Documentation

HiPath BizIP

**Operation
Getting Started**

Communication for the open minded

SIEMENS

Contents

HiPath BizIP Overview

Your HiPath BizIP is a pioneering communication platform based on forward-looking technology. The use of peer-to-peer technology in the LAN means that adding more telephones to the system could not be easier.

You will find details of the various devices on .

Network access for data and voice signals is provided via an access device (gateway). The system can be used both for Internet telephony (VoIP) and ISDN.
Each system telephone has a personal answer machine. In addition, two analog telephones are also supported (for example, fax).

This manual is intended both for the service engineer who is installing and configuring the system, and the customer's service personnel if the latter is responsible for installing and administering the system.

> Since the HiPath BizIP firmware is continuously being improved, we recommended that you update the BizIP 410 telephone and BizIP AD 20 firmware before initial use. Further information on updating HiPath BizIP is available in der Administrationsanleitung.

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Important information

Only use the power supply specified for the access device or telephones.

LAN-based devices can only be operated if connected via the building's internal LAN cables (SELV networks according to IEC 60950-1). The devices should be connected to the IP infrastructure via a shielded CAT5 LAN cable. It is important to ensure that this cable's shield is grounded in the building installation.

Do not install the access device or telephones in bathrooms or shower rooms. The access device and telephones are not splash-proof.

Do not use the telephone in environments where there is a danger of explosion.

Never open the telephones or a key module! In the event of problems, consult your service personnel or specialist dealer.

Use only original Siemens accessories!
The use of other accessories is dangerous and will invalidate the warranty and the CE mark.

Care instructions

- Always use a damp or antistatic cloth to clean the telephone. Never use a dry cloth.
- If the devices are heavily soiled, clean them with a diluted surfactant-based neutral cleaner, such as, dishwashing detergent. Afterwards remove all traces of the cleaner with a damp cloth (using water only).
- Do not use alcohol-based or corrosive cleaners or abrasive powders.
- Never allow the devices to come into contact with staining or aggressive liquids such as coffee, tea, juice, or soft drinks.

Marks

The devices conform to the EU directive 1999/5/EC as attested by the CE mark.

These devices have been manufactured in accordance under a 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 how to dispose 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.

Installation

Wall-mounted installation of the access device BizIP AD 20

Wall brackets are supplied for mounting the telephone on the wall.

When installing the device, please note the following points:
- Choose an installation site that can easily be reached with all cables required (for example, to the NTBA).
- Watch out for power cables in the wall when deciding where to drill the holes. Use the bracket as a template to mark the drill holes.
- Make sure all cables provided are attached to BizIP AD 20 before you mount BizIP AD 20 on the bracket, see "Performing installation" → 11.
- Make sure that the cables are not twisted or pinched when mounting the BizIP AD 20 on the bracket.

Optional wall brackets are also available for the BizIP 410 a and BizIP 410 e telephones (part no.: L30250-F600-A157).
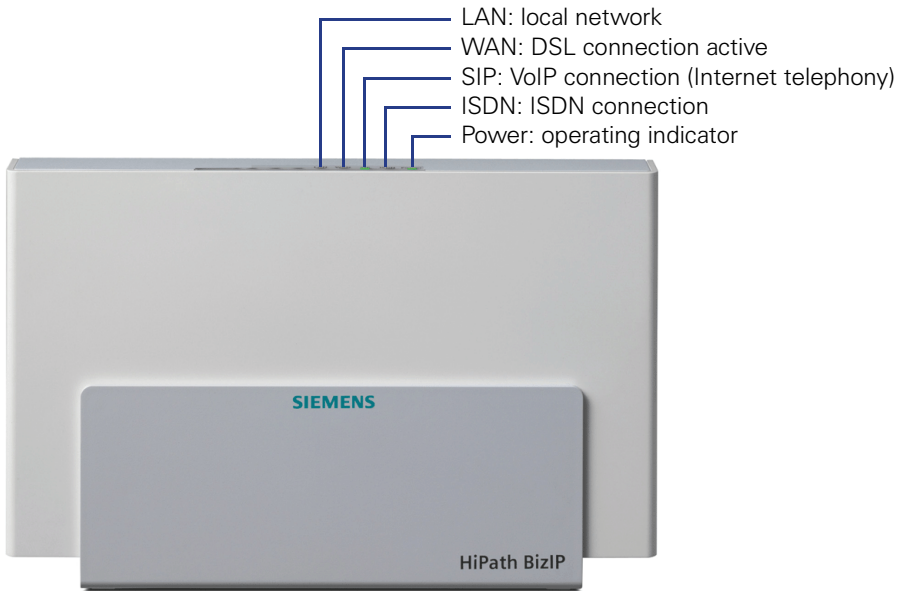
BizIP AD 20 access device as a desktop device

