

# Requirements - Installation Manual

for

## **IXI-UMS Business Unified Messaging und Faxserver**

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## Dokumentenhistorie

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1.0	22.11.2016	Barbara Keß	Erstentwurf
1.1	30.12.2016	Barbara Keß	Beta-Version
1.2	06.02.2017	Barbara Keß	BETA-Version
1.3	15.02.2017	Barbara Keß	Final-BETA

# 2 Introduction

Installing software is the process by which new programs or new versions of programs are copied to an existing computer and possibly configured. This process is usually realized by installation programs. In addition, this process is also called Setup (English for setup or configuration), especially under the operating system Windows. In accordance with this, the installation is also referred to as the "set-up".

Successful installation is a prerequisite for the functioning of many computer programs. The more complex the program, that is, among other things, the more individual files (or even file changes) the more different places a program, the greater the risk that an error occurs during the installation. If the installation fails even partially, the program can not be used frequently. Therefore, the development of a reliable installation process is a major component of software development, particularly in the case of extensive programs.

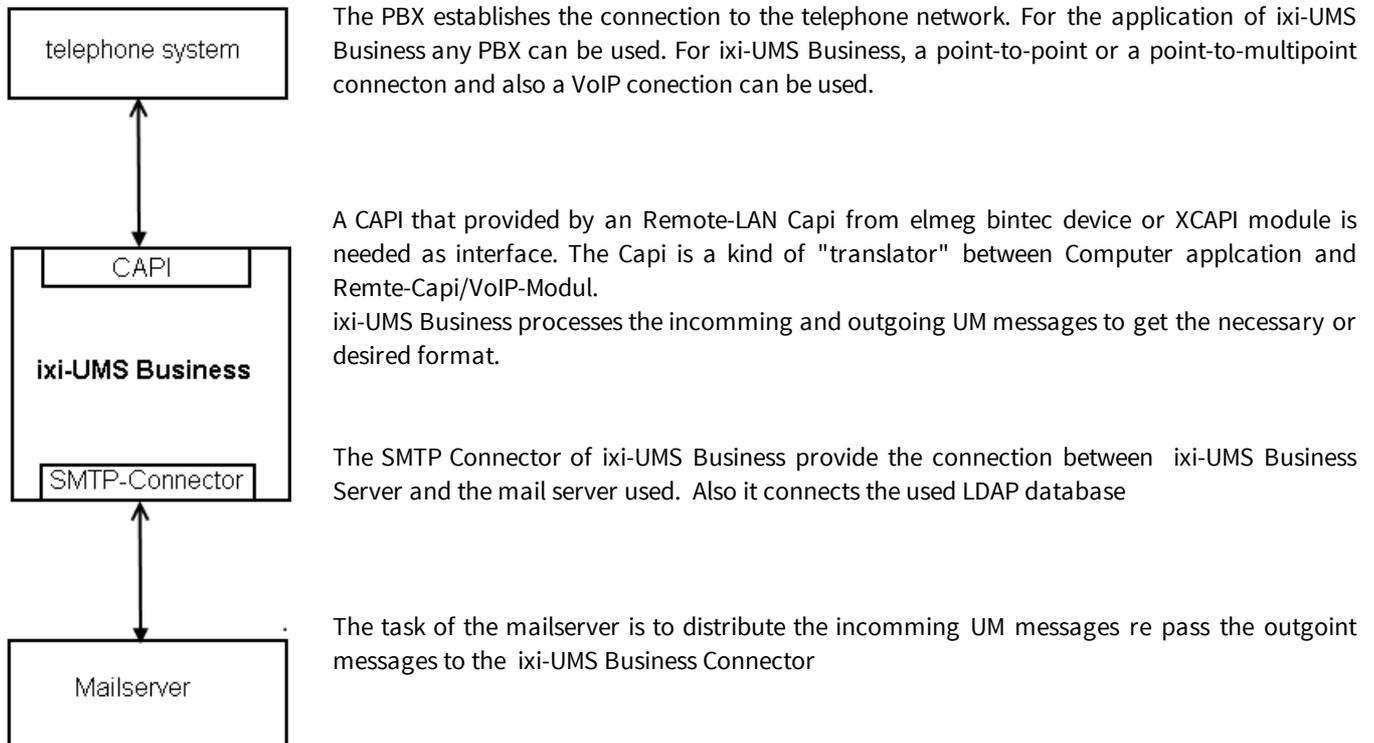
The term uninstallation refers to the reverse process, ie the removal of software.  
(Source: Wikipedia)

This documentation provides an overview of the ixi-UMS Business kernel, the powerful Unified Messaging Server software from estos. This document provides a product overview, system requirements, and notes on installation and configuration.  
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### 3 General Function

ixi-UMS Business is a powerful unified messaging software, that provides services such as Fax, Voice, SMS and mobile access. As it is based on standards, ixi-UMS Business can basically be operated with all the common **PBX's** (conventional or IP-based).

A professional, server-based Unified Messaging system exists of several components: A phone binding (PBX), the interface between computer and phone system (CAPI), a connection with the mail server (SMTP-Connector) and the mail server. Mail Server selbst.



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

- 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 Business Connector by the mail server, e.g. Microsoft Exchange Server, and then passed on to the Render Connector affiliated in the ixi-UMS Business Server.

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.

#### Client-rendering

Client-rendering means the creation of a fax at the user workstation. For this, "ixi-UMS Business 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.

## 4 Requirements

The system requirements in terms of hardware and software are independent of whether ixi-UMS Business is installed on a physical or on a virtual machine - only with the connection to the PBX, a virtualization **must be considered** .

**You take further information about the single services, functions, equipment and installation conditions please from the detailed manual of the ixi-UMS Business.**

### 4.1 Operating System

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

- Windows Server 2008 /2008R2, 2012/2012R2, 2016
- Windows 7, 8.x, 10 (32 und 64 bit)
- Internet Explorer 10 or higher, Mozilla Firefox 39 or higher

**If ixi-UMS Business on a virtualisierten operating system is installed, note please that the MAC address must be firmly assigned.**

### 4.2 Server Hardware

Depending on which services shall be used in which range of performance, the PC performance has to taken into account. The information performed below is to appoximate values for installations on operating systems on those is only ixi-UMS Business installed.

#### ixi-UMS Business as UMS Server (with Fax/SMS and Answeringmaschine)

- **Prozessor:** at Installations with up to 4 channels : 1,5 GHz (1 Kern)
- **Main Memory:** depending on operating system: 6 - 8 GB
- **Hard Disk:** 500 MB

If the UMS-messages shall be available in the ixi-UMS Business Journal Web View to the users, the "archiving" must be activated.

In the case must be considered, in addition:

- 45kb per Fax page / SMS
- 240 kB per 30 sec Voice message from caller
- 1 MB per User announcement

For a basic installation with ixi-UMS Business Fax and Voice as well as an ixi-UMS Business Connector on a Windows Server 2008 R2, a "Hardware" (parameter for virtual machines) should be deployed with the following parameters at least:

Hard Disk: 40 GB

Prozessor: 2 GHz

Main Memory: 6 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. 30 MB main memory in order to opened and printed with Word 2007.

#### Basic Recommendation

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

## 5 Preparation of the installation

The following preparations for the installation from ixi-UMS Business must be concluded before installation.

### • Specified the needed settings

- LDAP data base to be used (Active Directory or ixi-Usermanagement)
- Addressing outgoing ixi-UMS messages (definition of the domains for fax, SMS, Voice)
- Field and format for the ixi-UMS recipient number
- Attribute for save the ixi-UMS userdata  
Note: Schema expansion is required if no Microsoft Exchange is installed. (This function is not yet included in the BETA version)
- Access to the user post office boxes (only necessarily for distant query by phone)

You find detailed information about the definition of the required settings in the manual of the ixi-UMS Business under "Preparation of the installation"

### • PBX and needed Hardware

- According to connection method: In the phone arrangement an ISDN connection or VoIP drink must be furnished
- Format of the signalled phone numbers must be confessed
- Optionally: bintec elmeg device must be furnished and the Remote-Remte-Capi be installed

You find detailed information about the protocols and required settings in the manual of ixi-UMS Business under "Additional Informations - phone arrangement and phone numbers".You can find information on setting up telephone systems connected via VoIP on the estos website for "Unified Messaging with ixi-UMS Business". (<https://www.estos.de/index.php?id=785>)

### • Computer for ixi-UMS Business

- Computer with Windows Operating System
- Member of the domain (recommend)
- IP-address and machine name of the ixi-UMS Business Server should be final and should not have to be changed after the installation.
- Office Software as render software when respective documents shall be sent
- Mail client (only for testing)
- When using VoIP:
  - Firewalls are configured or deactivated
  - if necessary: the virtuelle maschine is configured

You find detailed information about the definition of the required settings in the manual of the ixi-UMS Business under "Preparation of the installation"

### • IT-Umgebung

- Installation account / password should be final and should not have to be changed after the installation
- A user with write permission is set up in Active Directory (for user administration in Active Directory)
- Optional for schema extension (user administration in AD without Exchange Server installed): (This function is not yet included in the BETA version)  
Once an administrator with SchemaAdmin permission is required to install the schema extension. See the ixi-UMS Business Manual: Performing the schema extension
- The mail server is configured to send and receive ixi-UMS messages
- (Optional) the mail server ist configured for IMAP4 acces to the user mailbox (if using remote access via telephone)

Detailed information to configure the mail server you find in the manual of the ixi-UMS Business under "Additional Informations".

## 6 Installation

With ixi-UMS Business Setup all needed software will be installed:

- **Microsoft Speech**  
used for TTS Function
- **TTS** in DE and EN
- **XCapi (Optional with connections via VoIP)**
- **MIT Kerberos for Windows 4.01**  
needed for the ixi-User Management
- **Apache HTTP Server Version 2.4.25**  
necessary for using the ixi-UMS Business Web sides
- **Firebird Server Version 2.5.3**  
necessary ixi-UMS Business Journal
- **OpenLDAP Server Version 2.4.34**  
needed as User LDAP database for ixi-User Management
- **ixi-UMS Business Server Software**

Please download the newest of ixi-UMS Business from the web pages of estos GmbH, unzip the ZIP-File and start the ixi-UMS 6 Business.exe.

Before the installations can be started, you must confirm that the necessary preparations have been carried out. Please refer to the brief instructions for instructions and settings.



