swissvoice **Administrator's guide**

06 Jun 03   14:31
            Welcome to IP!
Menu

swissvoice IP10S

Contents

About this guide

This guide applies to all Swissvoice IP phones (except to the IP20 MGCP). It describes how to configure the phone settings and how to upgrade the firmware. Basically, provisioning may be done automatically for several phones or manually, phone by phone.

Conventions

Typographical conventions

Typographical conventions used throughout this guide are:

Boldface   Names of items displayed in the phone.

Red color   Variables to be set.

         Note: Contains helpful suggestions or information not covered in the document.

Caution   *Caution: Means that the reader should be careful. In this situation, you might do something that could result in a phone being damaged, or lose data.*

Word conventions

Provision   Refers to the firmware upgrade and/or the phone configuration.

Related documentation

For more information on using Swissvoice products, please refer to one or more of the following publications:

?   Phone user's guide
?   MGCP XML manual
?   Phone configuration through Telnet

When available, the above publications can be downloaded from the Swissvoice website:

www.swissvoice.net – Worldwide – Support – Manuals

About this guide

DNS   **D**omain **N**ame **S**erver

DHCP   **D**ynamic **H**ost **C**onfiguration **P**rotocol

FTP   **F**ile **T**ransfer **P**rotocol

H. 323   An ITU standard for realtime voice and videoconferencing over packet networks, including LANs, WANs and the Internet.

LAN   **L**ocal **A**rea **N**etwork

MGCP   **M**edia **G**ateway **C**ontrol **P**rotocol. An IP telephony signaling protocol from the IETF.

RFC3149   **R**equest **F**or **C**omments. This document describes the specifications for business extended services under the MGCP protocol.

SIP   **S**ession **I**nitiation **P**rotocol. An IP telephony signaling text-based protocol developed by the IETF.

TFTP   **T**rivial **F**ile **T**ransfer **P**rotocol

XML   E**X**tensible **M**arkup **L**anguage.

Automatic phone provisioning

Preliminary conditions

Automatic procedures require the use of several servers:

- The "plug and play" method requires DHCP and TFTP servers.

- The semi-automatic method requires DHCP and FTP, or only FTP or TFTP servers.

You also should have the necessary files for the configuration and firmware upgrade. See the next paragraph "Description of the files" for further information on these files.

To obtain the latest file update, ask your call agent/gatekeeper vendor, or e-mail your request to Swissvoice at the following address: **support_ip@swissvoice.net**.

Don't forget to indicate the protocol (MGCP, MGCP+RFC3149, H323, SIP), the file server you intend to use (FTP or TFTP) and the optional code (G729 or G723) for the IP10S phone.

Description of the files

Phone configuration and firmware upgrades require several files.

Information file: ".inf" format. Default file name is: swupdate_name of the phone.inf.
It contains the firmware (boot and application) file and configuration file names and locations. The file is divided into several sections. Each section is optional and uses an XML type format.

File example:

```
<BOOT version=v00app server=tftp>
bootromSoftware.ld.000
bootromSoftware.ld.001
</BOOT>

<APPLICATION version=v00app server=tftp>
applicationSoftware.ld.000
applicationSoftware.ld.001
applicationSoftware.ld.002
applicationSoftware.ld.003
</APPLICATION>

<CONFIG server=ftp>
configip10.cfg
</CONFIG>
```

By default, the information file is located in TFTP and the configuration file in FTP. If you want to attribute files differently in your servers, you should change the server setting option, which is given in red in the above example, in the information file.

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Configuration file: ".cfg" format.
This file contains a list of telnet commands for configuring phone settings: TCP/IP parameters, phone book, memory keys and feature keys, display, languages, web activation, tone table, etc. (see "Related documentation", page 2).

If your phone(s) use the MGCP protocol, the configuration file also contains the "addDeckFile" command for loading a specific file (.svd) that contains RFC 3149 settings.

MGCP XML display package file: ".svd" format.
This allows to build phone displays using XML format. For further information, please refer to the MGCP XML manual.

Plug and Play provisioning

The Plug and Play method is particularly adapted to the provision of several phones at the same time. The minimum requirements are one DHCP server and one TFTP server. One additional FTP server can also be used.

