

ixi-UMS Kernel

Installation & Configuration

Onlineversion

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1 Introduction

This documentation gives you an overview of the Kernel of ixi-UMS Enterprise, the powerful unified messaging server software from estos GmbH. You will get a product overview, the system requirements and details about installation and configuration from ixi-UMS Kernel.

1.1 ixi-UMS Enterprise Overview

ixi-UMS Enterprise is a powerful unified messaging software, that provides services such as Fax, Voice, SMS and mobile access.

The ixi-UMS software is designed modularly and basically consists of the components Kernel, Connectors and Services.

The ixi-UMS Kernel is the core of the software and handles all the outward communication processes.

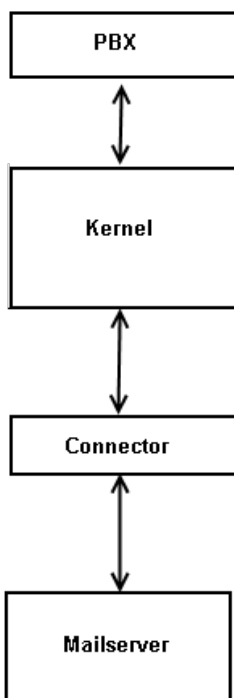
The ixi-UMS **Connectors** provide the integration in different systems like e.g. Microsoft Exchange, Lotus Domino or SAP.

The ixi-UMS **Services** can be combined with each other flexibly. That way, ixi-UMS can be applied as pure fax server, for example, or as a complete unified messaging system with Fax, Voice and SMS.

As it is based on standards, ixi-UMS can basically be operated with all the common **PBX's** (conventional or IP-based).

Funktion:

A professional, server-based Unified Messaging system exists of several components: A phone binding (PBX), the interface between computer and phone system (here the so-called. Kernel), a connection with the mail server (Connector) and the mail server.



- **PBX**

The PBX establishes the connection to the telephone network. For the application of ixi-UMS Enterprise, any PBX can be used.

For ixi-UMS Server, an ISDN point-to-point or a point-to-multipoint connection or a VoIP connection can be used.

- **Kernel**

The "core" of ixi-UMS is the Kernel. It is the actual server and establishes the interface between computer and telephone network.

A CAPI that is provided by an ISDN-board a V-CAPI (e.g. Express@LAN) is needed as interface. The CAPI is a kind of "translator" between computer application and ISDN-board.

- **Connector**

Another module is the Connector that provides the connection between the Kernel and the mail server used. ixi-UMS Kernel can be applied with one or multiple Connectors.

- **Mail Server**

The task of the mail server is to distribute the messages, e.g. faxes, or pass them on to the connector.

The connection by ixi-UMS Connectors is "independent" of the ixi-UMS Kernel. The data exchange is done via Connector directories. This is why it is possible that one single ixi-UMS Kernel can collaborate with one or several Connectors. Another possible constellation is that several ixi-UMS Kernels collaborate with one or several Connectors (e.g. for reasons of high availability).

Connectors and Interfaces:

- **ixi-UMS Mail Server Connector** - for all mail systems and LDAP databases.
- **ixi-UMS SI CON Connector** - for the integration in SAP-systems without LDAP-based user management
- **ixi-UMS FAPI Connector** – File API for the connection of own applications without LDAP-based user management

For more detailed information, please have a look at the respective ixi-UMS Connector manual.

Before outgoing messages can be sent by the ixi-UMS Kernel, they have to be "converted" in a respective format. This process is called "rendering". There are two ways of rendering with ixi-UMS Enterprise.

- server-based rendering
- client-based rendering

Server-based rendering

With server-based rendering, all the file attachments are processed at a central point. For this, the application that shall be sent as fax has to be installed on the respective machine.

If a Word-file is attached to the fax, for example, it is passed on to the ixi-UMS Connector by the mail server, e.g. Microsoft Exchange Server, and then passed on to the Render Connector affiliated in the ixi-UMS Kernel.

It "opens" the Word-document and prints it via a particular printer. Therewith, a file is created that contains a graphical image as well as information, e.g. the sender number.

This file is passed on to the ixi-UMS Kernel.

Client-rendering

Client-rendering means the creation of a fax at the user workstation. For this, "Client Tools" are needed that provide an own printer, amongst others. Via this printer, a fax-capable file can be created out of any application installed.

With this type of rendering, the application is not needed on the server.

1.1.1 Services

In the following, the services are explained which are installed with the ixi-UMS Kernel and therewith are available without any additional installation depending on the license.

You can test all the features and services in test mode for a period of 30 days.

All the required components are installed in order to run the services

- FAX
- SMS
- Voice (see ixi-UMS Voice-Mail Server)
- MWI / Alert
- OCR
- Journal

1.1.1.1 Fax

The ixi-UMS Kernel receives and sends faxes. The faxes are passed on to the installed Connector as TIFF- and / or PDF-file.

- **Sending fax messages**

For the user, sending fax messages works like sending e-mails. The only difference is that a different addressing scheme has to be used. For details, please refer to your ixi-UMS Connector Manual.

The sending user gets a sending report for every message indicating success or failure (among other information). Like in e-mail messages, the user can specify priorities to influence the order in which messages are sent. Messages will be rendered into the fax format. Attachments will be rendered using a fax printer driver and the corresponding application. A fax coverpage can be added (individually for each user).

- **Inbound routing of fax messages**

Fax addresses are assigned to users in the messaging system (please refer to your ixi-UMS Connector Manual). The recipient number is formed by <% KERNELNAME%> depending on the location settings, the PBX connection and the selected routing method.

- **Printing incoming fax messages**

Incoming faxes - depending on the recipient number - can be printed by a network printer additionally.

- **Incoming faxes as PDF**

The faxes can be delivered to the user as TIFF- and / or PDF-file.

1.1.1.2 SMS

When a company decides to deploy the feature SMS, it has to think about the following questions in order to find the perfect solution:

- Does the company only want to send short messages or is the receiving of short messages also important?
- How many short messages are sent / received every day?
- In which mobile telephony network (in Germany: D1, D2, O₂, E-Plus or others) short messages are sent?

Sending short messages does cause costs which is another fact that has to be considered. Some providers offer already special SMS rates, with that a special amount (e.g. 50 short messages) is for free per month. For more information, please refer to the mobile telephony network provider.



An SMS always has 128bit - max 160 standard characters (without umlauts or special characters). If longer texts are sent, they are split into several SMS and put back together at the receiver

The following connections and configurations are available in ixi-UMS Enterprise:

- **ISDN Adapter with configuration "SMS via fixed lines"**

The sending and the reception of SMS is possible.

"SMS via fixed lines" is a service in the PSTN, which delivers messages either to the PSTN or to the GSM network.

The sender number (D-channel information) is used as sender number. You can also answer this.

Remark:

The D-channel information is transferred as CallingPartyNumber in the ISDN SETUP message respectively if use SIP in the INVITE message in From URI. Please note that this information may also be used by the PBX, e.g. for the billing. Normally, only the user-individual extension is passed on to the PBX by the ixi-UMS Kernel (In this case, only the extension may be entered in the field). The PBX adds the extension to the CallingPartyNumber when the call is transmitted.

Please ask your mobile telephony network provider whether this service is available in your network.

- **Mobile Phone / Pager / GSM Data Adapter**

The sending and the reception of SMS is possible.

In this configuration, the SMS is directly sent to the mobile telephony network by mobile phone / GSM data adapter. The hardware is connected to the PC on that the ixi-UMS Kernel is installed via COM or LAN-interface.

The sender number is the mobile number of the SIM-card in the mobile phone / GSM data adapter. SMS can be received via this "mobile number" (number of the SIM-card). In order to send SMS to single users, a so-called routing information in form of the extension, directly followed by "#", must be put in front of the message - <DDI>#<text message>.

Example:

The message "789#short message" is interpreted as in the following:

- 789: Extension (DDI) of the user
- #: delimiter between DDI and text of the SMS
- A short message: Text delivered to the user

In order to be able to assign the message to the respective user, the ixi-UMS Kernel location address (e.g. +49 8142 4799) is put in front of the DDI.

This way, you get the UMS-number of the user (e.g. +49 8142 4799789)

- **SMS Large Account via ISDN X.31/X.25 and TCP/IP Protocols**

SMS Large Account is meant for companies sending a lot of short messages (e.g. for marketing purposes).

Most mobile phone providers offer so-called "Large Accounts" (LA) for customers who need to send more than 10.000 short messages per month. A direct connection to the SMSC (Short Message Service Center) is established. The major providers provide different connection modes (X.25, X.31 and TCP/IP).

Beside the faster and cheaper sending, the reception of short messages is also possible. If you want to make use of this feature, the service provider sets up a co-called

and you get one "Mobile Phone Number". Other users now can send a short message to this number (See "Mobile Phone/Pager/GSM Daten Adapter") and the ixi-UMS Kernel is notified by the SMSC as soon as the message has been received. The ixi-UMS Kernel now picks up the message at the provider and delivers it to you.

- **SMS via HTTP-Provider**

ixi-UMS Enterprise offer SMS dispatch using several providers. To use these services, you must be registered with one of the providers listed who will invoice you for this service.

Fees may vary depending on the provider.

With some providers you have to have a static IP in order to use the service.

Simply compare the various providers and pick out the most favourable one for you. The service User account has to be activated so that a user is able to use the SMS text message dispatch.

Depending on the provider, you can also provide the reply address in the request.

In principle, every service provider can be connected if it has a HTTP GET or POST interface.

Requirement: The ixi-UMS Kernel server can establish an Internet connection to the provider.

1.1.1.3 Voice

The ixi-UMS Kernel contains a simple voice mailbox feature. Users can receive voice, fax and SMS messages under the UMS number. Messages of all types are displayed in the user's inbox.

If the fax number should not be the same as the voice mailbox number, different number ranges can be configured for receiving fax and voice messages.

Announcements can be recorded and can be assigned to all the users, to single extensions (centrally at the ixi-UMS Kernel) or per user.

The formats

To integrate recorded announcements into the ixi-UMS Enterprise system, the following file and content formats are required.

file format	WAV (RIFF)	
content formats	Variant 1: G.711 (u-law oder a-law)	Variant 2: PCM
	1 channel (Mono)	1 channel (Mono)
	Sampling Rate 8 KHz	Sampling Rate: 8 KHz
	Resolution: 8 Bit	Resolution: 16 Bit

These features can be enhanced essentially with the installation of **ixi-UMS Voice-Mail Server**. The ixi-UMS Voice-Mail Server allows each user to make their own announcement. In addition, the remote inquiry of voice messages is possible:

Other features include:

- Remote access to voice mails
- Remote access to E-Mails, fax- and sms messages (reading via TTS)
- Call forwarding
- LDAP based user administration
- ...



The features listed here are only part of the features offered by the **ixi-UMS Voice-Mail Server**. The full range of performance of the **ixi-UMS Voice-Mail Server** is listed and described in the **ixi-UMS Voice-Mail Server** manual.



The licensing of "Voice" includes the installation of the ixi-UMS Voice-Mail Server and thus provides the functions "Remote Access" and "recording of Announcements" by the users, as well as the Notifier Express.

1.1.1.4 MWI

Depending on the PBX and the respective telephone (e.g. feature-added telephone), the incoming of UMS-messages (faxes, voice mails, SMS) can be signaled at the telephone of the user. This is the so-called feature MWI (Message Waiting Indication).

For switching on the indication at the telephone, the ixi-UMS Kernel transmits a corresponding signal to the PBX. At last, the MWI is switched on by the PBX.

For switching off the indication at the telephone, a so-called "Alert-Message" is sent to the ixi-UMS Kernel by the mail client or by Notifier Express. The ixi-UMS Kernel passes the information on to the PBX. By doing so the PBX is caused to delete the MWI at the respective user's telephone. For information about the addressing and the format of these Alert-Message, please have a look at the Additional Information. You can also get information about the requirements there.



The MWI service is subject to licensing and fees



With installing the ixi-UMS Voice-Mail Server, the possibilities to activate and deactivate the MWI at the telephone are enhanced.

1.1.1.5 OCR

"Optical Character Recognition" is needed for the conversion of incoming messages from graphical format (TIF and/or PDF) into text (e-mail body text and/or PDF-attachment).

The text in the body text helps to find fax messages e.g. using the "Standard Search Dialog" of the mail client.

In order to have fax messages read out to you via text-to-speech (ixi-UMS Voice-Mail Server), it is absolutely necessary to transfer faxes via OCR into the body text of the e-mail.



The OCR engine integrated in the ixi-UMS system is license-free and free of charge.

1.1.1.6 TTS

A "text to speech engine" converts text into audio-files. You need this function to:

- send text message, which are read out to the called participant.
- listen to E-Mails and faxes (need OCR) with ixi-UMS Voice-Mail Server
- to create announcements via ixi-UMS Voice-Mailbox configuration

For this function a "TTS engine" on the respective ixi-UMS Server must be installed. The interface (Speech API) "SAPI5" and "Microsoft Speech Plattform" ist used.

With the ixi-Framework Setup some TTS engines for the Microsoft speech API are copied on the computer.

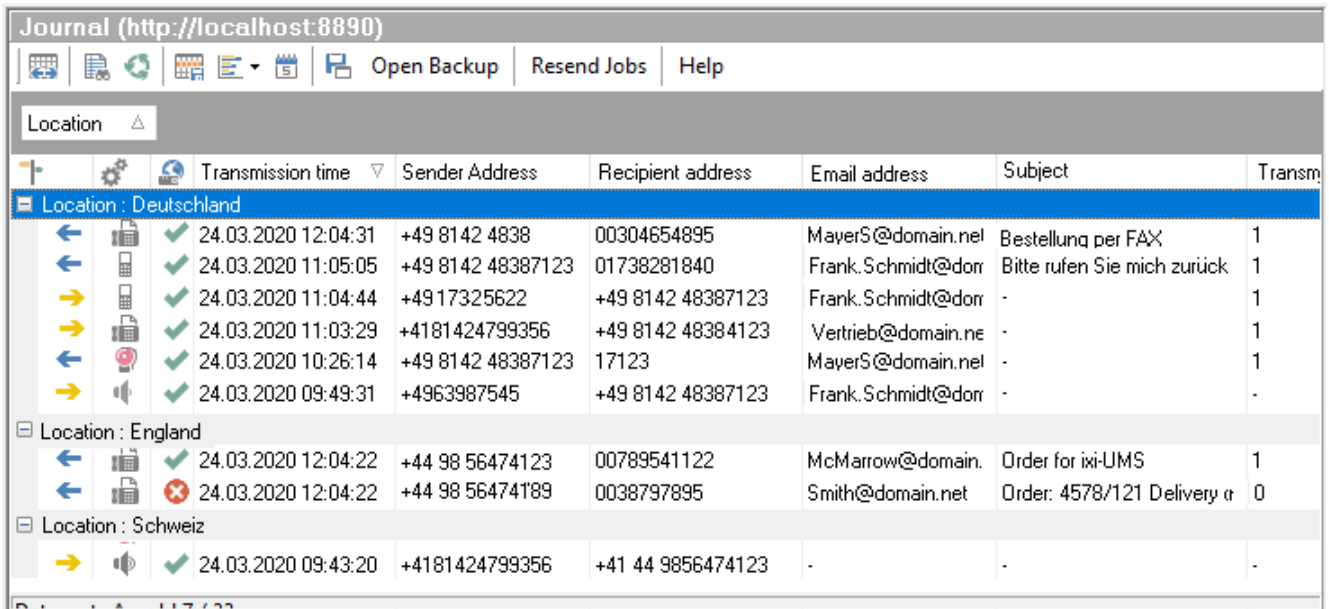


The TTS service for sending text messages which are read out to the called subscriber is free of licence and costs.

1.1.1.7 Journaling

Every inbound and outbound transmission will be logged to the journal database. Detailed reports can be generated. In the journal, a clear entry is created for each incoming and outgoing transmission (transmission corresponds to a message in the normal case). The journal entries are stored in a database and can therefore be easily sorted and filtered according to specific criteria.

The creation of detailed reports as well as an access to the database with own tools is possible and facilitates thus possibly the further processing of the information in the own company..



		Transmission time	Sender Address	Recipient address	Email address	Subject	Transm
Location : Deutschland							
←	✓	24.03.2020 12:04:31	+49 8142 4838	00304654895	MayerS@domain.net	Bestellung per FAX	1
←	✓	24.03.2020 11:05:05	+49 8142 48387123	01738281840	Frank.Schmidt@dorr	Bitte rufen Sie mich zurück	1
→	✓	24.03.2020 11:04:44	+49 17325622	+49 8142 48387123	Frank.Schmidt@dorr	-	1
→	✓	24.03.2020 11:03:29	+4181424799356	+49 8142 48384123	Vertrieb@domain.net	-	1
←	✓	24.03.2020 10:26:14	+49 8142 48387123	17123	MayerS@domain.net	-	1
→	✓	24.03.2020 09:49:31	+4963987545	+49 8142 48387123	Frank.Schmidt@dorr	-	-
Location : England							
←	✓	24.03.2020 12:04:22	+44 98 56474123	00789541122	McMarrow@domain.	Order for ixi-UMS	1
←	✗	24.03.2020 12:04:22	+44 98 56474189	0038797895	Smith@domain.net	Order: 4578/121 Delivery a	0
Location : Schweiz							
→	✓	24.03.2020 09:43:20	+4181424799356	+41 44 9856474123	-	-	-

Optionally, users can access the ixi-UMS Web Journal via the ixi-UMS User Portal and view the UMS messages you have sent and received for them.

1.1.2 Additional Features

Beside the standard services described before, a lot of additional features can be installed. Some of these features have to be licensed.

- MultiSite Mode
- Sender Identification
- Extended User Look-Up
- Rules for Call Number Conversion (subject to license)
- Daily Limit of Messages per User
- Channel Reservation Time-Controlled
- Simultaneous Connection with Particular Remotes
- Routing Methods
- Blacklist
- Coverpage RecipientInfo
- Coverpage SenderInfo
- Print Incoming
- RouteBySender
- Reception Date on Every Page
- Reports im HTML-Format
- ixi-UMS Web Journal (Provided via the <%PS%>)
- Use without mail server

1.1.2.1 MultiSite Mode

The MultiSite operation simplifies the deploying of the UMS-solution for heterogeneous environments and migration phases, no matter whether ISDN or IP is used for the communication.

Several sites and controllers from different sites can be defined and administered at one ixi-UMS Kernel. Thus, connections (S0, S2M or VoIP) to PBXs of different types can be combined and served with <%PRODUCTNAME%>.

The administration and handling of the messages is done with the ixi-UMS Kernel consistently. The specific settings of the controllers can be handled separately.

Remark:

Some features and services are only available per ixi-UMS Kernel and not per site.



This feature is liable to costs and is released via the ixi-UMS Enterprise license.

1.1.2.2 Extended User Look-Up

Before an incoming fax is accepted, an LDAP look-up in the user data base checks whether a user/inbox is assigned to the called number. If this is not the case, the call is rejected.

The look-up is made by default with all the incoming calls.

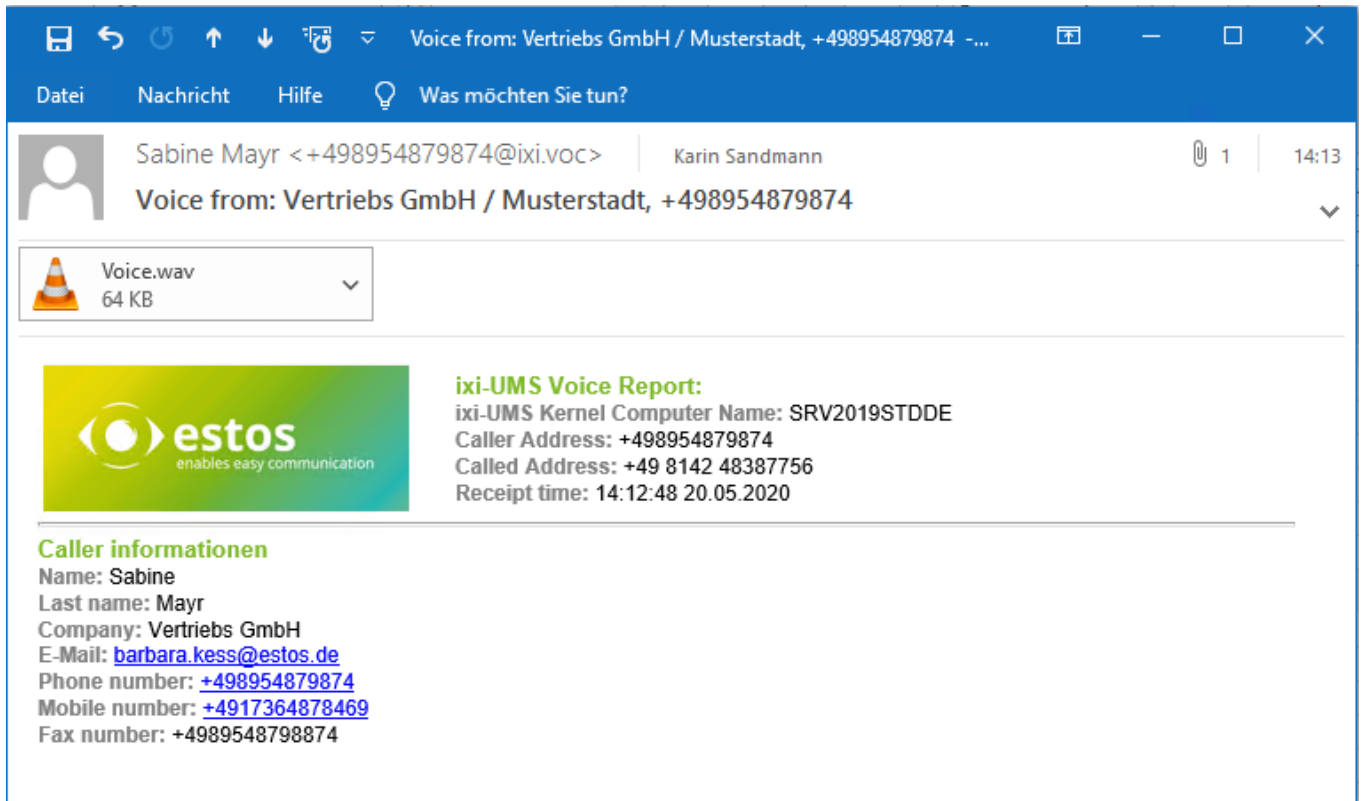
With the setting of the services in the "DDI Mapping", calls with the feature Voice can be excluded from the look-up.

Further information and configuration equipment at ixi-UMS Kernel Configuration

1.1.2.3 Sender Identification

The sender number is resolved via an LDAP-query to the MetaDirectory. As a result, not the sender number but the name is displayed at the user in the inbound message, and city, company, etc. are displayed in the subject.

In the e-mail body text, various sender information read out from the MetaDirectory are displayed.



Required for the **ixi-UMS Sender Identification** is the installation of the MetaDirectory. This feature is liable to costs. Further information and configuration at Configuration | Sender Identification.



In MultiSite operation, this feature is only available per ixi-UMS Kernel Server and not per site.

1.1.2.4 RouteBySender

With the feature "RouteBySender", it is possible to deliver inbound messages to a certain recipient by means of the sender number.

In order to do so, the sender number must be available in the stated MetaDirectory and the e-mail address of the recipient must be deposited and assigned for this number.

This feature is independent of the deployed ixi-UMS Connector.

Required: estos MetaDirectory

1.1.2.5 Rules for Call Number Conversion

Rules can be deposited by means of which call numbers incoming and outgoing are converted.

With networked PBX's, for example, messages with a particular area code can be sent via a PBX at another site therewith.

The following kinds of numbers can be defined as "search parameter" and as "to be changed" by rules.

- D = Destination (CalledPartyNumber)
- O = Originator (CallingPartyNumber)
- R = Redirector (RedirectingNumber, DivertedNumber)



This feature is liable to costs and is released via the ixi-UMS Enterprise licence key.

Examples:

Problem 1:

Because of the PBX-networking, the site 00498142 can be addressed directly with the "code" 8 via the networking.

Outgoing messages to e.g. 00498142xxxxxxxx shall always be sent to 8xxxxxxxx.

Solution:

Deposit a rule at the ixi-UMS Kernel:

```
O;D=00498142;D=8[9]
```

Please take care of the following syntax:

```
<Direction>;<MatchExpression>;<ConversionExpression>
```

Function:

When a fax is sent to the number 0049 8142 4795875, the %PRODUKTNAME% Kernel checks in the table of rules whether there is a rule for this number.

The entry

```
O;D=00498142;D=8[9]
```

is found here.

O = Outgoing message

D = Destination 00498142

The actual rule is contained in the last part:

```
D=8[9]
```

D = number to be changed = Destination

8 = the 8 is added in front of the number to be copied

[9] = everything from the 9th digit on (incl.) is copied

So the rule transforms the number

0049 8142 4795875

into the actually dialed number

84795875

Problem 2:

- 1) Incoming messages are received via another networked PBX or collective connections.
- 2) The number conversion in the PBX has been changed. The numbers coming in at the ixi-UMS Kernel now are not in the LDAP data base and all the recipient numbers in the AD would have to be changed now.

Solution:

Deposit a rule at the ixi-UMS Kernel:

```
I;D=785;D=5[4]
```

Function:

The recipient numbers +49 8142 4799**5**456, that are also dialed from outside, are listed in the LDAP.

Because of changes in the PBX, the code 78 had been added by internal routing.

An incoming fax to the number +49 8142 4799**5**456 thus is delivered to the ixi-UMS Kernel with the extension **785**456.

In order not to have to change all the recipient numbers in the LDAP, the "78" has to be **removed** at the ixi-UMS Kernel.

The only information the ixi-UMS Kernel gets from the PBX is the extension information: **785**456

The entry

```
I;D=785;D=5[4]
```

is found here.

I = incoming message

D = to the recipient

785 = part of the recipient number the rule accesses

The actual part of the rule is contained in the last part:

D = recipient number shall be changed

5 = the 5 is added in front of the number to be copied

[4] = everything from the 4th digit on (incl) shall be copied

Alternative rule:

```
I;D=785;D=[3]
```

I = incoming message

D = to the recipient

785 = part of the recipient number the rule accesses

The actual rule is contained in the last part:

D = recipient number shall be changed

[3] = everything from the 3rd digit is copied

In both cases, the incoming number 785456 is "changed" into the number 5456 and then canonized into the number (now valid in the LDAP) by the ixi-UMS Kernel:

```
+49 8142 47995456
```

Further information and configuration at ixi-UMS Kernel Configuration.

In a complex environment if mutual dependence and linked rules are necessary, they have to be entered manually.

For more information, see How To.

1.1.2.6 Channel Reservation Time-Controlled

The channel reservation for incoming calls can be defined time-controlled. It can be guaranteed therewith that e.g. during office hours, most channels can be used for the sending and after work, most channels are reserved for the reception.

The determination is defined in day, hour, minute.

Moreover it can be determined, how many channels are reserved for incoming calls.

Remark: It cannot be defined which channels are reserved.

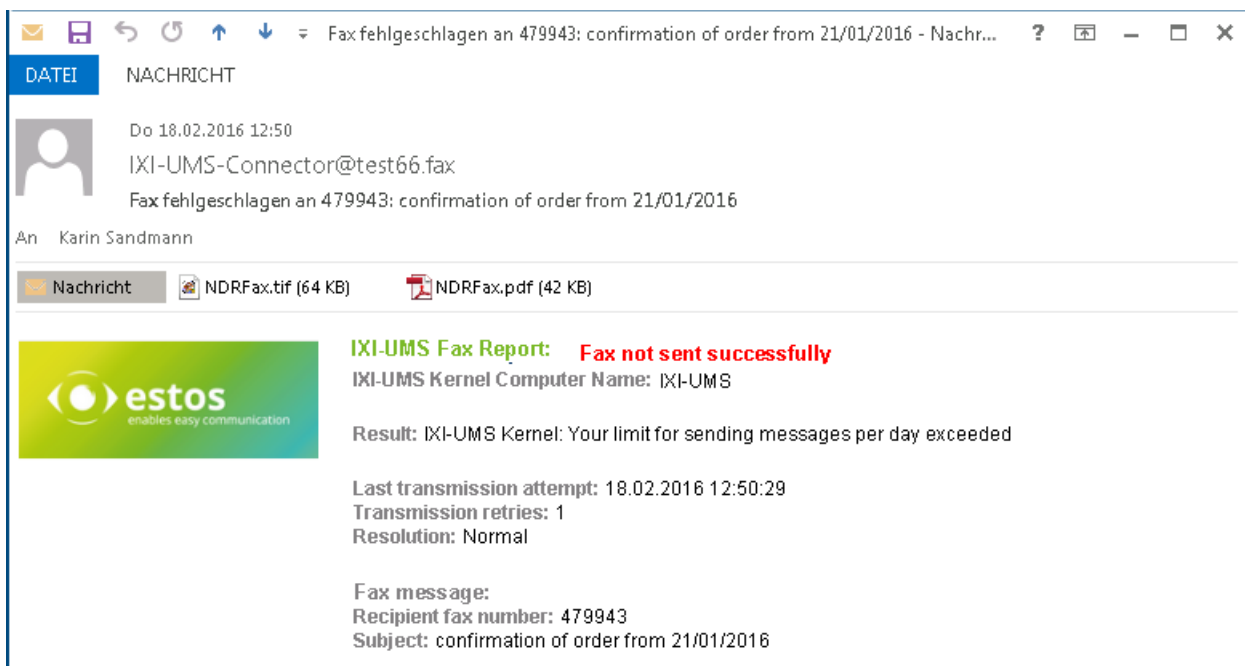
Further information and configuration at [ixi-UMS Kernel Configuration](#).

1.1.2.7 Daily Limit of Messages per User

It can be determined at the server centrally how many messages a user is allowed to send per day.

This determination can be set for SMS, Fax and Voice independent of each other.

When the daily limit is reached, the user receives a respective notification.



When using the ixi-UMS Mail Server Connector this setting can also be made per user.

Further information and configuration at [ixi-UMS Kernel Configuration](#).



In MultiSite operation, this feature is only available per ixi-UMS Kernel Server and not per site.

1.1.2.8 Simultaneous Connection with Particular Remotes

By default, ixi-UMS establishes only one connection per recipient number. This means that it is not possible to send two messages to one number at a time.

When it is known that several fax receptions are possible at the remote station, it can be determined with the feature "Simultaneous Connection", which remote stations can be addressed several times and how many concurrent connections are allowed to be established.

Further information and configuration at [ixi-UMS Kernel Configuration](#).



In MultiSite operation, this feature is only available per ixi-UMS Kernel Server and not per site.

1.1.2.9 Routing Methods

Normally, the standard routing setting is used for the delivery of the messages to the users. The messages are delivered to the user the dialed recipient number was assigned to. In some cases, however, other routing methods may be more suitable or must be used in addition.

- **Route-by-Redirection**

When a call is redirected from a telephone to another address/workstation, the number of the redirecting device is stored in the call data and available at the called address/workstation. The called redirecting number then can be used as incoming routing address.

This makes sense when you redirect your calls from your telephone to your ixi-UMS Voice-Mailbox to "No Answer". The PBX does not allow you to configure an ISDN-connection with enough MSN's and DDI's for ixi-UMS. In this case, all your users have identical telephone- and voice box numbers, as the redirecting number is the address of the telephone, which redirects the calls to the ixi-UMS Voice-Mailbox. subsequently used as routing information.

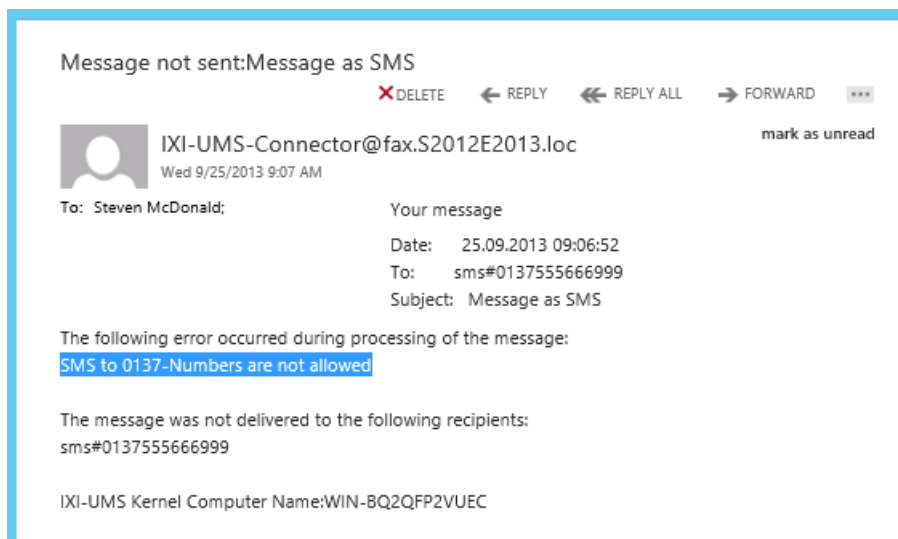
- **Route-by-Caller Address**

Route-by-Caller Address means that the phone number of the caller is used for inbound routing.

1.1.2.10 Blacklist

Sender numbers of incoming faxes and voice mails as well as recipient numbers for outgoing messages can be blocked (separately per service). An incoming call from a blocked number is not accepted.

When a user tries to send a message to a number blocked for sending, he receives an e-mail with a text defined by the administrator.



Therewith, the sending to fax numbers with costs, for example, and the reception of unsolicited faxes can be prevented. For further information, please refer to the ixi-UMS Kernel Configuration.



In MultiSite operation, this feature is only available per ixi-UMS Kernel Server, not per site.

1.1.2.11 Coveragepage Recipient Assigment

The coveragepage to be used can be defined in dependence of the recipient number. That way, for fax messages e.g. to

- +39* an English coveragepage,
- +49* a German coveragepage,
- 08* a coveragepage with sender information,
- 09* a coveragepage with recipient information,
- +31* an empty coveragepage (without sender- or recipient information)

can be used for fax messages.

1.1.2.12 Coveragepage RecipientInfo

With the feature "Coveragepage RecipientInfo", the recipient information can be adopted to the coveragepage.

When the recipient number is available in the stated MetaDirectory, the deposited information is read out and adopted to the coveragepage.

This feature is independent of the deployed ixi-UMS Connector.

Required: estos MetaDirectory or another MetaDirectory

1.1.2.13 Coveragepage SenderInfo

For the presentation of the coveragepage with outbound faxes, ixi-UMS can trigger or read out information about the sender. Basically, global specifications per Connector can be used. Depending on the deployed ixi-UMS Connector, however, user(sender)-dependent information can be passed on to the coveragepage.

- With SMTP-based Connectors, an LDAP-query on the user administration is executed.
- With the ixi-UMS FAPI Connector, the information must be passed on in the job.
- With the ixi-UMS SI CON Connector, no information can be passed on.

With the feature "Coveragepage SenderInfo", the sender information can be read out of the available LDAP-database and adopted into the coveragepage also when sending via an ixi-UMS SI CON Connector or an ixi-UMS FAPI Connector.

1.1.2.14 Print Incoming

Inbound fax messages and reports are delivered to the users, mostly by e-mail. In addition to that, they can be printed on a network printer.

You can determine in the Configuration at the ixi-UMS Server, for which recipient the fax message and / or the report shall be printed at which printer.

1.1.2.15 Emergency Mode

The ixi-UMS Enterprise system can be set to the so-called "Emergency Mode" event-driven.

When the system switches over to the Emergency Mode, only an authorized group of people - "VIP"-users - can make use of ixi-UMS for quick and reliable emergency notes.

Any other UMS-message is rejected. It is guaranteed this way that the server is only available to the authorized persons and that important messages are processed quickly.

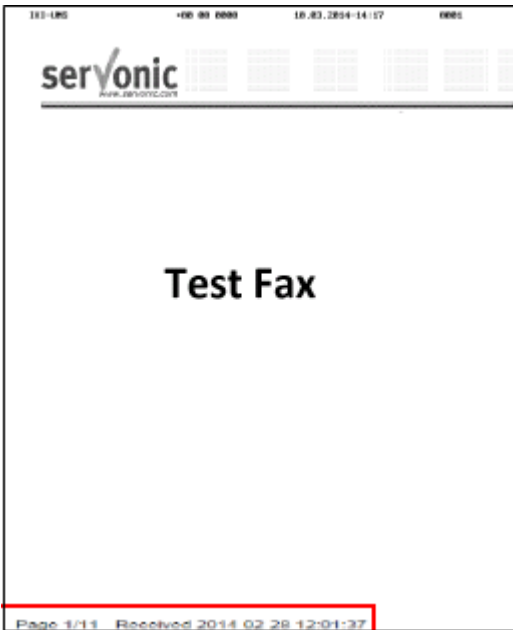
Furthermore, the types of UMS-messages are restricted.

Exclusively

- faxes without attachment
- faxes created with the ixi-UMS Client Tools
- SMS-messages
- voice- and TTS-mails

can be sent.

1.1.2.16 Reception Date on Every Page



If the reception time per page is reported to the ixi-UMS Kernel by the CAPI, it can be printed to the single pages of the fax bottom left.

Page 1/11 - Received 2014-02-28 12:01:37

Page 7/11 - Received 2014-02-28 12:03:32

This option has been tested and is available in combination with ixi-UMS VoIPConnect.

Required for this option is that the faxes are delivered to the recipient as PDF-file.

In this case, the fax is scaled down by at least 1% and the time is printed at the bottom of the fax page.

This setting can be configured and activated globally for all the users or individually per fax recipient number.

1.1.2.17 PrintUnread

With ixi-UMS PrintUnread, faxes that have been unread for a certain period of time can be printed out automatically.

This feature is only available in combination with the ixi-UMS Mail Server Connector.

It is required that the mail client can create return receipts according to RFC 3798 and that the mail server forwards these to the ixi-UMS Mail Server Connector.

With the delivery of the received fax messages to the mail server, a return receipt is requested.

When the ixi-UMS Connector does not receive this return receipt in the fixed period of time, the fax is printed out at the network printer.

The setting can be configured and activated globally for all the users or individually per fax recipient number.

The fax messages can only be printed out if they are available **in TIF-format**.

1.1.2.18 Save ixi-UMS messages locally only

By default, the following messages are created by ixi-UMS Enterprise and sent by e-mail:

- Incoming / received ixi-UMS messages
- Feedback / shipping confirmations
- Information to the standard recipient, when an outgoing ixi-UMS message is deleted
- Error messages from the ixi-UMS Render Connector

If no mailserver is available or the ixi-UMS messages should not be sent to the mail server, all incoming ixi-UMS messages and confirmations can be stored in the local database and deleted by the ixi-UMS Mail Server Connector.

In this case, the users can access all ixi-UMS messages and confirmations only via ixi-UMS Web Journal.



Information on the default recipients and error messages will continue to be generated and sent as e-mail to the mail system.

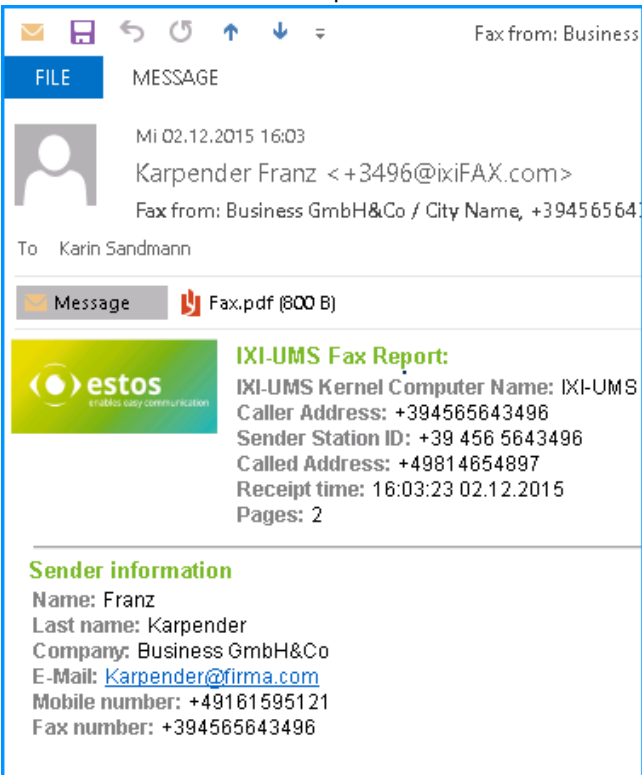
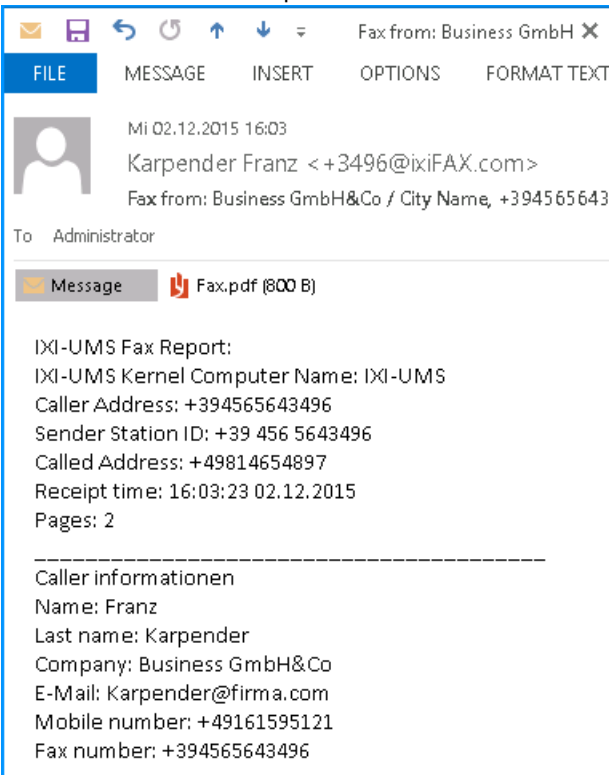
For more information about the setting, refer to the manual of the installed ixi-UMS Mail Server Connector s.

The Incoming Print option is still available.

The functions "Sender Identification", "OCR" and "Remote inquiry of the voice mailbox by telephone" are not available and must be deactivated.

1.1.2.19 Reports in HTML-Format

The ixi-UMS Mail Server Connector can send the reports created by the ixi-UMS Kernel (incoming messages and delivery reports), OCR text and the information by the "Sender Identification" to the mail server as HTML-e-mail.

Mail with report as HTML	Mail with report in "Plain Text"
	

The language used for the template can be predefined in the ixi-UMS Mail Server Connector and stated at the user object.

An optional setting per user is that no reports are sent to him.

For further information about the configuration, please refer to the manual of the ixi-UMS Mail Server Connector.

Remark:

Only the body text of the e-mail is converted in the fixed HTML-template. ixi-UMS Kernel reports that are printed to the PDF by features in the ixi-UMS Render Connector are not affected by this.

1.1.3 ixi-UMS User Portal

With ixi-UMS Portal Server ixi-UMS Enterprise the web application provides ixi-UMS User Portal for the users.

Which information the user sees in the ixi-UMS User Portal and which settings he can make depends on the installed and available ixi-UMS components and the settings at ixi-UMS Portal Server. components:

available web module	required ixi-UMS component
ixi-UMS Web Journal view incoming messages and confirmations in the ixi-UMS Web Journal	ixi-UMS Kernel
ixi-UMS New Messages Sending fax and SMS messages	ixi-UMS Mail Server Connector ixi-UMS Render Connector ixi-UMS Kernel
ixi-UMS User Settings Information about the fax, SMS, voice permissions, Change sender information and report language Select the cover page, Information about max. pages/fax Information about number of faxes/day	ixi-UMS Mail Server Connector additionally required: ixi-UMS Render Connector ixi-UMS Kernel
ixi-UMS Voice-Mailbox Configuration the browser-based configuration interface for the ixi-UMS Voice-Mailbox	ixi-UMS Voice-Mail Server

The ixi-UMS Portal Server can be installed on a computer with the ixi-UMS components or on its own computer and several instances with different settings can be created.

Please refer to the ixi-UMS Portal Servers manual for further information.

1.1.3.1 ixi-UMS Web Journal

With the “ixi-UMS Web Journal“, ixi-UMS Enterprise offers every user a browser-based view of his own ixi-UMS messages – sent and received – from the ixi-UMS Kernel Journal.

Requirement: The necessary user information must be available in the LDAP-user database.

After registration at the ixi-UMS User Portal, the data is determined on the basis of the stored sender e-mail address and the UMS recipient number and the corresponding entries are displayed.

Your ixi-UMS Components:

ixi-UMS Web Journal Settings Help Logoff

Entries per page Time span Search

Service	Date	Remote station	Subject	
	13:34:51 01.Aug.2019	04569874564	-	Details
	07:10:19 01.Aug.2019	003046549845	Offer to estos ixi-UMS	Details
	08:16:43 09.Jul.2019	017145679879	Please call me at the office	Details
	17:47:16 07.Jul.2019	+31 0578 564896	-	Details
	13:47:32 02.Jul.2019	562	WG: Call from Sales GmbH	Details
	12:51:53 02.Jul.2019	+4917297454	-	Details

6 entries

Outbound Fax Details

Sender: +49 8142 4799

Receipient: +4989909361360

Transmission time: 15.04.2016 16:35:11

Subject: Order 130-18729 for your Customer Automobile AG

Remote station id: -

Pages: 4

Result: Fax sent successfully to

The User can displayed all relevant data for send an receipt ixi-UMS message in detail.

If he option Archive associated files activated in ixi-UMS Kernel, the user can open, print and save all SMS an fax messages include reports. Also he can save and listen voice messages.

Note:

All incoming messages are transmitted in the bound system (ixi-UMS Connectoren)

Requirement:

Internet Explorer 10 or higher,
Mozilla Firefox 39 or higher

1.1.3.2 ixi-UMS New Messages

On the "New message" page, the user can send faxes and SMS directly via the browser.

The prerequisite is that the corresponding services are set up on the ixi-UMS Kernel, the ixi-UMS Mail Server Connector is installed and the user has the appropriate permissions.

In the case of an SMS, the text can be entered directly. The pre-searched number of remaining characters and the number of individual messages are displayed.