After confirming the preparations, the ixi-UMS Business Setup can be started.

Confirm the license agreement and select the installation directory.

The default installation path is "C: \ Program Files (x68) \ ixi-UMS Business". To install the components of ixi-UMS Business in another directory, click "Browse".

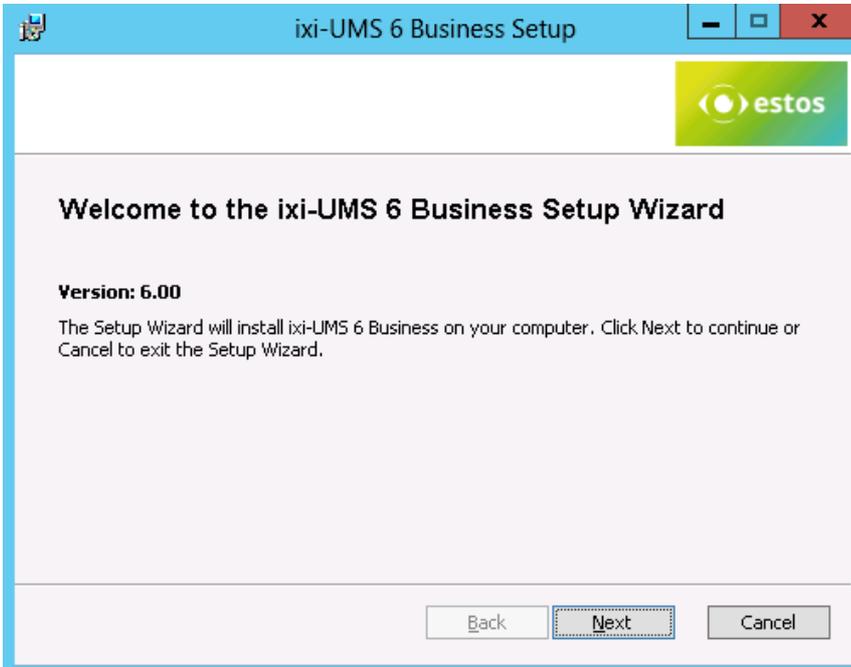


Click "Install" to install the components.

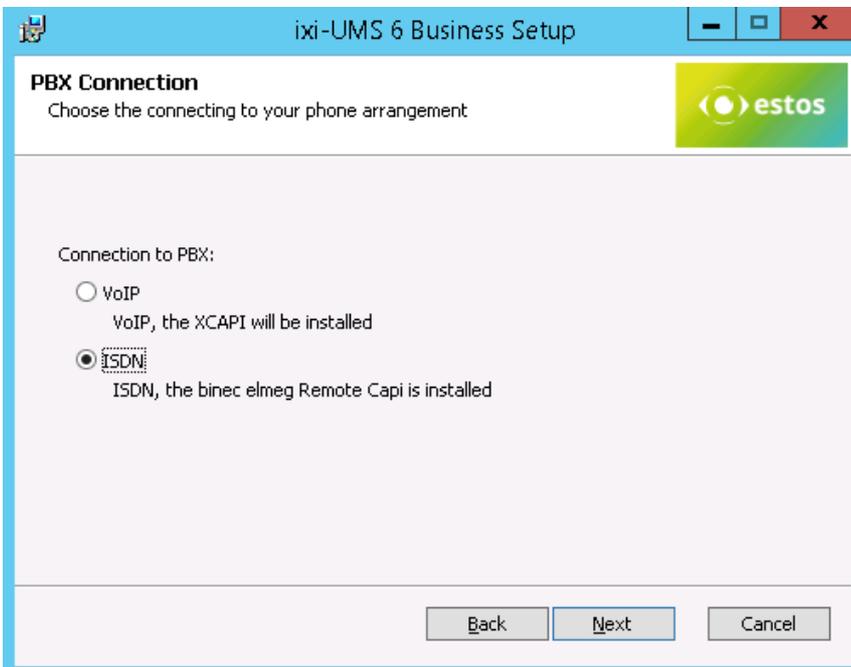


First, the Microsoft Speech is installed for the TTS functions. Confirm the license agreement and click "Install".

When the installation is complete, confirm with "Finish".



The next step is to start the ixi-UMS Business Setup.



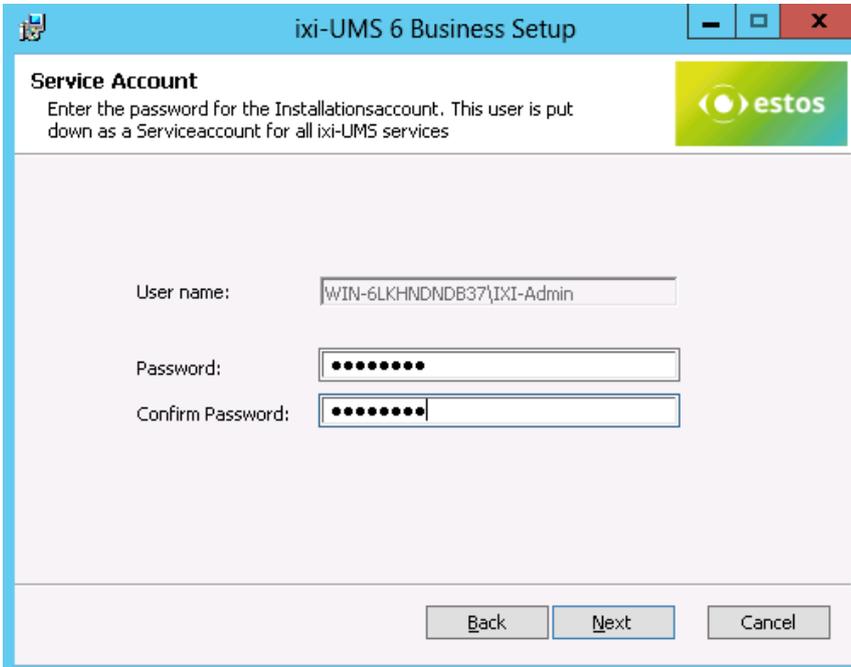
First, select the type of connection to your PBX / gateway / provider.

**VoIP:**

The XCAPI is installed with

**ISDN:**

You have installed abintec elmeg Remote-Remte-Capi.



The service account is the user account with which you are logged on.

**This can not be changed here.**

The user specified here is entered as a service account for all ixi-UMS Business services.

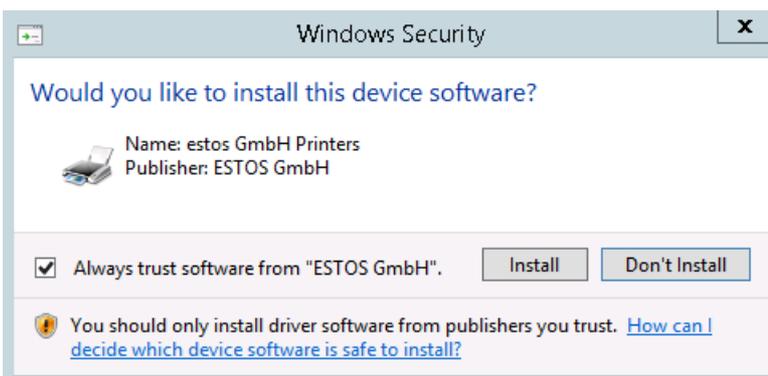
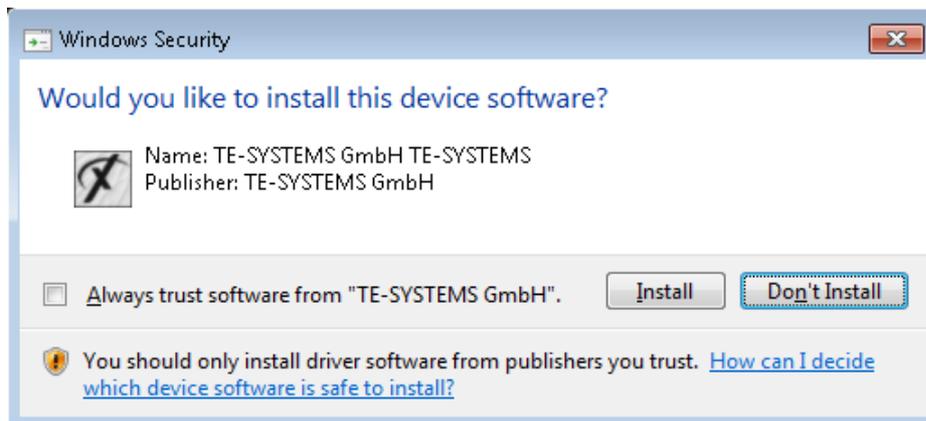
**Please note:**

If an Office package is used to render documents, this must be set up when the service account is changed.

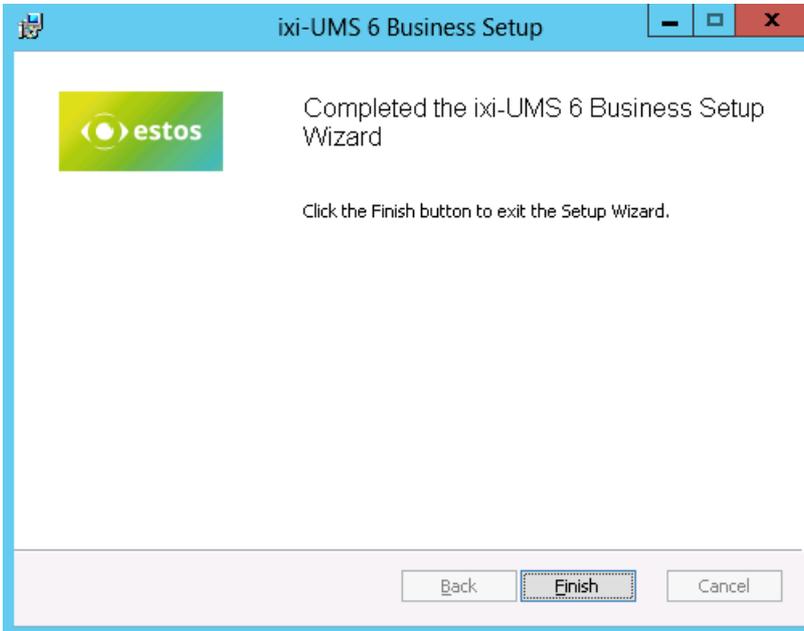
Refer to the manual

In the next step, all required data are copied and installed. This process can take a few minutes.

