



PAPAGENO

SAPconnect

Version 5.9

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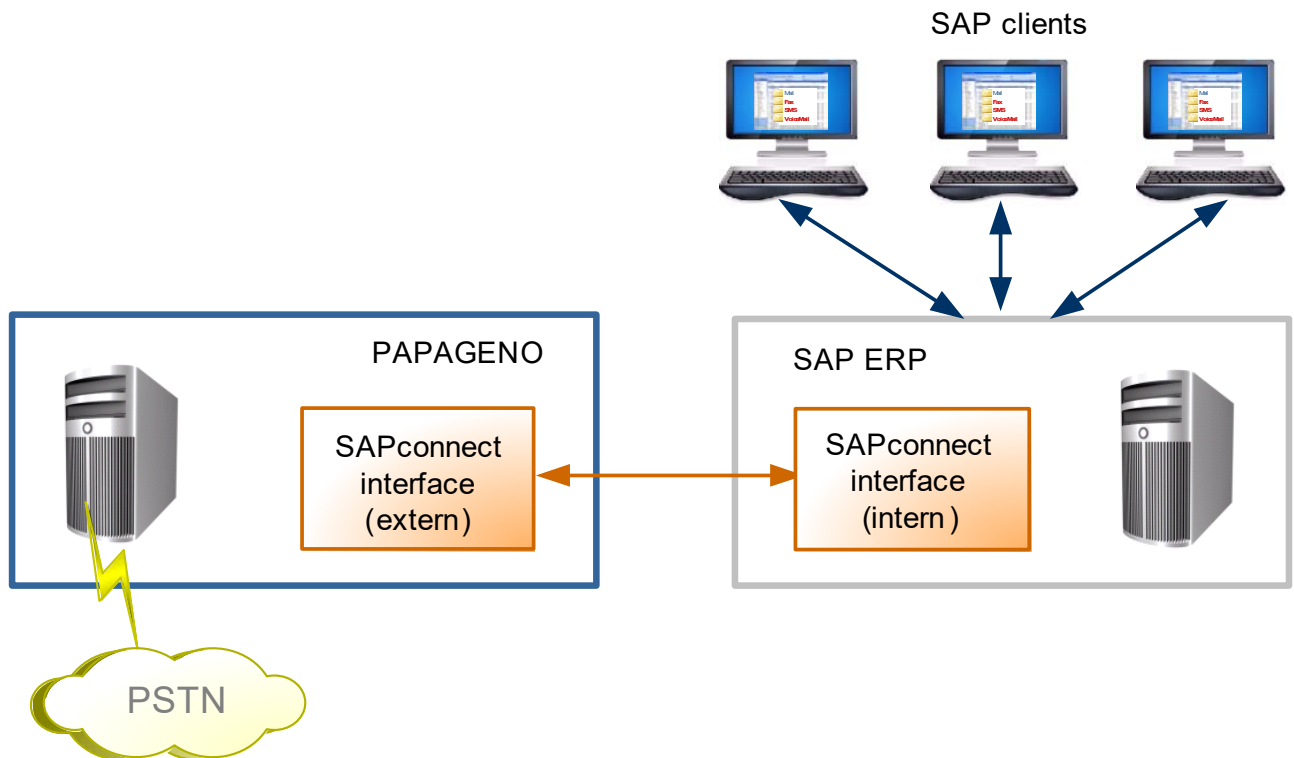
PAPAGENO-SAPconnect



The PAPAGENO SAPconnect interface supports the sending and receiving of faxes, short messages and voicemails from all SAP ERP (formaly R/3) applications.

PAPAGENO-SAPconnect is available for use in Unix, Linux und Microsoft Windows

PAPAGENO is connected via the internal RFC interface of SAP. The external SAPconnect interface registers itself at the defined SAP ERP gateway. The internal and external RFC interface communicate with each other via the SAP ERP gateway. The respective external and internal interfaces are assigned via the so-called program ID.



Message Formats

The PAPAGENO-SAPconnect interface supports the use of forms via an integration into the JetForm Output Pak. As a transfer format, PCL is now supported alongside PostScript (PCL license provided).

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1. Note the Prerequisites

PAPAGENO

- The **PAPAGENO server** (version 5.9) is installed, running and accessible.
- In PAPAGENO a license at least is free for a user (incoming and outgoing faxes are sent to a gateway user.
A dedicated PAPAGENO user is required for each destination (client).

