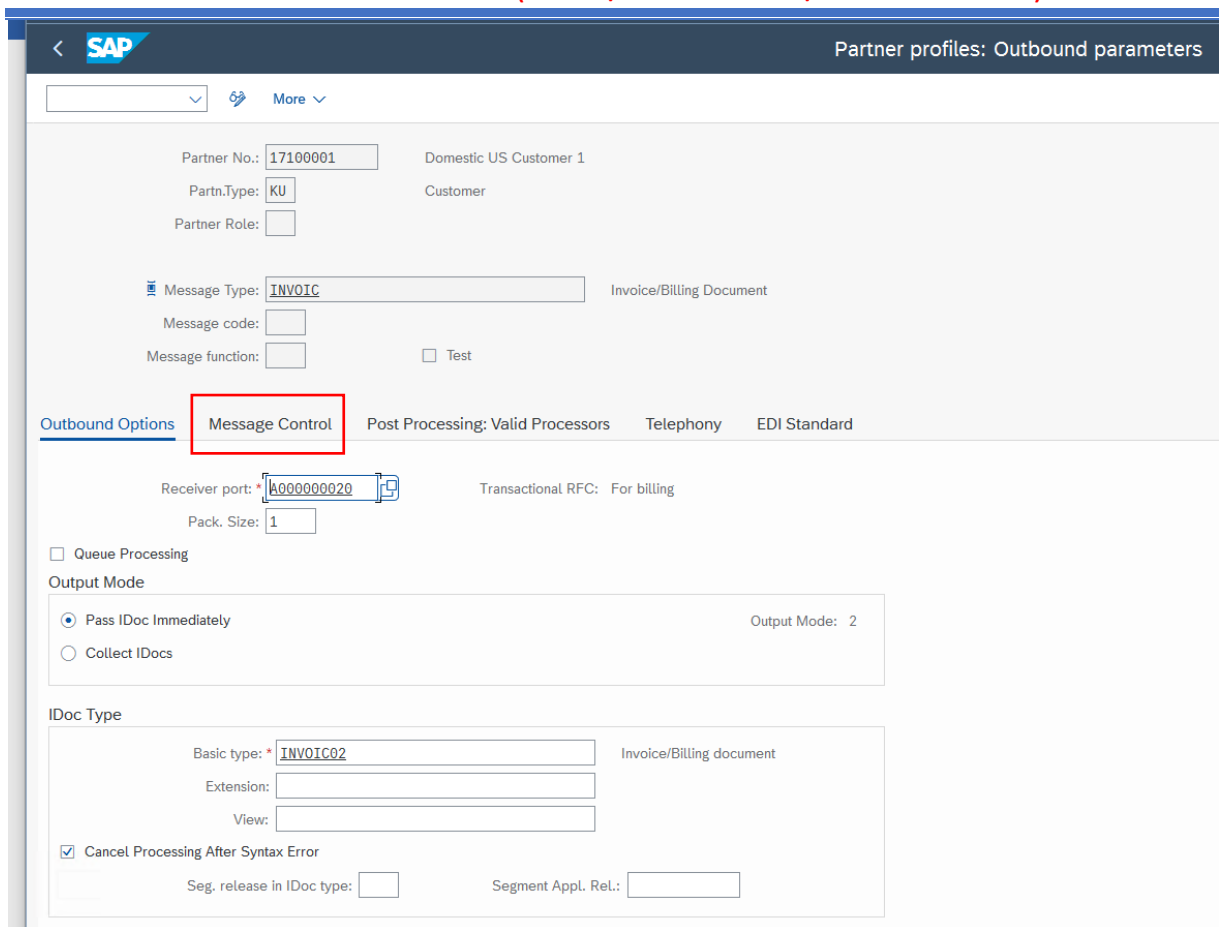
Receiver port: A000000020

And Select Message Control tab.