You should attach the wall bracket even if you are going to use your BizIP AD 20 as a desktop device in order to make it more secure.
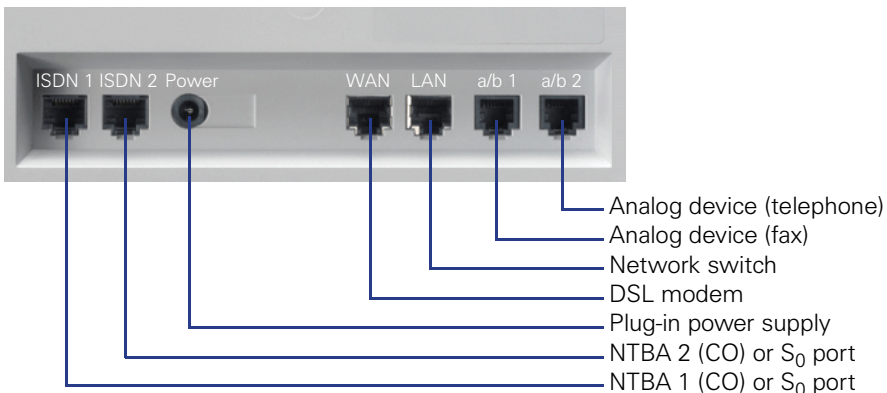
HiPath BizIP devices

BizIP AD 20 access device

Front view with LEDs

LAN: local network
WAN: DSL connection active
SIP: VoIP connection (Internet telephony)
ISDN: ISDN connection
Power: operating indicator

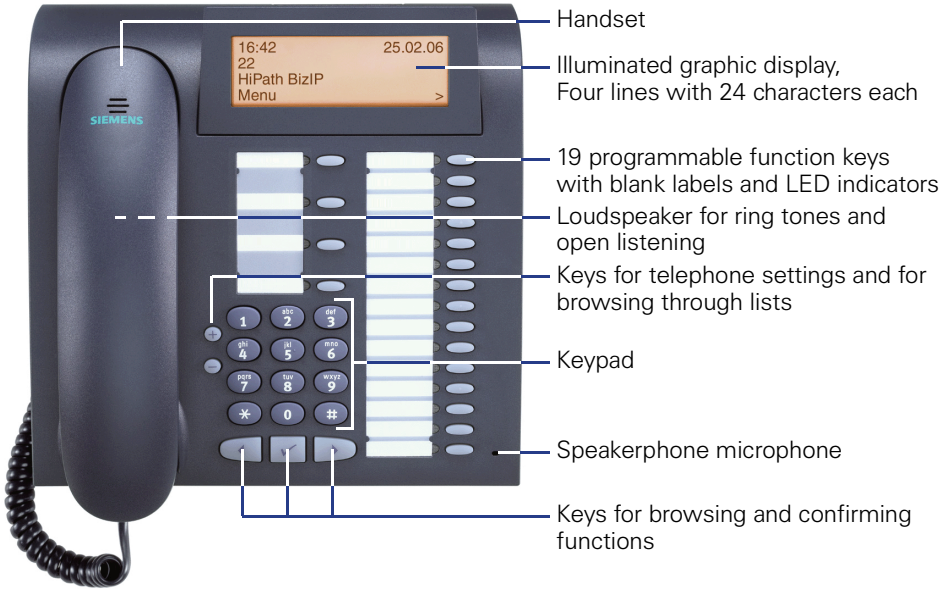
For further information on the meaning of the LED indicators, see Administrationsanleitung.

