PAPAGENO

SMTP Gateway

Version 5.9

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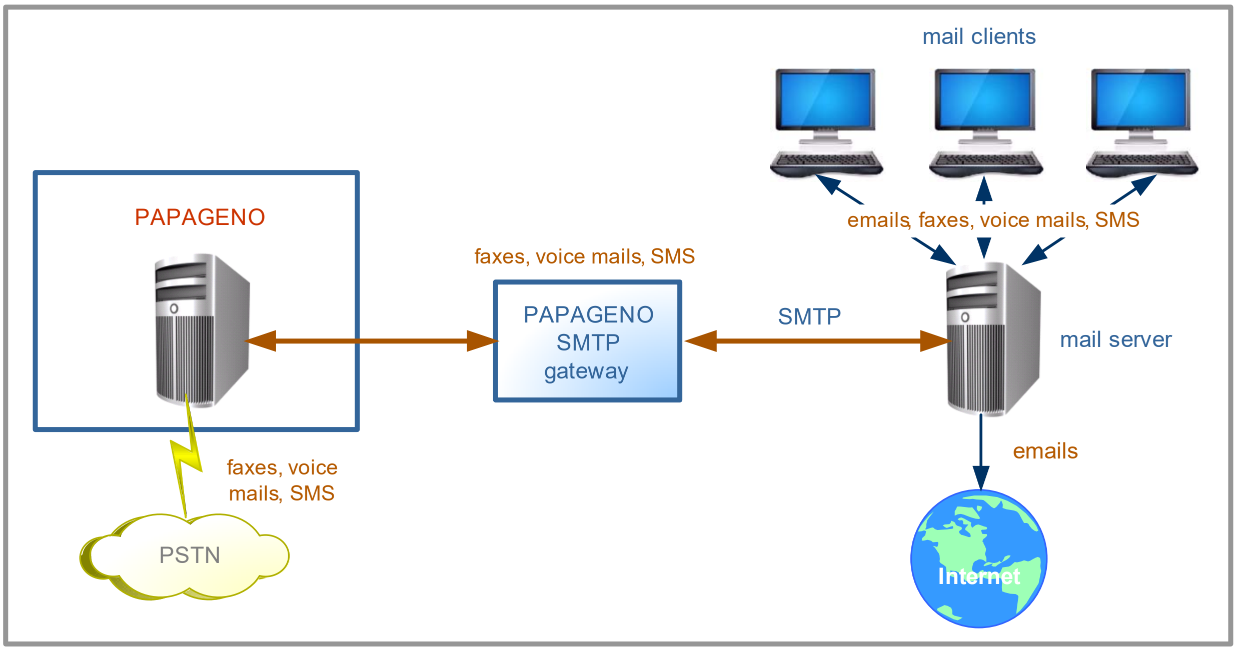
Content

Features

The PAPAGENO SMTP gateway establishes the connection between the SMTP mail server and PAPAGENO.



The PAPAGENO MAPI Connector can

- be installed on **all PAPAGENO platforms** (Windows®, Unix, Linux).

- **convert all current formats** like PostScript, ASCII, Tif, Waf (Audio), PCL and HPGL (PostScript Level 2 license required) whereby it is irrelevant, on which operating system the gateway is installed.

- easily be extended with **new formats**.

- use **MAPI** for document converting under Windows®.

- handle faxes for **several SMTP mail servers**.

It provides **high throughput rates** characterized by a **high stability**.

The Gateway is installed automatically with PAPAGENO on a computer, cleared by the licensce entry and activated by a configuration variable.

Every SMTP capable product can be used as an SMTP server (e. g. Unix Sendmail, Exchange Server).

The PAPAGENO SMTP gateway can be used together with a directory server via **LDAP**. If LDAP is not used, the gateway can access the user database for message sending and receiving.

A. Configuration Planning

1. To-Do-List for Setting Up a PAPAGENO SMTP Gateway

☺ **Decide** on which computer the Gateway shall be installed (see page 11).

☺ Decide, whether **Windows® documents** will be converted on the gateway or on user computers (see page 12)

☺ **LDAP**? (see page 16).

☺ Be aware of the **installation requirements** (see page 21).

☺ Enter the new **license key** (see page 23).

☺ Complete the **preliminary work** on the gateway computer (see page 24).

☺ **Activate** the **gateway** by setting a **configuration variable** (see page 26).

☺ Set the required **gateway variables** (see page 27).

☺ If **LDAP is used**, make the necessary configurations (see page 33)

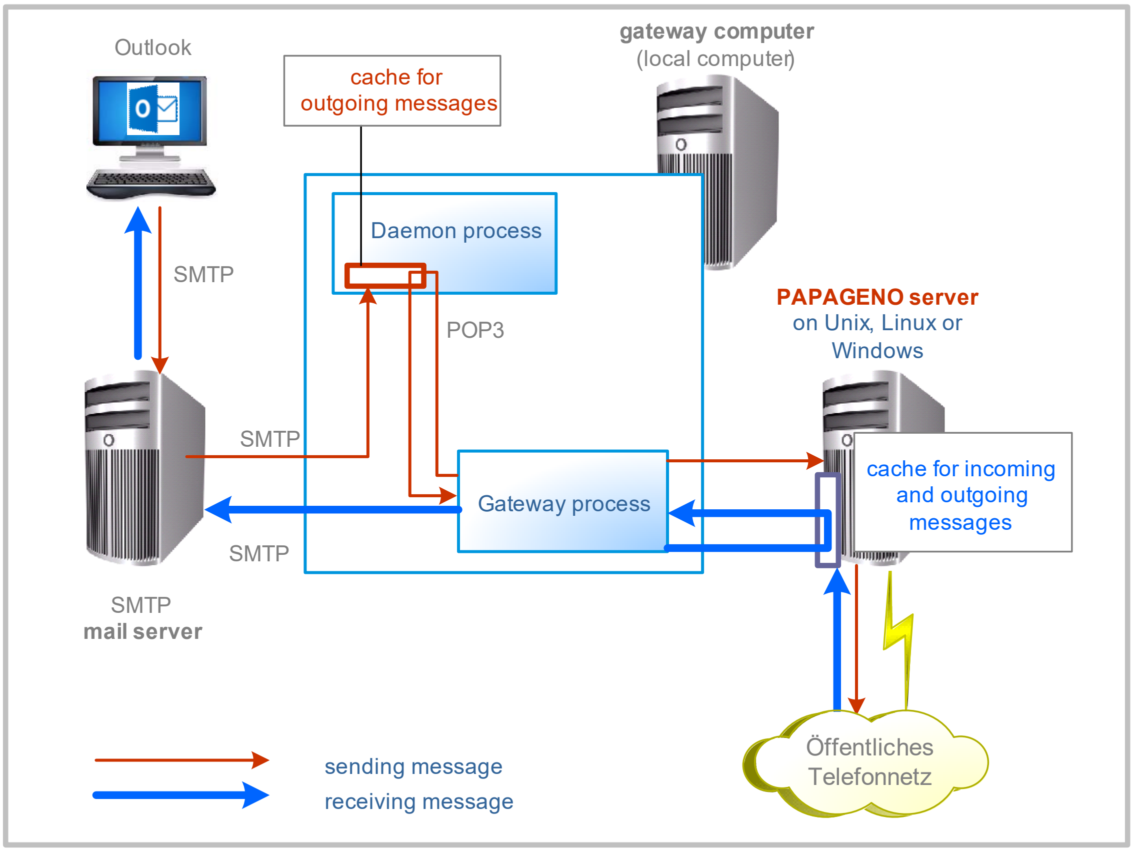
☺ If **LDAP is not used**, make the necessary configurations (see page 42).

☺ If Windows® documents shall be converted install the PAPAGENO MAPI Connector on the gateway computer respectively the FAX Mapi Printer on the user computers (see page 52).

Then start the gateway and you can send your first fax (see Page 56 and 57).

2. Gateway Process Cooperation

For better understanding the figure below shows the operation mode of the gateway processes during fax sending and receiving. The gateway consists of two processes, the daemon and the gateway process.



The gateway process (`gateway.exe`) fetches **incoming messages** from the PAPAGENO cache and submit them to the mail server.

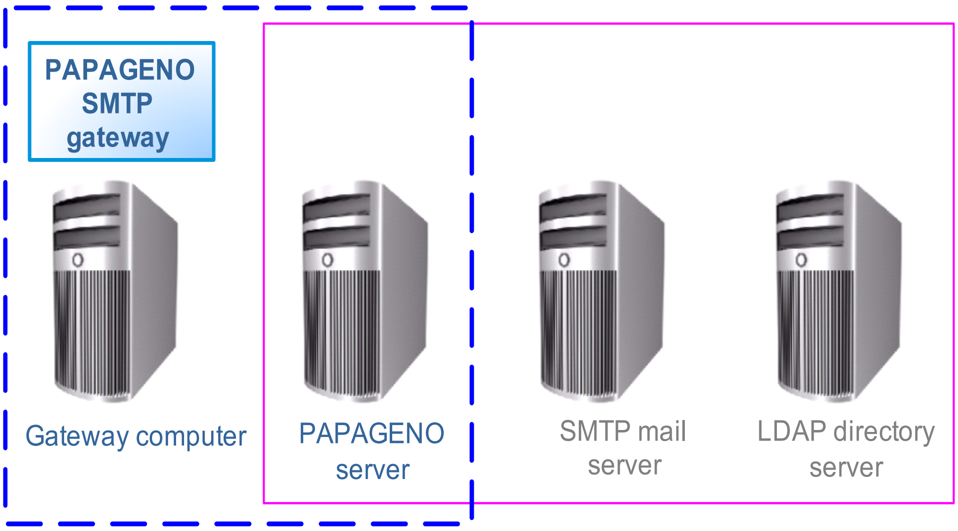
The gateway process fetches **outgoing messages** from the daemon process (`daemon.exe`) via POP3 and submits them to PAPAGENO.

The gateway processes can run on different computers whereat the operating systems have to be identical! The gateway processes are installed with every PAPAGENO installation on the respective computer and can be activated via variables. (See below „`SG_DMH`", page 28 und „`SG_GWH`", page 28).

If a PAPAGENO MAPI connector is installed for document conversion the gateway process communicates with the MAPI connector.

Usually both processes run on the same computer system.

3. Plan the Configuration



The gateway and the PAPAGENO server can run on **all platforms**.

Gateway and SMTP mail server **must** be installed on **separate computers** because the daemon process and the mail server have the same standard port number (port 25).

They can run on the same system, if the port number is changed for one of them

The gateway can be installed on the PAPAGENO server. Directory server, mail server and PAPAGENO server can be installed on the same computer.

