



Swyx Configuration Planner

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About this documentation

This documentation contains the information necessary for making the most effective use of the Swyx solution and the advantages it provides.

Who is this Documentation written for?

The documentation is primarily intended for administrators who are responsible for the global or user-specific configuration and provision of SwyxWare systems.

Conventions for the Descriptions

Operating Steps

In this documentation, "click" always means: You click the left mouse button once.

Menu Operation

Instructions which refer to the selection of certain menu entries will be presented as follows:

"My Profile | Password"

refers to the menu item "Password", which you will find in the "My Profile" menu.

Special design elements



This symbol indicates safety advice: ignoring the advice can lead to material damage or loss of data.



This represents an advice which should be observed in order to avoid possible license infringements, misunderstandings, malfunctions and delays in software operation.



This indicates information which should not be skipped.




This highlights handy tips, which could be helpful for running the software.

These are instructions,

...which prompt the user to perform an action requiring one or multiple steps (1., 2. etc.).

Online Help

To open the online help manual, click on the  button in the top right corner of a Configuration Planner page.

Further Information

- For current information on the products, please see our homepage: swyx.com
- Under the 'Support' category of the homepage, you can download the most current version of the documentation (PDF) and software updates: swyx.com/products/support.html

Other online helps

Product	WWW link
SwyxIt! Client	help.swyx.com/cpe/12.20/Client/Swyx/en-US
SwyxWare-Administration	help.swyx.com/cpe/12.20/Administration/Swyx/en-US
Call Routing Manager	help.swyx.com/cpe/12.20/CRM/Swyx/en-US
Graphical Script Editor	help.swyx.com/cpe/12.20/GSE/Swyx/en-US

1 Configuration Planner

In the Configuration Planner you collect the configuration data required for the functionality of SwyxWare. The configuration can run in advance and independent of the actual installation of one or more SwyxServers.

1.1 Start page

The configuration data for one particular SwyxWare system are saved in a configuration package.

On the start page you select, whether you create a new configuration package or continue to edit a previously exported file:

[Creating a configuration package](#)

[Import a Configuration Package](#)

1.2 Creating a configuration package

Select the SwyxWare variant you are going to configure: SwyxWare or SwyxON.



To create a configuration package for SwyxON, be ready to provide the names of the feature profiles defined by a Platform administrator.

Scroll through the menu items and add new objects with the required properties as described below.



If the connection to the Configuration Planner is interrupted or the time session is expired (after 120 minutes), all the afore entered configuration data will be lost.

Save your input by exporting the configuration package and import the file again for further editing, see [Export a Configuration Package](#), page 21.



You can find a more detailed description of the below mentioned configuration parameters in the administration manual (chapter "The Global Configuration of SwyxServer"):

help.swyx.com/cpe/12.20/Administration/Swyx/en-US

1.2.1 Entering general information

On the "General" tab the customer-specific data and passwords are collected.

To enter company details

- 1 In the menu select "General".
 - ✓ The "Company" tab appears.



The Configuration Package Password is required to export or import the configuration package and apply it for configuration. You must also use this password to protect files that contain user-related data (exported user lists and the config documentation).

Name	Explanation
Company Name	Enter the name of the company.
Project ID	Enter the ID of the project. The name of the exported configuration package will include the project ID.
Site	Enter the site (location), where SwyxWare will be installed. The name of the exported configuration package will include the site. This specification helps to keep apart configuration packages for different branch offices of a company.
City	Enter the name of the city.
Country	Enter the name of the country.
Configuration Package	
Password	Enter the password that will protect the configuration package and personal data from unauthorized access.
Confirm password	Confirm the password you entered.

- 2 Select the "Contact" Tab.

Name	Explanation
Support for the Customer	
First Name	Enter the first name of the contact person.
Last Name	Enter the last name of the contact person.

Name	Explanation
Email	Enter the email address of the contact person.
Phone number	Enter the phone number via which the contact person can be reached.

Support for the Partner

Name	Enter the first and last name of the contact person.
Phone Number	Enter the phone number via which the contact person can be reached.

- 3 Select the "Passwords" tab.

Name	Explanation
Default User Password	
Password	Enter the password, that each new user can apply for their initial SwyxServer log-in. This password will be used by default, if no SwyxWare account password for a configured user is entered.
Confirm Password	Confirm the password you entered.
Root Certificate Password	
Password	Enter the password, with which the root certificate for RemoteConnector will be generated.
Confirm Password	Confirm the password you entered.



To generate the client certificates, maintain the password ready you used to protect the master certificate.

- 4 Select the "Database" tab (not available for SwyxON).



The following data is only required for unattended SwyxServer installation and configuration.



The Windows user account specified here must have administrator rights on the SQL Server instance to create a new database. If an existing database is to be updated, then administrator rights on this database ('db_owner') are necessary.

Name	Explanation
Server Instance	Enter the SQL Server instance on which you want to set up the database for SwyxWare or use the pre-entered value: <i>.\sqlexpress</i>
Database Name	Enter the name to label the database to be created or use the pre-entered value: <i>ippbx</i>
Authenticate via Windows Account	Activate the check box to use the Windows user account for the SQL Server authentication. The Windows user account specified here must have administrator rights on the SQL Server instance to create a new database.
Admin Account Name	Alternatively select authentication with the name and the associated password of an SQL Server administrator.
Admin Account Password	
SwyxWare Account Name	Enter the account name under which SwyxServer should access the database or use the pre-entered value: <i>ippbx_user</i>
SwyxWare Account Password	Enter the password to protect the SwyxWare account. If you leave the field empty, a password will be automatically generated and saved in the Config Documentation.
Store files in file system	Activate the check box, if user fax documents must be saved in a local folder. (Standard folder: C:\ProgramData\Swyx\lpPbx-Server\Data\FileData)

5 Select the "Accounts" tab (not available for SwyxON).



The following data is only required for unattended SwyxServer installation and configuration.

Name	Explanation
Services Account	
Create Account	Activate the check box to use a new instead of the existing account.
Name	Enter the account name under which SwyxWare system services should run or use the pre-entered value: <i>.\lpPbxServiceAccount</i>
Password	Enter the password to protect the Services Account. If you leave the field empty, a password will be automatically generated and saved in the Config Documentation.
Services Group Name	The service account will also be added to a locally created group called "Services". This group is used exclusively for the SwyxWare services. Enter the name or use the pre-entered value: <i>lpPbx Services</i>
Swyx Control Center Administration Account	
Name	Enter the name for your Swyx Control Center Administration Account.
Password	Enter the password for your Swyx Control Center Administration Account.

6 Select the "Options" tab.

Label	Explanation
Import Settings	
Allow to add new objects (e. g. users)	When activated: New objects are permitted to be added, if you update an already configured SwyxWare system via configuration package.

Label	Explanation
Allow to overwrite the server properties	When activated: The server settings are permitted to be overwritten, if you update an already configured SwyxWare system via configuration package.
Allow to overwrite the default location	When activated: The default location is permitted to be overwritten, if you update an already configured SwyxWare system via configuration package.
Allow to overwrite the everyone group	When activated: The group "Everyone" is permitted to be overwritten, if you update an already configured SwyxWare system via configuration package.

SwyxWare

Enable automatic phone firmware update (not available for SwyxON)	Activate the check box, if the SwyxPhone firmware should be automatically updated via Swyx FTP server.
Create scheduled task for phone white-list update (not available for SwyxON)	Activate the check box to activate a Windows task for the daily automatic update of the system phone white-list. Within the Windows task scheduler the new task "PhoneWhitelis-tUpdate" is being created and executed one time.
Send Welcome Emails with user registration data	Activate the check box, if you wish to send the user an email with his registration data and most important configurations. The users will receive the respective emails immediately after the SwyxWare System has been successfully configured with the configuration file.