Simply follow next steps to provision Swissvoice IP phones:

Step 1 – Configure network parameters

Before powering up the phone:

1-   Read the MAC address printed at the bottom of the phone.

2-   Register the phone's MAC address on your DHCP server and configure the following
        parameters:
        -    Phone IP address
        -    Subnet mask
        -    DNS address (DHCP option n°6)
        -    Gateway address (DHCP option n°3)
        -    TFTP server address (DHCP option n°66)
        -    Boot file name (.inf extension) (DHCP option n°67)
        -

> *It is also possible to use an FTP server instead of the TFTP server. In this case, you will first have to power up the phone and give the FTP server address through the phone web-based interface (see "Semi-automatic method", page, 7).*

Step 2 – Register Information and Configuration files in TFTP/FTP servers

Before powering up the phone:

1 –   Decompress the information file in your TFTP server.

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2 -   If necessary, change the server settings in the boot information file to your convenience.

By default, the firmware file (.ld.xxx), the configuration file (.cfg) and the MGCP XML display package file (.svd) are located in the FTP server. If you want to use the TFTP server instead, you should simply change the server settings in the information file (see "Description of the files, page 4).

3 –   Decompress the configuration file and complementary files you would need in the FTP server (or TFTP if you have changed the default location settings).

The phone can look for files indifferently located in FTP, TFTP or both. If the phone doesn't find any TFTP server or any information file in TFTP, then it will look in the FTP server. If no information file is found, the phone will start the application.

Step 3 – Powering up the phone

Phone configuration and firmware upgrade are carried out when starting the phone up for the first time and at each reboot.

1-   Connect the phone to the local network and power it up to the mains power or through the LAN. For further information, please consult the Installation chapter in the phone user's guide. It is available on the Swissvoice Website www.swissvoice.net.

Once the phone is powered up, the **Swissvoice** logo is displayed, followed by several messages giving the various steps:

Looking for DHCP server…

Loading information file …

BOOT upgrade in progress …

APPLICATION upgrade in progress …

Starting…please wait…

Waiting for call agent…

Next, the idle screen is displayed. **The phone is provisioned and ready to be used.**

Caution: The mains supply must not be interrupted during the booting session. The phone could be damaged.

When you want to upgrade the firmware or download a new configuration, follow steps 1 and 2 and reboot the phone from its web-based interface.

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Semi-automatic method

Minimum requirements are one TFTP server or one FTP server. Both may also be used.

Follow the next steps to provision the phone(s):

Step 1 – Powering up the phone

1-   Connect the phone to the local network and power it up to the mains power or through the LAN. For further information, please consult the Installation chapter in the phone user's guide. This is available on Swissvoice Website www.swissvoice.net.

Once the phone has been powered up, **Swissvoice** is displayed, followed by **Looking for DHCP server…**
As the phone fails to find a DHCP server, it starts up with default parameters. **Starting…please wait…**is displayed, and then **Waiting for Call agent…**

Step 2 – Configure network parameters via the phone menu

1-   Enter the main menu, select Admin settings, and then select Change settings.
        Enter the correct password. The default password is : **0000**.

2-   Set up the following parameters in the **TCP/IP** sub-menu:
        - DHCP (deactivate it),
        - IP address,
        - Subnet mask,
        - DNS address,
        - Gateway address.

3-   The message **Phone needs to be rebooted** is displayed. Press the OK key to reboot the phone.

Step 3 – Configure file server addresses via the phone web-based interface

1-   Start a web browser session and key the phone's IP address into the address field.

2-   Click on the **Administrator** button and key **admin** into the name field and **admin** into the password field. The menu is displayed on the left of the screen.

3-   Select the **File servers** sub-menu and key in the TFTP and/or FTP server addresses where you intend to locate the information file and configuration file.
        If necessary, change the information file and configuration file names.

4-   Press the **Submit** button.

The names and location of the files are now loaded in the phone.