Rear view (detail) with ports

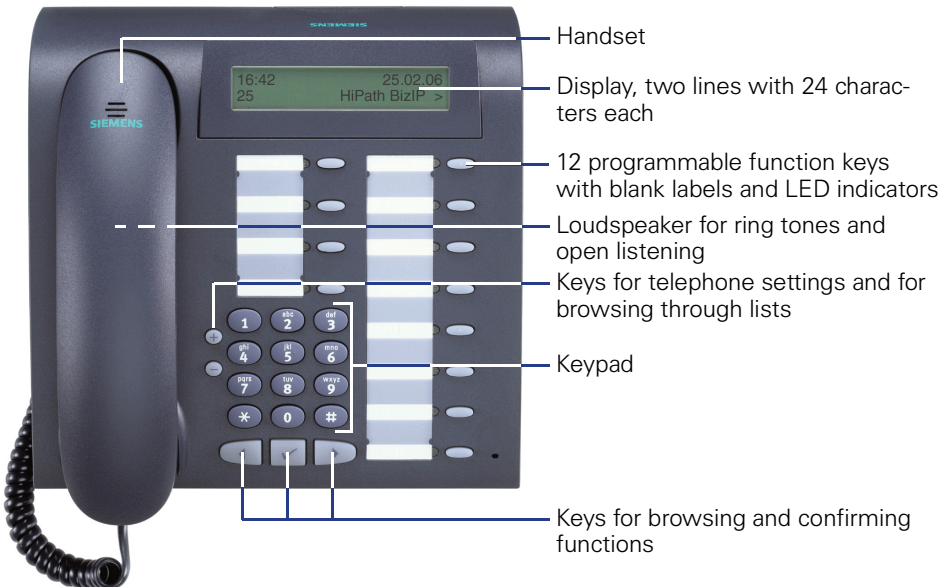ISDN 1 ISDN 2 Power   WAN LAN a/b 1 a/b 2

Analog device (telephone)
Analog device (fax)
Network switch
DSL modem
Plug-in power supply
NTBA 2 (CO) or S_0 port
NTBA 1 (CO) or S_0 port

For installation instructions, see "Performing installation" → 11.

BizIP 410 a telephone

16:42   25.02.06
22
HiPath BizIP
Menu   >

- Handset
- Illuminated graphic display,
  Four lines with 24 characters each
- 19 programmable function keys
  with blank labels and LED indicators
- Loudspeaker for ring tones and
  open listening
- Keys for telephone settings and for
  browsing through lists
- Keypad
- Speakerphone microphone
- Keys for browsing and confirming
  functions

BizIP 410 e telephone

16:42   25.02.06
25   HiPath BizIP >

- Handset
- Display, two lines with 24 characters each
- 12 programmable function keys
  with blank labels and LED indicators
- Loudspeaker for ring tones and
  open listening
- Keys for telephone settings and for
  browsing through lists
- Keypad
- Keys for browsing and confirming
  functions
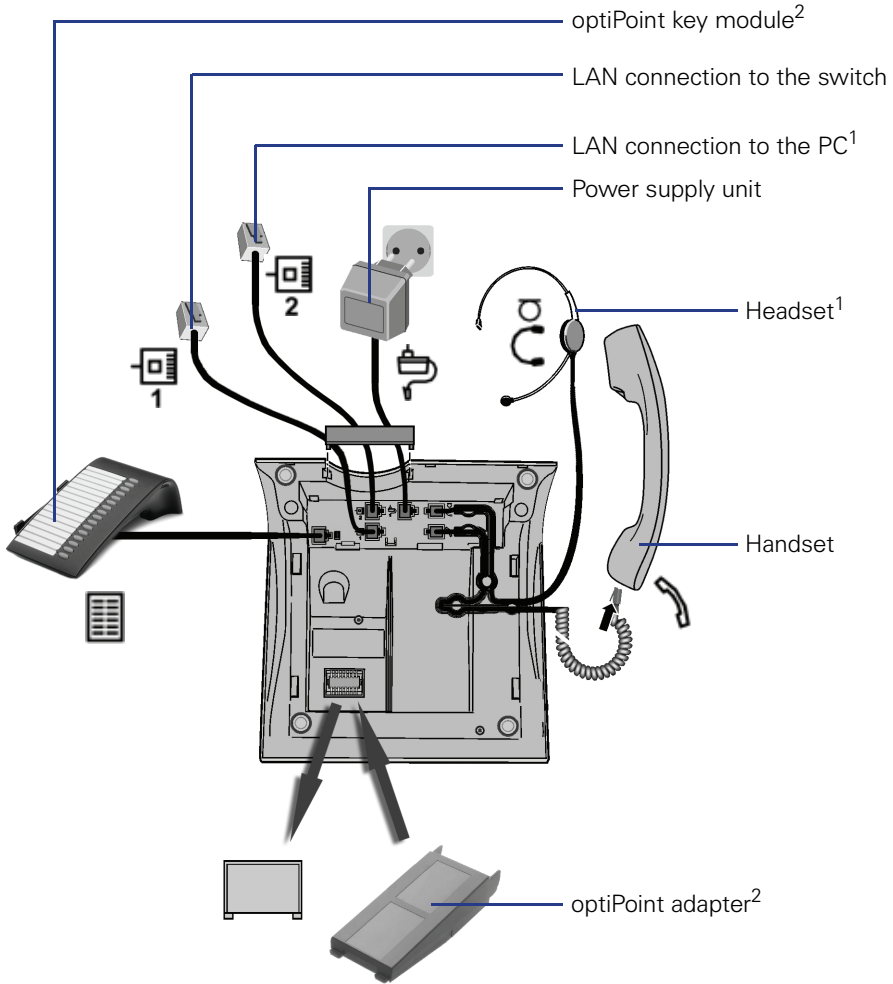
Ports on the BizIP 410 telephones