SAP

- A SAP ERP system is installed.
- SAP Service Ports are entered
If the SAP software is installed on the PAPAGENO server, the correct SAP ports are already entered.
If not, you must add the appropriate ports in the `services` file (see below).

To Enter the SAP Service Ports

If you need to enter the corresponding ports manually, you can find the `services` file under Unix in the directory `/etc`,
under Windows in the directory `Windows/system32/drivers/etc`.

- ▶ Open the `services` file.

Under Windows:

- ▶ Insert a new line at the file end.

Windows/Unix:

The following ports must be entered:

```
sapgw00 3300/tcp bis  
sapgw99 3399/tcp
```

Of course, you only have to enter the ports that are required by SAP. This means that if you use the SAP gateway service `sapgw06` and `sapgw07`, you need the gateway ports `3306/tcp` and `3307/tcp`.

- ▶ Enter the appropriate ports in the `services` file and save.

2. RFC - Destination

The configuration program creates the configuration file `saprfc.ini` in the `$ FAXROOT / gateway / sapconnect` directory. This file contains all information on a logical destination in a block beginning with `DEST=name`. As a logical destination, an **RFC server destination** must be defined for sending documents, and an **RFC client destination** must be defined for receiving and confirming the status of the documents sent. This means, that for each client both a server destination and a client destination must be defined.

The SAPconnect-components of the fax software consist of an RFC server program and an RFC client program. Both SAPconnect components are administered with the PAPAGENO-Process manager LAMBDA. The SAPconnect gateway processes are also started with the start of the fax server.

Information on SAPconnect settings in SAP R/3 as of version 3.1x and SAP ERP

The following points are not a configuration guide, but are only to be understood as a reference and explanation.

The description for configuring the SAPconnect interface can be found in the R/3 or SAP ERP Online documentation on the CD or in the OSS under "SAPconnect".

The following transactions must be maintained:

SU01: Generating of a SAP CPI/C-User. External CPI/CPrograms (for example, fax gateways) log on under an RFC user. This user is configured as aCPI/C-User with the authorization profile `S_A.SCON`.

SCON (R/3 3.1x), SCOT (R/3 4.0x): Under **Different Settings**, the transaction SCON defines the communication methods, format groups and conversion rules. The formats supported by the gateway are PostScript, Tiff, and ASCII. Under **Infrastructure** the RFC nodes, the node properties, the routing and the transmission attribute classes are defined. Under **Telephone Number** the tables for country code, exceptions country code, number change output and number change receipt are maintained.

SM59: Generating of an RFC-Destination.

SCOA: Diagonal-oriented oder batch-oriented fax transmission.

If necessary, also observe the notes on configuration in the OSS.

3. To Install PAPAGENO-SAPconnect

The `install_sap` installation program takes the interactive installation and configuration of the PAPAGENO-SAPconnect - RFC interface (s).

Execute `install_sap`

Start Installation

Under **Unix/Linux**:

- ▶ Log in as user `comfax`.

Under **Windows**:

- ▶ Log in as `Administrator` or as user `comfax`.
- ▶ Start the installation program with `install_sap`.
- ▶ Select the desired installation language.

After calling the `install_sap` installation program, you are requested to configure the first destination or exit the program. The first destination must be a **Server Destination**, the second is a **Client Destination**. If multiple destinations are configured, this sequence is kept.

Defining a Server Destination

Several details are required for the server destination.

Name and Type (DEST, TYPE)

The name of the server destination is arbitrary. It must be written in capital letters and can contain up to 10 alphanumeric characters, e.g. FAX. Type of destination for a server destination: R. The program ID is the logical name (any) that is used in R/3 in transaction **SM59** when generating an RFC destination in the Program ID field. (See also „Information on SAPconnect settings in SAP R/3 as of version 3.1x and SAP ERP”, page 4.

- ▶ Enter a name for the server destination (maximum 10 characters).
- ▶ Confirm the type `R`.
- ▶ Enter the programme Id.

Computer Name (GWHOST, GWSERV)

In the next step, you must specify the name of the computer on which the **SAPconnect gateway** is running, the computer on which SAP R/3 or SAP ERP is installed, and the name of the SAP gateway service. The RFC trace level does not have to be changed.

- ▶ Enter the name of the computer on which the SAPconnect-Gateway is running, or the name of the computer on which SAP R/ 3 or SAP ERP is installed.
- ▶ Enter the name of the SAP-Gateway-Service.