The screenshot shows the 'Your ixi-UMS Components:' interface with a green header. The 'New Message' tab is active. Below the header are two main panels: 'Send SMS' and 'Send Fax'.
Send SMS Panel:
- Title: Send SMS
- Text: Your administrator can tell you the maximum number of individual SMS the message may consist of. The information whether the message could be sent successfully can be found in the ixi-UMS Web Journal and/or you e-mail inbox.
- Recipient number: +19173593924
- SMS content: Please call me back
- Summary: Entered characters: 19, Estimated number of SMS: 1, Remaining characters until next SMS: 141
- Send button: Green arrow icon
Send Fax Panel:
- Title: Send Fax
- Text: You can upload **one** PDF file that will be sent as a fax message. The information whether the message could be sent successfully can be found in the ixi-UMS Web Journal and/or you e-mail inbox.
- Recipient number: +1202 4567041
- Fax content (PDF file): Upload PDF file by drag and drop or select a file (green button). File name: Fax.pdf
- Send button: Green arrow icon

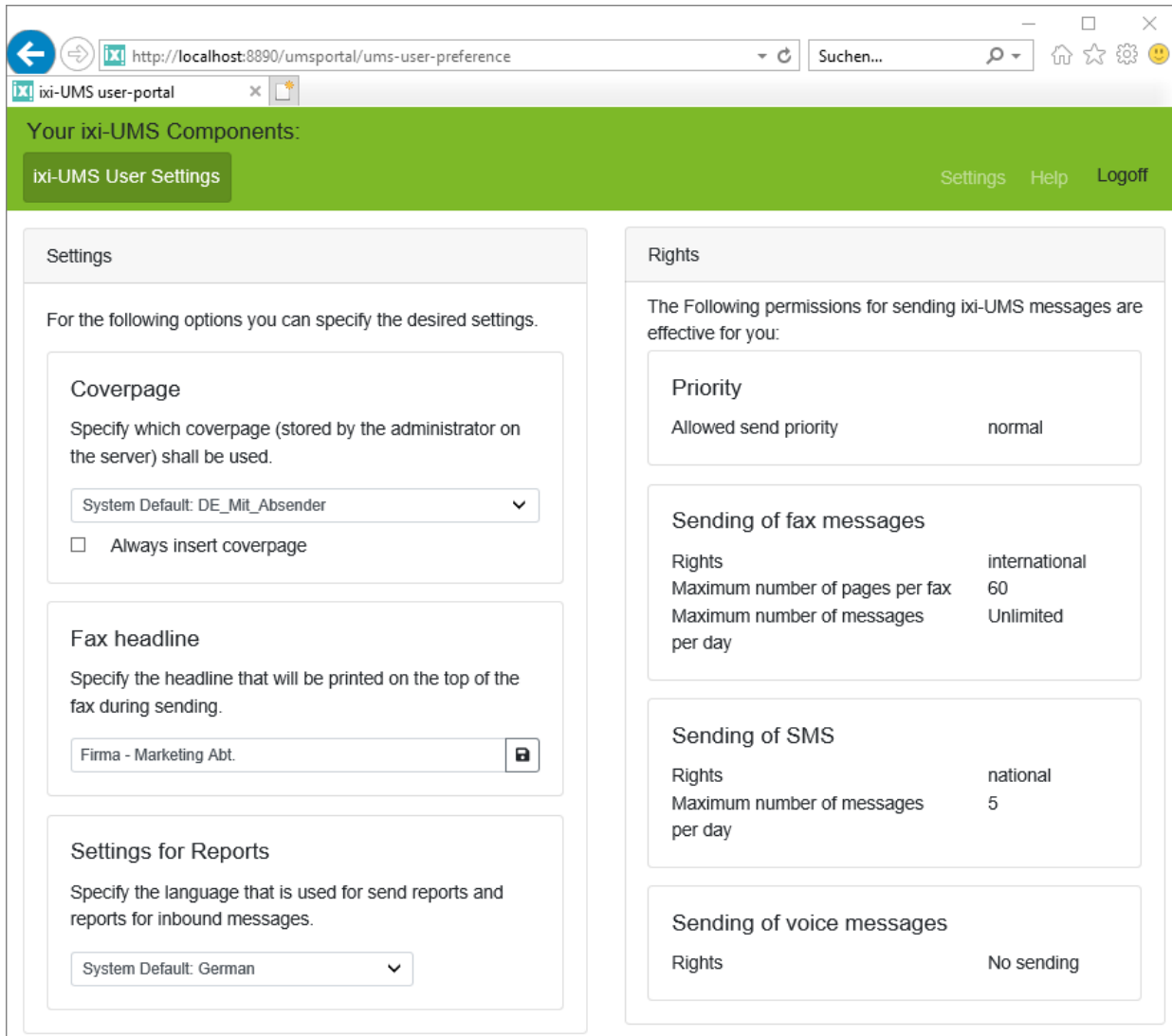
The fax to be sent must be dragged and dropped into the browser as a PDF file or selected on the computer via "Select file". The user can attach multiple PDF files.

For successful sending, the ixi-UMS system must be set up to render PDF files.

1.1.3.3 ixi-UMS User Settings

The user is shown the permissions for the Fax, SMS and Voice functions defined by the administrator in ixi-UMS System.

If enabled in ixi-UMS Portal Server, the user can select a cover page stored on the server, set the language of the ixi-UMS Kernel report and specify a custom fax header.



1.1.3.4 ixi-UMS Voice-Mailbox

Via the <%VBS%> Configuration every user can configure his profiles and announcements via Web interface.



The ixi-UMS Voice-Mailbox configuration is only available to users with the optional "ixi-UMS Voice-Mail Server".

1.1.4 ixi-UMS Voice-Mail Server

The ixi-UMS Voice-Mail Server offers the following additional features:

- Access to messages in the inbox via telephone
- Recording of own announcement texts
- Management of several profiles
- Management of ixi-UMS Voice-Mailbox by WebPage
- Notifier Express for automatic notifications



The features listed here are only part of the features offered by the **ixi-UMS Voice-Mailbox**. The full range of performance of the ixi-UMS Voice-Mailbox is listed and described in the ixi-UMS Voice-Mailbox Manual.



The licensing of "Voice" includes the installation of ixi-UMS Voice-Mail Server and thus provides the functions "Remote inquiry" and "Recording of announcements" by the users, as well as the Notifier Express.

1.1.5 ixi-UMS Client Tools

In order to make use of additional features and therewith achieve even more comfort at the workstation, the so-called ixi-UMS Client Tools can be installed. It is also possible to operate mixed installations, this means one part of the users works with the installed ixi-UMS Client Tools, the other part without or with a subset of the features of the ixi-UMS Client Tools.

The following comfort features are available at the client with the ixi-UMS Client Tools:

- Sending faxes out of any application via printer driver
- Fax-macro for Microsoft Word
- Auto fax-macro for Microsoft Word (the fax number is read out from the document)
- Mail merge fax-macro for Microsoft Word
- Microsoft Outlook Add-Ins
- Collect faxes
- Drop point (Drag and Drop)
- ixi-UMS SMTP Mail Client incl. address book

The installation includes the following, individually selectable components:

- Fax printer driver (ixi-UMS Fax-printer)
- Word-macros
- Add-Ins (only for MS Outlook; with IBM Lotus Notes, the installation is done in the mail template)
- ixi-UMS SMTP Mail Client



ixi-UMS Client Tools are included in the range of performance of ixi-UMS Enterprise.



You can get further information about the feature and its operation in the ixi-UMS Client Tools Manual.



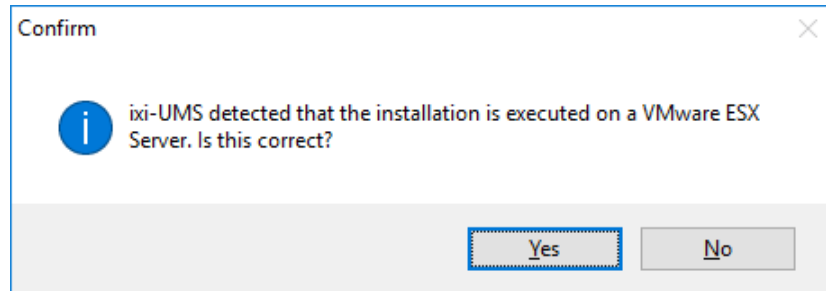
The ixi-UMS Client Tools are not a part of the ixi-UMS Kernel setup and must not be installed on the ixi-UMS Kernel machine.

1.2 License

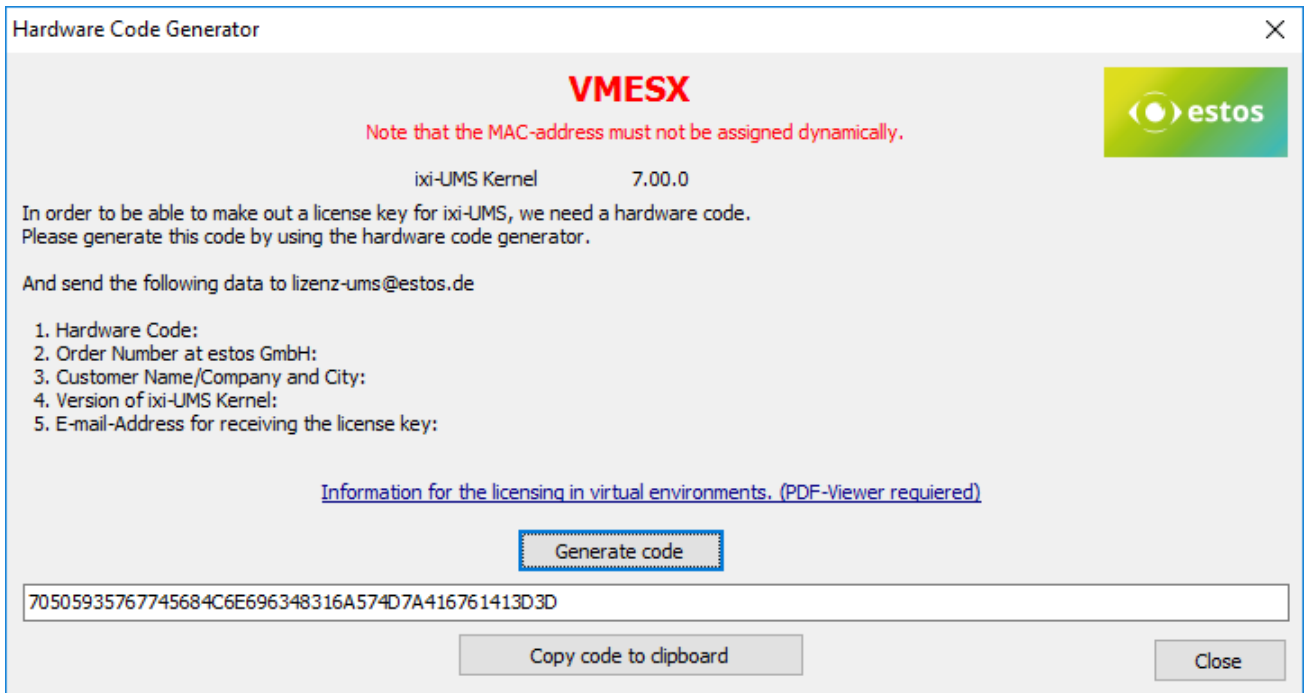
After having installed the software, the ixi-UMS Kernel is in test mode. Therewith, you are given the opportunity to test all the features of ixi-UMS Enterprise for 45 days.

It is always possible to release an ixi-UMS Kernel in test mode by means of a license key. The needed license key can be requested at estos GmbH or sales partners. Please note that after having released the software, only the features, services and Connectors can be applied that are covered by the range of the license.

In order to be able to make out the license, the hardware code is required, which can be detected with the hardware code generator. The hardware code generator is started at the end of the setup. If installed in a virtual environment, it is detected.



After confirmation, the hardware code generator is started. The information required for the license request is listed here.



The information listed above

1. Hardware Code
2. Order Number at estos GmbH
3. Customer Name / Company and City
4. Version Number of ixi-UMS Kernel
5. E-Mail Address for the Delivery of the License Key

must be addressed to lizenz-ums@estos.de in order to request the license key.

The Hardware Code Generator can be restarted at any time via the ixi-UMS Kernel Configuration - License and via Start - Programs - estos - ixi-UMS Kernel.

2 Requirements

The required hardware and software for the deployment of ixi-UMS Enterprise depends on

- the ixi-UMS services and features used
- the number of users, fax- SMS- and voice-traffic
- the connection to the PSTN / PBX
- the available or planned server platform.

In the following, you can find some calculation examples as well as remarks and descriptions to the connection with PBX's and the required components.

The system requirements in terms of hardware and software are independent of whether ixi-UMS Enterprise is installed on a physical or on a virtual machine - only with the connection to the PBX, a virtualization must be considered (ISDN-boards are not supported).

2.1 Operating System

The ixi-UMS-Software can be installed on Windows operating systems only:

- Windows Server 2016
- Windows Server 2019
- Windows Server 2022
- Windows 10/11 (64 bit)



If the CTI-software estos ProCall is installed on the same machine, it is mandatory to use a server operating system.

2.2 Server Hardware

Depending on which services shall be used in which range of performance, the PC performance has to be taken into account.



The following specifications refer to the application of an ISDN-board or V-CAPI. When applying an VoIP Connecting Module, you will need additional memory:

80 MB + 10 MB per channel

Basic Installation

Contains:

- ixi-Framework
- ixi-UMS Kernel
- one ixi-UMS Connector
- ixi-UMS Voice-Mail Server

Needed:

- Hard disk: 2 GB
- At large installations (more than 400 users), space should be included for the with 0,5 MB per voice-mailbox announcement.
- Processor at installations with up to 4 channels: 2 GHz
- The required main memory per channel, depending on the services, has to be added:

Service	Main Memory
Fax / SMS / Voice	20 MB / Channel
TTS	15 MB / Channel
OCR	5 MB / Channel
Render Connector	60 MB
SMTP-based Connectors	12 MB / Instance
FAPI / FapiTxT-Connector	10 MB / Instance
SAP R/3 -Connector	25 MB / Instance

For a basic installation with ixi-UMS Fax and Voice as well as an ixi-UMS Connector on a Windows Server 2016, a "Hardware" (parameter for virtual machines) should be deployed with the following parameters at least:

Hard Disk: 40 GB

Prozessor: 2 GHz

Free main Memory: 4 GB



You have to take into account here, of course, that the applications (e.g. Word) are accessed for the rendering and need an appropriate main memory.

A one-page Word-document, for example, needs approx. 70 MB main memory in order to be opened and printed with Microsoft Word 2016.

Basic Recommendation

- ixi-UMS and Estos UCServer can be installed together on one machine.
- It is recommendable, however, to install the modules ixi-UMS Kernel, ixi-UMS Connector and/or UCServer on a machine separate from the messaging system.

Advantage:

- No influence on the messaging system when maintaining the ixi-UMS Server (e.g. update) or CTI Server
- No software installation on the messaging server
- When maintaining the messaging server, the ixi-UMS Server is fully ready to send and receive (processing of the queues)

2.3 ISDN & PBX

An important point for the integration of ixi-UMS is the connection to the public telephone network. Therefore, an ISDN device or VoIP connection is highly recommended for the use with ixi-UMS Kernel.

The following document will assist you in getting your PBX correctly configured for ixi-UMS: PBX_configuration.pdf

In order to find out how many B-channels you need, you must take into account the number of incoming and outgoing messages per day. You can use the following figures:

- A **fax page** takes 1 minute to be transmitted. Failures and retries included.
- One **SMS** takes only a few seconds to be transmitted and can be neglected in this calculation.
- **Voice mails** should be treated like fax messages in this computation.

Another important point to consider is the time of the day when you are under the most stress (peak hours, rush hour). For example, the time in the morning when users listen to their new voice messages that have accumulated overnight, or when marketing starts with a fax campaign (serial fax) in the evening must be taken into account.

Examples:

Example a)

- A company has only two employees,
- the task of these employees is to send a large amount of mail merge faxes every day (e.g. mailings).
- A mailing consists of 500 fax messages à 2 pages (=1.000 pages)
- ixi-UMS Kernel configured with 4 B-channels.

Calculation:

As mentioned above, one fax page takes 1 minute to transmit. In the case of mailing, the transmission time is 250 minutes when using 4 B channels.



Please bear in mind: In these 4 hours, no other messages can be sent or received, except one channel has been reserved for the reception, which prolongs the delivery time.

Example b)

- Company with 100 employees
- The services Fax and Voice are used
- About 1000 fax pages are send and received per day
- The faxes are sent and received mainly between 8 a.m. and 6 p.m.
- Every telephone shall get a call forwarding (when busy) to the ixi-UMS Server

Calculation Fax:

$1.000 \text{ pages} \times 1 \text{ minute / page} = 1.000 \text{ minutes} = 16.6 \text{ hours}$

The delivery time for 1.000 fax pages with 1 B-channel would be about 16.6 hours. In order to be able to receive the faxes in the period between 8 a.m. and 6 p.m., at least 2 channels would be required.

During this period, no channel would be available for the feature Voice (ixi-UMS Voice-Mailbox). Moreover, you have to take into account that the distribution of the send and received fax messages is not consistent.

Calculation Voice:

At the company, roughly every 15 minutes, a call is forwarded to the ixi-UMS Enterprise Server. They want to make sure that there is always a free line available for the voice box.

In order to guarantee the availability of the voice box and the sending and reception of faxes for every user, at least 8 channels should be deployed.

For further information and calculation examples, please contact: sales@estos.de.

2.3.1 Required Hardware

Depending on which services you want to use, the requirements for the connection to the PBX are as in the following:

ixi-UMS Service Fax

- ISDN-board (CAPI 2.0) with Fax G.3-support **or**
- VoIP Connect Module for ixi-UMS with IP-PBX systems

ixi-UMS Service Voice

- ISDN-board (CAPI 2.0) **or**
- VoIP Connect Module for ixi-UMS with IP-PBX systems

ixi-UMS Service SMS

- ISDN-board (CAPI 2.0) **or**
- Data modem **or**
- GSM data adapter with SIM-card **or**
- X.25, X.31 oder TCP/IP für Large Accounts **or**
- VoIP Connect Module for ixi-UMS with IP-PBX systems **or**
- connection to the internet

ixi-UMS Service MWI

- ISDN-board (CAPI 2.0) **or**
- VoIP Connect Module for ixi-UMS with IP-PBX systems

Please keep in mind that you cannot use ISDN-boards in installations on a virtual operating system.

2.3.2 Types of ISDN Accesses

The following types of ISDN accesses are available (either from your telecommunication provider or in your PBX).

- **BRI - Basic Rate Interface (also known as S0)**

Allows a maximum number of two simultaneous connections

- **PRI - Primary Rate Interface (also known as S2M)**

Allows a maximum number of 30 simultaneous connections, only run in PP Mode

The "BRI" access can run in two different modes which are related to the method of addressing terminals (e.g. end users) on the access:

- **Point-To-Multipoint (PMP)**

This mode can only be applied with S0 accesses. PMP means that you have a number of so called MSNs (Multiple Subscriber Number) available on the access for addressing end users. The number of MSNs depends on whether you have a Telecom ISDN (up to 10) access or a PBX ISDN access (limit depends on PBX). Each MSN represents the address of one end user on this access.

- **Point-To-Point (PP)**

Instead of MSNs, so-called DDI digits (Direct Dial In) are used to address end users. This means you have a main number for the access and a number of dial in digits which may follow after the main number (usually at least 2). For example with two direct dial in digits, 100 (00-99) end users can be addressed.



By default, all the controllers must have the same type of access (PP/PMP). If the controllers shall serve different accesses (see chapter ixi-UMS Auto Attendant), the feature "MultiSite" must be set up.

Call number transfer to the ixi-UMS Server

For the operation of a UMS-Server, the transfer of the **recipient** number and the **sender** number are relevant. With inbound calls, the call numbers are canonized by the ixi-UMS Server into a number in the international E.123 format according to ITU-T E.164 (international numbering plan).

It may be desired that the phone numbers are transferred in international format. In this case the ixi-UMS Kernel needs an appropriate configuration.

- **Recipient number**

The ixi-UMS recipient number should be transferred to the ixi-UMS Server as extension/MSN. The ixi-UMS Server completes this to an E.123-standard number.

- **Sender number**

With the sender numbers sent to ixi-UMS by the PBX, "NumberingPlan" (NP) and "TypeOfNumber" (ToN) information must be consistent with the format of the number itself.

Example:

A UMS-message is received at the site in Munich from the sender number +49 89 123456. The transfer from the PBX / NTBA to ixi-UMS e.g. can be transferred via one of the following "information pairs" (NP/ToN):

NP (NumberingPlan)	ToN (TypeOfNumber)	Transferred Number
unknown	unknown/ISDN-E.164	089123456
ISDN - E.164	unknown/ISDN-E.164	089123456
ISDN - E.164	unknown/ISDN-E.164	12345
ISDN - E.164	national	8912345
ISDN - E.164	subscriber	12345
ISDN - E.164	international	498912345



When a number NP or (and) ToN "Unknown" is signaled by the PBX or the outside line, the internal number conversion rules of the ixi-UMS Kernel are activated. If ""Remove outside line access" is selected, for example, the ixi-UMS Kernel can remove this. In every other case, these rules do not apply.

• **Redirecting and Redirection Number**

When the ixi-UMS Voice-Mail Server with the inbound routing option "Route-by-Redirection" shall be used, this must be transferred to ixi-UMS as:

with DSS1
Redirection Number, ETSI ETS 300 207

with QSIG
divertingLegInformation, ECMA-174

Use ixi-UMS Voice-Mail Server and / or ixi-UMS Auto Attendant

When the features transfer / connect and/or callback shall be used, the following features must be supported in addition:

- ECT (ExplicitCallTransfer)
- HOLD
- Retrieve

Required for the redirect of calls (ixi-UMS Voice-Mail Server) and transfer to other extensions by the ixi-UMS Auto Attendant.

Additional information:

The service HOLD is needed to hold an active call in order to make the call transfer after having made a consultation call. Retrieve is needed when the consultation call or the call transfer was not successful in order to reactivate the held call.

Punkt-to-Multipoint (PMP)	Point-to-Point (PP), DSS1	Point-to-Point (PP), Q-SIG
HOLD/Retrieve (Call Hold, ETS 300 139) ECT (Explicit Call Transfer, ETS 300 367)	KEIN ECT möglich	Path Replace ECMA 175/176 Call Transfer ECMA 177/178



If the PBX does not support the ECT or a PP must be deployed, the ixi-UMS Server can "emulate" this feature. Please turn to ixi-UMS support department. This features is only possible with the ISDN-board Dialogic DIVA Server BRI.



For the use of ixi-UMS and ixi-UMS Auto Attendant on one system, the feature "MultiSite" can also be used. With it, it is possible to use a PMP and a PP in parallel operation on one server.

Remarks:

- In a lot of PBX's, Q-SIG offers the most features in combination with ixi-UMS and the ixi-UMS Voice-Mail Server or ixi-UMS Auto Attendant (callback, transfer). Because of this, we recommend to use the protocol Q-SIG with the deployment at a PP-connection.

Depending on the PBX, another device may be required for the use of "MWI".

2.3.3 Voice over IP

A connection of ixi-UMS via IP can be realized by means of ixi-UMS VoIPconnect via H.323 or SIP. The ixi-UMS Server hereby can initiate calls via a gateway or a gatekeeper / proxy. Requirements for the connection via VoIP in order to guarantee the functionality of the single services of ixi-UMS:

Fax:

Variant 1: T.38

Variant 2: "SoftFax" / "Fax pass trough" with RTP/RTCP with Codec G711 ALaw or μ Law, Clearchannel (no echo cancellation, no VAD, no ComfortNoise, etc.)

Voice:

RTP/RTCP with the Codecs G.711 ALaw or μ Law

SMS via fixed lines:

RTP/RTCP with Codec G711 ALaw or μ Law, Clearchannel (no echo cancellation, no VAD, no ComfortNoise, etc.)

Call number transfer to the ixi-UMS Server

For the operation of an UMS server, the transmission of the **recipient's** phone number and the **sender's** phone number are relevant for incoming calls. The numbers are canonized by the <% IXI-UMS%> server into an ITU-T E.164 (International Numbering Plan) number in the international notation according to E.123

• Recipient number

The ixi-UMS recipient number should be transferred to the ixi-UMS Server as extension/MSN. The ixi-UMS Server completes this to an E.123-standard number. In special cases, it may be desired that the numbers in international format be transferred from/to the telephone system. In this case, ixi-UMS Kernel needs a special configuration.

• Sender number

With the use of H.323, the sender number information of the "NumberingPlan" (NP) and "TypeOfNumber" (ToN) sent to ixi-UMS from the PBX must be consistent with the format of the number itself.

Example:

A UMS-message is received at the site in Munich from the sender number +49 89 123456. The transfer from the PBX / NTBA to ixi-UMS e.g. can be transferred via one of the following "information pairs" (NP/ToN):

NP (NumberingPlan)	ToN (TypeOfNumber)	Transferred Number
unknown	unknown/ISDN-E.164	089123456
ISDN - E.164	unknown/ISDN-E.164	089123456
ISDN - E.164	unknown/ISDN-E.164	12345
ISDN - E.164	national	8912345
ISDN - E.164	subscriber	12345
ISDN - E.164	international	498912345



When a number NP or (and) ToN "Unknown" is signaled by the PBX or the outside line, the internal number conversion rules of the ixi-UMS Kernel are activated. If ""Remove outside line access" is selected, for example, the ixi-UMS Kernel can remove this. In every other case, these rules do not apply.

In the SIP-protocol, the fields "NP/ToN" do not exist. The call number format always is "unknown".

With the use of SIP, the ixi-UMS Kernel must be set up in dependence of the transferred call numbers. Recommended is the transfer of the recipient number as "extension" (DDI/MSN) and the sender number as national (089 598741) or international (0039 1 6554788), this means always with prefix.

• Redirecting and Redirection Number

When the ixi-UMS Voice-Mail Server with the inbound routing option "Route-by-Redirection" shall be used, this must be transferred to ixi-UMS as:

with SIP: SIP Diversion Header

with H.323: H.450.3

Use ixi-UMS Voice-Mail Server and / or ixi-UMS Auto Attendant

When the features transfer / connect and/or callback shall be used, the following features must be supported in addition:

with SIP:

Standard SIP "INVITE" and "REFERE"

with H.323:

H.450.2 "Call Transfer supplementary service for H.323."

and

H.450.4 "Call Hold supplementary service"

Required for redirect of calls (ixi-UMS Voice-Mail Server) and transfer to other extensions by the ixi-UMS Auto Attendant.

Additional information:

The service HOLD is needed to hold an active call in order to make the call transfer after having made a consultation call.

Retrieve is needed when the consultation call or the call transfer was not successful in order to reactivate the held call.

For more detailed information about the connection / configuration of the ixi-UMS VoIPconnect for your PBX, please turn to ixi-UMS support department.

2.3.4 Call Number Transfer in E.164-Format

The ixi-UMS Kernel can be activated for the procession of call numbers in the international format E.164 (according to ITU-T E.164). In this case, neither information of the ToN are analyzed by the ixi-UMS Kernel, nor rules for the canonization are executed.

The call numbers must be transferred in the format <country code><area code><call number> (e.g. 4981424799585).

With outbound calls, for the "CallingNumTypePlan" and the "CalledNumTypePlan" are passed on to the ixi-UMS Kernel: E.164/international

In the configuration, the following differentiations can be made:

E.164 only inbound	With inbound calls, all the call numbers are signaled to ixi-UMS in E.164-format: Recipient number (Called Party Number) Sender number (Calling Party Number) Redirection Number
E.164 only outbound	With outbound calls, ixi-UMS passes on the number to the CAPI in E.164 format: Recipient number (Called Party Number) Sender number (Calling Party Number)
Inbound and outbound	All the call numbers are transmitted in E.164-format, as described above.



When making use of "SMS via fixed lines", the respective configuration must be selected.

2.3.5 MWI - Signaling

Basically, the MWI-service (address type "Alert") is used for the signaling of new messages by indication of a signal at the user's telephone. This is normally the light up of a signal lamp or the indication of a message at the telephone display.

When the signaling is not transmitted to the PBX e.g. via a modem, the following protocol properties are required, depending on the protocol:

- DSS1 - MWI, ETSI ETS 300 650
- QSIG - mWIActivate and mWIDeactice, ECMA-242
- VoIP/SIP - Message Waiting Indication, RFC 3842
- VoIP/H.323 - H.450.7 "Message Waiting Indication supplementary service"

This feature depends on which PBX is used. Further information about the configuration are listed at "Hardware - Alert".

2.4 Rendering Software

With the "rendering", the files and file attachments that are sent to ixi-UMS from the workstations, are converted into a fax-capable format by ixi-UMS.

This procedure allows the user to send faxes from the workstation out of formats like e.g. Microsoft Word, Excel, PowerPoint or also PDF-files by attaching the files to a message like with an e-mail.

Moreover, particular formatting (e.g. font, font size) of the text in the e-mail body can be depicted on the fax coverage page.

In order to be able to render a Word-file, for example, the respective application must be installed on the ixi-UMS machine, on which the ixi-UMS Render Connector is installed. With most of the applications, the conversion is realized via the "Print To"-method of the respective application.

Please note that for the rendering of files, a suitable application must be installed on the server and set up under the installation-account:

- For the sending of Office-documents (Word, Excel, PowerPoint),:
 - Office 2010, 2013 and higher
 - OpenOffice.org 4 and higher
 - LibreOffice 6 and higher
- For the sending of PDF-documents:

Application with that PDF-files can be opened and printed. You can use the following for this:

 1. ixi-UMS Integrated PDF Rendering - an application delivered by estos GmbH (liable to costs)
Remark to the copyright: ixi-UMS Integrated PDF Rendering uses PDF Print from VeryPDF Software Inc.
 2. An application, to that the print job can be transferred via the "Print To"-entry, e.g. Acrobat Reader.
 3. Another software, e.g. pdprint of the company PDF Tools AG, to that the print job is transferred via a command line directly.

3 Installation

Before you start the ixi-UMS Kernel setup,

- **all older Version must be de-installed installed version completely**
- the ixi-Framework in Version 7.00 or higher has to be installed
- you have to be logged in with an administrator account
- the ISDN-board / V-CAPI / XCAPI should be installed and configured (this can also be done subsequently)

The setup contains no configuration wizard.

All the settings have to be performed in the Microsoft Management Console after the installation in the ixi-UMS Kernel Configuration Snap-In.

After the installation, the following settings are active by default:

- Reports in HTML is active
- incoming faxes are delivered as PDF and TIFF
- no printing of incoming messages

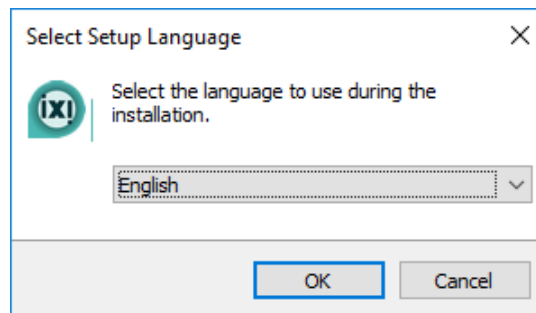
After the installation, the settings in the ixi-UMS Kernel Configuration of the Location must be edited.

Update Installation

Installations with ixi-UMS less than 7.00 cannot be updated.

3.1 Select Language

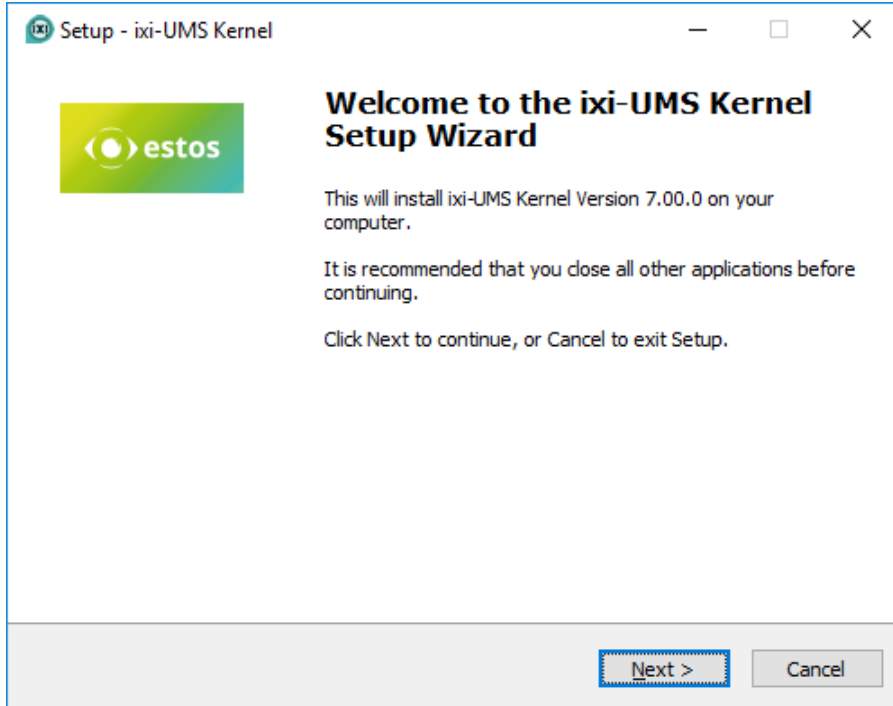
The first step is to select the setup language. The selected language is valid for the first opening of the Snap-In in the Microsoft Management Console, also.



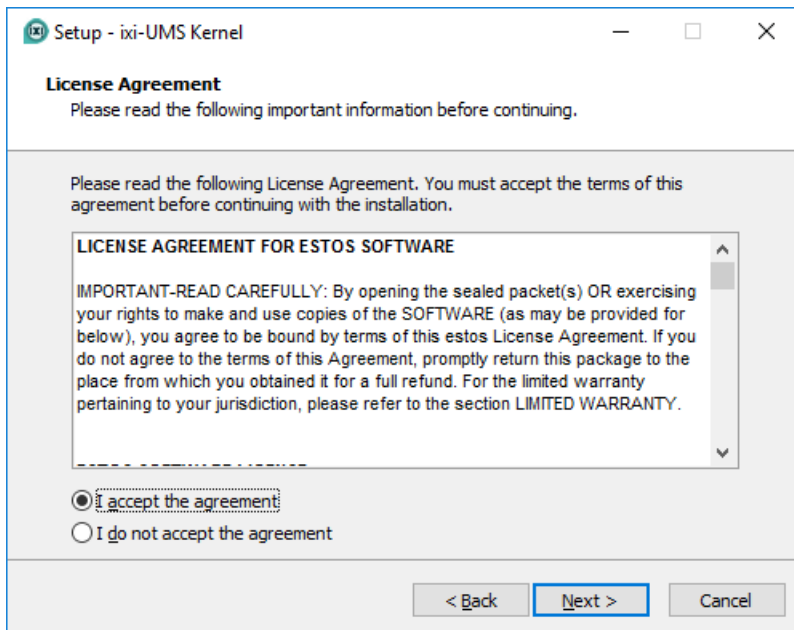
The language of the ixi-UMS configuration can be changed later

3.2 Welcome

The "General Wizard" starts with the obligatory "Welcome" screen.



3.3 License Agreement



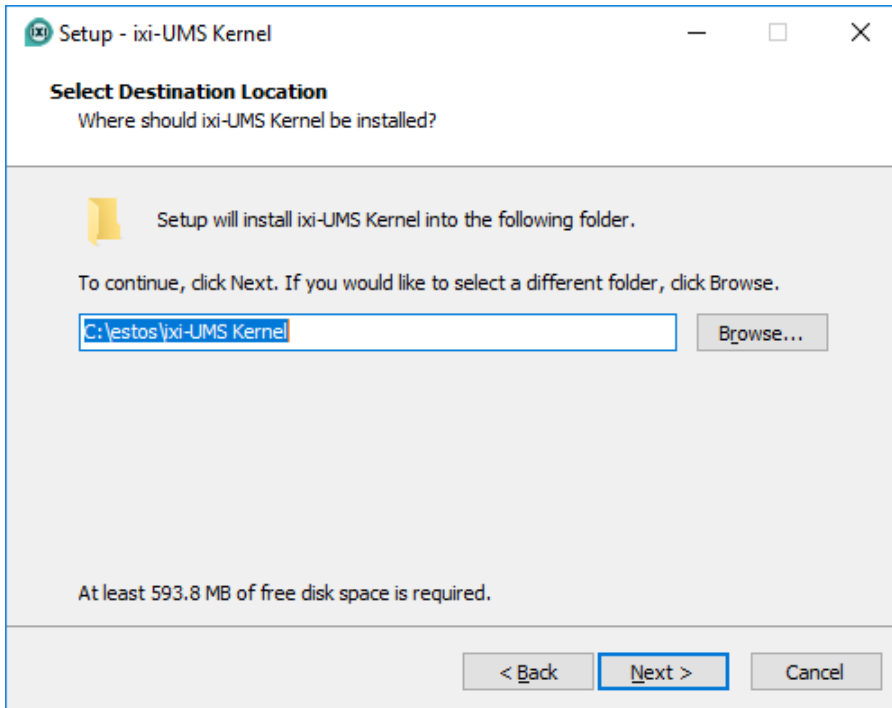
The end user's licence agreement is indicated.

Peruse this carefully and choose "I accept..."

Only then the installation can be continued.

3.4 Choose Destination Location

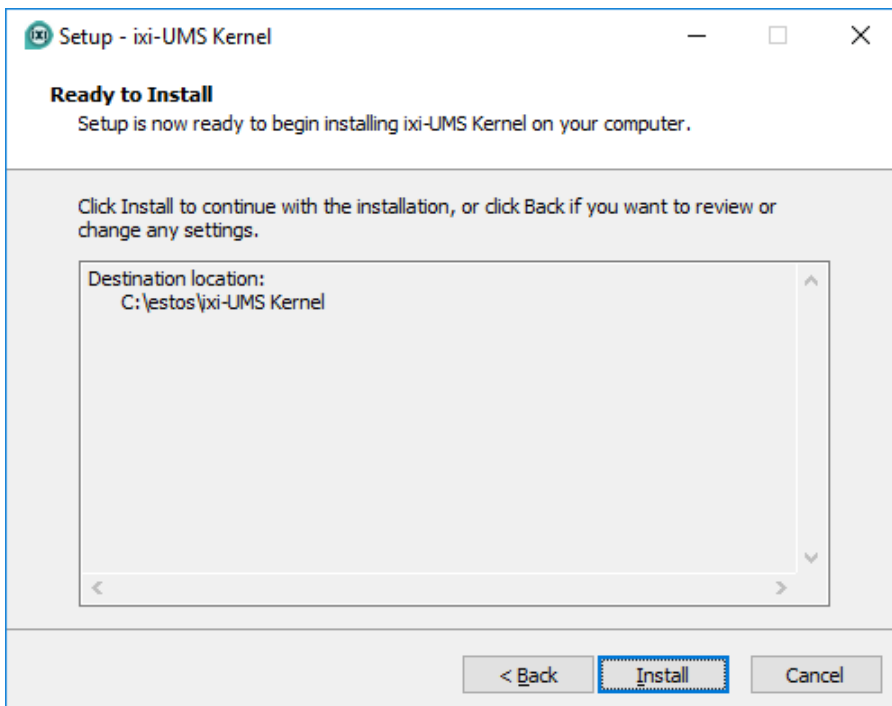
First of all, the destination location has to be chosen. The directory in that the ixi-Framework has already been installed is suggested.



estos GmbH recommends to sum up all the ixi-UMS components in a subdirectory. You can get help more quickly that way.

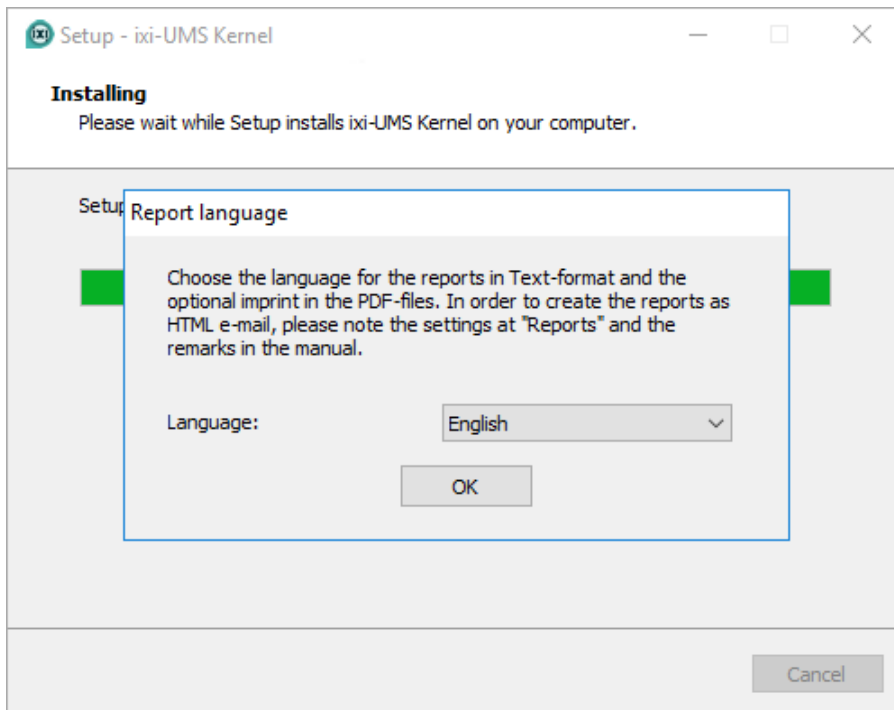
3.5 Start Installation

After the settings have been made, the necessary files are copied to the chosen directory.



3.6 Report Language

The next step is to select the language for the default language of the sending reports and the default announcement language. The language can be changed in ixi-UMS Kernel Configuration.



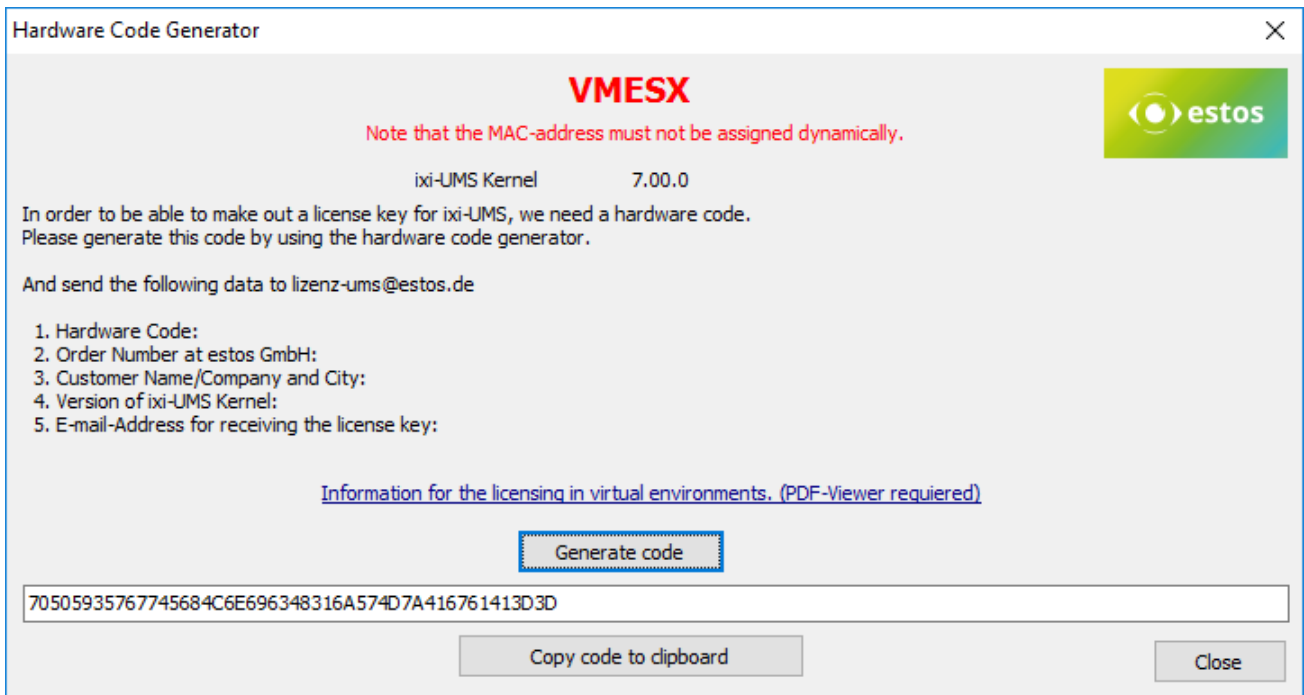
3.7 Printer Installation

Depending on which operating system the ixi-UMS Kernel is installed, a Windows warning messages appears before the printer driver is installed. By clicking on "Install", the installation is confirmed.



3.8 Hardware Code Generator

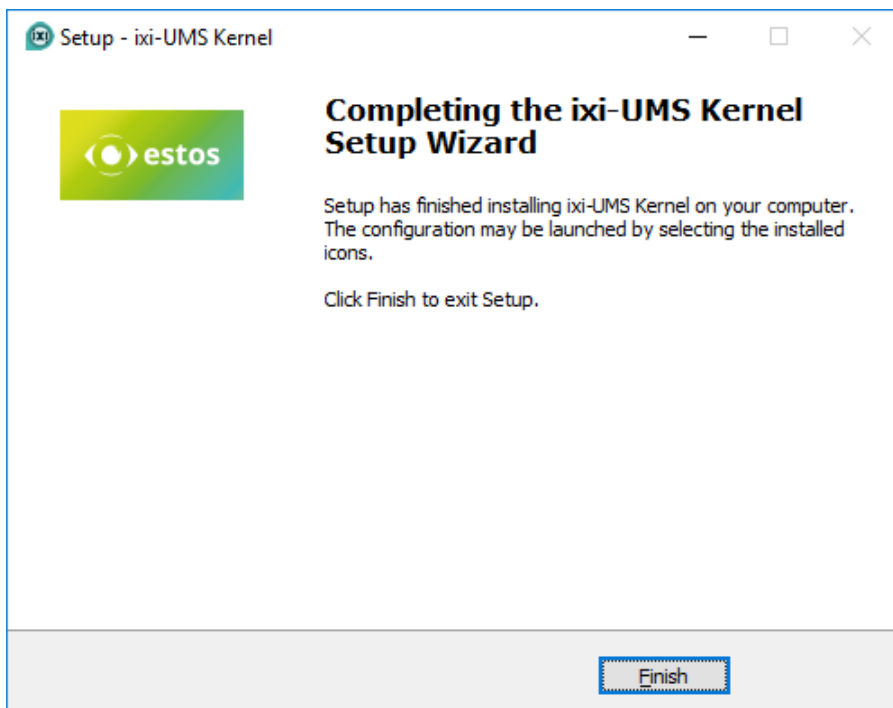
At the end of the installation, the hardware code generator is started. The code is needed for the Creation of the License. In order to generate the hardware code, please press the button "Generate code".