The symbols used in the illustration correspond to the name of the port on your telephone.

optiPoint key module[2]

LAN connection to the switch

LAN connection to the PC[1]

Power supply unit

Headset[1]

Handset

optiPoint adapter[2]

[1] optional
[2] optional, only BizIP 410 a

Refer to the Operating Manual for information on accessories.

Getting started

1. First gather all the required configuration data (see"Configuration table" → 9).
2. Next install the various HiPath BizIP devices, see "Installation" → 10.
3. Finally configure your HiPath BizIP so that you can start using your telephone system immediately (see "Initial configuration" → 15).

Configuration table

A number of details are required for initial configuration. You can enter this data in the following table.

You will need this data later for initial configuration, see "Performing initial configuration" → 15.

No.	Name	Source	Value
1	PPP user name	Your DSL access provider	....
2	PPP password	Your DSL access provider	....
3	ISDN phone numbers	Your ISDN access provider	....
4	VoIP user name(s)	Internet telephony provider	....
5	VoIP password(s)	Internet telephony provider	....
6	VoIP phone numbers	Internet telephony provider	....

Installation

Prerequisites

The HiPath BizIP devices:

The BizIP AD 20 access device. This sets up the connection to the ISDN network and - via the DSL-modem - to the DSL connection, and permits the use of analog devices such as a fax machine or entrance telephone. The BizIP AD 20 comes with a plug-in power supply unit, a LAN cable and two S_0 cables.

The telephones in your HiPath BizIP system: BizIP 410 a and BizIP 410 e (any combination permitted). A power supply unit must then be used with the telephone if the switch used does not support "Power over Ethernet" (Class 2 to 6.5W).

An Ethernet LAN with DSL access:

One or more conventional 10/100-Mbit network switches. You need a LAN port for BizIP AD 20 and each BizIP 410 phone).
Each BizIP 410 telephone has an integrated mini-switch that can be used to connect a PC. You need additional LAN ports if you want to use additional SIP terminals.

The wiring involves several twisted-pair network cables (at least CAT-5) with RJ45 connector. The cable is used for connecting the BizIP 410 telephones, SIP terminals, PCs, and the BizIP AD 20 to the LAN switch. A different cable is needed to connect the DSL modem to BizIP AD 20.

A DSL modem (usually supplied by your DSL access provider) for using the Internet access for voice and data. If you have a combined DSL/ISDN port (just one TAE port), then a DSL splitter - also supplied by the DSL provider - is switched in front.

In order to be able to make phone calls over the public telephone network (PSTN), you will need at least one ISDN connection and the requisite adapter (NTBA, supplied by your ISDN provider).

Performing installation

What was your previous configuration?

- **I have a PC network (Ethernet LAN) with a router and DSL connection.**
  Disconnect the existing router from the DSL modem and from the network switch. The old router is no longer required because this function is performed by the BizIP AD 20.

  ▓▶ If you have a combined modem and router, you must disable the router function (the router does not perform a PPPoE logon).

  BizIP AD 20 also performs the DHCP server function.

- **I have a single PC with DSL access.**
  Disconnect the PC from the DSL modem. You now need a network switch to connect the devices.
  If you are unable to do without your existing router (for example, because of VPN), you can operate BizIP AD 20 behind the router. See Administratorhandbuch.

- **I do not have a PC network or DSL access.**
  First apply to the relevant DSL provider for DSL access and install the devices provided (normally a DSL splitter and modem). Contact your DSL provider for information on how to install the devices.