Depending on which operating system ixi-UMS Business is installed, a Windows warning message appears before the setup install the XCAPI (optional) and the ixi-UMS printer driver.

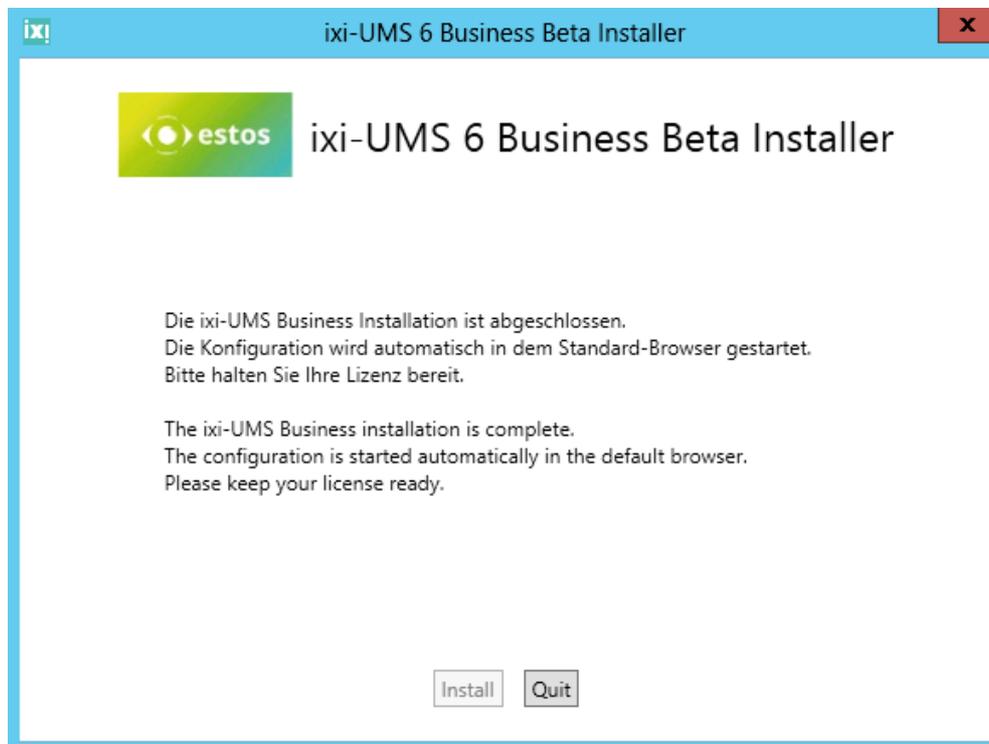


Select "Install" to continue the installation. After the installation, the configuration wizard is started.



At the end of the installation, the installation wizard for ixi-UMS Business

and the total set-up is terminated



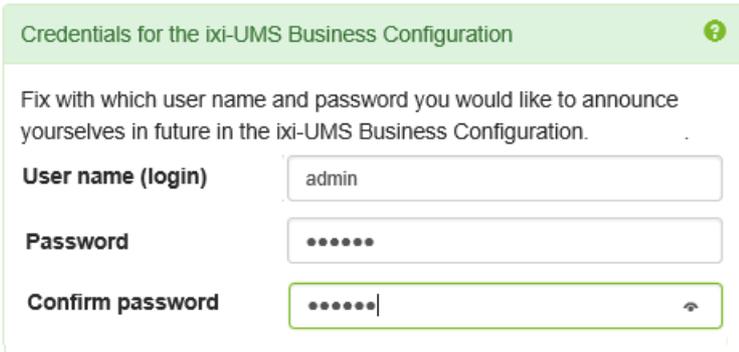
The web page for the ixi-UMS Business basic configuration is started automatically.

## 7 Basic Configuration

After the installation the browser-based configuration surface is opened for the base configuration in the standard to web browser.

All not yet furnished points are shown red. If data are not checked given, however, yet, the heading is yellow indicated. Only if all information available and if necessarily checked, the headings are indicated green and the configuration can be stored.

All settings can be changed later in the ixi-UMS Business configuration.



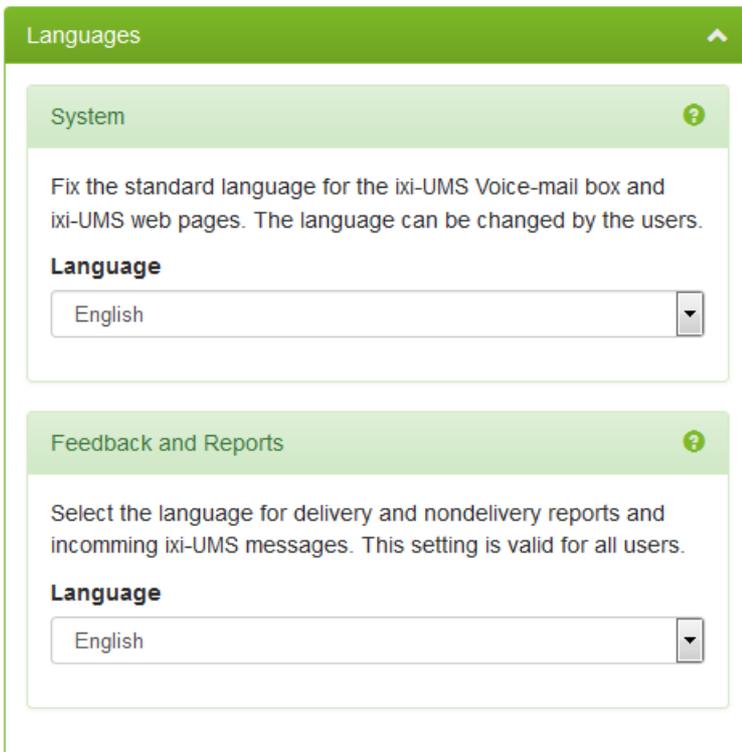
First type in a user and password to login into the ixi-UMS Business Web-Admin. This user is regardless of the users in the LDAP database or the local user accounts

The language of the interface can be displayed in English or German. You can change the language in the upper right corner.

To complete the basic configuration, you must enter the license and save the Basic-configuration

### 7.1 Languages

Specify the languages for the ixi-UMS Business system:



#### System

German or English  
Standard language for:

- Announcement of the ixi-UMS voice mailbox
- The phone menu
- The ixi-UMS voice mailbox configuration
- Of the ixi-UMS Business Web Journal

The users can change the selections made here.

#### Feedback and Reports

The setting is valid for all users and can not be changed by them either. All reports for send/not send messages and reports for incoming messages are created in the language set here.

## 7.2 Hardware

You must configure the connection between the ixi-UMS Business server and the PBX / gateway / provider.

### 7.2.1 Konfiguration

For the function of ixi-UMS Business, the connection to the telephone system must be set up and functioning.

Depending on whether ixi-UMS Business was installed with XCAPi for VoIP connections or the bintec elmeg Remote Capi was installed before, the configuration and the test scenario differ:

Set up and test XCAPi

Bintec elmeg Remote Capi setup and testing

For both connections, the device and function must be confirmed after the initial configuration so that the configuration of the ixi-UMS Business can be completed.

**Setting up / configuring and testing the connection must start in a web browser that is open locally on the ixi-UMS Business server.**

#### 7.2.1.1 XCAPi

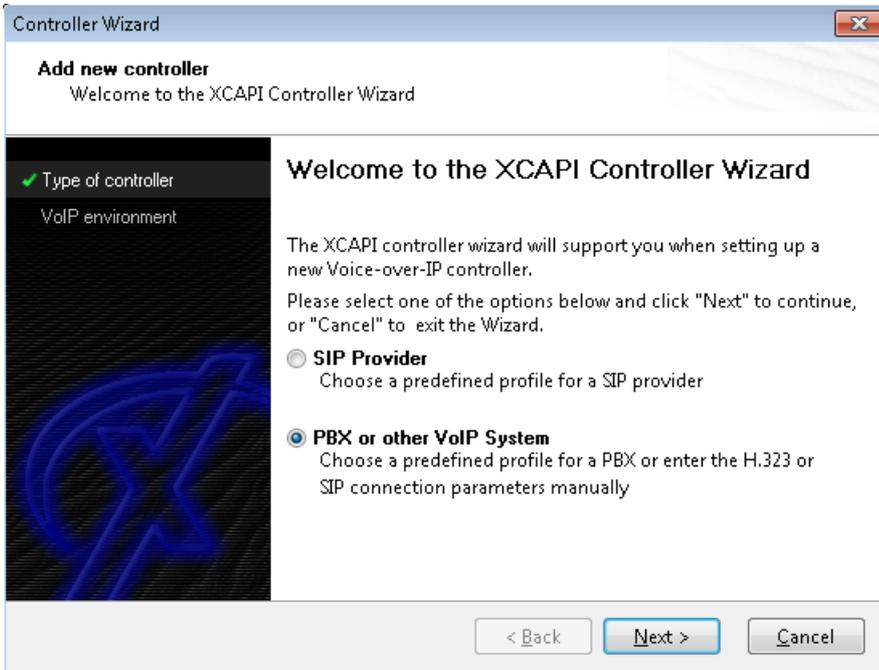
If the "XCAPi configuration" is called for the first time, the XCAPi configuration wizard starts to set up the connection to the telephone system. After configuration, the connection to the telephone system and function of the XCAPi must be tested.

The screenshot shows a web interface titled "Hardware" with a sub-section "VoIP Installation". The main text reads: "The XCAPi has to be configured, please start the configuration now." Below this is a "Start Configuration" button and a checked checkbox labeled "XCAPi Configuration finished". The next text says: "Please test the XCAPi configuration and confirm that the test was successful." This is followed by a "Start Test Tool" button and a checked checkbox labeled "XCAPi successfully tested". A hint at the bottom states: "Hint: The XCAPi configuration and the XCAPi test can only be run locally on the ixi-UMS Business server."