The Hardware Code Generator can be started again at any time via the "License" menu.

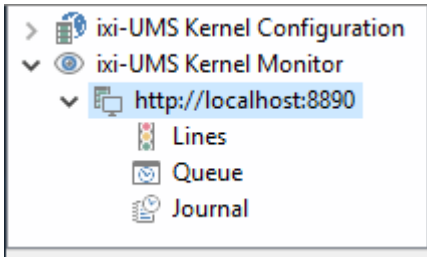
3.9 Finish

The installation is finished with a respective message.



5 ixi-UMS Kernel Monitor

Via this snap-in, all the current processes of the ixi-UMS Kernel can be controlled.



Changing the Language of the Snap-In

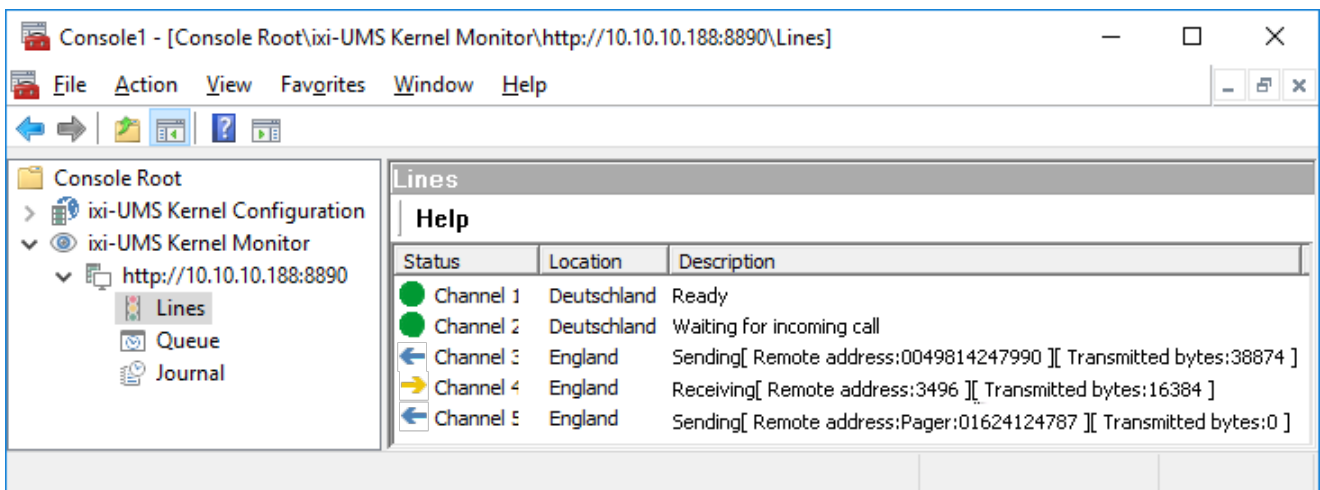
It is explained at How To how the language of the MMC can be changed after the installation.



If only this snap-in is registered, the ixi-UMS Kernel configuration cannot be accessed.

5.1 Channels

The line view gives you information about the current status of the ixi-UMS Kernel lines. When the ixi-UMS Kernel is deployed in MultiSite-operation, the assigned locations to the channels are displayed.



The following status are possible:

Channel 1 Inaktiv	Channels are initialized or the location is deactivated
Channel 1 Start...	Channels are started
Channel 2 Ready	Idle state
Channel 1 Waiting for incoming call	Idle state
Channel 1 Dialing[Remote address:00491624	Dialing
Channel 2 Sending[Remote address:004981	Sending of data , Information about the destination number and the bytes already transmitted
Channel 1 Incoming call, not yet connected[Remc	A call comes in and is waiting to be accepted
Channel 1 Receiving[Remote address:3496 . . .	Reception of data, Information about the sender number and the bytes already transmitted



If SMS-modules are configured, they are additionally displayed as blue channel.



5.2 Queue

The "Queue" displays all outgoing messages currently pending for processing, sorted by location and priority. The columns show the following information:





Job Type	Indication about the type of messages (Fax, Voice, SMS)
Scheduled Send Time	Information about the time of the next try
Recipient	To which number the message is sent
Sender	Sender of the message
Job State	Information about whether the job is done or is waiting to be processed
Tries	Number of transmission tries
FileName	Information about the files name - only relevant for administrative purpose

Location / Priority	Job Type	Scheduled Send Time	Recipient	Sender	Job State	Tr...	FileName
+	Schweiz						
-	England						
-	High Priority (1 Jobs)						
	Fax	01.04.2020 15:23:29	034567856	7123	Waiting	0	3794916209675-00-050
-	Normal Priority (4 Jobs)						
	Fax	01.04.2020 15:23:30	0896465454	7123	Waiting	0	3794916210696-00-092
	Fax	01.04.2020 15:23:30	081424799356	7123	Waiting	0	3794916210784-00-017
	SMS	01.04.2020 15:23:28	01738 182840	7622	Waiting	0	3794916208652-00-071
	SMS	01.04.2020 15:23:30	01738 182840	7622	Waiting	0	3794916208652-00-071
-	Low Priority (2 Jobs)						
	Fax	02.04.2020 02:00:00	09654		Waiting	0	3794916208652-00-032
	Fax	02.04.2020 02:00:00	01231		Waiting	0	3794916208652-00-027
	Fax	02.04.2020 02:00:00	01231		Waiting	0	3794916208652-00-053
+	Deutschland						

Using the context menu on a job with the "JobJam" = wait, the priority can be changed, the job canceled or the dispatch can be initiated.

-  Messages with LOW priority are marked as "DONE" by deleting them, but are only deleted in the queue after the configured time.
-  The columns (Job Type, Recipient, etc.) can be re-sorted for the current MMC session.

Via the "Buttons", the following features can be executed:

-  Refreshes the view
- Auto-Refresh Setting for updating the display, the setting is only valid for the current display
-  Deletes a job from the queue
-  Lets you change the priority of a job
-  Lets you send a test message

By double-click on a job in the list view, you can see the details of the job.

5.2.1 Job Details

The Job Details window displays the following information:

- From:** 7123 [mcDonald@domain.net]
- To:** +41781654897311
- Subject:** Offer - ixi-UMS
- Date:** 02.04.2020 08:09:00
- Priority:** Normal Priority
- Service:** FAX

Navigation tabs: General (selected), Connection, Transmission

Fields:

- Type: OUT
- Billing code:
- Connector directory: MSCConnInst1
- Last Modification: 02.04.2020 08:09:00
- Filename: 3794976540324-00-000001-2285-0.fax
- Associated file: C:\estos\ixi-UMS Kernel\QueueRoot\Out\Deutsch

Buttons: FAX message (with icon), Close

Double-click on a job in the list view to see job details. The view and the information available varies depending on the job type and the information available from CAPI.

If you have enabled "Archive transferred files", you can see the fax message to the job entry by opening them via double-click on the fax message symbol.

General

It is displayed from which Connector the message comes, the information from the header field "Department" as well as the file name of the OUT-job in the ixi-UMS Kernel directory structure.

5.2.2 Sending Test Messages

In the queue, a test message can be sent via the button

The Send Test Message dialog box contains the following fields and options:

- Fax/SMS/Voice/MWI:**
- Recipient Number: +4930165874
- ISDN Originator Address: 7856
- Message Type: Fax (dropdown menu with options: Fax, Voice, SMS, MWI on, MWI off)
- Send using specific location
- Location: Default (dropdown menu with options: Default, Muenchen)
- Buttons: Send, Cancel

The "Sending Test Messages Feature" helps you to find out whether ixi-UMS Kernel is configured correctly.

It is obligatory to enter a recipient number and to determine the service to be used: Fax, SMS, Voice or MWI.

If multiple locations are set up, you can specify which location should be used to send the message.

Note:

Some PBX's do not allow outside calls if no **ISDN Originator Address** is specified. If ixi-UMS Kernel is connected to such kind of a PBX, please specify an appropriate ISDN Originator Address.

5.3 Journal

All sent and received messages are listed in the journal. The entries are grouped by location. If only one location is configured, the grouping column can/should be moved back to the line with the column headings.

	Transmission time	Sender Address	Recipient address	Email address	Subject	Transm
Location : Deutschland						
←	24.03.2020 12:04:31	+49 8142 4838	00304654895	MayerS@domain.net	Bestellung per FAX	1
←	24.03.2020 11:05:05	+49 8142 48387123	01738281840	Frank.Schmidt@dor	Bitte rufen Sie mich zurück	1
→	24.03.2020 11:04:44	+4917325622	+49 8142 48387123	Frank.Schmidt@dor	-	1
→	24.03.2020 11:03:29	+4181424799356	+49 8142 48384123	Vertrieb@domain.ne	-	1
←	24.03.2020 10:26:14	+49 8142 48387123	17123	MayerS@domain.net	-	1
→	24.03.2020 09:49:31	+4963987545	+49 8142 48387123	Frank.Schmidt@dor	-	-
Location : England						
←	24.03.2020 12:04:22	+44 98 56474123	00789541122	McMarrow@domain.	Order for ixi-UMS	1
←	24.03.2020 12:04:22	+44 98 56474189	0038797895	Smith@domain.net	Order: 4578/121 Delivery α	0
Location : Schweiz						
→	24.03.2020 09:43:20	+4181424799356	+41 44 9856474123	-	-	-

The following functions can be carried out via the "buttons" in the menu:

	Refreshes the view
	Distribute columns to the entire width
Show date/Time...	Switching of the time- and data view from single-column to two-column
Show numbers...	Toggle the display whether all phone numbers are in the format +49.... are displayed or the actually dialled and transmitted call number
	open selected entry
	Exports the current journal view into the file which could be of following formats: Excel File, Text File, HTML File, XML File.
	Report generation
	Stores the current data base file using the current date as a name and also the corresponding archive files in DB\Backups and creates a new empty database.
Open Backup	If opens a database provided by a backup
Resend Jobs	Marked UMS-messages can be provided to be resent.



ixi-UMS regularly and automatically backs up the journal database. The interval can be set in the ixi-UMS Kernel configuration in the Global Settings



The entries of the Journal database can also be exported using different tools.

5.3.1 Columns and symbols

Location	Date	Time	Sender Address	Recipient address	Email address	Subject	Transmission Tries
Location: Olching	20.04.2020	07:39:23	+49 8142 47995656	3496	MayerS@domain.net	Offer to estos ProCall	1
	20.04.2020	07:39:41	+49 8142 47995656	01738182840	MayerS@domain.net	Please Call me Back	1

The following columns and information are provided:

Typ	incoming message / report outgoing message
Status	positive connection no connection could be established
Dienst	fax message short message (SMS) voice mail voice mail - no data have been recorded
Übertragungszeitraum oder Datum und Uhrzeit	Transmission period or date and time Columns can be set
Senderadresse	Sender information, optional display in +49 format
Empfänger Adresse	Number to which the message is sent, optional display in +49 format
Email Adresse	E-mail address of the sender (and recipient if activated at "Extended User Lookup")
Betreff	Optionally the subject of outgoing messages can be logged
Übertragungsversuche	Date/Time of transmission

5.3.2 Filter - Grouping

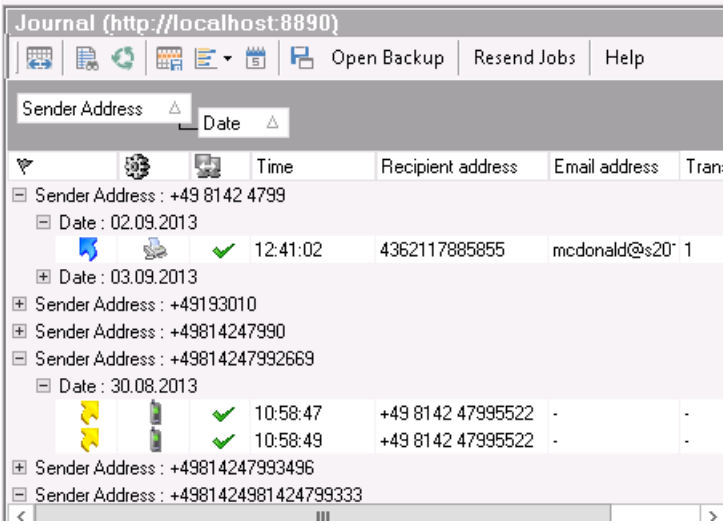
The messages can be sorted or grouped by means of different methods.

- **Filter:**

You can limit the number of transmission protocols by using the list view and applying a filter.

You can apply a filter on the list view by clicking on the button on the right of the column header.

Transmission time	Sender Address	Recipient address	Email address	Subject	Transmission Tries
02.06.2017 15:41:15	+49 758 62545698	00814...	(All)	-	-
02.06.2017 15:41:12	+49 758 62545622	00814...	(Custom...)	Message fron...	2
02.06.2017 15:40:33	+49894785312	+49 89...	<input type="checkbox"/> +49 8142 4799552	-	2
02.06.2017 15:36:53	+49 758 62545622	00814...	<input type="checkbox"/> +49 8142 47995522	-	1
02.06.2017 15:35:51	unknown	+49 30...	<input type="checkbox"/> 01624124787	-	3
02.06.2017 15:35:46	+49894785312	+49 89...	<input type="checkbox"/> 4362117885855	-	-
02.06.2017 15:35:14	+498947852669	+49 89...	<input type="checkbox"/> 491624124787	-	1
02.06.2017 12:55:36	5658	01624...	<input type="checkbox"/> 498142479943	Test Messag...	1

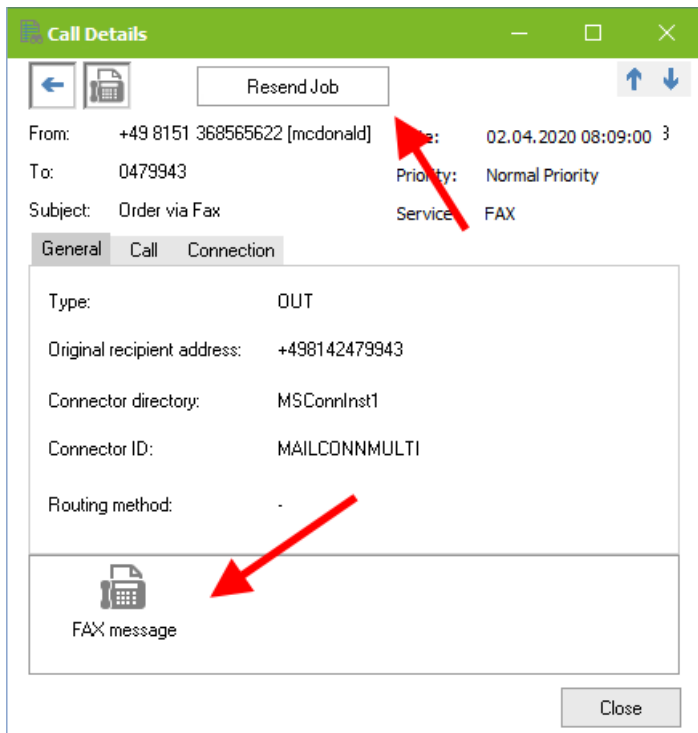
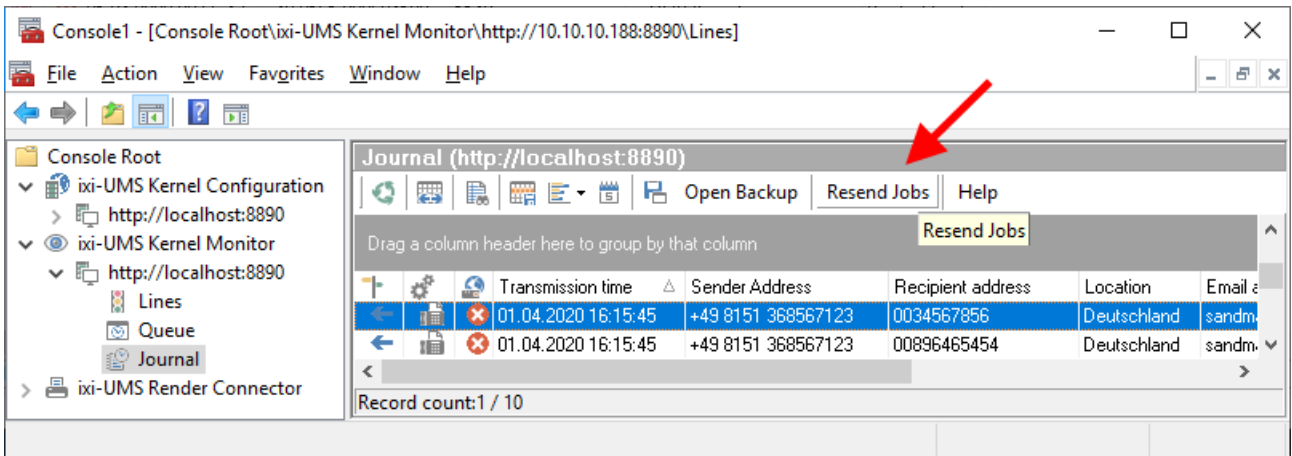


• **Groups:**

You can group the list view by particular columns. Just drag the column header to the gray area above the list view and drop it there.

5.3.3 Resend Messages

In order to be able to resend a message out of the journal, Archiving of Messages must be enabled imperatively. In the journal view, single or multiple messages can be selected and be created in the queue again via the button "Resend Jobs".



When you have opened a journal entry and the archived file exists, the button "Resend Job" is available.

5.3.4 Journal Details

By double-click on a transmission protocol, more details about the transmission and a link to archived faxes are indicated. This fax message is opened by double-click on it.

In the upper part of the details, the general information to the message is displayed.

From	Sender address
To	Recipient address
Subject	Subject of the message (can be switched off, see Journal Configuration)
Date	Sendind date and time
Priority	Priority with outgoing messages, adjusted by the sender
Service	Address type

At the tabs below, further details to the job are displayed.

The detailed information displayed depends on whether the message is an incoming or outgoing, successfully sent or canceled message. The language of the status texts depends on the set default language.

The screenshot shows a window titled 'Call Details' with a green header. It contains a 'Resend Job' button and navigation arrows. The message details are as follows:

- From: +49 8151 368565622 [mcdonald]
- To: 0479943
- Subject: Order via Fax
- Date: 02.04.2020 08:09:00
- Priority: Normal Priority
- Service: FAX

Below these are tabs for 'General', 'Call', and 'Connection'. The 'General' tab is active, showing the following details:

- Type: OUT
- Original recipient address: +498142479943
- Connector directory: MSCConnInst1
- Connector ID: MAILCONNMULTI
- B-Channel: 2
- ISDN Controller: 2
- VoxML URL: -
- Routing method: -

At the bottom, there is a 'FAX message' icon and a 'Close' button.

• General

Type

Incoming / outgoing

Original recipient address

Recipient number

Connector directory

Name and ID of the Connector, at that the messages have been created

B-Channel

Number of the B-channels used for the transmission

ISDN Controller

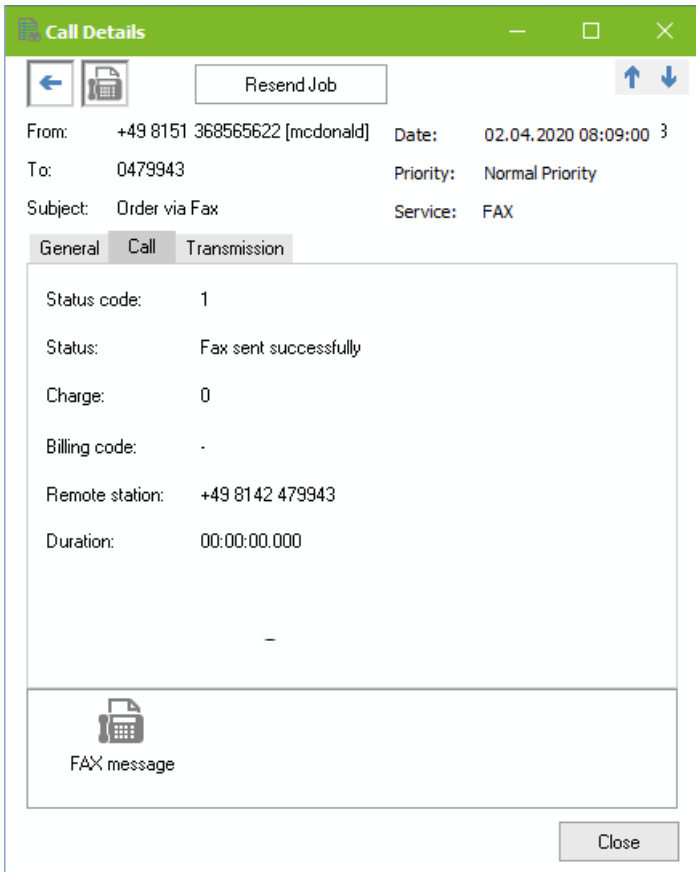
ISDN Controller used for the transmission

VoxML URL

[only incoming]: recalled VoxML URL

Routing method

[only incoming]: used routing method



• **Call:**

Status code

ISDN code

Status

Text to the ISDN code

Charge

Number of charge units (only if supported by the PBX)

Billing code

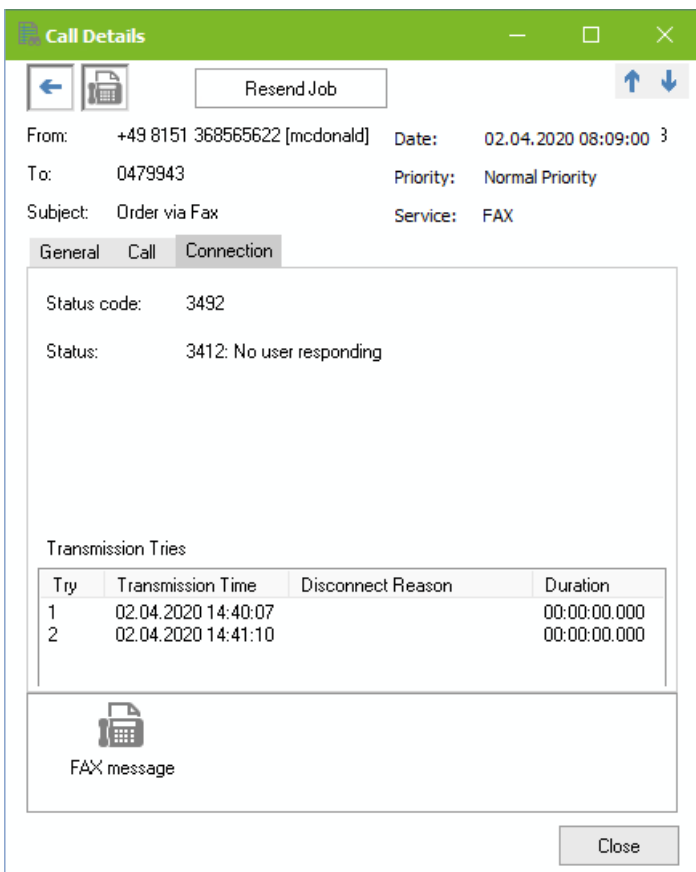
Complies with the field "Department"

Remote station

Number transmitted by the recipient

Duration

Duration of the message transfer



• **Connection / Transmission**

The description of the tab depends on whether the data transmission was successful or the connection was interrupted.

Status Code

Code transferred to the ixi-UMS Kernel by the CAPI

Status

Text reflecting the meaning of the code

Resolution

Only with fax messages

Speed

Transmission speed


Number of pages

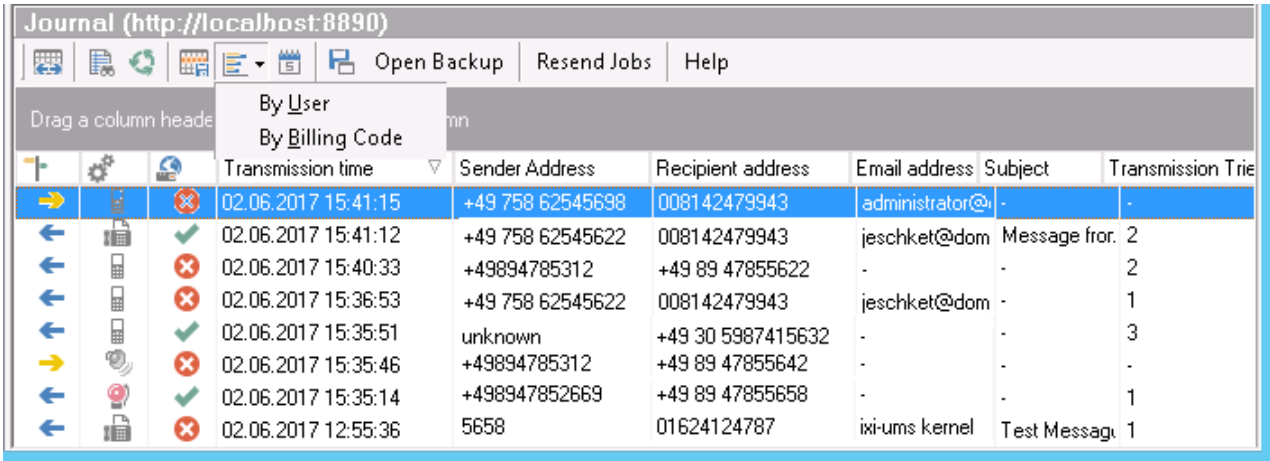
Number of sent pages

Transmission attempts

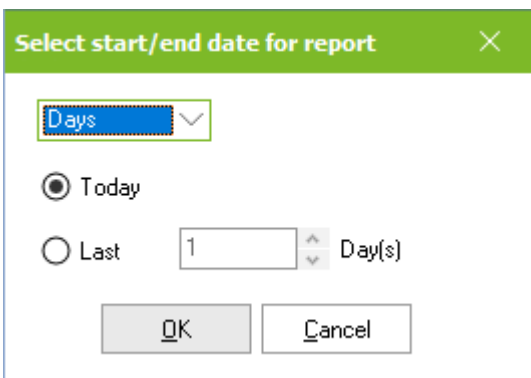
If there was more than one transmission attempt, the reason for the disconnect is displayed for every attempt - if available.

5.3.5 Journal Reports

In the journal, you can create reports by clicking on the button . You can choose between two types of reports:



Transmission time	Sender Address	Recipient address	Email address	Subject	Transmission Trie
02.06.2017 15:41:15	+49 758 62545698	008142479943	administrator@	-	-
02.06.2017 15:41:12	+49 758 62545622	008142479943	jeschket@dom	Message from	2
02.06.2017 15:40:33	+49894785312	+49 89 47855622	-	-	2
02.06.2017 15:36:53	+49 758 62545622	008142479943	jeschket@dom	-	1
02.06.2017 15:35:51	unknown	+49 30 5987415632	-	-	3
02.06.2017 15:35:46	+49894785312	+49 89 47855642	-	-	-
02.06.2017 15:35:14	+498947852669	+49 89 47855658	-	-	1
02.06.2017 12:55:36	5658	01624124787	ixi-ums kernel	Test Messag	1



Select start/end date for report

Days

Today

Last Day(s)

OK Cancel

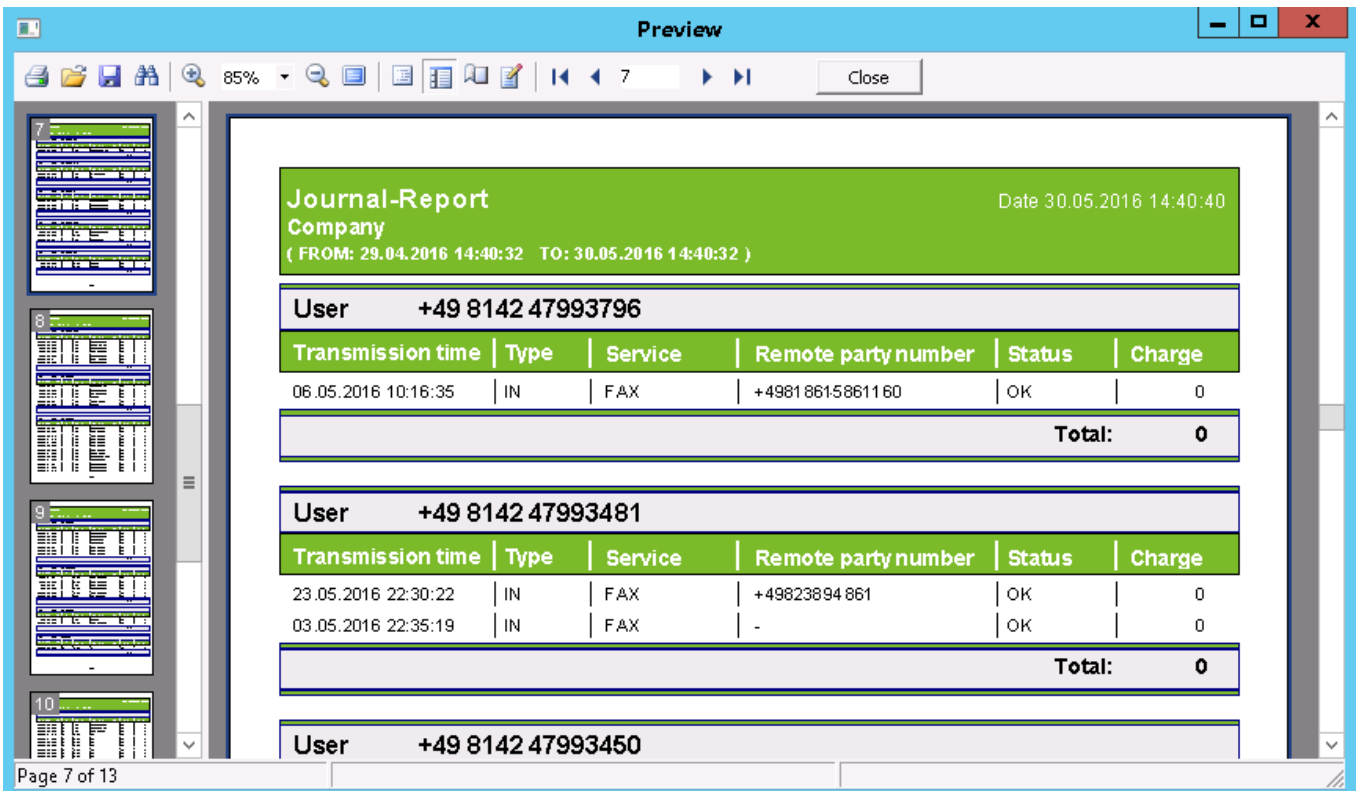
by user

Here the data are grouped according to sender number or recipient number. By means of the "sender = recipient number of a user", an overview of outgoing and incoming transfers is displayed.

- **by billing code**

An overview of the transfers is created by means of the billig code entered at the user.

The overview can be created per day, per week or per month. The created report can be stored and printed.



Preview

Journal-Report Date 30.05.2016 14:40:40

Company (FROM: 29.04.2016 14:40:32 TO: 30.05.2016 14:40:32)

User +49 8142 47993796

Transmission time	Type	Service	Remote party number	Status	Charge
06.05.2016 10:16:35	IN	FAX	+49818615861160	OK	0
Total:					0

User +49 8142 47993481

Transmission time	Type	Service	Remote party number	Status	Charge
23.05.2016 22:30:22	IN	FAX	+49823894861	OK	0
03.05.2016 22:35:19	IN	FAX	-	OK	0
Total:					0

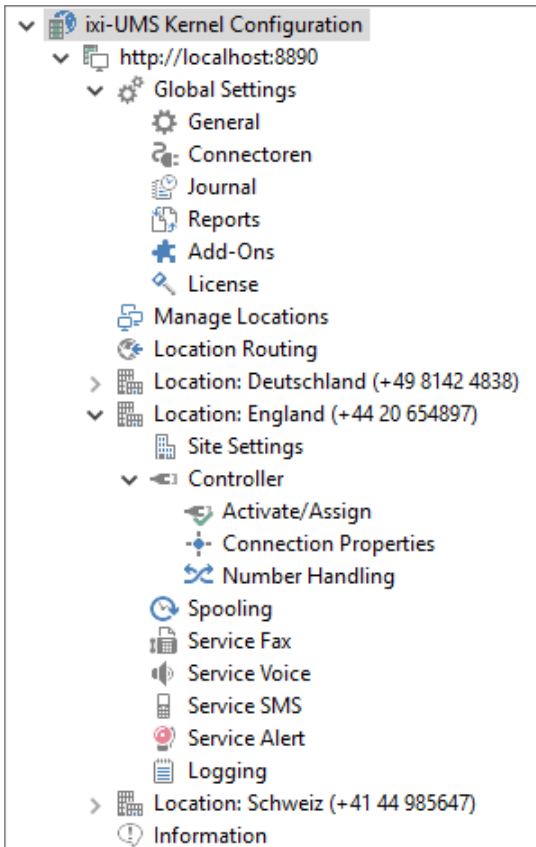
User +49 8142 47993450

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6 ixi-UMS Kernel Configuration

This snap-in can be used to configure all ixi-UMS Kernel versions 7.00.

Via right mouse-click on the ixi-UMS SnapIn (Example: "ixi-UMS Kernel Configuration") and "Add computer", other ixi-UMS Components from version 6.x on, which are installed in the network, can be added to the console and therewith also be configured.



The configuration is divided into "Global Settings" and the configuration of the individual locations.

The menu item "Location Mapping" is displayed if more than one location has been created.

Changing the Language of the Snap-In

It is explained at Additional Informations how the language of the MMC can be changed after the installation.

6.1 Global Settings

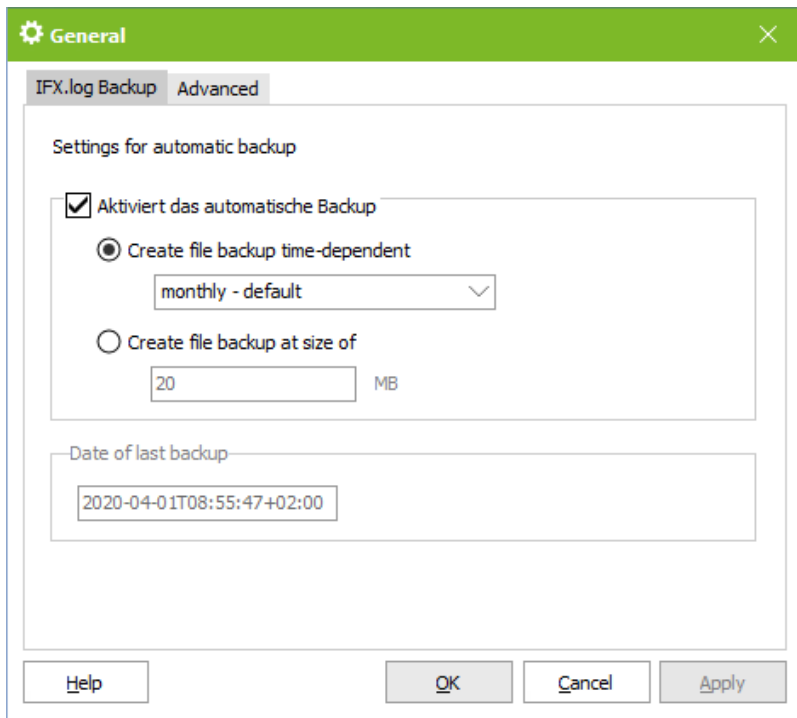
The settings under "Global settings" are valid for all locations.

6.1.1 General

The settings available here can be changed optionally.

6.1.1.1 IFX.log Backup

Parallel and independent of the data base-controlled ixi-UMS Journal, the processes to all the incoming and outgoing messages are stored in the text file "IFX.log" in the directory \ixi-Framework\Logs.



In order that the file does not get too large and cannot be opened any more, it should be re-created regularly.

Depending on how many faxes are sent per day / week, it can be required to execute the backup more often than determined by default.

The backup can be done **time-dependent** and at the same time as the journal backup (recommended) or when a **fixed file size is reached**

The "semicolon-separatedfile can be opened with the text editor or imported, e.g. into MS Excel.

6.1.1.2 Advanced

ixi-UMS Kernel can send an e-mail if

- there are problems with forwarding outgoing messages to the queue
- received fax data cannot be converted to a Tif file

The **sender e-mail address** as well as the **recipient e-mail address** can be chosen arbitrarily and can be changed any time.

The screenshot shows a configuration window titled "General" with a sub-tab "Advanced". The "Notification on error" section contains the following text: "The notification is executed once if an error occurs during processing jobs in the kernel queue. The E-Mail is only send once, to enable the notification again push the 'Reset Error E-Mail' button." Below this text is a checked checkbox labeled "Generate Error E-Mail". There are three input fields: "E-Mail-Sender" with the value "ixi-UMS_Kernel@idomain.net", "E-Mail-Receiver" with the value "admin@domain.net", and "Error E-Mail Connector Directory" with a dropdown menu showing "MSComInst1". A "Reset Error E-Mail" button is located below the dropdown. At the bottom of the window are buttons for "Help", "OK", "Cancel", and "Apply".

In order to receive an e-mail notification it has to be determined, in which **Connetcor-directory** it shall be created. The directory of an installed ixi-UMS Connector has to be selected.

An e-mail notification is only generated once!

Once the e-mail has been sent, a new delivery must be activated via the button "Reset error e-mail".

Please note that some errors are only one-off / temporary processing errors and will not affect the normal delivery of <% IXI-UMS %> messages.

6.1.2 Connectoren

All the "Connector-Directories" must be stored centrally in a subdirectory.

These are not the installation directories of the respective Connectors but the directories, from which the outgoing messages are picked up by the ixi-UMS Render Connector or ixi-UMS Kernel (Connector OUT-directory) and in which incoming messages are stored (Connector IN-directory).

A central directory for the transfer between ixi-UMS Render Connector and ixi-UMS Connector as well as a central directory between ixi-UMS Render Connector and ixi-UMS Kernel are required.

The structure in these directories is the same. The subdirectories are refreshed / created when restarting the ixi-UMS Render Connector.

Even in distributed environments, the specified directories only need to be changed in special cases.

Connector	Routing entry
MSConnInst1	*

Connector root directory

Interface between ixi-UMS Render Connector and ixi-UMS Connectors. If the ixi-UMS Render Connector is installed on a different server, the value should be the same as the Kernel connector root directory.

KernelConnector root directory

Interface between ixi-UMS Render Connector and ixi-UMS Kernel.

With the installation, the Connector "ixi-UMS Kernel Test" is entered at **Connector Routing Entries**, which is meant to provide a storage directory for the first tries (e.g. sending faxes out of the queue).

If you have multiple Connectors connected to your ixi-UMS Kernel, you can specify which Connector should handle which incoming messages (by recipient address).

Connector	Routing entry
IXI-UMS Kernel Test	*

For this purpose you must specify the Connector name (directory name) and a routing entry for the Connector.

The routing entry may contain wildcards (*, ?).

Note: The routing entry must be configured as follows:

+49 8142 4838*

+4981424838* with E.164



If messages are received whose recipient number cannot be assigned to an ixi-UMS Connector because of the configuration, these messages are deposited in the "NoRoute" directory and must be copied to an existing ixi-UMS Connector manually.

6.1.3 Journal

The following are the settings for datanbased the ixi-UMS Kernel journal.

6.1.3.1 ixi-UMS Kernel Journal

In the journal database all data of incoming and outgoing ixi-UMS messages are stored.

6.1.3.1.1 General

The settings here have influence on the performance of the journal. It can be determined which information is logged and how the journal shall be indicated. The archiving of messages can also be activated here.

Journal active

Enables/disables journal logging. When disabled, no journal records will be written.

Logged messages types in journal

Defines the message type witch logged in the journal.

Substitution character

Defines the substitution character used in order to garble parts of the log-information - e.g. parts of the "dialed" number.

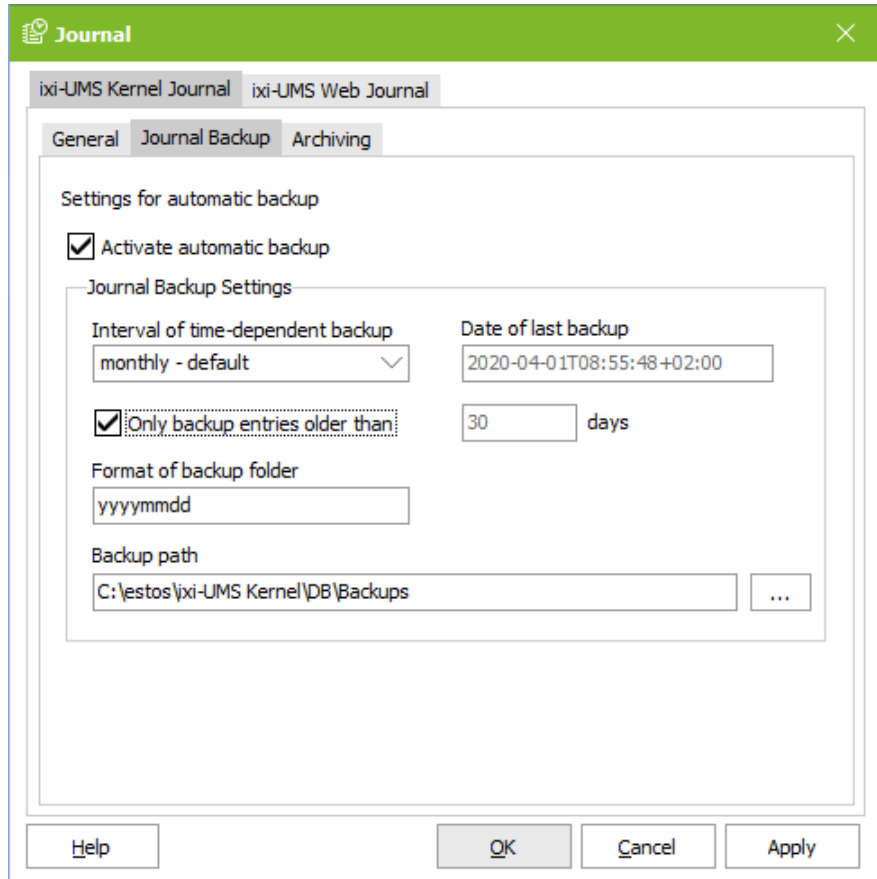
Log "Subject" field	The subject field is logged in the journal. You can hide the last x characters from the field (e.g. they will be replaced with the substitution character).
Log "Sender Address" field	Sender address is written to the journal. You can hide the last x characters from the field (e.g. they will be replaced with the substitution character).
Log "Recipient Address" field	Recipient address is written to the journal. You can hide the last x characters from the field (e.g. they will be replaced with the substitution character).
Number of hidden characters	It is determined with the option whether and how many digits can be overwritten with the replacement character.
Company name (for journal report)	The value stated here is added to the report.

6.1.3.1.2 Journal Backup

The journal data base should be emptied regularly, as otherwise it takes to long to open the data base in order to display the journal in ixi-UMS Kernel Monitor

Depending on how many faxes are sent daily / weekly, it may make sense to perform the backup more often than in the default setting (monthly).

Should older entries be also still available (e.g. for ixi-UMS Web Journal) , can be fixed how many days should be preserved.



For every backup, an own sub-directory (**backup folder**) is created. The designation can be entered at "Format of..". Default: yyyymmdd = YearMonthDay = 20180516

When "Archiving" is activated, the archived files should be stored to the stated path with the journal data base. A backup can be opened via the journal display, with using IBQuery or via ODBC.

6.1.3.1.3 Archiving

By default, all incoming and outgoing ixi-UMS messages are sent/forwarded to the recipient. Additionally, they can be archived locally in the ixi-UMS Kernel = archive.

If archiving is active, the ixi-UMS messages can be opened and re-sent via the detail view in queue and journal.



Archiving is mandatory if ixi-UMS Enterprise is to be used without a mail server.

Archive associated files

Activates and deactivates the archiving of faxes. If the archiving is active, the fax can be opened via the detail view in the queue and the journal and can be resent.

In archive directory

The ixi-UMS messages are stored as a file in the specified directory. Fax messages are stored as .sff and can only be opened using a special viewer.

A local directory or a directory in the network can be stated. Determines the path to the directory in that the messages are stored.

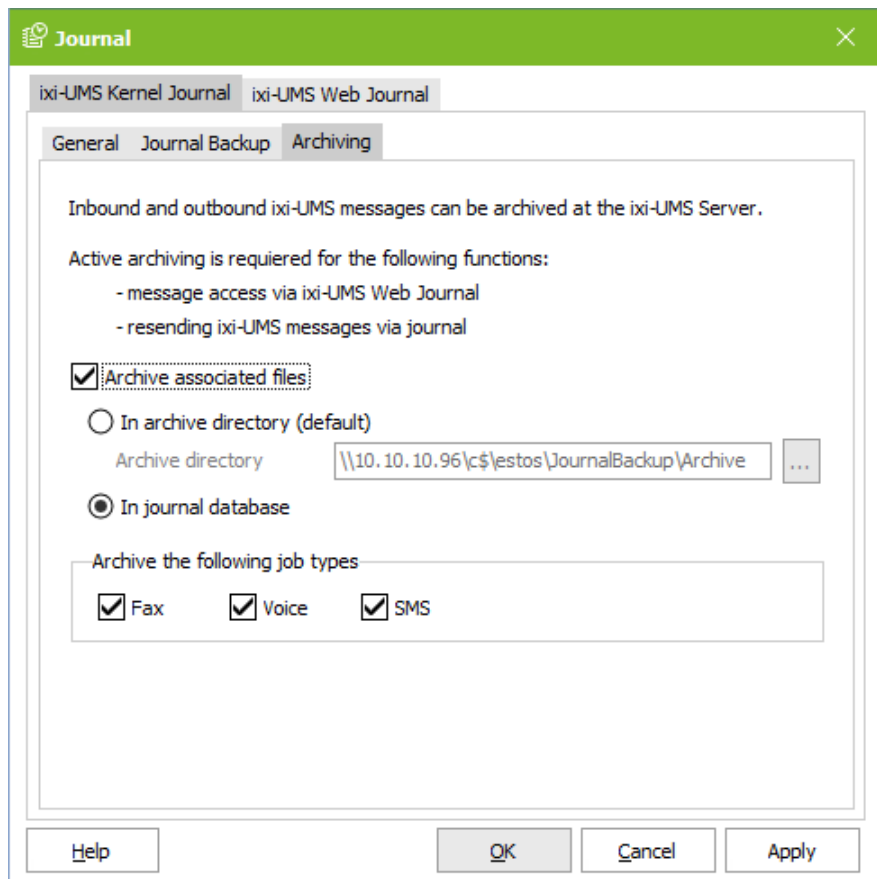
If the messages shall be stored in a network directory, the UNC-must be entered.