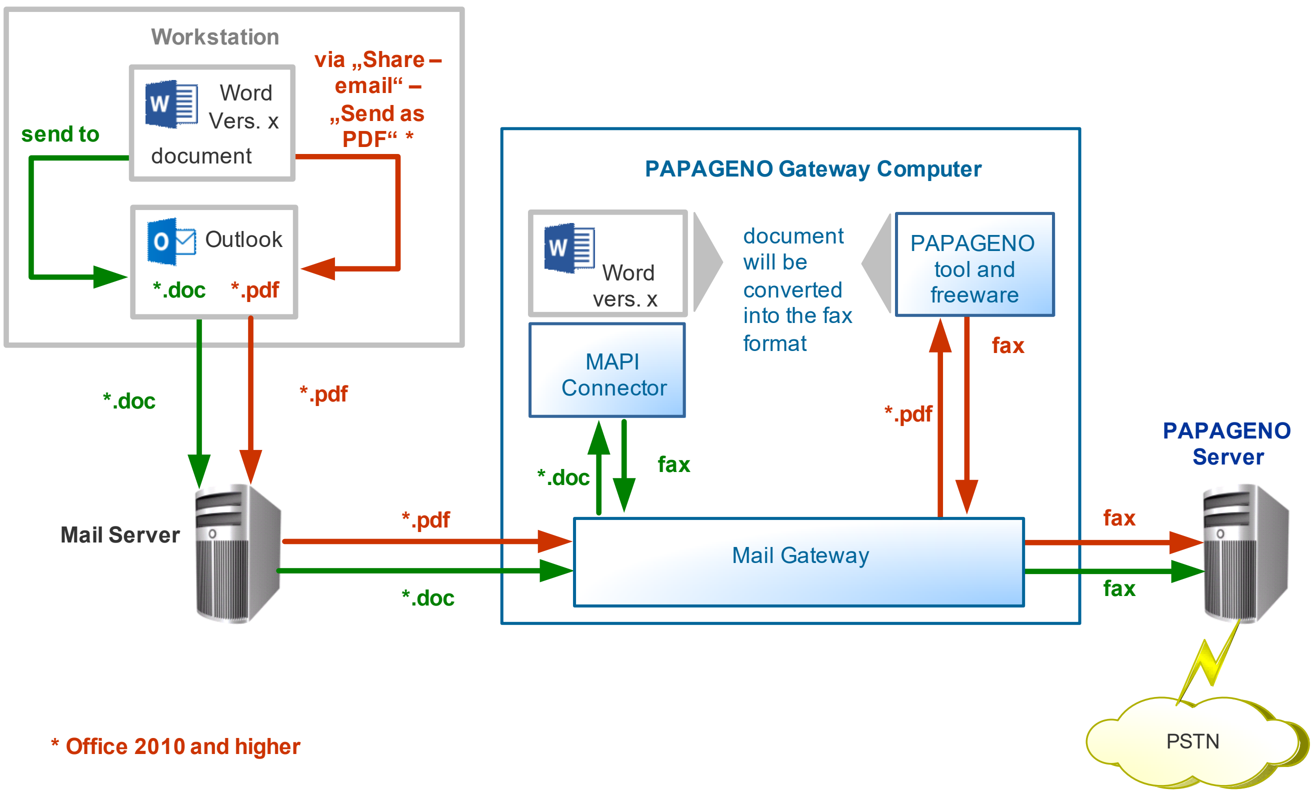
Note: If huge amounts of documents shall be converted, the gateway computer needs sufficient work space.

4. Converting Windows Documents into Fax Format

Decide whether the documents shall be converted on the **gateway computer** or earlier on the **user computers** (see below page 14).

Conversion on the Gateway Computer

A fax document that have been created in a Windows® application can be sent as an email attachment to a fax address. On the gateway system it is then converted to fax format by a **PAPAGENO tool** or by the **PAPAGENO MAPI Connector**.



pdf and html documents will be converted via PAPAGENO Tools and freeware programs

Windows formats (exept of pdf) will be converted by the PAPAGENO MAPI Connector. Since the PAPAGENO MAPI Connector needs an according Windows® converting program on the gateway system all of the Windows® applications from which users may send faxes have to be installed. To avoid problems the server version must be compatible with the client versions.

Advantage:

- The CPU load for conversion is on the gateway system.
- For pdf and html conversion you only have to install the freeware and to aktivate the tools Note that each office document can reach Outlook as a pdf**.**

Disadvantage:

- Using the PAPAGENO MAPI Connector: Installation and maintenance of the regarding Windows® applications on the gateway system

Functionality

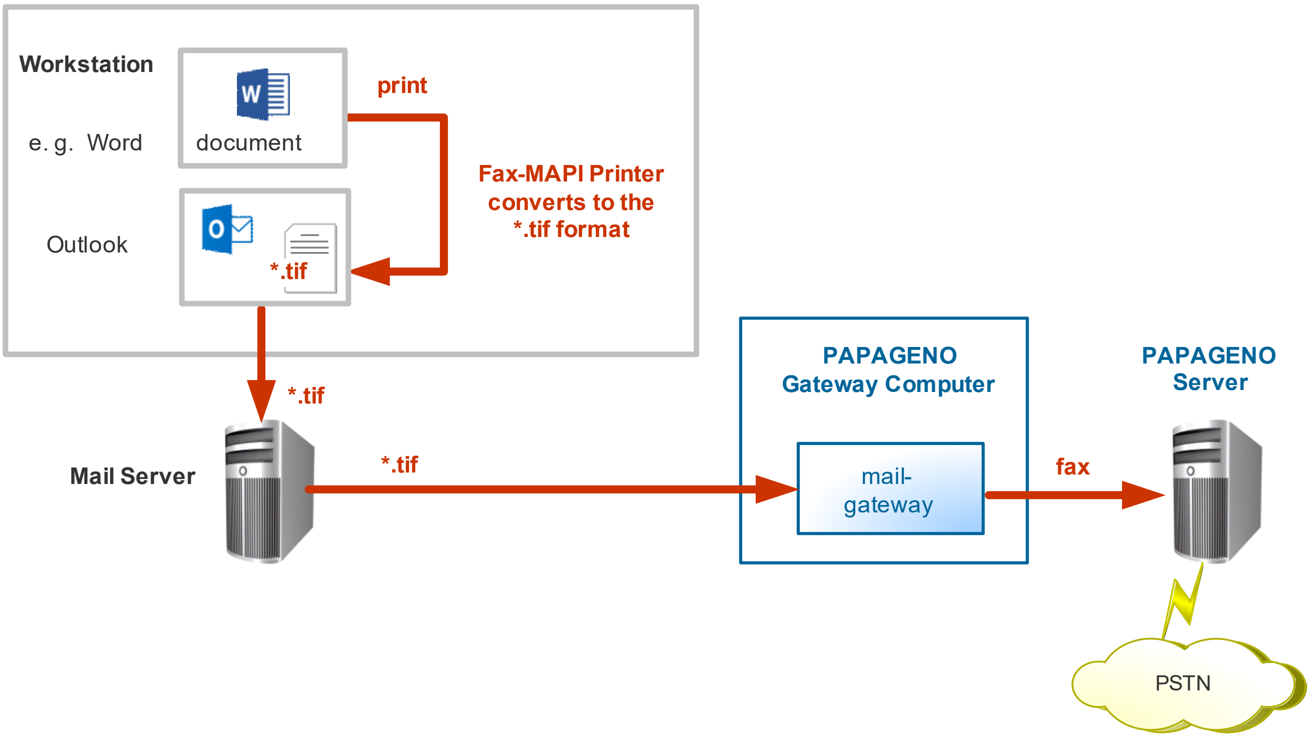
- Select `send to... E-Mail` in the `File` menu in Word or other Windows applications.

  The mail client window of the user will open and the document will be attached (e. g. as `.doc` or `.xls`).

- Enter the fax address in the format
  fax number@fax.domain
  Example: `123456@fax.samplefirm.de`

  The document is sent to the mail gateway via the mail server and converted into fax format. Then it will be sent to the according recipient.

Conversion on the User Computers



The Fax MAPI Printer is a virtual printer which converts documents into fax format. It is part of the PAPAGENO MAPI connector, but can be installed seperately.

Advantages:

- Users can see the document in the mail send window in the same format as they are actually sent because here documents exist as an attachment in *.tif-format.
- Windows applications from which users send faxes, **do not** have to be installed and administered on the gateway system. (If the PAPAGENO MAPI connector has to convert an attachment into fax format, it requires the appropriate Windows® programs),
- Version incombatibility avoided,
- Protection against macro viruses is provided

Disadvantage:

- The Fax Mapi Printer must be installed on every user computer.

Functionality

- Install the Fax Mapi Printer on your computer. (See PAPAGENO MAPI Connector Manual).

- In the `File` menu in Word or other Windows applications select `Print... - Fax MAPI Printer` (or `send to... - Fax recipient - Fax MAPI Printer`).

  The Fax MAPI Printer will convert the document into fax format.
  Then the fax document (***.tif**) will be delivered to your mail client.

- Enter the fax address in the format
  fax number@fax.domain
  Example: `123456@fax.samplefirm.de`

  The document will be sent via the mail gateway to the according recipient.

5. Is LDAP Being Used?

The application of LDAP provides some advantages:

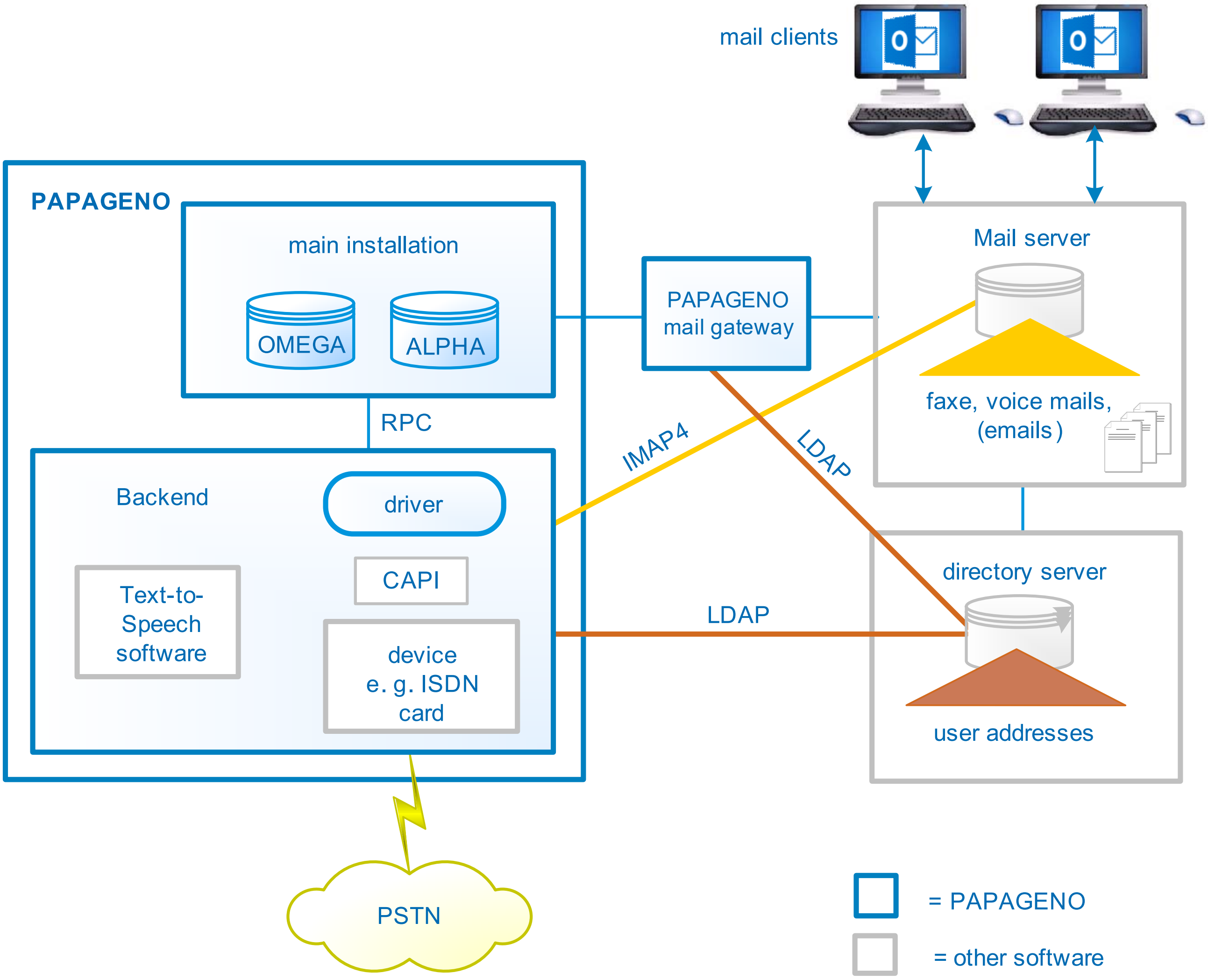
If an LDAP directory server for the administration of the mail users is integrated in your mail system, the PAPAGENO SMTP gateway can immediately access the central address data via LDAP (access protocoll for the directory server) after installation