Before beginning the remainder of the installation, you should have a free port on an ISDN network terminator (NTBA) and on a DSL modem (NTB-BA), depending on the type of access you require.

▓▶ The HiPath BizIP devices must all be located in one LAN segment without intermediate routing.

Figure: Overview of a default configuration

To the
ISDN/DSL connection

DSL Splitter

ISDN
network terminator **NTBA**

NTBBA DSL modem

1.

2.

ISDN 1 ISDN 2 Power   WAN LAN a/b 1 a/b 2   BizIP AD 20
rear side

4.

3.

8. Analog fax machine

LAN Switch

PC

6.

5.

PC at
BizIP 410

BizIP 410 e

7.

BizIP 410 a

BizIP 410 underside
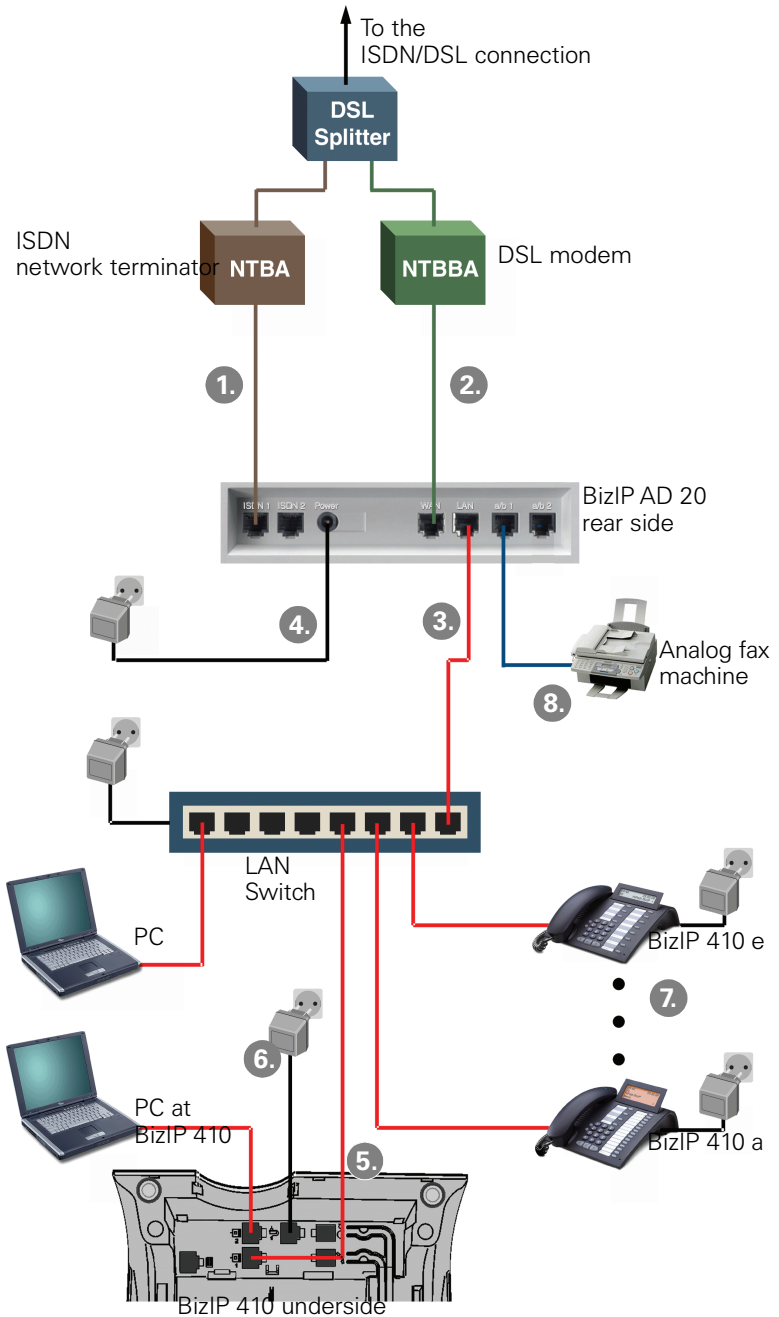
This is the installation sequence for a standard configuration:

1. **Connecting BizIP AD 20 to the telephone network**
   Use an ISDN cable to connect BizIP AD 20 ("ISDN 1" port, see "Rear view (detail) with ports" → 6) to the output on the NTBA. You can connect another NTBA to the "ISDN 2" port to conduct up to four ISDN calls at the same time. You can also configure optional internal S_0 ports for ISDN terminals.

