SIEMENS

blue2net

LAN Access Point

Bluetooth™

User Guide

Issue May 2002, Version 1.1

The information contained in this manual and the software it describes are subject to change without notice for the purpose of technical improvement.

Information on Siemens Bluetooth™ products

http://www.siemens.at/bluetooth

Issue May 2002, Version 1.1

Safety Precautions

Power supply:

Only use the power supply unit supplied:

Part number: N4 EFS3 3W 4.4V (EU-version)
N4 GFS3 3W 4.4V (UK-version)
N4 UFS3 3W 4.4V (US-version)

Only use the device where the mains voltage is in accordance with the input voltage printed on the power supply unit.

A certain temperature rise is normal and harmless.

Ensure that while in use the device is not covered and not situated near a heater or exposed to direct sunlight.

Use only for information technology devices.

For indoor use only - do not expose device to rain.

To clean device, wipe with a dry cloth. Do not use solvents.

blue2net:

Other electrical equipment (e.g. medical equipment in a medical clinic) may be affected by the use of the device. Therefore, set up the device only in locations where it causes no interference with such equipment.

Do not install blue2net in bathrooms or shower rooms.

Do not operate the device in environments where there is a risk of explosion (e.g. paint shops, gas stations).

Ensure that the operating instructions are included when passing on your blue2net to a third party.

At the end of its life cycle the device has to be disposed of in an environmentally friendly way. As environmental regulations and facilities vary from country to country, Contact your local authorities, the relevant person in your company or your local dealer for advice on how best to dispose of the device.

The device should not be opened under any circumstances. Any modifications will invalidate both its approval for use and warranty.

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1 Introduction

What is blue2net?

blue2net provides the user with the possibility to gain access to all services and resources of a LAN (Local Area Network) via a radio connection.

Up to 7 Bluetooth clients may be connected simultaneously to an IP network via Ethernet. In line with the Bluetooth specification 1.1, blue2net uses the LAN Access Profile, which means full IP integration over a PPP link.

A broad range of security options along with an integrated firewall regulate access rights and prevent unauthorized connections from being set up.

You simply connect the LAN Access Point to an Ethernet interface. Within a short period of time, the device will be ready to receive signals within a range of approximately 10 to 30 meters.

As a user you need nothing but a PC, laptop or PDA with an appropriate Bluetooth module. Such an adapter can be plugged in via USB or PCMCIA.
A number of notebooks already have Bluetooth on board.

The Embedded Linux-based Siemens LAN Access Point works with all commonly used Bluetooth adapters. You can configure the device via a Web interface from all commonly used browsers. If you have to administrate a larger number of access points, you can carry out the configuration via SNMP.

Fields of application:

Conference participants are able to work on their corporate network without the nuisance of cables. In an office building, field service staff is able to comfortably and quickly update and synchronize their data with that stored on the server.

Public places, such as airports, train stations, hotels, restaurants, shopping malls, or Internet cafés can provide travellers or their customers with the most diverse range of information and services. This information is made available free of charge, as radio connections via Bluetooth do not give rise to license fees.

Home users are able to surf the Internet and retrieve e-mails wirelessly – while sitting on their sofas – with the LAN Access Point providing the connection over a cable modem (e.g. Chello)

2 First Installation of blue2net

2.1 Checking Package Contents

1 blue2net unit

1 power supply unit, either EU-version: N4 EFS3 3W 4.4V or
UK-version: N4 GFS3 3W 4.4V or
US-version: N4 UFS3 3W 4.4V

1 blue2net User Guide CD-ROM or booklet ,

4 adhesive rubber feet

2 screws and 2 wall plugs

2.2 Installation Notes

- Please pay attention the safety precautions
- Install only indoors within a temperature range of 0 to +40 °C (+32 to +104°F)
- A 220/230V~ (110/120V~) mains socket and Ethernet connection should be available close to where blue2net is installed and be easily accessible.
- Only use the original power supply unit that comes with the package.
- Upon first installation, where a connection to the LAN will be established for the first time and where basic configuration settings will be carried out, the device may be placed on the table beside the laptop. Do not mount the device in its final position until the first installation has been completed.
- blue2net's built-in antenna is directional (see Figure 1). The farther the distance between blue2net and the Bluetooth devices, the more important does it become to take account of that directivity in order to achieve optimum reach and data transmission rates. We would advise you to try out various wall-mounted and other installation positions to find the optimum place for your blue2net unit before you start drilling holes for the fastening screws.

Directivity-based transmission results:

B ....Best results
L.....Less favorable
W ...Worst results

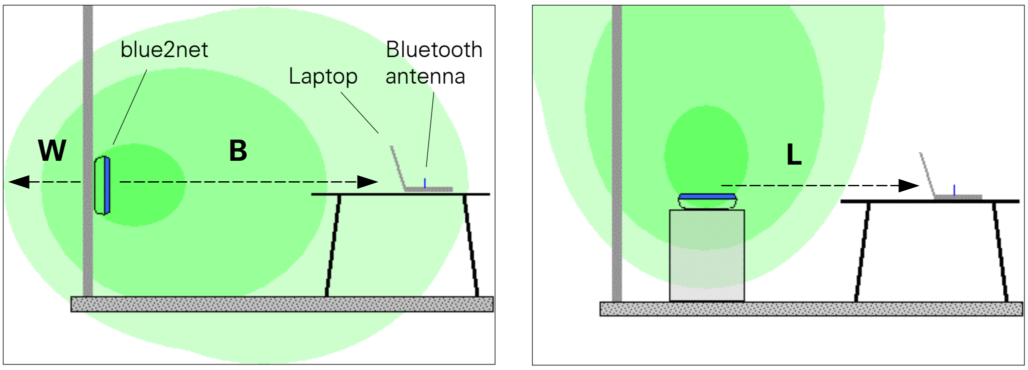


Figure 1 blue2net's directivity and how to achieve good transmission results

- You can also use blue2net's directivity to position the unit in such a way that the amount of radiation emitted into neighboring areas remains as low as possible (privacy, interference).

- The installation site should not be located in the immediate vicinity of devices, such as microwave ovens, that use the same or adjacent frequencies.
- The device can be mounted on a wall or ceiling or can be placed on a flat, but non-slippery, surface. Do not place it directly on the floor (danger of damage).
- Install it in a central location, e.g. in a hallway. Try to avoid placing blue2net where the Bluetooth radio signals can be shadowed by obstacles (e.g. thick walls).
- If you want to mount the device close to surrounding objects, leave enough room for cables on the connector side (min. 60 mm). On the opposite side leave enough room for moving the device in order to mount it on the screws (min. 20 mm). A dimension diagram is provided at the end of the user guide.
- The device feet usually do not leave marks on surfaces. However, due to the variety of varnishes and polishes in use, marks cannot be entirely excluded.

2.3 Connecting blue2net to Your Ethernet LAN

Basically, what you need to operate a device such as blue2net on a LAN is an IP address.

DHCP (Dynamic Host Configuration Protocol) is the most common mechanism used in corporate LANs and used by cable modem providers to assign IP addresses to clients such as blue2net. Contact your network administrator or ISP (Internet Service Provider) to check if your LAN provides DHCP. For DHCP administration purposes, you might be asked for the *MAC address* of your blue2net. This information is provided on the label at the bottom side of the blue2net case (see Figure 2).

blue2net tries to get its IP address via DHCP. If DHCP service is not available, blue2net will use its own fallback IP address, and the IP address will have to be assigned manually.

How to proceed:

1. Connect **first the Ethernet cable** to the Ethernet cable connector (RJ45) and then the power supply unit to the power supply connector (RJ11) (see Figure 2).

2. After about 40 seconds, check if the indicator LED (see Figure 2) displays a steady light. If so, you can be sure that blue2net got its IP address assigned by a DHCP server.

   blue2net is now ready to use ***but not secured***.

   To choose suitable settings for your requirements (particularly security) please proceed with chapter 2.8

3. If the LED displays a steady light only after about 2 minutes, DHCP service is not available and blue2net will use its own fallback IP address (192.168.1.2). to be able to start up. However, with this IP address, you cannot get a connection to the LAN. Now you have two options:

- Call the network administrator or ISP (Internet Service Provider) to find out why a DHCP service was not available.
- If there is no way for you to make use of a DHCP service, you have to configure blue2net manually to predefined values.

  Please consult an expert in network technology (e.g. a network administrator for the company LAN or one from the ISP) to get a connection to the LAN.

  After the manual configuration has been successfully carried out and a connection to the network is established, blue2net is basically ready to use. However, you still need to define the *security settings*. To choose suitable settings for your requirements please proceed with chapter 2.8.

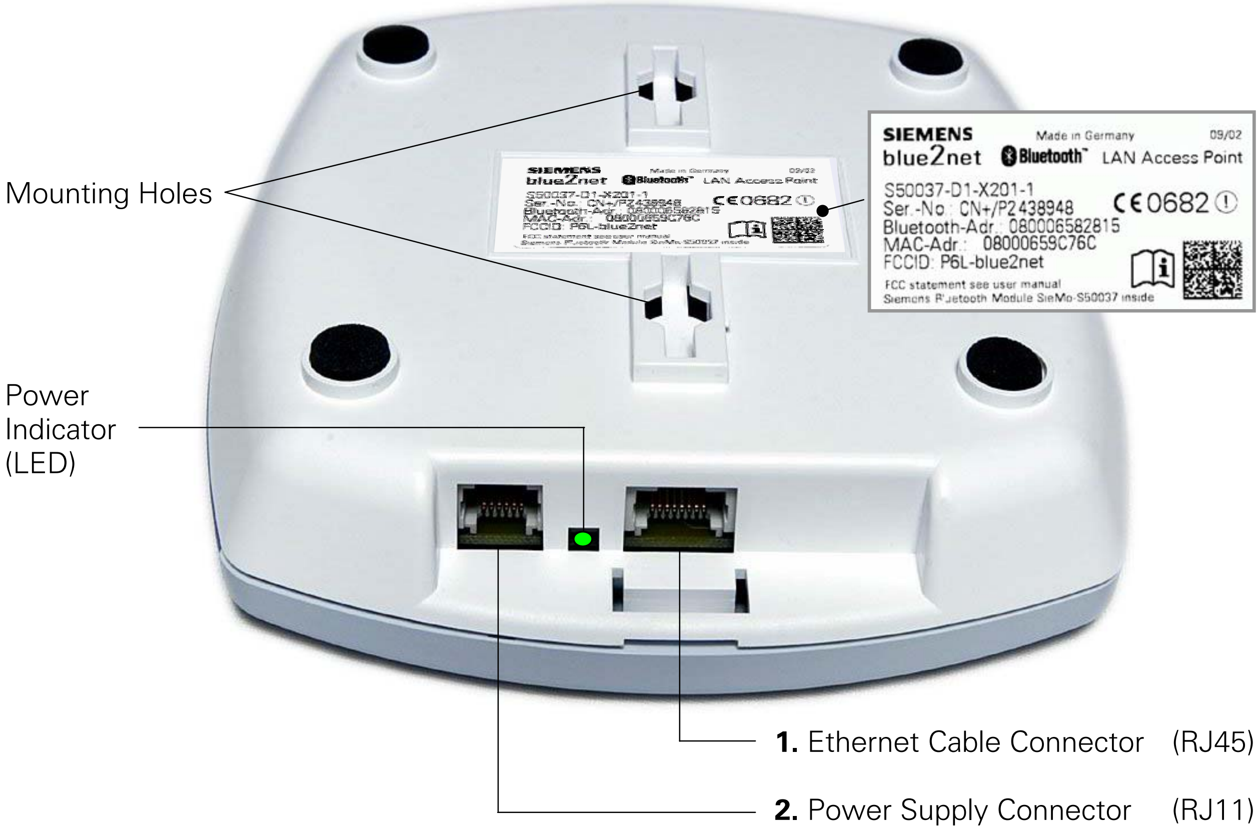


Figure 2 blue2net bottom view; connectors, mounting holes, LED, and label

2.4 Explanation of LED Behavior

Behavior	**Explanation**
Not lit	No power
Steadily lit	Ready for operation, IP address assigned
Flashing normally	Starting up
Flashing slowly	Trying to get an Ethernet connection
Flashing rapidly	Software update