In journal database

The messages are stored in the database and can only be opened via the ixi-UMS Web Journal or the ixi-UMS Kernel Journal.

Archive the following job types

Enables and disables archiving of faxes, voice and/or SMS messages.



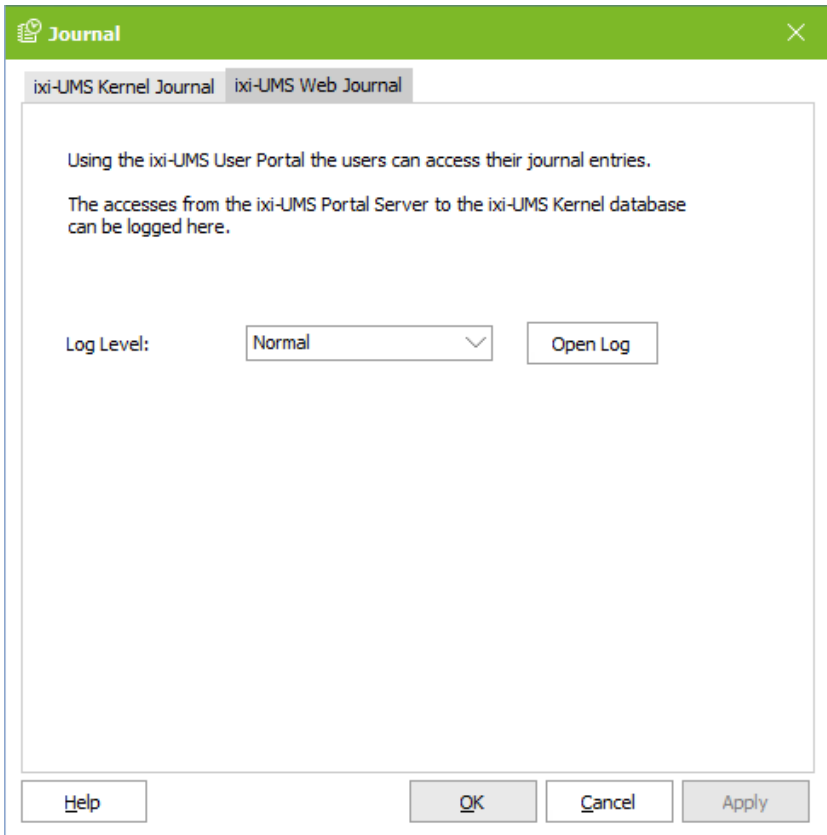
Note:

Only if the archiving is activated can be incoming and outgoing UMS-messages displayed, printed and stored in the ixi-UMS Web Journal Otherwise only the reports are displayed.

6.1.3.2 ixi-UMS Web Journal

Starting with ixi-UMS Version 7.10 the ixi-UMS Web Journal is made available via the ixi-UMS User Portal. All required settings are made on the ixi-UMS Portal Server.

The users can have a view of the journal by means of web interface, they can only see their own entries.



The log should be set to "Debug" only during debugging.

In the log, the required data read by the user and the SQL queries are logged.

6.1.4 Reports

The ixi-UMS Kernel by default creates a report for every outbound ixi-UMS message, which contains the report with the delivery information or failures. This report is delivered to the sender of the UMS-message as an e-mail, e.g. when using an SMTP-based Connector.

You can determine for every single service, whether a report shall be created or not.

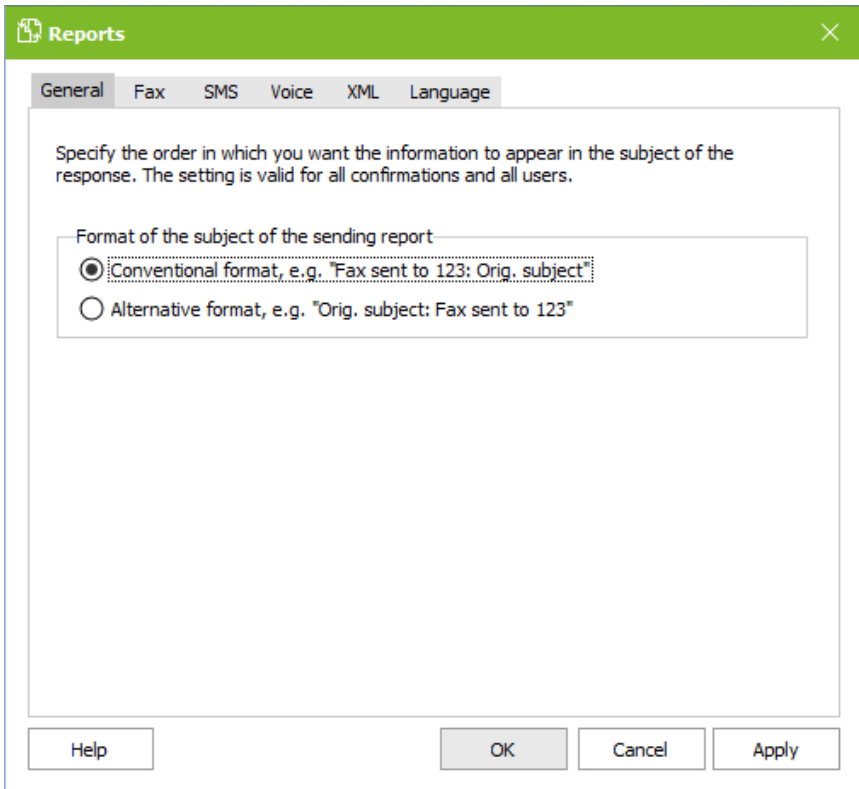
Furthermore, the ixi-UMS Kernel creates a report for every inbound message. This report is added to the received message as text, for Example as e-mail-body.

The ixi-UMS Kernel report for incoming messages and feedback messages can be sent in the E-Mail in HTML format. In this case, the "Fax Preview" can be used also.

You have to determine, in which language the reports shall be created. For changes in the content and form of the ixi-UMS Kernel reports, please have a look at

- the Additional Informations in ixi-UMS Kernel manual (for Plain Text) and
- in the ixi-UMS Mail Server Connector manual the additional information: "Adjust the HTML templates for reports".

6.1.4.1 General



The Report settings are valid for all services. You can specify whether the subject of the confirmation

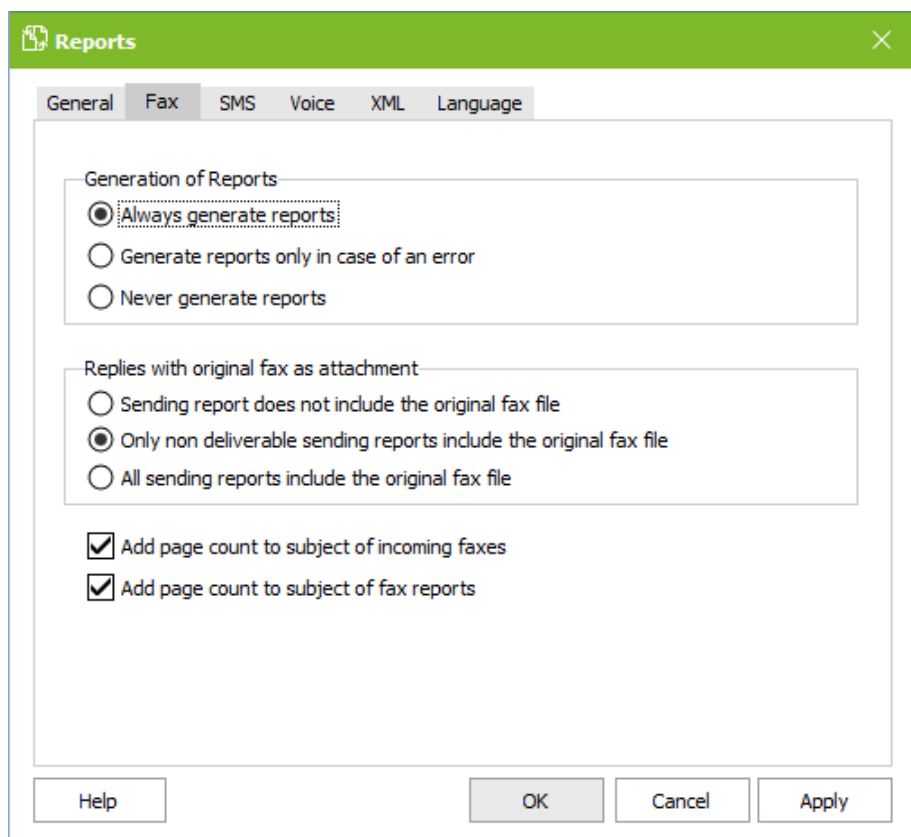
- first the shipping status and then the subject of the original message
- or
- first the original subject and then the shipping status

is displayed.

6.1.4.2 Fax

It can be defined if and when a response for fax messages should be created by the ixi-UMS Kernel.

For ixi-UMS Fax messages you can also specify in which case the original fax should be attached to the confirmation. By default, only the report is sent to the sender in the case of positive confirmations and the (not) sent fax is also appended to negative confirmations.

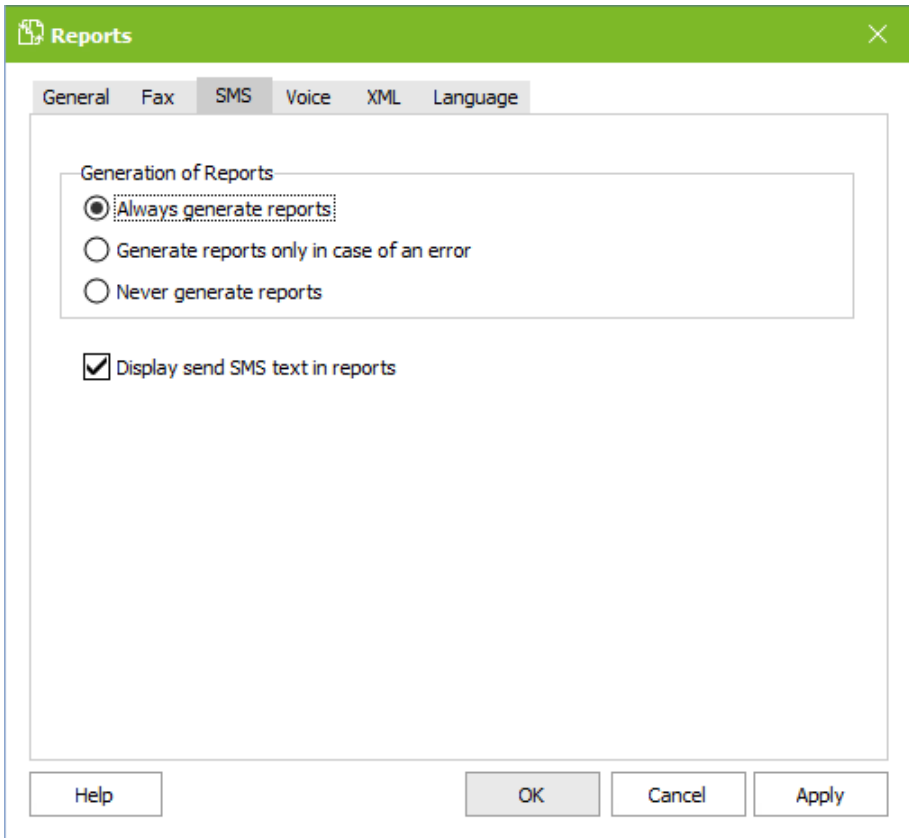


If you select one of the "**Add page count to subject...**" options, the number of pages received/sent is displayed in the subject of the e-mail for incoming fax messages and/or in the responses.

Subject: Fax from +4945824783496 Number of pages:1

This setting must also be activated in ixi-UMS Mail Server Connector for the creation of incoming messages in HTML format.

6.1.4.3 SMS

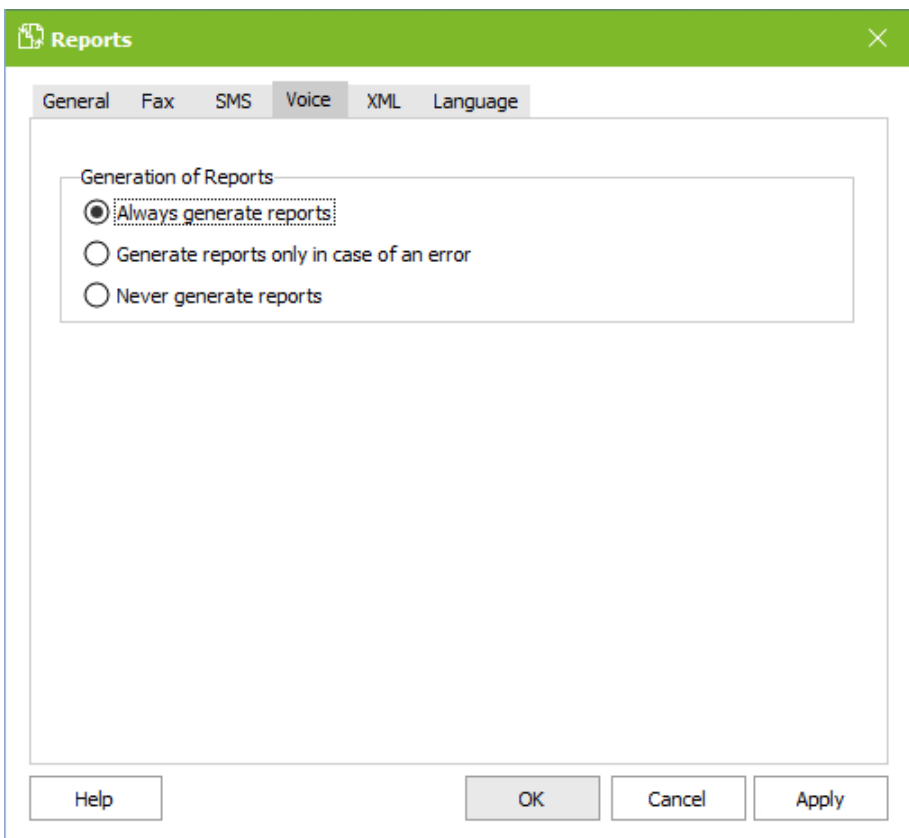


It can be determined, whether and when SMS sending reports shall be created.

By default, a report is generated with the ixi-UMS Kernel report for each SMS sent and not sent.

Optionally the actual sent text can be inserted into the feedback.

6.1.4.4 Voice

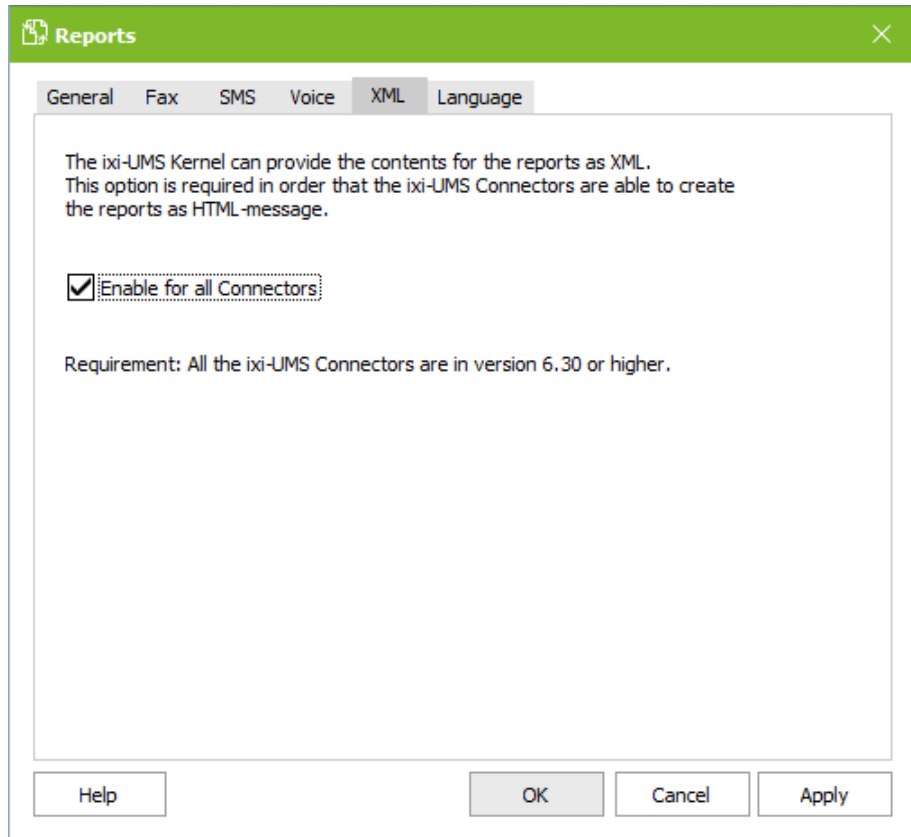


It can be determined, whether and when Voice sending reports shall be created.

6.1.4.5 XML

The ixi-UMS Kernel provides the information for the reports and inbound messages always in "Plain Text". In addition to that, the ixi-UMS Kernel can generate the information as "XML-String".

When this feature is configured and enabled, the SMTP-based ixi-UMS Connectors can generate the ixi-UMS Kernel report as E-Mail in HTML-Format in different languages and the ixi-UMS FAPI Connector can provide the report as additional .XML-document.



For further information about the configuration, please refer to the manual of the SMTPixi-UMS Mail Server Connector or the ixi-UMS FAPI Connector manual.

6.1.4.6 Language

The ixi-UMS Kernel makes available the report with the send information and detailed news always in the "Plain text" format. A **Language of the "Plain text" reports** must be fixed.

The selected language is valid for:

- Entries in the ixi-UMS Journal
- Default announcement if the ixi-UMS Voice-Mail Server **is not installed**
- ixi-UMS Kernel reports in send-reports and incoming messages
- Insert the ixi-UMS Kernel report in the PDF-file (incoming fax and reports)
- Printing incoming faxes and reports



Language of the XML Reports

Additionally, the ixi-UMS Kernel can generate the information for the report as "XML-Sting".

If this option is activated, the ixi-UMS Mail Server Connector can generate the ixi-UMS Kernel report as e-mail in HTML-format and the ixi-UMS FAPI Connector can save the report as .XML-file.

The reports thus generated by the ixi-UMS Mail Server Connector can be generated in different languages, depending on the user. It must be determined here, which **Additional languages** should be available for the ixi-UMS Mail Server Connector.

If a language is requested by the ixi-UMS Mail Server Connector does not exist, the **Default language** is used.

For more information about the configuration please read the manual of the ixi-UMS SI CON Connector or the ixi-UMS FAPI Connector.

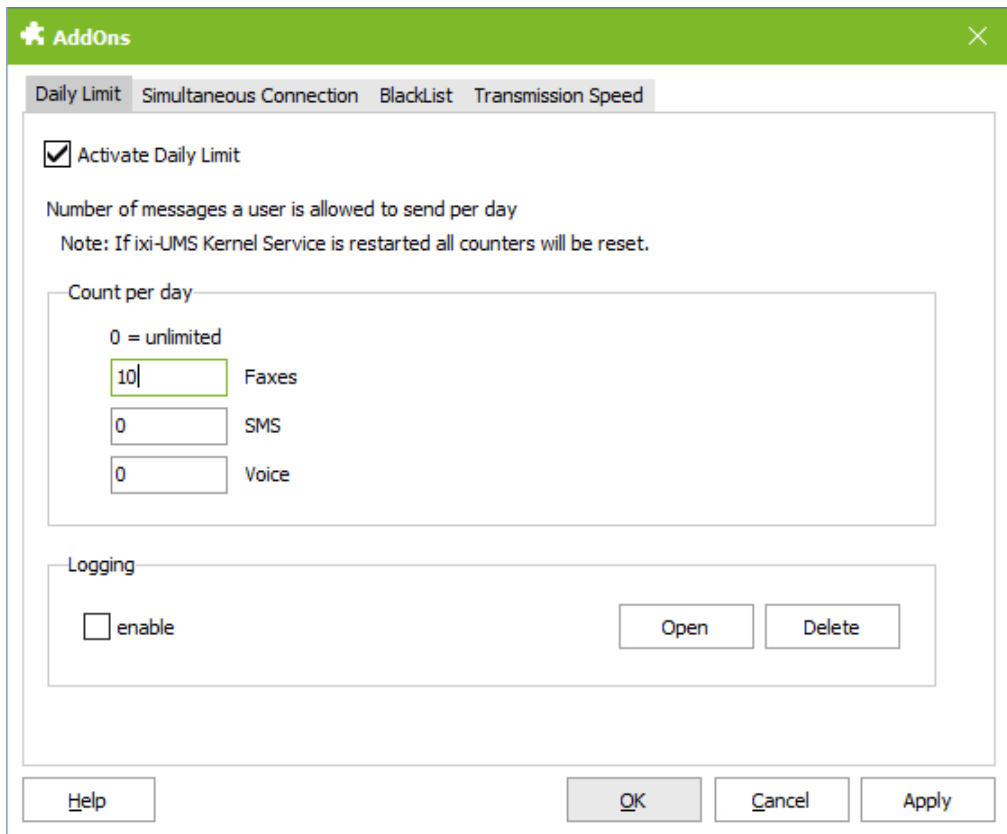
6.1.5 Add-Ons

In the following, some additional features can be configured. These features are not necessary in default installations. Some features are liable to pay costs and dependent on licence.

6.1.5.1 Daily Limit

Here it can be determined centrally, how many messages a user is allowed to send per day. The determination can be fixed for SMS, Fax and Voice separately.



When the limit is reached, the user gets a respective notification.



The screenshot shows the 'AddOns' configuration window with the 'Daily Limit' tab selected. The window has a green title bar with a plus icon and a close button. Below the title bar are four tabs: 'Daily Limit', 'Simultaneous Connection', 'BlackList', and 'Transmission Speed'. The 'Daily Limit' tab is active and contains the following elements:

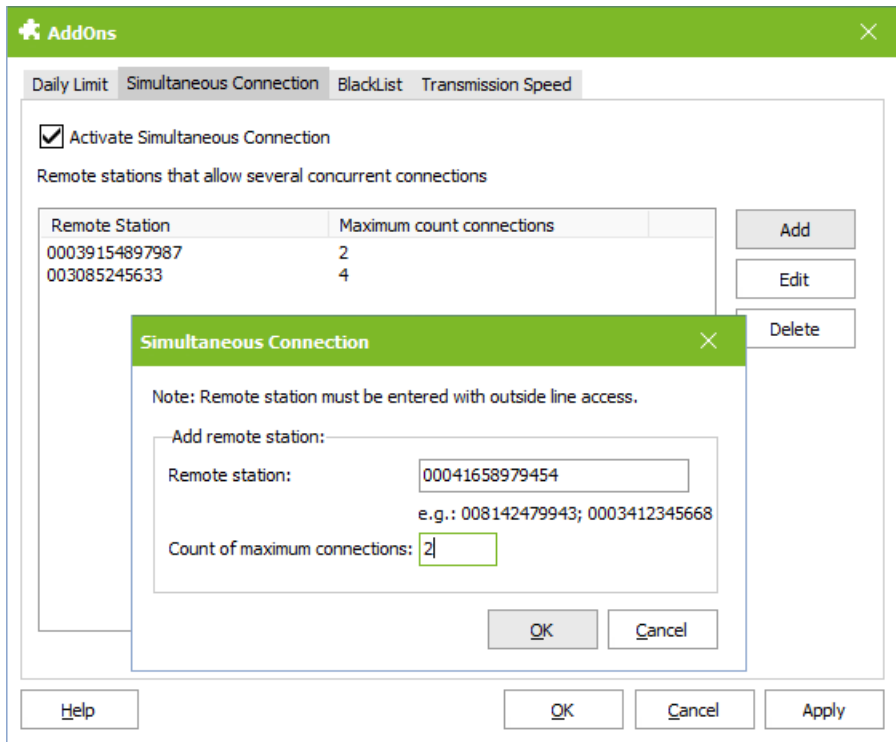
- A checked checkbox labeled 'Activate Daily Limit'.
- The text 'Number of messages a user is allowed to send per day'.
- A note: 'Note: If ixi-UMS Kernel Service is restarted all counters will be reset.'
- A section titled 'Count per day' containing three input fields:
 - '0 = unlimited' (text label)
 - '10' (input field) for 'Faxes'
 - '0' (input field) for 'SMS'
 - '0' (input field) for 'Voice'
- A section titled 'Logging' containing an unchecked checkbox labeled 'enable' and two buttons: 'Open' and 'Delete'.
- At the bottom of the window are four buttons: 'Help', 'OK', 'Cancel', and 'Apply'.

When problems occur, the logging can be activated.

-  A determination directly at the user is possible from Version 5.8 when using an SMTP-based ixi-UMS Connector and overwrites the server-based settings.
-  With restarting the ixi-UMS Kernel Service, the number of the messages sent per user is reset.

6.1.5.2 Simultaneous Connection

Here it can be defined, whether an to which remote stations several faxes shall be sent at a time.



The **actually dialed number** including the **Outside Line Access Code** has to be stated.

Moreover, the country code has to be entered as well:

Correct:

00039159741562
00043989732151
008142479940
0479940

Incorrect:

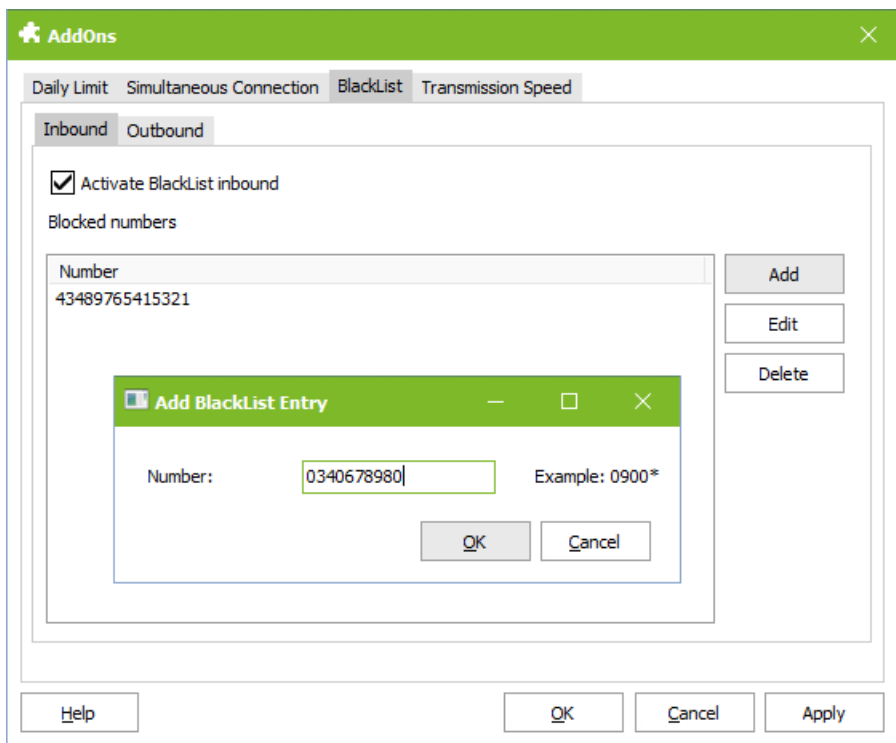
+3915974152
0+4398414552

6.1.5.3 BlackList

Phone numbers can be blocked, to that no messages shall be sent or from that no messages shall be received. The rules cannot be applied for MWI-signaling or SMS-messages.

Incoming - blocking numbers from that messages are received

Calls from the sender numbers entered here are not accepted.



Please take into consideration that the number must be entered the way the sender number is signaled at the ixi-UMS Kernel

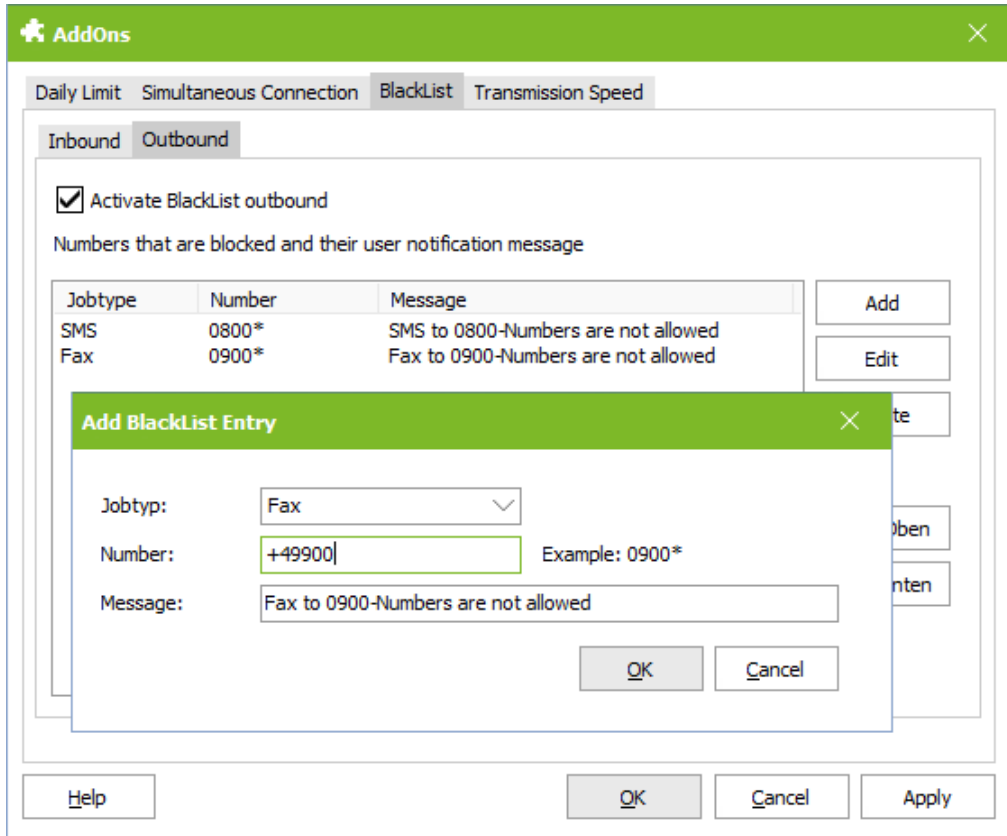
- If the outside line is delivered by the PBX, it must be entered as well.
- A number conversion - if used - must be performed in advance.

The call number (Calling Party Number) transmitted to ixi-UMS Enterprise by the PBX can be detected by the ISDN-board / XCAPI or by the ixi-UMS Kernel by means of a trace.

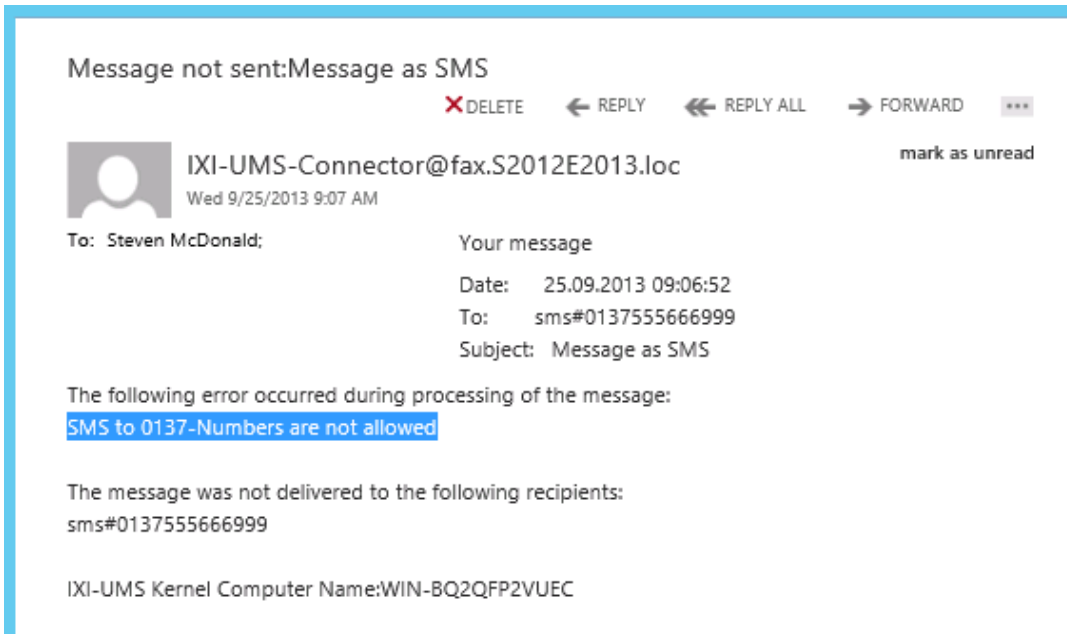
Outgoing - blocking numbers to that messages are sent

The blocking of call numbers is realized according to the service (Fax, SMS).

All the possible addressing must be entered without outside line.

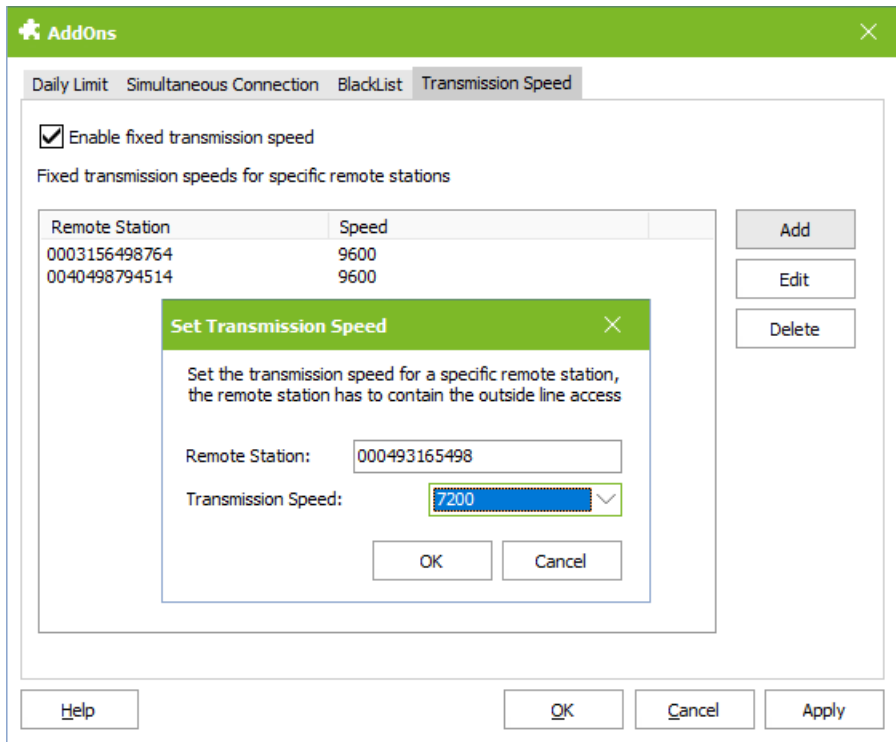


When the ixi-UMS Kernel receives a message to an entered number, an NDR with the predefined text is delivered to the sender.



6.1.5.4 Transmission Speed

If problems occur during transmission to certain remote stations that are due to a too high transmission speed, a fixed transmission speed can be set for these remote stations.



The **actually dialed number** including the **Outside Line Access Code** has to be stated.

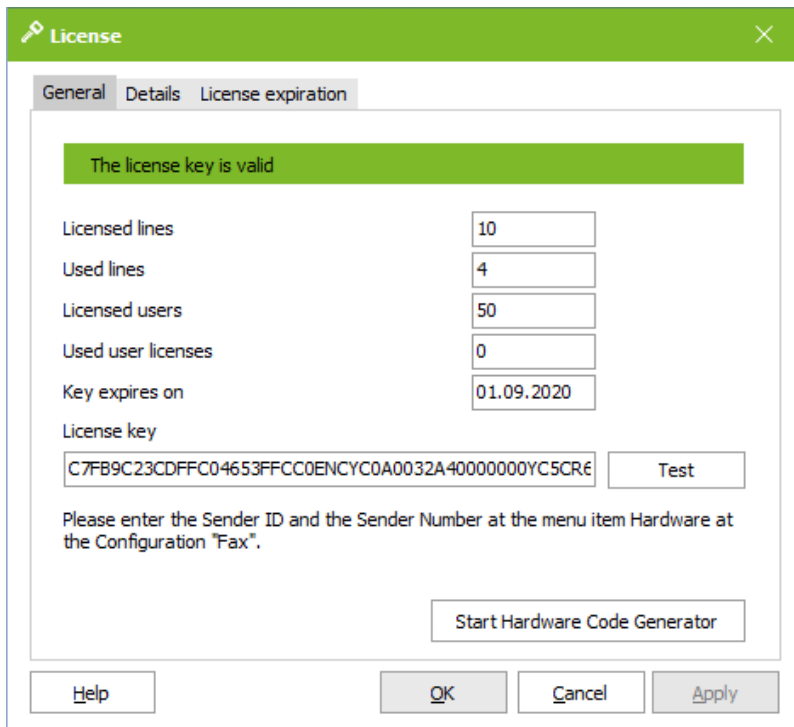
Moreover, the country code has to be entered as well:

Correct:
00039159741562
00043989732151
008142479940
0479940

Incorrect:
+3915974152
0+4398414552

6.1.6 License

The license data issued by the company estos GmbH are entered here.



The license can be requested with the hardware code from umslizenz@estos.de.

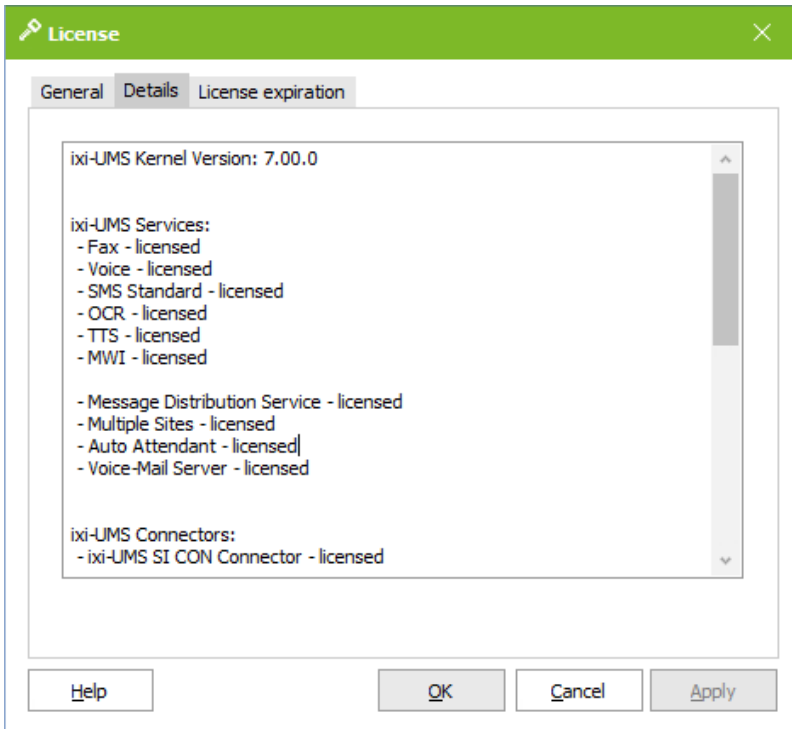
The licensed and installed channels (lines) and users are displayed.

If <%PRODUCTNAME%> is limited to a certain number of users, the number of users who have already sent a message is displayed.

If a time-limited license is entered, a notice will be printed on all incoming messages and responses from 30 days before the license expires.

The display of this note can be disabled.

6.1.6.1 Details

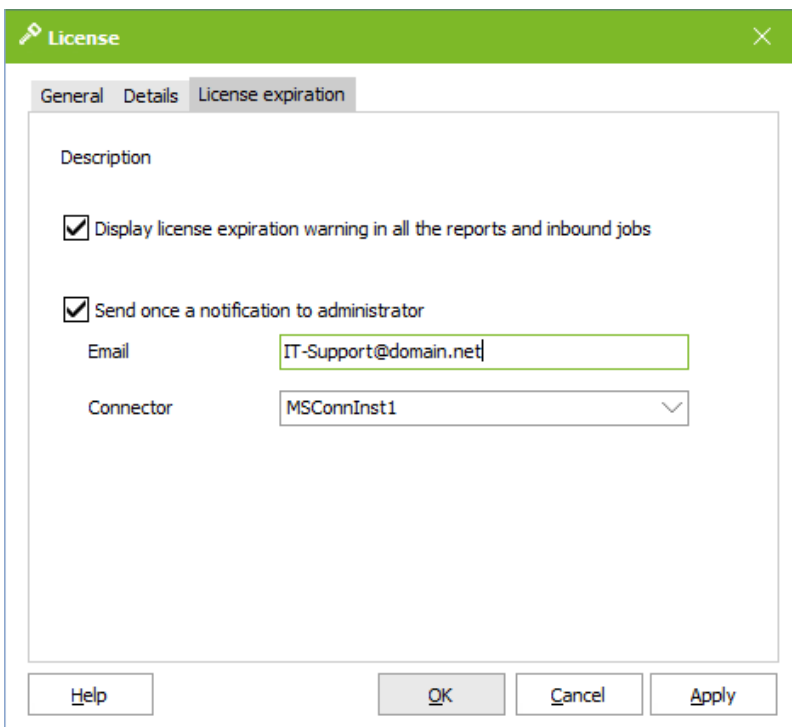


If a license is entered, another card "Details" is displayed.

Here all details of the licensed components are listed.

6.1.6.2 License expiration

If a time-limited license is entered, the "License expiration" tab is displayed.



If a time-limited license is entered, a notice is printed by default from 30 days before the license expires on **all** incoming messages and confirmations.

It can be defined whether a corresponding note is entered on each incoming message and response and/or the administrator receives an e-mail.

The e-mail to the administrator is sent **once** 4 weeks before the license expires.

The e-mail to the administrator is sent again after restarting the ixi-UMS Kernel service

6.2 Manage Locations

ixi-UMS Enterprise can be connected to multiple locations/telephone systems



The function "MultiSite" is subject to a fee and is activated via the ixi-UMS Enterprise license.

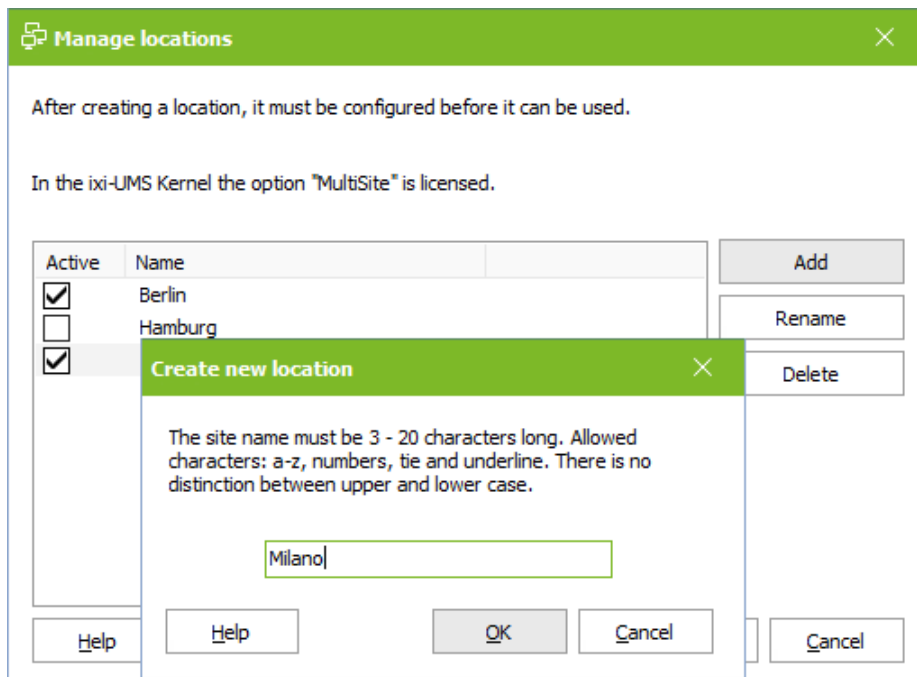
Condition:

At least 1 separate controller is configured for each location/telephone system

All connections use the same CAPI. That means: All connections use either VoIP (XCAPi) or the same ISDN/LAN-CAPI.

After installation of the ixi-UMS Kernel the location "Default" is available. This location can be renamed or deleted. Further locations can be created via "Add".

The locations can be activated and deactivated. If a MutliSide license is installed, multiple locations can be activated. Otherwise, only one location can be activated at a time. The channels of deactivated sites are displayed as "Inactive" in the < %NAME%> Monitor.



Please note:

"MultiSide" operation is available in test mode. If this is not enabled in the licence entered later, the ixi-UMS Kernel service will not be started. One location must then be selected.

The settings for connection to the telephone system and the ixi-UMS services are available separately for each location.

If several locations are entered, the location mapping must be used to define to which location outgoing messages should be transferred.

6.3 Location Routing

When several locations are connected to the ixi-UMS Kernel it has to be determined, which outgoing messages shall be sent via which location. Outgoing messages can be routed based on the recipient number (destination), the sender (MAIL FROM) or the (sender) information from another specified field.