2. **Connecting BizIP AD 20 to the Internet**
   Use a network cable to connect BizIP AD 20 ("WAN" port, see "Rear view (detail) with ports" → 6) to the DSL modem.

3. **Connecting BizIP AD 20 to the LAN**
   Use a network cable to connect BizIP AD 20 ("LAN" port, see "Rear view (detail) with ports" → 6) to a free network port on the switch.

4. **Connecting BizIP AD 20 to the power supply system**
   Plug the BizIP AD 20 power supply into the power outlet and connect it to the "Power" port, see "Rear view (detail) with ports" → 6 on BizIP AD 20. Booting is not concluded until the "Power" LED stops flashing. When this LED lights up, the BizIP AD 20 is ready for use. For further information on the LED indicators, see Administrationsanleitung.

5. **Connecting a telephone to the LAN**
   Use a network cable to connect the switch to a BizIP 410 telephone (port 1 ▪️, see "Ports on the BizIP 410 telephones" → 8).

   You can also install a BizIP 410 telephone between an existing PC and the LAN switch. For more information, refer to the Administrationsanleitung.

6. **Connecting a telephone to the power supply system**
   Plug the power supply unit into the power outlet and connect it to the port on the underside of your BizIP 410 telephone (port ⭤ , see "Ports on the BizIP 410 telephones" → 8). A power supply unit must then be used with the telephone if the switch used does not support "Power over Ethernet" (Class 2 to 6.5W).

   Enter the language, country, and user name at the telephone while the first system phone (BizIP 410 phone) is starting up. You can also modify the data later with Web-Based Management (under "System-wide Settings"), see Administrationsanleitung.

7. **Connecting additional telephones**
   Repeat Step 5 and Step 6 for each BizIP 410 telephone you want to connect (up to 16 stations).

8. **Connecting additional devices**
   HiPath BizIP features a number of configuration options for connecting additional devices. You can connect additional devices at any time later. For more information, refer to the Administrationsanleitung.

Hardware installation is now complete.
The BizIP 410 telephones are configured automatically which means that you will be able to make internal calls straight away. A few more settings

that are described below (Section "Initial configuration" → 15) are required in order to use the public telephone network (ISDN) and the Internet (VoIP) to make external calls.

Initial configuration

Initial configuration can be completed in just a few guided steps.

Prerequisites

- **All HiPath BizIP components are installed**, see "Installation" → 10.
- The required configuration list data is available, see "Configuration table" → 9.
- A PC is available, providing you with access to your HiPath BizIP LAN. Make sure that the options "TCP/IP" and "Obtain an IP address automatically" (DHCP) are activated in the PC's network settings.
- Microsoft Internet Explorer (V5.0 or later) or Mozilla Firefox (V1.5 or later) is installed as a browser on the PC.
  Make sure that the language you want is set in the browser as the preferred language for Web site display.

> To make startup as easy as possible for you, a default configuration is loaded when you connect a telephone. An internal phone number is also automatically assigned. The Administration Manual explains how to customize the numbering plan in line with your requirements.
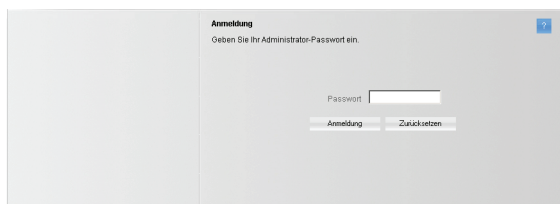
Performing initial configuration

> The initial configuration described here is an example for the following application:
> - DSL access provider T-Online
> - ISDN multi-device connection
> - Internet telephony provider Sipgate
>
> For other applications, read the detailed description in der Administrationsanleitung.

1. Open an Internet browser on your PC.
2. Enter the following IP address: http://192.168.1.1/.
3. The BizIP AD 20 login window appears.