You can restart the XCAPi configuration at any time to change the settings or to enable / disable the trace. See the ixi-UMS Business Manual under Additional Information: .Testing XCAPi and Tracing

**Setting up / configuring and testing the connection must start in a web browser that is open locally on the ixi-UMS Business server.**

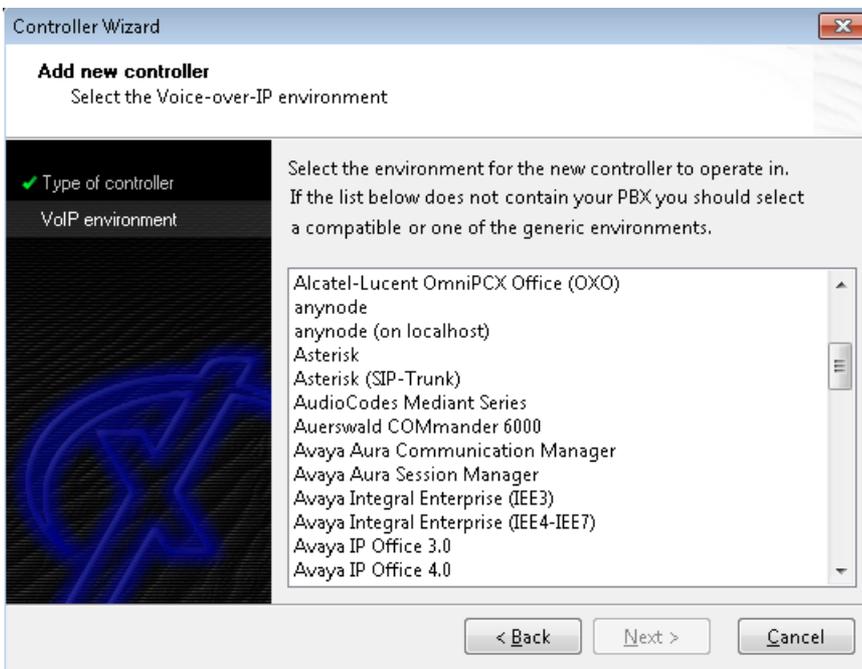
### 7.2.1.1.1 Set up XCAPI



This configuration wizard only starts when the XCAPI configuration is called for the first time.

You can add additional controllers / connections at any time in the XCAPI configuration.

Specify whether you want to connect directly to a SIP provider or a PBX / gateway.

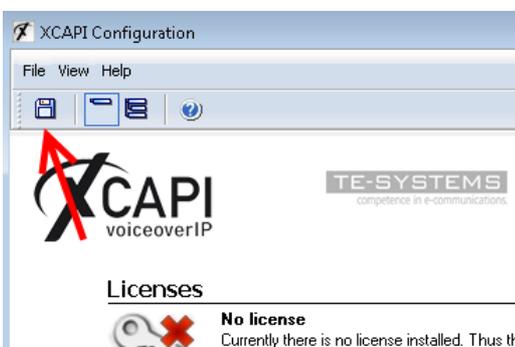


In the next step, select your provider or your PBX / gateway.

Follow the setup wizard.

Depending on the connection, you must specify the IP address or the domain, as well as data for authentication in your telephone system / gateway or the provider.

You can find examples of installations for your telephone system on the [estos website](https://www.estos.de/index.php?id=785) for "Unified Messaging with ixi-UMS Business".



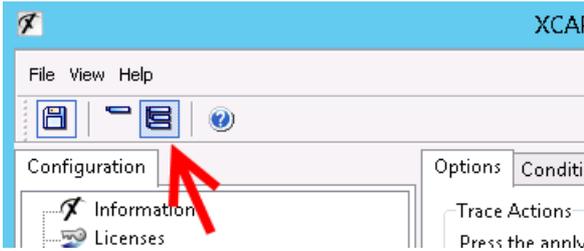
**To finish the configuration you must save the settings !!**

After saving, close the configuration interface.

When you first set up, you must confirm the XCAPI configuration once in the ixi-UMS Business configuration and start the XCAPI testing.

### 7.2.1.1.2 XCAPI Konfiguration

Setting up / configuring must start in a web browser that is open locally on the ixi-UMS Business server.

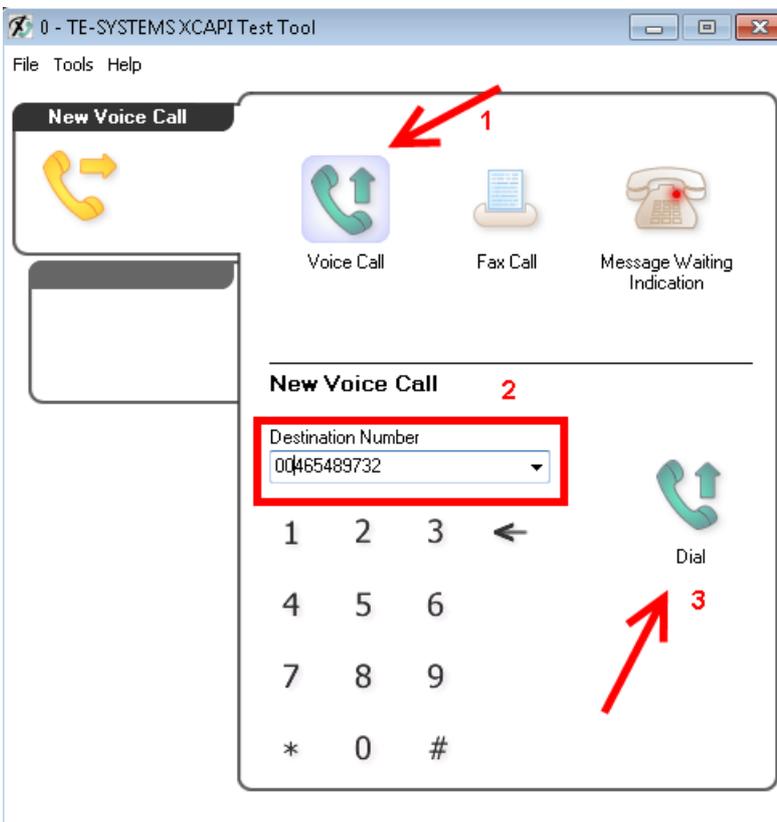


After you have set up the XCAPI by means of the configuration button, you can switch on the "extended menu" and, if necessary, make any necessary changes to the configuration.

For more information, see the XCAPI built-in help and the ixi-UMS Business Manual under Additional Information: Testing XCAPI and Tracing

### 7.2.1.1.3 Testing XCAPI

In order to check the functionality of the connection, the "XCAPI Test Tool" is started.

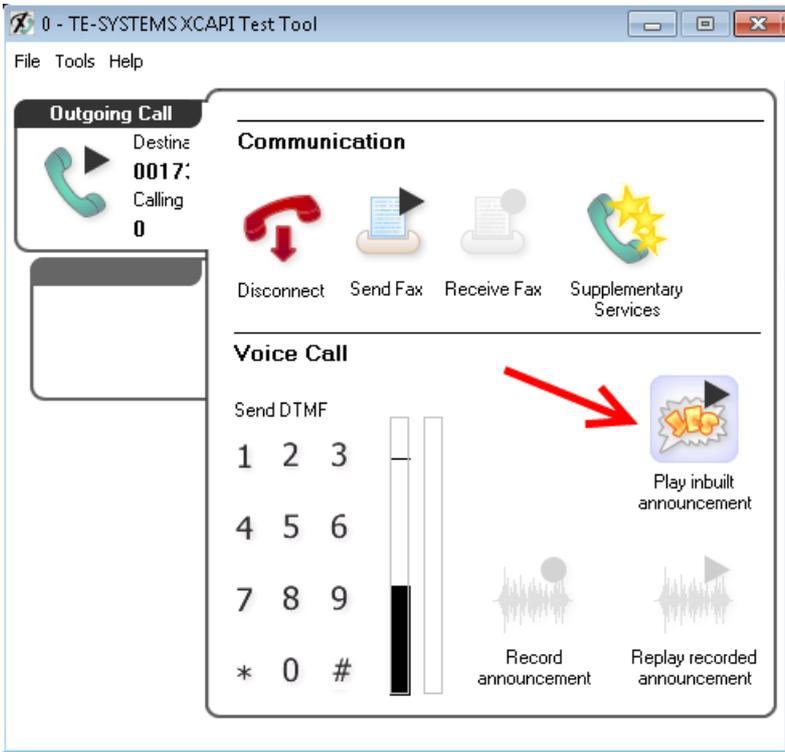


You can restart it at any time from the Start menu.

Check the general function by means of an outgoing and an incoming voice call.

1. Select "Voice call"
2. Enter your mobile number as a "destination number". Please note any necessary public line access
3. Start the call.

The call must be signaled on the mobile phone. Answer the call on the mobile phone.



After you have accepted the call on your mobile phone, start the "Play inbuilt announcement" function in the XCAPITest tool.

You must listen to the test announcement on the mobile phone.  
Repeat the test with an internal phone.

If both tests are successful, call from your phone and then from the internal phone to a dial-in number defined for ixi-UMS Business.

Answer the call in the test tool and play the announcement.

Only when all tests are successful, click "**Send Fax**" in the test tool and send a fax to an external remote that is known to you.

**Please note:**

In the left part you can see how the numbers are transferred to allow to remove a leading 0 by ixi-UMS Business if necessary in the basic configuration -Phone number format.

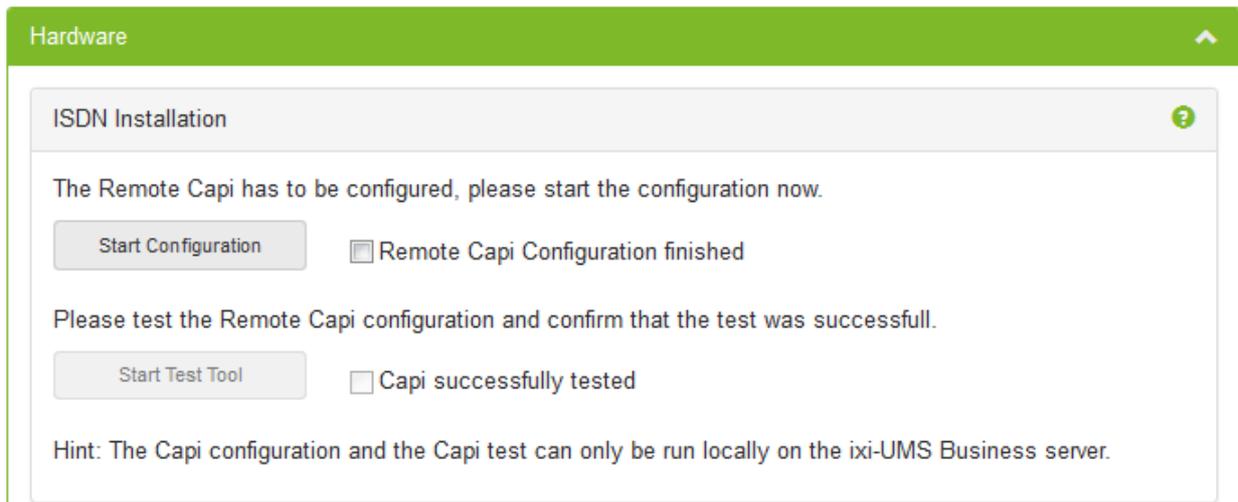
**If one of the tests is unsuccessful**, ixi-UMS Business can not be successfully activated. However, the configuration should continue to the end.