Logfile (FAXGWSRV)

The PAPAGENO SAPconnect RFC server program creates a log file whose name can be specified. The log file name is formed from this name, a prefix `1` and the generation date as an extension. The file itself is stored in the directory `gateway/sapconnect/server destinationname` under the Faxserver root directory.

- Enter, if need be, a name for the log file.

Specifying Local PAPAGENO Server Names (FAXGWHOST)

The external server program is started by the process manager LAMBDA from PAPAGENO. Therefore the local PAPAGENO server name on which the PAPAGENO-SAPconnect gateway is to be started must be specified.

- Enter the host name of the PAPAGENO server.
Please take note of capital and small case letters!

Entering imeout (GWTIMEOUT)

Since PAPAGENO-SAPconnect is implemented as an external RFC program for R/3 or SAP ERP, connection breaks can occur if the R/3 or SAP ERP system is, for example, shut down for maintenance reasons. By means of a configurable timeout, the gateway can be informed of how long it should try to restore the connection to the SAP system. If the connection could not be restored after the timeout has been reached, the process has to be restarted (see manual „PAPAGENO Configuration, Installation and Administration“, part B1 „Starting and Stopping the PAPAGENO Servers“, page 51).

ATTENTION! During the reconnect phase, the status of the process in the PAPAGENO process manager is `active`. As the non-availability of the R/3 or SAP ERP system increases, the time intervals between the individual reconnect attempts are increased (max. 1h). For this reason, the gateway should be restarted with the commands `1_stopgateway destination` and `1_startgateway destination` if the SAP R / 3 or SAP ERP system is accessible again.

- Specify the number of minutes the gateway should attempt to restore to the SAP system.

Entering Gateway User (FAXUSER, FAXPASSWORD)

The documents are sent via a gateway user within the fax software. This means at the same time that a login of the PAPAGENO user license is reserved for this user. The user name can consist of up to ten alphanumeric characters. If a user has already been created, this user is used, otherwise it is newly created by the configuration program. The user password can be up to 20 characters long.

ATTENTION! Never use an already existing user account which has already been set up for other applications.

- Enter user name and user password.

Summary of Key Words

The following are the PAPAGENO-specific keywords for a destination of the **type „Server“**:

Key word	Description
FAXUSER	PAPAGENO gateway user
FAXPASSWORD	PAPAGENO gateway user password
FAXGWHOST	Host name of the computer on which the external server program is running.
FAXGWSRV	Server logbook name without file extension.
GWTIMEOUT	Period in minutes of the attempt to establish a connection between the external server program and SAP (R/3 or ERP).
HEADLINE	Headline
TSI	Fax number, which is entered as TSI when a fax is sent.
PINCODE	Pincode for the assignment of charges.
CPI	CPI Connection identifier of the calling station for ISDN devices. It is given when sending SMS. The recipient receives the number on his mobile phone display and can write a reply (if the number is also entered as a fixed network SMS number). A CPI specified here is sent instead of the sender's specification provided by SAP. See also manual „PAPAGENO Configuration, Installation and Administration“, „Using SMS service:“, page 98 and „Using Fixed Network SMS“, page 98.

Complete the Server Destination

Thereby, the first server destination is configured. You are asked to accept or edit the record.

- ▶ Select `Y` for „yes“ to accept the data record.
or
- ▶ select `C` für „cancel“ to abort the configuration
or
- ▶ select `R` für „redo“ to edit the data record.

If you have accepted the record, it is copied to the `saprfc.ini` file.

When you have accepted the data record, it will be imported into the file `saprfc.ini`.

Define the Client Destination

After the first server destination, you configure the first RFC client destination.

The name of the client destination should correspond to the name of your R/3 or SAP ERP system (SID), and has only three characters, for example, P11, T10. In exceptional cases, a different name must be used (D11 or A11), for example, if a second gateway is running under another client on the R/3 or SAP ERP system. The client destination is type A and default.

- Enter the name of the Client Destination.

Applikation Server and system Number

- Enter the name of the application server and the system number (`ASHOST`, `SYSNR`) (z. B. 00, 03) an.

Enter the Name of the SAP Gateway Computer (GWHOST, GWSERV)

If the name of the SAP gateway computer does not correspond to the name of the application server, it must be specified, otherwise the name of the application server is accepted.

- Enter the name of the SAP gateway computer.

Name of the SAP Gateway Service

The name of the SAP Gateway service is automatically expanded with the system number, for example, `sapgw00`, `sapgw03`. The RFC trace level generally does not have to be changed.

