



HiPath 2000
HiPath 3000
HiPath 4000
HiPath 5000

optiPoint 410 family
optiPoint 420 family
optiPoint application module
optiPoint display module

Administrator Manual

SIEMENS

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Safety Precautions

Note! (for U.S.A and Canada only)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This product is a UL Listed Accessory, I.T.E., in U.S.A. and Canada.

For Your Safety

The IP telephone optiPoint 410/420 complies with the European standard EN 60 950 which deals with the safety of information technology appliances including electronic office equipment. This device has been designed with safety in mind, thus protecting both individuals and objects.

There is always the danger of small objects being swallowed by young children. In the case of the optiPoint 410/420, this applies in particular to the connecting cord clip. Please make sure that such items are not accessible to children.

- Use only the enclosed power supply together with the special LAN cable.
- Never open the power supply enclosure.

Protection of the Telephone

- The telephone must not be used in bathrooms, etc. as it is not splashproof.
- Before connecting or disconnecting the LAN cable or the headset cord, pull the power plug out of the plug receptacle first.

Location of the Telephone

- The telephone should be operated in a controlled environment with an ambient temperature between 5 °C and 40 °C (40 °F and 104 °F).
- To ensure good handsfree talking quality (not available with optiPoint 410 entry), the area in front of the microphone (front right) should be kept clear. The optimum hands-free distance is 20 in (50 cm).
- Do not install the telephone in a room where large quantities of dust accumulate; this can considerably reduce the service life of the telephone.
- Do not expose the telephone to direct sunlight or any other source of heat, as this is liable to damage the electronic equipment and the plastic casing.
- Do not operate the telephone in damp environments such as bathrooms.

Important Notes



The device conforms to the EU guideline 1999/5/EG, as attested by the CE mark.



This device has been manufactured in accordance with our certified environmental management system (ISO 14001). This process ensures that energy consumption and the use of primary raw materials are kept to a minimum, thus reducing waste production.



All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.

The correct disposal and separate collection of your old appliance will help prevent potential negative consequences for the environment and human health. It is a precondition for reuse and recycling of used electrical and electronic equipment.

For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service, the shop where you purchased the product or your sales representative.

The statements quoted above are only fully valid for equipment which is installed and sold in the countries of the European Union and is covered by the directive 2002/96/EC. Countries outside the European Union may have other regulations regarding the disposal of electrical and electronic equipment.

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General Information

About the Manual

The instructions within this manual will help you in administering and maintaining the optiPoint 410/420. The instructions contain important information for safe and proper operation of the optiPoint 410/420. Follow them carefully to avoid improper operation and get the most out of your multi-function telephone in a network environment.

These instructions describe administration through the operation of optiPoint 410/420. In addition, you can administer optiPoint 410/420 with the help of a web interface → page 42 or through a deployment tool (see instruction on administration with deployment tool).

There is a separate manual for the operators. A quick reference guide contains a fast and reliable explanation corresponding to frequently used functions.

Product Identification

The identification details of your telephone are given on the nameplate containing the exact product designation and serial number on the bottom of the base unit.

For more information on the software version, please refer to "General Information" in the Web-Based Management Tool section (→ page 45).

Please have these ready whenever you call our service department because of trouble with or defects on the unit itself.

Echo Effect

In some cases, while using the telephone you may hear an echo, which can be quite strong. This is not due to any design defect or other fault with your IP telephone, but caused by the other client.

For example, if the echo occurs during a teleconference, it may be that the loudspeakers and microphones need to be repositioned.

Safety Precautions for IP Telephony

Different methods can be implemented to protect an IP environment from external attacks (denial of service attacks, viruses, etc.) and call monitoring.

Different methods can be implemented to protect an IP environment from external attacks (denial of service attacks, viruses, etc.) and call monitoring.

- → HTTPs guarantees secure telephone access via the Web-Based Management Tool.
- Unused ports are checked regularly and may also be locked completely (network stack hardening or → Port Control).
- Since password length plays a significant role in security, the minimum password length can be predefined (see the Deployment Tool administration manual).

VoIP Security

To ensure the secure transmission of call audio data, the → SRTP/SRTCP protocol is used in conjunction with the → CORNET IP TS and encrypted via a → PSS key that is valid for the whole network.

Security settings are updated and activated via the deployment tool (see the Deployment Tool administration manual).

You can view the next scheduled security key update in the Web-Based Management Tool (→ page 57).



VoIP Security is available on the optiPoint 410/420 economy plus, standard, and advance telephones.

Notes and Symbols

Safety

Information that is important for preventing injury or damages is marked specially, as they are important instructions for correct use of the unit.



This symbol indicates a hazard. Failure to follow the instructions given may result in injury or in damage to the unit.



Key information important for the proper use of the unit is marked with this symbol.

Reference to operation steps

The following symbols are used to indicate the different operation-related sequence descriptions:

-  Operation of the optiPoint 410 entry.
-  Operation of the optiPoint 410/420 economy/economy plus/standard/advance and.
-  Operation through the web-based management tool.

Step by Step



Lift the handset (off-hook).



Replace the handset (on-hook).



Conduct a call.



Enter a telephone number or code.



Increase or reduce the value depending on the current operating mode.

optiPoint 410/420 economy/economy plus/standard/advance



The option appears on the screen. Press the  key to confirm your selection.



Look for the select option. Press the   keys, until the option appears on the screen. Then press the  key to confirm your selection.

optiPoint 410 entry

Changing and viewing the configuration data in the optiPoint 410 entry is done by entering different reference numbers.

For description of viewing data values on the LEDs of the optiPoint 410 entry see → page 100Administrator Manual.

Properties of the Telephone Models

This chapter gives you an overview of the optiPoint 410/420 telephone models and their properties.

Telephone Model	Function keys	Connection of Side Car Unit	Display Lines x Characters	Headset connection	USB-Master	Mini-Switch e. g. PC-connection	Speakerphone mode	SLK	VoIP Security ^[1]
optiPoint 410 entry	8	-	-	-	-	-	-	-	-
optiPoint 410 economy	12	-	2x24	-	-	-	-	-	-
optiPoint 410 economy plus	12	-	2x24	✓	-	✓	-	-	✓
optiPoint 410 standard	12	✓	2x24	✓	-	✓	✓	-	✓
optiPoint 410 advance	19	✓	4x24	✓	✓	✓	✓	-	✓
optiPoint 420 economy	12	-	2x24	-	-	-	-	✓	-
optiPoint 420 economy plus	12	-	2x24	✓	-	✓	-	✓	✓
optiPoint 420 standard	12	✓	2x24	✓	-	✓	✓	✓	✓
optiPoint 420 advance	18	✓	4x24	✓	✓	✓	✓	✓	✓

[1] Valid in software version 5.x or higher on HiPath 3000/5000 (version 6.0 or higher) and Hi-Path 4000 (version 3.0 or higher).

Setting Up the Telephone

This chapter describes how to connect the individual elements of the optiPoint 410/420 with each other (→ Installing the Telephone) and how to set up the device ready for operation (→ Preparing for Operation).

Installing the Telephone

Connectors on the bottom of the telephone



optiPoint 410 entry



optiPoint 410/420 standard

	entry	economy	standard	advance
1	Ethernet port for LAN connection (optional with PoL ^[1])			
2	Handset connector			
3	Connector for a local power supply unit (optional ^[1])			
4	-	-	Module connector	
5	-	-	Ethernet port for PC	
6	-	-	Headset connector	
7	-	-	Adapter 1	
8	-	-	Adapter 2	-
9	-	-	-	USB-Master

[1] **P**ower **o**ver **L**AN:
If power is supplied over the LAN cable, no local power supply is required.

Starting up the optiPoint 410/420



Only use **switches** in the LAN, to which the optiPoint 410/420 is connected. An operation at hubs can cause serious malfunctions in the hub and in the whole network.



The Western plugs of all cable connections must audibly snap into place.

- Plug the short end of the handset cable into the handset and the other end into the connector **7** at the bottom of the telephone and feed the cable through the guide channel in the base unit.
- Using the headset connector:
Plug the jack of the headset cable into connector **6** at the bottom of the telephone and feed the cable through the guide channel in the base unit.
- Using optiPoint modules (**4**):
Mount this device following the instructions in the installation guide (A31003-H8400-B934-*-6ZD1).
- Using adapter (**7, 8**):
Mount this device following the instructions in the installation guide (A31003-H8400-B934-*-6ZD1).
- Using the external keyboard:
Plug the keyboard cable into the USB connector **9** at the bottom of the telephone.
- Using a LAN connection to PC:
Plug the jack of the connection cable into the connector **5** at the bottom of the telephone.

Only if power **not** supported by LAN:



Use only the plug-in power supply unit fitting the optiPoint 410/420:

- GER/IM: AUL:06D1284
- GBR: AUL:06D1287
- USA: AUL:51A4827

- Plug the plug-in power supply unit into the mains.
- Plug the connector **3** at the bottom of the telephone into the plug-in power supply unit.
- Plug the jack of the LAN cable into the connector **4** at the bottom of the telephone and connect the cable with LAN.
- Feed the cables through the relief on the back of the housing and fix them by means of the cable clip.

Step by Step

Preparing for Operation

For the optiPoint 410/420 economy/economy plus/standard/advance follow the sequence described below. The sequence for the optiPoint 410 entry is described from → page 16.



The start up process sequence describes a standard case of configuration. Network configurations that deviate from the standard case may require additional entries.

optiPoint 410/420 economy/economy plus/standard/advance

If problems are encountered during the initial start up, or if you have queries on individual specifications, the following chapters will be of help:

- For specialized information on the administration of the optiPoint 410/420 see "Alphabetical Reference" → page 58.
- o For descriptions of different configuration-related situations, see "Administration scenarios" → page 89.
- For error messages in the display of the optiPoint 410/420 see "Error Messages" → page 30.

Entering the administration area

01=Configuration? >



Confirm to enter the Configuration Menu.



Enter admin password
(default: **123456**).



Confirm.

Step by Step

01=DHCP IP assign? >

▶ off? >

▶ 02=Terminal IP addr.? >

Change? >



▶ 03=Terminal mask? >

Change? >



▶ 00=End? >

Only if no DHCP server:

- Confirm.
- Confirm to **switch** the DHCP IP assign **off**. The change is displayed.
- Choose and confirm.
- Confirm.
- Enter **IP address** of the **optiPoint 410/420** (to edit see → page 93).
- Confirm. The IP address is displayed.
- Choose and confirm.
- Confirm.
- Enter **terminal mask** of the **optiPoint 410/420** (to edit see → page 94).
- Confirm. The terminal mask is displayed.
- Choose and confirm to go to the top level of the configuration menu.

In all configuration types

- Enter **Gateway address** for communication with the HiPath System via the gateway. Entering only possible via Web-based Management, see → page 42.
- Menu System > Gateway settings, see → page 55.
- Enter **Registration subscriber number** (extension number). The extension number must be stored in the HiPath system. Entering only possible via Web-based Management, see → page 42.
- Menu System > Gateway settings, see → page 55.

Troubleshooting

If the optiPoint 410 economy/economy plus/standard/advance and optiPoint 420 advance does not function after making the described configuration, the failure can be attributed to peculiarities of the network environment.

More information on error detection is available in the "Start up not successful" → page 91.

Step by Step

optiPoint 410 entry

If problems are encountered during the initial start up, or if you have queries on individual specifications, the following chapters will be of help:

- For specialized information on the administration of the optiPoint 410 entry see "Alphabetical Reference" → page 58.
- For descriptions of different configuration-related situations, see "Administration scenarios" → page 89.
- For error messages of the optiPoint 410 entry see "Error Messages" → page 30.

Entering the administration area

1 0 3



Press the keys **simultaneously**

Enter admin password
(default: **123456**).



Terminate the operation.

You are now in the **Administration Area** (all LEDs flash).

The top two function keys take over the following functions in this area:

1st Function key



Press 1st function key to make settings.

2nd Function key



Press 2nd function key to view settings.

Step by Step

Only if no DHCP server



Press 1st function key.



Enter code to **switch** the DHCP IP assign **off**.



Terminate the operation.



Press 1st function key.



Enter code.



Enter **IP address** of the **optiPoint 410 entry** (to edit see → page 93).



Terminate the operation.



Press 1st function key.



Enter code.



Enter **terminal mask** of the **optiPoint 410 entry** (to edit see → page 93).



Terminate the operation.



Press 1st function key.



Enter code.



Enter the **default Route** of the **optiPoint 410 entry** (to edit see → page 93).



Terminate the operation.

Only if you are working in a Virtual LAN (VLAN)



Press 1st function key.



Input the code to define the **manual configuration** of the VLAN Discovery Mode.



Terminate the operation.



Press 1st function key.



Enter code.



Enter (**0 - 4095**) for the **Virtual LAN ID** → page 62 (to edit see → page 93).



Terminate the operation.

Step by Step

Other settings

All other settings of your optiPoint 410 entry must be made through the "**Web-based Management Tool**" → page 42.