Additional Routing Field:

ONE header field can be stated here, which shall be utilized by the ixi-UMS Kernel for the "Outbound"-Routing. The entry then applies to all the message types.

Which fields can be used is described in the following at "additional routing field".

Field	Job Type	Rule	Location
Destination	Fax	+41*	Schweiz
Destination	SMS	+41*	Schweiz
Destination	Alert	1+41*	Schweiz
Destination	Alert	0+49*	Schweiz
Custom	All	+41*	England
Custom	All	+39*	Schweiz
Mail From	All	*@estos.com	England
Mail From	All	*@estos.de	Deutschland

Via "Add", the routing entries are created.

It has to be determined from which field the routing information shall be read out, which services is affected by the entry, the criterion and then the destination.

Please note:

For routing to "Destination" and "Mail From" (sender) , the phone numbers must be entered without spaces. If sender information is evaluated in the "Additional Routing Field", it must be entered as it appears in the job.

After that, they can be moved to the correct place via the buttons "Move Up" and "Move Down".

Note:

The entries are processed according to their order top down. The first corresponding rule is executed, this means the correct order of the entries must be considered.

Hint:

When using "SMS" **at several locations**, please note that the outgoing short messages cannot be routed to "destination". A routing to "Destination" is not possible. If the e-mail sender address is the same of all the users and therewith cannot be used as routing criterion, the header field "X-COVERINFO-Businessphone1:" or "X-COVERINFO-BusinessFax:" can be used for the routing, for example. These fields are filled in most environments at all the users and contain the site information that can be used as criterion.

When "**MWI**"-messages" are routed:

- one of the additional header fields, in which telephone/fax-sender number information is entered, shall be used as a criterion. Further information can be found in the ixi-UMS Voice-Mail Server manual.
- route to destination can be use. In this case, the entries for activation and deactivation are created automatically when the rule is entered.

At "Test Rules", the rules and the order of the utilization can be checked. Please take care that with every test both the fields are filled out.

6.3.1 Additional Routing Field

The available fields are different, depending on which sort of ixi-UMS Connector is deployed. Basically, the available fields and their description can be read out from the .tmp-file in the directory ...\ixi-UMS Kernel\ConnRootDir_CR\<<Connector>\Out. In order to get the file, the ixi-UMS Kernel Service must be stopped and a fax has to be sent out of the respective system.

ixi-UMS FAPI Connector

When an ixi-UMS FAPI Connector is deployed, the available header lines are predefined by the configuration and set-up of the ixi-UMS Connector. The fields must be filled by transfer from the connected system.

ixi-UMS SI CON Connector

With messages out of a SAP-system, a lot of information is entered per instance, not per user.

We recommend the routing to "recipient address" (= destination) or by means of the sender address (= Mail From)

ixi-UMS Mail Server Connector

When deploying the ixi-UMS Mail Server Connector, the header information is read out from an LDAP-data base.

The following header fields are available:

Message Header Field	Information from
MAIL FROM:	E-mail sender address
X-IFAXDATA-HeaderFile:	Header information in the ixi-UMS user properties
X-IFAXDATA-Department:	"Billing Code" in the ixi-UMS user properties
X-IFAXDATA-DChID:	ISDN-sender / D-channel information from the ixi-UMS user properties
X-IFAXDATA-SenderID:	Fax sender number from the ixi-UMS user properties
X-COVERINFO-Businessphone1:	LDAP-field "telephoneNumber"
X-COVERINFO-BusinessFax:	LDAP-field "facsimileTelephoneNumber"
X-COVERINFO-Company:	LDAP-field "company"
X-COVERINFO-Address:	LDAP-fields "streetAddress" "postalCode" "l" - "physicalDeliveryOfficeName"
X-COVERINFO-Department:	LDAP-field "department"
X-COVERINFO-Custom1 - 3	LDAP-field defined in ixi-UMS Mail Server Connector





The evaluation is case sensitive. The upper/lower case must be observed

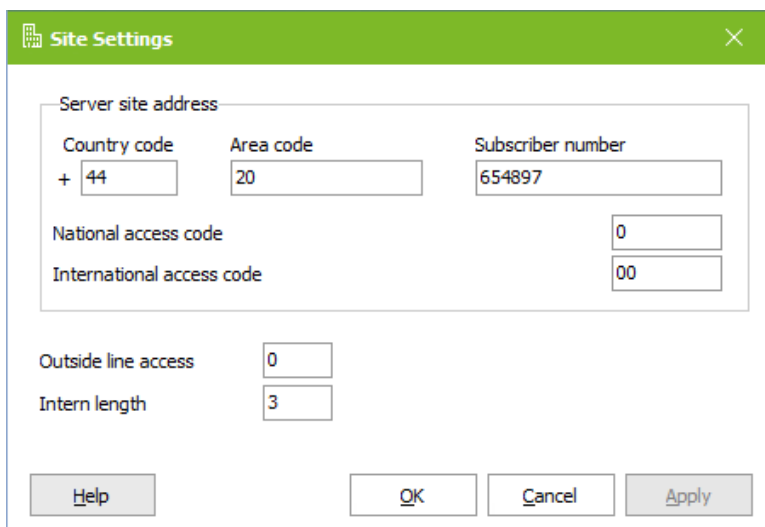
6.4 Location - Instance

The following settings are available for each location. The instances are created when a new location is created. For each location created, at least the connection to the PBX must be set up and the required services configured.

6.4.1 Site Settings

The location address, the outside line access and the extension length are defined here. This information can be taken from the PBX configuration sheet filled out by the PBX technician.

Country Code	Country code of the country where the ixi-UMS Kernel installation is located.
Area Code	Area code of the ixi-UMS Kernel installation without the leading 0. For Olching, this would be 8142.  Known exceptions: Italy - here, the leading 0 has to be entered.
Subscriber Number	Subscriber number of the ixi-UMS Kernel installation. With PP, the main number has to be entered in the field in most cases. With PMP, the field often stays empty.  Please have a look at the PBX configuration sheet filled out by your PBX-technician.



National AccessCode

Code to be added to the called number in outgoing messages within the country.

International Access Code

Code to be added to the called number in outgoing messages leaving the country.

Outside Line Access

Code to be dialed for getting a call out of the PBX (added to the called number in outgoing messages).

Internal Length	Determines, how many digits are considered as internal call number, this means that no outside line is needed and therefore is not dialed. Here in the example: Fax numbers with more than 3 digits need an outside line (see screenshot). Moreover, the sender identification (e.g. with the reception of internal calls /faxes) is changed into the international format if it the number has 5 digits or less.
------------------------	--

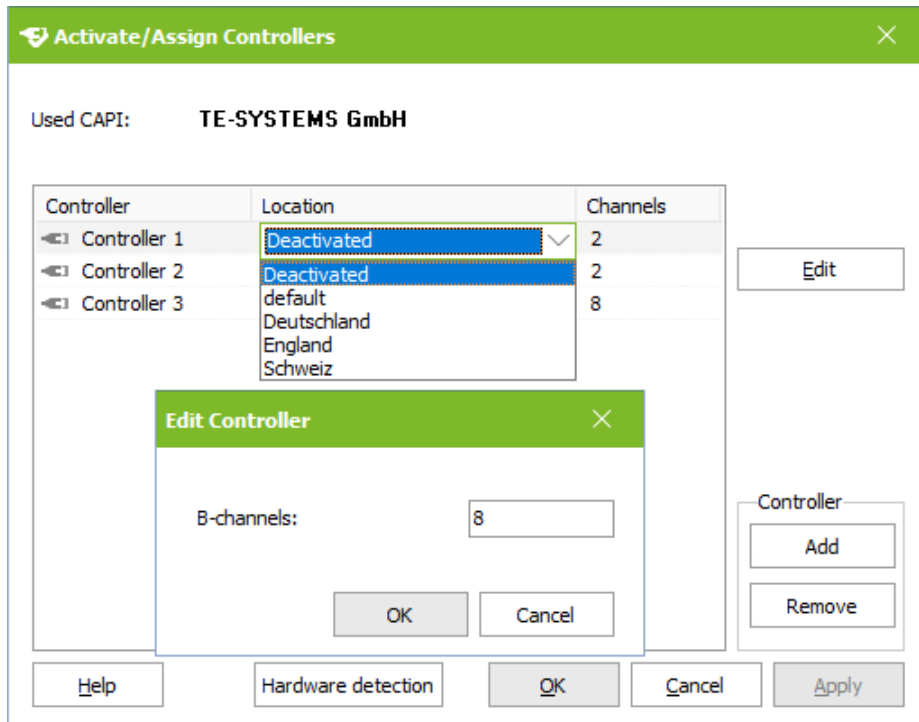
6.4.2 Controller

At least one controller must be assigned to each location. The connection properties and additional options are always valid for all controllers assigned to this location.

6.4.2.1 Activate/Assign

If no installed CAPI/controller was detected during the installation, it was **installed/configured later** or the connection was changed (e.g. from LAN-Capi to VoIP/XCAPI), it can be read out using "**Hardware detection**".

It is displayed how many controllers the detected CAPI provides and how many channels are available per controller.



Each controller can be assigned a location and thus be configured for use by ixi-UMS or blocked for use by switching to "Disabled".



If all the detected controllers are on one ISDN-board, no controller must be deleted via "Remove". When only a small number of controllers shall be used, blocked for the use by switching to "Inactive".

Via **Edit** with simultaneous marking of the controller the number of available channels can be displayed and edited if desired.

6.4.2.2 Connection Properties

The connection properties apply to all controllers assigned to this location.

6.4.2.2.1 General

Here it is set whether the ISDN-controller is connected via a point-to-multipoint access or a point-to-point access. See also: Types of ISDN Accesses

Point-to-Multipoint (PMP)

Please choose this setting if the ixi-UMS Kernel is connected to a point-to-multipoint access (of the PBX).

Point-to-Point (PP)

Please choose this setting if the ixi-UMS Kernel is connected to a point-to-point access of the PBX).

Internal Code

Please enter the main number here, provided that it is transferred by the PBX.

Number of Direct Dialing Digits

When a point-to-point access is selected here, the maximum number of extension digits MUST be stated here. When 3-digit and 4-digit extensions are used, you have to enter 4 here.

The screenshot shows the 'Connection Properties' dialog box with the 'General' tab selected. The 'Access' section contains two radio buttons: 'Point-to-Multipoint' (unselected) and 'Point-to-Point' (selected). Below these are three input fields: 'Internal code' with the value '8', 'Number of Direct Dialing Digits' with the value '3', and 'Number in E.164' with a dropdown menu showing 'Inactive'. At the bottom of the dialog, there is an unchecked checkbox labeled 'Allow outgoing messages only in E.164 format' with a sub-note: 'The messages must be addressed in international format (+49...)'.

Number in E.164

In accordance to the selection, the call numbers **must** be transferred in format 4981424799585. Please have a look at "Call Number Transfer in E.164-Format"



When making use of "SMS via fixed lines", the respective configuration must be selected.

Allow outgoing messages only in E.164-format..

If this option is activated, outgoing messages will only be processed if the message has been addressed in the format + 49xxx. Outgoing messages addressed in another format are sent back to the sender with corresponding information.

6.4.2.2.2 Advanced

By default, the sender number in the outgoing ixi-UMS message is passed to the ixi-UMS Kernel.

If no sender number is specified in the message, it is set by the PBX. Alternatively, you can specify which "Calling Party Number" should be sent.

Please note: the phone number must belong to the connected bus/trunk and must be specified in E.164 if necessary

The screenshot shows the 'Connection Properties' dialog box with the 'Advanced' tab selected. Under the 'ISDN Sender Number' section, the first radio button is selected, indicating that the calling party number is provided in outgoing messages. A text field next to it contains the number '8562'. The second radio button, 'Suppress Calling Party Number', is unselected. Below this, the 'Fax Transmission Speed' section has a dropdown menu for 'Maximum speed' set to 'Maximum'. At the bottom of the dialog are buttons for 'Help', 'OK', 'Cancel', and 'Apply'.

Suppress Calling Party Number

If this check box is marked, ixi-UMS transfers to the CAPI with an outgoing call, that no call number (ISDN-identification / CLIP) shall be sent. The PBX and the connection must support this feature.

(With ISDN: according to ETS 300 102/Q.931, the Byte 3a element of the "Calling party number information" is set; this is converted by the XCAPI according to RFC 3323)



Please note the information on the PBX configuration sheet completed by the TC technician.

Fax. transmission speed:

If the maximum transmission speed is limited in the ixi-UMS Kernel, this information is passed to CAPI when the ixi-UMS Kernel service is started.

It depends on the installed CAPI whether the set maximum transmission speed is maintained.

If required, individual transmission speeds can be defined for individual remote stations.

6.4.2.2.3 Routing

Routing in this context means the assignment of call number information to a user. ixi-UMS provides several methods for this. By Default, all the incoming messages are routed to the mail server by the "Called Address" (CalledPTYN). The called address is assigned to a user who receives the message. In contrast to this routing method, ixi-UMS Kernel offers the following options:

by Redirection

Inbound routing via the redirected number. For example, redirection of all telephones to one voice-mailbox number with announcement (ABA).

The left voice mail is forwarded to the UMS number, that the caller dialed originally (original telephone number). This number must be administered in the mail system.

The screenshot shows a dialog box titled "Connection Properties" with a green header bar. It has four tabs: "General", "Advanced", "Routing" (which is selected), and "Channel Reservation". The "Routing" tab contains the following options:

- by Redirection
DDI: 8999
- by Caller Address
DDI: 8999
- Automatically go to PIN validation
- by DDI

At the bottom of the dialog, there are four buttons: "Help", "OK", "Cancel", and "Apply".

by Caller Address

Incoming messages are delivered based on their **sender information** in the mail system.

If no DDI is entered, the procedure applies to all selected extensions.

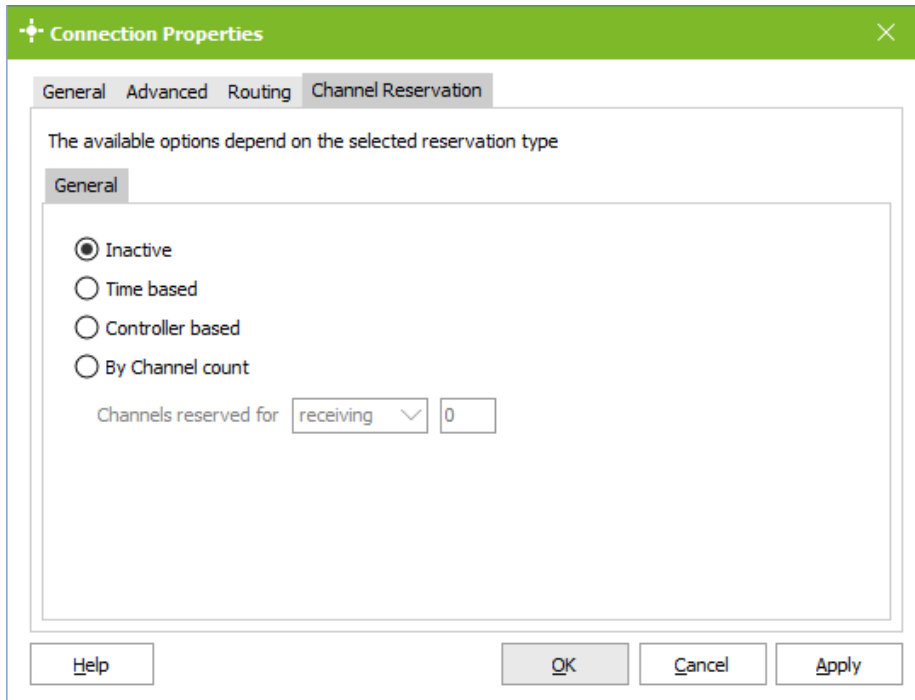
In conjunction with "Via Redirection", the number entered under DDI can be dialed to retrieve messages from the ixi-UMS Voice-Mailbox (ixi-UMS Voice-Mail Server required) via office telephone. Optionally the PIN entry can be started directly.



See also - Additional Functions - Routing Methods

6.4.2.2.4 Channel Reservation

Channels can be reserved for incoming and/or outgoing calls.



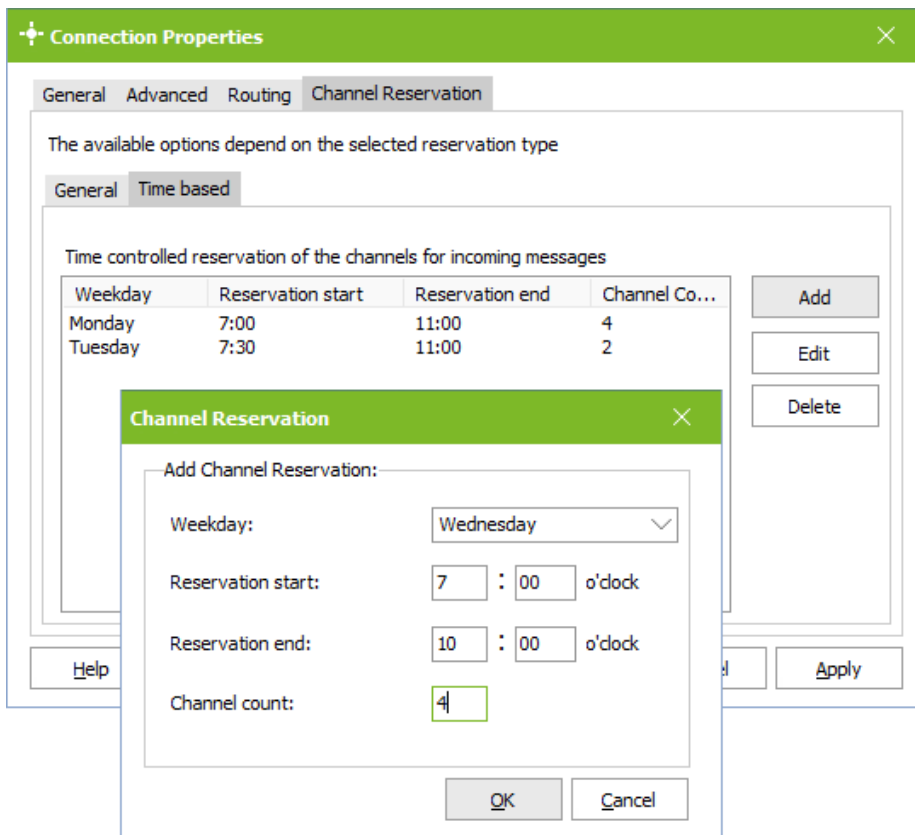
The reservation can be configured:

- Time based for incoming calls
- Per controller for incoming and/or outgoing call
- For a number of channels, incoming or outgoing

The settings depend on the selection made.

6.4.2.2.4.1 Time based

The available channels shall not always be reserved for **incoming** messages, but only during specific times.



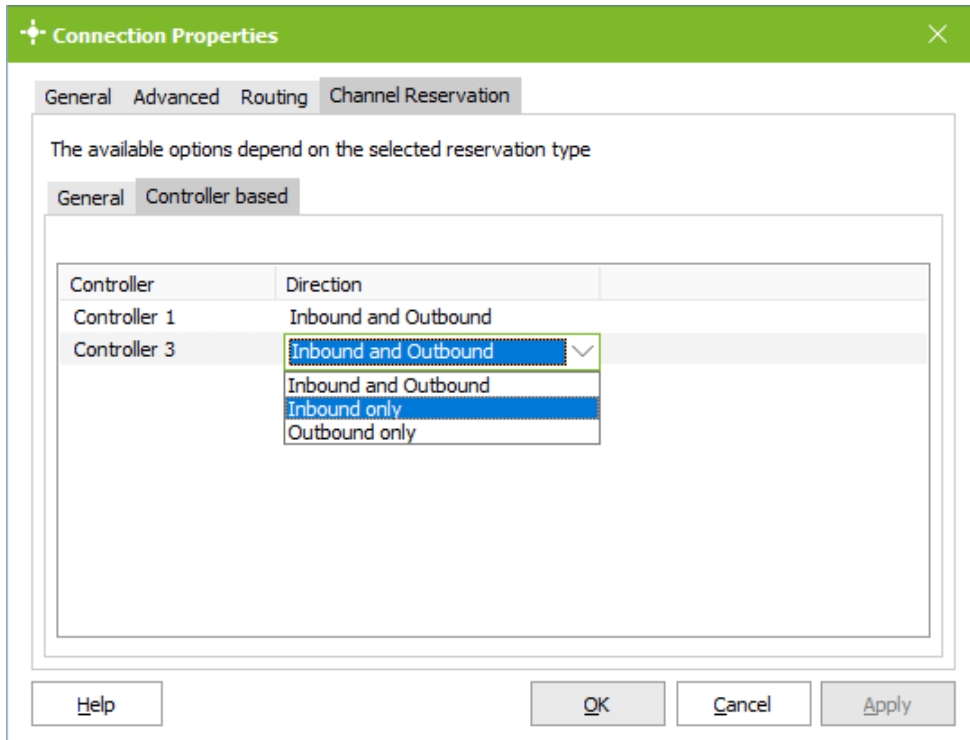
Via "Add", reservations can be added.

Entered reservations can be changed via "Edit".

If you have 8 channels and you reserve 4 channels for incoming, all channels can be used for incoming messages, but only 4 channels for outgoing messages.

6.4.2.2.4.2 Controller based

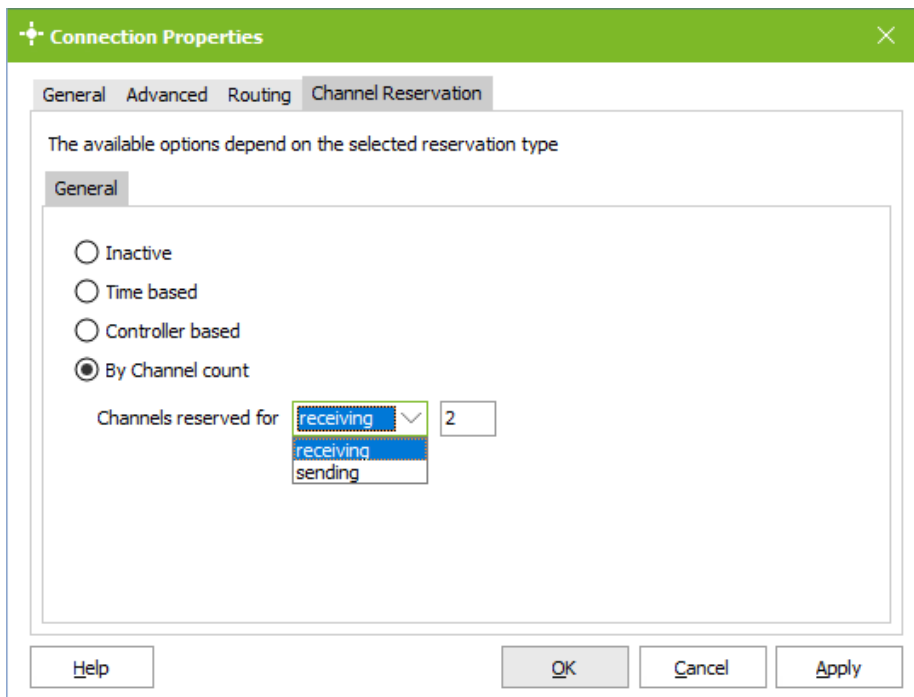
All lines of the selected controller are reserved for incoming or outgoing calls.



If you set up one controller for incoming and outgoing messages and one controller for incoming messages only, the channels of all controllers for incoming messages can be used, but only the channels of one controller for outgoing messages.

6.4.2.2.4.3 By Channel count

You can reserve channels for receiving **or** incoming.



Define here how many channels **should be kept ready** for receipt or dispatch.

Example:

If you have 8 channels and you reserve 2 channels for incoming, all channels can be used for incoming messages, but only 6 channels for outgoing messages.

It is **not possible** to determine, which channels are reserved, because this is managed by the ixi-UMS Kernel independently.

If several controllers are active, the channel reservation is distributed from these.

6.4.2.3 Number Handling

It must be configured if and which rules are valid for the phone numbers for incoming and outgoing messages.

6.4.2.3.1 General

Inbound

To be able to deliver the incoming message to the users and to enable them to reply to a fax, the incoming message must contain a correctly formatted phone number as recipient and sender, e.g. +49 8142 4799666.

Depending on what the PBX transmits to the ixi-UMS Kernel, this number might be displayed incorrectly, e.g. +49 8142 08142 4799666 or +8142 4799666

Here, the **area code or the outside line access incoming would have to be removed** in order to render the call number in the correct format.



Please note that the conversion of the "Calling Party Number" depends on the address information transferred by the PBX and also evaluates the ToN.

Number Handling

General DDI Mapping Extended User Look-Up Number Conversion

Inbound

Remove area code from called party numbers

Remove outside line access from calling party numbers

Outbound

The rules apply for called numbers provided in international format

Default, shorten to minimal length + outside line access

Dial always national access and area code + outside line access

If this Option is checked then 0020 is dialed

Help OK Cancel Apply

Outbound

If the phone number begins in the outgoing UMS-message with + (e.g. +390254789) this is shortened normally on grounds of the server site information. After this the "outside line access" is added.

In some countries, the area code has to be dialed also with local calls. In this case, it must activate **"Dial always national access and area code"**.

Is to be followed with this setting, how the phone numbers in int. Format addressed / are shown:

e.g. Italien:

national = local shown: 02 64489945

national = local shown: +3902644899 -> the "National AccessCode" 0 is a component of the phone number

In the Server Site must be put down 02 as a "Area Code" and the "National Access Code" must be empty

e.g. Belgien:

national = local shown: 083 64489945

national = local shown: +3983644899 -> the "National AccessCode" 0 is **not** a component of the phone number

In the Server Site must be put down 83 as a "Area Code" and in the "National Access Code" must be put down 0

6.4.2.3.2 DDI Mapping

DDI Mapping assigns actions to DDI numbers. You can use wildcards (*, ?) in order to configure a range of DDI numbers.

If the modules ixi-UMS Voice-Mail Server and / or ixi-UMS Auto Attendant are installed and configured, they will enter reserved numbers with the reference to a url.

Note: if the phone numbers are transmitted in E.164, the E.164 number must be entered.

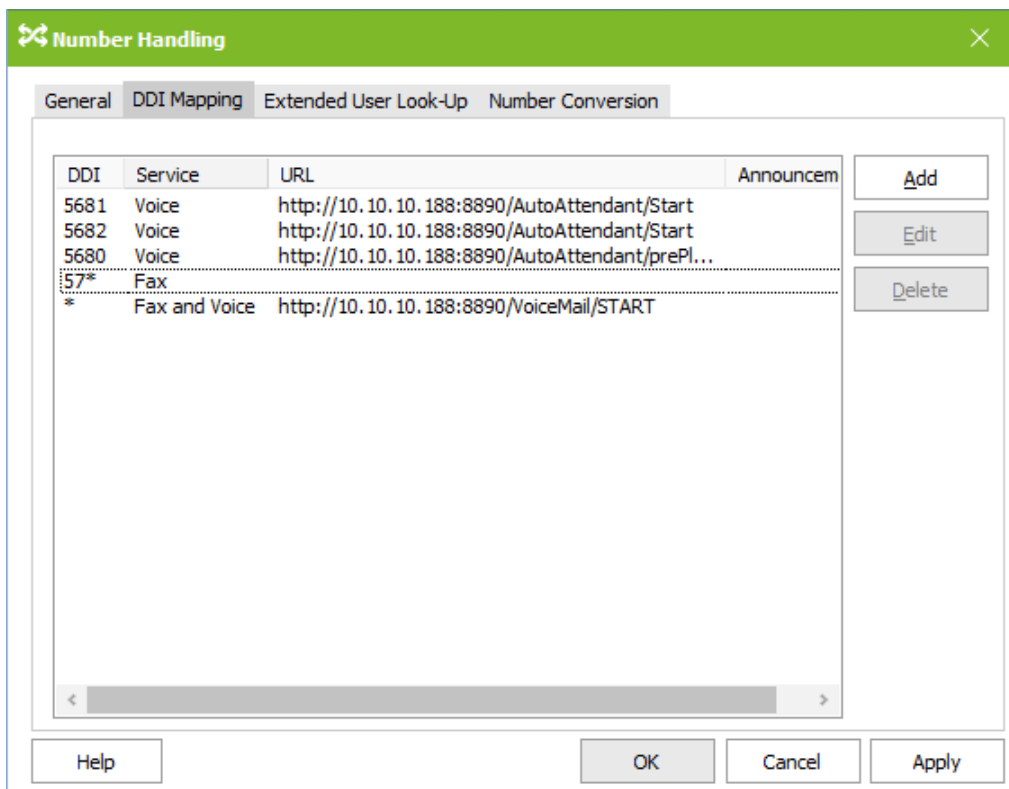
Extension numbers and extension blocks can be reserved for the following "services":

Fax: Switch to receive fax mode.

Voice: Switch to receive voice message mode.

Remark: With this entry, no extended user look-up is done by default.

Fax or Voice: Detect fax or voice transmission and switches to appropriate mode automatically.



Ignore: Leave call for another application on the ISDN controller.

Reject: Reject call.



If only the service "Voice" is licensed, only "Voice" may be inserted as service.

In few special cases it can be necessary to set up the routing by means of the last extension digits.

Therefore it is also possible to use leading *.

Example: *98



Please note that the automatic sort in the list does not work in this case and that you have to execute it manually.

6.4.2.3.3 Extended User Look-Up

Before an incoming fax is accepted, an LDAP look-up in the user data base checks whether a user/inbox is assigned to the called number. If this is not the case, the call is rejected. The look-up is made by default with all the incoming calls.

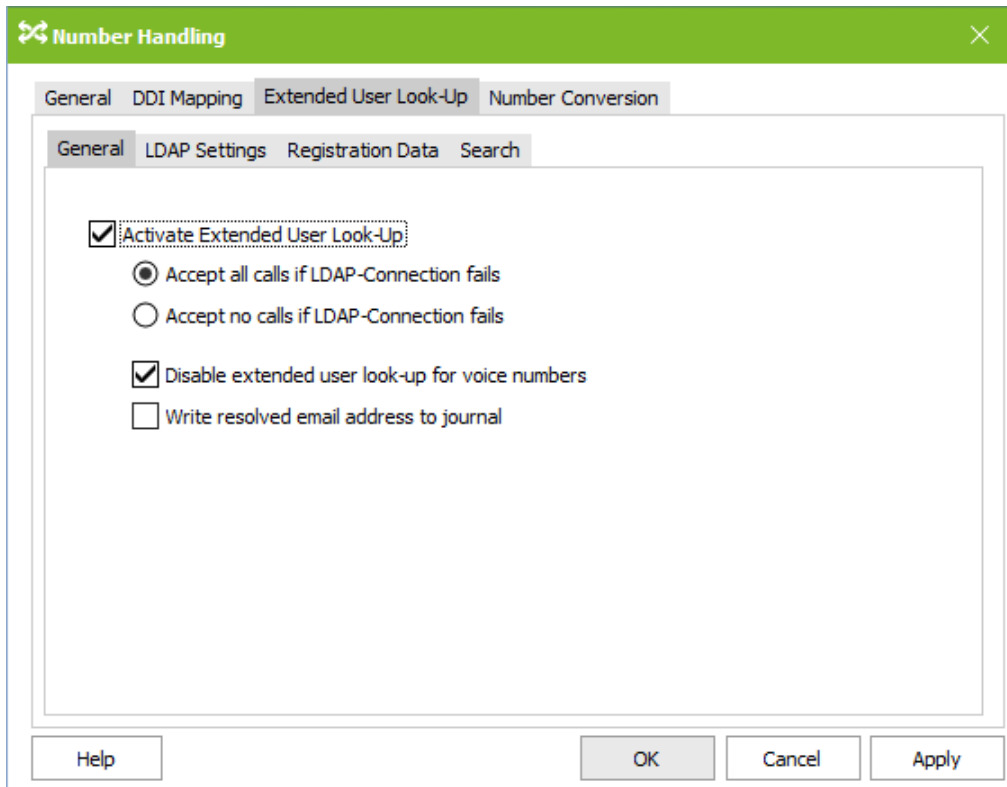
With the setting of the services in the "DDI Mapping", calls with the feature Voice can be excluded from the look-up.



The Extended User Look-Up can only be made available **for one LDAP connection** (i.e. only for a ixi-UMS Mail Server Connector instance). All phone numbers must be found in this LDAP database.

6.4.2.3.3.1 General

After having activated the Extended User Look-Up it has to be determined, what shall happen with LDAP connection problems (no connection with the data base, login failed).



With extensions that are entered in the DDI-Mapping with "Voice", NO extended user look-up is executed by default, because this feature is executed by the ixi-UMS Voice-Mail Server.

When no ixi-UMS Voice-Mail Server is installed or some numbers are defined without this feature, the extended user look-up can be activated.

If "Write resolved e-mail address to journal" is enabled, not only the recipient numbers, but also the e-mail addresses of the recipients are logged in the journal with incoming calls.

6.4.2.3.3.2 LDAP Settings

At "LDAP Settings", the connection data can be entered. The connection data of the installed ixi-UMS Mail Server Connector Instanz shall be adopted. This function requires only "read" access to the database.

The screenshot shows the 'Number Handling' dialog box with the 'LDAP Settings' tab selected. The 'Use LDAP-Section:' dropdown menu is open, showing four options: 'From the ixi-UMS Mail Server Connector instance "Schweiz"', 'From the ixi-UMS Mail Server Connector instance "MSConnInst1"', 'From the ixi-UMS Mail Server Connector instance "Schweiz"', and 'Individual LDAP settings'. The first option is selected. Below the dropdown, there are fields for 'Server' and 'Port' (389) for the main LDAP server. There are also three optional alternative servers, each with a 'Server' field and a 'Port' field (389). A checkbox for 'Use TLS/LDAPS for all servers (see manual)' is present. Buttons for 'Help', 'OK', 'Cancel', and 'Apply' are at the bottom.

If a domain structure including sub-domains shall be browsed in the Active Directory environment, the search must be executed via the "Global Catalog" (Port 3268).

If only an ixi-UMS Connector WITHOUT LDAP connection is installed (ixi-UMS FAPI Connector, ixi-UMS SI CON Connector), the LDAP connection data can be entered individually.

Further servers can be entered optionally. When Server1 is not available, the other servers are used. All the server must be domain controllers / LDAP-data base servers of the same domain on the same level.

Use TLS/LDAPS

If the connection is to be established via TLS/LDAPS, the corresponding certificate must be available in the computer.

6.4.2.3.3 Registration Data

These settings can only be changed when in the tab "LDAP Settings", "Individual LDAP Settings" has been selected. Otherwise, the data are adopted from the ixi-UMS SI CON Connector Instance.

The screenshot shows a dialog box titled "Number Handling" with a close button (X) in the top right corner. The dialog has four main tabs: "General", "DDI Mapping", "Extended User Look-Up", and "Number Conversion". The "Number Conversion" tab is active, and within it, the "Registration Data" sub-tab is selected. The "Registration Data" sub-tab contains the following fields and controls:

- A text box for "User DN" containing the value "cn=administrator,dc=domain,dc=net".
- A text box for "Password" containing "*****".
- A "Test Connection" button to the right of the password field.
- A text box for "LDAP domain" containing "dc=domain,dc=net".
- Two radio buttons: "Whole domain" (selected) and "Individual OUs".
- A large empty text box for entering individual OUs.
- "Add" and "Delete" buttons to the right of the OUs text box.

At the bottom of the dialog, there are four buttons: "Help", "OK", "Cancel", and "Apply".

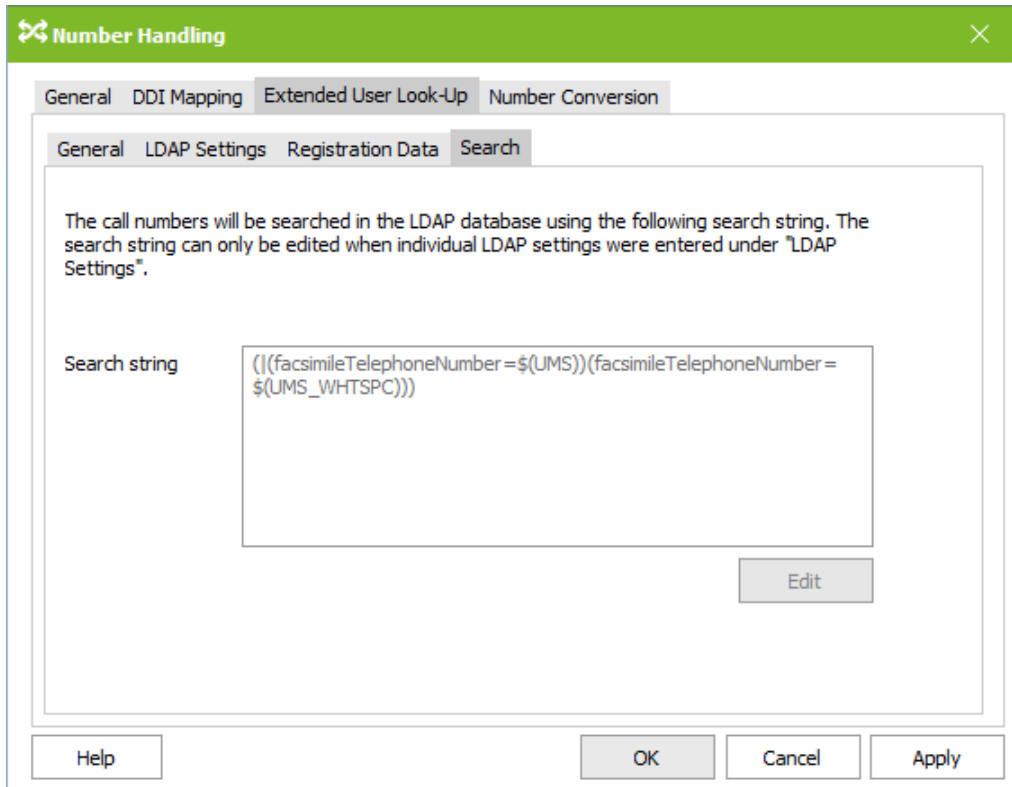
With the account stated here, the query to the LDAP-data base is executed. Only "read" access is required. Please take Base DN, User DN and User Password from your LDAP-server configuration.

The LDAP-query can be executed on all the OUs within the **entire domain**.

If the search shall be limited to single OUs, they can be entered by clicking on the "Add"-button. The paths must be entered as full BaseDN.

6.4.2.3.3.4 Search

By default, the call number is searched in the same LDAP-attributes as with the ixi-UMS Mail Server Connector.



With the user look-up, it is important that the result of the search is returned very quickly. If the search lasts for too long, there is a disconnection from the remote station and no connection can be established.

It may make sense with large LDAP-data bases to limit the search to one particular attribute in order to shorten the time for the search.

Click on "Edit" in order to edit the search string.

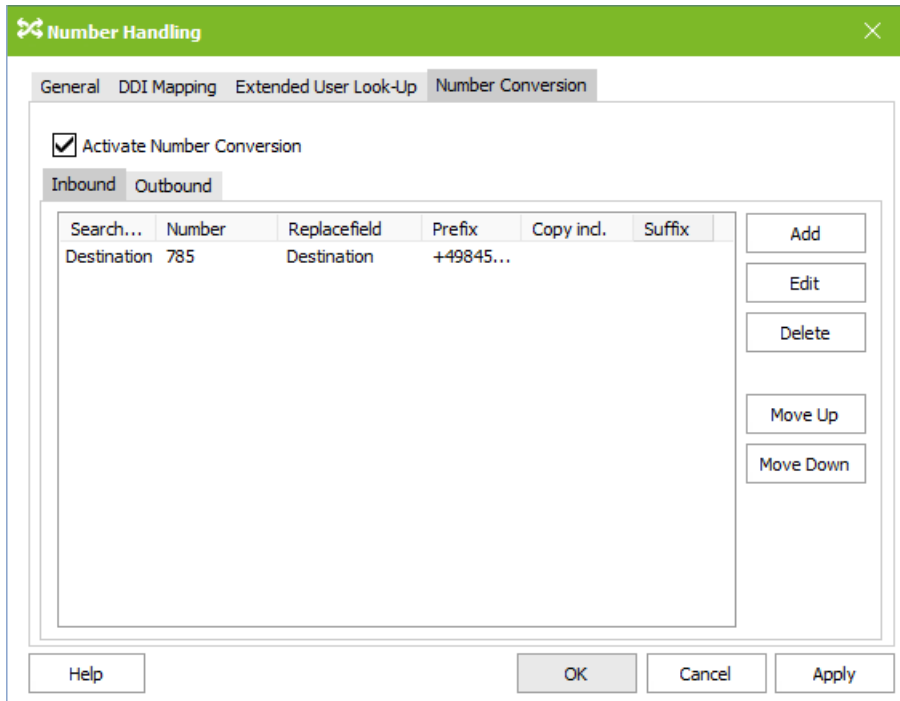
Please note:

If the search string contains errors, the LDAP search can not be performed and the ixi-UMS Kernel will stop accepting messages.

6.4.2.3.4 Number Conversion

Rules can be deposited, by means of that incoming and outgoing destinations are converted. Therewith, for example with networked PBX's, messages with a certain area code can be sent via a PBX at another site.

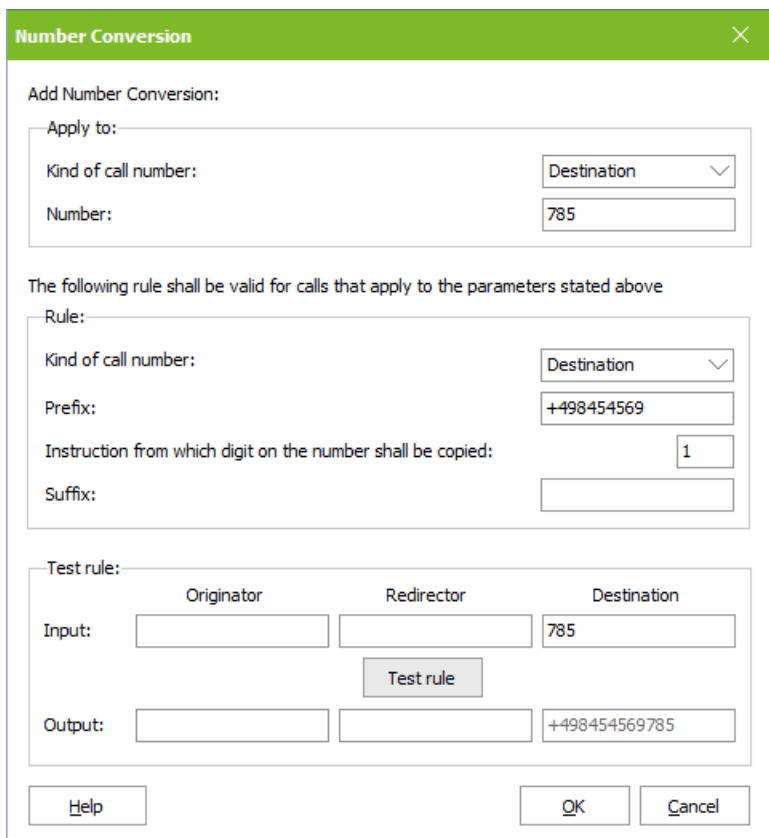
See also "Additional Features - Number Conversion"



The rules have to be determined separately for "incoming" and "outgoing" Fax, SMS and MWI Messages.

Please note that the "first hit strikes", this means you have to take care of the order of the rules.

Via "Add", a rule can be entered.



In the upper part of the window, the number to which the rule applies is defined

Apply To

Kind of call number:

Destination = CalledPartyNumber
 Originator = CallingPartyNumber
 Redirector = RedirectingNumber,
 DivertedNumber)

Number:

This part of the number is searched for in the table

In the second part, the rule is defined that shall be applied to the call number stated above.

Kind of call number:	required	Call number to be changed: Destination (CalledPartyNumber) Originator (CallingPartyNumber) Redirector (RedirectingNumber, DivertedNumber)
Prefix:	optional	Number / digit in front of the copied part
Instruction from which digit on the number shall be copied:	optional	Copied part of the number. The number contains the first digit to be copied. Example: Number: 4799584 Prefix: 3 = Copied: 99584
Suffix:	optional	Digits that are added at the end

At "**Test rule**" it can be checked, whether the result is appropriate.



The number conversion "lies" on the ISDN-board, this means:

With outgoing messages, an outside line access that might have been entered at the Kernel is added, BEFORE a rule is searched.

When an outside line access is needed, it has to be included in the rule.

If rules with multiple conditions are needed, read How To: Advanced Rules for Call Number

6.4.3 Spooling

In **General** make spool settings for repeated delivery of messages. You can specify the number of retries in case of transmission errors and up to 8 time intervals between the single transmission tries. Furthermore, the time window for sending low priority messages can be specified here.

Number of retries

Determines how often the ixi-UMS Kernel tries to send a message. When entering two retries (see screenshot above), the message is sent 3 times all in all.

Retry Intervals (in min)

Interval 1 .. 8

Determines the waiting period until the next try. If all the 8 intervals as in the screenshot were utilized, a fax would be in the queue at least 135 minutes until the user would receive a sending report.

Time Window for sending Low Priority Messages

Faxes with low priority are delivered during the determined time window. This saves money for the sending.

With mail merge faxes you should take care that it is technically possible (number of channels) to deliver the faxes within the time window.

Start Determines the start time of the time window.

End Determines the end time of the time window.