Log File

The PAPAGENO SAPconnect RFC client program creates a log file whose name can be specified. The log file name is formed from this name as a prefix and the generation date as an extension. The file itself is stored in the directory `.../gateway/sapconnect/client destination name` under the `FAXSERVER` root directory.

- If necessary, specify a name for the log file.

Specify Local PAPAGENO Server Name (FAXGWHOST)

The external client program is started via the PAPAGENO process manager. Therefore, the local PAPAGENO server name must be specified on which the PAPAGENO SAPconnect gateway should be started.

- Specify the hostname of the PAPAGENO server. Be case-sensitive.

Poll Interval (FAXINTERVAL)

Furthermore, the information about the poll interval is required. This specifies how often the input and output of the PAPAGENO gateway user are queried for input documents or statuses. The interval is specified in seconds.

- Specify the poll intervall in seconds.

Gateway-User Name, User Password and Client (GWUSER, GWPASSWORD, GWCLIENT)

The CPI/C login information is required for the registration of the RFC client program on the SAP system: user-name, user password and client. This information corresponds to the user data specified in transaction SU01.

PAPAGENO User Name, User Password (**FAXUSER**, **FAXPASSWORD**)

These PAPAGENO gateway user information has already been made available at the server destination.

Summary of the Keywords

The following is a summary of the PAPAGENO-specific keywords for a **client-type destination**:

Key Word	Description
GWUSER	SAP R/3 or SAP ERP CPI/C user (as configured in SU01)
GWPASSWORD	Password CPI/C User
GWCLIENT	Client, in which the CPI/C user was configured.
GWLANG	System language (e. g.: D for „Deutsch“)
FAXUSER	PAPAGENO gateway user
FAXPASSWORD	Password of the PAPAGENO gateway user
FAXGWHOST	Host name of the computer on which the external client program is running
FAXINTERVAL	Client program polling cycle (in seconds)
FAXGWCLNT	Name of the client logbook without extension

Complete the Client Destination

This configures the first client destination. You are prompted to accept or edit the record.

- ▶ Select **y** for „yes“, to accept the data records,
or
- ▶ select **c** for „cancel“, to abort the configuration,
or
- ▶ select **r** for „redo“, to edit the data record.

If you have accepted the data record, it is copied to the `saprfc.ini` file.

Configure Additional Destinations

Since `install_sap` overwrites all previous configurations every time it is started (by creating a new `saprfc.ini` file), you have to enter the values of the earlier destination again in a future destination definition.

Example:

Destination 1 and 2 already exist. Now Destination 3 is to be added.

- ▶ Start `install_sap`.
- ▶ Enter the values of the destinations 1 and 2 once more. Then enter the values of the new destination 3.

4. Carrying out Further Configurations

Carry out Configurations in PAPAGENO

Create a Distribution Rule in PAPAGENO

In the PAPAGENO administration program, you must specify a distribution rule that is used to forward incoming faxes addressed to users to a gateway user. (The gateway user is created automatically by `install_sap`). There may also be other distribution rules that assign incoming faxes with specific extension numbers to PAPAGENO users. These users then see the faxes in their PAPAGENO surfaces.

A requirement is that the device which receives faxes can recognize extension numbers.

- ▶ In the administration program, enter a distribution rule, according to which all incoming faxes are to be forwarded to this user. See the manual „PAPAGENO Configuration, Installation and Administration“, Part C, „Enter at Least One Distribution Rule“, page 109).
- ▶ You can use the other ways of distributing rules to specify exceptions: faxes from certain senders and/or specific users that the recipient does not receive in the mail client.

ATTENTION! Enhancements to the functionality of the PAPAGENO SAPconnect interface are described in the file `Release.notes` in the directory `$ FAXROOT/gateway/sapconnect`.

Automatic Configuration

The configuration program makes entries
under Linux/Unix in the `.profile` file
under Windows in the `.../etc/config` file

There, the environmental variables `GWROOT`, `TIFFORMAT` and `LOGFILEEXPIRATION` are set. `GWROOT` is set to the path `$FAXROOT/gateway/sapconnect/log` and is evaluated by the gateway for logbook entries. `TIFFORMAT` is set to the value `15` and describes the format of the exported incoming documents. With `TIFFORMAT=15`, the Gateway exports incoming documents in the Tiff G4 multipage format. `LOGFILEEXPIRATION` is set to `5`, i.e., the server- and client logfiles are deleted after 5 days.