This means that the existing user addresses simply must be extended to fax, voice mail and SMS addresses.

The advantage is the **simple maintenance** of the user entries: only one entry per user has to be managed for mail and fax address.

Another advantage is that user-specific sending parameters can be taken into account.

Only when LDAP as well as IMAP4 are used, users can access their messages stored on the mail server via telephone.



Both gateway processes can use LDAP.
With the help of LDAP the daemon process checks whether a mail user is allowed to send faxes. Via LDAP the gateway process demands information about users who want to send a fax and LDAP is also being used to assign incoming faxes to the respective users.

Therefore an LDAP connection between gateway computer and directory server and between PAPAGENO device server and directory server must be established.

If LDAP is not used,

- the PAPAGENO SMTP Gateway determines the receiver of the fax via the fax address in the PAPAGENO-Gateway user database.
- users **cannot** access their messages stored on the mail server on the telephone.

B. Installation and Administration

1. Note the Installation Prerequisites

- ☺ The **PAPAGENO server** (version 5.8) is installed, running and accessible.
- ☺ **One user licence** in PAPAGENO is free (incoming and outgoing faxes are sent to a Gateway user).
- ☺ On the gateway computer ensure that no other service runs on **port 25** (SMTP) .
- ☺ Under Linux and Unix ensure that the owner of the process `$FAXROOT/gateway/smtp/daemon` is root and has the rights `rwsr-sr-x.`
- ☺ The **SMTP mail server** is installed, running and accessible.
- ☺ A **route to the gateway** must exist in the mail server.

If LDAP is used:

- ☺ The LDAP Interface must be activated in the **Active Directory**.
- ☺ Note user name and password of the LDAP access to the Active Directory.
- ☺ Ensure that in the database a fax number field exists
  e. g. with the name `facsimileTelephoneNumber`
- ☺ Note the start path of the access to the directory server.

2. Installing the PAPAGENO SMTP Gateway

If the gateway shall run on the same computer as the PAPAGENO main installation, it is already installed with PAPAGENO.

If the gateway shall **not** run on the same computer as the PAPAGENO main installation:

- On the specified gateway computer install PAPAGENO as an extended installation.
- In the installation routine deactivate all server components and enter the name of the computer on which the omega server is to be installed (base installation).

Preparing the gateway Computer

If documents shall be converted into fax format on the gateway computer:

- Install the PAPAGENO MAPI connector (see Manual „PAPAGENO MAPI Connector“)

For integrating the connector in the mail client, you can use `FAXADM` as mail user.

3. Entering the License Key

Possibly you have used the fax service only up to now. If you have purchased a mail license now, you will receive a new license key. Be aware that the license key consists of lower case letters only. You may insert or omit spaces. The line breaks also are irrelevant.

Enter the new license key in the administration program.

- Open the folder `license` in the PAPAGENO administration program.
- In the `file` menu select `new`.
- Enter the license key and confirm.

If the entry is incorrect or the license is not valid (date, serial number) an error message will be displayed. An error is also indicated if the current configuration data exceeds the limits of the new license.
In this case the old license will be kept.

Do not close the administration program at this moment - additional entries will have to be made later on.

License Administration

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

When using an LDAP directory server, every mail user sending a fax is automatically entered in the PAPAGENO gateway user database. The gateway receives the data (mail address and direct dial number) from the directory server were the authorized fax users are already stored.

For use without LDAP, mail users bound to send or receive faxes must be explicitly entered with their full address and dedicated direct dial number in the PAPAGENO gateway user database.

This way, the gateway user licenses are counted. When the „number of entered mail users“ is up to the“ total number of licenses“ no more new users can send faxes.

Administration of Database Entries

Users can be manually addes or deleted via the PAPAGENO administration program (Menu item `Gateway`).

- Ensure that "obsolete" users, who no longer receive or send faxes, are delated from the database.

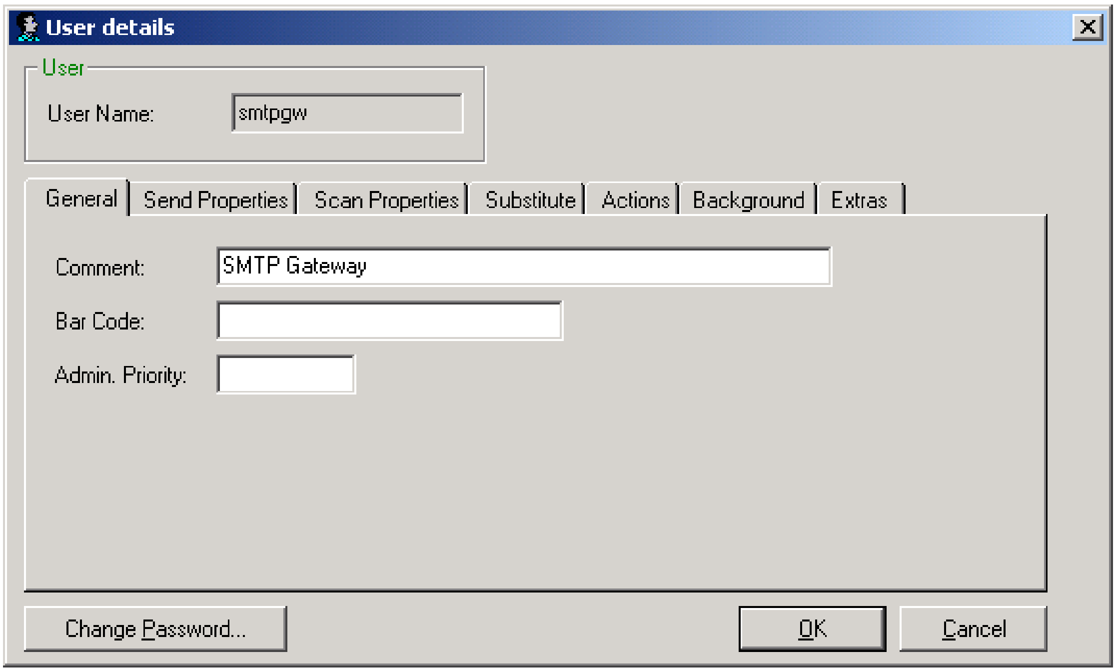
4. Preliminaries in PAPAGENO

Enter the Gateway User in PAPAGENO

The gateway user is a “meta”- user who receives and distributes incoming faxes via the gateway following predefined rules.

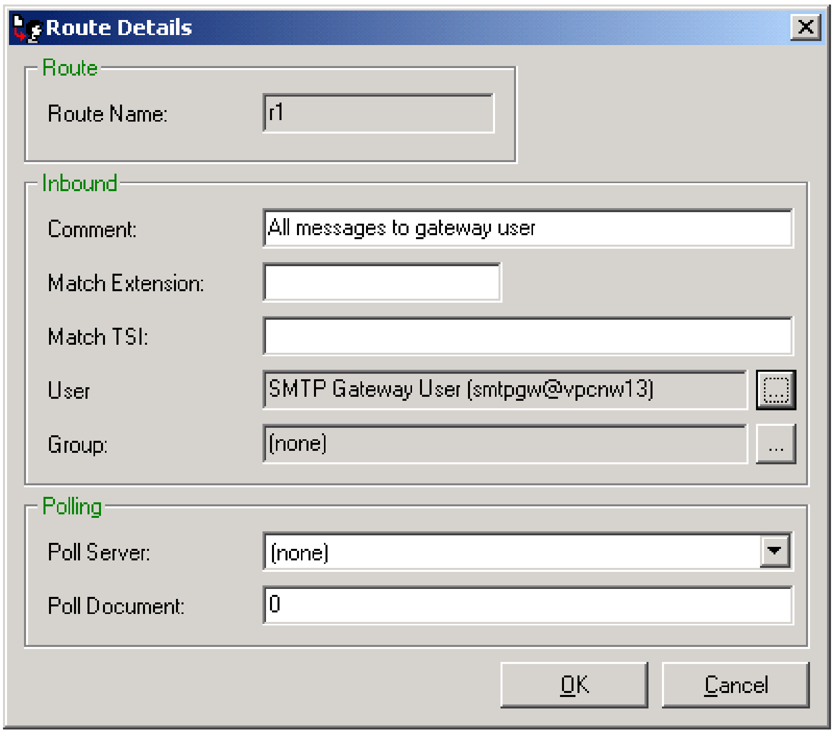
It does not matter, on which alpha server this user is added.

- Enter a gateway user in the administration program. You only need to enter user name (possibly `smtpgw`), a comment and a password (optional). (see Manual „PAPAGENO Installation and Administration“, Part C, „Registering Users”, page 90).



Create a distribution rule that forwards incoming faxes to the gateway user

- Open the folder `routes` in the PAPAGENO administration program.
- Open the default rule `r1`.



- Replace the term `comFAX User` in the rule „rl" with the name of the gateway user (`smtpgw`).

  See Manual „PAPAGENO Installation and Administration", Part C, „Enter at Least One Distribution Rule", page 109.