   Enter the administration password under **Password** (default: **123456**).
   Click **Login**.
4. The BizIP AD 20 administration interface appears.
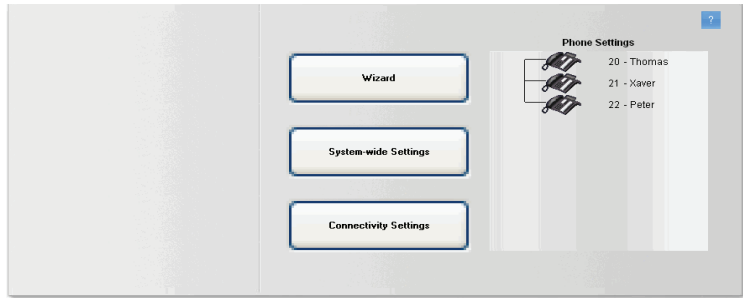
Click **Wizard**. You should also follow the instructions on the individual pages.

5. **Step 1** (DSL connection)

Enter the following data:

– **Connection Name**: Any name for this connection.
– **Connection Type**: Select the connection type **PPPoE**.
– **PPP User Name**: User name for your T-DSL connection.

> PPP user names are as follows for the DSL provider T-Com:
>
> Example: AAAAAAAAAAAAATTTTTTTTTTTTT#0001@t-online.de
>
> 1. Connection ID, 12 characters (A)
> 2. T-Online number (T)
> 3. Additional user number (with one user: 0001)
> 4. @t-online.de
>
> The user name is case sensitive.

– **PPP Password**: Password for your T-DSL connection.
– **Upload bandwidth to Provider**: To ensure optimum voice quality, select the bandwidth of your DSL connection to the provider from the list (upload, consult your VoIP provider).
– **Move reconnect between**: Many DSL providers automatically perform forced cleardown after 24 hours on line. Enter a time here when your BizIP AD 20 is generally not in use. Your HiPath BizIP will forc-

ibly clear down any live connections every day at the time entered. This ensures that the DSL provider's forcible cleardown does not occur at an inappropriate time for you.

If applicable, you will find this data in your configuration table, see "Configuration table" → 9.

Click **Next** .

When you establish a connection with the DSL access provider, the "WAN" LED lights up, see "Rear view (detail) with ports" → 6. For further information on the LED indicators, see Administrationsanleitung.

6. **Step 2** - ISDN port data

First of all, define the basic data for your ISDN connection:

– Select the option
   Point-to-Multipoint under **ISDN Operating Mode Port 1**. You can configure port 2 later, see Administrationsanleitung.
   You can also configure **Point-to-Point** with direct inward dialing instead of **Point-to-Multipoint** if you ordered this type of connection from your provider, see Administrationsanleitung.
– Under **Country Code**, select the option **Deutschland (+49)**.
– Under **Area Code**, enter the telephone prefix for your location with a leading zero, such as "089" for Munich for example.

Now, assign ISDN phone numbers to the telephones:

A   In the **MSN X** fields, enter the MSNs assigned to you by the network operator. This is the receiving MSN for your connection.

B   From each of the lists in the **Outgoing Calls** column, select one MSN for outgoing calls (sending MSN).

C   Now assign one device to each receiving MSN by selecting the relevant checkboxes. When you activate multiple checkboxes for a single receiving MSN, multiple devices will ring when called on this phone number.

In the example, the telephones with the internal phone numbers 21 and 22 will ring when you dial the phone number +49 (89) 78107467.

Select or deselect the checkbox **Use Group Answer Machines** in order to activate or deactivate the group answer machine for individual call groups/MSNs. For more information on how to configure group functions, see Administrationsanleitung

> A group mailbox is automatically configured with the setup described in the example and incoming calls to this mailbox are signaled at the telephone by a suitably programmed function key.
>
> Without this function key on the telephone, calls may be lost. For further information on programming function keys, see .
>
> Group mailbox numbers:
> - ISDN group mailboxes: 50-69
> - SIP group mailboxes: 70-79

External dial-in and **Add external call destination** are not required for initial configuration and can be added later, see Administratoranleitung.

You can use **+ >** and **< -** to scroll to other MSN columns.

Click **Next** .

7. **Step 3 -** VoIP provider

Default VoIP data is automatically preset here when you select an Internet telephony provider. If your provider does not appear on the list, select **add new Provider** and enter the data manually. The number of entries required will vary according to the provider. For information on data for various providers, siehe Administrationsanleitung.

Only the user ID of the selected ITSP is active.

NAT Traversal (STUN) lets you operate your HiPath BizIP behind an external router.
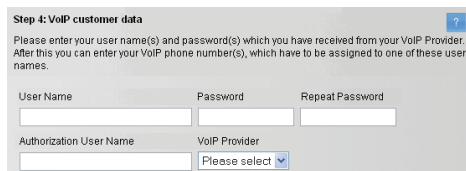
If necessary, select 🕮 **STUN** and enter the **Provider Registrar** and the **Port**. Your network provider can supply the necessary data. See also Administratorhandbuch.