Config Documentation

Add SQL and IpPbx Services Account password(s) to the Config Documentation	Activate the check box to allow the display of SQL and Services Account passwords in the Config Documentation (the possibly entered data appear in a file <Project-ID>_<Site>_<Date>-<Time>.xlsx in the folder "Documentation" of the Configuration Package).
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Label	Explanation
Add SMTP Authentication password to the Config Documentation	Activate the check box to allow the display of the SMTP authentication password in the Config Documentation (the possibly entered data appears in a file <Project-ID>_<Site>_<Date>-<Time>.xlsx in the folder "Documentation" of the Configuration Package).
Add the default user password to the Config Documentation	Activate the check box to allow the display of the default user password in the Config Documentation. (the possibly entered data appears in a file <Project-ID>_<Site>_<Date>-<Time>.xlsx in the folder "Documentation" of the Configuration Package).
Add the root certificate password to the Config Documentation	Activate the check box to allow the display of the root certificate password in the Config Documentation (the possibly entered data appears in a file <Project-ID>_<Site>_<Date>-<Time>.xlsx in the folder "Documentation" of the Configuration Package).
Add trunk SIP authentication passwords to the Config Documentation	Activate the check box to allow the display of the SIP authentication password in the Config Documentation (the possibly entered data appears in a file <Project-ID>_<Site>_<Date>-<Time>.xlsx in the folder "Documentation" of the Configuration Package).
Add user authentication passwords to the Config Documentation	Activate the check box to allow the display of user authentication passwords in the Config Documentation (the possibly entered data appears in a file <Project-ID>_<Site>_<Date>-<Time>.xlsx in the folder "Documentation" of the Configuration Package).

- 7 Select the tabs "Customer Network", "Devices" or "Media Gateway", if required.



The entries on the tabs "Customer Network", "Devices" or "Media Gateway" are optional, provided for information purposes only and have no effect on the SwyxWare configuration. The possibly entered data appears in a file <Project-ID>_<Site>_<Date>-<Time>.xlsx in the folder "Documentation" of the Configuration package.

- 8 Click on the "Apply" button to save the settings.

1.2.2 Specifying the settings for SwyxServer

A central component of SwyxWare is "SwyxServer", which manages all system subscribers, terminals and functions.

To specify the **SwyxServer** settings

- 1 In the menu select "Server".
 - ✓ The "Licensing" tab appears.



The selected type of licensing, online or via license key, cannot be changed later. If you want to select a different type of licensing after a licensing process has been completed, you must uninstall and reinstall SwyxWare and the SwyxWare database.

Label	Explanation
Licensing type	Select the desired type for the SwyxWare licensing process from the drop-down list (see SwyxWare documentation for administrators, chapter "Licensing"). Licensing via license key Requires an entry of the purchased license key Online licensing The license verification is carried out by the Swyx license server. For this purpose, a permanent Internet connection between the license server and your SwyxServer must persist
Evaluation installation	Check the box if you want to install SwyxWare with a temporary (up to 30 days) license key.

- 2 Select the "Client settings" tab.



For the provision of the Swyx Messenger / Swyx Meeting service, user-related data will be transmitted to and processed by our order processor, Voiceworks B.V. (also part of the Enreach Group) on the basis of a corresponding order processing contract. These products require the transmission of various data such as IP address, login data, chat messages, names of communication partners, dial-in numbers (Swyx Meeting), files sent and screenshare content (Swyx Meeting) each time they are used. Please note your duty to inform your users according to Art. 13/14 GDPR.

Label	Explanation
Authentication for SIP devices	Activate the check box if all users must authenticate themselves to log on via SIP device.
Default realm for SIP devices	Define the standard realm (FQDN or IP address) for all users at this SwyxServer.
Use new Swyx Messenger	From version 12.10 onwards, a new Messenger with a wide range of functions is available. If you activate it here, the new Swyx Messenger will be opened when the "Send Instant Message" function is called. If you do not activate this option, you will continue to use the older Swyxit! Messenger. For further configuration steps see the Swyx Control Center documentation, section "Connection to Cloud Services".

- 3 Select the "Internal Numbers" tab.

Label	Explanation
Lowest Internal Number	Specify the internal numbers range. Enter the same number of digits in both fields, i. e. '000' to '999', not '0' to '999'.
Highest Internal Number	

- 4 Select the "Security" tab.



Encryption mode is determined globally for SwyxServer in this area, which means the settings you select here will influence the encryption settings in user and trunk properties.

Label	Explanation
Encryption mode	<p>Select the encryption mode you want.</p> <p>No encryption The voice data is not encrypted.</p> <p>Encryption preferred When "Encryption preferred" is selected, the voice data is only encrypted if the call partner has configured either "Encryption preferred" or "Encryption mandatory". If this is not the case, the voice data is not encrypted, but phoning is still possible.</p> <p>Encryption mandatory When "Encryption mandatory" is selected, voice data encryption is obligatory. This means that either encryption always occurs or the call is aborted with the reason "Incompatible encryption settings". This can be the case, for example, when the call partner has configured the mode "No encryption".</p>
Enforce strong user passwords (not available for SwyxON)	<p>If this control field is activated, only those user passwords will be permitted that are at least eight characters long and meet at least three of the following four character classes:</p> <ul style="list-style-type: none"> • upper-case letters such as: [A-Z] • lower-case letters such as: [a-z] • Numbers [0-9] • Non-alphanumeric characters (special characters) such as periods, commas, brackets, blanks, hash tags (#), question marks (?), percent signs (%), ampersands (&).
New users must change their password at first logon	<p>Activate the check box, so that newly configured users will be required to reset their password themselves after the first login and no one else will know their password.</p>

Label	Explanation
Maximum number of failed login attempts (0 = no limit)	<p>Enter the number of attempts a user may make to log in to the server. Only the values "0" (number of failed login attempts is not limited) and "3" to "20" are allowed.</p>



The number of failed log-in attempts will be reset for the corresponding user after one successful login. After resetting the services or after changing between master and standby server, this number is reset to zero for all users.



The number of failed log-on attempts is irrelevant, when the administrator has established a forced password change, and the user attempts to log-on with his/her previous password.

5 Select the "RemoteConnector" tab (not available for SwyxON).

Label	Explanation
Enable Remote Access	<p>If support for direct internet connections to the clients is required, activate the check box.</p>
Authentication Server	<p>Enter the public server address (FQDN or IP address) and the port in the respective fields, so that the clients can access SwyxServer via the internet.</p>
Port for Authentication Server	<p>The registered public address of the authentication service must be configured within the respective settings on the client computers. If you use a different standard port and not 9101, it has to be explicitly input in the client settings.</p>

Label	Explanation
Standby Authentication Server	In a standby scenario, the corresponding inputs must also be entered for the standby system.
Port for Standby Authentication Server	
Remote-Connector Server	Enter the public server address (FQDN or IP) and the server port in the respective fields. The standard ports for the RemoteConnector are 16203 or 57203.
Port for Remote-Connector Server	
Standby Remote-Connector Server	In a standby scenario, the corresponding inputs must also be entered for the standby system.
Port for Standby Remote-Connector Server	

6 Select the "Mail Server" tab.

Label	Explanation
SMTP Server	The explicit address of the SMTP mail server you use is entered in this field. All recorded voice mails and welcome emails are delivered to the user via this SMTP server. You can use a symbolic name, a DNS name, or a direct IP address in order to identify the SMTP server.
SMTP Port	Enter the SMTP port for connecting the mail server.

Label	Explanation
Originating Address	Enter the email sender address for all voice mails and welcome emails which SwyxServer will use to make deliveries to SwyxWare users (e. g. server@company.com). This address must be chosen in correlation to the SMTP mail server used. Some SMTP mail servers support any choice of originating addresses, others require that the address is in the same form as the address which already exists for you. In any case, the domain label (e. g. "@company.com") should be identical to one of the domains managed by the mail server.
Use SSL	Activate the check box, if you want to use a secure connection to the mail server, i. e. encoding the transferred data.
Enable SMTP authentication	Activate the check box to enable mail server authentication support in line with specification RFC 2554. The specific processes supported here are "LOGIN", "PLAIN", "CRAM-MD5".
User Name	Enter the user name with which SwyxServer can authenticate itself on the mail server configured above.
Password	Enter the password with which SwyxServer can authenticate itself on the mail server configured above.

1.2.3 Define feature profiles

Under the menu item "Feature Profiles" you can enter the feature profiles created by administrators at partner level for the corresponding UC Tenant.

A Feature Profile represents a set of various functions potentially available to a SwyxON user.