6.4.4 Service Fax

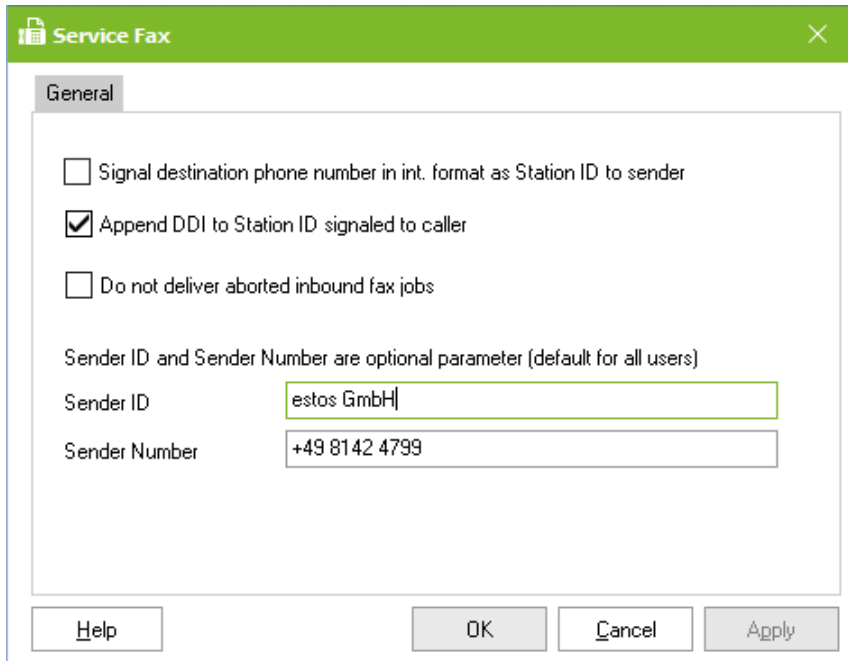
Here it can be determined whether the extension of the user shall be attached to the sender number.

Incoming phone numbers are transmitted in E.164 format

If "**Signal destination phone number...**" is activated, for incoming fax messages the incoming E.164 telephone number is supplemented with + and signalled back to the sender.

Incoming phone numbers are transmitted as DDI

If "**Append DDI to fax station ID....**" is activated, not only the "Sender ID" is signalled back to the sender of incoming fax messages, but the dialed number (DDI) is also appended.



By default, all incoming faxes are delivered to the recipient, also if they are incomplete.

Incoming faxes that have been transmitted incompletely can be "sorted out". Precondition for this is that appropriate information had been passed on to the ixi-UMS Kernel by the CAPI.

estos GmbH advises not to use this feature (deletion of incompletely received faxes).

Sender-ID and Sender-Number are optional and can be chosen freely.

The "**Sender ID**" entered here is printed as "Headline" on every fax and is valid for all users if no separate headline is entered for this user in the user administration. Optionally the user can enter this headline himself via the ixi-UMS User Portal.

Under "**Sender ID**" the part of the sender number valid for all users should be entered. This means that only the individual extension number has to be entered as "Fax sender number" for the users. Only the characters "+", " ", "0" ... "9" are valid



Please note that this number including the User-ID must not exceed 32 characters.

6.4.5 Service Voice

If service Voice is licensed, a default announcement is played for every configured extension, which tells the caller the extension called. Furthermore, the caller can leave a message that is delivered to the inbox of the respective user as WAV-file.



The licensing of "Voice" contains the installation of the **ixi-UMS Voice-Mail Server** and so provides the features "remote inquiry of voice mails" and "recording of announcements" by the users as well as the Notifier Express.



Changes in **File format** should only be made on instruction of the company estos GmbH.

Service Voice

General

File format: ALAW

Minimum recording Duration of voice box: 3 in seconds

Maximum recording Duration of voice box: 240 in seconds

Help OK Cancel Apply

Minimum recording duration of Voice Box

Please specify the time in seconds to be used as the minimum recording time for incoming messages. Any messages left behind that are shorter than the minimum recording time will not be delivered to the user.

This setting is to prevent messages without content from being delivered

Maximum recording duration of Voice Box

Please enter the time in seconds, which is the maximum recording time for

- incoming news and
- for the length of the stored announcement should be used.

After this time interval the recording of the message will be aborted.

6.4.6 Service SMS

The configuration depends on the selected type of connection.

SMS

General

Define whether and via which connection SMS should be sent and received (depending on the connection):

No SMS sending/receiving

SMS via ISDN / VoIP

via GSM Data Adapter

via HTTP/HTTPS

SMSC connected via VPN

Individual configuration

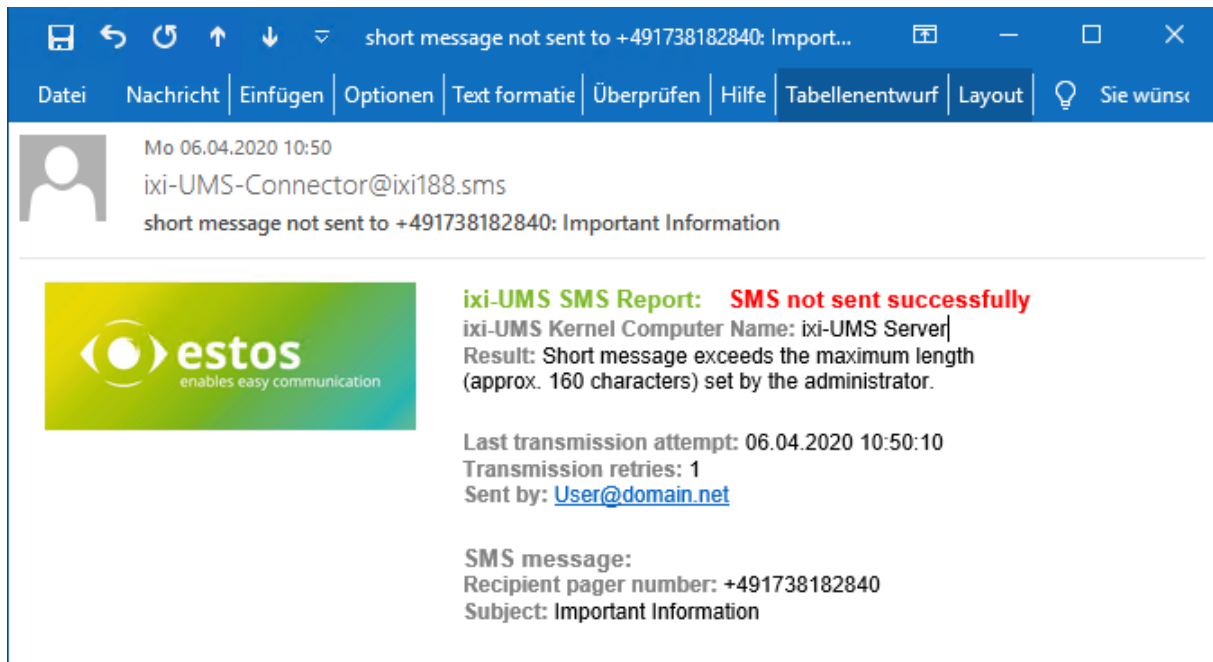
Help OK Cancel Apply

Available for selection:

- SMS via ISDN/VoIP
- SMS via GSM-Adapter
- Sending SMS via HTTP/HTTPS
- Connection of a SMSC via VPN (SMS Large Account)
- Individuell configuration

Please note for the setting: max. messages:

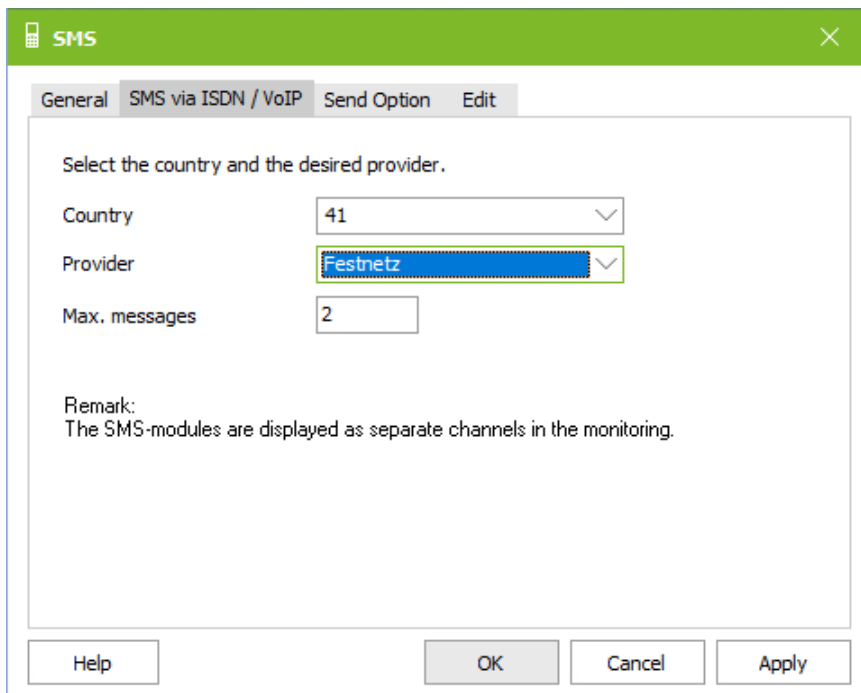
If the message text is defined here for a longer time, the sending is rejected and the user receives a corresponding notification.



6.4.6.1 SMS via ISDN/VoIP

Country

The country in which the ixi-UMS Kernel is located must be selected. Depending on the country selection there are different possibilities to send SMS.



Provider

Select the desired provider for sending SMS messages.

Confirm the selection with "Apply" before you make further settings. It is not necessary to restart the ixi-UMS Kernel Service.

If you use an S2M connection or a VoIP connection with more than 8 channels, select the corresponding entry S2M_XXX.

If the desired provider is not offered, please contact the ixi-UMS-Support.

Max. messages

If an SMS is longer than 128bit (max. 160 standard characters), the ixi-UMS Kernel automatically splits it into two or more parts and concatenates them. Thus the SMS is displayed as one SM in most mobile phones. With Max. Messages defines the maximum number of parts (= SMS messages) an oversized SMS is split into. If the message text is defined here for a longer period of time, sending is rejected and the user receives a corresponding notification.

Observe the note.

6.4.6.1.1 Send Option

Here you can change the sending options.

The screenshot shows the 'SMS' configuration window with the 'Send Option' tab selected. The 'Outside line access' field contains the value '0'. The 'Handling of SMS messages with high priority' dropdown menu is set to 'Send normal and Flash SMS'. Below this, the 'Send Option' section contains four radio button options: 'automatic' (selected), 'subject and mail text are sent as short message', 'message text is sent as short message', and 'subject is sent as short message'. At the bottom of the window are buttons for 'Help', 'OK', 'Cancel', and 'Apply'.

Outside line access: By default, the same outside line access is entered that has been determined at the site. If another outside line access is required for the sending of SMS, it must be entered here.

Handling of SMS messages with **high priority**

- Send Normal SMS
- Send Flash SMS
- Send Normal and Flash SMS

A Flash SMS appears directly on the mobile phone screen and is NOT saved in the 'Inbox'. For this reason, the combination of normal and flash SMS may make sense.

Under "**Send Options**" can be fixed which part of e-mail should be dispatched as an SMS.

When "**Automatic**" is chosen, the body text of the SMS is sent. If no text is entered in the body, the text from the Subject is sent.

6.4.6.1.2 Edit

In the tab "Edit" a manual adjustment of the configuration files is possible.

The screenshot shows the 'SMS' configuration window with the 'Edit' tab selected. It features three rows of configuration options, each with a text field and an 'Edit' button: 'Edit the SMS configuration file' with 'sendxms.cfg', 'Edit the SMS provider file' with 'sendxms.pro', and 'Edit the SMS.ini'. At the bottom of the window are buttons for 'Help', 'OK', 'Cancel', and 'Apply'.

In general, it is not necessary to edit the configuration file or the provider file.

The configuration file should only be changed after consultation with the ixi-UMS support.

In the SMS.ini the number of lines for SMS as well as their binding to the controllers are defined.

This file only needs to be changed in special cases on instruction of the ixi-UMS support.

6.4.6.2 via GSM-Adapter

Country

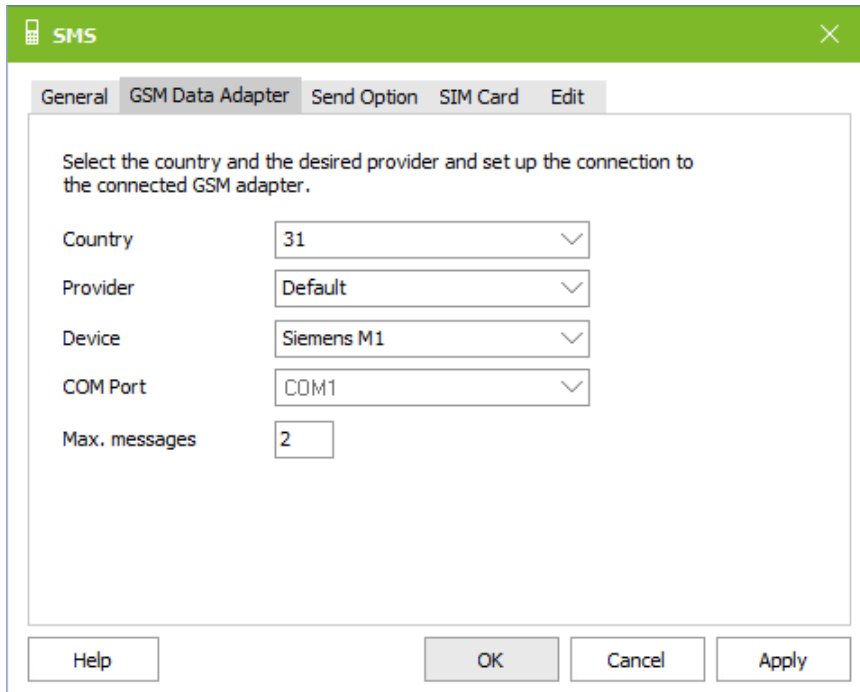
Select SMS configuration for the specified country

Provider

Select the mobile phone provider. Must match the mobile phone provider of your SIM card

Device

GSM data adapter/mobile phone used



The screenshot shows the 'SMS' configuration window with the 'GSM Data Adapter' tab selected. The 'Device' dropdown menu is set to 'Siemens M1'. Other settings include Country: 31, Provider: Default, COM Port: COM1, and Max. messages: 2.

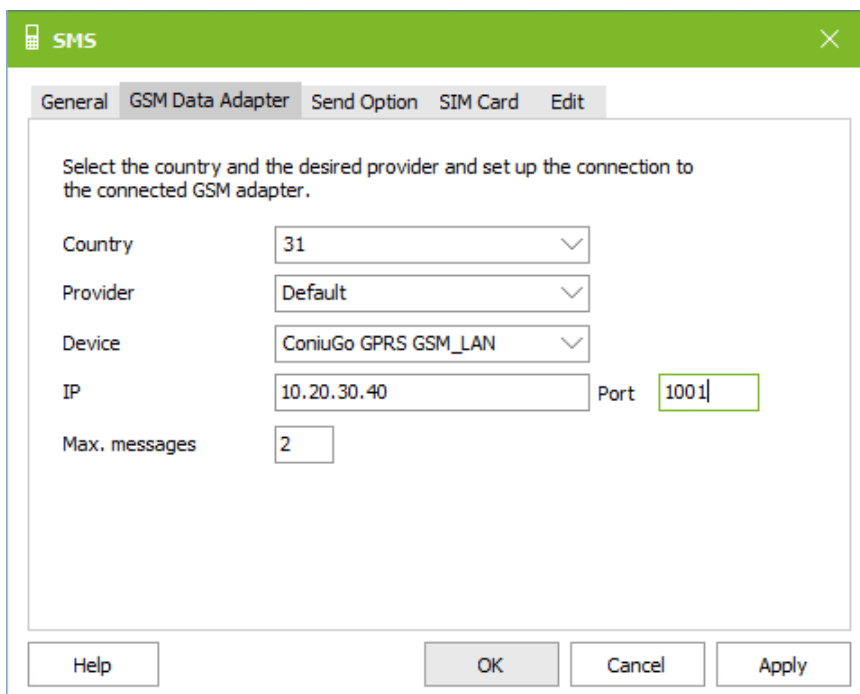
Die Konfiguration ändert sich mit Auswahl der Anbindung:

COM Port

Select the Com-Port to which the adapter is connected via data cable.

Max. Messages

If an SMS is longer than 160 characters, the ixi-UMS Kernel automatically splits it into two or more parts. With Max. Messages defines the maximum number of parts (= SMS messages) into which an extra long SMS is split. put back together at the receiver. If the message text is defined here for a longer period of time, sending is rejected and the user receives a corresponding notification. Observe the note.



The screenshot shows the 'SMS' configuration window with the 'GSM Data Adapter' tab selected. The 'Device' dropdown menu is set to 'ConiuGo GPRS GSM_LAN'. The 'IP' field is set to '10.20.30.40' and the 'Port' field is set to '1001'. Other settings include Country: 31, Provider: Default, and Max. messages: 2.

IP / Port

If the connection to the LAN is provided in the configuration of the selected device, the IP address and the port must be specified.

Max. Messages

If an SMS is longer than 160 characters, the ixi-UMS Kernel automatically splits it into two or more parts. With Max. Messages defines the maximum number of parts (= SMS messages) into which an extra long SMS is split. If the message text is defined here for a longer period of time, sending is rejected and the user receives a corresponding notification. Observe the note.

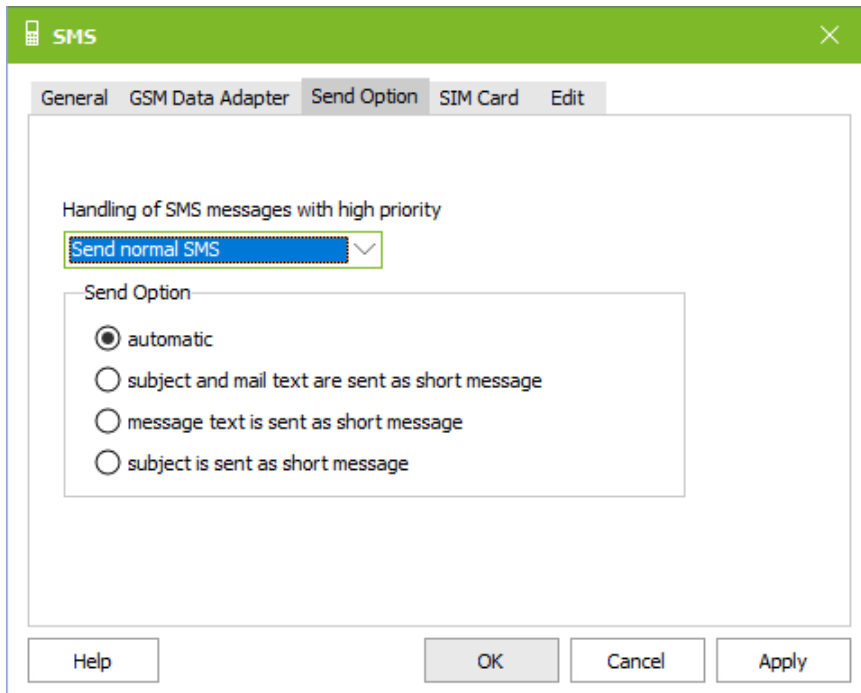
Confirm the selection with "Apply" before you make further settings. It is not necessary to restart the ixi-UMS Kernel Service.

6.4.6.2.1 Send Option

It can be defined whether an SMS that was sent with **high priority** should be

- regular SMS
- Flash SMS (SMS is immediately shown on the display)
- normal and flash SMS

is to be sent.



The screenshot shows the 'Send Option' tab of the SMS configuration window. The title bar is green with 'SMS' and a close button. The tab bar includes 'General', 'GSM Data Adapter', 'Send Option', 'SIM Card', and 'Edit'. The main content area is titled 'Handling of SMS messages with high priority' and contains a dropdown menu set to 'Send normal SMS'. Below this is a 'Send Option' section with four radio buttons: 'automatic' (selected), 'subject and mail text are sent as short message', 'message text is sent as short message', and 'subject is sent as short message'. At the bottom are 'Help', 'OK', 'Cancel', and 'Apply' buttons.

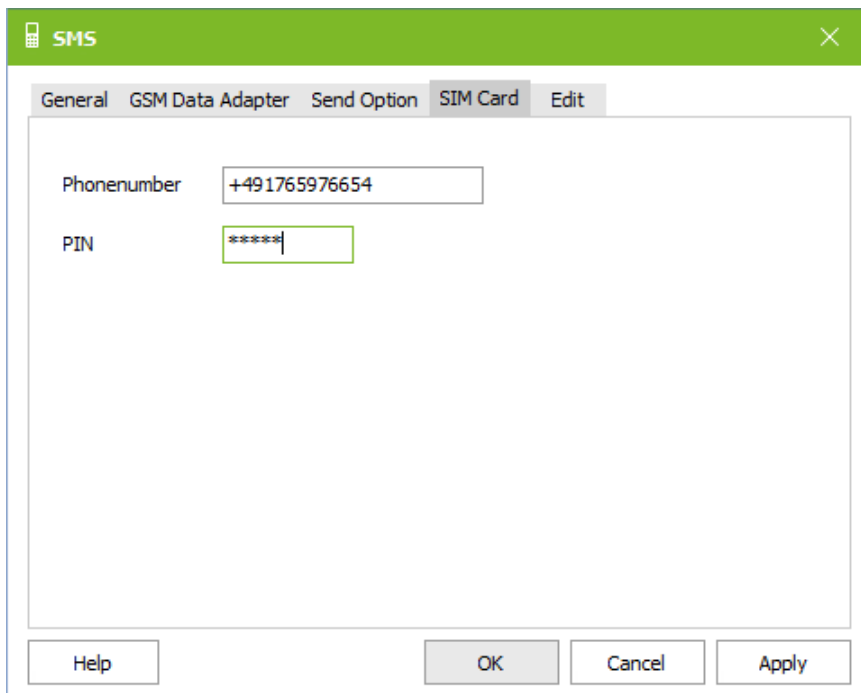
A Flash SMS appears directly on the mobile phone screen and is NOT saved in the 'Inbox'. For this reason, the combination of normal and flash may makes sense.

At "**Send Option**" it can be determined, which part of the e-mail shall be sent as SMS.

When "Automatic" is chosen, the body text of the SMS is sent. If no text is entered in the body, the text from the Subject is sent. SMS-Cover-Pages.

6.4.6.2.2 SIM Card

In the tab "Edit" a manual adjustment of the configuration files is possible.



The screenshot shows the 'SIM Card' tab of the SMS configuration window. The title bar is green with 'SMS' and a close button. The tab bar includes 'General', 'GSM Data Adapter', 'Send Option', 'SIM Card', and 'Edit'. The main content area has two input fields: 'Phonenumber' with the value '+491765976654' and 'PIN' with the value '*****'. At the bottom are 'Help', 'OK', 'Cancel', and 'Apply' buttons.

Phone Number

Phone number stored on your SIM card, e.g. 01701234567

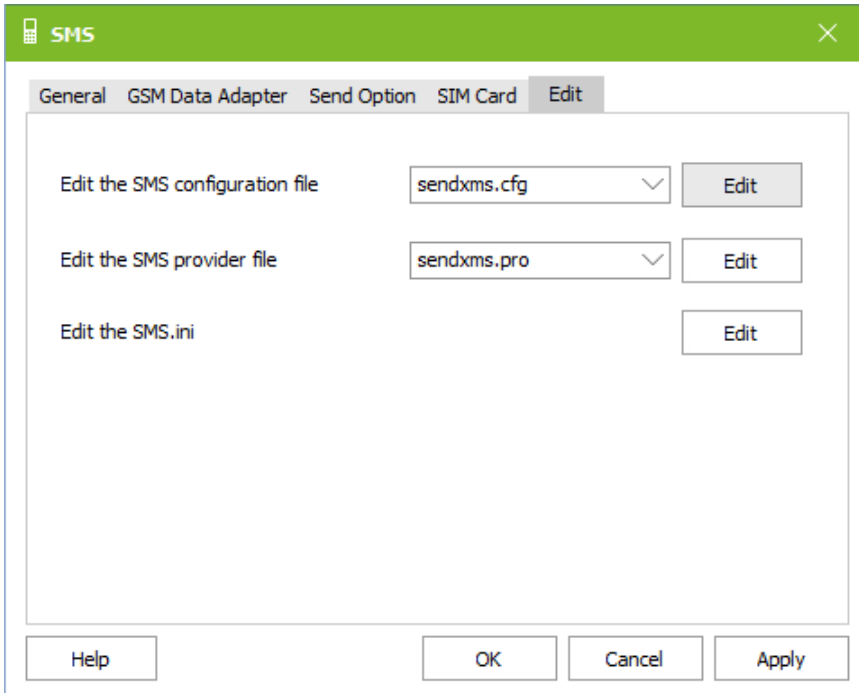
PIN

PIN stored on your SIM card SIM-Karte ein



You should clarify in advance with a mobile phone whether the card is released for SMS.

6.4.6.2.3 Edit



Normally, a proceeding of the configuration file as well as of the provider file is **not necessary**.

Exceptions

1) If the used device or the provider cannot be selected in the card "General", changes by %Firma% GmbH might be required.

6.4.6.3 über HTTP/HTTPS

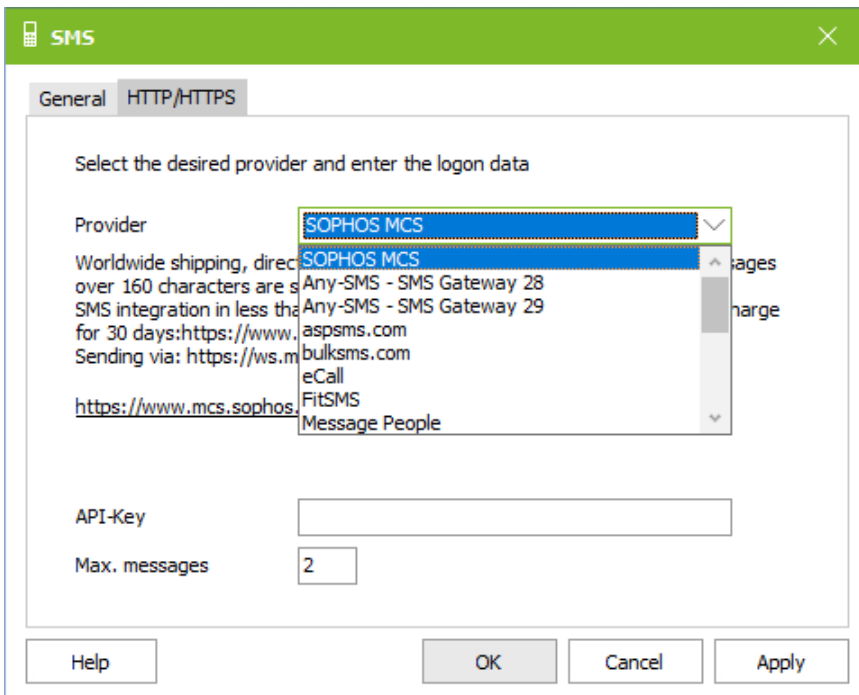
ixi-UMS Enterprise offer sending SMS via HTTP using several providers.

The providers allow you to use gateways in order to use certain features.

Depending on the provider, there are different costs and some providers require you to have a static IP in order to use the service. Which features are provided by the providers, please refer to the specified homepage of the provider.

Please note:

- Receiving Delivery Status (DSN) or SMS is not supported.
- SMS with more than 160 characters are split several SMS and put back together at the receiver. Provided the provider supports this.
- ixi-UMS Enterprise creates a separate SMS for each recipient. The function "multiple recipients per SMS" does not need to be supported by the provider for using ixi-UMS. However, you should make sure that many SMS messages can be sent one after the other when you send SMS messages with several recipients. SMS messages with more than 160 characters are split into several SMS and reassembled at the receiver. Provided the provider supports this.
- For some providers, you can also provide the reply address when sending the SMS message. If the provider allows you to do this, you must enter the mobile phone number in the user management under "Mobile number".
Note that this number must be in International format and may only have 16 characters for many providers.
- Different providers with different services are supported. Please note that some providers need to make settings on the provider homepage before using the service.



Provider

Select one of the SMS providers you have stored.

Depending on the provider you have to enter:

Login Account and Password

In the User Name and Password field, enter the Login data provided by the provider.

API-Key

Enter the key you received from the provider.

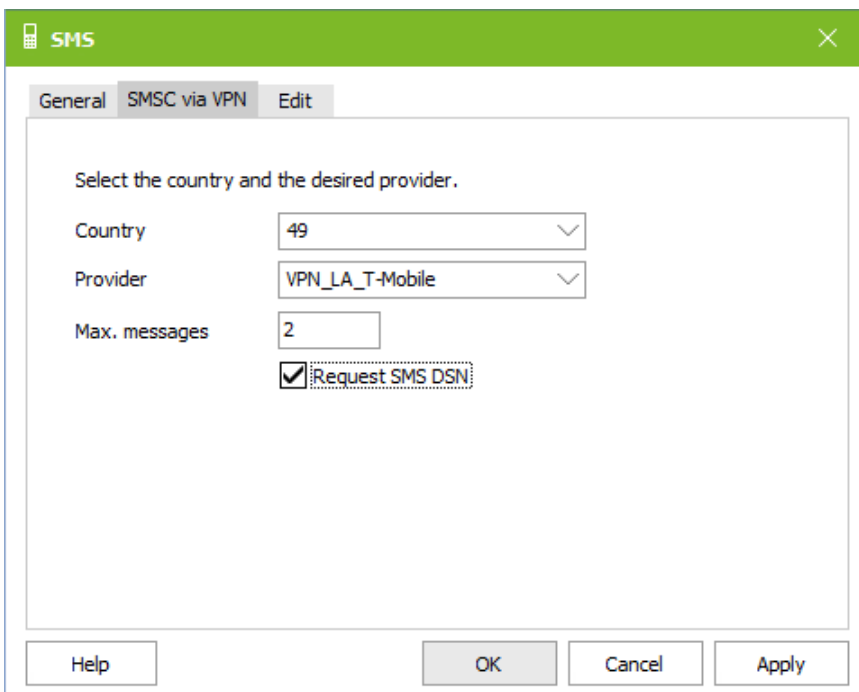
Max. Messages

Maximum number of SMS messages which are sent for one e-mail message. This happens if the e-mail message size exceeds the SMS size. An SMS always has 128bit - max 160 standard characters (without umlauts or special characters). If longer texts are sent, they are split into several SMS and put back together at the receiver. If the message text is defined here for a longer period of time, sending is rejected and the user receives a corresponding notification.

Observe the note.

6.4.6.4 SMSC via VPN

If the wholesale access is used, 1 "channel" is displayed in ixi-UMS Kernel.



The connection data for the provider "T-Mobile" is stored. Only the password that you received from the provider needs to be entered.

Confirm the selection with "Apply" before you make further settings. It is not necessary to restart the ixi-UMS Kernel Service.

Request SMS status report

A traffic jam report can be requested from the provider.

If this is delivered by the provider, the sender receives an acknowledgement with the result.

Max. Messages

If an SMS is longer than 160 characters, the ixi-UMS Kernel automatically splits it into two or more parts. With Max. Messages defines the maximum number of parts (= SMS messages) into which an extra long SMS is split. If the message text is defined here for a longer period of time, sending is rejected and the user receives a corresponding notification.

Observe the note.

6.4.6.4.1 Send Option

The screenshot shows the 'SMS' configuration window with the 'Send Option' tab selected. The window has a green header with a close button. Below the header are tabs for 'General', 'SMSC via VPN', 'Send Option', 'Sender Number', and 'Edit'. The main content area is titled 'Send Option' and contains four radio button options: 'automatic' (selected), 'subject and mail text are sent as short message', 'message text is sent as short message', and 'subject is sent as short message'. At the bottom of the window are buttons for 'Help', 'OK', 'Cancel', and 'Apply'.

Under **Sending options** you can define which part of the e-mail should be sent as SMS.

If **automatic** is selected, the text from the body is sent for an SMS. If no text is entered, the text from the subject line is sent.

Note this behavior with changed SMS cover pages.

6.4.6.4.2 Sender Number

Specify which phone number is to be signaled as the sender.

The screenshot shows the 'SMS' configuration window with the 'Sender Number' tab selected. The window has a green header with a close button. Below the header are tabs for 'General', 'SMSC via VPN', 'Send Option', 'Sender Number', and 'Edit'. The main content area is titled 'Configure how the SMS sender number should be build' and contains two radio button options: 'Sender Number From User' (selected) and 'Fixed Sender Number'. Under 'Sender Number From User' is a text field for 'Originator Prefix' containing '+41568745'. Under 'Fixed Sender Number' is a text field for 'Originator'. At the bottom of the window are buttons for 'Help', 'OK', 'Cancel', and 'Apply'.

Sender Number From user

The fax or ISDN sender number entered for the user is sent. This number must be supplemented by the part of the call number which is valid for all users. See also Fax sender .

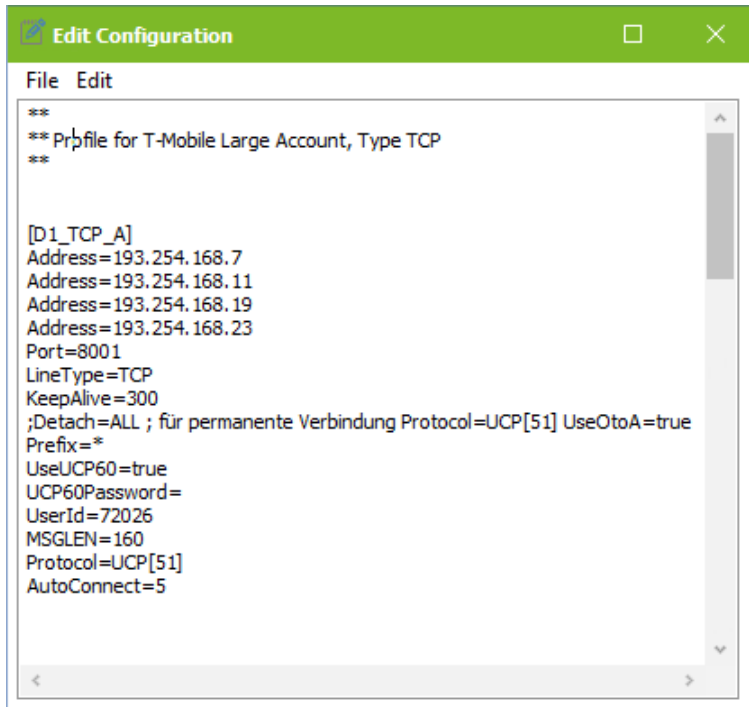
Fixed Sender Number

If the same sender number is to be sent for all users, it must be entered here.

In both cases, the phone number must be entered in international format and without spaces.

6.4.6.4.3 Edit

To establish the connection, the "Provider" file must be edited.




```
File Edit
**
** Profile for T-Mobile Large Account, Type TCP
**

[D1_TCP_A]
Address=193.254.168.7
Address=193.254.168.11
Address=193.254.168.19
Address=193.254.168.23
Port=8001
LineType=TCP
KeepAlive=300
;Detach=ALL ; für permanente Verbindung Protocol=UCP[51] UseOtoA=true
Prefix=*
UseUCP60=true
UCP60Password=
UserId=72026
MSGLEN=160
Protocol=UCP[51]
AutoConnect=5
```

For the connection to the "T-Mobile Large Account" 4 sections are deposited.

The IP addresses of the providers required for the connection are entered and must be accessible from ixi-UMS.

 If no connection to the provider can be established, the outgoing messages remain in the status "in transmission" in the ixi-UMS kernel.

The **user name (UserId)** and **password** must be stored in each section.

Then save and close the file.

Sender number

The sender number can be the "Fax" or "ISDN" sender number or a fixed telephone number.

The setting is changed in the "SMS.ini". **The changes must be made in both sections.**

Individual sender number:

If the individual ISDN sender number is to be sent by the user, the fax or ISDN sender number must belong to the BUS. Under "OriginatorPrefix" must be entered what is missing for the user. Result must be an E.164 number without spaces. Example: OriginatorPrefix=+4981424799

Fixed sender number:

If a fixed sender number valid for all SMS (e.g. mobile phone number) is to be sent, "SetOriginator=1" must be set to "0". The fixed sender number must be entered as "OriginatorPrefix". Example: OriginatorPrefix=+4917598410254

Then save and close the file.

6.4.6.5 Individuelle Konfiguration

In exceptional cases it is necessary to define an individual configuration for sending SMS messages.

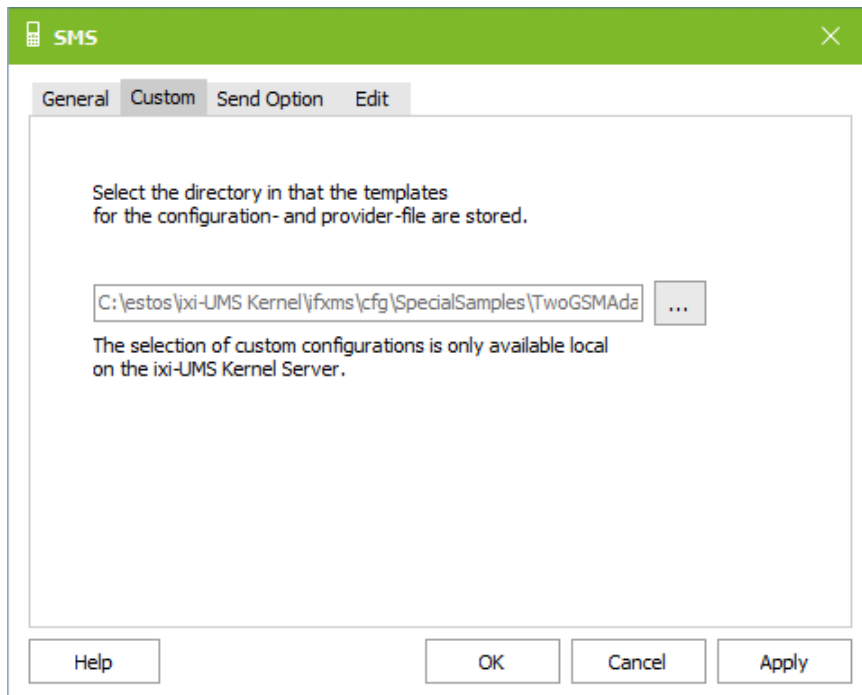
For example, several GSM adapters at one location for:

- Provider Routing
- Round-Robin/Fail-safe



Examples are supplied for the special configurations mentioned. Please read the Additional information: Several GSM adapters at one location.

The files required for configuration and communication with the provider must be stored as "sendxms.cfg" and "sendxms.pro" in a folder on the ixi-UMS server. Additionally the "sms.ini" is needed for the configuration of the ixi-UMS server.



The "sms.ini" must be selected in the directory that also contains the configuration files.

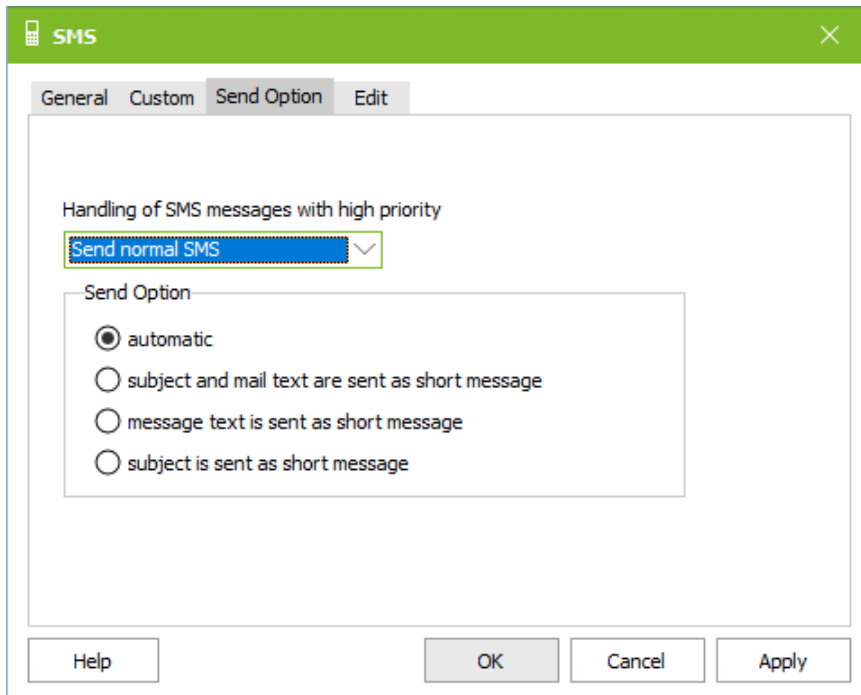
Confirm the selection with "Apply" before you make further settings. It is not necessary to restart the ixi-UMS Kernel Service.

6.4.6.5.1 Send Option

It can be defined whether an SMS that was sent with **high priority** should be

- regular SMS
- Flash SMS (SMS is immediately shown on the display)
- normal and flash SMS

is to be sent.



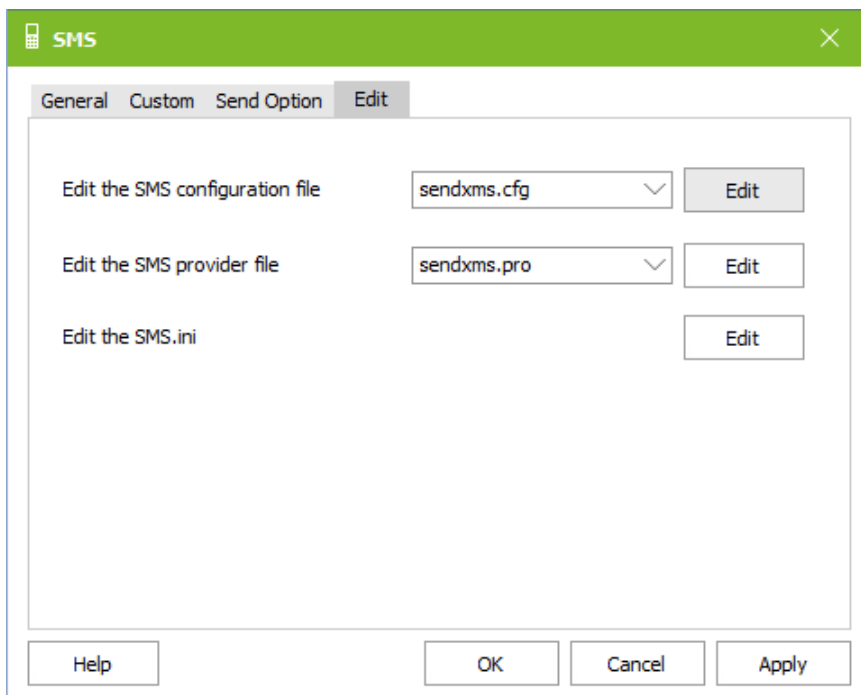
A Flash SMS appears directly on the mobile phone screen and is NOT saved in the 'Inbox'. For this reason, the combination of normal and flash may makes sense.

At "**Send Option**" it can be determined, which part of the e-mail shall be sent as SMS.

When "Automatic" is chosen, the body text of the SMS is sent. If no text is entered in the body, the text from the Subject is sent.
SMS-Cover-Pages.

6.4.6.5.2 Edit

Here the files from the selected folder can be edited using the "Edit" button.



SMS configuration file

The file must contain the settings required for communication between ixi-UMS Kernel and the device. e.g. when a GSM adapter is connected, the AT commands required for the device.

SMS provider file

This file must contain the connection data to the provider and any protocol information required for communication.



Examples are supplied for the special configurations mentioned. Please read the additional information: Several GSM adapters at one location.

6.4.7 Service Alert

Here the settings for the "Message Waiting Indication" connection to the PBX are determined.



It is NOT determined here, when the MWI is set !!!

The configuration for setting "MWI" on the phones is dependent on the PBX, its configuration and the connection to the PBX.

The configuration for the connection to the PBX must be selected from the drop-down menu and then the connection must be configured via the "Edit" button.

Confirm the selection with "Apply" before you make further settings. It is not necessary to restart the ixi-UMS Kernel Service.



It is NOT determined here, when the MWI is set !!!

In the following explanations of the individual connection types, only the relevant settings and known configuration notes are documented. The setting options are also briefly explained in the configuration files.

Selection	Precondition / Remark	ixi-UMS Configuration
General InfoCall	For PBX's that do not support "MWI". A call to the telephone is initiated, then after one second, the call is terminated. Depending on the configuration, the caller memory displays the call or a call notification light on the phone flashes.	The controller to be used must be entered. Optionally, the waiting time after the selection can be changed.
General ISDN Dial	With this kind of signaling, the code numbers for "MWI on" and "MWI off" are sent to the PBX via ISDN, together with the respective DDI as dial information (CalledPartyNumber in SETUP Message). The numbers 0 - 9 are valid as code numbers here.	The code numbers for "OnPre" and "OffPre" must be entered.
General Qsig und DSS1	All the PBX's that support Qsig MWI ECMA 241 and 242 All the PBX's that support MWI via DSS1, PtmP-connection according to ETS 300 650	Configuration depends on the PBX
General VoIP (XCAPI)	All the PBX's that are connected via ixi-UMS VoIPconnect / XCAPI and support this. Interoperability with PBX's: see XCAPI Manual or ask ixi-UMS Support.	No Configurations required. The PBX-specific settings must be made in the VoIPconnect / XCAPI.

6.4.7.1 General InfoCall

Die im Job-File angegebene Zielrufnummer wird angewählt. Nach einmaligem Klingeln wird der Call abgebrochen.



In den Konfigurationsdateien sind immer alle Optionen eingetragen - auch wenn diese nicht benötigt werden.

Angepasst werden müssen/können:

CtrlNum=1	MUST	The controller required for setting MWI messages is entered here. All MWI messages are sent via this controller. It is not possible to specify multiple controllers. Default = 1
CallingPTY=INV	OPTIONAL	A standard sender number can be stored here. This overwrites any existing sender numbers in the alert job file and is then valid for all users. By default, the UMS recipient number or the MWI sender number stored for the user is sent to the telephone as the sender number.
TerminateCallAtAlertState=1	OPTIONAL	After the first ring tone + x second, the call is terminated. Default = 1
SupressMWIOff=1	OPTIONAL	The "MWI"-switch-off from the ixi-UMS system is ignored.
Retry=1	OPTIONAL	Number of redial, default=1
Verbose=0	OPTIONAL	For debugging from ixi-UMS Support

6.4.7.2 General ISDN Dial

Bei dieser Art der Signalisierung werden die Kennziffern für "MWI an" und "MWI aus" zusammen mit der entsprechenden Telefondurchwahl als Wahlinformation via ISDN an die Telefonanlage gesendet.