2.5 Connecting to blue2net via Bluetooth

Make sure that your Bluetooth terminal, such as a laptop or a PDA, supports this technology and is fully compliant with the Bluetooth LAN access profile.

Follow the steps described in the **User Guide** of your **Bluetooth terminal**.

Basically, what you need to do is:

- Start the Bluetooth application on your terminal.
- Search with your Bluetooth terminal for reachable Bluetooth devices (Bluetooth Device Inquiry).
- Choose your blue2net from the list of devices displayed and connect to it. In order to identify your blue2net device among other devices displayed, look for the Bluetooth address of your blue2net. This information is provided on the label at the bottom side of the blue2net case (see Figure 2).
- When a login window appears on your terminal you have to enter a Bluetooth Passkey. By default, this Bluetooth passkey is set to '**1234**' on blue2net.
- Please ensure that your terminal starts a PPP-connection such as Windows RAS (Remote Access Service).

2.6 Accessing the Built-In blue2net Web Server

blue2net provides a Web interface for configuring parameters, checking the settings and device information, and also for carrying out software upgrades. There are two possibilities to access the Web server – Access via Bluetooth or access via Ethernet.

2.6.1 Required Browser Settings

- **Disable** the **proxy settings** on the Web browser of your PDA or laptop.
- **Enable** the **cookies!**

2.6.2 Access via Bluetooth

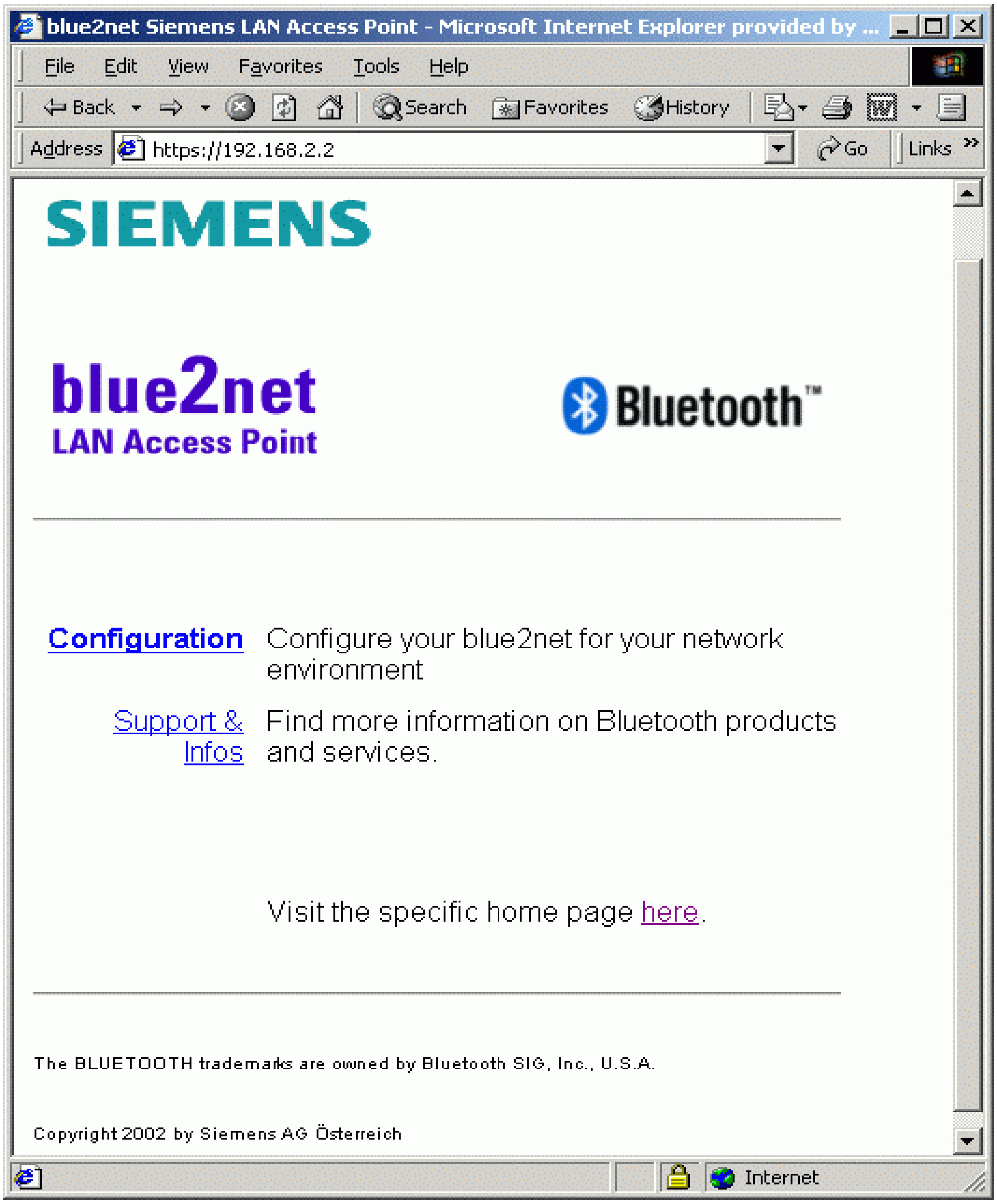
- You need an established Bluetooth connection to blue2net as described in chapter 2.5.
- Access blue2net's Web interface by entering http**s**://192.168.2.2 (Note that blue2net only supports secure access via http**s**) in the location/URL field of your Web browser. This is the default IP address for terminals connected via Bluetooth. Figure 3 shows the homepage of the blue2net Web interface.

2.6.3 Access via Ethernet (LAN)

Access via Ethernet is recommended for experts only. Basically follow the instructions below:

- If the IP address of your blue2net was assigned via DHCP, you have to find out the value of this IP address. There are two ways to do so:
  a) Ask your network administrator or Internet Service Provider.
  b) Access blue2net via Bluetooth (see 2.6.2) and read the value of the parameter ‘blue2net IP Address’ (see 3.7.1).
- If the IP address was not assigned via DHCP, blue2net uses the fallback IP address (192.168.1.2). Make sure your network configuration on the client matches the segmentation of the IP address of blue2net.
- Access blue2net's Web interface by entering **https://<IP address of blue2net>** in the location/URL field of your Web browser (see Figure 3).

2.7 How to Get to the Configuration Page


blue2net Siemens LAN Access Point - Microsoft Internet Explorer provided by ...
File Edit View Favorites Tools Help
Back Search Favorites History
Address https://192.168.2.2
Go Links
SIEMENS
blue2net
LAN Access Point
Bluetooth™
Internet

Configuration Configure your blue2net for your network environment

Support & Infos Find more information on Bluetooth products and services.

Visit the specific home page here.

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Figure 3 blue2net Web interface

- Click on **Configuration** on the first page of blue2net's Web interface (see Figure 3).
- The default password for configuration access is "**changeme**". It is recommended to change the password after the first time you use it (see chapter 3.8). Keep the password in a safe place separate from your blue2net, user guide, laptop, PDA, or PC.

Caution: If you forget your *configuration password*, you can no longer access the blue2net settings. You will then be locked out of the configuration settings. The same applies for other important parameters. For more information on this essential issue, see chapter 5, "Preventing Lockout".

2.8 Choosing Security Settings

After your blue2net has completed its start up phase it is basically ready to use. However, the access to the LAN and to the configuration page of blue2net is *not yet secure*. With the given default settings anybody can access blue2net from any nearby Bluetooth terminal or from PCs via LAN.

To make your configuration secure you have the following options:

- Chapter 4 provides settings for 3 typical use scenarios for users who want to have quick results but are not yet acquainted with the configuration functions.
- Chapter 3 provides details on each of the configuration settings that enable you may be able to adjust blue2net to your own specific requirements.

Depending on your personal approach choose the settings and then continue with the actual configuration process as described below.