This tab appears only if you create a Configuration Package for SwyxON.




Any changes in the function set can cause changes in functionality and costs for the users whom the feature profile is assigned to.

This is how you create a feature profile

- 1 In the menu select "Feature Profiles".
 - ✓ The "Feature Profiles" list appears.
- 2 Click on "Add Profile".

Label	Explanation
Name	Enter the name of the feature profile that was defined for the corresponding SwyxON UC Tenant.
Default Profile	Select a function profile that should be automatically assigned to newly configured users. At least one feature profile must be entered in the text fields below.
Limit	Specify the maximum number of users to whom the feature profile may be assigned.

- 3 Click on  to save the settings.
 - ✓ The new group will appear in the list.

To import a list of Feature Profiles

You have a file with Feature Profiles in JSON format.



Any existing list of feature profiles is going to be completely overwritten with the data from the file to be imported.

- 1 In the menu select "Feature Profiles".
 - ✓ The "Feature Profiles" list appears.
- 2 Click on "Import Profile".
- 3 Click on "Select a file for import".
- 4 Select the existing file in the corresponding directory.
- 5 Click on "Import".
 - ✓ The new group appears in the list.

To export a list of feature profiles

- 1 In the menu select "Feature Profiles".
 - ✓ The "Feature Profiles" list appears.

- 2 Click on "Export Profiles".
 - ✓ The Excel file with the current user properties is saved in the default download folder configured in your browser, e.g.. „C:\Users\

1.2.4 Define Locations

Location is a user and trunk group property, which groups together site-dependent parameters.

To define a location

- 1 In the menu select "Locations".
 - ✓ The "Locations" list appears.
- 2 Click on the "Add Location" button.
 - ✓ The "General" tab appears.


Label	Explanation
Name	Enter the name of the location. The name must be unambiguous within SwyxWare.
Description	Enter the name of the location and, if applicable, a brief description.
Time Zone	Select the time zone this location is assigned to. The time zone is required for evaluating time-dependent restrictions, for example for routing. <i>Example</i> <i>A Trunk Group (e. g. ISDN, Location Germany) is enabled only from 6 p.m. to 8 p.m. If a user in England now calls at 7:15 p.m. local time a number in Germany (German local time 8:15 p.m.), the ISDN Trunk Group is disabled for this call.</i>

Set as the "Default Location" Activate the check box, if you would like the location you are creating to be used as the default for all users and trunk groups subsequently set up.

Label	Explanation
Maximum number of calls from/to this Location to other Locations (0 = no limit)	<p>Enter the maximum number of connections for this location (= no limit).</p> <p>You can limit the number of possible connections between the two locations, in order to e. g. reserve bandwidth of this connection for other applications, too. As with the limitation of calls via a trunk, a bandwidth between 24 kbit/s (compressed) and 84 kbit/s (uncompressed) is required per call.</p> <p>Connections are not only direct calls but also all connections to SwyxServer e. g. to a script. For instance, if you hold a call and start a second call, you have two connections to the SwyxServer.</p>

3 Select the "Codes and Prefixes" tab.

Label	Explanation
Country Code	Enter your country code. For Germany, it is '49'.
Area Code	Enter your area code without the preceding '0', for example '231' for Dortmund or '40' for Hamburg.
Prefix for international calls	Enter the code for international calls.
Prefix for long distance calls	Enter the digit(s) which must be dialed in order to make a long distance call. In Germany, the digit required for long distance calls is always '0'.
Public line access prefix(es)	This is the number that users must first dial in order to make external calls. Default value: '0'. You are able to enter several Public Line Accesses separated by a semicolon, e. g. to differentiate private and business calls using a different Public Line Access.

4 Click on the  button to save the settings.
 ✓ The new Location appears in the list.

1.2.5 Define Trunk Groups

A trunk group represents all the trunks of the same type which are grouped together in it.

To define a Trunk Group

- 1 In the menu select "Trunk Groups".
 ✓ The "Trunk Groups" list will appear.
- 2 Click on the "Add Trunk Group" button.
 ✓ The "General" tab appears.



Call permissions of a trunk group only apply to incoming calls! The advanced call permissions (more than "internal calls") could, depending on the configured forwarding entries, be misused by external callers. Protect your SwyxServer by only allowing external forwarding of incoming calls in exceptional cases.

Label	Explanation
Name	Enter the name of the Trunk Group. The name must be unambiguous within SwyxWare.
Description	If applicable, enter a brief description.
Location	Select a defined Location to which the new Trunk Group should be assigned.
Type	Select the Type of the Trunk Group: <ul style="list-style-type: none"> • ISDN • SIP • SIP Gateway

Label	Explanation
Profile	Select the Trunk Group profile. A trunk group profile specifies how the trunk interprets and handles the call numbers. Depending on the trunk type, a number of predefined profiles are available. For each of these profiles, the number format is specified. For SIP trunks in particular, the profile specifies the provider and the necessary SIP parameters. Please contact your specialist dealer for an overview of compatible SIP providers and the functions they offer in relation to SwyxWare. The Swyx knowledge base contains a related entry, which is constantly updated. Simply visit: SIP Provider (kb 3034)
Calling Right	Specify what rights a call has when coming in via this trunk. By doing so you specify whether it may use other trunk groups (and which ones) to leave this SwyxServer installation, if its destination is not a user of this SwyxServer. <ul style="list-style-type: none"> • deny all calls • internal calls • Local calls • National destinations • European destinations • no call restrictions
Enable Trunk Recording	Activate the check box to permanently record all calls that are made via this trunk group, provided this is activated in the SwyxServer settings.



Please note that the option pack "SwyxMonitor" must be installed to activate recording on a trunk.

3 Select the "SIP (Customized)" tab.



The Registrar port must match the selected transport protocol. Leave the field empty if you did not receive information on the port by your provider. The port is determined via DNS query.



Make sure that the selected transport protocol is supported by your provider.

Label	Explanation
Enable SIP registration	Activate the check box to permit SIP registration.
Registrar	Enter the registrar. REGISTER messages are sent to this address. If no value is entered here, the value configured under proxy will be applied.
Registrar Port	In the "Port" field you define the port on which the configured registrar receives the registration request.
Re-registration Interval	Enter a value in seconds. The "Re-Registration Interval" defines how often the registration must be updated. A small value will allow you to quickly recognize the loss of the SIP connection to the provider. A high value results in lower network burden in standby.
Enable STUN support	Activate the check box to permit STUN support. STUN is a network protocol that recognizes the existence and type of firewalls and NAT routers and takes this information into consideration. It enables the uncomplicated use of devices (e. g. SIP telephones) and programs in networks that should receive information from the internet.
STUN Server	Specify the STUN server and the associated port for use by the SIP devices.
STUN Server Port	
Outbound Proxy	Some providers require an outbound proxy and a port. You should have received this data from your provider.
Outbound Proxy Port	

Label	Explanation
Proxy	Enter the SIP proxy and the port for outgoing calls.
Port	The SIP proxy server takes over the connection setup to the appropriate subscriber, first checking which SIP registrar the relevant subscriber is logged on with. From this it requests and receives the current IP address of the subscriber, and can thus deliver the call to this address.
Realm	Define the SIP realm of the provider. An SIP URI (userId@realm) is derived from the user ID (userId), the configuration of the SIP account, and the realm of the provider (realm). If this field is left blank, the value registrar or proxy will be used.
DTMF mode	Select the DTMF method. This mode defines how the provider proceeds with the keyboard input of a user during a call (DTMF signalling). None DTMF signalization is deactivated RFX2833 Event RFC2833_Event: DTMF signalization, based on the event mechanism described in RFC2833, will be used. Info Method DTMF Relay DTMF signalling as recommended by Cisco (application type DTM-Relay) will be used.
Transport Protocol	Select the transport protocol that you want to assign the Trunk Group: Automatic The transport protocol is determined automatically by DNS lookup. UDP This transport protocol is supported by most SIP providers. It requires the lowest bandwidth, however, it carries a higher risk of data loss. TCP This transport protocol is known to be reliable, however, it requires higher bandwidths. TLS This transport protocol has TCP characteristics and supports encryption. When selecting this protocol SIP packets are transmitted encrypted.