In the case of a problem, please read the "Additional Information - Testing XCAPITest and Tracing" after completing the ixi-UMS Business installation in the manual.

To determine the data required for a "common voice mailbox number", please refer to "Additional Information - Route by Redirection"

### 7.2.1.2 bintec elmeg Remote CAPI

The bintec elmeg Remote Capi should be installed and configured before ixi-UMS Business . For detailed information, please refer to the ixi-UMS Business Manual under Additional Information: Installing the Remote CAPI.



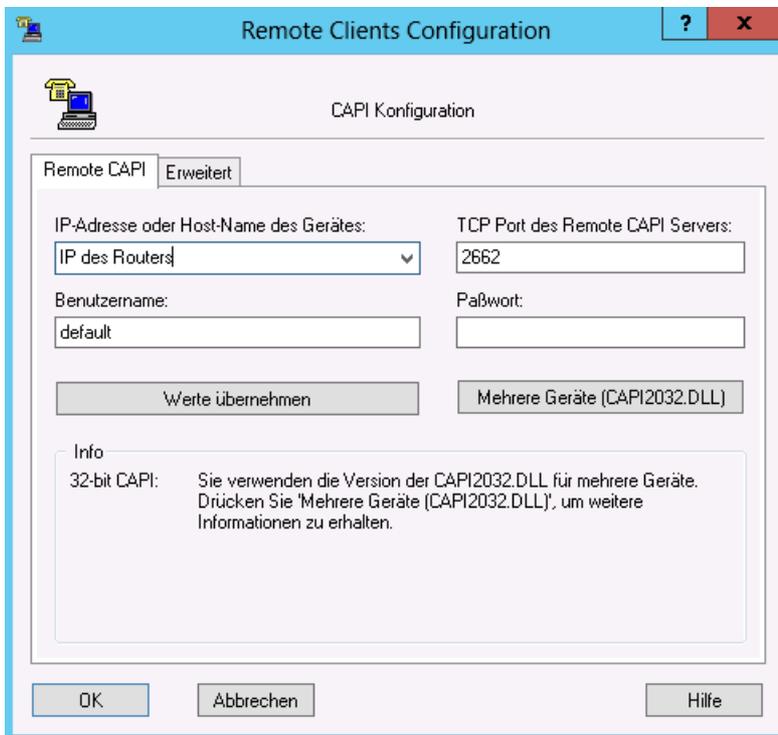
The configuration of the Remote Capi can be opened at any time. Instructions for setting up the bintec router or bintec be.ip plus can be found in the ixi-UMS Business Manual under Additional information.

After set up the Remote CAPI the connection to the telefon system can/must tested.

**Setting up / configuring and testing the connection must start in a web browser that is open locally on the ixi-UMS Business server.**

#### 7.2.1.2.1 Configuration

A successful connection assumes that the bintec router or bintec be.ip plus is completely set up.



Type in the IP-Address of the PBX

If you don't like to use the Default user, enter the CAPI user and password, which you have defined in the PBX.

Select „Werte übernehmen“ and after that select „Mehrere Geräte (CAPI2032.dll)“

For detailed information, please refer to the ixi-UMS Business Manual under Additional Information: Installing the Remote CAPI.

After set up the Remote CAPI the connection to the telefon system can/must tested.

**Setting up / configuring and testing the connection must start in a web browser that is open locally on the ixi-UMS Business server.**

### 7.2.1.2.2 Testing Remote CAPI

A small "CAPI-TestTool" is started in order to check the functionality of the connection.  
You can restart it at any time

Check the general function and determine the numbers transmitted from the telephone system to ixi-UMS Business by means of an outgoing and an incoming (voice) call.

1. Select the controller to be tested
2. Select the type of connection between ixi-UMS Business and the PBX.
3. Optionally, you can specify a valid (sender) originator phone number. This should be displayed later on your mobile phone as sender.
4. Enter your Handynummer as the "destination phone number". Please note any necessary public line access

The screenshot shows the 'ixi-UMS CAPI Test Tool' interface. It has a blue title bar with the text 'ixi-UMS CAPI Test Tool' and a red close button. The main area is white and contains several sections:

- Configure line access:** A dropdown menu for 'Controller number' is set to '1'. To the right, a 'Language' dropdown menu is set to 'English'.
- Enter phonen number or read phonen numbers:** Three input fields are present:
  - 'destination phone number': 0017548971325
  - 'originator phone number': 3596
  - 'redirection phone number': (empty)
- Result:** A section with three input fields: 'error:' (0), 'CAPI message' (0x0000), and a green 'o.k.' indicator.
- Action:** Two buttons: 'make call' and 'wait for call'. To the right of the 'wait for call' button is a 'timeout' dropdown menu set to '30'.

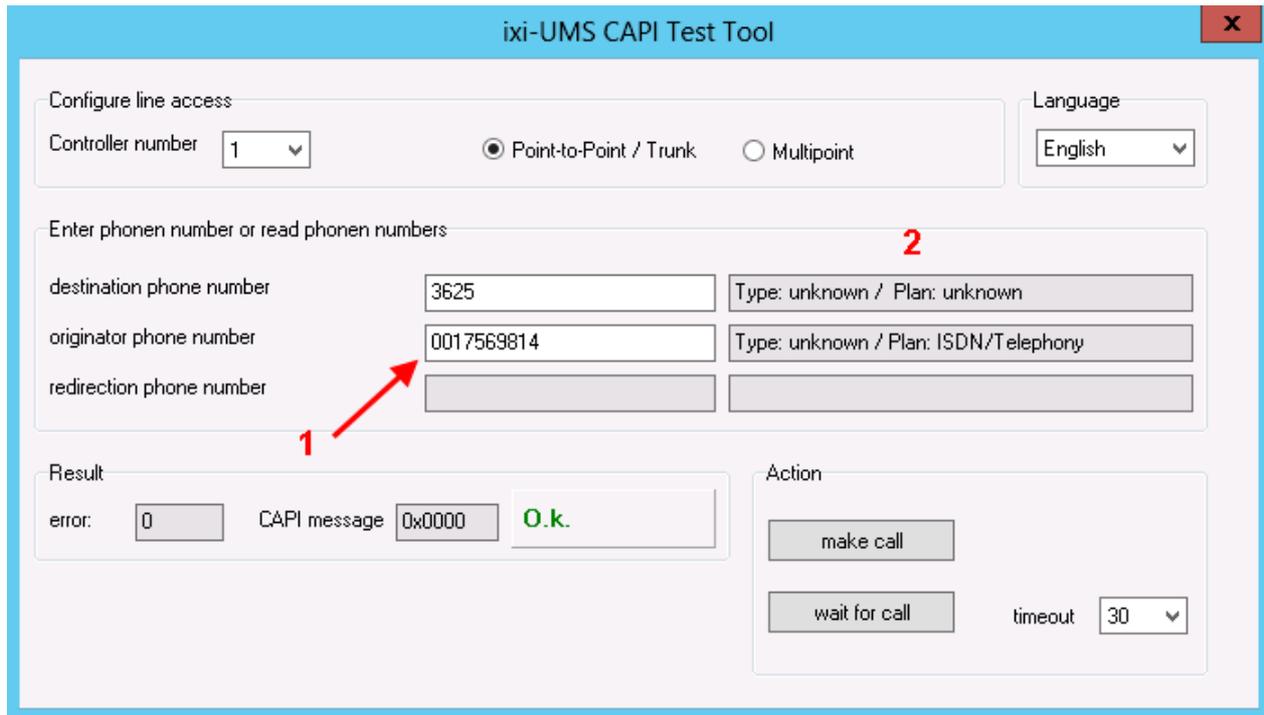
5. Start the call using the "make call" button

The call must now be signaled on the mobile phone. If you have specified a sender number, it should be included in the displayed caller number.

Accept the call. The moment you receive the call, the connection is interrupted.

Repeat the test with an internal phone.

If both tests are successful, select the "wait for call" button (if necessary change the timeout) and call from your mobile phone and then from the internal telephone to a dial-in number defined for ixi-UMS Business. The call is automatically "accepted" and immediately terminated.



In the "originator phone number" field, you can see how the sender numbers are transferred from the telephone system. If a leading 0 is present, this must be removed in the basic configuration - Phone number format by ixi-UMS Business. The "Destination Number" field shows what the telephone system has transferred as a "recipient" number to ixi-UMS Business.

In the field after the displayed numbers (2) the Type-of-Number and Numbering-PlanP signaled by the telephone system are displayed .

Below is a table with valid (correct) relationships of NP, ToN and transmitted number:

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

Please see also the article Types of ISDN Accesses under Additional Informations in the ixi-UMS Business Server Manuals.

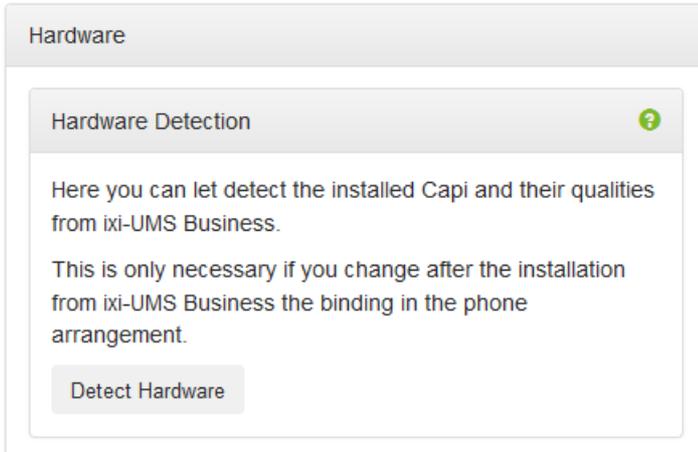
**Please note:**

If one of the tests is unsuccessful, <% PRODUKTNAME%> can not be successfully activated. Check the connection parameters and settings in the Bintec elmeg device. The setup can still be continued until the end.