Open the "System" page in your browser and enter the following parameters:

- PBX address → page 65
- Participant No. → page 79
- Participant password → page 79
- System type → page 79

Confirm your entries and start the telephone:



Press key.



Enter the code.



Confirm the entry.

After the start, the telephone is silent and you can make the other settings → page 32.

Error handling

If the optiPoint 410 entry does not function after making the described configuration, the failure can be attributed to peculiarities of the network environment.

More information on error detection is available in the "Start up not successful" → page 91.

Administration

The following pages describe how to make administration settings for the optiPoint 410/420 in a HiPath 3000/5000 / HiPath 4000 system.

There are different ways to make settings:

- **Locally on the telephone:**
 - optiPoint 410/420 economy/economy plus/standard/advance → page 20
 - optiPoint 410 entry → page 32
- **Remote maintenance through LAN:**
 - Web-based Management Tool → page 42.
 - Deployment Tool (for further information see "Administration Manual Deployment Tool").

A few functions of the optiPoint 410/420 display module or application module are administered directly on the display module or application module → page 38 or → page 40.

The execution of the configuration and diagnostics jobs described below require good knowledge of network technology as well as of network protocols, and they are normally carried out by network administrators.

For your support you will find some background information in the chapter "Alphabetical Reference", → page 58.



The administration of an optiPoint 410/420 (locally or through remote maintenance) is possible only if no conversation is being conducted over this telephone.



The configuration and diagnostics jobs via the telephone are executable with restrictions only.

Only the Web-based Management allows unrestricted access to all configuration menus → page 42.

Step by Step

optiPoint 410/420 economy/ economy plus/standard/advance

Access to the Administration Menu



If you are in the Administration Menu, then the optiPoint 410/420 cannot be accessed ("offline").

All configuration and diagnostic operations are protected against illegal accesses by the Administrator password.

Press keys **simultaneously**.

1 0 3

01=Configuration? >



Confirm to enter the Configuration Menu.



Enter admin password (default: **123456**).



Confirm.

The first entry of the selected menu is displayed.

or

02=Diagnostics? >



Choose and confirm to enter the Diagnostics Menu.

03=Start Phone? >



Choose and confirm to start the phone.

Step by Step

Configurations

DHCP IP Assignment

For detailed information see → page 62.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

01=DHCP IP assign? >

Confirm.

Off? >

Confirm.

or

▶ On? >

Confirm.

The change is displayed.

Terminal IP Address

For detailed information see → page 80.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

▶ 02=Terminal IP addr.? >

Choose and confirm.



Enter IP address (to edit see → page 93).



Confirm. The change is displayed.

Terminal Mask

For detailed information see → page 80.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

▶ 03=Terminal mask? >

Choose and confirm.



Enter Terminal Maske (to edit see → page 94).



Confirm. The change is displayed.

Step by Step

▶ **04=Default route?** >



Default Route

For detailed information see → page 62.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

Choose and confirm.

Enter IP address (to edit see → page 93).

Confirm. The change is displayed.

VLAN Method

For detailed information see → page 81.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

▶ **05=VLAN method?** >

Choose and confirm.

Manual >

Confirm.

or

▶ **DHCP** >

Choose and confirm.

Confirm. The change is displayed.

VLAN ID

For detailed information see → page 62.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

▶ **06=VLAN id?** >

Choose and confirm.



Enter value (to edit see → page 93).

Confirm. The change is displayed.

Step by Step

QoS Layer Options

For detailed information see → page 75.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

▶ **07=QoS L2/L3?** >

Choose and confirm.

L2on/L3on >

Confirm.

or

▶ **L2off/L3off** >

Choose and confirm.

or

▶ **L2off/L3on** >

Choose and confirm.

or

▶ **L2on/L3off** >

Choose and confirm.

The change is displayed.

LAN Port 1 Mode

For detailed information see → page 69.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

▶ **08=LAN port 1 mode?** >

Choose and confirm.

Auto? >

Confirm.

or

▶ **10 Mb/s half duplex** >

Choose and confirm.

or

▶ **10 Mb/s full duplex** >

Choose and confirm.

or

▶ **100 Mb/s half duplex** >

Choose and confirm.

or

▶ **100 Mb/s full duplex** >

Choose and confirm.

The change is displayed.

Step by Step

LAN Port 2 Mode

For detailed information see → page 69.

 „LAN Port 2 Mode“ is not configurable for optiPoint 410 entry und optiPoint 410/420 economy.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

 09=LAN port 2 mode? >

Choose and confirm.

Auto >

Confirm.

OR

 10 Mb/s half duplex >

Choose and confirm.

OR

 10 Mb/s full duplex >

Choose and confirm.

OR

 100 Mb/s half duplex >

Choose and confirm.

OR

 100 Mb/s full duplex >

Choose and confirm.

The change is displayed.

Subscriber Number

For detailed information see → page 79.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

 10=Fully qual sub num? >

Choose and confirm.



Enter Subscriber Number (to edit see → page 93).

Confirm. The change is displayed.

Subscriber Password

For detailed information see → page 79.

Enter "Administration Menu" and go to the Configuration Menu → page 20.

 11=Home subscriber pwd?>

Choose and confirm.



Enter Subscriber Password (to edit see → page 93).

Confirm. The change is displayed.

Step by Step

Diagnostics

Display Test

For detailed information see → page 62.

Enter "Administration Menu" and go to the Diagnostics Menu → page 20.

Confirm.

Press key to show the next display.

Confirm to end the test.

LED Test

For detailed information see → page 72.

Enter "Administration Menu" and go to the Diagnostics Menu → page 20.

Choose and confirm.
All LEDs are flashing.

The LED test takes place in 10 stages (à 5 sec..) automatically successively:

- Stage 1: all LEDs off
- Stage 2: all LEDs on
- Stage 3-10: LEDs flash in different combinations

Step by Step

▶ **03=Key test?** >

Please press key >

e.g. ▶, ⊕ or 

Key Test

For detailed information see → page 68.

Enter "Administration Menu" and go to the Diagnostics Menu → page 20.

Choose and confirm.

Press any key (except) and read the display.

Confirm to end the test.

Audio Loop Test

For detailed information see → page 59.

Enter "Administration Menu" and go to the Diagnostics Menu → page 20.

Choose and confirm.

▶ **04=Audio loop test?** >

Continue?

Execute test:

Confirm to end the test.

RAM Test

For detailed information see → page 75.

Enter "Administration Menu" and go to the Diagnostics Menu → page 20.

Choose and confirm.

Wait until the result is displayed.

▶ **05=RAM test?** >

Continue? >

Confirm to end the test.

ROM Test

For detailed information see → page 76.

Enter "Administration Menu" and go to the Diagnostics Menu → page 20.

Choose and confirm.

Wait until the result is displayed.

▶ **06=ROM test?** >

Continue? >

Confirm to end the test.

Step by Step

▶ **07=Ping Test?** >

01=User specified IP? >

02=Gateway? >

03=DL server address? >

04=Default Router IP? >

05=Route 1 Gateway IP?>

06=Route 2 Gateway IP?>

07=SNMP trap address?>

08=Terminal IP addr.? >

08=Terminal IP addr.? >

09=DNS Server? >

Ping? >

▶ **Change?** >



PING Test

For detailed information see → page 74.
 Enter "Administration Menu" and go to the Diagnostics Menu → page 20.

- Choose and confirm.
- Confirm.
- Choose and confirm.

Execute test:

Confirm to start pingung.
 The result appears on the display after a few seconds.

or PING change target:

- Choose and confirm.
- Enter IP address (to edit see → page 93).
- Confirm. The change is displayed.

 On changing the IP addresses of the entries "02=..." to "09=..." the IP addresses actually entered in the optiPoint 410/420 are changed. This can lead to the limiting of functions.

Step by Step

▶ **08=Line test?** >

Off? >

or

▶ **On?** >

Line Status

For detailed information see → page 72.

Enter "Administration Menu" and go to the Diagnostics Menu → page 20.

Choose and confirm.

Confirm.

Choose and confirm.

The change is displayed.

SLK Test

For detailed information see → page 77.



„SLK Test“ is executable only for optiPoint 420 telephones.

Enter "Administration Menu" and go to the Diagnostics Menu → page 20.

▶ **09=SLK test?** >

Choose and confirm.

Displaytest is running.

Press tick to stop it >

Choose and confirm.

Displaytest finished.

Step by Step

No IP address

Error Messages

No IP address

The DHCP server cannot assign any terminal IP address
→ page 80.

Possible solution:

Check the DHCP server.

No Network

No LAN connection

The telephone is unable to find a network.

Possible solution:

Check the network cable.

No System

No valid registration password

The PBX No. → page 65, Participant No. → page 79,
and/or the participant password → page 79 are invalid.

Possible solution:

Change the Gateway address → page 65.

Change the Participant No. → page 79.

Change the participant password → page 79.

Error:
<Error string>

FTP error message

Error during file upload/download:

An error occurred during data transfer. An appropriate
error message can be viewed in the display.

FTP parameter missing
EXIT?

Not all necessary FTP parameters are set.

Possible solution:

Enter the FTP account name → page 64.

Enter the FTP password → page 64.

Enter the FTP username → page 65.

TBD

VoIP security Fehlermeldung

The → PSS key is no longer valid.

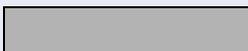
Step by Step

No Database

PABX not found

Client not registered

Reject cause unknown



Other error messages

The connection or login to the database failed.

No IP connection to the gateway.

The telephone is not correctly furnished to the PABX.

No client licenses exist in the gateway.

(Empty display) No connection to the power supply
→ page 12.

Step by Step

optiPoint 410 entry

After integrating the optiPoint 410 entry into your network successfully → page 16, you can make all other settings through the "Web-based Management Tool" → page 42.

Entering the administration area



If you are in the administration area, you cannot reach the optiPoint 410 entry ("offline").

All configuration and diagnostic operations are protected against illegal accesses by the Administrator password.

1 0 3

Press keys **simultaneously** to enter "administration area".



Enter admin password (default: **123456**).



Terminate the operation.

You are now in the administration area (all LEDs flash).

View settings

You can make the system display the important settings of your optiPoint 410 entry.

Making changes in the administration area (see above).



Press the 2nd function key from the top.



Enter the 2-digit code (Table → page 103) for the desired function.



Confirm the entry.

The settings are displayed through different illuminations of the LEDs. The table on → page 100 describes the meaning of the LEDs.

Step by Step

Restart

Web-based Management Tool

Reset via the Web-based Management Tool
→ page 42.

1. Open the Dialog „Restart Terminal“
Menu: Administrator Actions > Restart Terminal
2. Click on the button „Restart“

Enter the administration area → page 32.

Function Codes

Making changes in the administration area → page 32.



Press keys **simultaneously**.

Enter the Administrator password
(default: **123456**).

Confirm the entry.

During start-up the LEDs momentarily illuminate in succession.

Step by Step

Reset factory settings



The resetting can lead to the failure of all the functions of the optiPoint 410 entry. Ensure that you have all the necessary information for start up → page 16.

For standard values, see → page 96.

Disconnect the red Western plug of the power supply unit cable (Pos. **3** → page 12) or, if "Power over LAN", disconnect the LAN cable (Pos. **1** → page 12) from the optiPoint 410 entry for a few seconds.

Web-based Management Tool

Reset factory settings via the Web-based Management Tool → page 42.

1. Open the Dialog „Factory Reset.“
Menu: Administrator Actions > Factory Reset
2. Click on the button „Restart.“

Function Codes



Lift handset.



Press keys **simultaneously**.



Enter the reset password (**124816**).



Confirm the entry.



Replace the handset.

Step by Step

LEDs on the phone:

Error Messages

The LEDs flash till you switch to the Administration Mode → page 32.

No IP address



The DHCP server cannot assign a terminal IP address → page 80.



Possible solution

Check the DHCP server.

No terminal screen



The DHCP server cannot assign a terminal screen → page 80.



Possible solution

Check the DHCP server.

No Default Route



The DHCP server cannot assign a default route → page 62.



Possible solution

Check the DHCP server.

No IP Address is set



The DHCP IP assignment → page 62 is switched off and no terminal IP address is configured.



Possible solution

Activate the DHCP IP assignment → page 17.

Enter the terminal IP address → page 17.

Step by Step

No terminal screen is set

☺ The DHCP IP assignment → page 62 is switched off
☺ and no terminal screen is configured.

► Possible solution

► Activate the DHCP IP assignment → page 17.

☺ Enter the terminal IP address → page 17.



No Default Route is set

☺ The DHCP IP assignment → page 62 66 is switched off
☺ and no default route is configured.

► Possible solution

► Activate the DHCP IP assignment → page 17.

☺ Enter the default route eingeben → page 17.



No Participant No. / password

☺ The number → page 79 and/or password → page 79
☺ are not configured.

► Possible solution

► Enter the Participant No. → page 18.

☺ Enter the participant password → page 18.



No network

☺ The telephone cannot find the network.