Setting the Trace Levels

The OMEGA configuration variable `GW_LOG` controls the trace level of the log files generated by PAPAGENO SAPconnect. The possible values (`num`) are 1, 2, 3 or 4. If you specify 4, all existing information is written to the log files. It is recommended to set the trace level in the start phase to 4, later to 1.

Under **Unix/Linux**:

- ▶ Log in as user `comfax`.
 - ▶ Start a shell.
- or:

Under **Windows**:

- ▶ Log in as administrator.
- ▶ Start a prompt.

- ▶ Set up the trace level using
`o_put_config GW_LOG num`

The Trace-Level is automatically set to 4 by the installation program.

Concluding Configuration

So that the changes come into effect after completed configuration:

- ▶ Stop the fax software.
- ▶ Log off from the System.
- ▶ Log on to the system again and restart the fax software.

5. PAPAGENO Processes

When the fax software is restarted, an additional PAPAGENO process is activated for each defined destination:

Gateway/sapconnect : *destination*

The status of the processes must be "active".

If this is not the case, you must check the log files to find out why the processes could not be started. The `logfw date` log file, which contains both the startup process messages as well as a server and client logfile, can be found under the names defined during the installation.

- Check the log files in the directory `$FAXROOT/gateway/sapconnect/log` and in the respective destinations subdirectory.

Additional information is also available via the PAPAGENO monitor functions.

Starting and stopping Gateway-Processes

The Gateway-Processes can be started, singly or all together, with the commands

`l_startgateway destination` or
`l_startgateways`

Analogous to this, the Gateways can be stopped, singly or all together, with the commands

`l_stopgateway destination` or
`l_stopgateways`.

See also manual „PAPAGENO Configuration, Installation and Administration“, part B1 „Starting and Stopping the PAPAGENO Servers“, page 51.

6. Outgoing and Incoming documents

Checking Outgoing and Incoming documents

You can control the outgoing and incoming queue of the gateway user by logging in to the gateway user ID using a comFAX client or as a FAXADM user. (For further details of „FAXADM“ see manual „PAPAGENO Configuration, Installation and Administration“, part B1 „Reserved User Names“, page 45).

ATTENTION! The gateway can transfer only statuses or input documents to SAP when the documents are in the "completed" status.

Send jobs can be printed and viewed with PAPAGENO means (comFAX Client) without affecting the functionality of the PAPAGENO SAPconnect interface.

Send Jobs

The shipping time of a document is determined by the priority of the SAP document. If a job is sent in SAP with a normal priority, the send time specified in SAP is used on the PAPAGENO server. If the order is high, the order is sent immediately without evaluating the SAP send deadline. If the order is low, the order is evaluated as a night shipment.

7. Accounting

Gateway User Database

The **PAPAGENO Gateway User Database** is created during the installation of the gateway.

Each SAP user is automatically entered into this gateway user database when sending a message from SAP via the PAPAGENO SAPconnect interface. It contains the sender address of the SAP user. For SAPconnect, this is the fax number of the sender.

The database can be viewed via the PAPAGENO administration program (menu item Gateway).

Information about Fax Jobs

The fax request generated by the PAPAGENO SAPconnect interface contains in the send data structure the type of the generating gateway (eg SAP) and the sender address. This makes information such as sender, generating application (eg SAP R / 3) charge units, number of pages, dispatch time of the order, etc. directly accessible from the fax application (see command `a_find_do`).

Other file-oriented possibilities of the Accounting are possible by entries in the **configuration file** `saprfc.ini`

REPORT=*specifiers*

This entry generates a file `account.inf.date` with appropriate accounting information in the directory `gateway/sapconnect/client destination name` below the fax server root directory. *specifiers* is used to define which information is desired. All parameters are available as parameters as described for the command `a_find_do`.

In addition, the following parameters can also be defined:

%U : SAP sender address

%t : Charge units

%b : SAP subject line

Example:

The entry

```
REPORT=%f;%U,%t,%e,%b
```

for example, could generate the following line in the `account.inf.date` file:

```
4711,+49 89 54750 0;2;complete;SAP test document
```

ALPHALOG=*name date expire* :

Thus, the logbooks of the fax output documents are stored as ASCII files `faxid.log` under the path specified by the environment variable `GWROOT` in the directory name *date*. The expiration time of the directory can be specified with *expire*.

Example

The entry `ALPHALOG=alphalog '%d.%m.%Y' 3` generates a directory `alphalog.30.11.00` below the `/opt/comfax/faxroot/gateway/sapconnect/ log` directory (if `GWROOT=/opt/comfax/faxroot/gateway/sapconnect/log`), which will be deleted after three days.