2.9 Important Default Settings

Your blue2net comes with the following important factory settings for Bluetooth and IP parameters:

Parameter	Hierarchy level [1]	Factory Setting
Bluetooth Device Name	[1.1]	blue2net
Multipoint Mode	[1.3]	enabled
Discoverability Mode	[1.4]	discoverable
Connectability Mode	[1.5]	connectable
Default Access Mode	[1.11]	enabled
Default Bluetooth Passkey	[1.12]	1234
blue2net IP Address Resolution	[2.1]	dhcp
IP Masquerading [2]	[2.5]	192.168.2.2
Fallback blue2net IP Address	[2.3.1]	192.168.2.1
Fallback blue2net Netmask	[2.3.2]	255.255.255.0
Fallback blue2net Gateway	[2.3.3]	192.168.1.1
Terminal IP Address Resolution	[3.1]	masquerading
Terminal DNS Server 1	[3.5.1]	192.168.3.11
Terminal DNS Server 2	[3.5.2]	192.168.3.12
Terminal WINS Server 1	[3.5.3]	192.168.3.13
Terminal WINS Server 2	[3.5.4]	192.168.3.14
Terminal Domain Name	[3.5.5]	my.domain.at
blue2net Gateway	[4.2.3]	192.168.1.1
Configuration Password	[5.2]	changeme
Server Channel [3]		2

Table 1 Important default settings

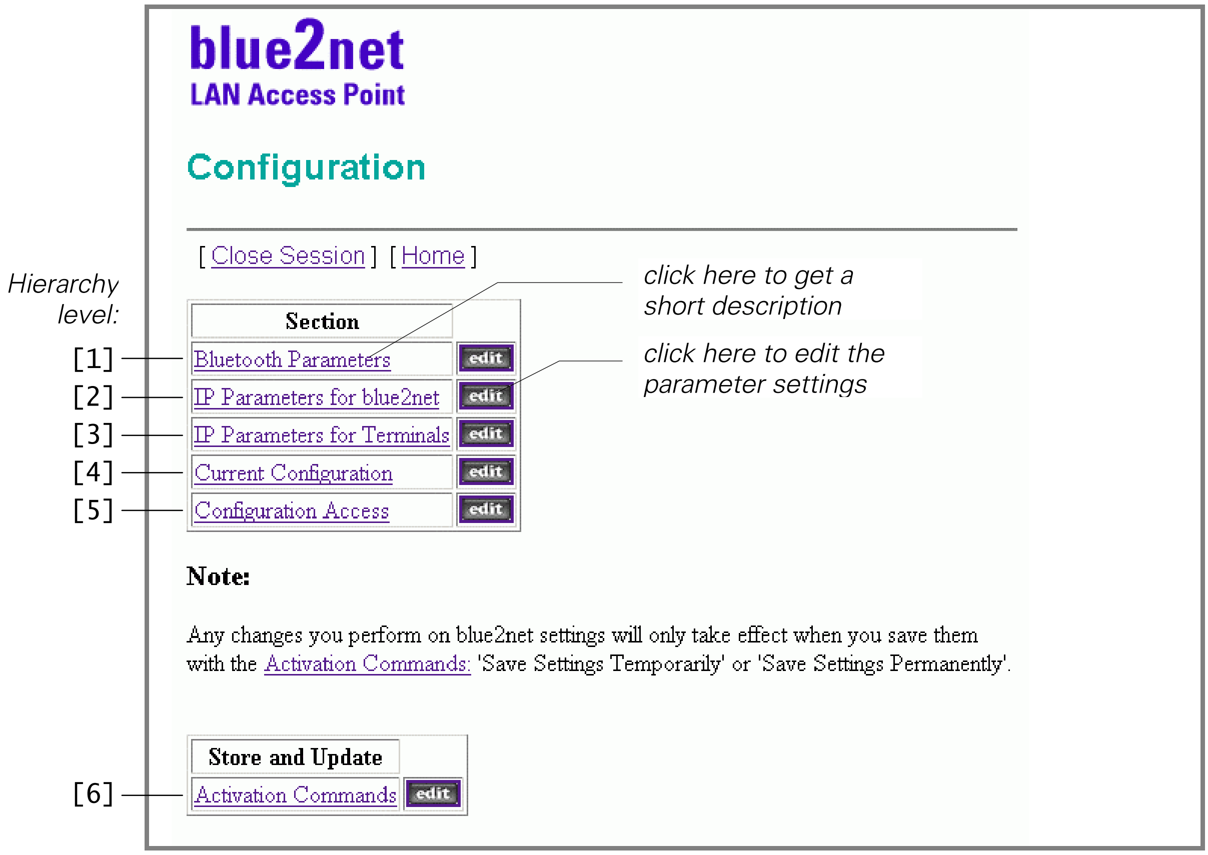
[1] See chapter 3.3
[2] Default IP address for accessing the Web server via Bluetooth
[3] This value has to be defined manually for some Bluetooth terminals (see the user guide of your Bluetooth terminal)

A complete list of default values for all parameters is provided in chapter 12

3 Configuration

3.1 Main Configuration Page

Click on **Configuration** on the Web interface (see Figure 3) to get the following overview (Figure 4). The numbers between square brackets indicate the place of a parameter in the hierarchy of the Web interface (see chapter 3.3 for details).



blue2net
LAN Access Point

Configuration

[Close Session] [Home]

Section	
Bluetooth Parameters	edit
IP Parameters for blue2net	edit
IP Parameters for Terminals	edit
Current Configuration	edit
Configuration Access	edit

Note:

Any changes you perform on blue2net settings will only take effect when you save them with the Activation Commands: 'Save Settings Temporarily' or 'Save Settings Permanently'.

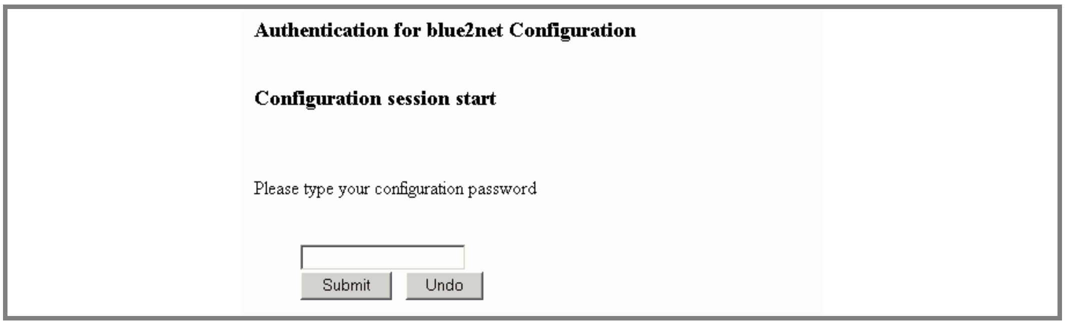
Store and Update	
Activation Commands	edit

click here to get a short description

click here to edit the parameter settings

Figure 4 Main configuration page [0]

Click on one of the <edit> buttons. You will then be prompted to enter the configuration password. The initial password is “**changeme**”



Authentication for blue2net Configuration

Configuration session start

Please type your configuration password

Figure 5 Authentication

Click on the <Submit> button and the main configuration page will be displayed.

For security reasons, you should then immediately change the password. Then save your changes: Do not forget to save your changes using the *activation commands* (see chapter 3.9)!

Note: Make sure you remember your new password or store it in a safe place. Once the password has been changed, configuration access is possible only with the new password! See also chapter 5

Objects (see Figure 4)	**Hierarchy level**	**Explanation**
Bluetooth Parameters	[1]	Here you can change all parameters relevant for Bluetooth, e.g. Bluetooth device name, multipoint mode, discoverability, connectability, default access mode and default Bluetooth passkey.
IP Parameters for blue2net	[2]	Here you can define the IP parameter settings such as *predefined* or *dhcp*.
IP Parameters for Terminals	[3]	Here you can define the IP parameter settings for the connected terminals, such as Terminal IP address resolution and Terminal IP address pool.
Current Configuration	[4]	Here you can see the current configuration for blue2net IP values, terminal IP values, and the version information of the device.
Configuration Access	[5]	Here you can change the configuration password or enable/disable SNMP access.
Activation Commands	[6]	Here you can save your configuration changes either just temporarily or permanently. You can also update your blue2net to a new software version, if available, or load your own specific home page on your blue2net. Further commands provided force a reset to factory settings or values stored in permanent memory.

Table 2 Parameters on the main configuration page [0]

3.2 General Procedure for Changing Parameters

Click the <edit> button next to the parameter you want to change. In the following input window, set or enter the value.

If you want to reset your changes, click on the <Undo> button in order to get the value initially displayed.

If you click on the Web browser’s <Back> button, you will return to the previous page and none of your changes will take effect.

Once you are sure your input is correct, click on the <Submit> button. After that, you will get a confirmation of the change or an error message.

Any changes you perform on blue2net settings will only take effect when you save them with one of the *activation commands* (see chapter 3.9).

3.3 Hierarchy of Pages for Configuration Settings

The purpose of this table is to make it easier for you to find the place of the various parameters on the pages of the built-in Web interface where you can perform the settings. Each parameter or set of parameters has a number reflecting its place in the hierarchy. This number, shown between square brackets such as [#.#], is always referred to in figures, tables, and cross references, e.g. [1.8.4] for 'Auth. Level'.

On the right-hand side you can see

- an action you can perform for this parameter (edit, Submit) or
- a value that is displayed (number, address, domain, version)
- a table to be displayed
- objects to be displayed

[0]			**Main Configuration Page** (chapter 3.1)	action / display of	page
[1]			**Bluetooth Parameters** (chapter 3.4)		**14**
	[1.1]		Bluetooth Device Name	edit, ► Submit,	15
	[1.2]		Bluetooth Device Address	unique fixed address	15
	[1.3]		Multipoint Mode	edit, ► Submit,	15
	[1.4]		Discoverability Mode	edit, ► Submit	15
	[1.5]		Connectability Mode	edit, ► Submit	15
	[1.6]		Max. No. of Terminals Connected	edit, ► Submit	16
	[1.7]		Number of Services	number	16
	[1.8]		Service Table	➡ Table (1 row)	16 & 18
		[1.8.1]	Service Index	number	18
		[1.8.2]	Service Name	edit, ► Submit	18
		[1.8.3]	Service Description	edit, ► Submit	18
		[1.8.4]	Auth. Level	edit, ► Submit	19
		[1.8.5]	Service Provider	edit, ► Submit	19
		[1.8.6]	Service URL	edit, ► Submit	19
		[1.8.7]	Service ID	edit, ► Submit	18
	[1.9]		Number of Terminals	number	16
	[1.10]		Terminal Table	➡ Table (10 rows)	16
		[1.10.1]	Terminal Index	number	21
		[1.10.2]	Terminal Bluetooth Address	edit, ► Submit	21
		[1.10.3]	Terminal Bluetooth Passkey	edit, ► Submit	21
		[1.10.4]	Terminal IP Address	edit, ► Submit	21
	[1.11]		Default Access Mode	edit, ► Submit	16
	[1.12]		Default Bluetooth Passkey	edit, ► Submit	17
[2]			**IP Parameters for blue2net** (chapter 3.5)		**22**
	[2.1]		blue2net IP Address Resolution	edit, ► Submit	23
	[2.2]		Fixed blue2net IP Configuration	➡ Objects	23
		[2.2.1]	Fixed blue2net IP Address	edit, ► Submit	24
		[2.2.2]	Fixed blue2net Netmask	edit, ► Submit	24
		[2.2.3]	Fixed blue2net Gateway	edit, ► Submit	24
	[2.3]		DHCP blue2net IP Objects	➡ Objects	23
		[2.3.1]	Fallback blue2net IP Address	edit, ► Submit	25
		[2.3.2]	Fallback blue2net Netmask	edit, ► Submit	25
		[2.3.3]	Fallback blue2net Gateway	edit, ► Submit	25
	[2.4]		Time Server IP	edit, ► Submit	23
	[2.5]		IP Masquerading	edit, ► Submit	23
	[2.6]		Firewall Settings	➡ Objects	23
		[2.6.1]	Default Firewall	edit, ► Submit	26