► Possible solution

► Check the network cable.



Step by Step

No PBX address

☞ No PBX address → page 65 is configured.

Possible solution

☞ Enter the PBX address → page 18.

The PBX does not react

☞ The telephone cannot find the PBX → page 86.

Possible solution

☞ Check the PBX.

Log in failed

☞ The PBX No. → page 65, Participant No. → page 79, and/or the participant password → page 79 are invalid.

Possible solution

☞ Change the PBX address → page 65.

☞ Change the Participant No. → page 79.

☞ Change the participant password → page 79.

Step by Step

optiPoint display module

Firmware Update



Firmware cannot be updated if a Java MIDlet is active (for example, a speed dialing list).

To update your optiPoint display module, perform the following steps:

1. Make sure that an FTP server is available, see → page 89, and that the relevant firmware file is stored on the server.
2. Start the Web-Based Management Tool, see → page 42.
3. Select "Administration" > [password] > "File Transfer", see → page 50.
4. Enter the following parameters:
 - FTP server address, see → page 64
 - FTP account name, see → page 64
 - FTP username, see → page 65
 - DSM filename, see → page 63
5. Select "DSM Filename" from the field "Action on submit", see → page 58.
6. Select "Submit".

LDAP Configuration

The following prerequisites must be fulfilled to use the company telephone directory:

- An LDAP server is available and the server data has been entered in the Web-Based Management Tool, see → page 47.
- For an example of an LDAP template, see → page 70.

Step by Step

Configuring the LDAP Server

Perform the following steps to enter the LDAP server IP address and port number:

1. Start the Web-Based Management Tool, see → page 43.
2. Select "Administration" > [password] > "Applications" > "LDAP", see → page 47.
3. Enter the IP address of the LDAP server, see → page 69.
4. Select "Submit".
5. Select "System" > "Port Settings", see → page 56.
6. Enter the port number for communication with the LDAP server, see → page 69.
7. Select "Submit".

Installing the LDAP Template



A standard template is already installed. You can also install a template that corresponds to your personal criteria. See → page 70 for an example of this template.

Perform the following steps to transfer a template to your optiPoint display module:

1. Make sure that an FTP server is available (see → page 89) and that the relevant template file is stored on the server.
2. Start the Web-Based Management Tool, see → page 43.
3. Select "Administration" > [password] > "File Transfer", see → page 50.
4. Enter the following parameters:
 - FTP server address, see → page 64
 - FTP account name, see → page 64
 - FTP username, see → page 65
 - LDAP template filename, see → page 72
5. Select "Download LDAP template" from the "Action on submit" field, see → page 58.
6. Select "Submit".

Step by Step

optiPoint application module

Firmware Update



Firmware cannot be updated if a Java MIDlet is active (for example, a speed dialing list).

Perform the following steps to update the software on your optiPoint application module:

1. Make sure that an FTP server is available, see → page 89, and that the relevant firmware file is stored on the server.
2. Start the Web-Based Management Tool, see → page 42.
3. Select "Administration" > [password] > "File Transfer", see → page 50.
4. Enter the following parameters:
 - FTP server address, see → page 64
 - FTP account name, see → page 64
 - FTP username, see → page 65
 - DSM filename, see → page 63
5. Select "DSM Filename" from the "Action on submit" list, see → page 58.
6. Select "Submit".

LDAP Configuration

The following prerequisites must be fulfilled to use the company telephone directory:

- An LDAP server is available and the server data has been entered in the Web-Based Management Tool, see → page 47.
- For an example of an LDAP template, see → page 70.

Step by Step

Configuring the LDAP Server

Perform the following steps to enter the LDAP server IP address and port number:

1. Start the Web-Based Management Tool, see → page 43.
2. Select "Administration" > [password] > "Applications" > "LDAP", see → page 47.
3. Enter the IP address of the LDAP server, see → page 69.
4. Select "Submit".
5. Select "System" > "Port Settings", see → page 56.
6. Enter the port number for communication with the LDAP server, see → page 69.
7. Select "Submit".

Installing an LDAP Template



A standard template is already installed. You can also install a template that corresponds to your personal criteria. See → page 70 for an example of this.

Perform the following steps to transfer a template to your optiPoint application module:

1. Make sure that an FTP server is available (see → page 89) and that the relevant template file is stored on the server.
2. Start the Web-Based Management Tool, see → page 43.
3. Select "Administration" > [password] > "File Transfer", see → page 50.
4. Enter the following parameters:
 - FTP server address, see → page 64
 - FTP account name, see → page 64
 - FTP username, see → page 65
 - LDAP template filename, see → page 72
5. Select "Download LDAP template" from the "Action on submit" list, see → page 58.
6. Select "Submit".

Step by Step

Web-based Management Tool

General

The optiPoint 410/420 is equipped with an HTTP web server that permits the mapping of the telephone's content on the web browser of a PC integrated in the LAN ("Web-based Management Tool").



For this, the IP data of the optiPoint 410/420 → page 103 and the PC must be arranged correctly.

The web-based management tool contains the following formula elements:

[Administration](#)

To go to the corresponding page, click on the link.

To take over the changes in the current form, click on the button. This operation transfers the changes to the optiPoint 410/420.

Click on the button to reset the changes in the current form to the earlier values in the optiPoint 410/420.

Click on the button to execute an action (such as "Save", "Download", "Invoke" and "Restart"). A message is displayed if there is an error.

Select an option in the List field.



To activate/deactivate a function, click on the checkbox.

Preparation

Open web-based management tool

To invoke the interface, open a web browser and enter the following URL:

For optiPoint 410/420 economy plus/standard/advance:

https://[IP of the telephone]

For optiPoint 410 entry/economy:

http://[IP of the telephone]

where [IP of the telephone] represents the IP address of the optiPoint 410/420 that you wish to match.

The start page of the web server is displayed (example optiPoint 420 advance).

SIEMENS
optiPoint420Advance

IP address : 192.168.4.208
Tel : 3708

[Home Page Administration User](#)

optiPoint420Advance Home Page

The optiPoint420Advance web server allows the **administrator** to:

- configure the administrator settings
- perform diagnostic tests
- download new software

The optiPoint420Advance web server allows the **user** to:

- change the user password
- download Java midlets
- download a new LDAP template
- import/export the ENB

only available for
optiPoint 410/420 standard/advance

Click on "Administration".

Administrator login

Password:

Login Cancel

Enter the administrator password for this optiPoint 410/420 telephone and click on "Login".

Web-based Management structure

- General Information → page 45
- Administrator Actions
 - Change Administrator Password → page 45
 - Reset User Password
 - Clear Screenlock Password → page 46 ^[1]
 - Clear User Data → page 46 ^[1]
 - Restart Terminal → page 46
 - Restore Factory Settings → page 46
- Applications ^[1]
 - Dialling Properties → page 47 ^[1]
 - Java → page 47 ^[1]
 - LDAP → page 47 ^[1]
 - WAP → page 48 ^[1]
 - WAP Favourites → page 48 ^[1]
 - Miscellaneous → page 48 ^[1]
- Audio → page 49
- Diagnostics → page 49
- File Transfer → page 50
- Network
 - Network and Routing → page 52
 - SNMP Settings → page 53
 - Quality of Service → page 53
 - QoS Data Collection → page 54
 - Network Stack Hardening
- System
 - DLS Settings → page 55
 - Gateway Settings → page 55
 - Port Settings → page 56
 - Port Control → page 56
 - SRSR Settings → page 57
 - Time Settings → page 57
 - VOIP Encryption Settings → page 57^[2]

1 Only for optiPoint 410/420 standard/advance available

2 Only for optiPoint 410/420 economy plus/standard/advance with software version 5.x and higher on HiPath 3000/5000 (version 6.0 and higher) or HiPath 4000 (version 3.0 and higher).

General Information



Click on the required field to see a description for each parameter.

General Information

General information	
MAC address:	08:00:06:2a:51:e5
Application version:	5.0.2.0000 DBG
Web content version:	1.0
Phone identity:	35
Asset identity:	4-22-4-0-1-21
Acoustic filter:	0

Administrator Actions

Change administrator password

Change administrator password	
Current admin password:	<input type="text"/>
New password:	<input type="text"/>
Confirm new password:	<input type="text"/>
<input type="button" value="Submit"/>	<input type="button" value="Reset"/>

Clear screenlock password



Click on the required field to see a description for each parameter.

(Only for optiPoint 410/420 standard/advance available)

Clear screenlock password

This operation will clear the user's screenlock password.

Clear Password

Return to [Home page](#) [Administrator actions](#)

Clear user data

(Only for optiPoint 410/420 standard/advance available)

Clear user data

This operation will clear all user data.

Clear Data

Return to [Home page](#) [Administrator actions](#)

Restart terminal

Restart terminal

This operation will restart the terminal immediately.

Restart

Return to [Home page](#) [Administrator actions](#)

Factory Reset

Factory Reset

Factory reset password:

Submit

Applications

(Only for optiPoint 410/420 standard/advance available)



Click on the required field to see a description for each parameter.

Dialling Properties

(Only for optiPoint 410/420 standard/advance available)

Dialling Properties	
External Access Code:	<input type="text" value="9"/>
International Dial Prefix:	<input type="text" value="00"/>
Local Country Code:	<input type="text" value="44"/>
National Dial Prefix:	<input type="text" value="0"/>
Local Area Code:	<input type="text" value="115"/>
Local District Code:	<input type="text" value="943"/>
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

Java HTTP Settings

(Only for optiPoint 410/420 standard/advance available)

Java HTTP Settings	
HTTP gateway/proxy address:	<input type="text" value="0.0.0.0"/>
Port number:	<input type="text" value="9200"/>
Username:	<input type="text"/>
New password:	<input type="text"/>
Confirm new password:	<input type="text"/>
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

LDAP settings

(Only for optiPoint 410/420 standard/advance available)

LDAP settings	
LDAP server address:	<input type="text" value="0.0.0.0"/>
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

WAP gateway



Click on the required field to see a description for each parameter.

(Only for optiPoint 410/420 standard/advance available)

WAP gateway

Gateway address:

Connection type:

Username:

New password:

Confirm new password:

Home page:

WAP Favourites

(Only for optiPoint 410/420 standard/advance available)

WAP Favourites

Favourites: Title:

URL:

Miscellaneous

(Only for optiPoint 410/420 standard/advance available)

Miscellaneous

Help Internet URL:

Language:

USB keyboard:

Audio

 Click on the required field to see a description for each parameter.

Audio settings

Audio Settings

	Home	Standby
Codec:	Low bandwidth only	High quality preferred
Preferred compression:	G.729	G.729
Silence suppression:	<input type="checkbox"/>	<input type="checkbox"/>
Packet size:	Auto	Auto
G722 codec:	<input checked="" type="checkbox"/>	
<input type="button" value="Submit"/> <input type="button" value="Reset"/>		

Diagnostics

 Click on the required field to see a description for each parameter.

Diagnostic Tests

Diagnostic Tests

Select which tests to invoke:

Ping:

RAM test

ROM test

This page will be reloaded with the updated test results after the tests have been invoked.

Test results

Test results

Ping: Address pinged: 0.0.0.0
Result: OK

RAM test: Result: NONE

ROM test: Result: NONE

File transfer



Click on the required field to see a description for each parameter.

File Transfer (optiPoint 410/420 standard/advance)

File Transfer

FTP server address:

FTP account name:

FTP username:

New FTP password:

Confirm new FTP password:

Application filename:

DSM filename:

LDAP template filename:

Java midlet filename:

ENB filename:

Use main FTP settings:

Use LDAP FTP settings: [Configure](#)

Use Java FTP settings: [Configure](#)

Use ENB FTP settings: [Configure](#)

Action on submit: ▾

LDAP FTP Settings

(Only for optiPoint 410/420 standard/advance available)

LDAP FTP Settings

FTP server address:

FTP account name:

FTP username:

New FTP password:

Confirm new FTP password:

Java FTP Settings

(Only for optiPoint 410/420 standard/advance available)

Java FTP Settings

FTP server address:

FTP account name:

FTP username:

New FTP password:

Confirm new FTP password:

ENB FTP Settings

(Only for optiPoint 410/420 standard/advance available)

ENB FTP Settings

FTP server address:

FTP account name:

FTP username:

New FTP password:

Confirm new FTP password:

File Transfer (optiPoint 410/420 entry/economy/economy plus)

File Transfer

FTP server address:

FTP account name:

FTP username:

New FTP password:

Confirm new FTP password:

Application filename:

Action on submit: ▼

Network



Click on the required field to see a description for each parameter.

Network and Routing

(LAN Port 2 Mode only for optiPoint 410/420 economy plus/standard/advance available)

Network and Routing

DHCP:

Terminal IP address:

Terminal mask:

DNS addresses:

Domain Name:

VLAN Method:

Default VLAN ID:

IP Routing:

Default Route:

Route 1: Route 2:

Gateway 1: Gateway 2:

Mask 1: Mask 2:

Lan Port Settings:

Lan Port 1 Mode:

Lan Port 2 Mode:

Quality of Service (QoS)



Click on the required field to see a description for each parameter.