Configuring a Default User for Undeliverable Messages

During the installation of the gateway a distribution rule is established according to which every incoming fax which can not be assigned is routed to a dedicated mail user (e. g. `secretariat@vipcomag.com` or `default@vipcomag.com`). The mail address of this default user must be entered in the mail or directory server. After activation of the gateway the default user has to be set via a variable.

Make sure that in any case an existing person receives the messages that cannot be assigned by the mail server.

- The mail address of the default user must be entered in the mail or directory server

NOTE! At a default LDAP installation does not accept undeliverable messages if the omega variable GD_ACPTALL is not set. (See also page 45).

Do not close the administration program at this moment - additional entries will have to be made later on.

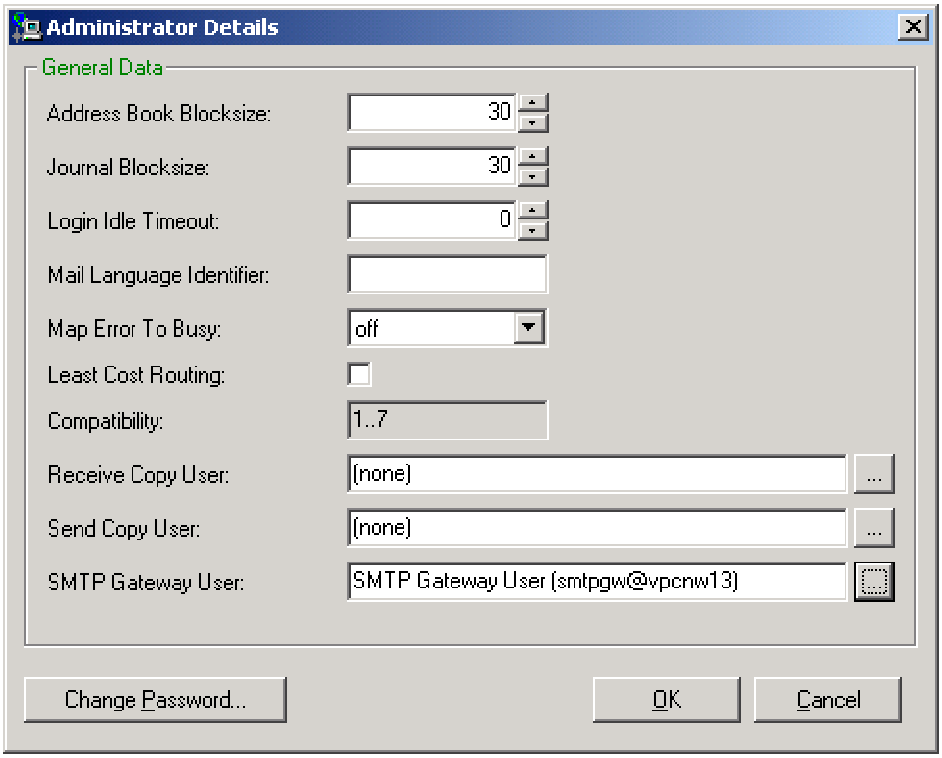
5. Activate the Gateway

You activate the gateway by setting the **OMEGA configuration variable `SMTPnative`**

How to Set the OMEGA Configuration Variable:

- Mark the folder `Administrator` in the main window of the administration programme and open the window `Administrator Details` in the menu `file - properties`.
- Click on the `SMTP Gateway User` box.

  The window `User Selection` will open.
- In the field `Server:` select the ALPHA server where the gateway user is stored.
- Select the gateway user `(smtpgw)` and close the window with `OK`.



User name and ALPHA server are registered in the field `SMTP Gateway User`.

6. Set the Gateway Variables

The following variables described below have to be set:

All variables begin with SG for SMTP Gateway, because they map the view of daemon and gateway process onto mail and directory servers.

The following variables **you have to set** for the Gateway **:**

- **Domain name** of the **gateway computer**
- **Host name** of the **SMTP mail server**
- **Default user**
- **Passwort** of the gateway user
- **Host name** of the **daemon process** computer
- **Host name** of the **gateway process** computer
  (in case daemon process and gateway process reside on different systems)

Required Variables

Variable	Value	Description
`SG_MYDOM`	*gateway computer*	**Host name** of the computer, on which the **gateway** is installed and the domain of your company. The format is: *computername.organization . TopLevelDomain* e. g.: `UMS.vipcomag.com` This way users can send messages in the format *faxnumber@gatewaycomputername . organization . TopLevelDomain* Example: `08912345677@UMS.vipcomag.com`
`SG_MAHOST`	*smtp mailserver*	**Host name** of the computer, on which the **SMTP mail server** is installed.
`SG_MADEFU`	*default user*	Name of the **user** (e. g.: `office@vipcomag.de`), who receives incoming faxes, that can not be assigned and outgoing faxes that cannot be sent (see page 62).
`SG_GWPWD`	*password gateway user*	**Password** of the **gateway user** (`smtpgw`), if it is existant default: empty
`SG_DMH`	*daemon computer*	Name of the computer on which the **daemon** process is running
`SG_GWH`	*gateway computer*	Name of the computer on which the **gateway** process is running

How to Set the Variables

- In the PAPAGENO administration program open the window `User details` for the gateway user `smtpgw`.
- Change to the file card `Extras`.
- Set the variables by typing in `Name` and `Value`.
- Confirm with `Set`.

Variables You Can Set

The following optional variables can be set for the **gateway process.**

Variable	Default Value	Description
SG_ADMUSER	umgw	umgw = unified messaging gateway. You can enter another transport name for incoming documents, delivery- and non delivery reports. Do not use a name under which faxes are sent or received in PAPAGENO! **Note**: Do not use a name under which faxes are sent or received in PAPAGENO! ADMUSER can be entered also user-specific (see Extension-Attribute-10, page 37), e. g. if several faxservers or different languages are used.
SG_ADMTEXT	see *1	*1 „unified messaging gateway @“. This is the ADMUSERs text. The default text will be completed by the gateway computer name. Example: „unified messaging gateway@faxgw“ If you enter another text in „“ the gateway computer name will **not** be attached. ADMTEXT can also be entered user-specific (see Extension-Attribute-10, Seite 37).
SG_ATTn		Controls the conversion within the gateway (see page 52).
SG_CPI_CE	SG_LDE	Even if no LDAP server is used there is a chance to dispatch an user-specific CPI. If LDAP is disabled (SG_LDE is set to 0) the users extension number entered in the PAPAGENO gateway database will be transmitted as CPI. (see also page 43 Via the variables SG_CPI_CSK and SG_CPI_CPR the CPI can be modified (see below). (If LDAP is used (SG_LDE is set to 1), the input number is the result of an LDAP request, see SG_LDUDA, page 36).
SG_CPI_CSK	0	Skip number of digits, e. g. if the number which is entered in the PAPAGENO gateway database is too long.
SG_CPI_CPR		Enter a prefix, possibly the phone number, e. g. if only the extension number is entered in the PAPAGENO gateway database.
SG_CVTWIN	1	0 disables the conversion of Windows documents.
SG_CVTPDF	1	0 disables the conversion of PDF documents.
SG_CVTTXT	1	0 disables the conversion of TXT documents.

SG_DRASMSG		Prerequisite: In the Outlook message options the user has defined to receive a delivery notification for messages sent. If the variable's value is 1 during the start of the gateway, the gateway sends a normal mail after the transmission of a message instead of the delivery notification. The original message is in the attachment.
SG_GWEDLL		Hosts the name of a specific .dll file. containing the numbers which allow the dispatch of messages. (Description of the .dll file see $FAXROOT/gateway/smtp/extapi).
SG_GWEXPF	0	Depending on the viewer the format of incoming faxes can be adjusted (some viewers can not display several fax pages or tif format.) 0: Multi page tiff 1: Single page tiff 2: Single page gif
SG_GWFDR	2	Setting, whether users will receive error/success reports after sending faxes (exit report.) 2: reports of error **and** success (default value) 0: no reports 1: error reports on
SG_GWFLR	0	Possibility to access the current status of a sent message at any time („live report"). 1: Access allowed (enter path in SG_GWHTR). 0: Access not allowed
SG_GWHTR		Path to the live report HTML pages *Intranet*/umgwrep respectively umgwrep.exe ($FAXROOT/gateway/smtp/ungwrep has to be copied to the intranet before).
SG_GWIATT		Certain file formats can be indicated, which the gateway is not allowed to accept when sending documents. e. g.: \.att$ The Gateway ignores all files with an extension .att Blank separates the list of the file formats to be ignored.
SG_GWMAXP	100	Maximum number of pages of an outgoing message.
SG_GWNI	1	Number of incoming messages to be processed in a loop.
SG_GWNO	1	Number of outgoing messages to be processed in a loop.
SG_GWNR	1	Number of outgoing reports to be processed in a loop.
SG_GWNRP		Number prefix, if not already existant in the PAPAGENO administration (See Manual „PAPAGENO Installation and Administration", Part C, „Number Prefix", page 104). (Examples for number prefix: 547509 or 0049-89-547509)

SG_GWSPP	25	SMTP port of the computer hosting the mail server (SG_MAHOST) to which the gateway process sends mails..
SG_GWRTRY	60	The gateways behavior after a failed dispatch or treception attempt. The default is a 60 minutes interval to restart the attempt. You can modify the number of minutes. See also page 60 and SG_GWWARN and SG_GWGIVUP.
SG_GWWARN	24	The gateways behavior after additional failed dispatch or reception attempts. After 24 hours (default) the default user (SG_MADEFU) will receive a warning per hour. You can modify the number of hours..
SG_GWGIVUP	4	The gateways behavior after all dispatch or reception attempts remain unsuccessful. After 4 days (default) the default user (SG_MADEFU) will receive the faulty message. You can modify the number of days.
SG_HEADFIN	0	Even if no LDAP server is used there is a chance to transmit an user specific headline (Even TSI, CPI und PINCODE, if they are set). If the variable is set to 1 the headline *name@companyname* will be transmitted. Via SG_HEADFMT the headline can be modified.
SG_HEADFMT	%s	Prerequisite: SG_HEADFIN is set to 1. %s is replaced by the mail address of the dispatcher (*name@companyname*) . Enter another value, example: VIPcom Munich %s When sending e. g. this headline appears: VIPcom Munich max.muster@vipcomag.de
SG_INLOG	1	0 disables the incoming document logbooks (umslog.txt).
SG_KEEPTMP	0	1 does not delete tmp files.
SG_LDOUTP		Inserts the value of the variable in front of the receive fax number. Example: If remote users in Sidney are sending faxes via the PAPAGENO main installation in Melbourne the Sidney faxes can be balanced seperatly. This way least-cost-routing can be used dependent on sender.
SG_SAP	0	If the value is set to -1, an SAP-SMTP compatible mode will be activated. (0 means: SMTP only, 1: SAP only) **Attention**: This mode deactivates all valid LDAP and user options. You find the exact syntax of the SAP addressing in the SAP R/3 documentation.
SG_TCPTMO	120	TCP timeout in seconds.