Table 3 Hierarchy of pages for configuration settings (1)

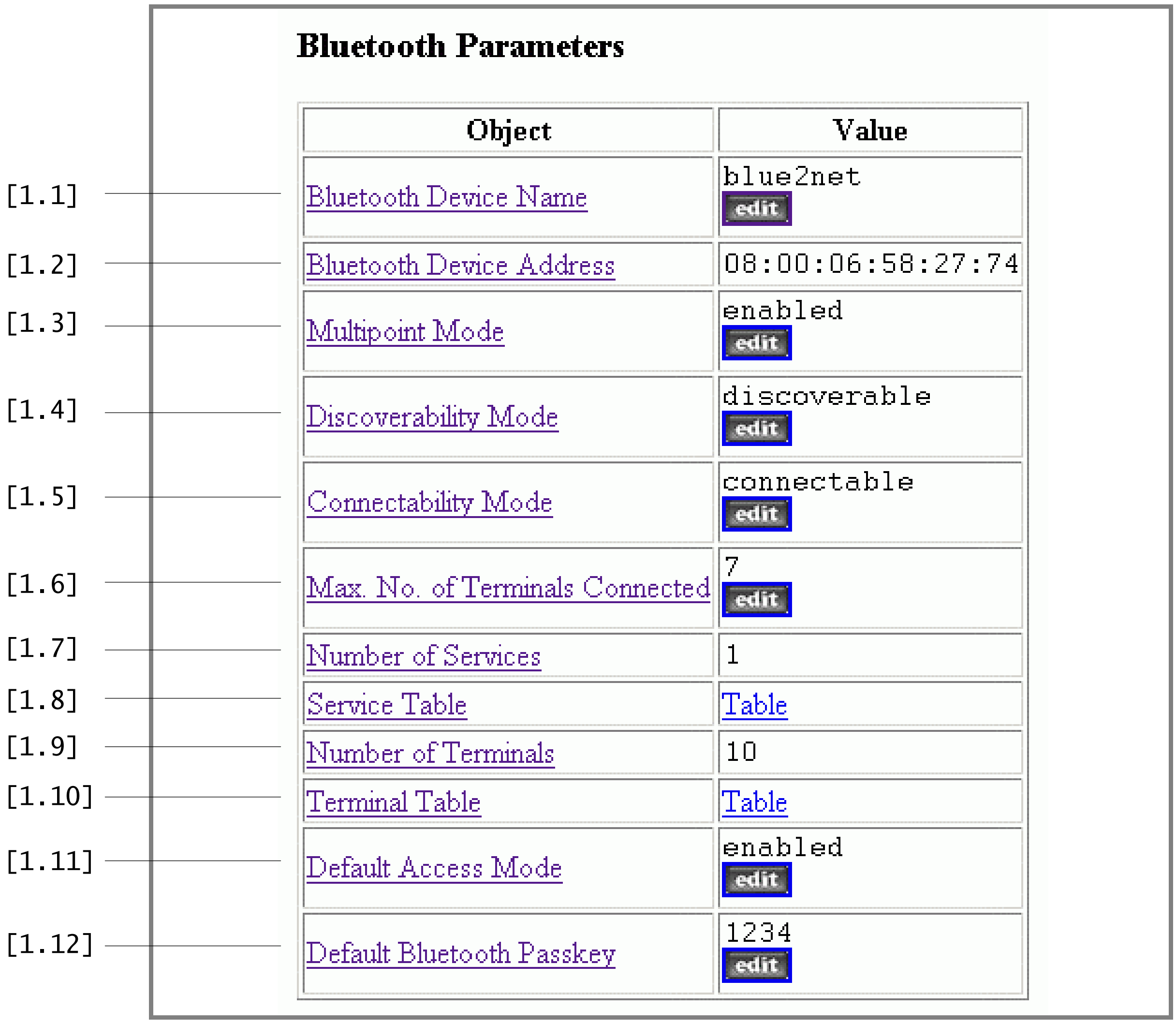
[3]			**IP Parameters for Terminals** (chapter 3.6)		**26**
	[3.1]		Terminal IP Address Resolution	edit, ▶ Submit	27
	[3.2]		Number of Terminal IP Address Pool Entries	number	27
	[3.3]		Terminal IP Address Pool Table	➡ Table (7 rows)	27
		[3.3.1]	Terminal IP Address Index	number	28
		[3.3.2]	Terminal IP Address Pool Value	edit, ▶ Submit	28
	[3.4]		Terminal Net Mask	edit, ▶ Submit	27
	[3.5]		Terminal Fixed Servers	➡ Objects	27
		[3.5.1]	Terminal DNS Server 1	edit, ▶ Submit	29
		[3.5.2]	Terminal DNS Server 2	edit, ▶ Submit	29
		[3.5.3]	Terminal WINS Server 1	edit, ▶ Submit	29
		[3.5.4]	Terminal WINS Server 2	edit, ▶ Submit	29
		[3.5.5]	Terminal Domain Name	edit, ▶ Submit	29
[4]			**Current Configuration** (chapter 3.7)		**30**
	[4.1]		MAC Address	unique fixed address	30
	[4.2]		blue2net IP Configuration	➡ Objects	31
		[4.2.1]	blue2net IP Address	address	31
		[4.2.2]	blue2net Netmask	address	31
		[4.2.3]	blue2net Gateway	address	31
	[4.3]		Terminal Server Configuration	➡ Objects	32
		[4.3.1]	Terminal DNS Server 1	address	32
		[4.3.2]	Terminal DNS Server 2	address	32
		[4.3.3]	Terminal WINS Server 1	address	32
		[4.3.4]	Terminal WINS Server 2	address	32
		[4.3.5]	Terminal Domain Name	domain	32
	[4.4]		Version Information	➡ Objects	33
		[4.4.1]	Module Firmware Version	version	33
		[4.4.2]	PPCBoot Version	version	33
		[4.4.3]	blue2net Software Version	version	33
		[4.4.4]	blue2net Hardware Version	version	33
		[4.4.5]	SieMo Module Info	version	33
[5]			**Configuration Access** (chapter 3.8)		**34**
	[5.1]		SNMP Access	edit, ▶ Submit	34
	[5.2]		Configuration Password	edit	34
		[5.2.1]	Change of configuration password	▶ Submit	35
[6]			**Activation Commands** (chapter 3.9)		**35**
	[6.1]		Save Settings Temporarily	edit, ▶ Submit	37
	[6.2]		Save Settings Permanently	edit, ▶ Submit	38
	[6.3]		Reset blue2net	edit, ▶ Submit	38
	[6.4]		Update Software	edit, ▶ Submit	39
	[6.5]		Restore Default Settings	edit, ▶ Submit	39
	[6.6]		Store Specific Homepage	edit, ▶ Submit	39

Table 4 Hierarchy of pages for configuration settings (2)

3.4 Bluetooth Parameters [1]

This chapter describes the Bluetooth parameters for the blue2net device and the Bluetooth terminals.

You can change the values that come with an <edit> button or are accessible in the secondary level when you click "Table". Click on one of the underlined object names to get an online description.



Bluetooth Parameters

Object	Value
Bluetooth Device Name	blue2net edit
Bluetooth Device Address	08:00:06:58:27:74
Multipoint Mode	enabled edit
Discoverability Mode	discoverable edit
Connectability Mode	connectable edit
Max. No. of Terminals Connected	7 edit
Number of Services	1
Service Table	Table
Number of Terminals	10
Terminal Table	Table
Default Access Mode	enabled edit
Default Bluetooth Passkey	1234 edit

Figure 6 Bluetooth Parameters [1]

Objects (see Figure 6)	Hier. level	Factory setting, other values, value range	Explanation
Bluetooth Device Name	[1.1]	blue2net other name (1...16 characters)	This is the user-friendly name for your blue2net.
Bluetooth Device Address	[1.2]	fixed unique value	This is the unique Bluetooth address of your blue2net. You can also find this address (Bluetooth-Adr.) printed on the label at the bottom side of the blue2net case.
Multipoint Mode	[1.3]	enabled disabled	If 'Multipoint Mode' is set to *enabled*, up to 7 clients can establish a connection to blue2net simultaneously. If 'Multipoint Mode' is *disabled*, only one client can connect in this mode, because no master-slave switch is forced from blue2net. Note: Some older Bluetooth terminals will work only if 'Multipoint Mode' is *disabled*
Discoverability Mode	[1.4]	discoverable nondiscoverable	When blue2net is set to *discoverable*, it is visible to other devices upon Bluetooth device inquiry. When blue2net is set to *nondiscoverable*, it is not visible to other devices upon Bluetooth device inquiry.
Connectability Mode	[1.5]	connectable nonconnectable	When blue2net is set to *connectable*, a terminal can establish a connection to it. When blue2net is set to *nonconnectable*, it is not possible to establish a connection to it from any Bluetooth terminal. **Caution!** Danger of lockout! Verify this parameter carefully! (see chapter 5)

Objects (see Figure 6)	Hier. level	Factory setting, other values, value range	Explanation
Max. No. of Terminals Connected	[1.6]	7 (seven) other value (range: 0…7)	This specifies the maximum number of terminals that can be connected to blue2net simultaneously. If this value is set to "0", no terminal will be able to establish a connection to blue2net. **Caution!** Danger of lockout! Verify this parameter carefully! (see chapter 5)
Number of Services	[1.7]	1 (one) (read only)	This is the number of services presented to the terminals.
Service Table	[1.8]		A list of entries regarding services (see chapter 3.4.1).
Number of Terminals	[1.9]	10 (ten) (read only)	The maximum number of terminal entries that may be contained in the terminal table of blue2net.
Terminal Table	[1.10]		A list of entries regarding terminals (see chapter 3.4.2).
Default Access Mode	[1.11]	enabled disabled	If 'Default Access Mode' is set to *enabled*, terminals not contained in the terminal table [1.10] can also establish a connection to blue2net. The 'Default Bluetooth Passkey' [1.12] is used for Bluetooth authentication. **Security note:** If 'Default Access Mode' is enabled, any terminal will be granted access to blue2net. If 'Default Access Mode' is set to *disabled*, only terminals contained in the terminal table [1.10] can establish a connection to blue2net. **Caution!** Danger of lockout! Verify this parameter carefully! (see chapter 5)

