# Basic Configuration of the vPBX

**Introduzione**
Here the general vPBX features can be managed and activated/deactivated:

  ◊ Defining the identity of the subscriber, e.g. which public vPBX telephone number shall be used as CLIP or if all outbound calls to the PSTN shall be anonymous
  ◊ Defining the maximal number of concurrent internal and external connections
  ◊ Defining the music on hold
  ◊ Manual switching of inbound call routing according normal/night/weekend distribution
  ◊ Defining IP subnet or a SIP profile which contains a list allowed IP subnets where VoIP devices are allowed to register to this user account
  ◊ Defining a SIP profile which contains a list allowed IP subnets where SIP devices are allowed to register to this vPBX

## Contents

# Limiting the Maximal Number of Concurrent Channels

This feature allows the vPBX administrator to limit the maximal number of connections within the vPBX. This may be useful when the IP network bandwidth to the internet provider is limited. Consider, even a vPBX internal connection needs bandwidth to the provider!

Limiting the maximal number of channels is done by configuring  "Channels" .

The needed bandwidth per channel depends on the used audio codec:

> ◊ Codec G.711 : ca. 128kBit/sec; ISDN quality
> ◊ Codec G.726 : ca. 16 - 40kBit/sec; Good VoIP quality

Different connection scenarios need another number of channels:

> ◊ vPBX internal connection:
>   A    B: 1 channel
> ◊ vPBX internal to/from public telephone network connection:
>   A    B: 1 channel
> ◊ Call forwarding to internal or public destination connection:
>   A    B, Call Forwarding    C : 2 channels
> ◊ Call forwarding to VoiceMail Box connection:
>   A    B, Call Forwarding    VoiceMail Box : 2 channels

# Download an Audio File for the Feature "Music on Hold"

Here the  audio file can be downloaded which will be used as the "Music on Hold" within this vPBX. The audio file must created in advance. The following formats are allowed

> ◊ WAV (PCM coded)
> ◊ MP3

Procedure for downloading an audio file for the feature ?Music on Hold?:

> 1. Click the button [ Create ? ]
> 2. In die dialog "Music on Hold" click the button [ + Select File ? ]
> 3. In the popping up file browser select the file and download it into the vPBX

Check the contents of the downloaded audio file of the feature ?Music on Hold?:

> 1. In die dialog "Music on Hold" click the icon ▶

Delete the audio file of the feature ?Music on Hold?:

> 1. Click the button [ Delete ? ]

# Manual Change of the Call Distribution "Normal/Day/Weekend"

With the feature  "vPBX Call Distribution Normal/Day/Weekend" the vPBX can be configured to distribute incoming calls as follows:

"Normal" :

> The vPBX distributes incoming call according the call distributions of the actual day time.

"Night" :

> Upon activation the vPBX distributes incoming calls according the call distributions at 00:00 of the next day. The "Night" distribution scheme is automatically switched back to "Normal" at 24:00 of this day.

"Weekend" :

> Upon activation the vPBX distributes incoming calls according the call distributions at 00:00 of the next Sunday. The "Weekend" distribution scheme is automatically switched back to "Normal" at 24:00 of the next Saturday.

The manual change of the distribution scheme can also activated/deactivated from any telephone of this vPBX with the Service 980:

| Service 980 Call distribution normal/night/weekend: | *#-Code: | Commento: |
|---|---|---|
| Activate the ?Normal? call distribution: | *980 | Activated weekend call distributions are deactivated prematurely. |
| Activate the ?Night? call distribution: | *981 | |
| Activate the ?Weekend? call distribution: | *982 | |

The provider may have defined another *#-code for this service. Check at your provider for the valid *#-code!

# Assigning a Zone Profile for Configuring VoIP Devices

A Zone Profile for the vPBX is needed when VoIP devices, e.g. telephones, shall be configured out of the AdminCenter. The VoIP device must be assigned via the AdminCenter (see "Assigning VoIP Devices ").

A Zone-Profile contains the information how a VoIP device can contact the vPBX for registering and downloading its configuration file. The provider prepares the available "Zone Profiles" . Check with the provider which Zone Profile must be used. If no zone is selected, then the "Default" zone is used.

# Limitation of the IP Subnet for the SIP Devices

With this feature it is possible to define an IP subnet where the SIP devices are allowed to register at this vPBX. Registration attempts from SIP devices out of other IP subnets are rejected.

The IP subnet is defined with the parameter "Network" . It is possible to configure several IP subnets separated by commas.
Example:

```
172.1.1.0/24,192.168.10.0/24
```

# Limitation of the IP Subnets with a SIP Profile for the SIP Devices

With this feature it is possible to define a set of IP subnets where the SIP devices are allowed to register at this vPBX. Registration attempts from SIP devices out of other IP subnets are rejected.

The provider prepares the available "SIP Profiles" . Check with the provider which IP subnets are associated with a SIP profile.

# Public Prefix of Dialing to the Public Telephone Network

The public prefix "0" is usually used for dialing out from a vPBX to a national or international destination. With the "Public Prefix" this prefix can be changed to another number or can be deleted.