SG_TSI_CE		Even if no LDAP server is used there is a chance to dipatch an user specific TSI. If LDAP is disabled (SG_LDE is set to 0) the users extension number entered in the PAPAGENO gateway database will be transmitted as TSI. (see also page 43 Via the variables SG_TSI_CSK and SG_TSI_CPR the TSI can be modified (see below). (If LDAP is used (SG_LDE is set to 1), the input number is the result of an LDAP request, see SG_LDUDA, page 36).
SG_TSI_CSK		Skip number of digits, e. g. if the number entered in the PAPAGENO gateway database is too long..
SG_TSI_CPR		Enter a prefix, e. g. the phone number, e. g. if only the extension number is entered in the PAPAGENO gateway database.
SG_TXTFAX		Enter the name of a text file to add as body text to a fax..
SG_TXTVOC		Enter the name of a text file to add as body text to a voicemail.

If required the following variables can be set for the **deamon process**

Variable	Default Value	Description
SG_DMMAXS	1024	Maximum size of messages in kilobytes.
SG_DMNU	0	0: Only users listed LDAP can use the gateway. 1: Users not listed LDAP can use the gateway as well (for tests purposes). **Note!** If 1 is set and the gateway is accessible from the Internet, everybody can send messages off your installation.
SG_DMP3A	110	POP3 IP address for the internal communication between the daemon and the gateway process.
SG_DMP3P	110	POP3 port for the internal communication between the daemon and the gateway process.
SG_DMSPA		Location of the SMTP IP-address. (e. g. for router).
SG_DMSPP	25	SMTP port for the communication from the mail system to the gateway.
SG_NRSES	10	Number of simultaneous SMTP sessions the server accepts.

7. Using LDAP

Prerequisites see page 21.

For sending and receiving faxes, voicemails and SMSs via LDAP enter every user's **extension number** in the LDAP directory server (see below).

In the LDAP directory server usually a field `facsimileTelephoneNumber` or `fax` exists for the fax number. Normally the extension number for faxes, voicemails and SMSs is the same.

If the extension number is different from the TSI there are two fax number fields per user.

To configure LDAP in PAPAGENO you have to set or change several **variables** (see page 34)

Enter the Extension Numbers in the LDAP Server

During the administration of PAPAGENO you have decided the way of entering a user's fax number: extension number only or the total international phone number (see Manual PAPAPGENO Installation and Administration Manual, Part C, „How to Enter Parameters for the Inbound Routing", page 103).

Attention: See that you enter the number in the same syntax (spaces, lines) as you have entered the „Fax number Prefix" for a gateway or an ISDN device via the administration program!

- Enter the users extension numbers respectively the total international phone numbers in the LDAP directory server.

In the LDAP configuration establish how to access these informations.

LDAP Configuration Variables

LDAP can be configured by means of some variables.
Two variables you have to set in any case. Others with default values you can change if necessary.

The variables start with **SG** for SMTP Gateway, for the gateway uses these variables to query informations from the LDAP directory server.

Overview

In addition to the variables for „LDAP host“, „Timeout“, „LDAP user“ and „port“ there are three groups of variables managing the access to the directory server: the „UserData options“, the „Allow options“ and the „LineID options“.

UserData options (SG_LDUD...)

While sending a fax the gateway is searching for user informations e. g. user specific sending attributes (TSI, Pincode...).

First the user data have to be found in the directory server. Via variables the starting point (SG_LDUDB) and the depth of the searching (SG_LDUDS) can be set as well as the search filter (SG_LDUDF) to find the field where the user's mail address is stored. You can also change the field names of the user specific sending attributes (SG_LDUDA).

The starting point of the searching you HAVE TO set, the other variables' default values you can change if required.
See also page 36.

Allow options (SG_LDAL...)

While sending a fax, an email or an SMS the gateway checks the permission of the user to do that.

The user's mailaddress has to be found in the directory server. Via variables the following can be set: the starting point (SG_LDALB), the depth of the searching (SG_LDALS) and the search filter to find the field where the user's mail address is stored (SG_LDALF).

You must not change the default values,
- if all mail users are allowed to fax,
- if the name of the mail address field is the default name,
- if the mail address field is in the same directory like the other user data.

The variable „starting point for the directory search“ (SG_LDALB) is automatically be set to the value of the corresponding variable in the UserDataOptions (SG_LDUDB).

Possibly only users with a extension number are allowed to fax or a field „permitted to fax“ exists. You can set this via the variable SG_LDALF.
See also page 38.

LineId options (SG_LDMB...)

On incoming faxes the gateway has to find the user's mail address via his extension number.

Via variables the following can be set: the starting point (SG_LDMBB), the depth of the searching (SG_LDMBS), the search filter to find the field where the user's extension numbers (SG_LDMBF) and the search filter to find the field where the user's mail address (SG_LDMBA) are stored.

You have to change the default values only in special cases: e. g. the extension number field or the mail address field has another name.

The variable „starting point for the directory search“ (SG_LDMBB) is automatically be set to the value of the corresponding variable in the UserDataOptions (SG_LDUDB).
See also page 39.

Furthermore you can change „**Timeout“, „the user for the LDAP access“ and the „Port“.**

Set the Configuration Variables

The configuration variables you have to set in any case are: „LDAP host“ and the starting point of the searching **(**UserData options).

- Stop the gateway.
- In the PAPAGENO administration program open the window `User details` for the gateway user `smtpgw`.
- Change to the file card `Extras`.
- Set the variable `SG_LDH` on the hostname of the LDAP computer.
- Open the variable `SG_LDUDB`.
- Enter the path to the directory where the gateway shall start the search.
- If required set further variables (description see below).

UserData options

Name	Description	Default	Other possibilities
`SG_LDUDB`	Path to the directory where the mail users are stored.	empty The whole directory tree will be browsed	Enter path (**Obligation**!)
`SG_LDUDS`	Depth of the search	2 levels in the directory will be browsed.	Another digit

`SG_LDUDF`	Search filter for the user that sends the email.	`rfc822Mailbox=%0`
		`rfc822Mailbox:`
		Name of the field that contains the mail address.
		`%0` is the wildcard for the mail address of the user.
			Another field name
			
			(Search filter syntax see 40)

`SG_LDUDA`	Attributs to take along while sending a fax	`SG_LDUDA=givenName,sn,facsimileTelephoneNumber,faxLineId,faxHeadLine,faxCoverId,faxPinCode,faxCpi,Extension-Attribute-10`
		
		Names of the corresponding fields in the Exchange database (see also page 37)
			Other field names
			
			If an attribute do not exist omit the fieldname in the string.
			
			You have to enter 8 attributs even if some fields are not existent.
			The string do not have blanks!
			Example:
			`SG_LDUDA=givenname,surname,,faxnumber,,,,,userspecific_attributs`
			Maximum 80 characters
			Alternatively split the string:
			
			`SG_LDUDA=`
			`SG_LDUDA0=`
			`SG_LDUDA1=`

Field names

Acceptation of the field names:

Attribut	Description
givenName	Given name
sn	Surname
facsimileTele-phoneNumber	Fax number with extension number
faxLineId	The TSI is the identification number when documents are sent (TSI)
faxHeadLine	Headline
faxCoverId	Cover page
faxPinCode	Pin code for billing in the TC system
faxCpi	The CPI is the number that will be delivered and displayed with each SMS. (See Manual „PAPAGENO Installation and Administration“, Part C, „How to Enter User's Fax Send Properties”, page 92).
Extension-Attribute-10	User specific attributs Here you can summarize several fax attributs in one field: COVERID, HEAD-LINE, TSI, CPI, PINCODE, MYDOM, ADMUSER and ADMTEXT. These parameters set for a user have priority to those set above. (faxCoverId, faxHeadLine, faxLineId, faxCpi, faxPinCode). ADMUSER and ADMTEXT see page 29, MYDOM see page 28)

Sequence of given name and surname

In the variable SG_LDUDD the sequence of the user's given name and surname for the cover page can be set.
%0 = given name, %1 = surname

Default setting:
SG_LDUDD=%0%1

Change setting:
SG_LDUDD=%1%0

AllowOptions

Name	Description	Default	Other possibilities
SG_LDALB	Path to the directory where the mail users are stored.	If SG_LDUDB is set, SG_LDALB will automatically have the same value.	If the mail address is stored in another directory you can enter the path here.
SG_LDALS	Depth of the search	2 levels in the directory will be browsed.	Another digit
SG_LDALF	Search filter for the user that sends the email.	rfc822Mailbox=%0 rfc822Mailbox: Name of the field that contains the mail address. %0 is the wildcard for the mail address of the user.	- enter another field name. - enter the field for the extension numbers, too Example: (&(rfc822Mailbox=%0),(facsimileTelephoneNumber=*)) „*“ means that the facsimileTelephoneNumber field is busy. Thus it can be configured that only the owner of a extension number may send a message. (Search filter syntax see 40).
SG_LDALA	Attributs to take along while sending a fax	SG_LDUDA=givenName,sn,facsimileTelephoneNumber,faxLineId,faxHeadLine,faxCoverId,faxPinCode,faxCpi,Extension-Attribute-10 Names of the corresponding fields in the Exchange database (see also page 37).	Other field names If an attribute do not exist omit the fieldname in the string. You have to enter 8 attributs even if some fields are not existent. The string do not have blanks! Example: SG_LDUDA=Vorname,Nachname,,Faxnummer,,,,,Benutzerspezifische Attribute **Maximum 80 characters. Alternatively split the string:** SG_LDALA= SG_LDALA0= SG_LDALA1=

LineIdOptions

Name	Description	Default	Other possibilities
SG_LDMBB	Path to the directory where the extension numbers are stored.	If SG_LDUDB is set, SG_LDMBB will automatically have the same value.	If the extension number is stored in another directory you can enter the path.
SG_LDMBS	Depth of the search	2 levels in the directory will be browsed.	Another digit.
SG_LDMBF	Search filter for the user's extension number.	(|(faxLineId=%1%0)(facsimileTelephoneNumber=%1%0)) facsimileTelephoneNumber is the name of the faxnumber field (faxnumber possibly with country and area code (%1) and extension number (%0). faxLineId is the TSI of the fax recipient. That means: the incoming number will be searched in the faxLineId or in the facsimileTelephoneNumber field. (Search filter see page 40).	Other field names, if you use another data base. (facsimileTelephoneNumber=%0) finds the extension number in the data base. (e. g. 99) (facsimileTelephoneNumber=*%0) finds the whole number in the data base. (e. g. 54750-99).
SG_LDMBA	Name of the mail address field.	rfc822Mailbox	You can enter another field name for rfc822Mailbox Furthermore you can enter *Extension-Attribute 10* additionally to use user specific attributs. (rfc822Mailbox,*Extension-Attributs 10)*. See also page 37.

Other LDAP Variables

Name	Description	Default	Other possibilities
SG_LDTO	Timeout in seconds for an LDAP request. After this the search will be canceled.	10	Another digit. e. g. if 10 seconds are too short or too long.