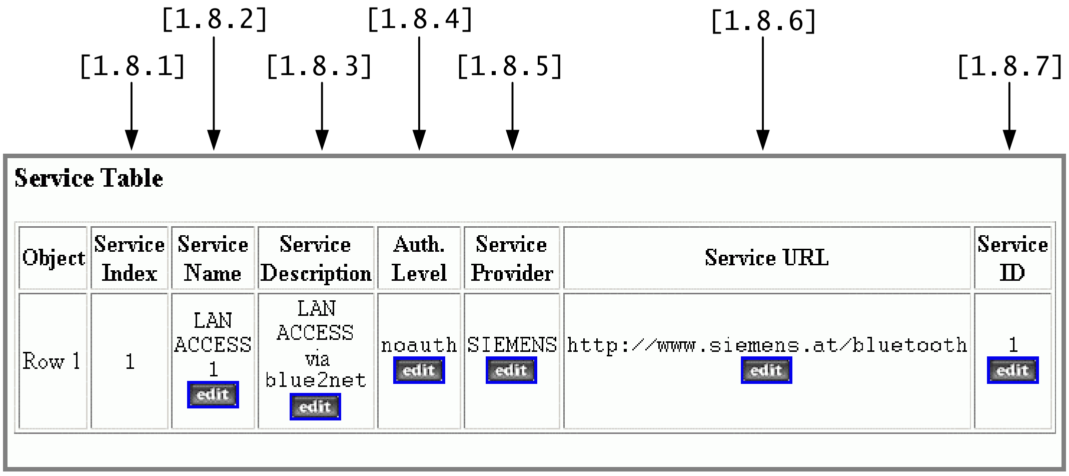
Objects (see Figure 6)	Hier. level	Factory setting, other values, value range	Explanation
Default Bluetooth Passkey	[1.12]	1234 other passkey of your choice (1...16 characters)	Bluetooth Passkey assigned to terminals that are not listed in the Terminal Table. This passkey grants access for such a terminal only if Default Access Mode [1.11] is set to enabled. **Security note**: You should immediately change this value after the installation of blue2net. **Caution!** Danger of lockout! Verify this parameter carefully! (see chapter 5)

Table 5 Bluetooth Parameters [1]

3.4.1 Service Table [1.8]

The most important value in this table is 'Auth.Level' [1.8.4]. It controls the Bluetooth security features (authentication and encryption) used on blue2net.

The other values are presented to Bluetooth devices via SDP upon Bluetooth device inquiry and may be displayed on the terminal side.



Service Table

Object	Service Index	Service Name	Service Description	Auth. Level	Service Provider	Service URL	Service ID
Row 1	1	LAN ACCESS 1	LAN ACCESS via blue2net	noauth	SIEMENS	http://www.siemens.at/bluetooth	1

Figure 7 Service Table [1.8]

Objects (see Figure 7)	Hier. level	Factory setting, other values, value range	Explanation
Service Index	[1.8.1]	1 (one) (read-only)	A unique value for each service.
Service Name	[1.8.2]	LAN ACCESS 1 other name of your choice (1...23 characters)	The name of the service presented to a client using SDP.
Service Description	[1.8.3]	LAN ACCESS via blue2net other description of your choice (1...31 characters)	Description of the service presented to a client using SDP Read-only (does not influence the functionality).

Objects (see Figure 7)	Hier. level	Factory setting, other values, value range	Explanation
Auth. Level	[1.8.4]	noauth auth authandenc	There is a security mechanism required for using the services. Services with the attribute *noauth* (no authentication) can be used without any security mechanism. **Security note:** If Auth. Level is set to *noauth*, there is no restriction for any Bluetooth terminal to access blue2net and the LAN behind it. For services with the attribute *auth* (authentication), a Bluetooth passkey [1.10.3] is requested from the user before a data transfer will be performed. For services with *authandenc* (authentication and encryption), a Bluetooth passkey [1.10.3] is requested from the user before an encrypted data transfer will be performed. **Caution!** Danger of lockout! Verify this parameter carefully! (see chapter 5)
Service Provider	[1.8.5]	SIEMENS other entry of your choice (1...15 characters)	Provider of the service presented to a client using SDP.
Service URL	[1.8.6]	http://www.siemens.at/bluetooth other entry of your choice (1…47 characters)	URL of the service presented to a client using SDP.
Service ID	[1.8.7]	1 (one)	Service Record Handle subfield presented to a client using SDP. (Prepared only for use by future applications)

Table 6 Service Table [1.8]

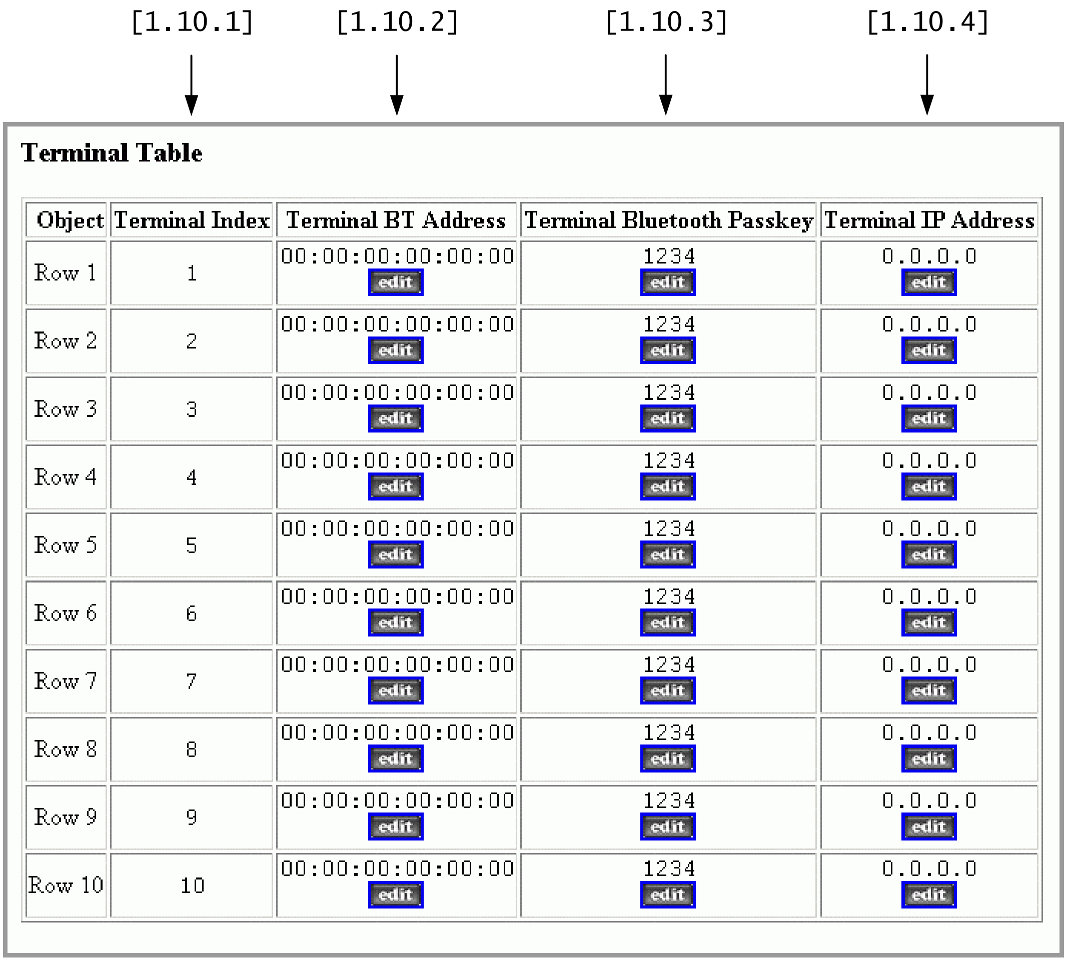
3.4.2 Terminal Table [1.10]

This terminal table may be used to grant access to blue2net for selected Bluetooth terminals identified by their specific Bluetooth device address [1.10.2].

If you want to exclude all other terminals not registered in this table, you have to set 'Default Access Mode' [1.11] to disabled.

For each of the terminals registered in this table, you can configure a specific terminal Bluetooth passkey [1.10.3] and a unique IP address. In order to get a unique IP address for a specific terminal, 'Terminal IP Address Resolution' [3.1] has to be set to predefined or masqueradingpool.

If the terminal IP address [1.10.4] is not configured (IP address is set to 0.0.0.0), terminals get their IP addresses assigned from the 'Terminal IP Address Pool Table' [3.3].



[1.10.1] [1.10.2] [1.10.3] [1.10.4]

Terminal Table

Object	Terminal Index	Terminal BT Address	Terminal Bluetooth Passkey	Terminal IP Address
Row 1	1	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit
Row 2	2	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit
Row 3	3	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit
Row 4	4	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit
Row 5	5	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit
Row 6	6	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit
Row 7	7	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit
Row 8	8	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit
Row 9	9	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit
Row 10	10	00:00:00:00:00:00 edit	1234 edit	0.0.0.0 edit

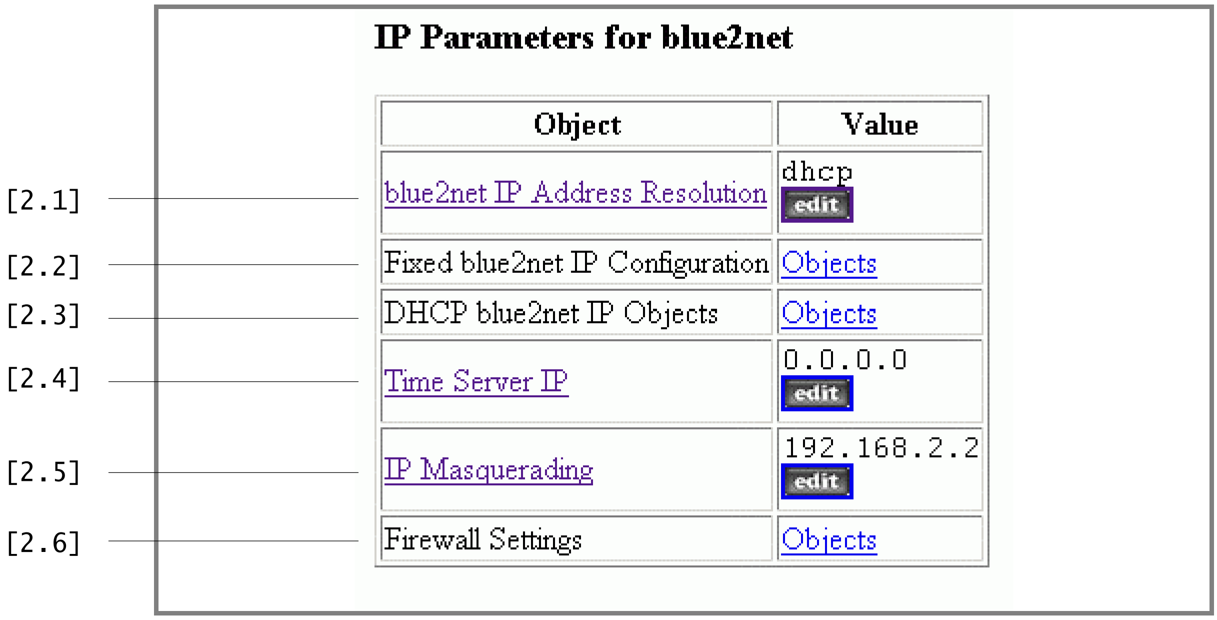
Figure 8 Terminal Table [1.10]