Label	Explanation
Encryption	This option will only make sense if you select TLS as the transport protocol. Activate the check box to make sure that the voice data is encrypted between SIP provider and SwyxLinkManager.

4 Select the "Number Formatting" tab.



Procedures for converting outgoing numbers and interpreting incoming numbers are defined within a trunk group. In the properties of a trunk group, the selected protocol contains a detailed definition of which numbers (outgoing/incoming and calling/called number) are converted into which formats. This mapping of formats can be modified subsequently by administrators.

Label	Explanation
Conversion for inbound calls: Calling party number	Select a number formatting profile <ul style="list-style-type: none"> • Canonical with plus • Canonical without plus • CLIP no screening • Dial as a PBX user • Extension • Fixed Subscriber • ISDN Italy • ISDN Netherlands CLI • National • Subscriber Number • Transparent • Type and Plan For information about the number formatting formats please refer to 2 Number formats , page 25.
Conversion for inbound calls: Called Party Number	
Conversion for outbound calls: Calling party number	
Conversion for outbound calls: Called Party Number	

- Click on the  button to save the settings.
 - ✓ The new Trunk Group appears in the list.

1.2.6 Define Trunks

“Trunk” denotes a connection to another network, e. g. the public telephone network.

To define a Trunk

- In the menu select “Trunks”.
 - ✓ The “Trunks” list will appear.

- Click on the “Add Trunk” button.
 - ✓ The “General” tab appears.

Label	Explanation
Trunk Group	Select a defined Trunk Group to which the new Trunk should be assigned.
Name	Enter the name of the Trunk. The name must be unambiguous within SwyxWare.
Description	Enter a brief description.
Trunk is enabled	Activate the check box to activate the trunk immediately after the installation, i. e. make it available for telephone calls.

- Select the “Codecs” tab.



With the help of the codec filter, you can define how voice is compressed for transmission. Specify globally here for the SwyxServer whether codecs should be filtered, and if so, which codecs should be permitted.

Label	Explanation
G.711a	Voice, high bandwidth (around 64 kbit/s per call). The voice data is slightly compressed.
G.711μ	
G.722	Voice, high bandwidth (around 64 kbit/s per call). The voice data is transmitted in HD audio quality.
G.729	Voice, low bandwidth (around 24 kbit/s per call). The voice data is heavily compressed.
T.38	Fax over IP (T.38, around 20 kbit/s per call). In this case, the special fax protocol T.38 is used, which takes the set-up of the IP network into consideration.

Do not filter codecs When “Do not filter codecs” is selected, all media data, regardless of the codec, is transferred without change to the destination (transparent mode). This setting allows Codecs unknown to SwyxServer to be used, e. g. Video.

Label	Explanation
Prefer quality	Activate the check box to set the codec priority in the following order: G.722, G.711a, G.711μ, G.729 or Fax or IP.
Prohibit T.38 rein-vite by sender	Activate the check box to block switching to T.38 by the sending fax device. The receiving fax device switches to T.38 after detecting the fax tone (CED tone, 2100Hz). Alternatively, the switch to T.38 can be carried out by the sending fax device. Some IP adapters don't support switching by the sender.
Remove T.38 codec from initial invite	Activate the check box to remove T.38 from the initial connection request. Some IP adapters cannot correctly interpret an initial connection request which includes T.38 as well as voice Codecs. The fax devices first set up a voice connection and then switch to the fax protocol T.38 because of the fax tone (CED tone, 2100 Hz).

4 Select the "Channels" tab.

Label	Explanation
Number of simultaneous calls	Specify how many channels (connections) should be simultaneously routed over this trunk. The maximum number of channels is calculated from the available bandwidth and the Codec settings.
Maximum number of simultaneous outgoing calls	You can also determine how many outgoing and/or ingoing connections are established at most.
Maximum number of simultaneous incoming calls	

5 Select the "SIP Registration" tab.



Enter the parameters the SIP gateway needs to long onto SwyxServer via this trunk.

Label	Explanation
SIP User ID	Enter the SIP User ID.
SIP User Name	Enter the SIP User Name.
SIP Password	Enter the password.
SIP Authentication Mode	Indicate whether or not the gateway needs to authenticate itself.

6 Click on the button to save the settings.
✓ The new Trunk will appear in the list.

1.2.7 Assigning numbers to Trunks


You can specify here which public numbers this trunk uses. External calls to these numbers go over this trunk. Calls with a Calling Party Number that is assigned to this trunk are routed over this trunk.

To assign numbers to a trunk

- 1 In the menu select "Numbers".
✓ The "Number ranges" list will appear.
- 2 Click on the "Add range" button.
✓ The "General" tab appears.

Label	Explanation
Trunk	Select the trunk to which the numbers should be assigned.
Country code	Enter the country code of the public number.

Label	Explanation
Area Code	Enter the area code of the public number.
First Subscriber Number	Enter the first number of the number range. E. g. "000"
Last Subscriber Number	Enter the last number of the number range. E. g. 999

- Click on the  button to save the settings.
 ✓ The new number range will appear in the list.

1.2.8 Define user settings

A user is a person, a group or a location (for example, a conference room), for whom/which an account has been set up on the SwyxServer.



When saving and processing personal data, observe the respective applicable legal data protection regulations.

To define user settings

- In the menu select "Users".
 ✓ The "Users" list appears.
- Click on the "Add User" button.
 ✓ The "General" tab appears.

Label	Explanation
Name	Enter the name of the user (e. g. Jones, John).
Description	Enter a brief description.
Location	Select a defined location to which the new user should be assigned.

Label	Explanation
Email	Enter the email address of the user. The user must be assigned a unique email address for SwyxWare integration in Microsoft Office (Swyxt! function "Office Communication AddIn"). The email address indicated must be the primary SMTP email address set up for the user on the company's email server (e. g. Microsoft Exchange Server). This email address is also the default setting for delivering voicemails. The voicemail address can be configured by the user directly or in the SwyxWare administration in the "forwarding" dialog. Additionally you can send the user welcome emails with his registration data and configurations via this address.
Administration Profile	Select the administration profile of the user. System Administrator These administrators have unrestricted access to SwyxWare. Backoffice Administrator These administrators have all the necessary rights for configuring SwyxServer. Above all, these administrators can create or alter feature profiles. User Administrator This administrator can undertake all configurations for users and groups. In particular, the numbers and administrator profiles assignment and group configuration can be carried out. The exceptions here are the trunks and trunk groups, and the feature profiles. User Operator This administrator is able to change user properties as well as create or delete users. These rights are typically needed by an administrator who is not meant to change the system configuration. Call Status Operator This administrator can see the current call status in the administration, e. g. whether any calls are currently made. Phonebook Operator Users with this right can edit the Global PhoneBook, e. g. add or change important phone numbers for the whole company. No Administrator This profile is the default profile for a new user.

Label	Explanation
Calling Right	<p>Select the call permissions of the user.</p> <p>Deny all calls No outgoing calls can be initiated. This configuration can make sense for a user (script) who should only be called.</p> <p>Internal calls Only calls to internal SwyxServer subscribers can be initiated.</p> <p>Calls into local public network Only local calls, i. e. within the area code can be made.</p> <p>National destinations Only calls within a country (same country code) can be initiated.</p> <p>European destinations Only calls within Europe can be made, i. e. the country code must start with 3 or 4.</p> <p>No call restrictions There are no call restrictions.</p>
Encryption Mode	<p>Select the encryption mode you want.</p> <p>No encryption The voice data is not encrypted.</p> <p>Encryption preferred When "Encryption preferred" is selected, the voice data is only encrypted if the call partner has configured either "Encryption preferred" or "Encryption mandatory". If this is not the case, the voice data is not encrypted, but phoning is still possible.</p> <p>Encryption mandatory When "Encryption mandatory" is selected, voice data encryption is obligatory. This means that either encryption always occurs or the call is aborted with the reason "Incompatible encryption settings". This can be the case, for example, when the call partner has configured the mode "No encryption".</p>
User is activated	<p>Activate the check box, so that the user can log in to SwyxWare and use telephone functions after the system has been installed.</p>

3 Select the "Numbers" tab.

Label	Explanation
Internal Number 1	Enter the internal number for this user.