Quality of Service (QoS)		
	Home	Standby
Layer 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Layer 2 voice	<input type="text" value="5"/>	<input type="text" value="0"/>
Layer 2 signalling	<input type="text" value="5"/>	<input type="text" value="0"/>
Layer 2 default	<input type="text" value="0"/>	<input type="text" value="0"/>
Layer 3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Layer 3 voice	<input type="text" value="46"/>	<input type="text" value="0"/>
Layer 3 signalling	<input type="text" value="26"/>	<input type="text" value="0"/>
<input type="button" value="Submit"/> <input type="button" value="Reset"/>		

SNMP settings

SNMP settings	
SNMP active:	<input type="checkbox"/>
Trap server address:	<input type="text" value="0.0.0.0"/>
New password:	<input type="text"/>
Confirm new password:	<input type="text"/>
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

QoS Data Collection



Click on the required field to see a description for each parameter.

QoS Data Collection

QCU home address:

QCU standby address:

QoS protocol version:

Report mode:

Report interval:

Observation interval:

Minimal session length:

Jitter buffer mode:

Jitter buffer size:

Codec Independent Threshold Values

Max jitter threshold:

Avg round trip delay threshold:

Non-compressing Codec Threshold Values

Lost packet thresholds:

Consecutive lost packets:

Consecutive good packets:

Compressing Codec Threshold Values

Lost packet thresholds:

Consecutive lost packets:

Consecutive good packets:

Session data: [Click here](#)

System

 Click on the required field to see a description for each parameter.

DLS Settings

DLS Settings	
DLS server address:	<input type="text" value="0.0.0.0"/>
<input type="button" value="Submit"/>	<input type="button" value="Reset"/>

Gateway settings

Gateway settings		
	Home	Standby
System type:	HiPath 4000 V2	HiPath 4000 V1
Gateway address:	<input type="text" value="192.168.4.32"/>	<input type="text" value="0.0.0.0"/>
Gateway port:	<input type="text" value="4060"/>	<input type="text" value="4060"/>
Security setting:	<input type="text" value="None"/>	<input type="text" value="None"/>
Registration subscriber number:	<input type="text" value="3708"/>	<input type="text"/>
Fully qualified subscriber number:	<input type="text"/>	<input type="text"/>
Time window:	<input type="text" value="180"/>	<input type="text" value="180"/>
New subscriber password:	<input type="password" value=""/>	<input type="password" value=""/>
Confirm subscriber password:	<input type="password" value=""/>	<input type="password" value=""/>
Emergency number:	<input type="text"/>	<input type="text"/>
Location identifier number:	<input type="text"/>	<input type="text"/>
Cancel mobility password:	<input type="password" value=""/>	<input type="password" value=""/>
Confirm cancel mobility password:	<input type="password" value=""/>	<input type="password" value=""/>
<input type="button" value="Submit"/>	<input type="button" value="Reset"/>	

Port Settings



Click on the required field to see a description for each parameter.

Port Settings		
	Home	Standby
H.225.0 RAS	<input type="text" value="1720"/>	<input type="text" value="1720"/>
H.225.0 call signalling	<input type="text" value="1720"/>	<input type="text" value="1720"/>
H.245 TCP channel	<input type="text" value="1720"/>	<input type="text" value="1720"/>
RTP port base	<input type="text" value="5004"/>	<input type="text" value="5010"/>
HTTP	<input type="text" value="8085"/>	<input type="text" value="8085"/>
HTTPS	<input type="text" value="443"/>	<input type="text" value="443"/>
LDAP	<input type="text" value="389"/>	<input type="text" value="389"/>
Service agent request	<input type="text" value="5100"/>	<input type="text" value="5100"/>
QDC server	<input type="text" value="12010"/>	<input type="text" value="12010"/>
DLS	<input type="text" value="18443"/>	<input type="text" value="18443"/>
Java Gateway	<input type="text" value="9200"/>	<input type="text" value="9200"/>
WAP	<input type="text" value="9200"/>	<input type="text" value="9200"/>

Port Control

Port Control	
Service Agent:	<input type="checkbox"/>
Probe Interface:	<input type="checkbox"/>
Test Interface:	<input type="checkbox"/>
CTI:	<input type="checkbox"/>
Resource Sharing:	<input type="checkbox"/>
Debug Interface:	<input checked="" type="checkbox"/>
WBM Interface:	<input checked="" type="checkbox"/>
SNMP:	<input type="checkbox"/>

SRSR Settings

 Click on the required field to see a description for each parameter.

SRSR settings

SRSR enabled:

Automatic switch back:

Switch to home retry count:

Switch to home expiry timeout:

Switch to standby retry count:

Switch to standby expiry timeout:

TC_TEST retry count:

TC_TEST expiry timeout:

Time Settings

Time Settings

Time source:

Default SNTP IP:

Timezone offset: seconds

Daylight saving:

VOIP Encryption Settings

Only for optiPoint 410/420 economy plus/standard/advance with software version 5.x and higher on HiPath 3000/5000 (version 6.0 and higher) or Hi-Path 4000 (version 3.0 and higher).

VOIP Encryption Settings		
	Current	Future
Security Mode:	Encryption preferred	Encryption preferred
Activation Date/Time:	THU MAY 19 09:25:00 2005	THU JAN 01 00:00:00 1970

Alphabetical Reference

This glossary offers basic information that can be used by the administrator to carry out configuration- and diagnostics-related jobs in the optiPoint 410/420.

- The Chapter "Description of functions" explains alphabetically sorted terms that, for instance, you will encounter in the menus.
The symbols lead to the concerned operational sequence descriptions:
 -  Operating the optiPoint 410/420 economy/economy plus/standard/advance
 -  Operating the optiPoint 410 entry
 -  Operating with the help of the web-based management tool
- This is followed by the Chapter "Abbreviations and Specialized Terms".

Description of functions

You will find more information in the relevant literature on the topics "Network Technology" and "→ VoIP".

Action On Submit

- You can select, whether an action will be executed by clicking on "Submit". Available actions:
 - None (no action will be executed)
 - Download application → Application Filename
 - Download DSM → DSM Filename
 - Download LDAP template → LDAP Template Filename
 - Download Java midlet → Java Midlet Filename
 - Import ENB → ENB Filename
 - Export ENB → ENB Filename
- The following parameters have to be setup before download:
 - Name of download file
 - → FTP Server Address
 - → FTP Account Name
 - → FTP Username, → FTP Password

 → page 50

Acoustic Filter

- Displays informations about the used acoustic filter.
- Standard value → page 96.

 → page 45

Administration Password

- Here you can change the password that is necessary for accessing the administrator area.
- Valid values: Numeric
- Minimum length: 6 (for more information, see → Password Functions)
- Maximum length: 9
- Standard value: 123456

 → page 45

Application Filename

- Specify the name of the file containing the software of the optiPoint 410/420.
- The file must exist in a defined directory on the → FTP server → FTP Server Address.
- Valid values: 1 ... 24 characters
- Standard name → page 96.
- Download file → Action On Submit.

 → page 50

Application Version

- Displays the version of the telephone SW. It contains informations about the functional range of the optiPoint 410/420 and could change by executing an update of the telephone SW (→ Application Filename).

 → page 45

Asset Identity

- Displays Informations about the → Properties of the Telephone Models.

 → page 45

Audio Loop Test

- The test activates the microphone and the loudspeaker in the handset.
- You can check these components by speaking and listening.

 → page 26

Cancel Mobility Password

- If the subscriber number of the "guest telephone" was not logged off, this can be done on the "home telephone" after entering this password.
- Valid values: Alphanumerical
- Minimum length: 6 (for more information, see → Password Functions)
- Maximum length: 20

 → page 55

Clear Screenlock Password

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Herewith the user password will be reset.

 → page 46

Clear User Data

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- With this function you can delete all the entries made by the user in the optiPoint 410/420.

 → page 46

Codec

- Here you can select the audio transfer principle that should be used.

Codec	Audio Mode	Use of
High quality preferred	Uncompressed audio transmission	Uncompressed audio transmission use (→ G.711). Suitable for broadband Internet connections.
Low bandwidth preferred	Use preferred compressed audio transmission.	Suitable for connections with different bandwidths.
Low bandwidth only	Use compressed audio transmission exclusively.	Suitable for connections with low bandwidth.

- Standard value → page 96.

 → page 49

Codec Independent Threshold Values

- Max jitter threshold (in ms): The jitter will be compared with this threshold. The jitter will be measured between two consecutive RTP packages.
 - Valid values: 1 ... 255.
 - Standard value → page 96.
- Avg round trip delay threshold (in ms): Round Trip Delay is the summary of the delays in both directions.
 - Valid values: 1 ... 65535.
 - Standard value → page 96.

 → page 54

Compression

- Chose the compression mode which has to be used, if → Codec „Lo-Band“ was selected (→ G.723 oder → G.729).
- Standard value → page 96.

 → page 49

Compressing Codec Threshold Values

- Packed → Codec
- Lost packet thresholds [in Promille]: Packets which got lost for voice decoding. This value is the proportion from lost packets to total number of packets.
 - Valid values: 1 ... 255
 - Standard value → page 96.
- Consecutive lost packets [in Packets]: the lost packets in serial between two good packets will be counted. If the amount of the counted packets is higher than the entered value the threshold will be exceeded.
 - Valid values: 1 ... 255
 - Standard value → page 96.
- Consecutive good packets (aufeinanderfolgend verarbeitete Pakete [in Paketen]): the good packets in serial between two bad packets will be counted. If the amount of the counted packets is lower than the entered value the threshold will be exceeded.
 - Valid values: 1 ... 255
 - Standard value → page 96.

 → page 54

Daylight saving

- This entry is only required if you selected "SNTP" in the → Time Source field.
- Activate this field if you want the clock on your telephone to automatically switch between daylight saving and standard time.

 → page 57

Debug Interface

- Only necessary for development. However, this function can be used for debugging customer systems in an emergency.
- If this field is activated, the WindRiver Tornado debugger contacts the telephone and allows the software to be debugged.

 → page 56

Default Route

- Enter the → IP address that was assigned to your → PBX if no → DHCP server assigns this value dynamically.
- If the value was assigned dynamically, it can only be read.
- A restart is necessary after the change.
- Standard value → page 96.
- IP editor in the optiPoint 410/420 → page 93.

 → page 22  → page 17  → page 52

Default SNTP IP

- This entry is only required if you selected "SNTP" in the → Time Source field.
- Enter the → IP address of the → SNTP server.

 → page 57

Default VLAN ID

- Can be defined only if the → Layer 2 support is activated → QoS L2/L3.
- Enter a value from 0 to 4095 here. This value describes the association with a certain VLAN, if a → VLAN is used.

 → page 22  → page 17  → page 52

DHCP

- Activate this option if the required IP data of the telephone should be assigned dynamically by a → DHCP server.
- If no DHCP server is available in the IP network, please deactivate this option. In this case, the data corresponding to the → Terminal IP Address, → Terminal Mask and → Default Route must be defined manually.
- A restart is necessary after the change.
- Standard value → page 96.

 → page 21  → page 17  → page 52

Display Test

- Conduct this test to check the function of the → LCD display in the Display telephone.
- Different display contents are displayed with the  and  keys.

 → page 25

DLS Server Port

- Enter the → Port-Number for communication with the → DLS-Server .

 → page 56

DLS Server Address

- Enter the → IP address of the → DLS-Server.

 → page 55

DNS Addresses

- Enter the → IP address of the → DNS server here only if no → DHCP server assigns this value dynamically (→ DHCP) and the optiPoint 410/420 is operated on a → PBX through → HFA.
- Standard address → page 96.
- IP editor in optiPoint 410/420 → page 93.

 → page 52

Domain Name

- Enter the name of the associated domain only if the optiPoint 410/420 is not operated in a → PBX through → HFA.
- Standard name → page 96.
- Text editor in optiPoint 410/420 → page 95.

 → page 52

DSM Filename

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the name of the file containing the software of the display module or application module.
- The file must exist in a defined directory on the → FTP server (→ FTP Server Address).
- Valid values: 1 ... 24 characters
- Standard name → page 96.
- Download file → Action On Submit.

 → page 50

External Access Code

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Specify the number that must be prefixed to access an external telephone number , e.g., "0".
- Standard value → page 96.
- Number editor in optiPoint 410/420 → page 93.

 → page 47

ENB Filename

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the name of the ENB template file if an → ENB-Server is used.
- The file must be available on the → FTP-Server in a defined folder (→ FTP Server Address).
- Standard-Name → page 96.
- Download file → Action On Submit.

 → page 50

Emergency Number

- Parameter for use in US only.
- Enter the telephone number which automatically shall be dialed after 1 second.

 → page 55

Factory Reset

- With this function you can reset all administration parameters to the original settings at the time of delivery.