If no public prefix is used, then it may be that certain numbers are not allowed for internal vPBX telephone numbers, e.g. "110" which is also an emergency number. Check with the provider which internal vPBX telephone number are not allowed if no public prefix is used.

# SIP Authentication for the Public vPBX Telephone Numbers

| | |
|---|---|
| **Nota** | This feature is usually not available! |

The SIP credentials "Authenticating Name" and "Password" for the public vPBX telephone numbers may be changed.

| | |
|---|---|
| **Nota** | This configuration is valid for all public vPBX telephone numbers of this vPBX! |

| | |
|---|---|
| **Avviso** | • If not handled with care it is possible that the connectivity is not working correctly!<br>• SIP devices using this SIP credentials must be reconfigured accordingly!<br>• Configured Line Key on SIP telephones must be synchronized!<br>• These values must be handled **confidential**. They open the possibility of misuse and may cause **high connection cost**! |

# Configuration

## Where to Configure this Feature

As vPBX administrator:

→ Tab "PBX"

→ Tab "Account"

## Parameter Configuration

### Parametro: Music on Hold

| | |
|---|---|
| **Descrizione:** | Enables to load or delete an audio file which will be used for ?Music on Hold? in this vPBX. |
| **Configurazione:** | Pulsante [ Definieren ? ]<br><br>Pulsante [ Delete ] |
| **Predefinito:** | |
| **Versione:** | AdminCenter V5.7 |

### Parametro: Channels

| | |
|---|---|
| **Descrizione:** | Defines how many concurrent channels this vPBX is allowed to handle. The number is computed from OnNet, in- and outbound connections. |
| **Configurazione:** | Stringa di configurazione:<br><br>◊ None: No limitation<br>◊ 0: No connection possible<br>◊ > 0: Number, defines the max. number of concurrent channels |
| **Predefinito:** | None |
| **Versione:** | AdminCenter V5.7 |

### Parametro: Time-Switch

| | |
|---|---|
| **Descrizione:** | Defines if the call distributions shall work according normal, night or weekend configurations:<br><br>• "Normal":<br><br>The vPBX uses the call distributions of the actual day time.<br><br>• "Night":<br><br>The vPBX uses the call distributions, which are valid at 00:00 of the next day.<br><br>• "Weekend": |

| | The vPBX uses the call distributions, which are valid at 00:00 of the next Sunday. |
|---|---|
| **Configurazione:** | Menu di scelta:<br><br>Normal<br>Night<br>Weekend |
| **Predefinito:** | Normal |
| **Versione:** | AdminCenter V5.7 |

## Parametro: Network

| | |
|---|---|
| **Descrizione:** | Defines from which IP subnet a SIP device is allowed to register at this vPBX. The network is defined by the starting IP address and its subnet mask. Several comma separated IP subnets are possible.<br><br>Example:<br><br>`172.1.1.0/24,192.168.10.0/24` |
| **Configurazione:** | Stringa di configurazione:<br><br>◊ None : No IP address checking<br>◊ IP address / Subnet Mask Bit |
| **Predefinito:** | None |
| **Versione:** | AdminCenter V6.2 |

## Parametro: SIP Profile

| | |
|---|---|
| **Descrizione:** | Defines a SIP Profile which contains a list of IP subnets where a SIP device is allowed to register at this vPBX.<br><br>Check with the provider which IP subnets are associated with a SIP profile. |
| **Configurazione:** | Menu di scelta:<br><br>- (None)<br>List of prepared SIP Profiles |
| **Predefinito:** | None |
| **Versione:** | AdminCenter V6.1 |

## Parametro: Zone

| | |
|---|---|
| **Descrizione:** | Defines a Zone Profile which is used for automatic provisioning of VoIP devices of this vPBX. The VoIP devices must be assigned via the AdminCenter (see "Assigning VoIP Devices "). |
| **Configurazione:** | Menu di scelta:<br><br>- (None)<br>List of prepared Zone Profiles |
| **Predefinito:** | None |
| **Versione:** | AdminCenter V6.3 |

## Parametro: Public Prefix

| | |
|---|---|
| **Descrizione:** | Defines the public prefix a user must dial for breaking out from a vPBX to the public telephone network PSTN. |
| **Configurazione:** | Stringa di configurazione:<br><br>◊ None: No public prefix needed<br>◊ Number |
| **Predefinito:** | 0 |
| **Versione:** | AdminCenter V6.3 |

## Parametro: Authenticating Name

| | | |
|---|---|---|
| **Descrizione:** | SIP authenticating name for the SIP device, which shall register to a public telephone number of this vPBX | |
| **Configurazione:** | Stringa di configurazione:<br><br>◊ Any string | |
| | **Nota** | Follow the online instructions concerning secure authenticating name! |
| **Predefinito:** | | |
| **Versione:** | AdminCenter V5.7 | |

## Parametro: Password

| | | |
|---|---|---|
| **Descrizione:** | SIP password for the SIP device, which shall register to a public telephone number of this vPBX | |
| **Configurazione:** | Stringa di configurazione:<br><br>◊ Any string | |
| | **Nota** | Follow the online instructions concerning secure passwords! |
| **Predefinito:** | | |
| **Versione:** | AdminCenter V5.7 | |