ATTENTION! If *date* is not specified a blank string must be entered. The default is '*%d.%m.%Y*':
ALPHALOG=name \ \ *expire*. If the directory are not be deleted automatically, *expire* must
not be entered.

8. Summary of the Environment Variables

All the environment variables interpreted by the gateway are listed here again.

ATTENTION!

Under Unix all environmental variables must be set up in the file `.profile`,
under Windows in the file `\FAXSERVER\etc\config`.

- Stop the PAPAGENO software
under Unix with the command `stopfax`
under Windows by shooting down the service `Faxserver` via `System Control - Services`.
- Open the file `.profile` or `config`.
- In the `config` file add a new line to the file end.
 - `LOGFILE_EXPIRATION=value`
Days (*value*) that the Server- and Client- Logbook is not erased.
 - `GW_REPL=value`
Number (*value*) of the redials for fax transmission.
 - `TIFFORMAT=value`
is the format of the exported fax documents.
 - `SAP_CHARSET=POSIX charset`
is the character set used
 - `GWROOT`
is the directory of the PAPAGENO SAPconnect log.
 - `RFC_INI`
is the directory, where the `saprfc.ini` file is located. This variable must be set, if the standard directory `$FAXROOT/gateway/sapconnect` is not used.
 - `JF_FORM`
JetForm integration. Contains the path where the forms to be used can be found.
 - `JF_CMD`
JetForm integration. Contains the path where the Jet-Form programme `jfmerge` can be found.
 - `JF_OPT`
JetForm integration. Additional JetForm Merge options not specified in the document.
- Restart the PAPAGENO software
under Unix with the command `startfax`
under Windows by starting the service `Faxserver` via `System Panel - Services`.

9.Trouble Shooting

What to do, if...

... the gateway processes are not started when the fax software is started (status: 0). The corresponding server and client logfiles are not generated?

- ▶ Check the `FAXGWHOST` entry in the `saprfc.ini` file.

The server name entered there must exactly correspond to the name as stored in the entry `OMEGAHOST` in `\FAXSERVER\etc\config`.

What to do, if...

... the sending of documents from SAP is successful, but the status return messages are not made?

- ▶ Check whether return messages are activated in R/3 or SAP ERP.
- ▶ Check the associated client logfile in the file `gateway/sapconnect/client destination name` for possible error messages.

In order to be able to return statuses to R/3 or SAP ERP, a valid login is required in PAPAGENO as well as in the R/3 or SAP ERP system.

- ▶ Check user names and passwords in the `saprfc.ini` file.

What to do, if...

... you have configured several clients to send faxes, but only received a part of the status messages in R/3 or SAP ERP?

- ▶ Check the `saprfc.ini` file to see if the same PAPAGENO gateway user was used for the individual clients.
- ▶ If necessary, change the user name during a configuration and then configure this user manually in PAPAGENO (see manual „PAPAGENO Configuration, Installation and Administration“ part C, chapter 4. „Registering Users“, page 98).
- ▶ Stop and start the appropriate processes with `l_stopgateway destination` and `l_startgateway destination`.

What to do, if...

... a configured client process does not appear in the process monitor?

- ▶ In the `.../gateway/sapconnect` directory check the `CLNIDS` file.

This file contains an entry for each client destination to be started. This consists of the 'SID' and the client number, e.g. `CER100`. This entry is generated automatically when using the installation program. If the file `saprfc.ini` was manually extended by client entries, the corresponding entry in the file `CLNIDS` must be made.

What to do, if...

.... a configured server process does not appear in the process monitor?

- ▶ In the `.../gateway/sapconnect` directory check the `SVRIDS` file.

In this file, an entry is to be found for each server destination to be started. This consists of the name as used in the configuration file `saprfc.ini` for the server destination, e.g. `FAX_CER1`. This entry is generated automatically when using the installation program. If the `saprfc.ini` file has been extended manually by adding server entries, the corresponding entry must be made in the file `SVRIDS`.

10. License Management

The **PAPAGENO gateway user database** is created during the gateway installation.

Each SAP user who sends a fax is automatically entered in the **PAPAGENO gateway user database**. The gateway retrieves the data (mail address and extension number) from SAP.

So the gateway user licenses are counted. If "registered SAP users" = "number of licenses", no further user can send a fax..

ATTENTION! If an SAP user does not send a fax for 14 days, it is automatically deleted from the PAPAGENO gateway user database.