 Resetting can lead to the failure of all functions of the optiPoint 410/420. Ensure that you have all the information necessary for the start up → page 14.

- Valid values: Alphanumeric
- Minimum length: 6
- Maximum length: 6
- Standard value: 124816

 → page 34  → page 46

FTP Account Name

- Valid values: 1 ... 24 characters
- Standard value → page 96.
- Text editor in optiPoint 410/420 → page 95.

 → page 50

FTP Password

- Enter the password defined in the → FTP server as password for accessing this server.
- The password must match the → FTP Username.
- Valid values: Alphanumeric
- Minimum length: 1 Zeichen (for more information, see → Password Functions)
- Maximum length: 24 Zeichen
- Standard Password: 123abc

 → page 50

FTP Server Address

- Enter the → IP address of the → FTP-Server for executing Up- und Downloads of files from or to the optiPoint 410/420.
- Standard value → page 96.

 → page 50

FTP Settings

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Displays the location of the download file via the regarding → FTP-Server.
- Following servers are available:
 - Use main FTP Settings
 - Use → LDAP FTP Settings
 - Use Java FTP Settings
 - Use → ENB FTP Settings

 → page 50

FTP Username

- Enter the name defined in the → FTP server as user for accessing the server.
- The name must match the → FTP Password.
- Valid values: 1 ... 24 characters.
- Standard name → page 96.

 → page 50

G722 codec

- Only required if the → Codec „High quality preferred“ will be used.
- Compression → G.722 with best quality of the voice transmission.
- This compression procedure is only possible between optiPoint Work-points.

 → page 49

Gateway Address

- Enter the → IP address of the → PBX which operates with the optiPoint 410/420.

 → page 55

Gateway Port

- Enter the → Port-Number for communication with the → Gateway-Server ein.

 → page 55

H.225.0 RAS

- Enter the → Port-Number for transfer of H.225.0 RAS .
- Use: Registry and approval for → VoIP.
- Standard value → page 96.

 → page 56

H.225.0 Call Signalling

- Enter the → Port-Number for transfer of H.225.0 Call Signalling .
- Use: control of connection for → VoIP.
- Standard value → page 96.

 → page 56

H.245 TCP Channel

- Enter the → Port-Number for transfer of H.245 TCP Channel .
- Standard value → page 96.

 → page 56

Help Internet URL

- Can be configured only for the optiPoint 410 standard/advance and optiPoint 420 advance.
- Enter the domain name of the server that provides the online help for the optiPoint 410/420 on the Internet here.
- Standard name → page 96.

 → page 48

HTTP Gateway/Proxy Address

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the adresse of the Proxy-Server.

 → page 47

HTTP Password

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the password according to the password stored in the → FTP-Server for accessing the FTP server.
- The password has to be applicable with the → HTTP Username.
- Valid values: 1 ... 24 characters.
- Standard-Password → page 96.

 → page 47

HTTP Port Number

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the → Port-Number for communication with the → HTTP-Server if used.
- Valid values: 1 ... 65535.

 → page 47 and  → page 56

HTTPS

- Enter the → Port-Number for communication with the HTTPS-Server (HTTP with SSL-encryption).

 → page 56

HTTP Username

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the name according to the user name stored in the → FTP-Server for accessing the FTP server.
- The name has to be applicable with the → HTTP Password.
- Valid values: 1 ... 24 characters.
- Standard-Name → page 96.

 → page 47

International Dial Prefix

- Can be configured only for the optiPoint 410 standard/advance and optiPoint 420 advance.
- Specify the number that must be prefixed while dialling an international telephone number, e.g., "00".
- Standard value → page 96.

 → page 47

IP Routing

- To have constant access to network subscribers of other domains, you can enter a total of two more network destinations.
- An → IP address of the domain and gateway, and a → Subnet Mask must be entered for each further domain you wish to use.
- Standard values → page 96.

 → page 52

Java Gateway

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the → Port-Nummer for communication with the → WAP-Server if used.
- Standard value → page 96.

 → page 56

Java Midlet Filename

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Java Midlets are small applications (e. g. games or clock) for use with the display module or application module.
- The file must be available on the → FTP-Server in a defined folder (→ FTP Server Address).
- Standard-Name → page 96.
- Download file → Action On Submit

 → page 50

Jitter Buffer

- Select the duration of the intermediate storage here (number of data packets) that changes the effect of the → Jitter.

Short	2 packets
Medium	4 packets
Long	6 packets

- The more stable the network connection, the shorter the selected buffer time (less voice delay).
- Depending on the frequency at which the data packets are sent by the terminal devices (e.g., 20 ms or 120 ms), this setting has a markedly different effect.
- Standard value → page 96.

 → page 54

Key Test

- Test to check the functions of the telephone keys.
- If you press a function key, the associated LED glows.
- In display telephones, the corresponding name is displayed in the → LCD display when you press a key (exception: terminates the test).

 → page 26

L2 Default

- This parameter describes the QoS values of each package which is neither a voice nor a signalling package.
- Standard value → page 96.

 → page 53

L2/L3 Voice/Signalling

- Can be defined only if the → Layer 3 support is activated (→ QoS L2/L3). The value describes in each case the place in the value of → Layer 2.
- Valid values: 0 ... 63.
- Standard values → page 96.

 → page 53

LAN Port Settings

- Here you must define the bandwidth at which the optiPoint 410/420 should be run. The required value depends on the bandwidth that the switch or router supports in the network.

Bandwidth	Possible application
Auto	in standard case
10/Full	in 100 Mbit networks in full duplex ^[1] process
10/Half	in 10 Mbit networks with half duplex ^[2] process
100/Full	in 100 Mbit networks in full duplex ^[1] process
100/Half	in 10 Mbit networks with half duplex ^[2] process

[1] Up to a date, the data can be simultaneously transmitted and received.

[2] Up to a date, the data can only be transmitted or received.

- A restart is necessary after the change.

 → page 23  → page 52

Language

- Configurable on optiPoint 410/420 standard/advance only.
- Select the language that should be used for local applications here.
- Available languages: English, German, French, Italian, Spanish, Portuguese, Dutch.
- Standard value → page 96.

 → page 48

LDAP Server IP Address

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- If an → LDAP server is being used, enter the → IP address of this server here.

 → page 47

LDAP server Port

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- If an → LDAP server is being used, enter the → Port number here for communication with this server.
- Valid values: 1 ... 65535.

 → page 47 and  → page 56

LDAP template example

Template-String	declaration
SEARCHBASE "O=SIEMENS COMM, C=GB"	organisation and specification of country
SEARCHFILTER1 = "surnameNational,Surname"	search criterion (fast and advanced)
SEARCHFILTER2 = "givenNameNational,First-name"	search criterion (fast and advanced)
SEARCHFILTER3 = "department,Department"	search criterion (advanced)
SEARCHFILTER4 = "localityShortCode,Location"	search criterion (advanced)
SEARCHFILTER5 = "ou,Org. Unit"	search criterion (advanced)
SEARCHATTRIB1 = "commonNameNational,Name,0"	cannot be selected
SEARCHATTRIB2 = "telephoneNumber,Telephone,1"	selectable field
SEARCHATTRIB3 = "alternatePhone,Telephone 2,1"	selectable field
SEARCHATTRIB4 = "mobileTelephoneNumber,Mobile,1"	selectable field
SEARCHATTRIB5 = "ou,Organisational Unit,0"	non-selectable field
SEARCHATTRIB6 = "localityNational,Location,0"	non-selectable field
SEARCHATTRIB7 = "department,Department,0"	non-selectable field
SEARCHATTRIB8 = "mainFunction,Function,0"	non-selectable field

Example for assumption (Copy & Paste)

optiPoint 410 LDAP TEMPLATE (V1)

SEARCHBASE "O=SIEMENS COMM, C=GB"

SEARCHFILTER1 = "surnameNational,Surname"

SEARCHFILTER2 = "givenNameNational,First-name"

SEARCHFILTER3 = "department,Department"

SEARCHFILTER4 = "localityShortCode,Location"

SEARCHFILTER5 = "ou,Org. Unit"

SEARCHATTRIB1 = "commonNameNational,Name,0"

SEARCHATTRIB2 = "telephoneNumber,Telephone,1"

SEARCHATTRIB3 = "alternatePhone,Telephone 2,1"

SEARCHATTRIB4 = "mobileTelephoneNumber,Mobile,1"

SEARCHATTRIB5 = "ou,Organisational Unit,0"

SEARCHATTRIB6 = "localityNational,Location,0"

SEARCHATTRIB7 = "department,Department,0"

SEARCHATTRIB8 = "mainFunction,Function,0"

EOF

Syntax of the LDAP template file

Examples of Searchbase:

SEARCHBASE = "" for no restriction

SEARCHBASE = "C=DE" for the **C**ountry "Germany"

SEARCHBASE = "O=SIEMENS,C=DE"

for the **O**rganisation "Siemens"

in the **C**ountry "Germany"

Search Filter:

SEARCHFILTER# = "LDAP name¹,Prompt²"

Search filters can be used up to five. Search filter 1 and 2 are used for the fast search, search filter 1 to 5 are used for the advanced search. All search filters are linked together by an "AND".

Search Attribute:

SEARCHATTRIB# = "LDAP name¹,description³,[1|0]⁴"

Search attributes can be used up to eight.

Contents of the field "SEARCHATTRIB1" are displayed in the result list.

-
- 1 The attribute name as defined in the data base which can be scanned.
 - 2 The designation of the input field in the display of the optiPoint 410/420, assigned to the search field "LDAP name".
 - 3 The designation of the result field in the display of the optiPoint 410/420, assigned to "LDAP name".
 - 4 1 = The field contains a dialable number.
0 = The field contains a non-dialable value.
If 1 is used, then a dial button is set beside this field and the number can be dialed.

LDAP Template Filename

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- If an → LDAP server is used, enter the name of the LDAP template file that is used in connection with this server.
- The file must exist in a defined directory on the → FTP server (→ FTP Server Address).
- Standard name → page 96.
- Datei downloaden → Action On Submit

 → page 50

LED Test

- Conduct this test to check the function of the → LED in the optiPoint 410/420 zu prüfen.
- All the LEDs blink during the test.

 → page 25

Line Status

- Activate the display to view the functions and values used to run the → LAN connections in the optiPoint 410/420.
- Bit rate, activity, half / full duplex, as well as the status of the used network or the manual setting in the optiPoint 410/420.
- The display takes place through the → LEDs of the right row:

Port ^[1]	Function	LEDs on optiPoint 410/420 (right row)				
PC	Activity	LED1	▶	Not Active	▷	Active
	Speed	LED2	▶	10 Mbit/s	▷	100 Mbit/s
	Duplex	LED3	▶	Half-Duplex	▷	Full-Duplex
	(no function)	LED4	▶	-	▷	-
LAN	Activity	LED5	▶	Not Active	▷	Active
	Speed	LED6	▶	10 Mbit/s	▷	100 Mbit/s
	Duplex	LED7	▶	Half-Duplex	▷	Full-Duplex
	(no function)	LED8	▶	-	▷	-

[1] See → page 12.

- The status monitor remains active even during the normal operation of the optiPoint 410/420. However, it does not affect the operation of the function keys.

 → page 28

Local Area Code

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Specify the local area code of your company here, e.g., "89" for Munich.
- Canonical format → page 83.
- Standard value → page 96.

 → page 47

Local Country Code

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Canonical format → page 83.

 → page 47

Local District Code

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Specify the number of the local district of your company here, (the telephone number without the branch numbers, e.g., "722").
- Canonical format → page 83.
- Standard value → page 96.

 → page 47

Location Identifier

- Enter the number of the telephone stored on the server. The number automatically will be entered into the optiPoint 410/420 and shown in the Display (also called Local ID). If no name available the Location Identifier Number (LIN) will be displayed.

 → page 55

MAC Address

- Displays the → MAC address of a network terminal device (e.g., the optiPoint 410/420).

 → page 45

MIB-II Error Count

- Displays the number of error messages according to → MIB.
- The used MIB objects are:

MIB-Objects	Explanation
ifInDiscards	Discarded ingoing packets
ifInErrors	Non-valid ingoing packets
ifOutDiscards	Discarded outgoing packets
ifOutErrors	Non-valid outgoing packets

 → page 49

Minimal Session Length

- for QDC (QoS Data Collection)
- Standard value → page 96.

 → page 54

National Dial Prefix

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Canonical format → page 83.

 → page 47

Non-Compressing Codec Threshold Values

- Non-Packed → Codec
- Explanation → page 61.

 → page 54

Observation Interval

- For each observation intervall a threshold exceeding will be checked.
- Standard value → page 96.

 → page 54

Packet Size

- The packet size will be expressed in time units. Available are the values Auto, 10 ms und 20 ms.
- Standard value → page 96.

 → page 49

Phone Identity

- Displays the Phone Identity of the optiPoint 410/420.