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Step 4 – Register Information and Configuration files in TFTP/FTP servers

1 –   Decompress the files in the servers you have registered through the phone web-based interface. Make sure the server location is written in the information file is correct.
By default, the firmware file (.ld.xxx), the configuration file (.cfg) and the MGCP XML display package file (.svd) are located in the FTP server. (see "Description of the files, page 4).

Step 5 – Reboot the phone

The phone needs to be rebooted for loading the new firmware and/or its configuration.

1-   Start a web session and go through the web-based interface.

2-   Go to the **Reboot** page, select **Keep custom parameters** and press the **Reboot** button.

The **Swissvoice** logo appears on the phone display, followed by several messages showing the various steps:

Looking for DHCP server…

Loading information file …

BOOT upgrade in progress …

APPLICATION upgrade in progress …

Starting…please wait…

Waiting for call agent…

The idle screen is then displayed. The phone is provisioned and ready to be used.

Caution: The mains supply must not be interrupted during the boot session. The phone could be damaged.

You can also directly load the information file name into the phone from the "phone provisioning" page in the web server. It allows you to upgrade the phone with a specific firmware or a particular configuration (assuming you have changed the configuration file name into the information file name and it is available in a file server), that is different from the ones you have used for other phones.

Manual phone provisioning

Before using any other manual method of configuration, TCP/IP, call agent and VLAN parameters must be programmed via the phone menu in order to connect the phone to the network. Those parameters are included in the Administrator settings menu.

Setting parameters are divided into two categories :

- User settings: the user can freely choose the setting options for the functions offered in this category. For example: ringing tones, display language, display idle screen, headset capability, clock alarm, voice mail number, password and reset.

- Administrator settings: rights to modify any of these parameters are reserved to the system administrator. A password is required to enter this menu section. The default password is **0000**.

Caution: this password can only be customized through the local MMI. It is different from the website password which controls access to the section reserved to the administrator.

To understand the menu tree structure and the way to use the menu guidance, you should consult the phone user manual.

Configuring through the web interface

The phone can also be configured using a web browser. It has a friendly web interface to set and modify parameters. Moreover, compared to the phone's local MMI, additional features and capabilities are offered. For instance, downloading of customized logo to be displayed in the phone, downloading of specific language (the file must be prepared by your provider) and time parameters.

Before you start
The IP phone should be connected to the corporate IP telephony network and the minimal required parameters should be configured (see "Configuring via the phone menu", page 9).

Connecting to the IP phone web server

1- Start a web browser session.

2- Key the phone's IP address into the address field. For example : **http://10.3.16.110**

3- Click on the Administrator button.

4- A window is displayed asking for **Name** and **Password**.

5- Enter **admin** in the name field and **admin** in the password field.

Manual phone provisioning

Access to the user section is also protected. Default name and password are respectively **user** *and* **user**.

The main menu is located on the left of the screen. Go through it and change the setting values to your convenience. It will be automatically changed on your phone.

Some parameters will require the phone to be rebooted for changes to be operated. When the message **Reboot needed!** is displayed, go to the **Reboot** page, select the **Keep custom parameters** option and press the **Reboot** button.

Configuring through Telnet

The phone can be configured using any telnet terminal. All telnet commands can be part of a script file (.cfg file) that can be automatically downloaded during the phone booting process (see "Automatic phone provisioning", page 4).

Phone configuration through Telnet is developed in a separated document in order to explain Telnet commands clearly for each protocol and each IP phone (see "Related documentation", page 2).

Troubleshooting

If the IP phone reboots permanently or if the starting process was disrupted, the only way to restart the phone is to restore the factory settings:

1- Disconnect the IP phone from the mains power or from the LAN if the power is supplied over it.

2- Press and hold keys **1 4 7**.

3- Power up the IP phone while holding down keys **1 4 7**.

4- When the message "Restore factory settings" is displayed, you may release the keys.

5- The IP phone is restarting with its factory settings:

On the phone display, the **Swissvoice** logo appears, followed by several messages giving the various steps:

Looking for DHCP server…

Loading information file …

BOOT upgrade in progress …

APPLICATION upgrade in progress …

Starting…please wait…

Waiting for call agent…

The idle screen is then displayed. The phone is provisioned and ready to be used.