Label	Explanation
Public Number 1	If the internal number is to be reached from the public telephone network, it must be mapped to an external number.
Internal Number 2	Enter the second internal number for this user, if available.
Public Number 2	If the internal number is to be reached from the public telephone network, it must be mapped to an external number.
Internal Fax Number	Enter the internal fax number for this user.
Public Fax Number	If the user also receives faxes from the public telephone network, an external fax number has to be assigned to the internal fax number.
Deliver fax to User's FaxClient	Activate the check box, if fax documents should be delivered directly to the user's FaxClient.
Deliver fax as PDF to User's email	Activate the check box, if fax documents should be sent to the user's email address as a PDF file.
Deliver fax as TIFF to User's email	Activate the check box, if fax documents should be sent to the user's email address as a TIFF file.

4 Select the "Windows Account" tab (not available for SwyxON).



When a user logs on using a Windows user account, the user and SwyxServer need to be within the same domain.

Label	Explanation
Authenticate via Windows Account	Activate the check box, if the user is allowed to log in to SwyxIt! with his Windows Account.

Associated Windows User Account Enter the Windows Account(s) assigned to the user.

5 Select the "Desk Phone" tab.

Label	Explanation
Phone MAC Address	Activate the check box "Automatic logon" in order to log the user on without entering the PIN. In this case, after the desk phone has been restarted this user is permanently logged on to this desk phone. The MAC address must be configured so that SwyxServer can assign the desk phone to the appropriate user on automatic logon. If you do not enter any information here, the SwyxServer will remember the MAC address of the desk phone when the user logs on for the first time. All desk phones request entry of a PIN in the display and can therefore easily be logged on by the user.
PIN	
Automatic logon	

6 Select the "SwyxWare Account" tab.

Label	Explanation
Authentication with User Name and Password	Activate the check box, if the user should use his user name and password to log on to SwyxWare.
Password	Enter the password, which the user can apply to log on to SwyxWare.
Confirm password	Confirm the password you entered.

Label	Explanation
User must change password at next logon	Activate the check box, so that the user will have to change the given password at the initial login. If a user receives the account data from an administrator, then the new password will only be known to the user after it is changed.

7 Select the "SIP Login" tab.

Label	Explanation
Allow login via SIP	Activate the check box, if the user is generally allowed to log on to the server using a SIP device.
Use SIP devices as system phone	Activate the check box to authorize SwyxCTI+ with a telephony device.
SIP Authentication Mode	Define whether the user should always or never be required to authenticate him- or herself, or required to do so in accordance with the default server settings.
SIP User ID	The data entered here are for internally logging the SIP terminal on to SwyxServer, i. e. the Administrator can freely choose a user name and password here. As default, the SwyxWare user name is entered and used here as SIP user name and as SIP user ID. If a SIP terminal from another manufacturer needs other settings here, e. g. different ID and user name, you can change these defaults here. The user's password is used as password for the SIP authentication. This password is configured on the "Authentication" tab. A separate SIP password different from the SwyxWare password can also be assigned here. The login data of the SIP provider is given directly in the configuration of the SIP trunk; the data entered here is used for internally logging the SIP terminal on to SwyxServer. For information on how to set the SIP user ID, SIP user name and password in the SIP terminal, please see the documentation for the particular terminal.
SIP User Name	
SIP Password	
Confirm password	

8 Select the "Rights" tab.

Label	Explanation
CTI+ for an external phone by its number	Activate the check box, if the user is allowed to control an external telephone via its phone number with CTI+.

9 Select the "Misc." tab, if required.



The entries on the tab "Misc." are optional, provided for information purposes only and have no effect on the SwyxWare configuration. The eventually entered data appears in a file <Projekt-ID>_<Site>_<Date>-<Time>.xlsx in the folder "Documentation" of the Configuration Package.

10 Click on the "Apply" button to save the settings.
 ✓ The new user appears in the list.

1.2.8.1 Create/edit multiple users

You can edit several users in the list. You must export the list of configured users in advance as an Excel file (.xlsx), then add new or edit the existing users and import the list back to the ConfigPlanner.



Make sure that you have set the Configuration Package password, see *Entering general information*, page 3



The existing user list is completely overwritten by the edited Excel file. Make sure that the Excel file to be imported is complete and correctly filled out with all desired users and required properties.

To add/edit several users

You have added at least one user.

1 In the menu select "Users".

- 2 Click on "Export users".
 ✓ The Excel file with the current user properties is saved in the default download folder configured in your browser, e.g.. „C:\Users\- 3 Open the file in Microsoft Excel and activate the edit mode, if required.
- 4 Add to the list new users with required properties or edit the properties of the current users.



The user name must be entered. If you leave other fields empty the default values will be used.

- 5 Save the changes.
- 6 In the dialogue window "User Import" click on "Select a file for import" and pick the edited Excel file for upload.
- 7 Click on "Import".
 ✓ The file will be uploaded. In the user list new users appear, if any have been added.

1.2.9 Define a group

Any number of groups with any number of members can be configured in a SwyxWare installation; a user can be a member of more than one group. Setting up groups makes it possible to contact members at a central group number.

To create a group

- 1 In the menu select "Groups".
 ✓ The "Groups" list appears.
- 2 Click on the "Add Group" button.
 ✓ The "General" tab appears.

Label	Explanation
Name	Enter the name of the group. The name must be unambiguous within SwyxWare.
Description	Enter a brief description.

Label	Explanation
Type	Select the type of distribution of incoming calls among the group members: Parallel Calls to the group number are delivered simultaneously to all members. The person who accepts the call first speaks to the caller. Sequential Calls to the group are delivered to each group member in order, always starting with the first group member. Rotary Calls to the group are delivered to each group member in order, always starting with the next group member, i. e. for the second call with the second member, for the third call with the third member and so on. Random Calls are distributed randomly within the group, i. e. when the specified time is over, the next member is selected randomly from the entire group.

Everyone Group Activate the check box, if all new users should per default be added to this group.

Ringling Time Enter the time in seconds until the incoming call will be triggered for further distribution within the group, see "Hunt Group Type".

3 Select the "Rights" tab.


Label	Explanation
Calls to this group will also be delivered to MEM devices	Activate the check box, if calls to this group should be additionally forwarded via MobileExtensionManager to mobile phone users.

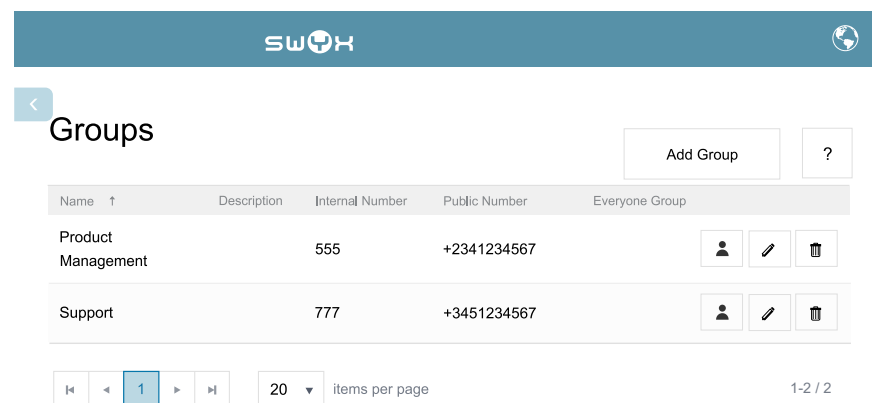
Call signaling to other group members Incoming calls for one member of a group will also be signaled to all other group members. This gives the other members the opportunity to pick up the call.

Label	Explanation
Mutual status signaling	All Members of the group signal their status (Logged off, Available, Speaking) to the other members. This allows all members of the group to contact each other via Intercom Connection.

4 Select the "Numbers" tab.


Label	Explanation
Internal Number	Assign the group an internal group number. All members of the group can be reached at this number.
Public Number	If the internal number is to be reached from the public telephone network, it must be mapped to an external number.

5 Click on the  button to save the settings.
 ✓ The new group appears in the list.



You can assign registered users to the new group.

