

## Summary

### Symptom

How do you configure e-mail, fax, paging or SMS in the SAP Web Application Server using SMTP?

Which prerequisites and settings are required outside the SAP system?

### Other terms

INT, FAX, PAG, SAPconnect, SMTP

### Reason and Prerequisites

Some information is missing.

## Solution

### General information, architecture, prerequisites, system environment

When e-mails are transferred using SMTP, the SAP Web Application Server communicates directly with a mail server. No gateway or connector is necessary.

You can use any SMTP-compatible product as a mail server.

The SAP system always transfers the outbound mails to a single mail server. You can set its host address and port number.

The SAP system can receive inbound mails from any number of mail servers.

You can reach each client using separate, configurable port numbers. You can address the SAP system or its client most effectively by using an individual subdomain for each client (for example, "crm-prod.company.com"). The assignment of these subdomains to host name and port numbers of the SAP system is defined by the routing rules on the mail servers.

As of Release 6.20, you can also send and receive fax and SMS or paging messages using SMTP. These are packed in e-mails for this purpose. When sending, the mail server uses the domain of the recipient addresses to send the e-mails to an internal company fax or SMS server (for example "SMS="+491759628717@sms-server.company.com"), or to an external provider (for example, "FAX="+16105954900@fax-provider.com"). When receiving, the fax/SMS server or the provider sends e-mails to addresses using the domain of the SAP system (for example "FAX="+496227751624@crm-prod.company.com").

### Security notes

Make sure that all of the mail servers that the SAP system communicates with when receiving and sending messages have relevant virus scanners and spam filters. We explicitly recommend protecting the receiving socket from the outside by using the firewall to prevent direct delivery attempts by third parties.

In addition, we recommend that the SAP system does not directly communicate with a mail server outside the firewall.

## Configuration

1. Profile parameter

To be able to use the SMTP functions, you must adjust the profile of the SAP Web Application Server. We recommend that you activate SMTP on all application servers of an SAP system. If this is not the case, the SAPconnect send job may only be scheduled for servers on which SMTP is active. The scheduling is then done by the standard job definition (transaction SM36) rather than by the SAPconnect administration (transaction SCOT, for a description, see 4.c).

For SMTP, you must set the profile parameters listed below. The placeholder <\*> stands for a number with which the parameters that can occur several times are numbered sequentially, starting with 0.

- a) `icm/server_port_<*> = PROT=SMTP,PORT=<port>`

This opens a TCP/IP port for receiving mails by the SMTP Plug-In. <port> specifies the number of the port that you should use. This must not be occupied by any other program on this host (for example, Sendmail usually uses port 25). If no mails (including status notifications) are to be received in this SAP system, <port> can be set to 0.

You can use the TIMEOUT option to define a maximum wait time for a response from the mail server (in seconds).

- b) `is/SMTP/virt_host_<*> = <host>:<port>,<port>,...;`

This defines a "virtual mail host" for receiving mails. If all incoming mails (including status notifications) are to be received and processed in a single client of this SAP system, this parameter is not required (an entry `is/SMTP/virt_host_0 = *:*` is then assumed by default). If you want several clients to be able to receive, you must create a virtual mail host for every client. <host> specifies the name of the host to which incoming mails are addressed. The "\*" value can also be specified here if the mail distribution is to occur independently of the addressed host. Important: If the mail is to be distributed according to host names, you must assign different IP addresses to these host names. <port> specifies the number of a port to which incoming mails are addressed. Several ports may be specified for each host, and several hosts (with several ports if necessary) may be specified for each virtual mail host. Important: The parameter line must always be completed with a semicolon (even if only one host is involved). In addition, it is only possible to define a maximum of 10 virtual hosts:

`virt_host_0 ... virt_host_9.`

The assignment of virtual mail hosts to clients is carried out in the SAP system (see 3).