To determine the data required for a "shared voice mailbox number", please refer to "Additional Information - Route by Redirection"

## 7.2.2 Hardware Detection

The hardware detection must be carried out in a web browser that is opened locally on the ixi-UMS Business server.



The screenshot shows a web interface titled "Hardware". Inside, there is a section "Hardware Detection" with a help icon. The text reads: "Here you can let detect the installed Capi and their qualities from ixi-UMS Business. This is only necessary if you change after the installation from ixi-UMS Business the binding in the phone arrangement." Below the text is a button labeled "Detect Hardware".

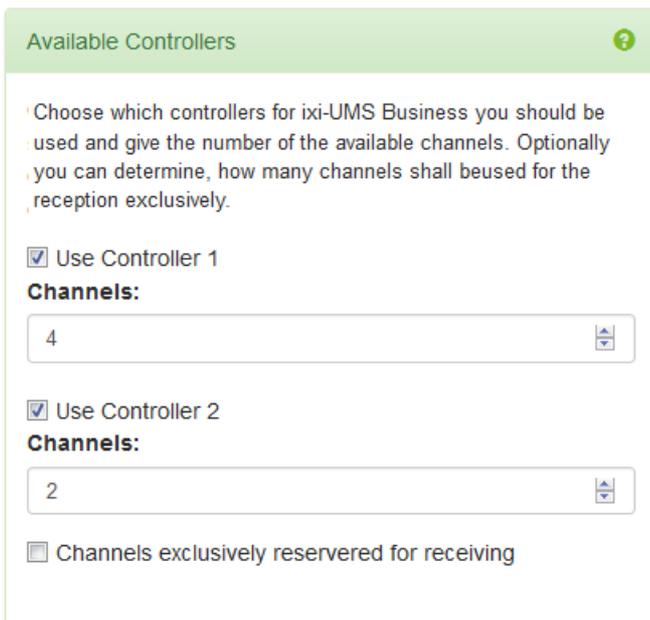
After the first installation of the CAPI for the connection to the telephone system **or if** you have changed it later, this has to be read out by means of "**Hardware detection**".

Only then can you select the controllers to be used.

## 7.2.3 Available Controllers

Dependent of it whether you use an ISDN-or a VoIP connection with the PBX / gateway, the following configurations are necessary.

The controllers can be marked "Active" and therewith configured for the use by ixi-UMS Business.



The screenshot shows a web interface titled "Available Controllers" with a help icon. The text reads: "Choose which controllers for ixi-UMS Business you should be used and give the number of the available channels. Optionally you can determine, how many channels shall be used for the reception exclusively." Below the text are two sections: "Use Controller 1" with a checked checkbox and a "Channels:" dropdown menu set to "4"; "Use Controller 2" with a checked checkbox and a "Channels:" dropdown menu set to "2". At the bottom, there is an unchecked checkbox labeled "Channels exclusively reserved for receiving".

### XCAPI

If you use the XCAPI you can change the used lines. These must have the same number like in the XCAPI and the PBX / gateway furnished.

### Bintec elmeg LAN Capi (ISDN)

In this case, you can enable the controllers individually, but you can not change the number of channels. There are 2 channels per controller.

The next step is to set up the connection type.

### Channels reserved for receiving

Please determine here, how many channels shall be used for the **reception exclusively**. It is not possible to determine, which channels are reserved, because this is managed by the ixi-UMS Business Server independently.

## 7.2.4 Connection Type

These settings are only required if you are using a Bintec elmeg Remte-Capi (ISDN). In this case, you must specify which connection type is set up in the telephone system and the Bintec elmeg device.

### Connection Type ?

Indicate which type of connection was set up in the telephone system for the connection to ixi-UMS Business.

Point to Multipoint  
 Point to Point

**Internal code**

**Number of Direct Dialing Digits**

The connection type must **be the same for all controllers.**

### Point-to-Multipoint (PMP)

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

### Point-to-Point (PP)

Please choose this setting if ixi-UMS Business 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.

## 7.3 Side

These are dependent on the settings of the PBX and responsible for creating the recipient number.

The information on the tab "Server Site" is required for:

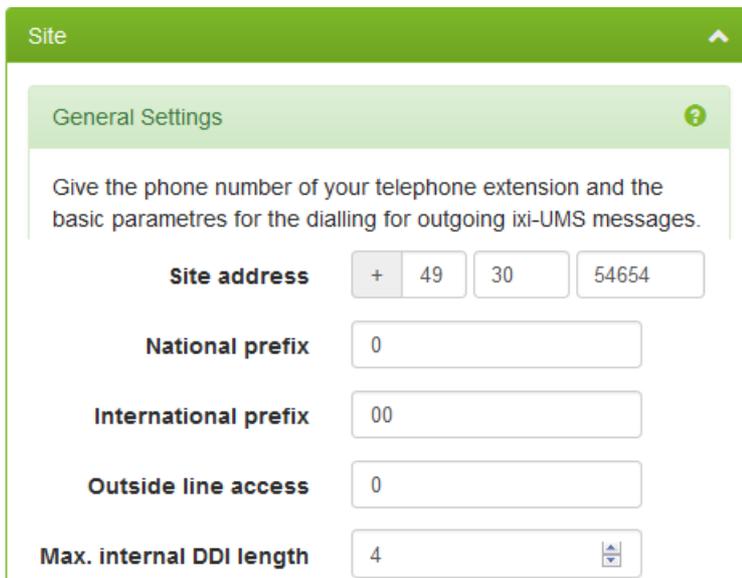
- inbound, create the recipient address in E.164-Format
- outbound, create a dialable number, if addressing with E.164 number

### 7.3.1 General Settings

The location settings allow the error-free telephone dialing at outgoing and the correct build form the recipient number for incoming UMS messages.

For more information, see "Additional Information - Location Settings - Site Settings - Creating the Call Numbers"

<b>Side Address</b>	Enter the connection number of the outside line in the form of: Country code ( for germany 49) Area code (without the leading 0. For Olching, this would be 8142.) Subscriber number
---------------------	---



The screenshot shows the 'Site' configuration interface. Under the 'General Settings' tab, there is a description: 'Give the phone number of your telephone extension and the basic parametres for the dialling for outgoing ixi-UMS messages.' Below this, several input fields are visible: 'Site address' with a '+' sign and three boxes containing '49', '30', and '54654'; 'National prefix' with a box containing '0'; 'International prefix' with a box containing '00'; 'Outside line access' with a box containing '0'; and 'Max. internal DDI length' with a box containing '4' and a dropdown arrow.

#### 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).

<b>max. interne Durchwahllänge</b>	Determines, how many digits are considered as <b>internal</b> 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.
------------------------------------	--

	Known exceptions: Italy - here, the leading 0 has to be entered With the removal of the area code, the accompanying delimiter is also removed by default.
---	--

### 7.3.2 Phone number format

So that the ixi-UMS Business Server can determine the aim phone numbers properly and transmit, must be fixed which format the bound phone arrangement / gateway expected and transmitted. You can use the XCAP-Test Tool or CAPI-Test Tool to determine the actual numbers transmitted.

#### Inbound

Normally the recipient numbers are signalled as a DDI and are suspended to the location information. Choose in **the E. 164** if the phone numbers are transferred in the format 4981424799585 to ixi-UMS Business .

Read moreover also the article "Call Number Transfer in E.164-Format" under additional information" in ixi-UMS Business Manual.

**Remove outside line acces** at the sender's call number

Some telephone systems transmit to the ixi-UMS Business the sender number of the incoming call with the pre-defined public access line.

In order to allow users to answer to a fax or voice message, the sender must also have a correctly formatted number, e.g. +49 8142 4799666.

#### Phone number format ?

Define which phone number format incomming calls and faxes are signalled by the TK arrangement and how for outgoing messages should be chosen.

##### Inbound

- All inbound phone numbers are signaled as E.164
- Remove outside line access: All sender phone numbers are signalled with outside line access

##### Outbound

These rules apply to destination phone numbers entered in international format (+49...).

- Default, shorten to minimal length + trunk access code
- Dial always national access and area code. If this option is checked then 008142... is dialed
- Always dial in the E.164 format

#### Outbound

If the phone number begins in the outgoing ixi-UMS message with + (e.g +390254789) this is shortened **default** 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

Choose "**Dial in the E. 164 format**" if the phone numbers should become in the format 4981424799585 the PBX / gateway-transferred.

Read moreover also the article "Call Number Transfer in E.164-Format" under additional information in ixi-UMS Business Manual.

## 7.4 User Management

Specify which LDAP data bank for the user management should be used and put down the connecting data, if necessary . You find detailed information in the ixi-UMS Business manual under "preparation of the installation".

### LDAP Settings

**Active Directory with Microsoft Exchange Server** (an "extensionAttribute" should be defined)

**Active Directory without Microsoft Exchange Server** (the extension of the schema is required)(not included in the BETA version)

**ixi-UMS User Administration** (the users must be set up in the local database )

The screenshot shows the 'User Management' application window with the 'LDAP Settings' tab selected. The window has a green header bar with the title 'User Management' and an upward arrow icon. Below the header, the 'LDAP Settings' section is titled and includes a help icon. The main content area contains the following elements:

- LDAP Settings:** A text block explaining that users are administered in the selected LDAP data base and that changing the base after configuration will lose user settings.
- Radio Buttons:** Three options are available: 'Integrated ixi-UMS User Management' (unselected), 'Microsoft Active Directory with Microsoft Exchange' (selected), and 'Microsoft Active Directory without Microsoft Exchange (requires schema extension)' (unselected).
- Warning:** A note states 'This function is not yet included in the BETA version' for the third option.
- Connection Data Section:** A sub-section containing:
  - LDAP-Host:** A text input field with 'LDAP-Server.domain.net'.
  - Port:** A spin box set to '389'.
  - use LDAPS (TLS):** An unchecked checkbox.
  - LDAP Domain:** A text input field with 'domain.net'.
  - LDAP Attribute for ixi-UMS settings:** A dropdown menu showing 'extensionAttribute9'.
  - Login Account:** A text input field with 'administrator@domain.net'.
  - Password:** A password input field with masked characters.
  - Test Connection:** A button at the bottom of the section.