To assign users to a group

1 Click in the line of the required Group on the  button.
 ✓ The "Select group members for: <Group name>" dialogue window appears.

Left area shows all registered users, right area shows the current members of the group.

- 2 Click on the name of the desired user in the left area.
 - ✓ The corresponding line is marked.
- 3 Click on the ✓ button.
 - ✓ The user name moves to the right area, the user becomes a member of the group.
- 4 Repeat steps 2 and 3 if you would like to assign other users to the group.
- 5 Click on the ✓ button to save the settings.
 - ✓ The desired users are assigned to the group.

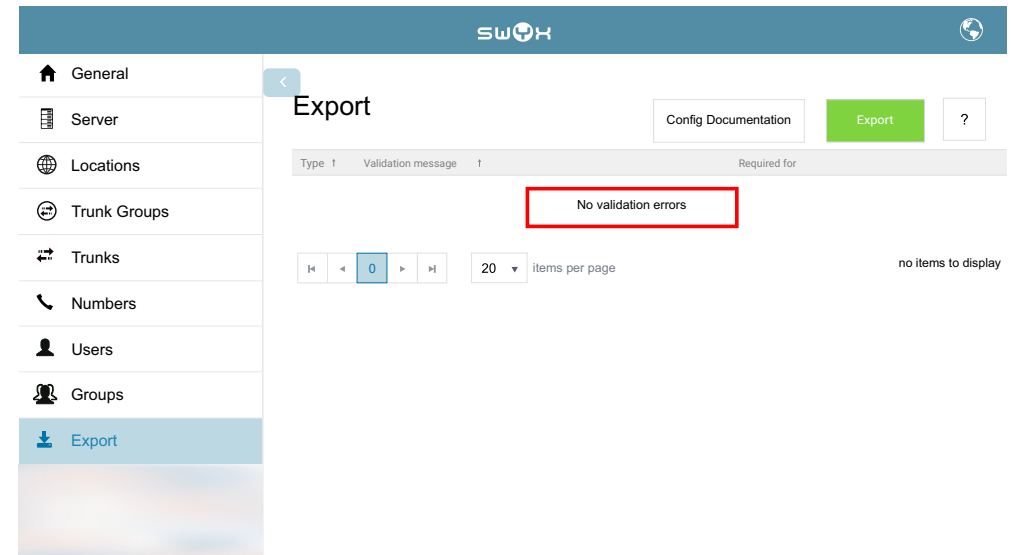
1.3 Export a Configuration Package

You can always export a configuration package, if your purpose is to save the recent input of the configuration data.



Make sure that you have set the Configuration Package password, see *Entering general information*, page 3

When on the page "Export" the message "No validation errors" appears, you can use the respective configuration file for the configuration of SwyxServer.



To export the configuration file

- 1 In the menu select "Export".
- 2 Click on the "Export" button.
 - ✓ The configuration file is saved with the name "<Project ID>_<Site>_<Date>-<Time>.zip" in the default folder for downloaded files configured in your browser, e.g. „C:\Users\<user name>\Downloads“.



The downloaded Configuration Package can be locked by Windows. To unlock the .zip file follow the instructions from Microsoft: <https://blogs.msdn.microsoft.com/delay/p/unblockingdownloadedfile>

1.4 Import a Configuration Package

You can add further information or change the existing data in a previously exported configuration file.

To import the Configuration Package

The start page is open.



- 1 Click on the "Import a configuration package" button.
- 2 Click on the "Choose file" button.
- 3 Select the desired file ("<Project ID>_<Site>_<Date>-<Time>.zip") in the corresponding directory.
- 4 Enter the Configuration Package password.
- 5 Click on the "Import" button.

You can continue with the editing of the file.


1.4.1 Edit the configuration file

You can delete objects or change their parameters.

To edit the Configuration Package

- 1 Among the menu items select the required object list, e.g. "Locations".
 - ✓ The list of the corresponding objects appears.
- 2 Click on the  button in the row of the object you would like to change.
 - ✓ The "Edit" dialogue window appears.
- 3 Make the changes to the required parameters.
- 4 Click on the  button to save the settings.

To delete objects

- 1 Among the menu items select the required object list, e.g. "Locations".
 - ✓ The list of the corresponding objects appears.
- 2 Click on the  button in the row of the object you would like to delete.
- 3 Click on "OK" to save the changes.
 - ✓ The object is deleted and removed from the list.

1.5 Apply the configuration file

The following scenarios are supported:

Operating system	.NET Framework	SQL Server	SwyxWare
Windows Server	-	-	-
Windows Server	installed	-	-
Windows Server	installed	installed	-
Windows Server	installed	installed	installed
Windows Server	installed	installed	installed and configured

The Configuration Package is able to recognise the actual scenario and run through the required steps.



After installing the SQL server, a restart of the computer might be necessary. Run the script again after the restart.



The downloaded Configuration Package might be locked by Windows. To unlock the .zip file follow the instructions from Microsoft: <https://blogs.msdn.microsoft.com/delay/p/unblockingdownloaded-file>



For information on how to prepare the installation of SwyxWare please refer to the documentation for administrators (Chapter "Preparation for Installation"): help.swyx.com/cpe/12.20/Administration/Swyx/en-US

To import the Configuration Package to an installed and preconfigured SwyxServer

The configuration package is validated and exported from the Configuration Planner.

- 1 Unzip the file on the computer on which you are going to install SwyxServer, e. g. in a new folder on the desktop.
 - ✓ The folder should contain the following files/folders:
 - Folder "Configuration" containing the file: <Project ID>_<Site>_<Date>-<Timet>.SwyxWareConfig
 - Folder "Configuration" containing the file: <Project ID>_<Site>_<Date>-<Timet>.xlsx
 - Folder "Installation"
 - Folder "Resources" with PowerShell scripts and required .dll files
 - ConfigureSwyxWare.cmd
- 2 Click with the right mouse button on the "ConfigureSwyxWare.cmd" file and select "Run as administrator".
 - ✓ The PowerShell script starts.
- 3 Confirm the execution of the script with "Yes".
 - ✓ The PowerShell script window appears. You are prompted to enter the configuration file password.
- 4 Enter the Configuration Package Password and press the enter key.
- 5 Follow the script messages.
 - ✓ The configuration data is being imported. At the end of a successful configuration the following message appears: "Configuration import completed".

To use the Configuration Package for an unattended SwyxServer installation and configuration



For further information about an unattended SwyxWare installation and corresponding requirements please refer to the documentation for administrators (Chapter "Unattended Configuration"): help.swyx.com/cpe/12.20/Administration/Swyx/en-US

The configuration package is validated and exported from the Configuration Planner.

- 1 Unzip the file on the computer on which you are going to install SwyxServer, e. g. in a new folder on the desktop.
 - ✓ The folder should contain the following files/folders:
 - Folder "Configuration" containing the file: <Project ID>_<Site>_<Date>-<Timet>.SwyxWareConfig

- Folder "Configuration" containing the file: <Project ID>_<Site>_<Date>-<Timet>.xlsx
 - Folder "Installation"
 - Folder "Resources" with PowerShell scripts and required .dll files
 - ConfigureSwyxWare.cmd
- 2 Copy the SwyxServer installation files into the folder "Installation": "Setup.cab", "Setup.msi" and "Unattended.xml".
 - 3 Copy the SwyxWare-Administration installation files into the folder "Installation": "Admin64.msi"
 - 4 Close all Windows applications.
 - 5 Click with the right mouse button on the "ConfigureSwyxWare.cmd" file and select "Run as administrator".
 - ✓ The PowerShell script starts.
 - 6 Confirm the execution of the script with "Yes".
 - ✓ The PowerShell script window appears. You are prompted to enter the password.
 - 7 Enter the password you used to protect the configuration package and press Enter.
 - 8 Follow the script messages.
 - ✓ SwyxServer and SwyxWare-Administration are being installed, configuration data from "Unattended.xml" and the configuration file is being imported. At the end of a successful configuration the following message appears: "Configuration import completed".

To use the Configuration Package to configure a UC Tenant in SwyxON

The configuration package is validated and exported from the Configuration Planner.