Objects (see Figure 8)	**Hier. level**	**Factory setting, other values, value range**	**Explanation**
Terminal Index	[1.10.1]	1-10 (read-only)	A unique value for each terminal. It ranges between 1 and the value of 'Number of Terminals' [1.9]
Terminal Bluetooth Address	[1.10.2]	00:00:00:00:00:00 other Bluetooth address	The unique Bluetooth address of the terminal which is allowed to use this blue2net. Note: If the Terminal Bluetooth Address is set to 00:00:00:00:00:00 (default value), blue2net will not recognize this terminal as registered even if the passkey [1.10.3] and/or the terminal IP address [1.10.4] are configured.
Terminal Bluetooth Passkey	[1.10.3]	1234 other value of your choice (1...16 characters)	Bluetooth passkey assigned to this terminal for access to blue2net.
Terminal IP Address	[1.10.4]	0.0.0.0 other IP address	If 'Terminal IP Address Resolution' [3.1] is set to *predefined* or *masqueradingpool*, the 'Terminal IP Address' will be assigned to the terminal. If 'Terminal IP Address' contains *0.0.0.0*, a value from 'Terminal IP Address Pool Entries' [3.2] will be assigned to this terminal.

Table 7 Terminal Table [1.10]

3.5 IP Parameters for blue2net [2]

This chapter describes the IP parameters relevant for the blue2net device itself.



IP Parameters for blue2net

Object	Value
blue2net IP Address Resolution	dhcp edit
Fixed blue2net IP Configuration	Objects
DHCP blue2net IP Objects	Objects
Time Server IP	0.0.0.0 edit
IP Masquerading	192.168.2.2 edit
Firewall Settings	Objects

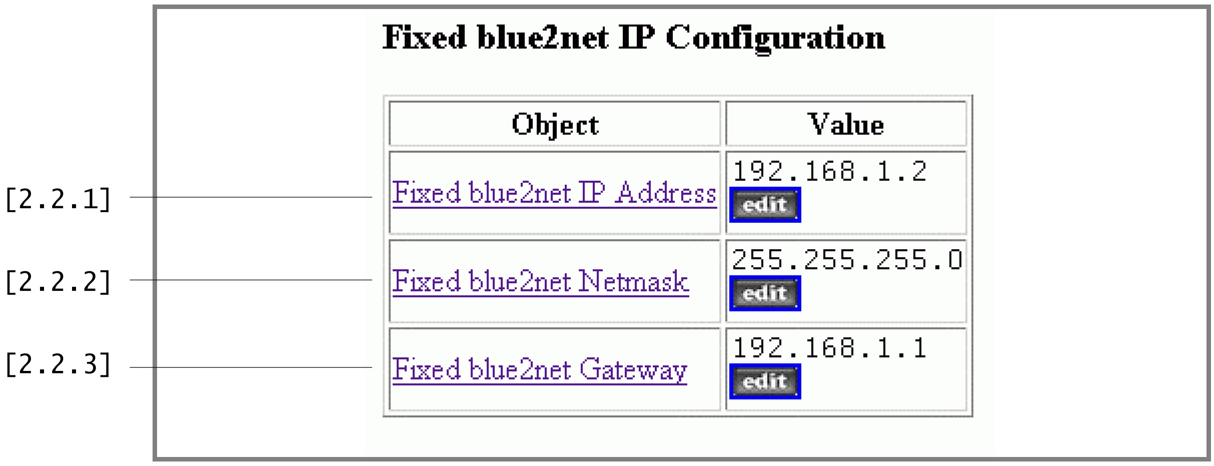
Figure 9 IP Parameters for blue2net [2]

Objects (see Figure 9)	**Hier. level**	**Factory setting, other values, value range**	**Explanation**
blue2net IP Address Resolution	[2.1]	dhcp predefined	This object controls the mechanism for assigning IP address values to blue2net. If the mode is set to *dhcp*, blue2net will send a DHCP request in order to receive values during startup. If the mode is set to *predefined*, blue2net will use the value set in 'Fixed blue2net IP Configuration' [2.2] **Caution!** Danger of lockout! Verify this parameter carefully! (see chapter 5)
Fixed blue2net IP Configuration	[2.2]		The IP addresses assigned to blue2net if the blue2net address resolution mode [2.1] is set to *predefined*.
DHCP blue2net IP Objects ("Fallback" IP's).	[2.3]		The IP addresses assigned to blue2net if 'blue2net IP-Address Resolution' [2.1] is set to *dhcp* and there is no DHCP service available.
Time Server IP	[2.4]	0.0.0.0 other IP address	The IP address of a time server in your network.
IP Masquerading	[2.5]	192.168.2.2 other private IP address	The IP address of blue2net in the masqueraded net, in cases where 'Terminal IP Address Resolution' [3.1] is set to *masquerading* or *masqueradingpool* Note: Make sure that this value is different from the IP address of your blue2net.
Firewall Setting	[2.6]		If 'Default Firewall'[2.6.1] is set to *enabled*, a default set of firewall rules will be activated. Updating the software via Ethernet (LAN) is only possible if the firewall is *disabled*. (see Figure 12)

Table 8 IP Parameters for blue2net [2]

3.5.1 Fixed blue2net IP Configuration [2.2]

If blue2net IP Address Resolution [2.1] is set to *predefined*, the following values will take effect. These values are allocated by the network administrator or Internet Service Provider.



Fixed blue2net IP Configuration

Object	Value
Fixed blue2net IP Address	192.168.1.2
Fixed blue2net Netmask	255.255.255.0
Fixed blue2net Gateway	192.168.1.1

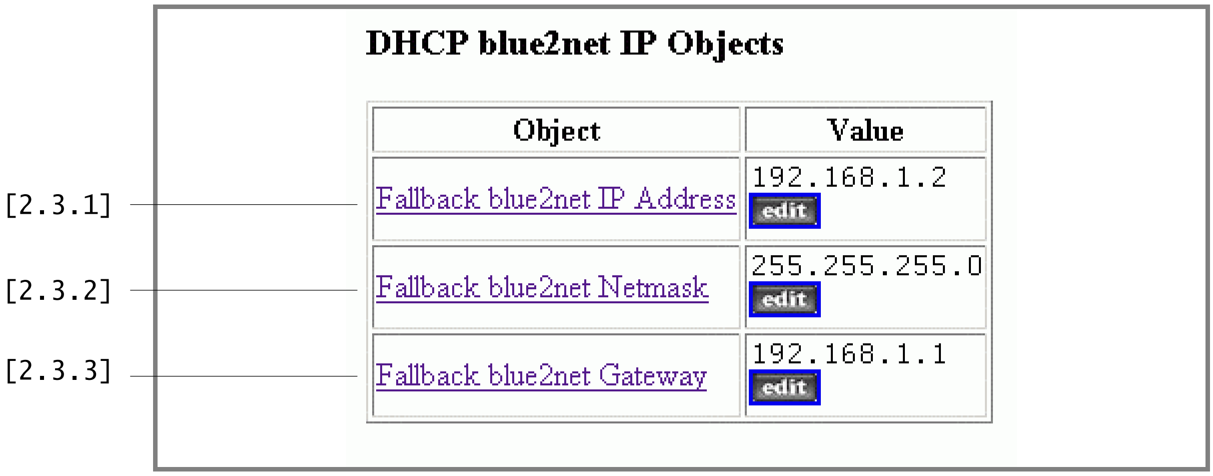
Figure 10 Fixed blue2net IP Configuration [2.2]

Objects (see Figure 10)	Hier. level	Factory setting, other values, value range	Explanation
Fixed blue2net IP Address	[2.2.1]	192.168.1.2 other IP address	The IP address assigned to blue2net, provided the 'blue2net Address Resolution' [2.1] is set to *predefined*.
Fixed blue2net Netmask	[2.2.2]	255.255.255.0 other netmask	The subnet mask associated with the IP address 'Fixed blue2net IP Address' [2.2.1]in cases where 'blue2net Address Resolution' [2.1] is set to *predefined*.
Fixed blue2net Gateway	[2.2.3]	192.168.1.1 other gateway	The IP address of the default gateway on blue2net, in cases where 'blue2net Address Resolution Mode' [2.1] is set to *predefined*.

Table 9 Fixed blue2net IP Configuration [2.2]

3.5.2 IP Address Resolution: DHCP [2.3]

If 'blue2net IP Address Resolution' [2.1] is set to *dhcp* and DHCP service is not available, the following values will take effect. In order to find out whether DHCP service works on your network, read the explanations in chapter 2.3.



DHCP blue2net IP Objects

Object	Value
Fallback blue2net IP Address	192.168.1.2
Fallback blue2net Netmask	255.255.255.0
Fallback blue2net Gateway	192.168.1.1

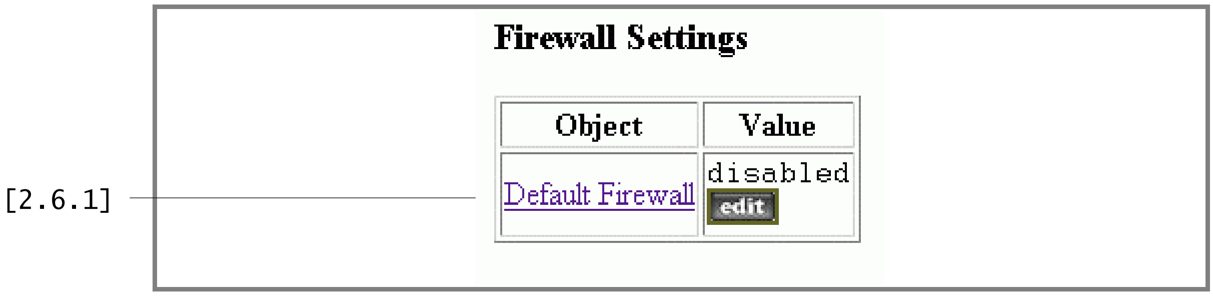
Figure 11 DHCP blue2net IP Objects, DHCP setup [2.3]

Objects (see Figure 11)	Hierarchy level	Factory setting, other values, value range	Explanation
Fallback blue2net IP Address	[2.3.1]	192.168.1.2 other IP address	The IP address assigned to blue2net, if 'blue2net Address Resolution' [2.1] is set to *dhcp*, but the DHCP request for this value failed.
Fallback blue2net Netmask	[2.3.2]	255.255.255.0 other netmask	The subnet mask associated with the IP address 'Fallback blue2net IP Address' [2.3.1] in cases where 'blue2net Address Resolution' [2.1] is set to *dhcp*, but the DHCP request for this value failed.
Fallback blue2net Gateway	[2.3.3]	192.168.1.1 other gateway	The IP address of the default gateway on blue2net in cases where 'blue2net Address Resolution' [2.1] is set to *dhcp*, but the DHCP request for this value failed.