# How to send billing document through EDI-IDoc

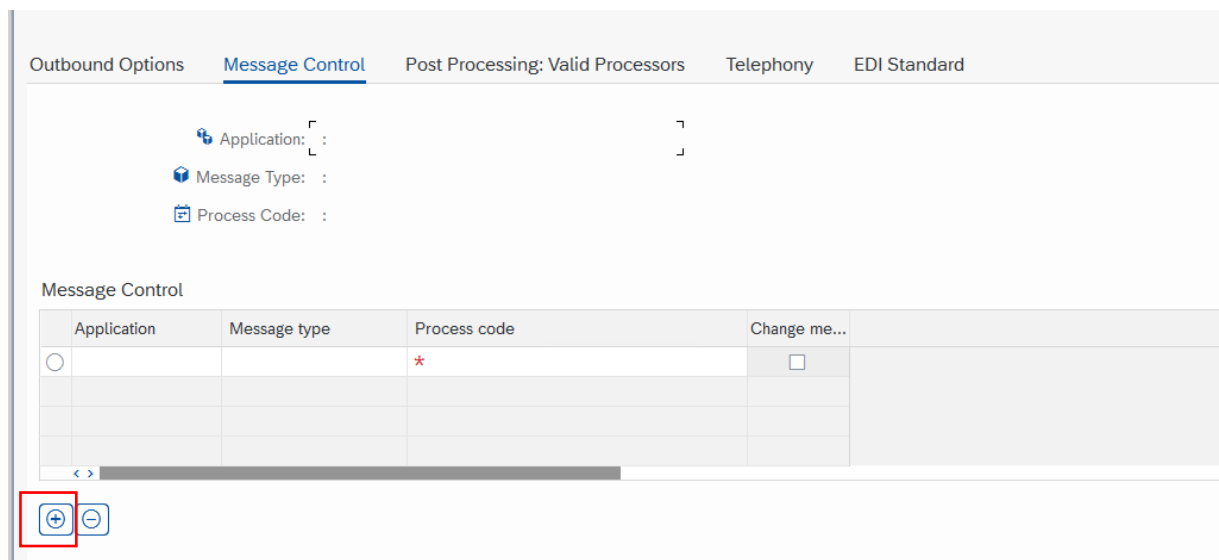
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The screenshot shows the 'Partner profiles: Outbound parameters' screen in SAP. The 'Message Control' tab is selected and highlighted with a red box. The 'Message Type' is set to 'INVOIC' (Invoice/Billing Document). The 'Receiver port' is set to '4000000020' and is also highlighted with a red box. The 'Pack. Size' is set to '1'. The 'Output Mode' is set to 'Pass IDoc Immediately'. The 'IDoc Type' section shows 'Basic type' as 'INVOIC02' (Invoice/Billing document). The 'Cancel Processing After Syntax Error' checkbox is checked. The 'Segment Appl. Rel.' field is empty.

Choose + button.



The screenshot shows the 'Message Control' table in SAP. The table has columns: Application, Message type, Process code, and Change me... The first row shows an empty Application field, an empty Message type field, and a Process code field containing a red asterisk (\*). The 'Change me...' checkbox is checked. Below the table, there are two buttons: a '+' button (highlighted with a red box) and a '-' button.

Provide this information:

Application: V3

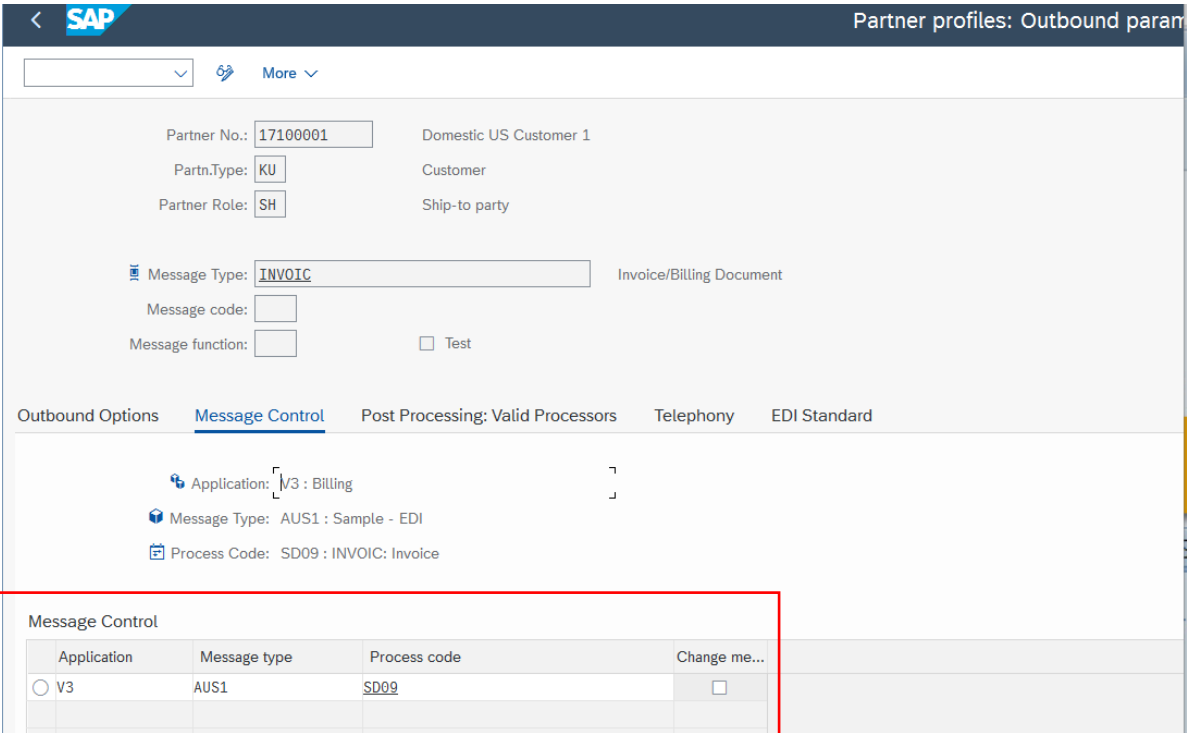
Message type: AUS1

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Process code: SD09 and save.



The screenshot shows the SAP S/4HANA Outbound Partner Profile configuration screen. The 'Partner No.' is 17100001, 'Partn.Type' is KU, and 'Partner Role' is SH. The 'Message Type' is INVOIC, and the 'Process Code' is SD09. The 'Message Control' table is highlighted with a red box.

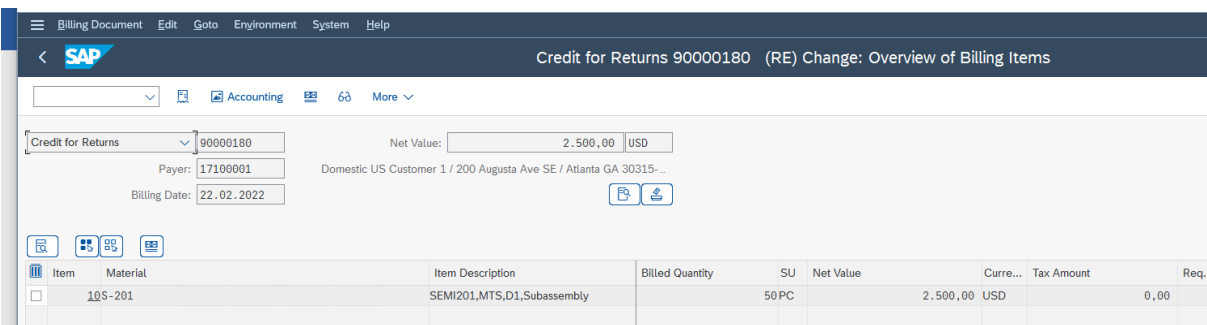
Application	Message type	Process code	Change me...
<input type="radio"/> V3	AUS1	SD09	<input type="checkbox"/>

### 8) Business Process

All configuration it's done now we are ready to test our business process

Remember our purpose is that once we save the billing document the output type AUS1 is executed and send EDI with IDoc immediately

This is our invoice in VF02 T-code



The screenshot shows the SAP S/4HANA Billing Document Overview screen. The 'Credit for Returns' is 90000180, and the 'Net Value' is 2,500.00 USD. The 'Payer' is 17100001, and the 'Billing Date' is 22.02.2022. The table below shows the billing items.

Item	Material	Item Description	Billed Quantity	SU	Net Value	Curre...	Tax Amount	Req.
<input type="checkbox"/> 105-201		SEMI201,MTS,D1,Subassembly		50 PC	2,500.00	USD		0.00

Save

☒ Document 90000254 saved (no journal entry generated).

Check the output type

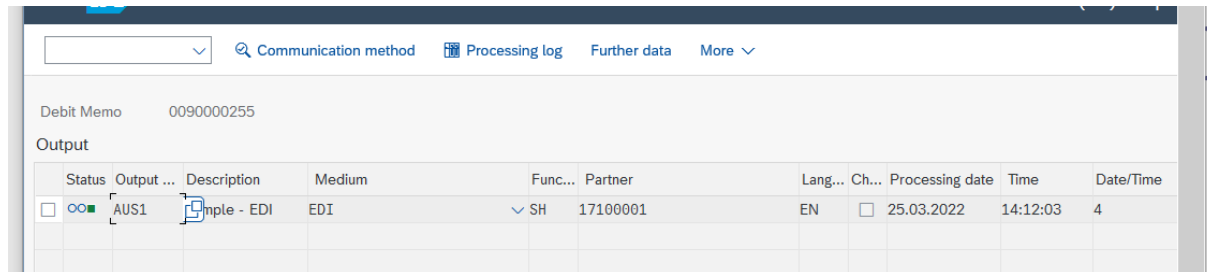
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The status is green, which means that the output type AUS1 has been successfully executed.