- 1 Unzip the file on your local computer, e. g. in a new folder on the desktop.
 - ✓ The folder should contain the following files/folders:
 - Folder "Configuration" containing the file: <Project ID>_<Site>_<Date>-<Timet>.SwyxWareConfig
 - Folder "Configuration" containing the file: <Project ID>_<Site>_<Date>-<Timet>.xlsx
 - Folder "Installation"

- Folder "Resources" with PowerShell scripts and required .dll files
 - ConfigureSwyxWare.cmd
- 2 Connect to the UC Tenant via Remote Admin Connector.
 - 3 Click with the right mouse button on the "ConfigureSwyxWare.cmd" file and select "Run as administrator".
 - ✓ The PowerShell script starts.
 - 4 Confirm the execution of the script with "Yes".
 - ✓ The PowerShell script window appears.
 - 5 Enter the Authentication Token to allow the access to the UC Tenant for the script.
 - 6 Enter the password you used to protect the configuration package and press Enter.
 - 7 Follow the script messages.
 - ✓ At the end of a successful configuration the following message appears: "Configuration import completed".

2 Number formats

You can set number formats on the tab "Number Formatting" when configuring a Trunk Group, see 1.2.5 **Define Trunk Groups**, page 11.

The following number formats are available for selection:

Format	Explanation
CLIP no screening	<p>Formats the numbers with ISDN type and plan information to the public line</p> <p>Application: When the function "CLIP no screening" is used on an ISDN trunk for the calling party number for outgoing calls. In this case the calling party number is defined by the server and signaled to the public line. This number is not checked for correctness (i.e. belonging to this connection) by the public line (no screening). It is thereby possible to signal the original caller's number externally in the case of forwarded calls, for example. The function must be set up separately with the telephone service provider.</p> <p>Example:</p> <ul style="list-style-type: none"> National numbers: <Area code><Number> Type = "National" Example: 231 4777555 International numbers: <Country code><Area code><Number> Type = "International" Example: 49 231 4777555

Format	Explanation
Dial as a PBX user	<p>Number is as an internal subscriber typically dials, i.e. at the associated location, taking into account the public line access code: or internal number or canonical number In addition, for canonical numbers a 0 is removed which is incorrectly inserted when dialing from Outlook. Transmits or interprets the phone number depending on how the user of a PBX is. For a connection to a subsystem, "Dial as a PBX user" should be applied for incoming calls for the called party number, and for outgoing calls for the caller number. This setting is made automatically if you select the format "Internal Lines".</p> <p>Application:</p> <ul style="list-style-type: none"> internally for any user but also on a sub-telecommunication system for <ul style="list-style-type: none"> - the called party number for incoming calls - the calling party number for outgoing calls <p>Example:</p> <ul style="list-style-type: none"> +49 0 23147770 is converted into +492314770 <Public Line Access><Number> 04777555 002214777555 Canonical number also possible +492314777555

Format	Explanation
Extension	<p>For this number format, it is assumed that all dialed numbers are meant as an extension. They are correspondingly interpreted and generated, i. e. numbers of incoming calls remain unchanged. Outgoing numbers are prefixed by the public line access number of the superior telephone system. Numbers not coming from the trunk's extension range are not converted.</p> <p>Application: ISDN trunk for the called party number for incoming calls to a direct dialing-in ISDN line.</p> <p>Example: Extensions 555</p>
Fixed Subscriber	<p>Sets the number configured for this trunk for incoming calls. The analog connection does not supply a number, as the number is defined by the called line. In order that a called party number (inbound) is detectable for SwyxWare, the call is parameterized with the fixed line number.</p> <p>Application: This format should be set for an analog trunk.</p> <p>Example: The number on the analog connection is 475594. The destination number "Fixed Subscriber" is then configured in the profile "Standard analog lines" for the incoming call. In the number replacement on the analog trunk, all incoming destination numbers (*) are replaced by the fixed number of the analog connection (475594).</p>

Format	Explanation
ISDN Italy	<p>The number is formatted according to use at Italian exchange connections, with ISDN type and plan information.</p> <p>Application: ISDN trunks to Italian connections for the calling party number</p> <p>Example:</p> <ul style="list-style-type: none"> • For incoming calls, depending on the signaled number type, the signaled number is prefixed with the country code or the local area code, in order to produce the canonical format. • For outgoing calls, the public line access number of the superior telephone system and the call-by-call prefix digits are added. • No call-by-call numbers are added to emergency call numbers.
ISDN Netherlands CLI	<p>The number is formatted according to use at Dutch exchange connections, with ISDN type and plan information.</p> <p>Application: Calling party number for incoming and outgoing calls at Dutch exchange connections</p> <p>Example: Only used for the calling party number. Outgoing numbers are converted normally according to type. The emergency number 112 is converted from canonical format to 112.</p>

Format	Explanation
Canonical without plus	<p>This format corresponds to the canonical number format, but without leading +.</p> <p>Application: Calling party number or called party number for certain SIP providers For outgoing calls, the numbers are signaled in canonical format without the preceding +. For incoming calls, the canonical format is formed depending on the signaled number type, adding a + and the country code and area code to the signaled number as necessary.</p> <p>Example: <Country code><Area code><Number> 492314777555</p>
Canonical with plus	<p>Canonical number format. Emergency numbers are unchanged in the canonical format: e.g. 112.</p> <p>Application: Calling party number or called party number for certain SIP providers. The emergency numbers of known countries are correctly converted, e.g. +49 231 112 to 112. Incoming numbers are expected in the canonical format.</p> <p>Example: +<Country code><Area code><Number> +492314777555</p>

Format	Explanation
National	<p>Corresponds to the format that you typically dial on the exchange connections of the respective country, but without taking into account your own local area code. This means that even if your own line belongs to the local public network (0231), the dialed number must appear as 0231 4777 555.</p> <p>Application: Called party number and calling party number for most SIP providers and ISDN connections. For outgoing calls, the emergency numbers of known countries are correctly converted, e.g. +49 231 112 to 112. For the normal outgoing calls, the public line access number of the superior telephone system and the long-distance call prefix are added. For incoming calls, the public line access number of the superior telephone system and the long-distance call prefix are filtered out.</p> <p>Example: <Area code><Number> 02314777555</p>

Format	Explanation
Subscriber Number	<p>Corresponds to the format that you typically dial on the exchange connections of the respective country, but taking into account your own local area code. This means that if your own line belongs to the local public network (0231), the dialed number should appear as 4777 555.</p> <p>Application For calling party number and called party number for most ISDN connections without direct dialing-in.</p> <ul style="list-style-type: none"> • For incoming calls, the public line access number of the superior telephone system and the long-distance call prefix are filtered out. • Conversely, for outgoing calls the public line access number of the superior telephone system and the long-distance call prefix are added. <p>Example <Number> 4777555</p>
Transparent	<p>Does not describe a format, but rather the fact that numbers remain untouched by the general replacement, so that they can be altered with the specific number configuration.</p> <p>Application: Definition of individual replacement rules based on the server's internal number format.</p>
Type and Plan	<p>This format sets the type and plan fields within the ISDN transmission protocol in a generic way.</p> <p>Application Very seldom used, and then only on ISDN connections</p>

3 SwyxConnect Configuration Wizard

With the SwyxConnect Configuration Wizard, you can use templates to set up a SwyxConnect Session Border Controller (SBC) for the SwyxWare-usage or quickly modify an existing configuration.

For further information see also the SwyxWare documentation for administrators, chapter [SwyxConnect 5000/8000](#).