Name	Description	Default	Other possibilities
`SG_LDP`	Port number of the LDAP service	389	Another port number
`SG_LDBNAM`	User name for the LDAP request.	Anonymous access	Enter user name
`SG_LDBPWD`	User password for the LDAP request.	None	Enter password.

Search Filter Syntax

Within the external brackets you can enter any filters. A single filter will be entered in brackets, too. The syntax is: (*field name*=`%1%0`) The filters can be combined with the arguments „and“ (&), „or“ (|) and „not“ (!) . With „and“ and „or“ you can combine many filters, with „not“ you can only exclude **one**.

The argument „simple“ describes the string:
attribute type, filter type, attribute value

filter types:
= | ~= | <= |>=
~= means approximate
(~= is not supported by all LDAP versions).

The *attribute value and attribute type* values are described in RFC 1778. Additionally *attribute type* can be a wildcard (*).

Wildcards

PAPAGENO allows wildcards. Checks whether the LDAP directory server allows them, too.

Examples for using wildcards:

field name=* (means that the field is taken),
field name=*`text` (* is a wildcard).

Test the LDAP Configuration

Test the LDAP configuration with `sgrestest`.

Syntax:
`sgrestest [`*option*`][`*option*`]` *action*
thus: `sgrestest [-v][-i` *number*`]` *action*

`sgrestest` refers to a specific user or a situation. Therefore you always **must** specify an **action**. Additionally you can specify option(s)

Options

Options	Description
`-v` *number*	`v` = verbose. Show lots of LDAP debug details..
`-i` *number*	If multiple gateways are used, enter the number of the gateway.
`-l`	List of the user relevant variables.

Actions for fax sending checks

Actions	Description
`-a` *mail address*	checks if the mail user (*mail address* field) is allowed to send faxes. (AllowOptions, page 34)
`-d` *mail address*	displays the additional user information (e. g. TSI, CPI, headline) of the mail address user for fax sending. (UserDataOptions, page 34).

Actions for fax receiving checks

Actions	Description
`-r` *number*	resolves the mail address from the extension number. (LineIdOptions, page 35).
`-p` *nummer* [*from*]	displays the additional user information according to the number. (See „LineId options (SG_LDMB...)", page 35) `from` is optional. With `from` the ADMUSER will be displayed. (See page 29 and page 37)

Start the LDAP test program `sgrestest` with the following options:

- Test the actions.
  e. g.:
  `sgrestest -v -d john_sample@anycompany.de`

8. Using Gateway without LDAP Directory-Server

In this case:

- **deactivate the LDAP use** via a variable**,**
- enter the **gateway users** in the PAPAGENO gateway user database.

Set the Variable SG_LDE

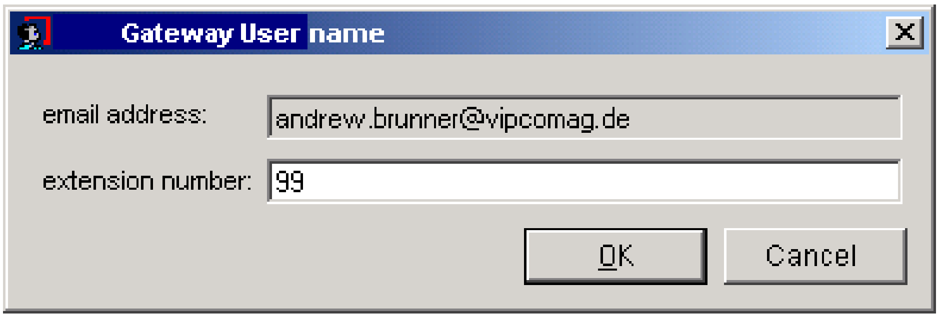
- Stop the gateway.
- In the administration program open the window `User details` for the Gateway user (`smtpgw`)
- Change to the `Extras` tab.
- Set the variable `SG_LDE` on the value `0` and confirm.

Enter the Gateway Users in PAPAGENO

In order to ensure correct distribution of incoming messages and a correct rights management for sending messages, every email recipient who shall also receive or send faxes, voice mails and SMS has to be entered in the PAPAGENO gateway user database with his **extension number.**
Only that way incoming messages can be distributed correctly and users receive the right to sending news.

The PAPAGENO Gateway user database also provides the licences counting. (See above, page 23).

- Open the window `Gateway User name` via `Gateways - SMTP` in the PAPAGENO administration program.



- Enter the user's **email address** and **extension number** (see next page).

Extension Number:

During the administration of PAPAGENO you have decided to either enter the extension number (e.g: 99) only, the extension number with direct dial (e.g: 1 99) or the complete international phone number (e. g..: +49 89 54755475 1 99).

You have skipped leading digits and/or entered a number prefix depending on what the TC system or the phone jack passes through (See Manual „PAPAGENO Installation and Administration“, Part C, „How to Enter Parameters for the Inbound Routing”, page 103).

Attention: You have to enter the number **in the same syntax** as you did in the administration program in the field `number prefix` (with blancs or dashes etc.). Otherwise the numbers are not found for incoming documents!

- Enter all gateway users with their email address and their appropriate extension number.

9. Configuring Telephone Access to Messages

If an Exchange or SMTP mail server is used with LDAP and IMAP (with or without PAPAGENO mail gateway) certain variables must be set to configure telephone access for users to their messages. Some variables you **must** set, at others you can change the presetting.

If a mail server, **Exchange 2000 or higher** is used, no variables will have to be set or changed.

If **LDAP and IMAP** are not installed, no variables will have to be set or changed. In this case users can access their faxes and voice mails by phone but they cannot access their mails.

Via variables you can determine,

- wether IMAP shall be used,
- on which computer the SMTP mail server shall be installed
- which computer serve as LDAP resp. IMAP server
- seach filters and search system
- the field names for the user's first names and surnames in the LDAP directory.

These Variables Have to be Set::

Variable	Value	Description
`GD_IMU`	gateway user	IMAP being used? If yes enter the PAPAGENO gateway user (e. g. `smtpgw`). In this case the following variables are evaluated.
`GD_IMH`	host name	Gen-Driver IMAP Host. Host name of the computer, which provides the IMAP4 service (TCP/IP name).
`GD_SMH`	host name	Host name of the SMTP server. (TCP/IP name)
`GD_LDH`	host name	Host name of the computer which provides the LDAP service. (TCP/IP name)

For the Following Variables the Default Settings Can be Changed

Variable	Value	Description
`GD_ACPTALL`	1	Default: blanc If the variable is set all messages are accepted, even those which can not be assigned (See also Page 59) .
`GD_IMS`	path	Default: empty A folder for sent documents can be assigned here on the IMAP computer.
`GD_IMD` (at present not used)	path	Default: empty A folder for deleted documents can be assigned here on the IMAP computer.
`GD_LDU` (optional)	user name	Default: empty Depending on LDAP server access rights a user can be entered here. If the variable remains empty, an anonymous access is performed.
`GD_LDP` (optional)	password	Default: empty Password for the LDAP user.
`GD_LDFIL`	*search filter* =%`s`	Default: `facsimileTelephoneNumber=%S`. *search filter*
`GD_LDBAS`	path	Default: empty Starting point for the directory search. You enter the path to the directory in which the mail users are stored. The complete directory tree is browsed.
`GD_LDAGN`	column name	Default: `gn` This is the column name for „given name“ (first name) in the LDAP directory database. If you use another database the column name from this database must be set as value for this variable. The greeting message is a combination of the two fields `gn` and `sn` – exept the user has recorded an individual greeting message.
`GD_LDASN`	column name	Default: `sn`. This is the column name for „surname“ (last name) in the Exchange database. If you use another database the column name from this database must be set as value for these variable.
`GD_LDAIU`		Default: `uid` IMAP account
`GD_LDREJ`		Default: empty All calls are accepted. Value 1: Only calls with a known direct dial number are accepted. Others are rejected.

Variable	Value	Description
`GD_VRREC`	ms	Default: `60000 ms`. Timeout in seconds for a LDAP inquiry. After this timeout the search will be aborted.
`GD_VRSIL`	ms	Default: `1500` /Timeout in seconds for speech pauses.

Set the Variables

The variables either can be set via the administration program or on the operating system level in a shell. You are logged in as administrator or as user `comfax`.

- Stop the gateway
- In the PAPAGENO administration program open the window `User details` of the Gateway user `smtpgw` and select the file card `Extras`.
- Set the variables by typing in `Name` and `Value` and confirm with `Set`.

or

- Set the environment variable SETUSER to the value `smtpgw`.
- In a shell enter
  `a_put_usrconf GD_IMH` *value*
  `a_put_usrconf GD_IMU` *value*
  `a_put_usrconf GD_SMH` *value*
  `a_put_usrconf GD_LDH` *value*

  `a_put_usrconf GD_IMS` *value*
  `a_put_usrconf GD_IMD` *value* etc.

Setting the Speech Dialog

Dialog Scripts

The speech dialog which is started, when a user wants to listen to his messages on the telephone, is controlled by dialog scripts. These can be set in the **OMEGA variable** `GD_SCRIPT`. If `GD_SCRIPT` is not set, the german dialog script `dlg.vdl` is used by default. The english dialog script `dlg-us.vdl` is provided with PAPAGENO as well.

Dialog Script `lng.vdl`

The script `lng.vdl` controls the selection of different-language dialogs depending on the extension number.
The assignment „user - language“ can be stored in the LDAP server (e. g. via an LDAP attribute `language`) or via gateway variables.

Example:
The variable `l26` is set to the value `dlg-it.vdl`. (`26` is the direct dial, `l` stands for "language"). If the user starts a phone query with the extension number 26, the Italian language dialog will be started.

First of all the script `lng.vdl` checks whether a corresponding attribute for the user is stored in the LDAP server. If this is not the case, the gateway variables are searched. If the result is also negative the script `dlg.vdl` is started.

In order to activate a dialog script different from `dlg.vdl`:

- Set the OMEGA variable `GD_SCRIPT` to the value of the appropriate script.