Example:

With two clients capable of receiving mail, the profile parameters could read as follows (as of Release 6.20):

```
icm/server_port_0 = PROT=HTTP,PORT=1080
icm/server_port_1 = PROT=HTTPS,PORT=1443
icm/server_port_2 = PROT=SMTP,PORT=25000,TIMEOUT=180
icm/server_port_3 = PROT=SMTP,PORT=25001,TIMEOUT=180
is/SMTP/virt_host_0 = *:25000;
is/SMTP/virt_host_1 = *:25001;
```

## 2. User administration (transaction SU01)

- a) System user

In each client of an SAP system in which incoming mails (or status

notifications for sent mails) are to be received, a system user must be created to process the incoming messages. To do this, use transaction SU01 to create a user of the type "system", and assign the "S\_A.SCON" profile to this user.

Important: In Release 6.20 or lower, refer to Note 622464 regarding the password change behavior of the system user.

b) User addresses

Each individual user who wants to receive e-mails in an SAP system needs an Internet mail address. This is also used as a sender address for sending e-mails. In transaction SU01, enter the Internet mail address of a user in the field "E-Mail" under "Address". As a domain, use the domain of the SAP system client if possible (see "General information" above and 4.a), for example "firstname.lastname@crm-prod.company.com".

3. Client assignment (transaction SICF)

For each client of an SAP system in which incoming mails (or status notifications for sent mails) are to be received, and processed if necessary, you must create an SMTP server in which the assignment to a virtual mail host as well as the logon data is defined. In transaction SICF, an SMTP server (envelope icon) should already be available in every SAP system. This is delivered by SAP. Use this for the first client that you want to be able to receive mails, and create a new SMTP server for every other client. You must make the following settings on the SMTP servers:

a) Host data

For "Profile Parameter Number", enter the sequence number of a parameter is/SMTP/virt\_host\_<\*> from the profile. If you have only one client and did not create such a parameter in the profile, enter 0.

b) Service data

Enter the client into which the mails received using this virtual mail host are to be directed, as well as the logon data (user, password, language) of the service user that was created for inbound mails (see 2.a).

c) Handler list

Enter CL\_SMTP\_EXT\_SAPCONNECT in the first position.

As of Release 6.20, you must activate the SMTP server after you create or change it (Service/Virt.Host --> Activate, or right-click).

4. SAPconnect administration (transaction SCOT)

You have to make the SAPconnect settings separately in each client from which e-mails are to be sent or in which e-mails are to be received.

a) Default domain

The domain of this SAP system client is defined here, for example, crm-prod.company.com. It is used for the following purposes:

- The SMTP Plug-In logs on to the mail server with the domain as ID.
- The message ID of outgoing mails is created with this domain.

- If an SAP user who has not entered an Internet mail address in their user master record sends an e-mail, a sender address is generated from the SAP user name and this domain, for example SMITHJ@crm-prod.company.com.
- b) Nodes
- There are different types of node in SAPconnect:
- SMTP nodes (for the SMTP function of the SAP application server)
  - HTTP nodes (for paging or SMS providers using Web services, as of 6.20)
  - RFC nodes (for old RFC-compatible e-mail/fax/paging gateways)
- There is always a single SMTP node in each client. It is created automatically by the system and cannot be deleted. It is configured as follows (double-click on the node name):
- Select "Node in use".
  - Under "Mail Host" and "Mail Port", specify the mail server to which outbound mails are to be transferred.
  - Select "Set" for "Internet".
  - Specify address areas of recipient addresses that are to be reached using these nodes (usually "\*" if all e-mails are to be sent using SMTP).
  - For "Output Formats for SAP Documents", the following is recommended:

SAPscript / Smart Forms	PDF
ABAP List	HTM
Business Object / Link	HTM
RAW Text	TXT
- If fax messages are also to be sent using SMTP:
- Select "Set" for "Fax".
  - Specify address areas of recipient addresses that are to be reached using these nodes (usually "\*" if all faxes are to be sent using SMTP).
  - For "Output Formats for SAP Documents", the following is recommended:

SAPscript / Smart Forms	PDF
ABAP List	PDF
Business Object / Link	TXT
RAW Text	TXT
  - For "Conversion into Internet Address", enter the domain of the fax server or fax provider. The local part of the Internet address is generated automatically by the system. The address then has the form "FAX+=recipientnumber@domain".