3.1 Requirements

- SwyxWare is installed and configured
- SwyxConnect SBC is connected and started in the local network
- Optional: Syslog is installed and started on a computer in the local network
- The contents of the file "SwyxConnect Configuration.zip" are stored in a local folder of your choice. The supplied template can be found under
 - "SwyxConnect Configuration Wizard/templates/SwyxConnect SBC Configuration Wizard.json" and
 - "SwyxConnect Configuration Wizard/templates/SwyxConnect SBC Configuration Wizard.cli"

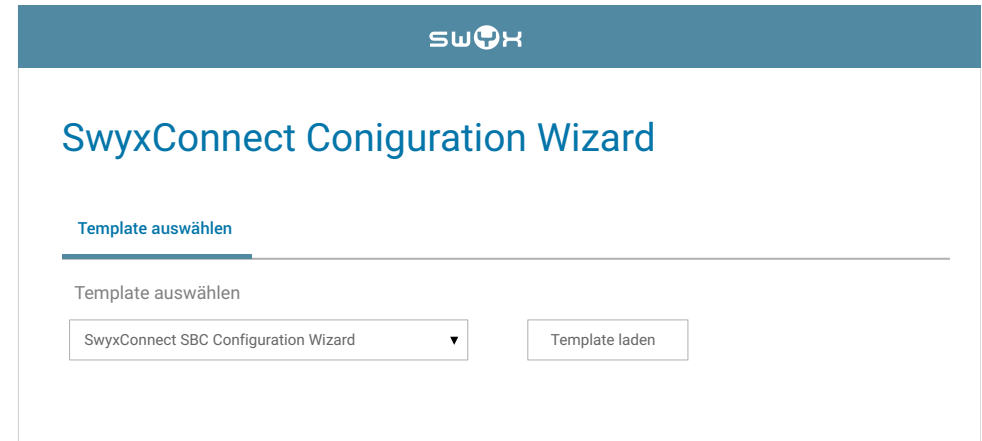
3.2 Configure SwyxConnect as Session Border Controller

In these steps you define the following functions for SwyxConnect:

- Optional: Use as VPN connection with SwyxON
- Optional: Set up a DSL connection
- Optional: Use as a Session Border Controller on the LAN
- Establish connection between SwyxConnect and SwyxWare
- Register on a SIP trunk (for approved providers)
- Configure FXS or BRI connections
- Set Digit Mapping Rules

To configure SwyxConnect as a Session Border Controller

- 1 Start "SwyxConnect Configuration Wizard.exe" and select "SwyxConnect SBC Configuration Wizard" from the drop down list:



- 2 Click on "Load Template"
 - ✓ The tab "Preselection configuration" opens.
- 3 Specify the following settings:

Label	Explanation
SwyxConnect Model	Select the model of the gateway to be configured.
Connection scenario	Select the connection scenario: DSL SwyxConnect is to be used as a DSL router (and optionally also as a SwyxWare gateway). LAN SwyxConnect should be used as a SwyxWare gateway or session border controller in the local network.
VPN configuration	Select whether to use SwyxConnect for the VPN connection with SwyxON platform and with which security protocol: No/IKEv1/IKEv2

Label	Explanation
DSL provider	Select the DSL provider if you want to use SwyxConnect as a DSL router.

- 4 Click on "Next ".
 - ✓ The tab "System configuration" opens:
- 5 Specify the following settings:



The system configuration is applied in all connection scenarios.

Label	Explanation
SwyxConnect username	Enter the user name for the administrative access to SwyxConnect.
SwyxConnect password	Enter the password for administrative access to SwyxConnect.
Primary NTP server	Enter the IP address or FQDN of the primary NTP server.
Secondary NTP server	Optional: Enter the IP address or FQDN of the secondary NTP server.
Syslog usage	Select whether the "Syslog" program should be used: On/Off
Syslog IP	Enter the IP address of the computer on which Syslog was installed (Default value: 192.168.50.1).
Syslog port	Enter the port (default value: 514).

- 6 Click on "Next ".
 - ✓ The tab "Network configuration" opens:
- 7 Specify the following settings:

Label	Explanation
SwyxConnect IP address	Enter the IP address of the preconfigured network interface of the gateway.
Gateway Subnet Mask	Enter the subnet mask or use the default value: 255.255.255.0
SwyxConnect Standard gateway	Enter the IP address that is used as the default gateway by end devices in your network.
Gateway Primary DNS server	Enter the IP address of a DNS server.
Gateway Secondary DNS server	Optional: Enter the IP address of another DNS server.
DHCP (only for DSL configuration)	Select the check box if you want to enable the DHCP function in SwyxConnect (only for DSL connection scenario).
DHCP startup	Enter the first address of the DHCP range.
End of DHCP	Enter the last address of the DHCP range.
Loopback-IP-Adresse	Enter the IP address of the Loop back connection. The IP address must be in the same network as the gateway and must not be assigned otherwise.

- 8 Click on "Next".
 - ✓ Optional: The tab "VPN configuration for SwyxON" opens:
- 9 Specify the following settings:

Label	Explanation
Customer network IP address	Enter the internal IP address of your network.
Customer Network Wild-card Subnet	Enter the wild card mask of your network or use the preset value: 0.0.0.255

Label	Explanation
SwyxON Data Center Network Address	Enter the IP address of the UC Tenant ("Data Center network address").
SwyxON VPN key	Enter the VPN Pre-Shared Key.
SwyxON VPN Concentrator IP Address Peer IP	Enter the public IP address of the VPN connection ("Peer IP").
SwyxON Loopback-IP-Adresse	Enter the IP address of the Loop back connection. The IP address must be in the same network as the gateway and must not be assigned otherwise.
SwyxON Identity of the local VPN gateway (IKEv2 only)	Enter the address of the VPN gateway as FQDN. example@swyx
SwyxON Identity of the VPN Concentrator (IKEv2 only)	Enter the address of the VPN Concentrator as FQDN. example@swyx

- 10** Click on "Next".
✓ Optional: The tab "DSL configuration" opens.
- 11** Enter the DSL access data that you have received from your DSL provider: Connection identification, access number, password.
- 12** Click on "Next".
✓ The "SIP Trunk Configuration" tab opens:
- 13** Specify the following settings:

Label	Explanation
Configuring the SIP Trunk	Select the SIP trunk to be registered on SwyxConnect.
SIP Trunk Registrar Proxy	Enter the SIP trunk registrar (default: sip-trunk.telekom.de).
SIP Trunk Outbound Proxy	Enter the SIP trunk proxy (default: reg.sip-trunk.telekom.de).
SIP Trunk User ID	Enter the SIP trunk user ID.

Label	Explanation
SIP Trunk Username	Enter the SIP trunk user name.
SIP trunk password	Enter the SIP trunk password.

- 14** Click on "Next".
✓ The tab "SwyxWare SIP Gateway Connection" opens.
- 15** Specify the following settings:



The SIP credentials must be set in SwyxWare-Administration under the SIP gateway trunk properties on the SIP Registration tab.

Label	Explanation
SwyxWare IP address	Enter the IP address of the SwyxServer.
SwyxWare SIP User ID/username	Enter the SIP user name ID or SIP user name.
SwyxWare SIP user password	Enter the SIP user password.

- 16** Click on "Next".
✓ The tab "FXS Configuration" (SwyxConnect 5002) or "BRI Configuration" (SwyxConnect 5008) opens:
- 17** Select the number of connections to be used on the SwyxConnect. You must enter the SIP credentials for each port in use.



The SIP credentials must be set in the SwyxWare-Administration under the User Properties on the "SIP" tab.

- 18** Click on "Next".
✓ The tab "Additional settings" opens:
- 19** Enter the digit mapping rules or use the standard rules. For further information please refer to the SwyxWare documentation for Administrators, chapter SwyxConnect 5000/8000, [section "Digit Mapping"](#).



Use the rule "x.T" at the end of the string so that calls that cannot be assigned to any of the previous rules are still allowed.

20 Click on "Submit".

- ✓ After successful entry of all necessary parameters, a CLI file is generated:

SwyxConnect Konfigurationsassistent

on SwyxWare SIP-Gateway-Verbindung FXS-Konfiguration Zusätzliche Einstellungen **Resultate**

```
interface GigabitEthernet 1/1
speed auto
duplex auto
switchport mode trunk
switchport trunk native vlan 1
no shutdown
exit
interface GigabitEthernet 1/2
speed auto
duplex auto
switchport mode trunk
switchport trunk native vlan 1
no shutdown
exit
interface GigabitEthernet 1/3
```

Herunterladen In Zwischenablage kopieren Zurück Fortsetzen

21 Click on "Download" or "Copy to Clipboard" and save the CLI file with your configuration.



You can edit the saved CLI file later as required and upload it to SwyxConnect manually.

After successful transmission, the device restarts and can be reached at the addresses specified