Der ixi-UMS Kernel unterstützt hierbei die Ziffern 0 - 9 als Kennziffer.



In den Konfigurationsdateien sind immer alle Optionen eingetragen - auch wenn diese nicht benötigt werden.

Angepasst werden müssen/können:

CtrlNum=1	MUST	The controller required for setting MWI messages is entered here. All MWI messages are sent via this controller. It is not possible to specify multiple controllers. Default = 1
CallingPTY=INV	OPTIONAL	A standard sender number can be stored here. This overwrites any existing sender numbers in the alert job file and is then valid for all users. By default, the UMS recipient number or the MWI sender number stored for the user is sent to the telephone as the sender number.
SupressMWIOff=1	OPTIONAL	The "MWI"-switch-off from the ixi-UMS system is ignored.
Retry=1	OPTIONAL	Number of redial, default=1
Verbose=0	OPTIONAL	For debugging from ixi-UMS Support

Definition / Vorgabe für die Bildung der zu sendenden Wahlinformation:

OnPre=7569	MUST	Code number for "MWI on"
OnPost=1	MUST	OnPostfix
OffPre=7668	MUST	Code number for "MWI off"
OffPost	MUST	OffPostfix
OffInsertDest=0	MUST	1,0 Determination how the dialing information is created OffinsertDest = 1 MWI ON : <OnPre><Destination><OnPost> MWI OFF: <OffPre><Destination><OffPost> OffinsertDest = 0 MWI ON: <OnPre><Destination><OnPost> MWI OFF:<OffPre><OffPost>

6.4.7.3 General Q-SIG und DSS1 MWI

Je nach TK-Anlage müssen einige Einstellungen vorgenommen werden.



In den Konfigurationsdateien sind immer alle Optionen eingetragen - auch wenn diese nicht benötigt werden.

Angepasst werden müssen/können:

CtrlNum=1	MUST	The controller required for setting MWI messages is entered here. All MWI messages are sent via this controller. It is not possible to specify multiple controllers. Default = 1
MakeCtrlUser=1	MUST	Here you define which number the MWI module uses as the "Controlling User Number" and the behavior if no "Controlling User Number" is available. If no number is specified in the job: 1 = Do not change anything, send job 2 = Do not change anything, do not send job - default setting 3 = Enter "DefaultCtrlUser" and send job 4 = Enter "DefaultCtrlUser"; if no "DefaultCtrlUser" is stored, do not send the job Regardless of whether a number is specified in the job or not: 5 = The "DefaultCtrlUser" is always entered and the job is sent 6 = Always enter the "DefaultCtrlUser"; if no "DefaultCtrlUser" is stored, do not send the job
DefaultCtrlUser	MUST	Depending on the PBX, a default sender number can or must be deposited. This number overrides existing sender numbers in the Alert jobfile, if applicable, and then is valid for every user. See also MakeCtrlUser. The UMS recipient number or the MWI sender number deposited at the user is sent to the telephone as sender number by default.

Telefonanlage	Bemerkung	empfohlene Einstellungen
HiPath 4000 Qsig MWI	Telephone system connected via Qsig A lamp is switched and/or text is output.	MakeCtrlUser = 6 Under "DefaultCtrlUser" the so-called ServiceAccessNumber must be entered.
Alcatel OXE QSIG MWI	In the PBX, the protocol ABC-F must be licensed The ISDN-board must offer the support of the proprietary Alcatel ABC-F MWI protocol (e.g. Eicon/Dialogic DIVA Server boards). The MWI-lamp/LED is controlled, the display text, however, says "Callback" instead of "New Message". This is an Alcatel-specific effect (because of the proprietary procedure). Recommended	Change of the "DefaultCtrlUser" required

6.4.7.4 General VoIP (XCAP)

Wird die Telefonanlage über ein VoIP Connecting Modul angebunden, sind standardmäßig außer in der Konfiguration der Telefonanlage und der XCAPi keinerlei Konfigurationen erforderlich.

[GLOBAL]

CtrlNum	MUST	The controller required for setting MWI messages is entered here. All MWI messages are sent via this controller. It is not possible to specify multiple controllers. Default = 1
MakeCtrlUser=1	OPTIONAL	Here you define which number the MWI module uses as the "Controlling User Number" and the behavior if no "Controlling User Number" is available. If no number is specified in the job: 1 = Do not change anything, send job 2 = Do not change anything, do not send job - default setting 3 = Enter "DefaultCtrlUser" and send job 4 = Enter "DefaultCtrlUser"; if no "DefaultCtrlUser" is stored, do not send the job Regardless of whether a number is specified in the job or not: 5 = The "DefaultCtrlUser" is always entered and the job is sent 6 = Always enter the "DefaultCtrlUser"; if no "DefaultCtrlUser" is stored, do not send the job
DefaultCtrlUser	OPTIONAL	Depending on the PBX, a default sender number can or must be deposited. This number overrides existing sender numbers in the Alert jobfile, if applicable, and then is valid for every user. See also MakeCtrlUser. The UMS recipient number or the MWI sender number deposited at the user is sent to the telephone as sender number by default.

Telefonanlage	Bemerkung	empfohlene Einstellungen
HiPath 4000	Telephone system connected via SIP A lamp is switched and/or text is output.	MakeCtrlUser = 6 Under "DefaultCtrlUser" the so-called ServiceAccessNumber must be entered.z.B: DefaultCtrlUser=200000

6.4.8 Log

The functions of the ixi-UMS Kernel and the communication of the ixi-UMS Kernel with the telephone system can be traced or logged individually.

6.4.8.1 General

CAPI

The trace should only be activated in case of problems with the ISDN/VoIP connection and on advice of estos GmbH.

This is a trace that can only be analyzed by well-trained staff. When the traces shall be analyzed by estos GmbH GmbH, a PBX Configuration Sheet that has been filled out by the respective PBX-technician is mandatory!



In addition to that, only the current unsolved problem should be contained in the trace, this means only one call, fax etc. should be traced.



Please take into account that the trace-files can get big very quickly. You should activate the traces only as long as it takes to analyze the problem!

All log and trace files are created in the folder ...\ixi-Framework\Logs\

CAPI Trace Level: Defines the scope of the information in the trace.



Note that in 99% of cases, a trace with a log level of "Normal" is sufficient

If **log rotate** is enabled, 4 logfiles are created per channel. The first logfile IFTRCx.txt is not overwritten after having reached the determined size. The files IFTRCx.txt - IFTRCxc.txt are created. When all the files have reached the determined size, the files are overwritten, beginning with the file IFTRCx.txt.

When setting the size, take into account the amount of memory required.

Logging

General Services

CAPI

CAPI Trace Level Normal

Enabled log rotate

Size: 10 MB

If log rotate is enabled, 4 log files are created per channel.
Please take note of the disk space required per log file.

Logfile for Show log

Extended User Look-Up

Log Disabled Show log

Help OK Cancel Apply

Extended User Look-Up

The log is used for troubleshooting and should only be activated if necessary. It logs the LDAP query and the result for incoming calls if the "Extended User Look-Up" is activated.

6.4.8.2 Services

SMS

Trace and logging should only be activated in case of problems with the SMS dispatch and on the advice of the company <% Company%>.

In the **log** the connection attempts and errors to the selected provider are written.
The **CAPI trace** is only created for "SMS via ISDN/VoIP" (SMS-ins-Fixed Network).



The **Capi Trace** is a log which can only be evaluated by specially trained personnel. If the evaluation is to be carried out by estos, a PBX configuration sheet, which has been filled out by the corresponding PBX technician, is absolutely necessary!

In addition, only the exact problem case should be included in the trace/log - i.e. only one SMS should be "traced".

The log and trace files are created in the folder ...\\ixi-Framework\\Logs\\<location name>.

Service	Log	CAPI Trace	Show log
SMS	Enabled	Enabled	Show log
SMS2Http	Disabled		Show log
Alert	Disabled		Show log

SMS2Http

In the log the connection attempts and errors to the selected provider are written.
The "IFXSMS2SoapXXAction.txt" is created in the directory ...\\ixi-Framework\\Logs

Alert

Communication with the telephone system is traced.



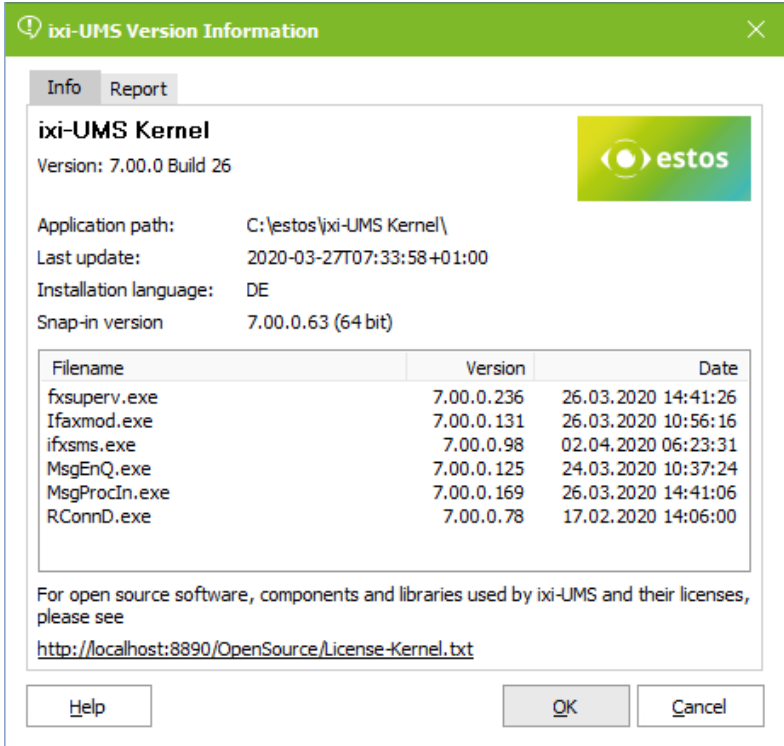
The Capi Trace is a log which can only be evaluated by specially trained personnel. If the evaluation is to be carried out by estos, a PBX configuration sheet, which has been filled out by the corresponding PBX technician, is absolutely necessary!

In addition, the trace/log should always contain exactly the problem case - i.e. only one call, fax etc. should be recorded. should be "traced".

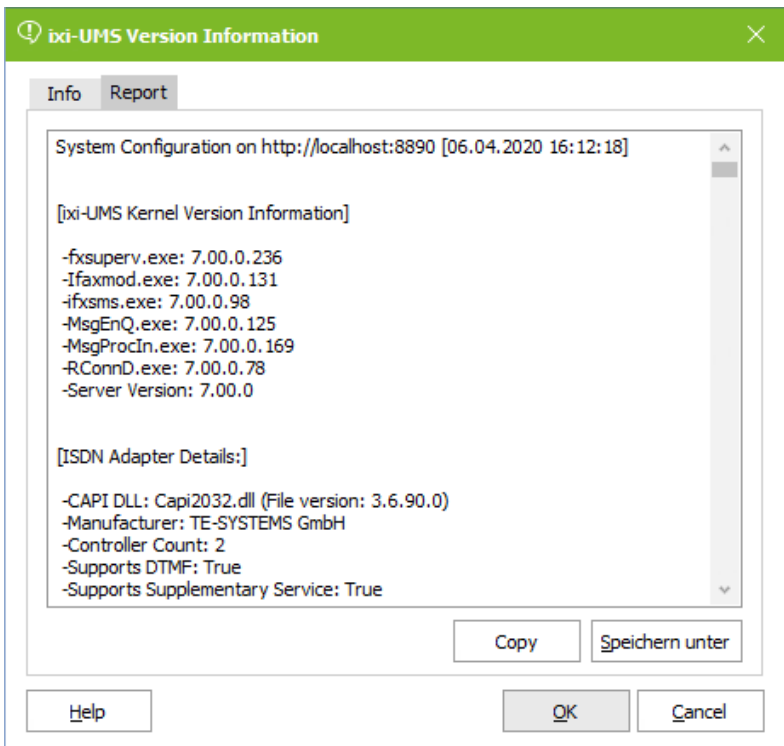
The log and trace files are created in the folder ...\\ixi-Framework\\Logs\\<location name>.

6.5 Information

Version information is listed here. In a support case the installed version can be determined quickly.



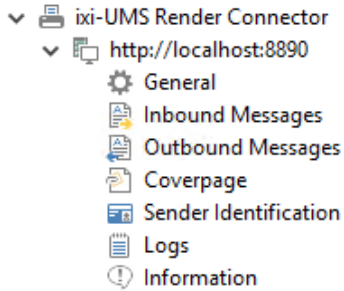
If a problem should be passed on to the ixi-UMS Support, this information is often mandatory.



All information about CAPI drivers, installed services and ixi-UMS versions can be captured at once and copied to an e-mail by copy&paste.

In addition to information about <% PRODUCTNAME%>, all relevant data of the operating system is also read out.

7 ixi-UMS Render Connector

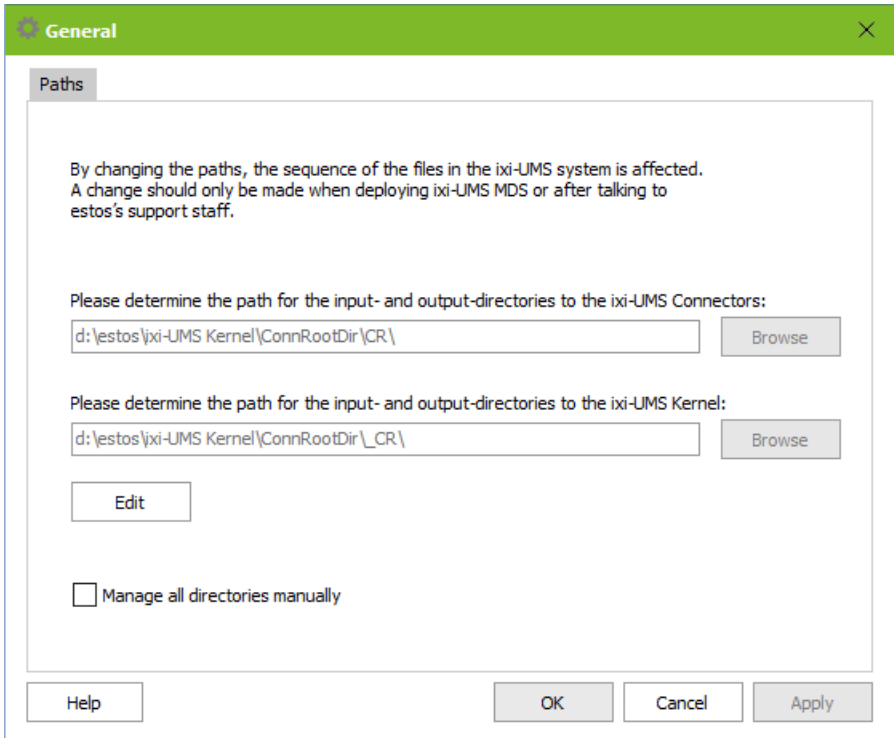


Here,

- various settings for the performance of the ixi-UMS Render Connector with incoming and outgoing messages can be executed.
- the feature "number conversion" with incoming messages can be configured,
- the creation of the cover page for outgoing messages can be configured

Please note that some features have to be licensed.

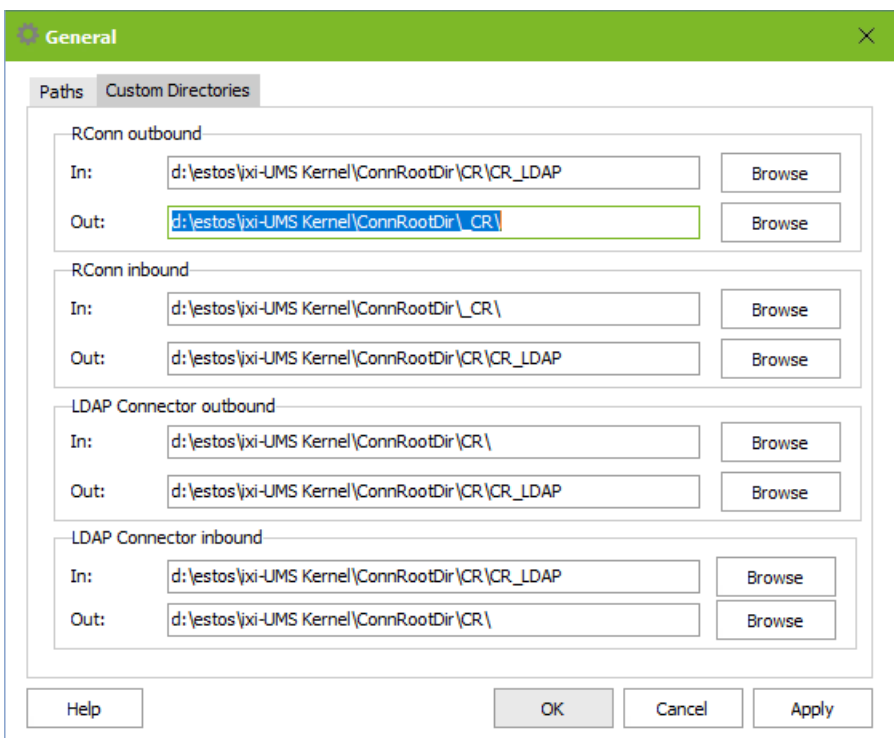
7.1 General



The ixi-UMS Enterprise components use "transfer directories" for the transfer of the incoming and outgoing UMS-messages from one component to another.

The directories are created during the installation and the ixi-UMS components are automatically configured accordingly.

The paths stated here should only be changed in special cases, e.g. when an ixi-UMS MDS is installed on the same server.



If additional ixi-UMS components are to be used to process the files, the directories must be managed manually.

The paths given here should only be changed after consulting estos GmbH.

If the option "Manage all directories manually" is activated, all automatic settings will be deactivated!

In this case, follow the instructions of the relevant component.

7.2 Incoming Messages

Please determine how incoming messages are converted and whether further actions shall be executed.



The ixi-UMS Kernel report is inserted in the "Text only" format. Follow the setting to the language and contents.

7.2.1 Faxes

Here you can determine, whether the incoming faxes are delivered to the recipient as **PDF- and / or as TIF-attachment** in the mail client. Some additional options are only available when the fax messages are converted into PDF-format.

TIF + PDF-Format

If this option is selected, you can specify (when receiving the messages via a ixi-UMS SMTP-based connector in a mail serve) per user whether he receives the messages as Tif and / or PDF file.

Bor all other <% IXI-UMS%> connectors, this setting can be made per instance.

Set dokument type global

If all recipients and connectors should receive the ixi-UMS in the same format, it can be specified whether the fax message is delivered as a TIF or PDF file.

The screenshot shows the 'Inbound Messages' dialog box with the 'Faxes' tab selected. The dialog has a title bar with a close button. Below the title bar are tabs for 'Faxes', 'Report Notifications', 'Printing', 'Fax Preview', 'RouteBySender', and 'Date and Time'. The main content area contains the following settings:

- Text: "Please determine in which format inbound faxes and report notifications shall be delivered."
- Text: "Deliver faxes and report notifications in"
- Radio buttons: TIF + PDF Format (individual setting per user / instance possible), Set document type global
- Text: "Please note: This setting applies to all users / connectors. A individual per user configuration is not possible."
- Radio buttons: TIF Format, PDF Format
- Section: "PDF-Format"
- Radio buttons: Normal PDF, PDF/A-3b
- Checked checkbox: "Include report in the PDF with inbound faxes"
- Radio buttons: Report on first page and complete fax on the following page(s), Complete fax with report merged on first page
- Text: "The option 'Date and Time per Page' is not available"
- Text: "Font Size:" followed by a dropdown menu set to "10"
- Checked checkbox: "Use unique filenames for faxes"
- Text: "Format of date:" followed by a dropdown menu set to "yymmdd_hhnnsszzz" and an example: "Example: Fax1_190722_135511974.pdf"

At the bottom of the dialog are buttons for 'Help', 'OK', 'Cancel', and 'Apply'.

PDF-Format

When incoming faxes are converted to a PDF file, by default the file is created as "Normal PDF" (in PDF 1.4 version).

Optionally, the files can be created in PDF/A-3b format (PDF version 1.4). This format is recommended by the KLA (Digital Archive Committee) for archiving files in the authorities and courts.




A PDF file in PDF/A format (especially if the report or the receipt stamp is included in the PDF) is significantly larger than a "standard PDF" file, because, among other things, the fonts are embedded.

If PDF/A is not explicitly required, the setting "Normal PDF" is recommended.

Include Report in the PDF....

When the faxes are delivered to the user in PDF-format, the report of the ixi-UMS server and the **OCR-Text** - if available - can be imported into the PDF.

 The ixi-UMS Kernel report is inserted in the "Text only" format. Follow the setting to the language and contents.

Use unique filenames..:

By default, the file name of all the incoming fax messages is "Fax.pdf" or "Fax.tif". The file name can be extended by date/time, if the file be converted into a PDF-file

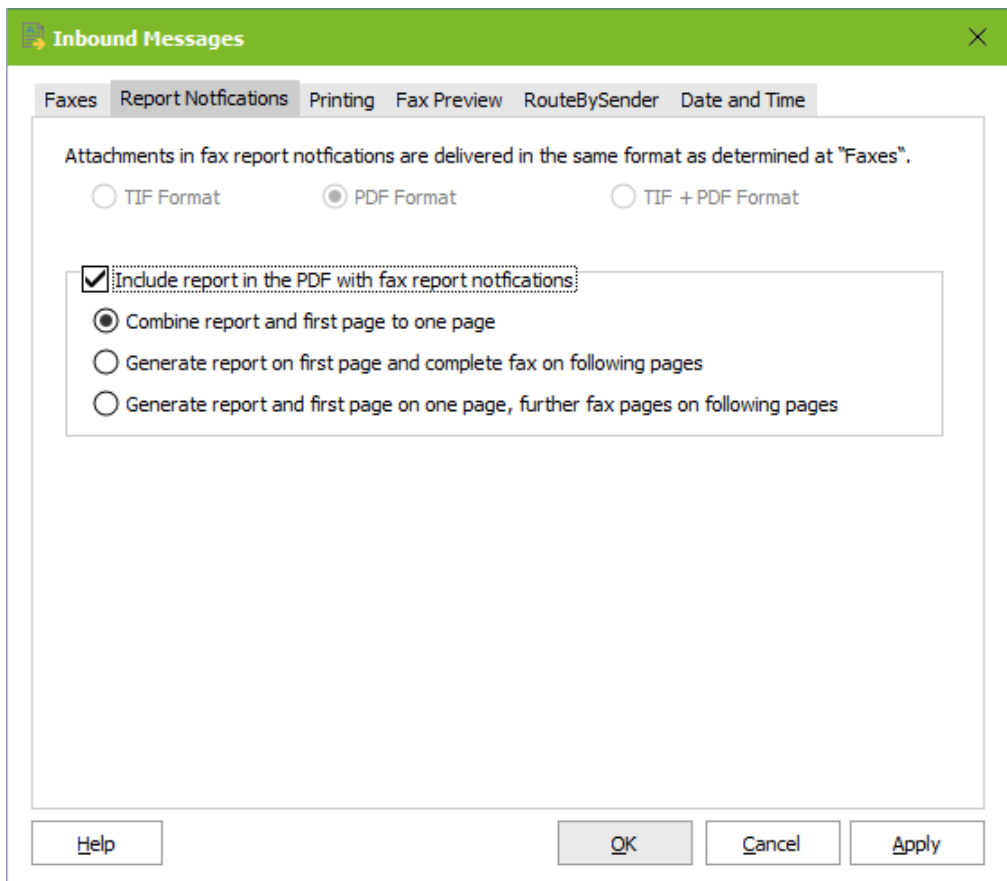
The default format of the file names can be adjusted, if necessary.


7.2.2 Report Notifications

As configured at Faxes, the reports are also delivered to the recipient as PDF and / or as TIF-attachment in the mail client. Whether the fax is available at the reports is determined in the ixi-UMS Kernel Configuration at Reports.

When the faxes and therewith also the reports are delivered to the user in PDF-format, the report of the ixi-UMS Server can be adopted into the PDF.

It can be determined whether and how the ixi-UMS Kernel **Report** shall be adopted into the sent fax (as PDF).



 The ixi-UMS Kernel report is inserted in the "Text only" format. Follow the setting to the language and contents.

7.2.3 Printing

Incoming faxes with or without report can be printed on a printer in the network.

You can determine whether only the faxes to a particular call number or all the faxes of a particular number range shall be printed.

Recommend:

- The printer has to be installed on the ixi-UMS machine as printer in the network.
- The ixi-UMS Serviceaccount must have permission to print on this printer



The ixi-UMS Kernel report is inserted in the "Text only" format. Follow the setting to the language and contents.

Faxes

When the printer is installed, it can be selected via "Add" and the respective number can be entered.

The whole fax recipient number without spaces has to be entered always the way it is also maintained at the user. You can work with an * in order to define a range.

Example: +4981424799*

Every fax that begins with these digits is printed.

The screenshot shows the 'Inbound Messages' configuration window with the 'Printing' tab selected. The window has a green header and a close button. Below the header are tabs for 'Faxes', 'Report Notifications', 'Printing', 'Fax Preview', 'RouteBySender', and 'Date and Time'. The 'Printing' tab is active, showing a checked option 'Print incoming messages' and a note: 'Incoming faxes and / or report notifications can be printed via a network printer.' Below this is a sub-tabbed area with 'Faxes' and 'Report Notifications' tabs. A table lists printers with columns for 'Printer', 'Phone Number', 'JobType', and 'Report'. The table contains two entries: 'HP Laserjet Pro' with phone number '+4930156487*' and 'JobType' 'Inbound', 'Report' 'No'; and 'Lexmark MC3326' with phone number '+4930156488*' and 'JobType' 'Inbound', 'Report' 'Yes'. To the right of the table are buttons for 'Add', 'Edit', 'Delete', 'Move Up', and 'Move Down'. An 'Add/Change Printer' dialog box is open in the foreground, showing a dropdown menu for 'Printer' with 'Kyocera Ecosys P5021cdn' selected, a text field for 'Recipient (fax number):' containing '+4930156489*' and an example 'e.g. +4981424799*', a checked 'Include Report' option, and a 'Font Size:' dropdown set to '12'. At the bottom of the dialog are 'OK' and 'Cancel' buttons. At the bottom of the main window are 'Help', 'OK', 'Cancel', and 'Apply' buttons.

Printer	Phone Number	JobType	Report
HP Laserjet Pro	+4930156487*	Inbound	No
Lexmark MC3326	+4930156488*	Inbound	Yes

If only an * is entered, every incoming fax is printed.

The rules are processed top down. This means that it is absolutely required to put the entries into the correct order. The procession of the rules is finished when the entry * is reached.

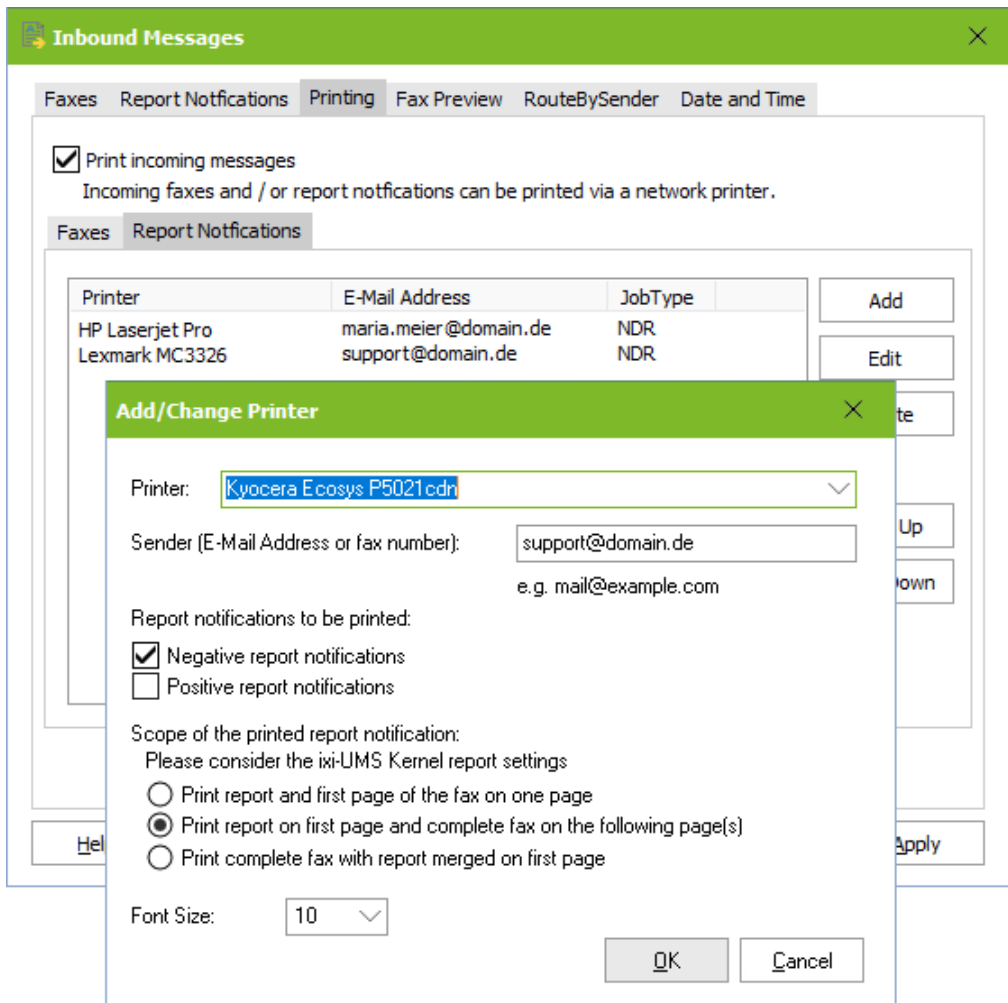
You can select whether incoming faxes shall be printed with or without the report (body text of the e-mail including OCR-text, if applicable). If the report shall be printed additionally, it is printed on a separate page.

Reports

In the second part, sending reports can be printed.

You can determine for which fax-**sender** and which kind of report shall be printed.

The sender of a fax (=recipient of the report) depends on the respective ixi-UMS Connector.



With **ixi-UMS Mail Server Connector**, the e-mail address must always be entered.

With the **ixi-UMS SI CON Connector**, the fax number of the user is used as sender by default.

This must be entered like it is in the report. Default: +498142479943

The sender of a fax via the **ixi-UMS FAPI Connector** depends on the creation of the faxes and the configuration of the ixi-UMS Connector. An e-mail address as well as a fax number can be entered.

Scope of the printed report

If the reports in the ixi-UMS Kernel are configured in a way that the actual fax is attached to the report, it can also be printed. Depending on the setting, only one page or the complete fax is printed.

The rules are processed top down. This means that it is absolutely required to put the entries into the correct order. The procession of the rules is finished when the entry * is reached.

7.2.4 Fax Preview

Enable PNG Preview

This function requires an SMTP-based ixi-UMS Connector with the "Create reports in HTML format" function enabled.

The incoming faxes are sent to the users as an attachment in an e-mail. Optionally, the incoming fax can also be created as a png file and embedded in the e-mail body to get a "preview".

Enable Text Preview

Incoming faxes can be displayed as OCR text. It can be defined if the text should be provided in the mail body and/or as a PDF attachment.

The **max. page count** should not be chosen too high, because the process causes a lot of CPU load.

Should only one preview be available in the E-mail, reaches the first side.

The screenshot shows a configuration window titled "Inbound Messages" with a close button (X) in the top right corner. The window has several tabs: "Faxes", "Report Notifications", "Printing", "Fax Preview" (which is selected), "RouteBySender", and "Date and Time".

Under the "Fax Preview" tab, there are two main sections:

- Enable PNG Preview:** A checkbox is checked. Below it, a text box explains: "If reports in html format is activated, the configured page count is added as png file to the message body." A "Page Count:" label is followed by a text input field containing the number "2".
- Enable Text Preview:** A checkbox is checked. Below it, a text box contains the instruction: "Please determine whether and how the content of inbound faxes shall be represented as OCR text." This section includes:
 - "Max. page count:" label followed by a text input field containing "2" and the text "0 = unlimited".
 - "Send OCR text as:" label followed by two radio buttons: "Mail text" (checked) and "PDF attachment" (unchecked).
 - "OCR language:" label followed by a dropdown menu showing "German".

At the bottom of the dialog, there are four buttons: "Help", "OK", "Cancel", and "Apply".

The **OCR language** should correspond with the language, in which the fax messages are received primarily. Please note that only the e-mail text can be read when listening to the faxe messages via ixi-UMS Voice-Mail Server.

At OCR it can be determined, how many pages of an incoming fax are displayed as OCR text and whether the OCR text shall be sent to the user as mail text or as attachment in PDF-format.

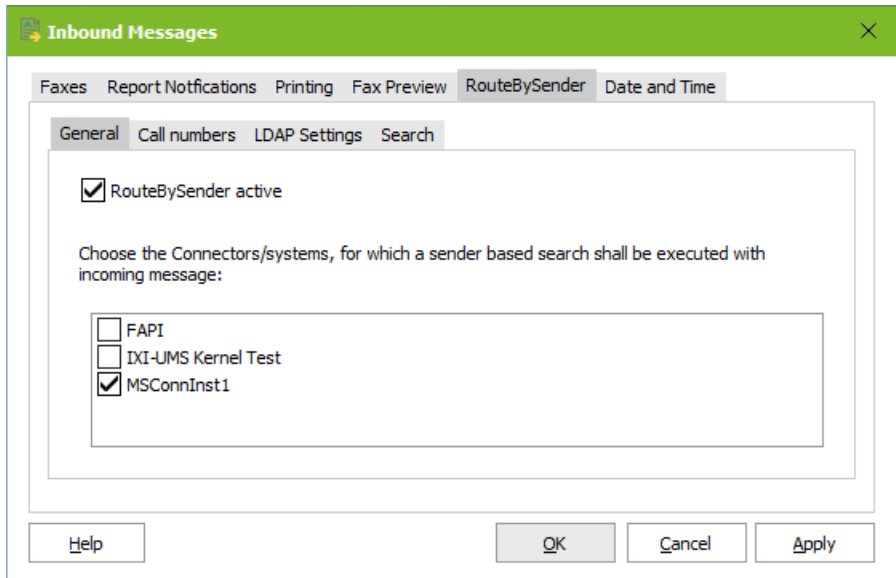


Per default the OCR-Text is inserted in the "Text only" format. If the option "Reports in the HTML format" is activated and furnished, form and writing can be changed.

7.2.5 RouteBySender

With **incoming** UMS-messages, an LDAP-search for the sender (mail from:) is executed. When the sender is found, the determined field is read out and entered as recipient of the UMS-message.

7.2.5.1 General

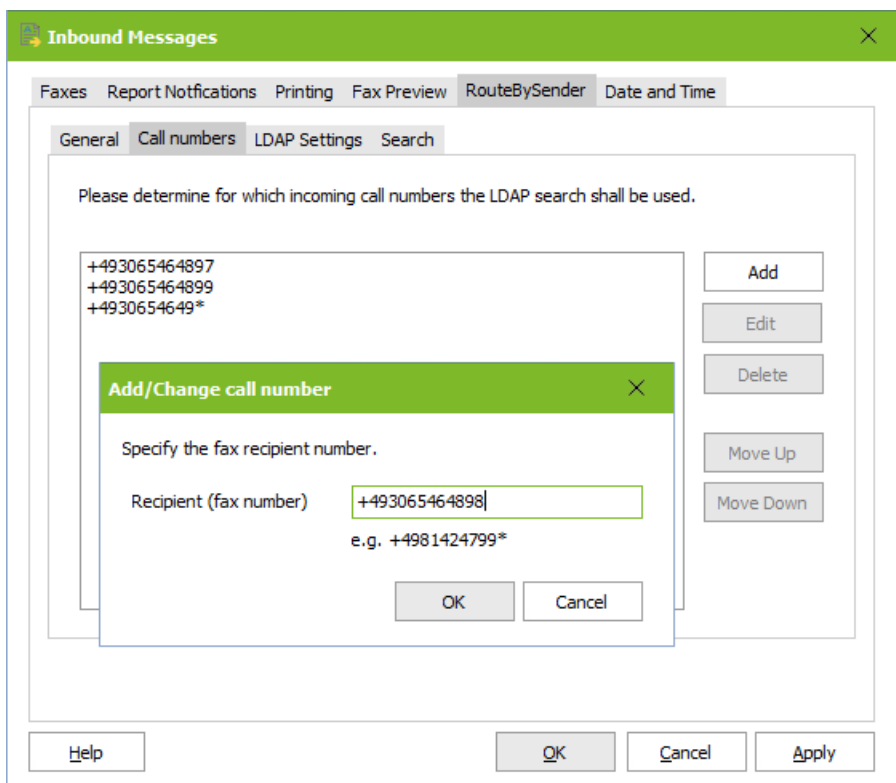


The screenshot shows the 'Inbound Messages' configuration window with the 'RouteBySender' tab selected. Under the 'General' sub-tab, the 'RouteBySender active' checkbox is checked. Below this, there is a section titled 'Choose the Connectors/systems, for which a sender based search shall be executed with incoming message:'. A list of connectors is shown with checkboxes: 'FAPI' (unchecked), 'IXI-UMS Kernel Test' (unchecked), and 'MSCConnInst1' (checked). At the bottom, there are buttons for 'Help', 'OK', 'Cancel', and 'Apply'.

First of all, you have to determine for which ixi-UMS Connectors (and therewith for which system) the LDAP-search shall be executed.

7.2.5.2 Call Numbers

It has to be determined whether only for messages to a certain recipient number or for all the faxes to a certain range, the LDAP-search shall be executed.



The screenshot shows the 'Inbound Messages' configuration window with the 'RouteBySender' tab selected and the 'Call numbers' sub-tab active. The main area contains the text 'Please determine for which incoming call numbers the LDAP search shall be used.' Below this is a list of call numbers: '+493065464897', '+493065464899', and '+4930654649*'. To the right of the list are buttons for 'Add', 'Edit', 'Delete', 'Move Up', and 'Move Down'. An 'Add/Change call number' dialog box is open, showing a text input field with '+493065464898' and a 'Recipient (fax number)' label. Below the input field is the text 'e.g. +4981424799*'. At the bottom of the dialog are 'OK' and 'Cancel' buttons. At the bottom of the main window are buttons for 'Help', 'OK', 'Cancel', and 'Apply'.

The fax recipient number without blanks or special characters must be entered.

If the LDAP-search shall be executed for a call number range, you can work with *.

Example:
+4981424799*

This means that for every fax that starts with this number, an LDAP-search is executed.

If only * is entered, the LDAP-search is executed for every inbound fax and the fax is delivered on the basis of the sender.

The rules are processed top down. This means that it is absolutely required to put the entries into the correct order. The procession of the rules is finished when the entry * is reached.

7.2.5.3 LDAP Settings

At "LDAP Settings", the connection data to the MetaDirectory must be entered.

The screenshot shows the 'LDAP Settings' tab in the 'Inbound Messages' configuration window. The 'Host' field contains 'metadirserver' and the 'Port' field contains '712'. The 'BaseDN' field contains 'dc=meta'. The 'Login required' checkbox is checked, and the 'Login' field contains 'admin' and the 'Password' field contains '*****'. There is a 'Test Connection' button and a 'Use TLS/LDAPS (see manual)' checkbox which is unchecked. At the bottom, there are 'Help', 'OK', 'Cancel', and 'Apply' buttons.

If an estos MetaDirectory is installed you must give as a base DN:

DC=meta

Login required

Optionally, the user and password for logging in to the MetaDirectory can be given.

This is required if the estos MetaDirectory with activated user management is in use.

The specified username must match the username in MetaDirectory.
eg: "user@domain.com" or "user name"

Use TLS/LDAPS

If the connection is to be established via TLS/LDAPS, the corresponding certificate must be available in the computer.

7.2.5.4 Search

The screenshot shows the 'Search' tab in the 'Inbound Messages' configuration window. It displays a search filter expression: `((telephonenumber=${FROM})(otherTelephone=${FROM})(facsimileTelephoneNumber=${FROM})(mobile=${FROM})(homephone=${FROM})(otherFacsimileTelephoneNumber=${FROM}))`. Below the expression is an 'Edit' button. The 'Recipient attribute' field contains 'mail'. There is a 'Use the first data record if the search produces several results.' checkbox which is checked. At the bottom, there are 'Help', 'OK', 'Cancel', and 'Apply' buttons.

The sender number is searched in the incoming UMS-message on account of the header field

"mail from"

The sender number must be entered in the used MetaDirectory.

Which fields are searched for this number can be adjusted via "Edit".

As "Recipient attribute", the attribute must be entered in the MetaDir, which contains the e-mail address of the fax recipient that shall receive the fax.

Use the first data record...:

By default, the new mail address is only entered when there is only one search result. Alternatively, the data from the first found data record can be entered.

7.2.6 Date/Time

This option "**Print reception date on every page**" depends on the used CAPI and is only available when in the settings for "Faxes":

- deliver incoming faxes in "PDF format" or "PDF + Tif format" is selected.
- "Include report in the PDF" is deactivated

If the required data are passed on to the ixi-UMS Kernel, they can be printed on every incoming fax page.

With **Default setting**, this option is active for all the incoming faxes.

The single fax pages are thereby scaled down minimally. The text for the print can be determined with the button "Edit".

Inbound Messages [Close]

Faxes Report Notifications Printing Fax Preview RouteBySender **Date and Time**

Print reception date on every page
This feature depends on the report settings. Please pay attention to the manual.

Default setting, valid for all inbound faxes, minimal reduction of the faxes
 Advanced settings

Determine for which fax recipient numbers "Date and Time per Page" shall be printed in the PDF.

Name	Fax recipient number	Template	Scale	
DefaultTimeSt...	*	Page \$(PAGE...	99	<input type="button" value="Add"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Move Up"/> <input type="button" value="Move Down"/>

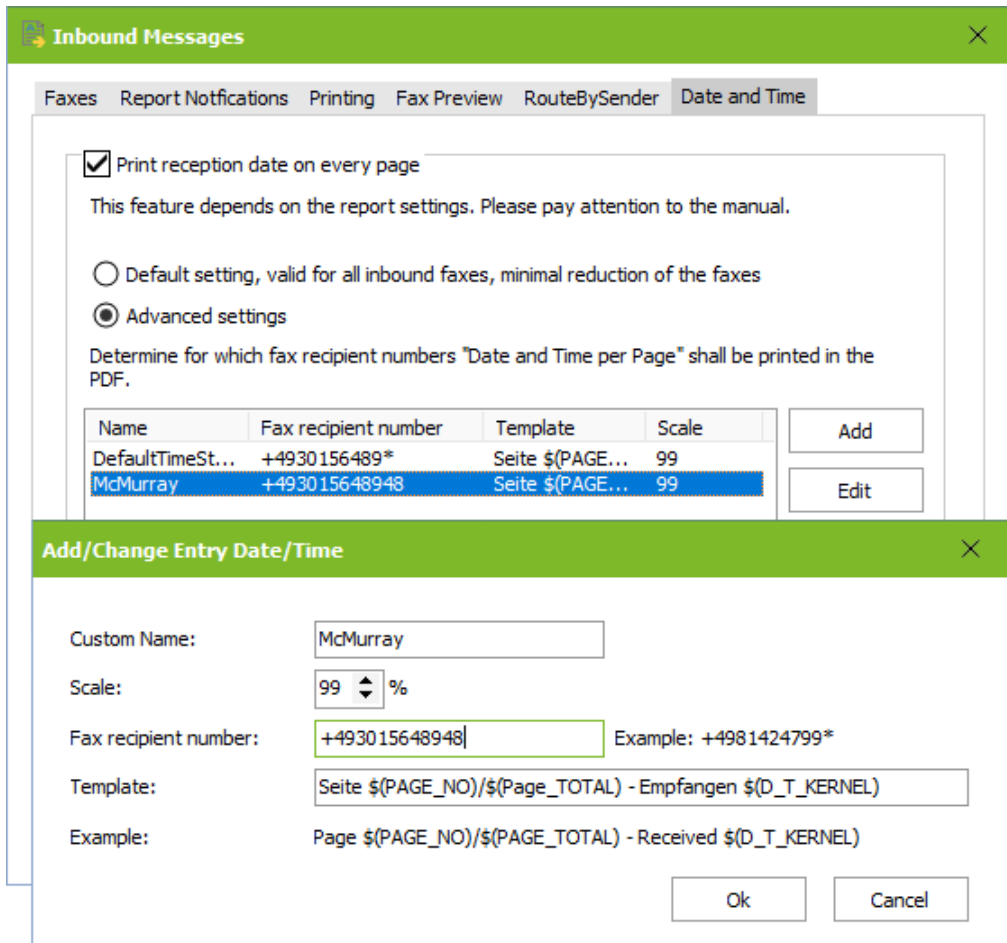
If the option **Advanced settings** has been selected, entries with individual settings can be added or deleted.

Name:

An arbitrary name must be selected.

Scale:

The print is below the actual fax page, so the fax must be scaled down a little bit.



Fax recipient number:

Please define, for which recipient number date and time shall be printed on the pages of the fax. The fax recipient number must be entered completely without any blanks or special characters.

If the faxes for a certain range shall be printed, you can use *.

Example:

+4981424799*

This means that every fax that starts with this number is printed out.

The rules are processed top down. This means that it is absolutely required to put the entries into the correct order. The procession of the rules is finished when the entry * is reached.

7.3 Outgoing Messages

Some settings for the rendering by the Render Connector can be determined here. Please have a look at the Requirements for the rendering and the remarks to the software deployed by you - if available - at "How To".

7.3.1 Outgoing Fax

It can be determined how many pages a fax may have in maximum. If the maximum number of pages is exceeded, the fax is not processed and the user receives a respective message in the mail client. The number of pages can be **reduced** individually at the user settings.