 → page 45

PING Test

- Conduct a → PING test to check whether a server or another terminal device (e.g., the optiPoint 410/420) can be reached in the network.
Available Addresses:
 - User specified IP
 - Gateway address
 - Default route
 - Route 1 Gateway
 - Route 2 Gateway
 - SNMP address
 - DLS address
 - QCU address
- For this, enter an → IP address as the test target, the connection to which you wish to test.

 → page 27  → page 49

QCU Home Address

- Enter the → IP address of the QCU-Server on which the QoS-Data have to be reported.
- Standard value → page 96.

 → page 54

QCU Standby Address

- Only available when using a second communication platform.
- Enter the → IP address of the QCU-Server on which the QoS-Data have to be reported during emergency mode.

 → page 54

QDC Server

- Enter the → Port-Number for communication with the QDC-Server.
- Standard value → page 96.

 → page 56

QoS L2/L3

- The settings relate to the → Layer 2 and → Layer 3 areas of the → QoS, that regulate the prioritisation of the transferred data.
- For Layer 2, the → VLAN Method and the → Default VLAN ID can be changed. For Layer 3, the → L2/L3 Voice/Signalling can be changed.
- The activation of Layer 2 and / or Layer 3 support is meaningful only if the used → Switch can interpret this information (e.g., "Layer 2 Switch").
- Standard value → page 96.

 → page 23  → page 53

QoS Protocol Version

- The Version Number gives information regarding the actuality of the QoS report file (read only).

 → page 54

RAM Test

- Here you can test the → RAM memory of your optiPoint 410/420.
- The results are displayed after the test is over.

 → page 26  → page 49

Report Interval

- Time interval (in sec.) in reports are sent.
- For each Report Interval a QoS report will be sent if the → Report Mode was set accordingly.
- Valid values: 10 ... 3600.
- Standard value → page 96.

 → page 54

Report Mode

- Choose the according Report Mode:
 - 1: A report will be sent at the end of a session when the threshold was reached.
 - 2: A report will be sent within each → Report Interval when the threshold was reached.
 - 3: A report allways will be sent at the end of a session.
 - 4: A report allways will be sent within each → Report Interval.

 → page 54

Restart Terminal

- Executes the restart of the optiPoint 410/420.

 → page 46

ROM Test

- You can test the → ROM memory of your optiPoint 410/420.
- The results are displayed after the test is over.

 → page 26  → page 49

RTP Port Base

- Use: Transfer of voice packets at → VoIP.
- Enter the → Port-Number for transfer of the → RTP Port Base.

 → page 56

Service Agent

- Different PC applications contact the telephone via the Service Agent interface. The interface is used to determine which ports are utilized for further communication by these applications. Services dependent on an interface cannot be accessed if the interface is deactivated.
- The following ports can only be activated if the service agent is activated:
 - Probe Interface: This port is required for error searches in customer systems (test interface). It allows external feedback suggestions from messages to be entered in telephones thus enabling different scenarios to be tested.
 - Test Interface: This function permits automatic regression tests. Key-strokes can be simulated and displays or audio statuses can be read out.
 - CTI: This function provides classic dialing assistance (for example, via Windows dialing aid application).
 - Resource Sharing: The PC mouse and keys can be used to control telephone applications (for example, DSM).

 → page 56

Service Agent Request

- Enter the → Port-Number for transfer of the Service Agent Requests.

 → page 56

Security Setting

- Select the designated value from the list for the security setting for the → Gateway.

 → page 55

Silence Suppression

- With this switch you can define whether the suppression of background noise should be activated during silence (no conversation).
- Standard value → page 96.

 → page 49

SLK Test

- Configurable on optiPoint 420 only.
- Execute this test to check the → SLK Display.

 → page 28

SNMP

- Activate this field to deactivate read access to telephone data (for example, the device type can no longer be read via SNMP). The SNMP traps sent by a telephone are not affected by this.

 → page 56

SNMP Active

- Activate the checkbox to run the → SNMP report.

 → page 53

SNMP Password

- Specify the password that was defined in the → SNMP server as the password for accessing this server.
- Valid values: Alphanumeric
- Minimum length: 1 (for more information, see → Password Functions)
- Maximum length: 24
- Standard value: Public

 → page 53

SNMP Server Address

- If an → SNMP server exists in the network, enter the → IP address of this server here.
- Standard address → page 96.

 → page 53

SNMP Trap Port

- Define the → Port here through which the → SNMP error messages should be transmitted.

 → page 53

SRSR Automatic Switch Back

- Activate this checkbox for executing automatical change between standby mode (emergency mode) and home mode (standard mode) of the communication platform.

 → page 57

SRSR Enabled

- Activate this checkbox if two communication platforms are used (Main-PBX und Standby-PBX).
- → Gateway Address and → Subscriber Number of the Standby → PBX must be entered → page 55.

 → page 57

SRSR Switch To Home Expiry Timeout

- Required waiting time for change from standby mode (emergency mode) to home mode (standard mode). During this time a switch over is not possible.
- Valid values: 1 ... 255.
- Standard value → page 96.

 → page 57

SRSR Switch To Home Retry Count

- Maximum number of negative attempts for switching over from home mode (standard mode) to standby mode (emergency mode).
- Valid values: 1 ... 255.
- Standard value → page 96.

 → page 57

SRSR Switch To Standby Expiry Timeout

- Required waiting time for change from home mode (standard mode) to standby mode (emergency mode). During this time a switch over is not possible.
- Valid values: 1 ... 255.
- Standard value → page 96.

 → page 57

SRSR Switch To Standby Retry Count

- Maximum number of negative attempts for switching over to the standby mode.
- If all attempts fail, it will be changed to the home mode (standard mode).
- Valid value: 1 ... 255.
- Standard value → page 96.

 → page 57

SRSR TC_TEST Expiry Timeout

- Required only if → SRSR Automatic Switch Back is activated.
- Communication platform is in standby mode (emergency mode).
- Time period after which the next attempt of connection to the Main-PBX will be started.

 → page 57

SRSR TC_TEST Retry Count

- Required only if → SRSR Automatic Switch Back is activated.
- Communication platform is in standby mode (emergency mode).
- Maximum number of positive attempts for switching over from standby mode (emergency mode) to home mode (standard mode).
- Standard-value → page 96.

 → page 57

Subscriber Number

- Enter the subscriber number for the optiPoint 410/420 here.
- The number can be 1 to 24 characters long.
- This number is used as the internal telephone number.

 → page 24  → page 55

Subscriber Password

- This password allows you to transfer the subscriber number and the configuration settings of your telephone to another telephone (mobile logon).
- Valid values: Alphanummerisch
- Minimum length: 6 (for more information, see → Password Functions)
- Maximum length: 20

 → page 24  → page 55

System Type

- Select the type of the used communication platform here (read only).

 → page 55

Terminal IP Address

- Enter the → IP address for the optiPoint 410/420 here, provided no → DHCP server assigns this value dynamically (→ DHCP).
- If the value was assigned dynamically, it can only be read.
- A restart is necessary after the change.
- Standard value → page 96.
- IP editor in optiPoint 410/420 → page 93.

 → page 21  → page 17  → page 52

Terminal Mask

- Enter the → Subnet Mask for the optiPoint 410/420 here, provided that no → DHCP server assigns this value dynamically (→ DHCP).
- If the value was assigned dynamically, it can only be read.
- A restart is necessary after the change.
- Standard value → page 96.
- IP editor in optiPoint 410/420 → page 93.

 → page 21  → page 17  → page 52

Time Source

- In this field, you specify how time is updated on your telephone.

System	All settings are transferred from the system (→ DHCP).
SNTP	Enter the following parameters manually: → Default SNTP IP, → Timezone offset, → Daylight saving

 → page 57

Time Window

- Messages sent by the gateway will be accepted only within this defined time window.

 → page 55

Timezone offset

- This entry is only required if you selected "SNTP" in the → Time Source field.
- Enter the time difference (in seconds) between your time zone and Greenwich Mean Time (GMT). Example for Germany: + 3600.

 → page 57

USB Keyboard

- Configurable only on optiPoint 410/420 advance.
- Select the USB keyboard language from the list.
- Available languages: English, German, French, Spanish, American

 → page 48

VLAN Method

- Can be defined only if the → Layer 2 support is activated (→ QoS L2/L3).
- Here you must define the location from where the → Default VLAN ID should be fetched, if → VLAN is used.

Manual	The ID entered in → Default VLAN ID is used.
DHCP	If a → DHCP server is used, then the ID delivered by this server is applied.

 → page 22  → page 17  → page 52

VoIP Encryption Settings

- Only for optiPoint 410/420 economy plus/standard/advance.
- This field shows whether → VoIP Security is activated (current) for your telephone, how long it has been activated, and when the next → PSS key update (future) is scheduled.
- These settings are made in the Deployment Tool.

 → page 57

WAP Connection Type

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Choose the protocol over which the data transfer should take place for WAP applications: → HTTP or → WSP.

 → page 48

WAP Favourites

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Choose the designated → WAP Favourite from the list. Are no entries available <empty> will be displayed. Entering Favourites see → WAP Title.

 → page 48

WAP Password

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the password for the WAP gateway access.

 → page 48

WAP Username

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the user name for the WAP gateway access.

 → page 48

WAP Gateway Address

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- If a → WAP server exists, enter the → IP address of this server here.
- Standard address → page 96.

 → page 48

WAP Port Number

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- If a → WAP server exists, enter the → Port number for communication with this server here.
- Standard value → page 96.

 → page 48 and  → page 56

WAP Homepage

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the → URL-Address of the designated Internet start site for the display module or application module.

 → page 48

WAP Title

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the designated title of the → WAP Favourites-Site. For assigning the URL see → WAP URL.

 → page 48

WAP URL

- Only configurable on optiPoint 410/420 standard/advance and only required if a display module or application module will be used.
- Enter the → URL according to the → WAP Favourites-Site.

 → page 48

WBM Interface

- If you activate this field, you can no longer administer the telephone via the Web-Based Management Tool. Administration is only possible via the local display or DLS.

 → page 56

Web Content Version

- Displays the version number of the Software for access to the optiPoint 410/420 via the → Web-based Management Tool.

 → page 45

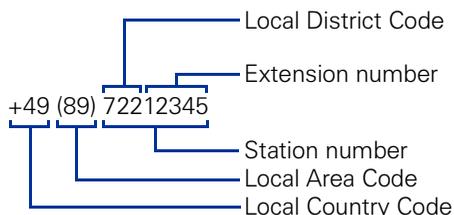
Abbreviations and Specialized Terms

You will find more information in the relevant literature on the Network Technology and → VoIP.

Canonical Format

The canonical format is an international standardisation of call numbers. In order for to be able to dial these numbers correctly, the dialing rules (conversion information) must be defined.

Example of a station number in canonical format:



CORNET IP TS

This Siemens routing protocol is based on existing protocols, such as, H.323, MGCP, Megaco or the RTP protocol and includes signaling and control functions necessary for IP telephony.

DHCP

Abbreviation for "**D**ynamic **H**ost **C**onfiguration **P**rotocol".

The dynamic assignment of IP addresses to the subscribers of an IP network with the help of a central DHCP server.

DLS

Abbreviation for „**D**eployment **L**icense **S**ervice.“

DLS is a HiPath Management Application for Administration of Workpoints (optiPoint-Telephones und optiClient-Installations) in a HiPath- and non-HiPath-Network.

DNS

Abbreviation for "**D**omain **N**ame **S**ystem".

Internet service for the conversion of voice address names into → IP address.

E.164

Standardization of telephone numbers according to the International Telephone Number Plan of ITU with a maximum of 15 digits. Usually assembled from the following components: Country Reference Number (CC, **C**ountry **C**ode), Place Reference Number (NDC, **N**ational **D**estination **C**ode) and Subscriber Number (SN, **S**ubscriber **N**umber).

ENB

Personal Telephonebook of the display module or application module.

FTP

Abbreviation for "**F**ile **T**ransfer **P**rotocol".

Is used for transferring files in networks, e.g., to update telephone software → page 50.

G.711

Audio protocol for uncompressed voice transmission. Requires a bandwidth of 64 kbit/s.

G.722

Audio protocol for uncompressed voice transmission. Requires a bandwidth 128 kbit/s. This voice transmission supplies the best quality.

G.723

Audio protocol for compressed voice transmission. The quality is worse than in → G.711 and → G.729. Requires a bandwidth of about 6 kbit/s.

G.729

Audio protocol for compressed voice transmission. The quality is worse than in → G.711 and better than in → G.723. Uses a bandwidth of about 8 kbit/s.

Gateway

Mediation components between two different network types, e.g., → IP network and ISDN network.

HFA

Abbreviation for "**H**icom **F**eature **A**ccess".

Sets up the connection between → IP telephony and a → PBX with the help of a gateway (e.g., HG 1500 or HG 3530) .

HTTP

Abbreviation for "**H**ypertext **T**ransfer **P**rotocol".

Protocol for the transfer of data in → IP networks.