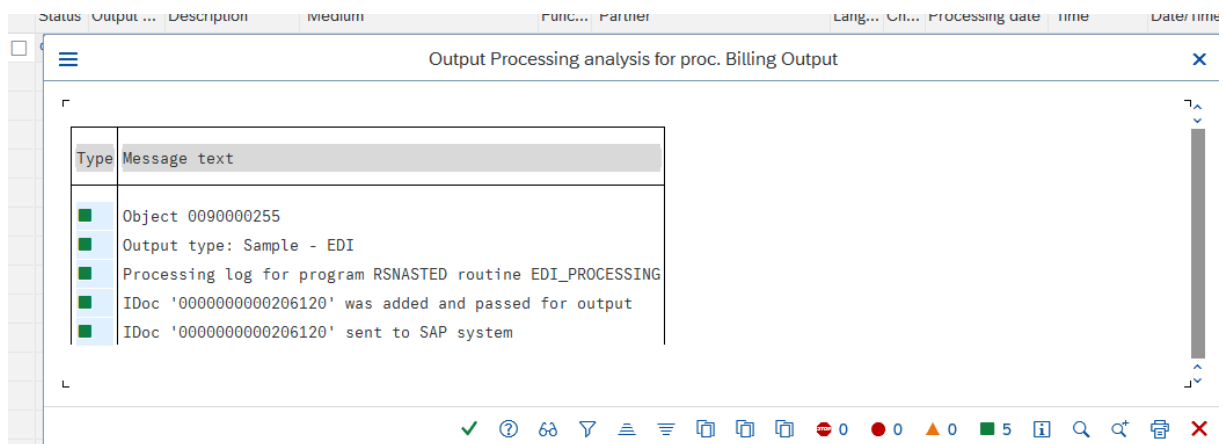
Select Processing Log button



The screenshot shows the 'Billing Output' table in SAP. The 'Status' column for the selected row is green, indicating successful execution. The 'Output' column shows 'AUS1' and the 'Description' column shows 'Sample - EDI'. The 'Medium' column shows 'EDI'. The 'Partner' column shows '17100001'. The 'Processing date' is '25.03.2022' and the 'Time' is '14:12:03'.

Status	Output ...	Description	Medium	Func...	Partner	Lang...	Ch...	Processing date	Time	Date/Time
■	AUS1	Sample - EDI	EDI	SH	17100001	EN		25.03.2022	14:12:03	4

Everything is green, proof that our client has received the invoice



The screenshot shows the 'Output Processing analysis for proc. Billing Output' window. It displays a list of messages with a green status icon, indicating successful execution. The messages include: 'Object 0090000255', 'Output type: Sample - EDI', 'Processing log for program RSNASTED routine EDI\_PROCESSING', 'IDoc '0000000000206120' was added and passed for output', and 'IDoc '0000000000206120' sent to SAP system'.

Type	Message text
■	Object 0090000255
■	Output type: Sample - EDI
■	Processing log for program RSNASTED routine EDI_PROCESSING
■	IDoc '0000000000206120' was added and passed for output
■	IDoc '0000000000206120' sent to SAP system

We can display the IDoc in Tcode: WE02

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< SAP

IDoc List

Save as Variant...

More

Default

Additional

EDI

Created At: 00:00:00

to: 23:59:59

Created On: 25.03.2022

to: 25.03.2022

Last Changed At: 00:00:00

to: 23:59:59

Last Changed On:

to:

Direction: ☐

IDoc Number: 206120

to:

Current Status: ☐

to: ☐

Basic Type:

to:

Enhancement:

to:

Logical Message:

to:

Message Variant:

to:

Message Function:

to:

Partner Port:

to:

IDoc is executed successfully

< SAP

IDoc Display: 0000000000206120

More

IDoc display

Additional information

Short Technical Information

IDoc 0000000000206120

Control Record

Data records

Status records

03

30

01

Total number: 000054

Data passed to port OK

IDoc ready for dispatch (ALE service)

IDoc created

Direction: 1 Outbox

Current Status: 03

Basic type: INVOIC02

Extension:

Message Type: INVOIC

Partner No.: 17100001

Partn.Type: KU

Port: A000000019

Content of Selected Segment

Fld Name

Fld Cont.