File endings stated in the following:

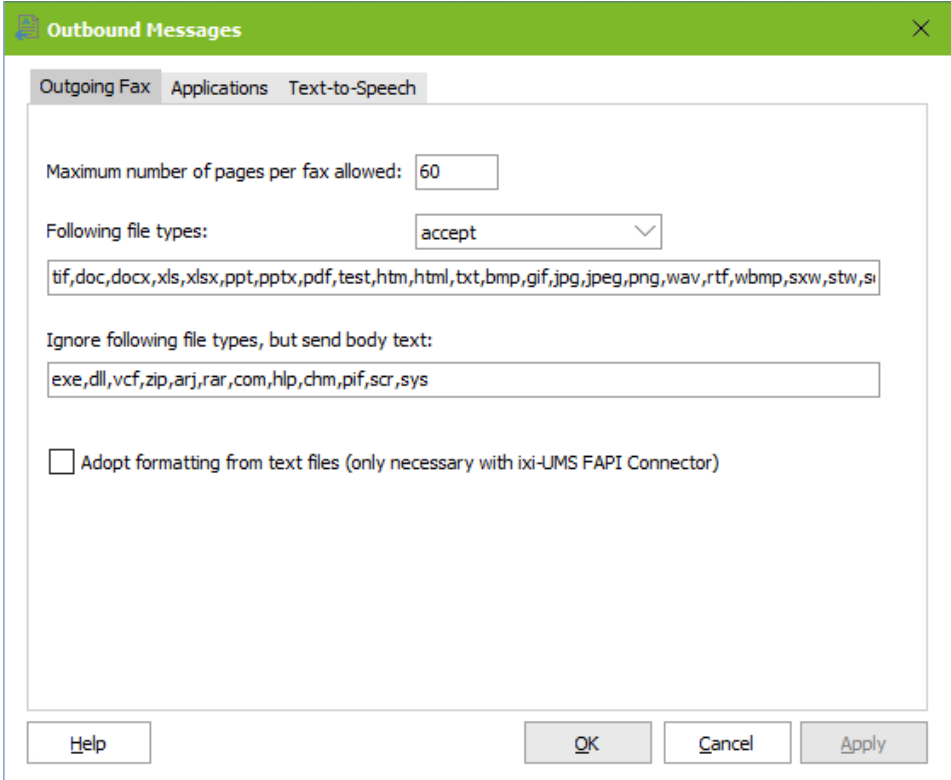
It can be determined which file endings may be sent and which not (send back). Recommended is the determination of the allowed (accept) file endings.

This definition has a direct impact on the reports to the sender.

Example: MS Word is not installed as render software.

When the file ending DOC is not entered here a user tries to send a DOC-file, he receives a report that the file is **not allowed**.

When the file ending DOC is entered, the Render Connector tries to process the file. The user then receives the information that the file **could not be processed**. werden.



The screenshot shows a dialog box titled "Outbound Messages" with a green header bar. It has three tabs: "Outgoing Fax" (selected), "Applications", and "Text-to-Speech". The "Outgoing Fax" tab contains the following settings:

- "Maximum number of pages per fax allowed:" with a text input field containing "60".
- "Following file types:" with a dropdown menu showing "accept".
- A text input field containing the file extensions: "tif,doc,docx,xls,xlsx,ppt,pptx,pdf,test,htm,html,txt,bmp,gif,jpg,jpeg,png,wav,rtf,wbmp,sxw,stw,si".
- "Ignore following file types, but send body text:" with a text input field containing: "exe,dll,vcf,zip,arj,rar,com,hlp,htm,pif,scr,sys".
- An unchecked checkbox labeled "Adopt formatting from text files (only necessary with ixi-UMS FAPI Connector)".

At the bottom of the dialog box, there are four buttons: "Help", "OK", "Cancel", and "Apply".

Ignore following file types, but send body text:

Attachments with the file endings stated here are removed from the faxes. The actual mail text, however, is sent by fax.

Adopt formatting from text files:

This checkmark has to be set when txt-files are sent as attachment or bodytext via the ixi-UMS FAPI Connector. If this feature is not activated, tables and spaces cannot be converted correctly. See also the information at "Cover".

7.3.2 Applications

Here the checkmarks to the applications needed for the rendering can be set.

PDF Render Application:

Here it must be determined, which application shall be used for the Rendering of PDF-attachments.

- The ixi-UMS Integrated PDF Rendering is liable to costs and is released with the license in the ixi-UMS Kernel. The tool can be used without a valid license, however, a "demo"-watermark is inserted on every page then.
- By default, the installed software for the printing of PDF-attachments is used. The file thereby is transferred to the application via the "PrintTo"-call.
- If a command line-oriented software is applied for the printing of PDF-attachments, the call must be entered here. Please note that the parameters for the transfer, the printer and further information, if necessary, must be entered as well. See details in the manual of the respective PDF-software.

If the option is activated, empty folders set up by the printing in the ...\\RConn\\tmp\\<Connector>\\out can be deleted automatically. This option is recommended for the use of "PDF Printer Shell" of the company PDF Tools.

Outbound Messages

Outgoing Fax Applications Text-to-Speech

Please determine how and with which applications the attachments of the outbound faxes shall be processed.

PDF Render Application

ixi-UMS Integrated PDF Rendering

PDF rendering via "PrintTo" entry

Enter application for PDF rendering

"C:\\Tmp\\PDF\\Prns100w\\bin\\pdprint.exe" -c 1 -v -p "ixiRender" -f "%s"

Deleting temp-files automatically (recommended when using PDF-Print)

TIF Rendering

Do not render files created with the ixi-UMS Client Tools again

Render TIF-Files with: internal module (recommended)

Help OK Cancel Apply

TIF Rendering:

Do not render files created with Client Tools again:

As the TIF-files created with the ixi-UMS Client Tools are already in the correct format, they do not have to be processed again. If a layout-file is deposited, it is added nevertheless.

Render TIF-Files with:

Depending on the creation of the TIF-files (scans, screenshots, processed TIF), problems with the printing may appear.

In this case, the Render Connector can be adjusted in a way that it also uses the "Print to" method and that the installed software is used for the printing that way.

7.3.3 Text-to-Speech

A "text to speech engine" converts text into audio-files . You need this function to:

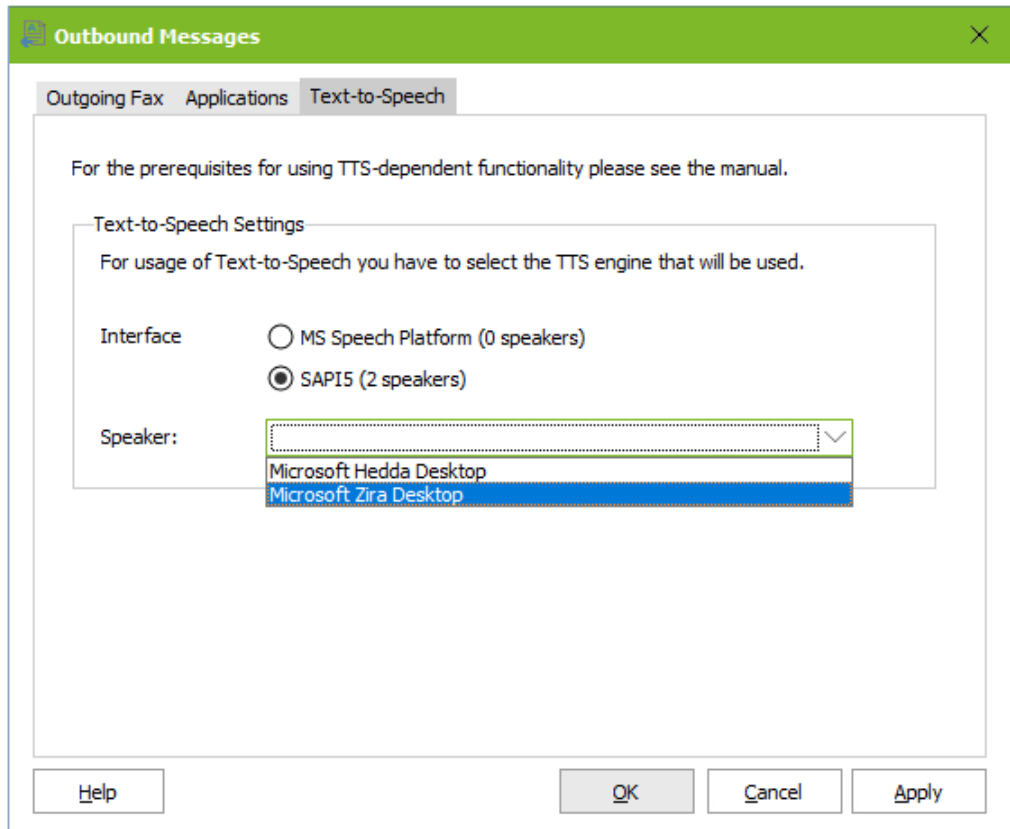
- send text message, which are read out to the called participant.
- listen to E-Mails and faxes (need OCR) with the ixi-UMS Voice-Mail Server

Note: If the ixi-UMS Voice-Mail Server is not installed on the ixi-UMS Kernel server, please read ixi-UMS Voice-Mail Server Manual - How To - Distributed Installations

Here, the TTS engine can be set up to convert a sent text message to a WAV file.

The TTS function for retrieving messages by telephone must be configured in the ixi-UMS Voice-Mail Server.

Whether and for which **interface** (SAPI5, MS Speech Platform) a speaker is available is displayed behind the selection. After selecting the interface, the desired speaker / TTS engine can be selected.



The interface defined here is valid for all ixi-UMS components on this server. If this is changed, the other components (e.g. ixi-UMS Voice-Mail Server) must also be changed.

Depend on the operating system and the installed language some TTS are installed from Microsoft.

ixi-Framework comes with Microsoft TTS engines in various languages for the Microsoft Speech platform and can be installed.

7.4 Coverpages

Please note that the cover pages must be available as HTML files in "UTF-8" format. This means that all international characters are displayed on the cover page.

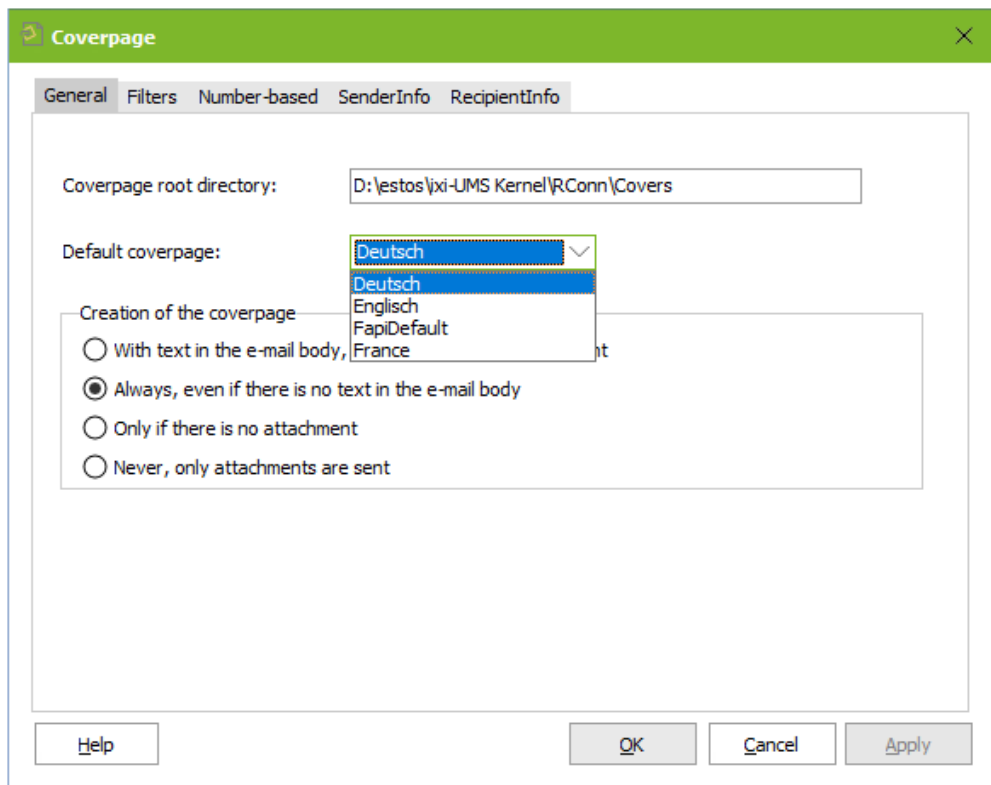
How to change the files is explained in the additional information.

7.4.1 General

Here it is determined how coverpages and the mailbody shall be processed.

The **Coverpage root directory** is deposited in the Render Connector by default. If the directory is moved, please take care that the access times are not too long.

The **Default coverpage** is always used when there is no other one entered in the outgoing message or no assignment for the outgoing message is entered at "Coverpage - Recipient Assignment". See also the ixi-UMS user configuration in the ixi-UMS Mail Server Connector manual and the Additional Informationen: "individual coverpage per fax".



Creation of the coverpage

With text in the e-mail... : By default, a coverpage is only created when there is text in the e-mail body (independent of whether an attachment exists or not).

This behavior can be changed to:

Always, even if there is... : A coverpage is generated with every fax (also faxes without text in the e-mail body).

Only if there is no attachment : A coverpage is generated if there is text in the e-mail body, but no attachment exists.

Never, only attachments... : No coverpage is created. In this case, the text in the e-mail body is never sent.



If "Never.." is selected and a user only sends text in the e-mail body, an error message is created.

The coverpage **must** be deposited as HTML-file. See also the Additional Information: "Creation of a Coverpage".

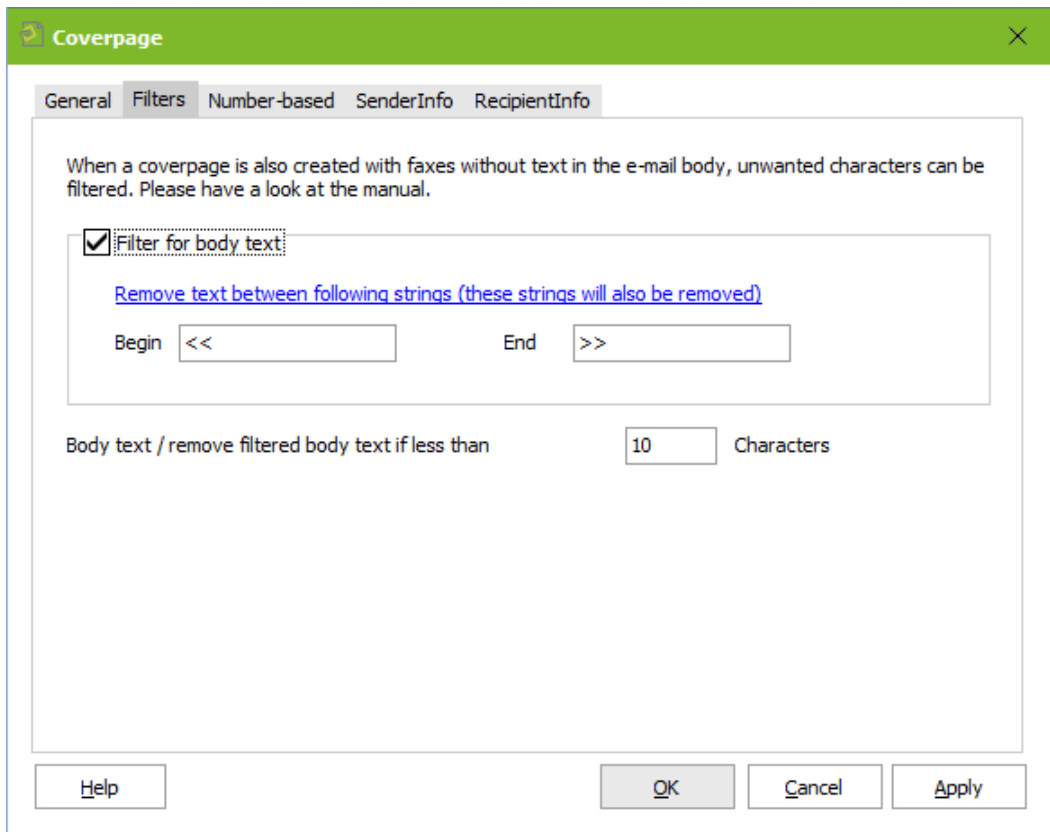
When faxes are sent via an ixi-UMS FAPI Connector as txt-files in the attachment, a particular fax.htm may be needed in which the font size is predetermined. If this is the case, the corresponding folder must be specified in the ixi-UMS FAPI Connector instance or the fax. A sample folder was created during the installation in the Coverpage root directory. In this case, please refer to the ixi-UMS FAPI Connector manual.

7.4.2 Filters

Depending on the applied mail client and its configuration it may happen that always a plain sheet is generated, also if only one document is attached to the mail. The reason for this are "invisible characters" in the mail body or - by transfer of files to the e-mail client - inserted character strings.

The **Filter for body text** filters the entire text between the stated begin- and the subsequent end-entry.

If this problem arises, please read the Additional Information: "Determination of invisible characters".



The number of "**Characters**" only applies if the fax to be sent has an attachment.

Remark:

If the body text (including HTML-data from Outlook) exceeds 5KB, it is no longer filtered according to "Characters".

Settings above:

First of all, all characters between << and >> are removed. If there are still more than 10 characters contained in the body text, a coverpage is created. If there are less than 10 characters, these are removed and only the attachments are sent.

7.4.3 Number-based

A coveragepage can be determined depending on the recipient number.

Please take into account, that the fax recipient number is not converted into a standardized format.

Only an addressing with 00 is converted into +.

Example: 00498142479940 is converted into +498142479940

The screenshot shows the 'Coverpage' configuration window with the 'Number-based' tab selected. The 'Activate Number-based Coveragepage' checkbox is checked. Below it, a table lists the current assignments:

Recipient number	Coverpage
+39*	Englisch
+49*	Deutsch
0*	Deutsch

An 'Add Coveragepage - Recipient' dialog box is open, showing the following fields:

- Recipient number: Example: +49*
- Coverpage:

Buttons for 'Add', 'Edit', 'Delete', 'Move Up', and 'Move Down' are visible on the right side of the main window. At the bottom of the dialog are 'OK' and 'Cancel' buttons. The main window also has 'Help', 'OK', 'Cancel', and 'Apply' buttons at the bottom.

The assignment is **not** applied when

- a coveragepage is deposited in the ixi-UMS Configuration at the user
- a coveragepage is stated via the ixi-UMS FAPI Connector or ixi-UMS SI CON Connector
- the user sets a coveragepage via the address line.

The rules are processed from above down. It is necessary compelling to bring the entries in the right order. The treatment of the rules is finished if the entry * is reached.

7.4.4 SenderInfo

In order to be able to create a coveragepage with individual sender information with the sending via an **ixi-UMS SI CON Connector** or **ixi-UMS FAPI Connector**, these data must be read out from an LDAP-database.

With outgoing fax messages, an LDAP-query for the sender (mail from:) is executed. When the sender is found, the defined fields are read out and provided for the coveragepage.

The sender is searched in the LDAP-fields "E-Mail-Addresses", "Fax Number" and "Other Fax Number".



The value in the LDAP must be entered exactly as in the "mail from"-field in the TMP-file of the outgoing message.



If the header fields are already filled by the ixi-UMS Connector or the job, they are not overwritten by default.

7.4.4.1 General

Whether a search for the sender information is executed depends on the system the fax messages are sent from. Choose the Connectors/systems, for which an LDAP-search shall be executed with outgoing fax messages. The instances of the ixi-UMS Mail Server Connectors have an integrated LDAP query and should not be selected.

The screenshot shows a dialog box titled "Coveragepage" with a green header bar. It has several tabs: "General", "Filters", "Number-based", "SenderInfo" (selected), and "RecipientInfo". Inside the "SenderInfo" tab, there are sub-tabs: "General", "LDAP Settings", "Registration Data", "Search", and "Field Assignments". The "General" sub-tab is active and contains the following settings:

- SenderInfo active
- Read out sender data by LDAP for the coveragepage with the delivery of faxes from the following ixi-UMS Connectors:
- CR_LDAP
- FAPI
- IXI-UMS Kernel Test
- MSConnInst1

At the bottom of the dialog, there are four buttons: "Help", "OK", "Cancel", and "Apply".

7.4.4.2 LDAP Settings

At "LDAP Settings", the connection data must be entered. The connection data of the installed ixi-UMS Mail Server Connector Instanz shall be adopted. This function requires only "read" access to the database.

When the connection data differ from the settings of the installed ixi-UMS Mail Server Connector or when only an ixi-UMS Connector WITHOUT LDAP-connection is installed, e.g.

- ixi-UMS FAPI Connector
- ixi-UMS SI CON Connector,

the connection data can be entered individually.

The screenshot shows the 'Coveragepage' dialog box with the 'LDAP Settings' tab selected. The 'Use LDAP-Connection settings of:' dropdown is set to 'Individual LDAP settings'. The 'Server' field is filled with '127.0.0.1' and the port field with '712'. There are three additional 'Server' input fields under the heading 'Optional: Connections to alternative LDAP servers.' which are currently empty. A checkbox for 'Use TLS/LDAPS for all servers (see manual)' is unchecked. The dialog includes 'Help', 'OK', 'Cancel', and 'Apply' buttons at the bottom.

Further servers can be entered optionally. When the first server is not accessible, the alternative servers are used. All of these servers must be domain controllers / LDAP-database server of the same domain on the same level.

Use TLS/LDAPS

If the connection is to be established via TLS/LDAPS, the corresponding certificate must be available in the computer.



In MultiSite operation, this feature is only available per ixi-UMS Kernel and not per site. If multiple LDAP databases are used, the required data would have to be combined in a central LDAP database. eg Meta Directory

7.4.4.3 Registration Data

Enter the text here. These settings can only be changed if the item "Individual LDAP Settings" have be selected at "LDAP Settings". Otherwise, the data from the entered ixi-UMS Mail Server Connector Instance are adopted.

For the search for user data, a login at the LDAP-Server must be executed and be determined.

With the account entered here, the query on the LDAP database is executed. Only "read" access is required.

For the Base DN, User DN and Password for this user, please refer to the configuration of your LDAP-Server.

Coveragepage

General Filters Number-based SenderInfo RecipientInfo

General LDAP Settings Registration Data Search Field Assignments

Enter the user details to log on to the LDAP server. This account must have access to all configured OUs.

User DN

Password

Enter the Base DN's at which to start the search.

Whole domain

LDAP domain

Individual OUs

The LDAP-query can be executed on all the OUs within a domain.

When you want to restrict the search to single OUs, please click "Add" and enter the complete Base DN. Any number of DNS can be entered.

7.4.4.4 Search

The information for the coverage are searched in the stated LDAP-directory in the outgoing fax message on the basis of the header field "mail from".

With the ixi-UMS SI CON Connector, the fax number of the user is displayed as sender by default. Default: +498142479943

The sender of a fax via the **ixi-UMS FAPI Connector** depends on the creation of the faxes and the configuration of the ixi-UMS Connector. An e-mail address as well as a fax number can be entered.

The sender information stated in the "mail from"- field must be entered for the respective user in the used LDAP-data base. The search can be adjusted accordingly via "**Edit**".

Coverage

General Filters Number-based **SenderInfo** RecipientInfo

General LDAP Settings Registration Data **Search** Field Assignments

Please determine in which fields the fax sender shall be searched. Have a look at the manual.

```
((proxyAddresses=SMTP:$(FROM))(mail=$(FROM))(facsimileTelephoneNumber=$(FROM))(otherFacsimileTelephoneNumber=$(FROM)))
```

Edit

Replace header fields that already contain content

Write permissions and sender number to header fields
Used LDAP attribute:

Use the first data record if the search produces several results.
If this option is disabled, no result is entered in the mail in this case.

Help OK Cancel Apply

Replace header fields..:

Even if only one field with information for the coverage is transferred from the system, no data are read out from the LDAP-database. If you want to change this behavior, please note that this is valid for all the chosen systems.

Write permission and sender number ...:

Optionally, the "ixi-UMS sender information" (permission, sender-ID, etc.) can also be read out of the LDAP-directory in addition and can be entered in the outgoing UMS-message.

Use the first data record...:

By default, the sender information is only entered when there is only one search result. Alternatively, the data from the first found data record can be entered.

7.4.4.5 Field Assignment

Please enter the LDAP-Attributes from that the sender information of the users shall be read out.

Specify the LDAP attributes from which the data for the cover page should be read.

First Name:	<input type="text" value="givenName"/>	Business Phone:	<input type="text" value="telephoneNumber"/>
Last Name:	<input type="text" value="sn"/>	Business Fax:	<input type="text" value="facsimileTelephoneNumber"/>
Company:	<input type="text" value="company"/>	Department:	<input type="text"/>
Street:	<input type="text" value="streetAddress"/>	Office:	<input type="text" value="physicalDeliveryOfficeName"/>
Zip / PostalCode:	<input type="text" value="postalCode"/>	Custom 1:	<input type="text"/>
City:	<input type="text" value=""/>	Custom 2:	<input type="text"/>
		Custom 3:	<input type="text"/>

Hint: Not required fields can remain empty.

Buttons: Help, OK, Cancel, Apply

The information read out is written into the header fields in the tmp-file and then can be adopted into the coverpage.



7.4.5 RecipientInfo

With outgoing fax messages, the recipient number (rcpt to:) is searched by LDAP in the fields "facsimilietelephonenumber" and "OtherFacsimileTelephoneNumber" in the MetaDirectory (without spaces). By default, the call numbers are deposited in the LDAP-database in the format +49.

If an entry is found, the following LDAP-fields are read out:

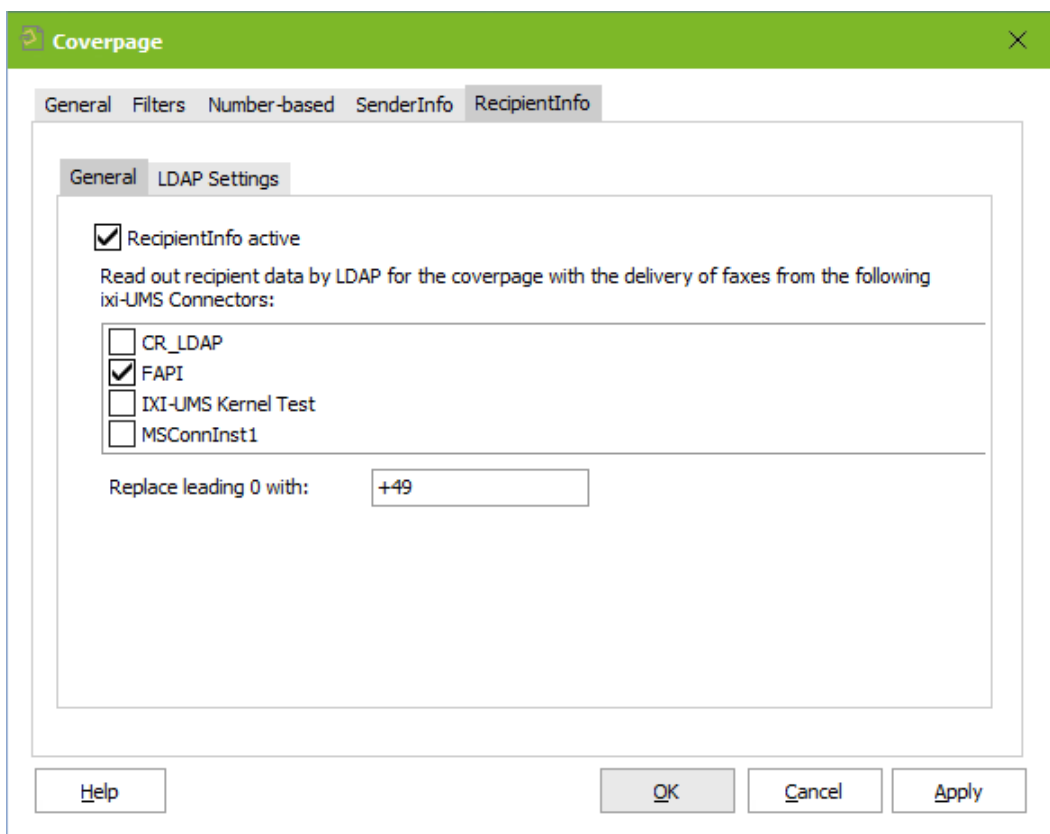
givenName	<i>first name</i>	sn	<i>surname</i>
department	<i>department</i>	company	<i>company</i>
streetAddress	<i>street</i>	l	<i>city</i>
postalCode	<i>ZIP-code</i>	physicalDeliveryOfficeName	<i>office address</i>

The information read out is written into the header fields in the tmp-file and then can be adopted into the coveragepage "faxrcpt.htm".

-  If the LDAP-query provides a result and at least one of the header fields is filled, the "faxrcpt.htm" from the stated coverage-folder is taken. If none of the fields is filled, the normal fax.htm is used.
-  If a message has several recipients, no matter in which field (To, CC, BCC), NO LDAP-query is executed.

7.4.5.1 General

First of all, you have to determine for which ixi-UMS Connectors (and therewith for which system) the LDAP-search shall be executed.



The screenshot shows the 'Coveragepage' dialog box with the 'RecipientInfo' tab selected. Under the 'LDAP Settings' sub-tab, the 'RecipientInfo active' checkbox is checked. Below this, there is a section titled 'Read out recipient data by LDAP for the coveragepage with the delivery of faxes from the following ixi-UMS Connectors:'. This section contains four checkboxes: 'CR_LDAP' (unchecked), 'FAPI' (checked), 'IXI-UMS Kernel Test' (unchecked), and 'MSConnInst1' (unchecked). Below the checkboxes, there is a text field labeled 'Replace leading 0 with:' containing the value '+49'. At the bottom of the dialog, there are buttons for 'Help', 'OK', 'Cancel', and 'Apply'.

Nationally addressed messages (e.g., 08142479943@ixifax.com) must be brought to international format for search. To do this, the country prefix must be specified in "replace leading by".

7.4.5.2 LDAP Settings

The connection data to the MetaDirectory must be entered. The MetaDirectory data base can be installed on the UM-server or on another server.

If an estos MetaDirectory is installed you must give as a base DN: DC=meta

Use TLS/LDAPS

If the connection is to be established via TLS/LDAPS, the corresponding certificate must be available in the computer.

The screenshot shows a window titled "Coverpage" with a green header bar. Inside, there are several tabs: "General", "Filters", "Number-based", "SenderInfo", and "RecipientInfo". The "RecipientInfo" tab is selected, and within it, the "LDAP Settings" sub-tab is active. The settings are as follows:

- Host: metadirservers
- Port: 712
- Base DN: dc=meta
- Use TLS/LDAPS (see manual)
- Login required
- Login: username
- Password: [masked with asterisks]
- Use the first data record if the search produces several results.

At the bottom of the window are buttons for "Help", "OK", "Cancel", and "Apply".

Login required

Optionally, the user and password for logging in to the MetaDirectory can be given. This is required if the estos MetaDirectory with activated user management is in use.

The specified username must match the username in MetaDirectory. eg: "user@domain.com" or "user name"

When the checkmark is set at "**Use the first data...**" and several results are found with a search, the data from the first data record are entered. If this option is disabled, data is only entered in the mail when the result is unambiguous.

7.5 Sender Identification

When the feature "ixi-UMS Sender Identification" is licensed, these tabs are active and it can be determined, which sender information shall be indicated in the incoming message.



Normally the SenderInformation-Text is inserted in the "Text only" format. If the option "Reports in the HTML format" is activated and furnished, form and writing can be changed. For more information please refer the ixi-UMS Mail Server Connector Manual.

The sender numbers are searched for in the fields:

- telephoneNumber
- facsimileTelephoneNumber
- otherFacsimiletelephoneNumber
- mobile
- homePhone
- otherTelephone



In order to resolve sender numbers, an installed MetaDirectory is required. The Meta Directory is liable to costs.

7.5.1 MetaDirectory Einstellungen

The connection data to the MetaDirectory must be entered. The MetaDirectory data base can be installed on the UM-server or on another server.

If an estos MetaDirectory is installed you must give as a base DN: DC=meta

Use TLS/LDAPS

If the connection is to be established via TLS/LDAPS, the corresponding certificate must be available in the computer.

Sender Identification

MetaDirectory Settings Sender Identification

Enable Sender Identification

MetaDirectory

Host: MetaDirServer Port: 714

Base DN: dc=meta

Use TLS/LDAPS (see manual)

Login required

Login: Username

Password: *****

Test Connection

Use the first data record if the search produces several results.
If this option is disabled, no result is entered in the mail in this case.

Help OK Cancel Apply

Login required

Optionally, the user and password for logging in to the MetaDirectory can be given. This is required if the estos MetaDirectory with activated user management is in use. The specified username must match the username in MetaDirectory. eg: "user@domain.com" or "user name"

When the checkmark is set at "Use the first data..." and several results are found with a search, the data from the first data record are entered. If this option is disabled, data is only entered in the mail when the result is unambiguous.

7.5.2 Sender Identification

At the tab "Sender Identification" it can be determined, which fields from the MetaDirectory shall be read out and entered in the e-mail. Normally the SenderInformation-Text is inserted in the "Text only" format. If the option "Reports in the HTML format" is activated and furnished, form and writing can be changed. For more information please refer the ixi-UMS Connector Manual.



The subject of an incoming message is always displayed in the language selected here.

In from field the answer address and the kind of message should be contained and not only the name of the sender (display name).

The addressing valid for you can be taken from the ixi-UMS Mail Server Connector Snap-In.

Via the button "**Import Domain**", the entry from the ixi-UMS Mail Server Connector can be taken over at any time.

At the same time, the "From"-line is relocated in a way that also the feature remote inquiry of the ixi-UMS Voice-Mail Server can assign the incoming messages.

Remark:

With the definition of the From-line please take care that you enter the variable \$(addrType) with the creation of the reply address.

Example:

\$(CGPN)@ixi\$(addrType).com	+49814278569@ixifax.com
\$(CGPN)@company.\$(addrType)	+49814278569@company.fax

Setting up the Sender Identification:


After having activated the feature, the following data are displayed by default, provided that the resolution was successful:

Example:

From:	Display name	From:	Klaus Meier
Subject:	Service from Company / City	Subject:	Fax from Business AG / Olching
Body:	Name Company E-mail Phone number Fax number Mobile number	Body:	Name: Klaus Meier Company: Business AG E-mail: Meier@Business.de Phone number: +49814247990 Fax number: Mobile number:

If further information shall be displayed, this can be changed here. The following variables are available:

\$(displayName)	Display name
\$(firstName)	First name
\$(lastName)	Last name
\$(address)	Street
\$(zipcode)	ZIP Code
\$(area)	City
\$(country)	Country
\$(company)	Company
\$(CGPN)	Sender number
\$(addrType)	Message type: Fax, Voc, SMS, Important for the creation of the reply address !!
\$(addrTypeDisplay)	Message type in the subject: Fax, Call, SMS
\$(mail)	E-mail address
\$(phone)	Business phone
\$(fax)	Business fax
\$(mobile)	Mobile phone
\$(custom1), \$(custom2), \$(custom3),	free defined fields. See HowTo: Sender Identification advanced

 If the option "Reports in the HTML format" is activated and furnished, form and writing can be changed. For more information please refer the [ixi-UMS Connector Manual](#). If the HTML option is disabled, the text is inserted into the mail body in "plain text" format.

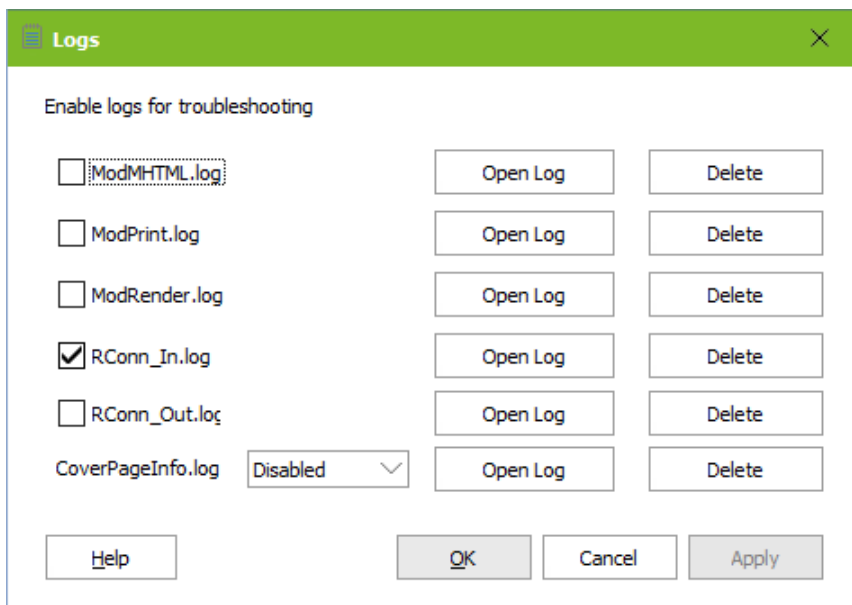
Please take into account the limitation of the number of digits in the subject field.

If the call number of the sender has not been found in the MetaDirectory, the following is displayed:

Example:

From: Sender number	From +498142479985@ixifax.com
Subject: Service from City / Country	Subject: Fax from Olching / Germany

7.6 Log

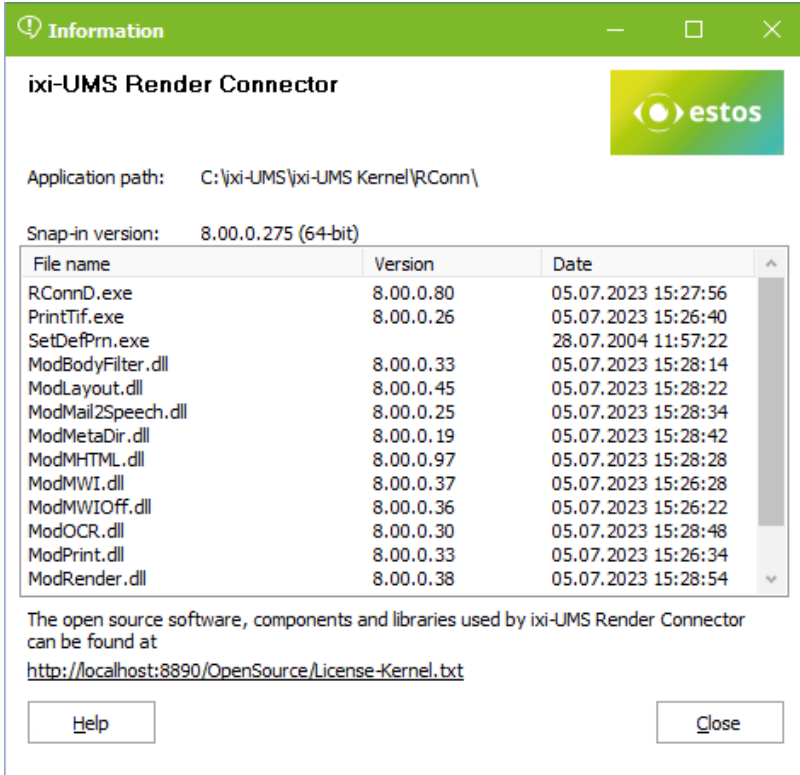


In case of a failure, the logs for the ixi-UMS Render Connector can be activated here.

Note that the log files can become very large very quickly. Therefore, only activate logging for the duration of the analysis of a problem case!

7.7 Information

Version information is listed here. In a support case the installed version can be determined quickly.



ixi-UMS Render Connector

Application path: C:\ixi-UMS\ixi-UMS Kernel\RConn\
Snap-in version: 8.00.0.275 (64-bit)

File name	Version	Date
RConnD.exe	8.00.0.80	05.07.2023 15:27:56
PrintTif.exe	8.00.0.26	05.07.2023 15:26:40
SetDefPrn.exe		28.07.2004 11:57:22
ModBodyFilter.dll	8.00.0.33	05.07.2023 15:28:14
ModLayout.dll	8.00.0.45	05.07.2023 15:28:22
ModMail2Speech.dll	8.00.0.25	05.07.2023 15:28:34
ModMetaDir.dll	8.00.0.19	05.07.2023 15:28:42
ModMHTML.dll	8.00.0.97	05.07.2023 15:28:28
ModMWI.dll	8.00.0.37	05.07.2023 15:26:28
ModMWIOff.dll	8.00.0.36	05.07.2023 15:26:22
ModOCR.dll	8.00.0.30	05.07.2023 15:28:48
ModPrint.dll	8.00.0.33	05.07.2023 15:26:34
ModRender.dll	8.00.0.38	05.07.2023 15:28:54

The open source software, components and libraries used by ixi-UMS Render Connector can be found at
<http://localhost:8890/OpenSource/License-Kernel.txt>

Buttons: Help, Close

If a problem should be passed on to the ixi-UMS Support, this information is often mandatory.

8 Configuration of the PBX



Questionnaire for the Configuration of the PBX - for the Operation of ixi-UMS

The settings in the PBX for the connection must fulfill the requirements for the wanted ixi-UMS features as described previously. The PBX should be configured completely before installing the ixi-UMS software.

If the requirements are not fulfilled, the installation / configuration of the ixi-UMS Server cannot be realized successfully and further costs may arise from this.

Please fill out the questionnaire in the following carefully after the PBX has been configured, and send it to the UMS support department.

Customer: *[Please fill out the fields]*

Company:			
City:			
Partner/Reseller/AVP:			

PBX: *[Please fill out the fields]*

Manufacturer:			
Name /Type :		Softwareversion / Rev.	
Connection Number / Connection Leading			
Technical Contact / PBX Supervisor:			
name:		surname:	
Phone:		Fax:	
e-mail:			

Connection Type / Protocol Variant *[Please check where applicable]*

<input type="checkbox"/> DSS1	mit	<input type="checkbox"/> PMP	<input type="checkbox"/> PP	
<input type="checkbox"/> Qsig	mit	<input type="checkbox"/> ISO	<input type="checkbox"/> ECMA V1	<input type="checkbox"/> ECMA V2
<input type="checkbox"/> H.323	mit	<input type="checkbox"/> T.38	<input type="checkbox"/> Softfa)	
<input type="checkbox"/> SIP	mit	<input type="checkbox"/> T.38	<input type="checkbox"/> Softfa)	

Remarks / Characteristics / Comments:

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Transmission of the Call Number

Please note down how the call numbers are transmitted to ixi-UMS (in the D-channel or with SIP or H.323). The ixi-UMS software configuration depends on the numbers, which are transmitted from / to the PBX.

Call Numbers in E.164-Format:

When all the call numbers are transferred in E.164 format (<country code><area code><call number>), further information requested at "Call Numbers Incoming" are not required.

Transmission in E.164:

<input type="checkbox"/> only inbound	With inbound calls, all the call numbers are signaled to ixi-UMS in E.164-format: Recipient number (Called Party Number) Sender number (Calling Party Number) Redirection Number
<input type="checkbox"/> only outbound	With outbound calls, ixi-UMS passes on the number to the CAPI in E.164 format: Recipient number (Called Party Number) Sender number (Calling Party Number)
<input type="checkbox"/> inbound and outbound	All the call numbers are transmitted in E.164-format, as described above.

If the call numbers are only processed/transferred in one direction in E.164-format, further information requested at "Call Numbers Incoming" must be specified.

Call Numbers Outgoing:

With outgoing calls, the transmission of the sender call number from the ixi-UMS Kernel to the PBX is required, allowed or not allowed, depending on the PBX.

Please check where applicable] and enter the sender call numbers here or define the respective number range with e.g. 1001 to 3999.

<input type="checkbox"/> mandatory.	
<input type="checkbox"/> not necessary, but allowed	
<input type="checkbox"/> not allowed	

Call Numbers Incoming:

Please state whether and which number information (dependent on protokoll) the is transmitted from your PBX to the CAPI:

DSS1 - PMP

Example: A number dialed from the outside is "089 479942", the PBX, however, only transmits (on the bus to that the ixi-UMS Kernel is connected) "42" in the D-channel. In this case, "42" and not "479942" must be noted down as MSN. Please note down the MSN's exactly the way they are transmitted to the ixi-UMS Kernel:

Which MSN's are transmitted?

[Please fill out the field]

MSNs	
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Qsig / DSS1 - PP

The overall number, which is transmitted from the PBX to the bus, to that the ixi-UMS Kernel is transmitted, basically consists of two components:

Main number and extension digits. Please state whether and which number information is transmitted from your PBX to the ixi-UMS Kernel.

Example: The number "089 479912345" is dialed from the outside.

089 the area code

4799 the number of the (Telekom-) connection, which leads to the PBX

12 the main number for the bus, at that the ixi-UMS Kernel is connected (optional)

345 3 extension digits (from the part of the ixi-UMS Kernel)

Transmitted Number Information?

[Please check where applicable or fill out the fields]

Main Number	<input type="checkbox"/> non	Number: <input type="text"/>	Number of Extension Digits: <input type="text"/>
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H.323 / SIP

With SIP or H.323, usually only the extension and maybe the main number is transmitted, too.

Example: The number "089 479912345" is dialed from the outside.

089 the area code

4799 the number of the (Telekom-) connection, which leads to the PBX

12 the main number for the bus, at that the ixi-UMS Kernel is connected (optional)

345 3 extension digits (from the part of the ixi-UMS Kernel)

Please state whether and which number information is transmitted from your PBX to the ixi-UMS Kernel:

Transmitted Number Information?

[Please check where applicable or fill out the fields]

Main Number	<input type="checkbox"/> non	Number: <input type="text"/>	Number of Extension Digits: <input type="text"/>
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Who filled out this form?

First name:	<input type="text"/>	Surname:	<input type="text"/>
Company:	<input type="text"/>	Department/Position:	<input type="text"/>
E-mail:	<input type="text"/>	Phone:	<input type="text"/>

The information stated above is correct .

Date:

Name / Signatur

9 Info

9.1 About estos GmbH



estos GmbH, headquartered in Olching near Munich, Germany, is a leading manufacturer of software solutions with focus on unified communication with unified messaging, fax, voice mail, SMS and CTI (Computer Telephony Integration) with presence and instant messaging. The products of %Firma% support existing standards like standard interfaces and standard hardware; proprietary solutions are avoided. The company strives to provide its customers with future-oriented product development, with a focus on integration in available environments.

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9.2 Version

Software: ixi-UMS Kernel
Version: 8.0
Manual: 11/21/2023