If paging or SMS messages are also to be sent using SMTP:

- Select "Set" for "Pager(SMS)".
- Specify address areas of recipient addresses that are to be reached using these nodes (usually "\*" if all paging or SMS messages are to be sent using SMTP).
- For "Conversion into Internet Address", enter the domain of the paging or SMS server or paging or SMS provider. The local part of the Internet address is generated automatically by the system. The address then has the form "SMS+=recipientnumber@domain".

Important: To be able to use paging or SMS in the SAP system, names must be defined for the messaging services to be used (e.g. "SMS"). You can do this using transaction SA14.

c) Send job

E-mails that are sent from an SAP application are merely put into a queue. A periodically running background process, the SAPconnect send job, takes the e-mails from the queue and sends them by Internet. This job can be scheduled from SAPconnect administration as follows:

- Choose "View" --> "Jobs". Check whether a job is already scheduled (displayed as a calendar icon).
- Choose "Job" --> "Create", and specify a job name.
- Place the cursor on the "SAP&CONNECTALL" variant, and choose "Schedule Job".
- Choose "Schedule periodically".
- Specify a time interval (for example, 10 minutes), and choose "Create".

d) Receiving

With the settings made so far, SAP users can already receive e-mails in their inbox in the Business Workplace (transaction SBWP) at the address entered in the user master record.

If, on receipt of e-mails to a specific address or with specific contents (for example XML documents), you want a program that processes these e-mails to start automatically, you can configure this under "Settings" --> "Inbound Processing".

If, on receipt of e-mails to a specific address or from a specific sender, you want these to be directed automatically to another recipient or a distribution list, you can configure this under "Settings" --> "Inbound Distribution".

5. Settings on the mail server (SAP-external configuration)

To be able to receive mails in the SAP system, you need to set your mail server so that certain mail addresses are forwarded to one or several SAP systems or clients. For this purpose, you need to define routing rules that assign a mail host and/or port to address areas (generic address parts, usually the domain), for example:

\*@crm-prod.company.com --> SAPWASHost:25000

\*@crm-test.company.com --> SAPWASHost:25001

For more information about the exact setting procedure, see the mail server documentation. Note 546147 describes where the documentation can be found for the Microsoft Exchange 2000 Server, and what to do if your mail server does not allow routing to ports other than port 25.

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**Header Data**

Release Status: Released for Customer  
 Released on: 25.10.2010 12:38:06  
 Master Language: German  
 Priority: Recommendations/additional info  
 Category: Installation information  
 Primary Component: BC-SRV-COM Communication Services: Mail, Fax, SMS, Telephony

Secondary Components: BC-SRV-COM-SPL eMail, Fax and Paging using SMTP Plug-in

**The Note is release-independent**

**Related Notes**

Number	Short Text
1522754	SAP TM 8.0 - collection of notes, pro-active implementation
1455934	Notification emails not sent for CUP requests
1405426	FAQ: SI data exchange with HI funds (SHI comm server/E-Mail)
1155948	SI: Configuring incoming e-mails(paying offices,DEUEV conf.)
960088	FAQ: Sending SD messages externally
833396	Notification of tester with status changes of message
779972	SURVEY: Configuration required to receive emails
622464	Change: Password change req. entry for "SYSTEM" user type
607108	Problem analysis when sending or receiving e-mails
594428	SXC: Exchange 2003 Server is not supported
546147	SMTP plug-in: MS Exchange sends only to port 25
519664	Installation of SAP SEM Release 3.1B GA
519658	Upgrade to SAP SEM Release 3.1B GA
511025	Bid invitation: No confirmation of receipt
455142	SAPconnect: Configuration paging/SMS via HTTP
455129	Paging/SMS in different SAP releases



## SAP Note 455140 - Configuration of e-mail, fax, paging or SMS using SMTP

Number	Short Text
455127	E-mail (SMTP) in different SAP releases
101573	Internet Mail Gateway: Versions
17194	Telefax in various SAP Releases

### Attributes

Attribute	Value
Transaction codes	EMAIL
Transaction codes	HIER
Transaction codes	SA14
Transaction codes	SBWP
Transaction codes	SCOT
Transaction codes	SICF
Transaction codes	SM36
Transaction codes	SU01