### Connection Data

This information is only necessary if you use an Active Directory.

#### LDAP-Host:

Type in IP-Address or Name of the Active Directory Server

#### Port:

Normally the LDAP port for the Active Directory is the port 389.

#### LDAP-Domain:

Type in the name of the Active Directory domain.

Example: estos.de

#### LDAP-Attribute:

This must be determined by you. If a Microsoft Exchange Server is in use, the attributes "extensionAttribute 1-15" are offered for selection.

If no Microsoft Exchange is used, you must perform the schema extension. This option is not available in the BETA version.

#### Login Account:

With this account the access to the data bank LDAP is carried out.

Example: administrator@estos.de

**Please note** that write access to the Active Directory is required to enter the ixi-UMS properties.

## 7.5 Mail System

Here you must determine settings for the communication of the ixi-UMS Business with the mail server for incoming and outgoing ixi-UMS-messages.

### 7.5.1 Addressing

You must specify how the e-mail sender address should be composed for incoming ixi-UMS messages and to which e-mail address ixi-UMS messages should be sent if the recipient number can not be found in the LDAP database.

#### Maildomain:

From the email domain, the sender's address can be defined by incoming ixi-UMS messages.

Normally, you will want to create an address like `Sender_Fax_Number@fax.Your_Company.com`. You can change this setting in "Selection of sender address format".

#### Default Recipient:

The Default Recipient receives all the ixi-UMS messages, which cannot be assigned to a certain user. Please use only existing e-mail addresses from your mail system.

Addressing

Specify your maildomain and a default recipient, and specify how ixi-UMS messages must be addressed.

**Mail Domain:**

**Default Recipient:**  @estos.de

**Selection of sender address format:**  estos.fax / estos.voc / estos.sms

Please note that the following routing entries have to be added to your mail server:

- estos.fax
- estos.voc
- estos.sms

Save Addressing Settings

#### Selection of sender address format:

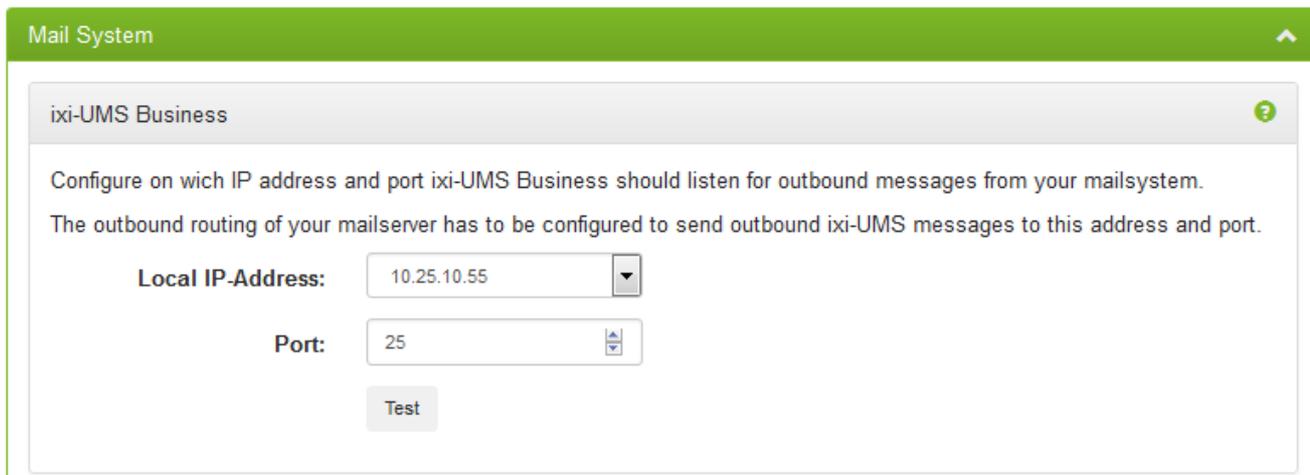
With this template you can determine, how *the e-mail sender address* for incoming ixi-UMS messages shall be composed.

This should correspond to the address for outgoing ixi-UMS messages so that you can use the reply function on incoming ixi-UMS messages. Please also ensure that the information here is aligned with the routing of outgoing ixi-UMS messages and entered in the routing entry in the mailserv.

You find detailed information in the ixi-UMS Business manual under "Preparing Massaging System".

## 7.5.2 ixi-UMS Business Einstellungen

Please configure the IP-address and the port, on which the ixi-UMS Business shall run.  
The mail server must send outgoing ixi-UMS messages to this IP-address and port.



The screenshot shows a window titled "Mail System" with a sub-header "ixi-UMS Business". Below the header, there is instructional text: "Configure on wich IP address and port ixi-UMS Business should listen for outbound messages from your mailsystem. The outbound routing of your mailserver has to be configured to send outbound ixi-UMS messages to this address and port." The configuration fields are: "Local IP-Address:" with a text box containing "10.25.10.55" and a dropdown arrow; "Port:" with a text box containing "25" and a spinner control; and a "Test" button.

Press the "Test"-Button to check if the selected IP-Address and Port can be use.

## 7.5.3 Mailserver Settings

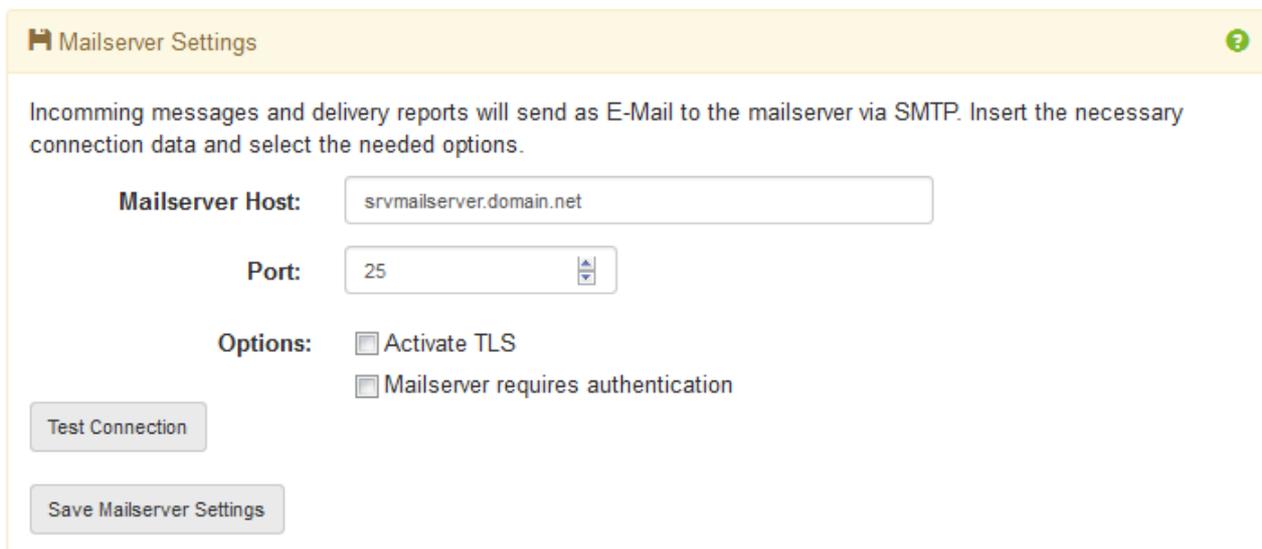
Here you can determine settings for the communication of the ixi-UMS Business Server to the mail server (for incoming UMS-messages)

### Mailserver Host:

Type in the name or IP-address of the Mail host to which incoming ixi-UMS messages will be send.

### Port:

Specified Port on witch the mailserver receives E-mail



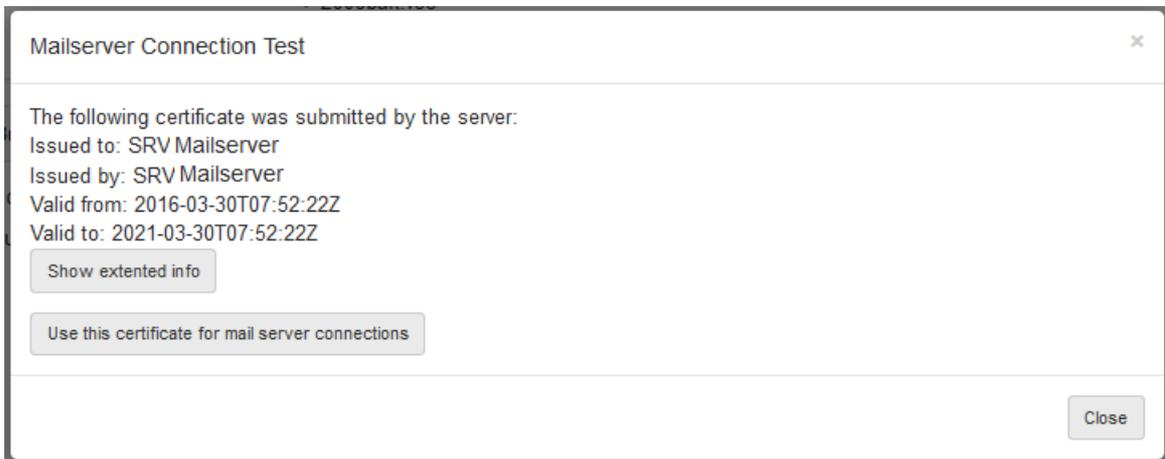
The screenshot shows a window titled "Mailserver Settings". Below the title, there is instructional text: "Incomming messages and delivery reports will send as E-Mail to the mailserver via SMTP. Insert the necessary connection data and select the needed options." The configuration fields are: "Mailserver Host:" with a text box containing "srvmailserver.domain.net"; "Port:" with a text box containing "25" and a spinner control; "Options:" with two checkboxes: "Activate TLS" and "Mailserver requires authentication", both of which are currently unchecked. At the bottom, there are two buttons: "Test Connection" and "Save Mailserver Settings".

**Options:**

This next to settings are only necessary if the mail server requests this explicitly.

**Activate TLS:**

If you want to use TLS, be sure to enter the name as the "Mailserver Host" on which the certificate was issued. During the connection test the certificate of the e-mailer is requested and displayed.