Establishing Telephone Pin Code

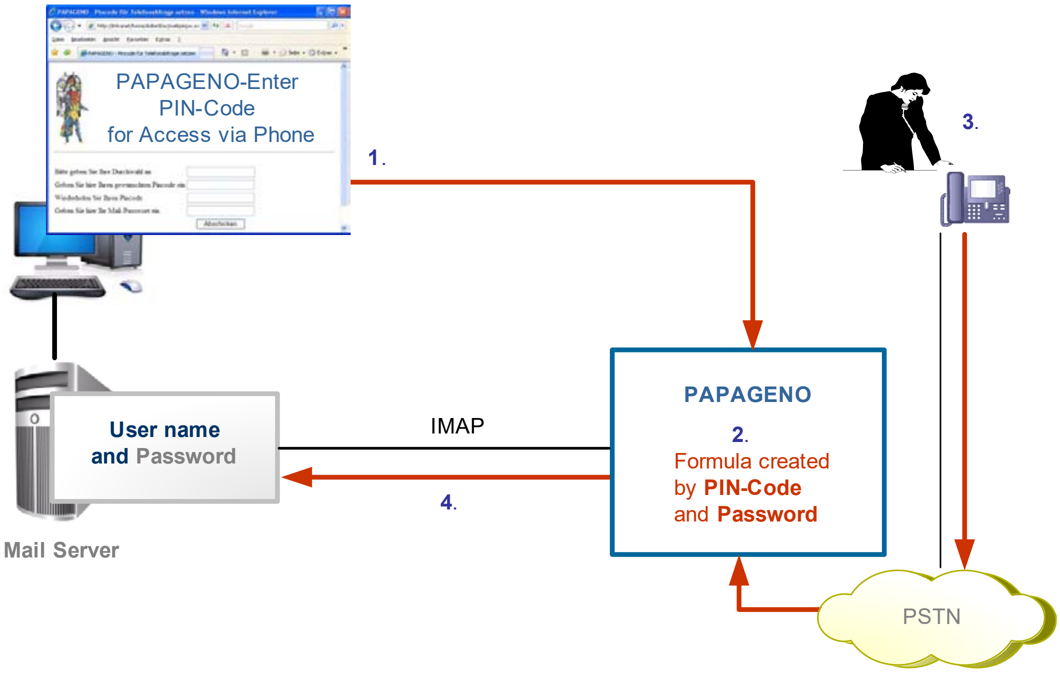
To access messages via telephone users need to enter a numeric pincode for authorisation. Via an Intranet mask users can create and change that pincode by themselves.

If all messages **are stored in PAPAGENO**, the pincode must correspond to the PAPAGENO-client password.
Ensure that the PAPAGENO password is numeric.

If all messages are **stored in the mail server**, the pincode must correspond to the mail-server resp. user computer password

If the Mail-Server password contents also characters, a small program in PAPAGENO encodes pincode and password and dissolves it when the user starts a telephone access.

PAPAGENO Mask to create the Pincode:



1. In a CGI user interface the user once enters his mail password, the pin and his telephone extension.

2. These three automatically create a formula that is stored on the PAPAGENO server.

3. + 4. When the user now calls PAPAGENO with his pin code numbers the formula is dissolved, the mail-enabled password is activated and the user can listen to his voice mail, forward fax messages, can listen to his emails being read to him, etc., according to his needs and to the services configured in the company.

To allow users to access the CGI user interface some relevant steps must be taken (see below).

How to Establish Telephone Access - under Windows

Creating a Folder

- On your intranet server create a folder, e. g. named `pinpw`.
- Ensure that he folder is visible in the IIS-Server.

Copying Files

- Copy the PAPAGENO file `clients/webpinpw-W32.zip` in the new folder and unzip this file.

The folder contains the following files now:

`setpinpw.cfg` is the configuration file

`webpinpw.exe` creates the mask and

`setpinpw.exe` performs the encryption

`PAPAGENO.gif` and several `.dll` files belong to `webpinpw.exe`.

Opening IIS Manager

- Open the Internet Information Services (IIS) manager.

This is where you

- create a new virtual directory
- ensure that `webpinpw.exe` execution is allowed.
- enter `setpinpw.cfg` as start file.

Creating a Virtual Directory

- Click the right mouse button on `Default-Web Site`, select `Add virtual directory.` The `Add virtual directory` Window will open.

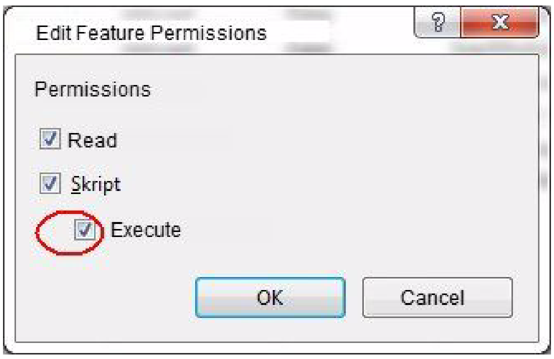
- In the `Alias` text field enter the name of the previously created folder (e. g. `pinpw`).
- In the `Physical path` text field enter the physical path to the folder (e. g. `C:\pinpw`) or click on  to find the path.
- Confirm with `OK`.

Allowing the Execution of webpinpw.exe

- In the IIS manager select the name of the computer on whitch you have created the vitual directory.
- Open `ISAPI/CGI Restrictions`
- Under `Actions` select `Add`.
- In the `ISAPI- or CGI Path` field enter the path to `webpinpw.exe`.
- In the `Description` field enter a short description, e. g. `pinpw`
- Activate `Allow execution of the upgrade path` and confirm with `Ok`.

Assigning Rights

- In the IIS manager select the vitual directory (e. g. `pinpw`).
- Open `Handler Mappings`.
- Under `Actions` select `Edit Feature Permissions`.



- Activate `Execute`.
- Confirm with `OK`.

Editing setpinpw.cfg

- In an editor open the file `setpinpw.cfg`.
- Set the variable `OMEGAHOST` to the name of the PAPAGENO main installation computer.
- Save and close `setpinpw.cfg`.

Setting the Configuration Variable

You can define the minimum length of the pincode via the OMEGA Configuration variable `PINLENMIN`.

To set a minimum length:

- On the PAPAGENO main installation computer in a command prompt enter
  `o_put_config PINLENMIN` *digit*

  Example: `o_put_config PINLENMIN 4`

  If a user enters less then 4 digits in the PAPAGENO mask, he receives an error message.

How to Establish Telephone Access - under Linux

Prerequisites:

- The Apache HTTP server is installed and configured
- The CGI scripts are activated

If the CGI scripts are not activated:

- In the `mime.conf`-file activate the line
  `AddHandler cgi-script.cgi`

Extract files

- In the `usr/lib/cgi-bin`-directory extract the file `webpinpw_OS.tgz`

Copy Picture

- Copy the `PAPAGENO.gif` picture in the `DocumentRoot`.

Assigning Rights

- Ensure that the files `webpinpw` and `setpinpw.exe` have executable rights.

Editing setpinpw

- Open the template `setpinpw.cfg.tmpl`
- Activate the following lines by deleting the special character `#`
  `path`

```
imgpath
OMEGAHOST
```

- Set the `OMEGAHOST` variable to the name of the PAPAGENO main installation computer e. g. `OMEGAHOST:faxserver`
- Save the file as `setpinpw.cfg`

Setting the Configuration Variable

You can define the minimum length of the pincode via the OMEGA Configuration variable `PIN-LENMIN`.

To set a minimum length:

- On the PAPAGENO main installation computer in a command prompt enter `o_put_config PINLENMIN` *digit*

Example: `o_put_config PINLENMIN 4`

If a user enters less then 4 digits in the PAPAGENO mask, he receives an error message.

Inform the Pincode Users

Pinode users need:

- the path to the Intranet mask,
- the minimum length of the pincode
- and the information which password to use (Windows password or mail password)

- Ensure that the pincode users get these informations.

10. Configure the Conversion of Windows Documents

There are two different ways to convert documents into the fax format from Windows® applications. Either the conversion takes place on the **gateway computer** or earlier, on the **user computers** (see above, „Converting Windows Documents into Fax Format", page 12).

Converting on the Windows Gateway Computer

If the Gateway is installed on a Windows® system, you can use the PAPAGENO-MAPI-Connector.

Though problems with external pdf readers may occure, we recommand to handle the conversion of pdf documents via the PAPAGENO tool `gs_pdftif` and the variable `SG_ATTn`.

For the conversion of html documents to tif use the PAPAGENO tool `html2tif` and the variable `SG_ATTn`.

For the conversion of other documents from Windows applications you have to do the following

- Install the **PAPAGENO MAPI Connector** on the gateway computer.
- Install the required **application programs** on the gateway computer.

Note: The versions must correspond to the versions on the user computers, otherwise there may occur problems during the conversion.

- To convert pdf und html documents set the variable `SG_ATTn`. (See below page 53).

Note: The variable `SG_ATTn` has priority over the PAPAGENO-MAPI-Connector

Process Flow:

In order to send a document from Word® or other Windows® applications select `Send to... or Share - email`. An Outlook send window will open, the document is attached (e. g.: .docx, or .xlsx)

After entering a fax address in a special format, the document is sent to the mail gateway via the mail server where it is converted into fax format and sent afterwards.

Converting on the Linux/Unix- Gateway Computer

To convert pdf and html documents use the PAPAGENO-Tools `gs_pdftif` und `html2tif` together with the variable `SG_ATTn`.

Using PAPAGENO Tools together with the Variable SG_ATTn

Variable `SG_ATTn`

Via `SG_ATTn` documents can be converted, e. g. pdf to tif or html to tif.

For some tools `SG_ATTn` needs GhostScript .

Syntax:

`SG_ATT`*number nettype*: *format1 format2 tool* `%s %s`

number: At multiple use of the variable the number is increased here (`SG_ATT0, SG_ATT1,...`)

nettype: `PAGER, TELEX VOICE` or `FAX.`
`FAX` is preset, `PAGER` = short messages

format1: output format, e. g. `pdf, txt` or `html`
format2: aim format, e. g. `tif` or `txt`

tool: program, that converts *format1* into *format2*,
e. g. PAPAGENO tool `gs_pdftif`

gs_pdftif

converts pdf documents to tif

Example:
`SG_ATT0 FAX:pdf,tif gs_pdftif %s %s`

If GhostScript is not installed:

- Download the freeware "GhostScript" (at least version 7) from the Internet and install it on the gateway computer.
- Copy `gs_pdftif` from the PAPAGENO folder `tools` to the directory `FAXSERVER\bin` resp. `$FAXROOT/bin`.
- If necessary modify the path to GhostScript (gs).

html2tif

converts html documents to tif

Example:
`SG_ATT1 PAGER:html,tif html2tif %s %s`

The Script `html2tif` converts a html file in two steps:

- from html to pdf via the freeware `wkhtmltopdf`
- from pdf to tif via the Freeware Ghostscript

- Download the freeware `wkhtmltopdf` from the Internet and install it on the gateway computer.

If GhostScript is not installed:

- Download the freeware "GhostScript" (at least version 7) from the Internet and install it on the gateway computer.

- Copy `html2tif` from the PAPAGENO folder `tools` to the directory `FAXSERVER\bin` resp. `$FAXROOT/bin`.
- If necessary modify the path to GhostScript (gs) and `wkhtmltopdf`.

wrap

supporting UTF-8 converts text into tif format (e. g. from Outlook). The line width can be set in the program.

Example:
`SG_ATT2 FAX:txt,tif wrap %s %s`

wrap needs no GhostScript.

- Copy `wrap` from the PAPAGENO folder `tools` to the directory `FAXSERVER\bin` resp. `$FAXROOT/bin`.

- Set SG_ATTn.

Conversion Variables under Windows

Variable	Value	Description
`SG_CVTWIN`	`1`	`0` disables the conversion of Windows documents..
`SG_CVTPDF`	`1`	`0` disables the conversion of PDF documents.
`SG_CVTTXT`	`1`	`0` disables the conversion of TXT documents..