Table 10 DHCP blue2net IP Objects, DHCP setup [2.3]

3.5.3 Firewall Option [2.6]

The firewall in blue2net may be established in order to prevent attacks from the LAN side (e.g. cable modem).



Firewall Settings

Object	Value
Default Firewall	disabled edit

Figure 12 Firewall Settings [2.6]

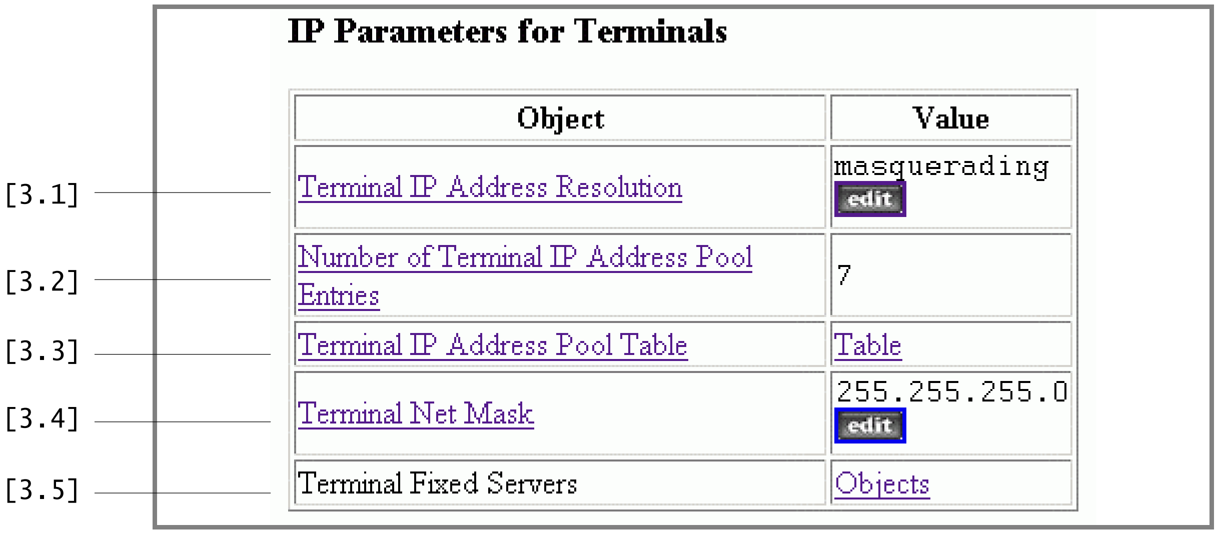
Objects (see Figure 12)	Hier. level	Factory setting, other values, value range	Explanation
Default Firewall	[2.6.1]	disabled enabled	If 'Default Firewall' is set to *enabled*, a default set of firewall rules (see chapter 9) will be activated. Updating the software via LAN is only possible if the firewall is *disabled*. (see also chapters 6.1 and 9)

Table 11 Firewall Settings [2.6]

3.6 IP Parameters for Terminals [3]

This chapter describes the IP parameters for terminals connected to blue2net.

While the PPP connection is being established these parameters (except for [3.1] and [3.2]) will be sent to the Bluetooth terminal.



IP Parameters for Terminals

Object	Value
Terminal IP Address Resolution	masquerading edit
Number of Terminal IP Address Pool Entries	7
Terminal IP Address Pool Table	Table
Terminal Net Mask	255.255.255.0 edit
Terminal Fixed Servers	Objects

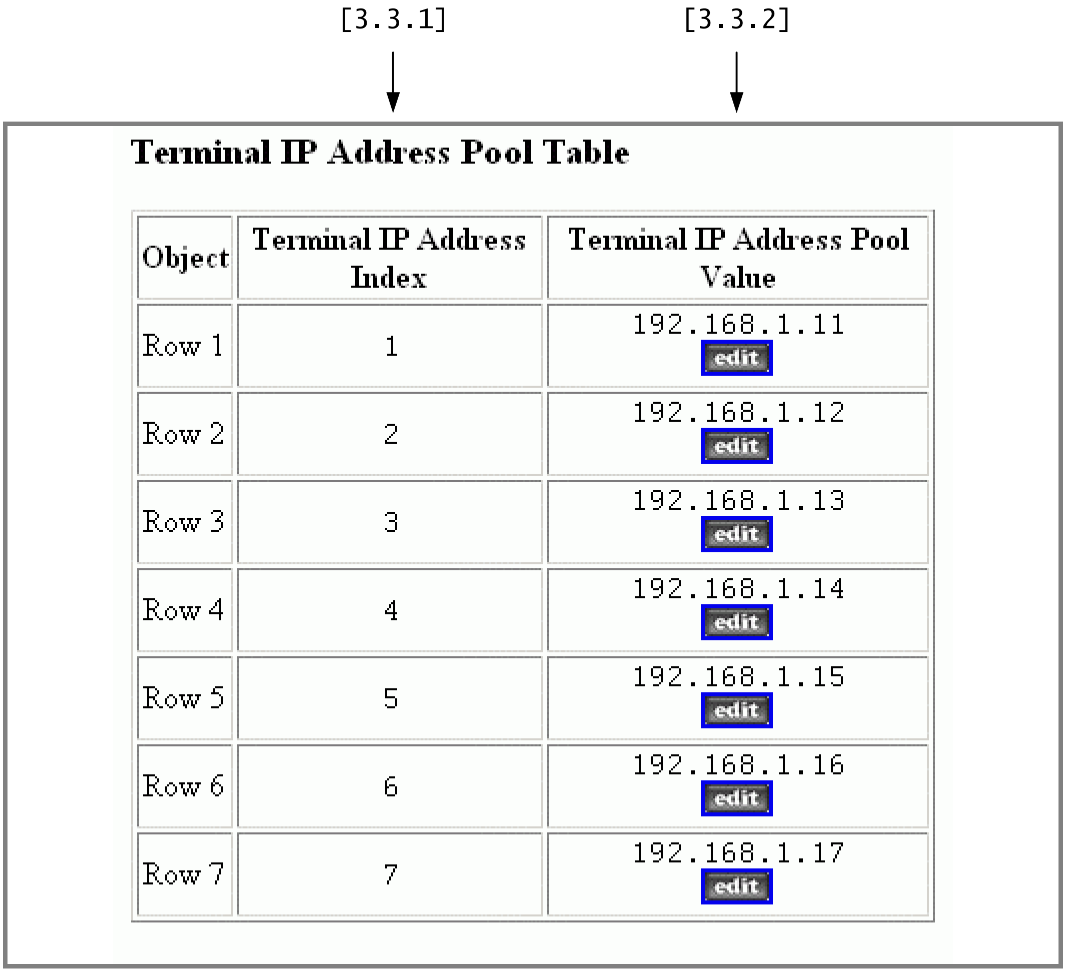
Figure 13 IP Parameters for Terminals [3]

Objects **(see Figure 13)**	**Hier. level**	**Factory setting, other values, value range**	**Explanation**
Terminal IP Address Resolution	[3.1]	masquerading dhcp predefined masqueradingpool	This object controls the mechanism for assigning an IP address to a terminal connected to blue2net. If the mode is set to *masquerading*, no IP address configuration will be required for terminals. If the mode is set to *dhcp*, blue2net will send a DHCP request containing the Bluetooth address of the terminal during the terminal's connection phase. If the mode is set to *predefined*, blue2net will use an IP address from a pool of fixed IP addresses. This pool is defined in 'Terminal IP Address Pool Table' [3.3]. If the terminal is registered in the terminal table [1.10], blue2net will use the IP address assigned there (see 3.4.2). If the mode is set to *masqueradingpool,* the IP address assignment is the same as for the masquerading mode, except for those terminals that are listed in the 'Terminal Table' [1.10] (see 3.4.2). **Caution!** Danger of lockout! Verify this parameter carefully! (see chapter 5)
Number of Terminal IP Address Pool Entries	[3.2]	7 (read only)	The number of IP addresses in the Terminal IP Address Pool.
Terminal IP Address Pool Table	[3.3]		A list of IP addresses which blue2net may assign to terminals.
Terminal Netmask	[3.4]	255.255.255.0 other value	The subnet mask associated with the IP address out of 'Terminal IP Address Pool Table' [3.3]
Terminal Fixed Servers	[3.5]		While the PPP connection is being established these parameters will be sent to the Bluetooth terminal.

Table 12 IP Parameters for Terminals [3]

3.6.1 Terminal IP Address Pool Table [3.3]

A list of IP addresses that blue2net may assign to terminals. These parameters are only relevant if 'Terminal IP Address Resolution' [3.1] is not set to *dhcp*.