HTTPS

Abbreviation for „**H**ypertext **T**ransfer **P**rotocol **s**ecure.“

The HTTP protocol (encrypted via the SSL protocol) guarantees secure transmission of data in → IP networks.

IP

Abbreviation for "**I**nternet **P**rotokoll".

IP address

Also called "→ IP" in short. The unique address of a terminal device in the network. It consists of four number blocks of 0 to 255 each, separated by a point. To simplify the notation, voice names can be released from a → DNS into the IP addresses.

Jitter

Runtime fluctuations in data transmission in → IP networks.

LAN

Abbreviation for "**L**ocal **A**rea **N**etwork".

Layer 2

2nd layer (Data Link Layer) of the 7-layer OSI model for describing data transmission interfaces.

Layer 3

3rd layer (Network Layer) of the 7-layer OSI model for describing the data transmission interfaces.

LDAP

Abbreviation for "**L**ightweight **D**irectory **A**ccess **P**rotocol".
Simplified protocol for accessing standardized directory systems, e.g., a company telephone directory.

LCD

Abbreviation for "**L**iquid **C**rystal **D**isplay".
Display of numbers, text or graphics with the help of liquid crystal technology.

LED

Abbreviation for "**L**ight **E**mitting **D**iode".
Cold light illumination in different colours at low power consumption.

MAC

Abbreviation for "**M**edium **A**ccess **C**ontrol **A**dress".
A 48-bit address with the help of which a terminal device (e.g., → IP telephone or Network card) identifies itself uniquely in a network all over the world.

MIB

Abbreviation for "**M**anagement **I**nformation **B**ase".
Database containing descriptions of error messages of the devices and functions in a network.

PBX

Abbreviation for "**P**rivate **B**ranch **eX**change".
Private telephone system that connects the different internal devices to the ISDN network

PING

Abbreviation for "**P**acket **I**nternet **G**roper".
A program to test whether a connection can be made to a defined → IP target. Data is sent to the target and returned from there during the test. The result of the test displays the success / failure of the transmission and possible additional information such as the transmission time.

Port

Ports are used in → IP networks to permit several communication connections simultaneously. Different services often have different port numbers.

PSS

Abbreviation for "**P**re **S**hared **S**ecret".
The PSS key is the master key used for data encryption in VoIP.

QoS

Abbreviation für „**Q**uality of **S**ervice".
Describes the subjectively ascertainable quality (service quality) of a voice connection through → IP networks. Properties of QoS are packet loss rate, packet delay, delay deviation, reserved bandwidth, type and bit rate (variable, constant or unspecified).

RAM

Abbreviation for "**R**andom **A**ccess **M**emory".
Memory with read / write access.

ROM

Abbreviation for "**R**ead **O**nly **M**emory".
Memory with read only access.

RTP

Abbreviation for „**R**ealtime **T**ransport **P**rotocol“

SIP

Abbreviation for "**S**ession **I**nitiation **P**rotocol".
Protocol standard for initialising calls in → IP networks.

SLK

Only for optiPoint 420 telephones. SLK (Self-Labeling-Key) means, that the labeling fields of the function keys automatically display the stored functions via LCD display.

VLAN

Abbreviation for "**V**irtual **L**ocal **A**rea **N**etwork".
Subdivision of an → IP network into autonomous administration groups (domains). A possibility of characterizing the association with a VLAN is using a → Default VLAN ID.

SNMP

Abbreviation for "**S**imple **N**etwork **M**anagement **P**rotocol".
The protocol is used for communication with servers that takeover network management functions. This includes for example, protocolling errors that occur in network components (SNMPTrap).

SNTP

Abbreviation for "**S**imple **N**etwork **T**ime **P**rotocol".
The protocol is used between timeservers and terminal devices of a network to synchronize the time of the terminal device.

SRSR

Abbreviation for "**S**mall **R**emote **S**ites **R**edundancy".

SRTP/SRTCP

Abbreviation for "**S**ecure **R**eal **T**ime **P**rotocoll" or "**S**ecure **R**eal **T**ime **C**ontoll **P**rotocoll".
The SRTP protocol is a more secure version of the → RTP protocol and is used in IP telephony for secure transmission of voice data between stations. The SRTCP protocol determines the QoS characteristics for received streams. This provides senders with feedback that they can use to optimize voice stream emission.

Subnet Mask

Classifies networks in A-, B- and C networks. Each class has a subnet mask that demasks the relevant bits. 255.0.0.0 for Class A, 255.255.0.0 for Class B and 255.255.255.0 for Class C. In a Class C network, for instance, there are 254 → IP addresses.

Switch

Transmission position in a star-shaped network.

URL

Abbreviation for Uniform Resource Locator. The URL is the address of a file (site), which is accessible via the internet.

The URL consists of:

- the access protocol
- the host name of the domain
- the specific file name

VoIP

Abbreviation for "**V**oice **o**ver **I**P".

E.g., voice transmission through → IP technology.

WAP

Abbreviation for "**W**ireless **A**pplication **P**rotocol".

Synonym for graphical applications on mobile telephones, organizers and other suitable terminal devices, transferred in accordance with the protocol by the same name.

WSP

Abbreviation for "**W**ireless **S**ession **P**rotocol".

Protocol for transferring data to → WAP-enabled terminal devices.

Administration scenarios

Setting up the FTP server

There are several possibilities of performing upload and download operations for the optiPoint 410/420.

- With the help of a web interface in an Internet browser (e.g., Internet Explorer 5.5),  → page 42.
- By using the "Deployment Tool" program (integral component of the HiPath Manager E).
Meaningful while supplying several telephones simultaneously. For this, see the Administration Instructions on Deployment Tool.

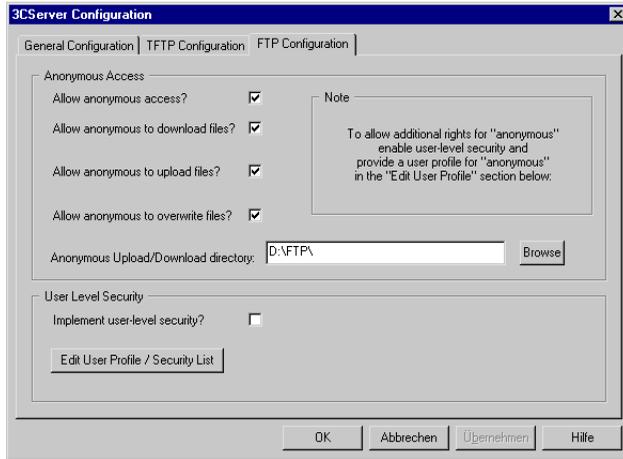
A correctly configured FTP server is necessary in all the cases, with the help of which, the data is exchanged through → FTP. The server program must run on the same computer (e.g., PC) in the → LAN in which the optiPoint 410/420 is run.

The installation of the "3Cserver" server program of the "3Com" company is described below as an example.

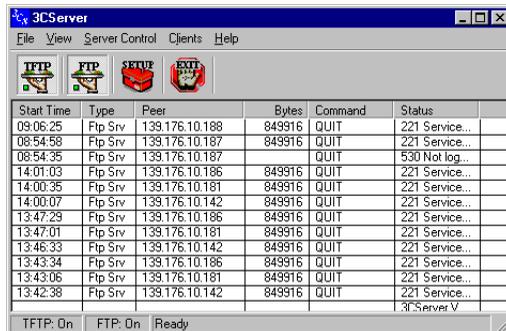
Installation and configuration

1. Install the software (in the example "3Cserver", that can be downloaded from <http://www.3com.com>).
2. Start the server program.
3. You can set up user profiles or permit anonymous access, as in this example. This is the simpler variant in which it is not possible to assign different access rights to different users.

Go to **File** → **Config** → **FTP configuration** in the menu and specify the directory in **Anonymous Upload/Download directory**, with which the data exchange should take place.



4. Confirm the action by pressing **OK**.
As soon as the data exchange starts, you can see the data of the connections in the main window of the program.



Check handset functionalities

- Check whether the plugs at the two ends of the handset cable are inserted correctly (handset engaged) → page 12.
- Carry out an Audio Loop test.
 - More information on “Audio Loop Test” → page 59.
 -  → page 26
- Ensure that the handset microphone is not switched off.
 - For more information, see the operating instructions of the optiPoint 410/420.

Start up not successful

Check whether one or more of the mentioned questions are valid for your configuration:

Is the optiPoint 410/420 being run in a → VLAN ?

- Enter the VLAN ID manually, or, if a → DHCP server is being used, set the “VLAN Method” → page 81 on “DHCP”, so that the VLAN ID transferred from the DHCP server is used.
 - More information on → Default VLAN ID.

 → page 22  → page 53

Is the optiPoint 410/420 being run behind a → Gateway?

- Enter the → IP address of the Gateway in → Default Route.

 → page 22  → page 52

Other configuration possibilities ...

Check LAN connection

- Check whether the plugs at the two ends of the LAN cable are correctly inserted (handset engaged) → page 12.
- Check the connection with the help of the PING test.
 - More information on “PING Test” → page 74.

 → page 27  → page 25

Determine the software version

You can determine the version of the software that is running the optiPoint 410/420, e.g., during a pending software update.

 → page 42

Improve speech quality

- Change the QoS parameters.
 - More information on “QoS L2/L3” → page 75.
 -  → page 23  → page 25
- Increase the "Jitter" buffer time for the optiPoint 410 entry.
 - More information on “Jitter Buffer” → page 68..
- Change the voice compression.
 - More information on “Codec” → page 60,
“Compression” → page 61.
- Activate the suppression of the background noise during silence, for the optiPoint 410/420.
 - More information on “Silence Suppression” → page 77.

Editors



optiPoint 410 entry only:

The edited characters are displayed binary coded on the LEDs of the optiPoint 410 entry → page 100.

Number Editor

Permitted: Numeric values.



Specify the numbers.



Press this key to delete one character at a time to the left.



In case of negative numbers, press this key to change the prefixed sign.

Example: 2235



optiPoint 410 entry only:

It is not possible to edit an existing string. The string will be overwritten by the new text.

IP Number Editor

Permitted: Integer values from 0 to 255 and dots (".").



Press key to write dots between the IP fields.

Leading zeros will be ignored.

Example: 192.168.1.50



optiPoint 410 entry only:

It is not possible to edit an existing string. The string will be overwritten by the new text.

Terminal Mask Editor

Valid values: 0 Bit (000.000.000.000) to 32 Bit (255.255.255.255).

Bit	Block 3	Block 2	Block 1	Block 0
0	0000 0000	0000 0000	0000 0000	0000 0000
	000	000	000	000
1	1000 0000	0000 0000	0000 0000	0000 0000
	128	000	000	000
2	1100 0000	0000 0000	0000 0000	0000 0000
	192	000	000	000
3	1110 0000	0000 0000	0000 0000	0000 0000
	224	000	000	000
...
29	1111 1111	1111 1111	1111 1111	1111 1000
	255	255	255	248
30	1111 1111	1111 1111	1111 1111	1111 1100
	255	255	255	252
31	1111 1111	1111 1111	1111 1111	1111 1110
	255	255	255	254
32	1111 1111	1111 1111	1111 1111	1111 1111
	255	255	255	255
	Binary code			
	Decimal code (input)			



Press key to set a block's value to "255".



Press key to set a block's value to "000".



Press key to increment the value by 1 bit.



Press key to decrement the value by 1 bit.

Text Editor

Character entry is performed by multiple presses of the keypad keys according to the following tables. This also applies to entry of alphanumeric passwords.

Example: "+" = press the  key 17 times.

Key	1x	2x	3x	4x	5x	6x	7x	8x	9x	10x	11x	12x
	1											
	a	b	c	2								
	d	e	f	3								
	g	h	i	4								
	j	k	l	5								
	m	n	o	6								
	p	q	r	s	7							
	t	u	v	8								
	w	x	y	z	9							
	[[1]]	.	-	0								
	[[2]]											
	#	.	\	_	\$	%	/	()	=	[]
Key	13x	14x	15x	16x	17x	18x	19x	20x	21x	22x	23x	
	{	}	@	~	+	;	:	"	'	!	?	

[1] Space.

[2] The next character to be entered will be interpreted as upper case.

optiPoint 410/420 economy/economy plus/standard/advance

-  Press key to delete to the left.
- Press key to advance to the next character.

optiPoint 410 entry only

- Press key to advance to the next character.



It is not possible to edit an existing string. The string will be overwritten by the new text.