Conversion Variable under Windows and Linux/Unix

Variable	Value	Description
`SG_KEEPTMP`	`0`	`0` deletes the tmp files of the conversion. `1` causes that the tmp files will **not** be deleted.

Converting on the User’s Computers

If documents shall be converted into the fax format on the gateway users' computers do the following:

- Install the **PAPAGENO MAPI Connector** on the gateway computer.
- Install the **Fax MAPI Printer** on each user computer.

Process Flow:

In order to send a document from Word® or other Windows® applications select `Print .. - FAX MAPI Printer` (or `Send to... -Fax receipient - ... Fax MAPI Printer`).

The `FAX MAPI Printer` changes the document into fax format.

The ***.tif** -document is submitted to the user’s mail client where a fax address is entered. The document will be submitted to the mail gateway via the mail server and will be sent afterwards.

11. Start the Gateway

- Stop the fax server.
  (on Windows via the `System control`)

- Restart the fax server.

  With the start of the PAPAGENO fax server the gateway is started automatically.

12. Sending Messages

How to Enter a Fax Address

- In the mail window's address line enter the fax address in the format
faxnumber/fax@*gatewaycomputername*.*domain*
Example: 123456/fax@UMS.bestcompany.de

You only need to indicate the domain if you send the fax from Microsoft environment. Otherwise the send format is: *fax number*/fax@UMS

How to Enter an SMS Address:

- Enter the SMS number in the format:
smsnumber/sms@*gatewaycomputername*.*domain*.
Example: 123456/sms@UMS.bestcompany.de

How to Enter a Voice-Mail Address:

- Enter the SMS number in the format:
voicenumber/voice@*gatewaycomputername*.*domain*.
Example: 123456/voice@UMS.bestcompany.de

How to Enter Sending Options

In order to indicate send options during fax dispatch, use the following format:
faxnumber options/fax@*gatewaycomputername*

Options are: *addresstype*/night/date=*date*/time=*time*/*resolution*

Option	Description
address type	Address type fax telex, voice or sms (telex is not supported)
night	Sending at the lowest price night tariff
date=*date*	*date* is the date in the format: *month.day year* Example: date=10/7, 2016 Example: date=10/7/16

`time=`*time specification*	*time specification* is the sending time specification in the format: *hour.minute* Example: `time=17.30`
resolution	*resolution* means the resolution in which the fax shall be sent: `normal` or `fine`
`costunit=`*costunit* or: `costunit_`*costunit*	A cost unit being charged with the costs for sending messages unit (e.g: "sales" or "development") can be declared.

Example:

`123456/fax/night/date=10/7, 2016 /time=20.02/normal/costunit=sales@UMS`

This means:
The fax is sent to the number 123456 - in normal resolution - at the night tariff rate - after the 10/7, 2016 , 20.02. Cost unit is `sales`.

13. How to Handle Undeliverable Messages

„Undeliverable messages“ are incoming messages with an extension number that cannot be assigned to a user.

They can

- either be accepted and assigned to a default user
- or be rejected

Rejection of Undeliverable Messages

Using Speech Dialog

The „speech dialog“ will be started, if a user wants to monitor his messages via telephone.

Undeliverable messages are rejected automatically if a PAPAGENO gateway with LDAP is installed and the option `Enable Voice` is activated in the administration data of the driver `gdcapi.drv`.

If „voice“ is enabled, the speech dialog is regulated via a script (see also page 46) . The same script is responsible for a query being started to the LDAP server with every incoming message whether the extension number can be assigned to a user. The message will not be accepted when the result is negative.

Dialog scripts are set in the variable `GD_SCRIPT`. If the variable is not set, the script `dlg.vdl` is used when voice is enabled (see also page 46).

Not Using Speech Dialog (1)

If neither telephoneic access to messages nor answering machine function is used but undeliverable mails are to be rejected anyway:

- Enter the script `dlg_no.vdl` in the variable `GD_SCRIPT` .
(see also page 46).

This way the language dialog is disabled.

In order for the script being able to nevertheless make queries to the LDAP server:

- In the administration program open the device data. Activate the option `Enable voice` the file card `Voice`. (See Manual „PAPAGENO Installation and Administration“, Part C, „How to Use Voicemail”, page 104).

Not Using Speech Dialog (2)

As an alternative you have the possibility to control the rejection of undeliverable faxes via the PAPAGENO user database.

In this case:

- Change the distribution rule `r1`, which transmits all incoming faxes to the „gateway user“ (see Manual „PAPAGENO Installation and Administration“, Part C, Chapter 13. „Entering Additional Distribution Rules”, page112).
- Enter instead for every single extension number the „gateway user“ as a user.

Acceptance of Undeliverable Messages

Configuration with the PAPAGENO Gateway

Undeliverable messages are rejected automatically if a PAPAGENO gateway with LDAP is installed and the option `Enable Voice` is activated in the administration data of the driver `gdcapi.drv.`

Not using Speech Dialog

If undeliverable messages shall be accepted without speech dialog being used:

- Make sure that the option `Enable voice` (file card `Voice`) is deactivated. (See Manual „PAPAGENO Installation and Administration“, Part C, „How to Use Voicemail”, page 104).

Using Speech Dialog

If undeliverable messages shall be accepted with speech dialog being used:

- Activate the option `Enable voice` (file card `Voice`). (See Manual „PAPAGENO Installation and Administration“, Part C, „How to Use Voicemail”, page 104).
- Set the variable `GD_ACPTALL`
(see „Configuring Telephone Access to Messages”, page 44).

14. How to Find Error Informations

The output quantity of the gateway processes into a file can be controlled via variables.

About variables you can control the quantity of output of default and progress messages of the Gateway processes into a file.

To enable the generation of error messages, set variables.

- **either** about the **administrator program** for the gateway user (`smtpgw`). (see above page 28).
- **or** on the gateway computer via the command `a_put_usrconf` on operating-system level.

Variables are evaluated after the restart of the gateway processes.

Daemon Process

To enable the production of error messages for the daemon process into the file `$FAXROOT/gateway/smtp/dm/nohup.out:`

- Set the variable `SG_DMDL` to one of the values `0, 1, 2 3` or `4:`

The higher the digit the higher the differentiation of the corresponding reports.

The variable `SG_DMLIO` provides the complete status reports on the conversation of the daemon process with SMTP and POP 3:

- Set the variable `SG_DMLIO` to the value`: 1`

Gateway Process

To enable the generation of error messages for the gateway process into the file `$FAXROOT/gateway/smtp/dm/nohup.out rsp`:

- Set the variable `SG_GWDL` to one of the values `0, 1, 2 3` or `4:`

The higher the digit the higher the differentiation of the corresponding reports.

LDAP

To enable the generation of status reports and error messages for the gateway and the LDAP client:

- Set the variable `SG_LDDL` to the value `1.`

Starting the Gateway Processes

To analyze the variables:

- Stop and restart the gateway processes `gateway` and `daemon`.

15. Reaction in Case of Error

The gateway reacts differently depending on the kind of error.

Permanent Error

An outgoing message which can not be processed at all, is moved into the `OutgoingFailed` directory. The Default-User (see `SG_MADEFU`, page 28) will get a message.

Temporary Error

An incoming or an outgoing message or a sending report which is running on a temporary SMTP error is deferred in the processing.

After an hour a delivering resp. sending trial will start again.
After a day the default user gets a warning hourly, after 4 days the error message is sent to the default user.
The temporal settings (1 hour, 1 day, 4 days) can be changed about the variables `SG_GWRTRY`, `SG_GWWARN` und `SG_GWGIVUP` (see page 31).

At the notification of the default user a temporary SMTP error is described by the number area of 4xx (e. g. 422 mailbox full), a permanent SMTP error is described by the number area of 5xx.

16. Troubleshooting

The Daemon Process of the Gateway Does Not Start

Most of Unix computer systems need root permission to start the gateway on port 25.

- Open the file
  `$FAXROOT/gateway/smtp/dm/nohup.out`

  If the file permission is: `permission denied`,

- open the file `$FAXROOT/gateway/smtp/daemon` and change the owner to `root`

Appendix I

1. List of the User Specific Attributes

Below all attributes are listed, that you can specify in a comment field of the LDAP server.

Most of the attributes are corresponding to the SG_ variables
(e. g. variable SG_ADMTEXT = attribute ADMTEXT).

Example:

`SG_GWEXPF` sets the export format. If in the Extension Attribut of user X GWEXPF is set to 3, user X always gets PDF files - variable value-independent.

Attributes for the Dispatch

Attribute	Value	Description
COVERID	0 or 1	Cover 1: on 0: off
CPI	number	**Send user specific CPI**
CVTWIN	0 or 1	**Conversion of Windows documents** 0 off 1 on
CVTPDF	0 oder 1	**Conversion of PDF documents** 0 off 1 on.
CVTTXT	0 oder 1	**Conversion of TXT documents** 0 off 1 on
DMMAXS	digits	**Max bytes of messages**, e. g. 1024
DRASMSG		**Transmission confirmation in Outlook** (to this see page 67)
GWFDR	2	**Error and result messages in Outlook** 2: Error and result messages (default value) 0: no messages 1: only error messages (to this see page 67)
GWFLR	0	**Current message status anytime** 1: access (enter path in GWHTR) 0: no access
GWHTR		**Path to the HTML pages of the live report** *Intranet*/umgwrep bzw.: umgwrep.exe ($FAXROOT/gateway/smtp/ungwrep exists in the intranet).
GWIATT		**Exclude file formats** (to this see page 30)
GWMAXP	100	**Max number of pages** an outgoing message may have.
HEADLINE	headline	**Headline**

KEEPTMP	0	**Delete temporary files** 1: No deleting of temporary files.
MYDOMMYDOM		Example: `mycomputer.vipcomag.de`
OUTPREF	prefix number	**Add prefix** to the dialed number.
PINCODE	number	**Pincode** for the assignement of the charges
PIPE	command	**Command to filter outgoing mails.**
RRTO	1	Special application
SNDAL	1	Special application
TSI		**Fax number (TSI)** to send with outgoing faxes.
TXTFAX		**Body text** to send with outgoing faxes Enter name of the text file that contents the body text.
TXTVID		**Body text** to send with outgoing videos (not realized)
TXTVOC		**Body text** to send with outgoing voice mails Enter name of the text file that contents the body text.
WAVGSM		**Compression of speech messages**.

Attributes for the Fax Receipt

Attribute	Value	Description
ADMTEXT	unified messaging gateway@	**ADMUSERs text.** The default text will be completed by the gateway computer name. Example: „unified messaging gateway@faxgw“ (see variable „SG_ADMTEXT”, page 29)
ADMUSER	umgw	**Admin user** umgw = unified messaging gateway. You can enter another transport name for incoming documents, delivery- and non delivery reports. (see page 29)
GWEXPF	0	**Enter format of incoming faxes** 0: Multi page tiff, 1: Single page tiff, 2: Single page gif (see page 30)
INLOG	1	**Disable logbook** (incoming faxes) 0 disables the logbook (umslog.txt)

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