It must be confirmed by you to save it and use it to connect to the mailserver.

**Options:**  Activate TLS

Information about used certificate:  
**Fingerprint (SHA1):** 4C 56 97 C5 11 E1 E6 C9 5E 6B 3C 9E 86 56 A3 10 A3 11 A8 DC  
**Fingerprint (SHA256):** 69 0C A2 E7 E5 3A 13 D8 34 3C 84 18 3E E6 C0 EE 54 E3 6C 64 92 60  
5A 23 10 C4 7D 54 D8 8E 5E 08

Mailserver requires authentication

**User name:**

**Password:**

**Mailserver requires authentication:**

You can state a user, with that the ixi-UMS Business server logs in at the mail server. This entry is only necessary if the mail server requests this explicitly

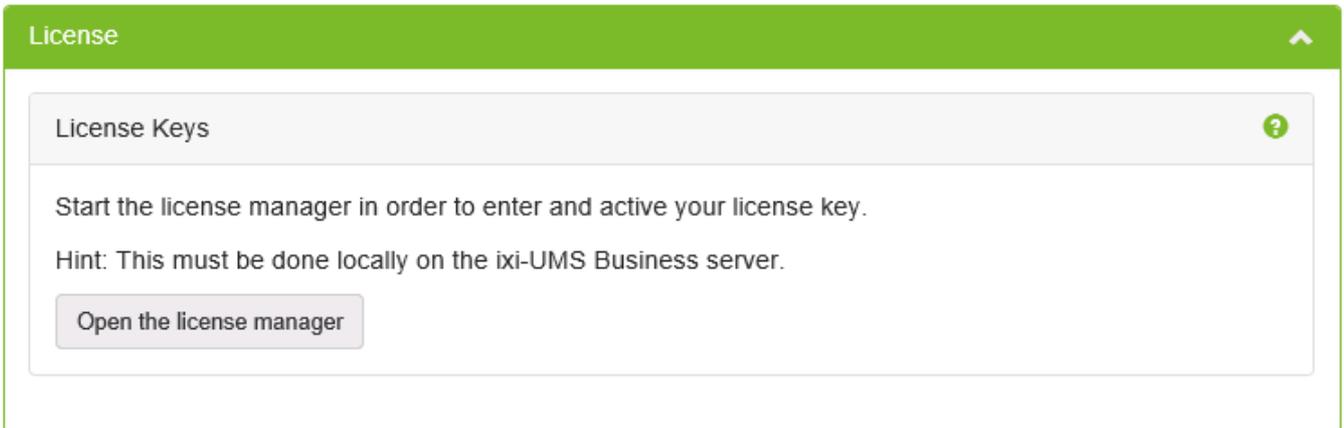
Prüfen Sie über den Button "Verbindung zum Mailserver testen" ob die Verbindung zum Mailserver erfolgreich hergestellt werden kann.

## 7.6 License

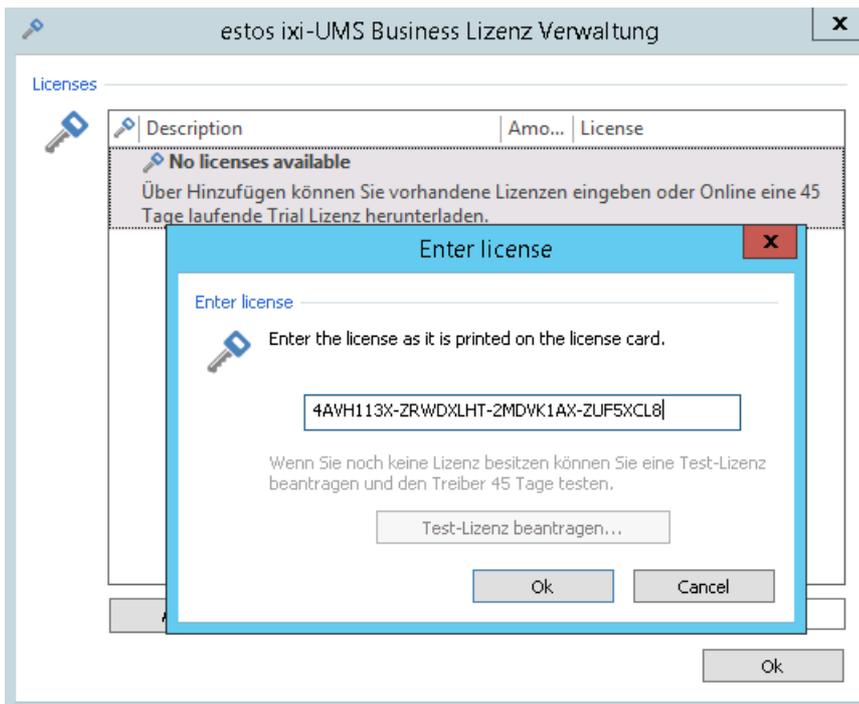
In order to start ixi-UMS Business, you must enter a license key. You received this with the purchase of the ixi-UMS Business package. Alternatively, you can create a 45-day test key.

**This operation can only be performed directly on the ixi-UMS Business Server.**

Click "Open the License Manager" to start the process.



### 7.6.1 Lizenz Key



The license management is opened.

Click "Add" to enter your license code.

Enter your license code and confirm your entry with "Ok"

The estoss ixi-UMS Business licenses are hardware-bound.

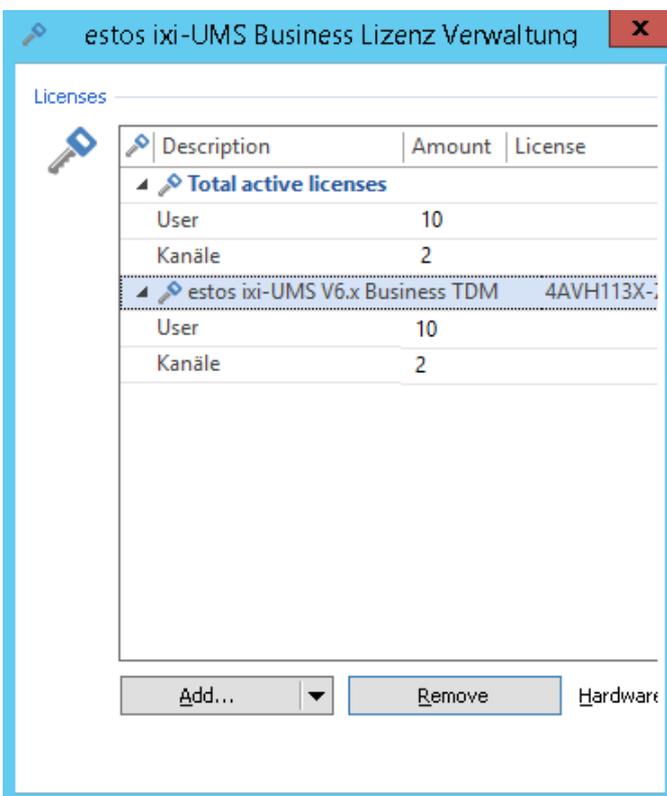
1) Confirm the binding to the hardware from the computer.



2) In the next step, the signature is created and a connection to the estos license server is established.



If a connection to the license server was established, the license is activated, entered and the range of ixi-UMS Business is displayed. Otherwise, you are offered additional options for activating the license.



The input is now complete and has to be terminated with "OK".

## 7.6.2 Lizenzübersicht

If you have entered a license, the scope is displayed to you.

License Overview ?

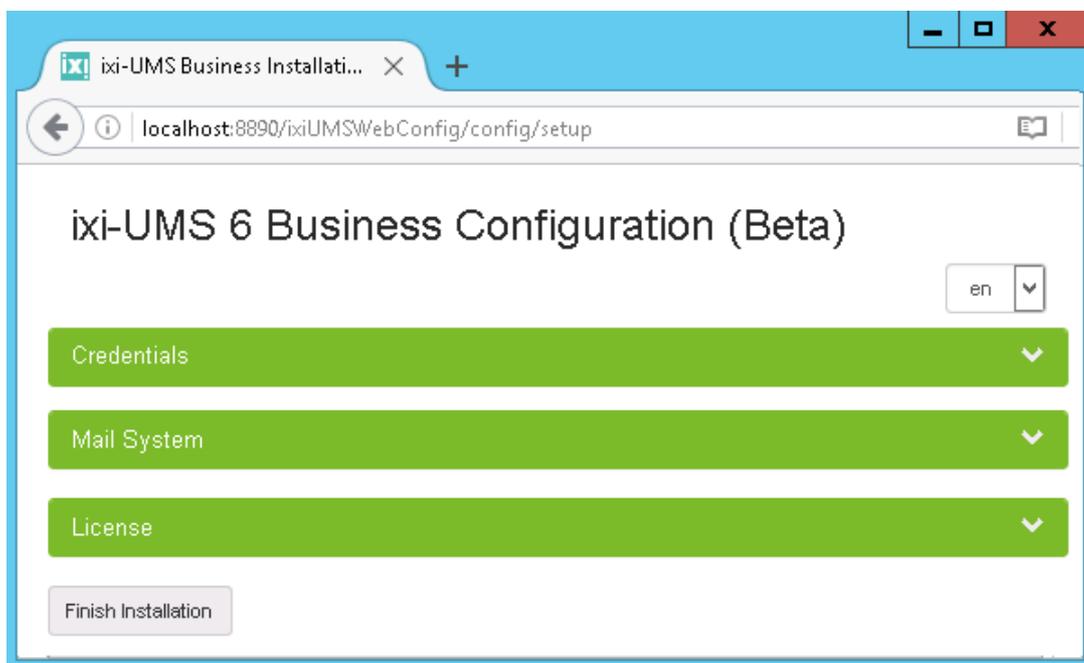
Hint: The license overview is not updated automatically. Please press "Refresh" after entering or removing a license key in the license manager.

Entered licenses:	1
Number of licensed channels:	2
Number of licensed users:	10

Refresh

## 7.7 Finish basic configuration

When you have made all the entries and the license has been installed, finish the basic installation.



Now all ixi-UMS Business services are started.

ixi-UMS Business Installation finished ×

The base configuration is now finished, for advanced configuration please login into the configuration using the configured credentials.

OK

The configuration interface opens automatically when you confirm with OK and the start process is complete.