Factory Default Settings

Standard value

Function	standard value
Acoustic filter	0
Administration password → Password Functions	123456
Application DL filename ^{[[1]]}	ipphone.app
Audio mode	G.711 always
Avg round trip delay threshold	100
Configuration DL filename	OP400-28069
Consecutive good packets	8
Consecutive lost packets	2
Default route	0.0.0.0
DHCP IP assign	on
DL server IP address	0.0.0.0
E164 address	null
External Access ^{[[2]]}	9
FTP account name	guest
FTP password → Password Functions	123abc
FTP username	guest
Gatekeepers	0.0.0.0
Gateway	0.0.0.0
H.225.0 RAS	1720
H.225.0 Call Signalling	1720
H.245 TCP Channel	1720
Hold music filename	MoHFile
International Prefix ^[2]	00
IP routing	0.0.0.0 (all)
Jitter buffer	normal
Language ^[2]	English
LDAP server address ^[2]	0.0.0.0
LDAP server port ^[2]	389
Local Area Code ^[2]	115
Local District Code ^[2]	943

Function	standard value
Local Country Code ^[2]	44
Lost packet thresholds	10
Max jitter threshold	15
Minimal Session Length	255
Mobility	On
National Dial Prefix ^[2]	0
Observation Interval	10
Packet Size	Auto
QCU home address	0.0.0.0
QoS L2/L3	On
QoS Layer 2 Default	0
QoS Layer 2 Voice/Signalling	5
QoS Layer 3 Signalling	26
QoS Layer 3 Voice	46
Report Interval	10
SNMP password → Password Functions	public
SNMP trap ID address	0.0.0.0
SNTP IP address	0.0.0.0
Switch To Home Expiry Timeout	20
Switch To Home Retry Count	3
Switch To Standby Expiry Timeout	20
Switch To Standby Retry Count	3
TC_TEST Expiry Timeout	20
TC_TEST Retry Count	3
Terminal IP address	0.0.0.0
Terminal mask	0.0.0.0
Time zone offset	+0
VLAN	DHCP
VLAN ID	0
WAP mode ^[2]	HTTP
WAP server address ^[2]	0.0.0.0
WAP server port ^[2]	9200

[1] Filename is postfixed by a letter a, b, c or d for the various language packages.

[2] optiPoint 410 standard/advance, optiPoint 420 advance only

Password Functions



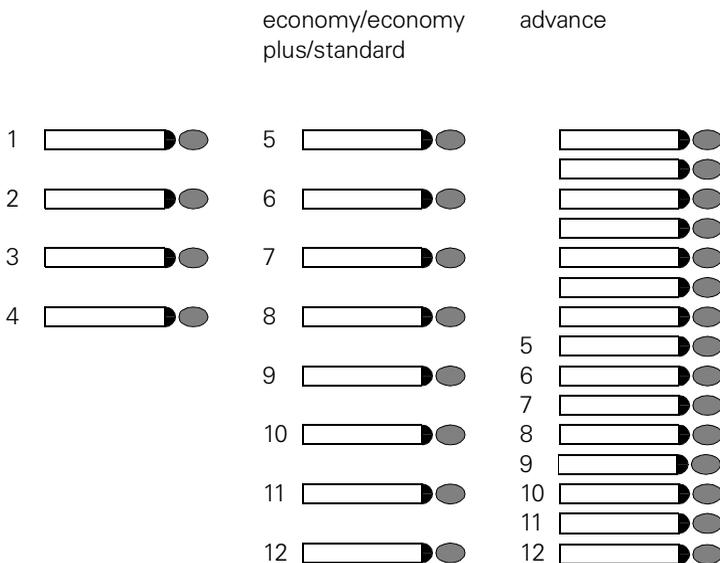
The minimum password length can be predefined in the Deployment Tool.

Password	Function setting
User Password	Protects the user-specific settings of the optiPoint 410/420.
Administrator Password	Protects the administration area from unauthorized access („Configuration" and „Diagnostics").
FTP Password	Protects the FTP server from unauthorized access for data transmission (e.g., Downloading of firmware).
HiPath Password	Protects the settings for communication with other HiPath devices.
SNMP Password	Protects the SNMP server from unauthorized access for error assessment.
Subscriber Password	Protects the transfer of the subscriber number and configuration settings to another telephone.
Cancel Mobility Password	Protects resetting in case of a transferred subscriber number to another telephone.

Programmable Keys optiPoint 410/420 economy/ economy plus/standard/advance

Taste	Funktion HiPath 3000/5000	Funktion HiPath 4000
1	Program/Service	Program/Service
2	Redial	Redial
3	Mute	Mailbox
4	Speaker	Speaker
5	-	Call pickup
6	-	Call park
7	-	Release
8	-	Show used line
9	-	Ringer cutoff
10	-	Privacy
11	-	Hold
12	Release	Exclusive hold

Key-Layout



Data Visualisation (optiPoint 410 entry only)

For error messages on the optiPoint 410 entry see → page 35.

Status Messages

LEDs	Quiescent State	Administration State	Download File Complete
7	▶	D	▶
6	▶	D	D
5	▶	D	▶
4	▶	D	D
3	▶	D	▶
2	▶	D	D
1	▶	D	▶
0	▶	D	D

Binary encoded ASCII table

The table illustrates in which way characters are displayed on the LEDs of the optiPoint 410 entry.

LEDs	.	0	1	2	3	4	5	6	7	8	9
7	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
6	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
5	D	D	D	D	D	D	D	D	D	D	D
4	▶	D	D	D	D	D	D	D	D	D	D
3	D	▶	▶	▶	▶	▶	▶	▶	▶	D	D
2	D	▶	▶	▶	▶	D	D	D	D	▶	▶
1	D	▶	▶	D	D	▶	▶	D	D	▶	▶
0	▶	▶	D	▶	D	▶	D	▶	D	▶	D

Technical data

optiPoint 410/420 economy/economy plus/standard/advance

Protocols	H.323, H.225, H.245, TCP/IP, FTP, DHCP, SNMP, SRTP/SRTCP ^[1] Gatekeeper routed and direct routed call model
Voice algorithms	G.711 (64 kbit/s), G.723.1 (6,4 kbit/s) Room echo compensation
Interfaces	IEEE 802.3 Fast Ethernet (10/100 Mbit/s) 2 x RJ 45 TP
Pin assignment: LAN receptacle	Pin 1 TX + Pin 2 TX - Pin 3 RX + Pin 4 – (DC+) Pin 5 – (DC+) Pin 6 RX - Pin 7 – (DC-) Pin 8 – (DC-)
Handset receptacle	Pin 1 microphone - Pin 2 receiver cap + Pin 3 receiver cap - Pin 4 microphone +
Power supply unit receptacle	Pin 1 V - Pin 2 – Pin 3 – Pin 4 – Pin 5 – Pin 6 V +
Power supply (external plug-in power supply unit)	EU-variant, grounding plug (230 V, 50 Hz) UK-variant (230 V, 50 Hz) US-variant (110 V, 60 Hz)

[1] Only for optiPoint 410/420 economy plus/standard/advance with software version 5.x or higher on HiPath 3000/5000 (version 6.0 or higher) and HiPath 4000 (version 3.0 or higher).

optiPoint 410 entry

Protocols	H.323, H.225, H.245, TCP/IP, FTP, DHCP, SNTP Gatekeeper routed and direct routed call model
Voice algorithms	G.711 (64 kbit/s), G.723.1 (6,4 kbit/s) Room echo compensation
Interfaces	IEEE 802.3 Fast Ethernet (10/100 Mbit/s) 2 x RJ 45 TP
Pin assignment: LAN receptacle	Pin 1 TX + Pin 2 TX - Pin 3 RX + Pin 4 – (DC+) Pin 5 – (DC+) Pin 6 RX - Pin 7 – (DC-) Pin 8 – (DC-)
Handset receptacle	Pin 1 microphone - Pin 2 receiver cap + Pin 3 receiver cap - Pin 4 microphone +
Power supply unit receptacle	Pin 1 V - Pin 2 – Pin 3 – Pin 4 – Pin 5 – Pin 6 V +
Power supply (external plug-in power supply unit)	EU-variant grounding plug 230 V, 50 Hz (AUL:06D1284) UK-variant 230 V, 50 Hz (AUL:06D1287) US-variant 110 V, 60 Hz (AUL:51A4827)

Operation Codes Summary

In the following pages you will find a list of the reference numbers corresponding to the administration and diagnostics functions in the optiPoint 410/420 economy/economy plus/standard/advance and the optiPoint 410 entry in the alphabetical order.

optiPoint 410/420

Administration Interface

Operation	optiPoint 410/420 economy/economy plus	optiPoint 410/420 standard/advance	Refer to
Configurations	1 0 3 (simult.) <input checked="" type="checkbox"/> 	1 0 3 (simult.)  	→ page 20
Diagnostics	1 0 3 (simult.)  <input checked="" type="checkbox"/>	1 0 3 (simult.)  	→ page 32

Configurations

Operation	optiPoint 410/420 economy/economy plus (→ Administration Interface)	optiPoint 410/420 standard/advance (→ Administration Interface)	Refer to
DHCP IP Assignment	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	→ page 62
Terminal IP Address	<input checked="" type="checkbox"/> 0 2  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 0 2  <input checked="" type="checkbox"/>	→ page 80
Terminal Mask	<input checked="" type="checkbox"/> 0 3  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 0 3  <input checked="" type="checkbox"/>	→ page 80
Default Route	<input checked="" type="checkbox"/> 0 4 <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 0 4 <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	→ page 62
VLAN id	<input checked="" type="checkbox"/> 0 6 0 8  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 0 6 0 8  <input checked="" type="checkbox"/>	→ page 62
VLAN Method	<input checked="" type="checkbox"/> 0 6 0 7  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 0 6 0 7  <input checked="" type="checkbox"/>	→ page 81
QoS Layer Options	<input checked="" type="checkbox"/> 0 6 <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 0 6 <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	→ page 75
LAN port 1 mode	<input checked="" type="checkbox"/> 0 7 <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 0 7 <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	→ page 69
LAN port 2 mode	<input checked="" type="checkbox"/> 0 7 0 2  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 0 7 0 2  <input checked="" type="checkbox"/>	→ page 69

Diagnosics

Operation	optiPoint 410/420 economy/ economy plus (→ Administration Interface)	optiPoint 410/ 420 standard/advance (→ Administration Inter- face)	Refer to
Display Test	  	  	→ page 62
LED Test	  	  	→ page 72
Key Test	   	   	→ page 68
Audio Loop Test	  	  	→ page 59
RAM Test	  	  	→ page 75
ROM Test	  	  	→ page 76
PING Test	   	   	→ page 74
LineTest	  	  	→ page 72
SLK Test ^[1]	  	  	→ page 77

[1] Only for optiPoint 410/420 standard/advance available

optiPoint 410 entry

Administration Interface

Operation	optiPoint 410 entry	Refer to
Configurations	1 0 3 (simult.)	→ page 20

Configurations

Operation	optiPoint 410 entry	Refer to
Default Route	<input type="text"/> 0 3	→ page 62
DHCP IP Assignment	<input type="text"/> 0 0	→ page 62
Factory Reset	2 8 9 (simult.)	→ page 64
Terminal IP Address	<input type="text"/> 0 1	→ page 80
Terminal Mask	<input type="text"/> 0 2	→ page 80
VLAN id	<input type="text"/> 2 4	→ page 62
VLAN Method	<input type="text"/> 2 5	→ page 81

Further functions

Operation	optiPoint 410 entry	Refer to
Restart	1 4 7 (simult.) (Administration password)	
Start phone	<input type="text"/> 9 9	

Menu structure

The following table shows a concerned overview of the menu structure of the optiPoint 410/420.

optiPoint 410/420

Menu	Operation steps	Explanation
Administration?		
01=Configuration?		
01=DHCP IP assign?	→ page 21	→ page 62
02=Terminal IP addr.?	→ page 21	→ page 80
03=Terminal mask?	→ page 21	→ page 80
04=Default route?	→ page 22	→ page 62
05=VLAN method?	→ page 22	→ page 81
06=VLAN id?	→ page 22	→ page 62
07=QoS?		
08=LAN port 1 mode?		
09=LAN port 2 mode? [1]		
10=Fully qual sub num?	→ page 24	→ page 79
11=Home subscriber pwd?	→ page 24	→ page 79
00=End?		
02=Diagnostics?		
01=Display test?	→ page 25	→ page 62
02=LED test?	→ page 25	→ page 72
03=Key test?	→ page 26	→ page 68
04=Audio loop test?	→ page 26	→ page 59
05=RAM test?	→ page 26	→ page 75
06=ROM test?	→ page 26	→ page 76
07=Ping Test?	→ page 27	→ page 74
01=User specified IP		
02=Gateway?		
03=DL server address?		
04=Default Router IP?		
05=Route 1 Gateway IP?		
06=Route 2 Gateway IP?		
07=SNMP trap address?		
08=Terminal IP addr.?		
09=DNS Server?		
10=SNTP IP?		
00=End?		
08=Line Test?	→ page 28	→ page 72
09=SLK test? [2]	→ page 28	→ page 77
00=End?		
03=Start Phone?		

[1] Only for optiPoint 410/420 economy plus/standard/advance available

[2] Only for optiPoint 420 Workpoints available

Index

The colored page numbers lead in each case to the description of the operation at the following device/surface

-  optiPoint 410/420 economy/economy plus/standard/advance
-  optiPoint 410 entry
-  Web-based Management Tool
- **Bold:** Explanations in Glossar

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