Click **Next** .

8. **Step 4** - VoIP customer data

Enter the required VoIP customer data here for your Internet telephony provider.

Click **Edit** (up to 10 entries). If applicable, you will find this data in the configuration table, see "Configuration table" → 9. For information on data for various providers, siehe Administrationsanleitung.

– **Please select a User Name for each VoIP number.**: User name of your Internet telephony provider.
– **Password** (**Repeat Password**):
  Password of your Internet telephony provider.
– **User Name**:
  Name for accessing your Internet telephony provider (if specified by your provider).
– **VoIP Provider**:
  Name of your Internet telephony provider (**Sipgate** in the example).

Click **Save** to apply your changes.

All users added are displayed in a list.
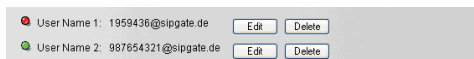
Green icon: User has been registered successfully.
Red icon: User could not be registered. In this case, check that the provider and user data is correct.

– Enter the phone numbers supplied by your Internet telephony provider in the **VoIP Numbers** field for VoIP single user accounts (without DID), and assign each number to a user name.

Click **Next** .

9. As in Step 2, numbers are assigned to telephones in **Step 5**; in this step, it is the Internet telephony phone numbers that are assigned.

proceed as for **Step 2**.

Click **Next** .

10. To save the current configuration permanently, click **Save Configuration**.

Hardware and software installation are now complete. You can change these settings and others at any time. You will find more information in der Administrationsanleitung.

> Change your administration password to protect HiPath BizIP against unauthorized access.
>
> Save the current configuration so that you can restore it. Further information on backing up the configuration is available in der Administrationsanleitung.
>
> Check whether up-to-date firmware is available for your BizIP 410 telephones and your BizIP AD 20 and install it. Further information on updating HiPath BizIP is available in der Administrationsanleitung.
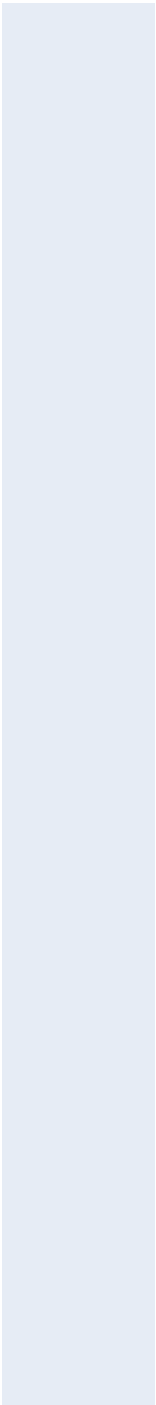
Further information

You will find detailed information about different tasks in the following documents:

- **Context-specific help**
  Click the Help button ? in one of the Web interfaces to display a help page relating to the current topic.
  You can call up the help in HTML format from the following directory on your system CD:
  `[CD/DVD drive]:\manual\en\edok\index.htm`
- **Information about the telephone**
  The information about the telephone contains a brief explanation of the most important telephone operations. Frequently asked questions are also answered here.
  The document is supplied with the telephone. There is a PDF version of the document on your system CD in the following directory:
  `[CD/DVD drive]:\manual\en\pdf\InfoPhone.pdf`
  Part number: A31003-K1000-C101-*-6Z19
- **Operating Manual**
  This contains a detailed description of all HiPath BizIP functions.
  There is a PDF version of the document on your system CD in the following directory:
  `[CD/DVD drive]:`
  `\manual\en\pdf\UserGuideBizIP410_en.pdf`
  Part number: A31003-K1000-C102-*-7619
- **Administration Manual**
  This document contains detailed information about configuring BizIP AD 20 and the BizIP 410 a and BizIP 410 e telephones.
  There is a PDF version of the document on your system CD in the following directory:
  `[CD/DVD drive]:\manual\en\pdf\AdminBizIP_en.pdf`
  Part number: A31003-K1000-C103-*-7619
- **Internet**
  For the latest information, notes, new firmware versions, and additional software, visit us on the Internet at:
  http://wiki.siemens-enterprise.com/index.php/HiPath_BizIP
  ftp://bizip.siemens.com/HiPath_BizIP1.0/

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