Terminal IP Address Pool Table

Object	Terminal IP Address Index	Terminal IP Address Pool Value
Row 1	1	192.168.1.11 edit
Row 2	2	192.168.1.12 edit
Row 3	3	192.168.1.13 edit
Row 4	4	192.168.1.14 edit
Row 5	5	192.168.1.15 edit
Row 6	6	192.168.1.16 edit
Row 7	7	192.168.1.17 edit

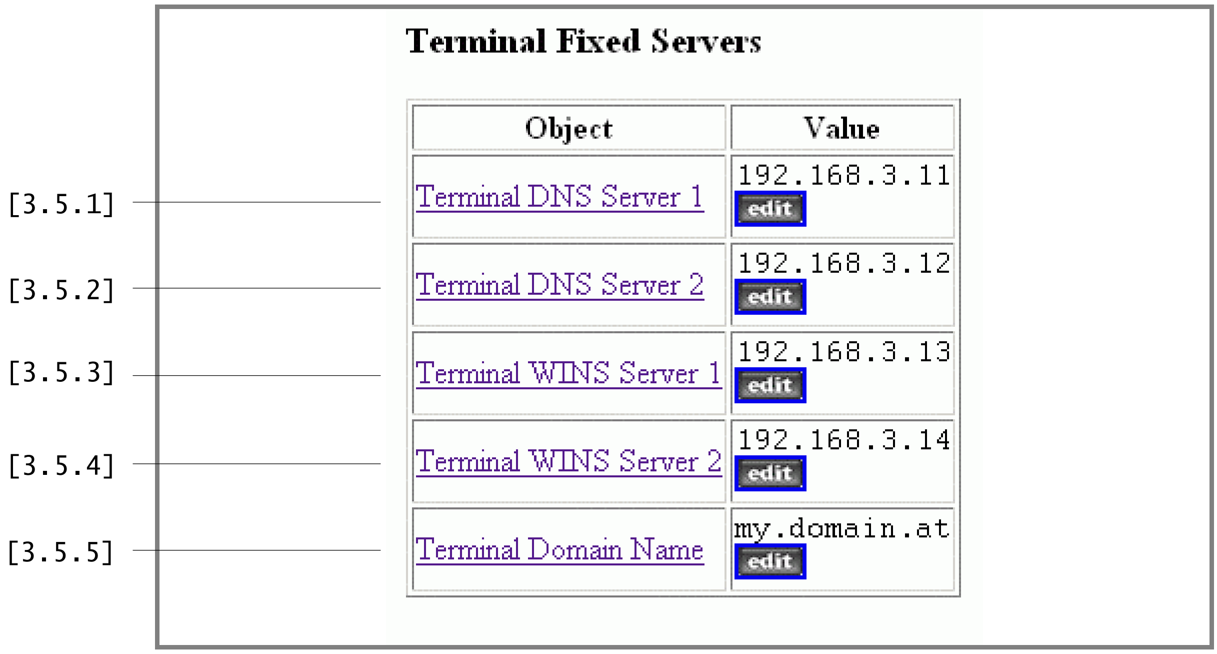
Figure 14 Terminal IP Address Pool Table [3.3]

Objects (see Figure 14)	Hier. level	Factory setting, other values, value range	Explanation
Terminal IP Address Index	[3.3.1]	1-7 (read only)	A unique value.
Terminal IP Address Pool Value	[3.3.2]	192.168.1.11...17	These are the IP addresses that will be assigned to terminals in the case where 'Terminal IP Address Resolution' [3.1] is set to *predefined*.

Table 13 Terminal IP Address Pool Table [3.3]

3.6.2 Terminal Fixed Servers [3.5]

Server IP addresses in cases where the Terminal IP Address Resolution mode [3.1] is not set to *dhcp*.



Terminal Fixed Servers

Object	Value
Terminal DNS Server 1	192.168.3.11 edit
Terminal DNS Server 2	192.168.3.12 edit
Terminal WINS Server 1	192.168.3.13 edit
Terminal WINS Server 2	192.168.3.14 edit
Terminal Domain Name	my.domain.at edit

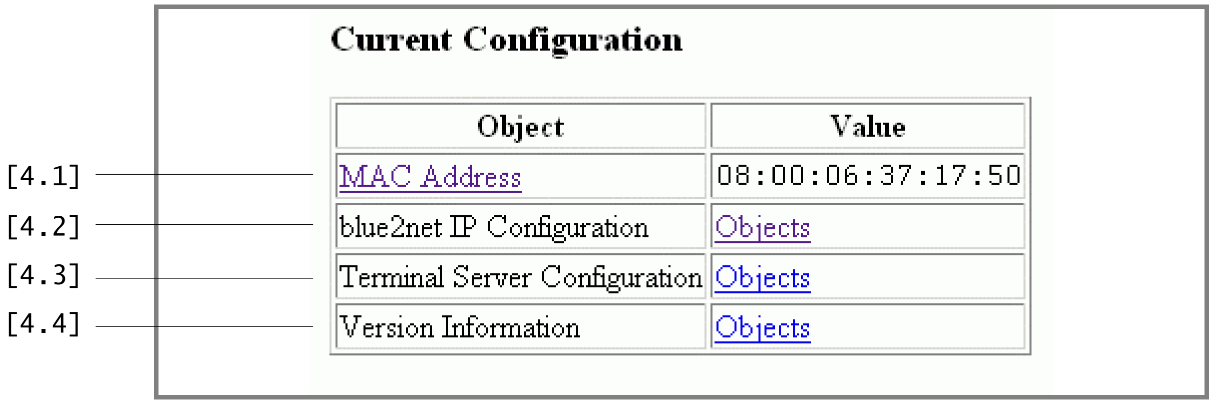
Figure 15 Terminal Fixed Servers [3.5]

Objects (see Figure 15)	Hier. level	Factory setting, other values, value range	Explanation
Terminal DNS Server 1	[3.5.1]	192.168.3.11 other IP address	IP address of DNS server 1 assigned to terminals if the 'Terminal IP Address Resolution' is not set to *dhcp*.
Terminal DNS Server 2	[3.5.2]	192.168.3.12 other IP address	IP address of DNS server 2 assigned to terminals if the 'Terminal IP Address Resolution' is not set to *dhcp*.
Terminal WINS Server 1	[3.5.3]	192.168.3.13 other IP address	IP address of WINS server 1 assigned to terminals if the 'Terminal IP Address Resolution' is not set to *dhcp*.
Terminal WINS Server 2	[3.5.4]	192.168.3.14 other IP address	IP address of WINS server 2 assigned to terminals if the 'Terminal IP Address Resolution' is not set to *dhcp*.
Terminal Domain Name	[3.5.5]	my.domain.at other domain name (1…100 characters)	Domain name assigned to terminals if the 'Terminal IP Address Resolution' is not set to *dhcp*

Table 14 Terminal Fixed Servers [3.5]

3.7 Current Configuration [4]

The purpose of the objects in this section is only to display the current values of important Bluetooth parameters, IP parameters and version information for the blue2net device.



Current Configuration

Object	Value
MAC Address	08:00:06:37:17:50
blue2net IP Configuration	Objects
Terminal Server Configuration	Objects
Version Information	Objects

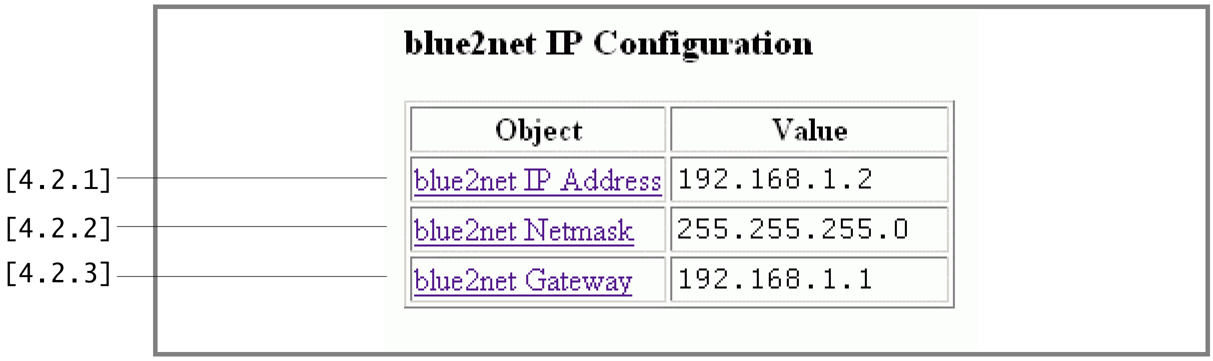
Figure 16 Current Configuration [4]

Objects **(see Figure 16)**	**Hier. level**	**Explanation**
MAC Address	[4.1]	The MAC address is a fixed unique address of the Ethernet controller on blue2net. You can also find this address (MAC-Adr.) printed on the label at the bottom side of the blue2net case.
blue2net IP Configuration	[4.2]	see Table 16
Terminal Server Configuration	[4.3]	see Table 17
Version Information	[4.4]	see Table 18

Table 15 Current Configuration [4]

3.7.1 blue2net IP Configuration [4.2]

These objects show you the IP address values assigned to your blue2net.



blue2net IP Configuration

Object	Value
blue2net IP Address	192.168.1.2
blue2net Netmask	255.255.255.0
blue2net Gateway	192.168.1.1

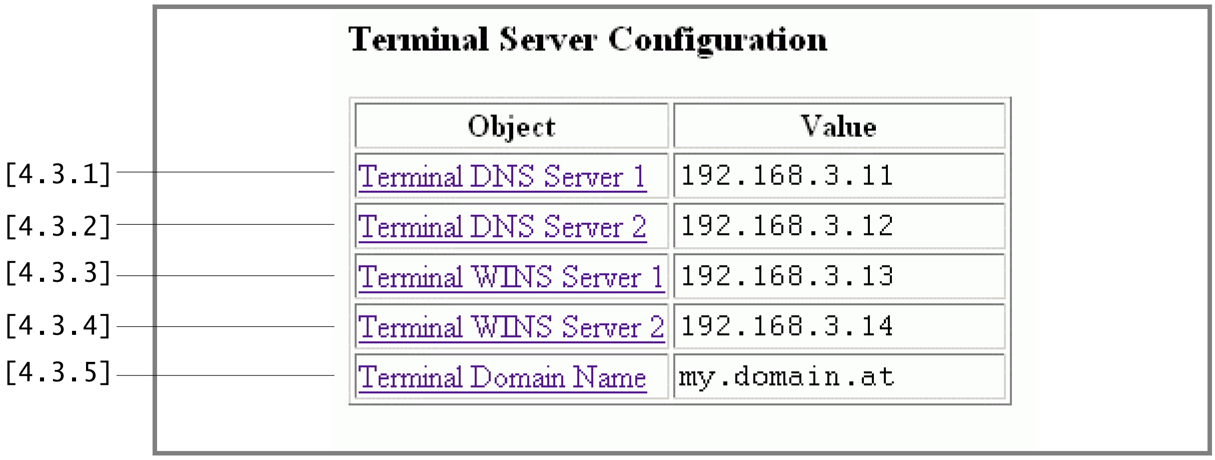
Figure 17 blue2net IP Configuration [4.2]

Objects (see Figure 17)	Hier. level	Explanation
blue2net IP Address	[4.2.1]	The IP address assigned to blue2net. If the 'blue2net IP Address Resolution' [2.1] is set to *dhcp*, this value was retrieved via a DHCP request.
blue2net Netmask	[4.2.2]	The subnet mask assigned to blue2net. If the 'blue2net IP Address Resolution' [2.1] is set to *dhcp*, this value was retrieved via a DHCP request.
blue2net Gateway	[4.2.3]	The gateway IP address for blue2net. If the 'blue2net IP Address Resolution' [2.1] is set to *dhcp*, this value was retrieved via a DHCP request.

Table 16 blue2net IP Configuration [4.2]

3.7.2 Terminal Server Configuration [4.3]

These objects show you the IP address values assigned to the terminals.



Terminal Server Configuration

Object	Value
Terminal DNS Server 1	192.168.3.11
Terminal DNS Server 2	192.168.3.12
Terminal WINS Server 1	192.168.3.13
Terminal WINS Server 2	192.168.3.14
Terminal Domain Name	my.domain.at

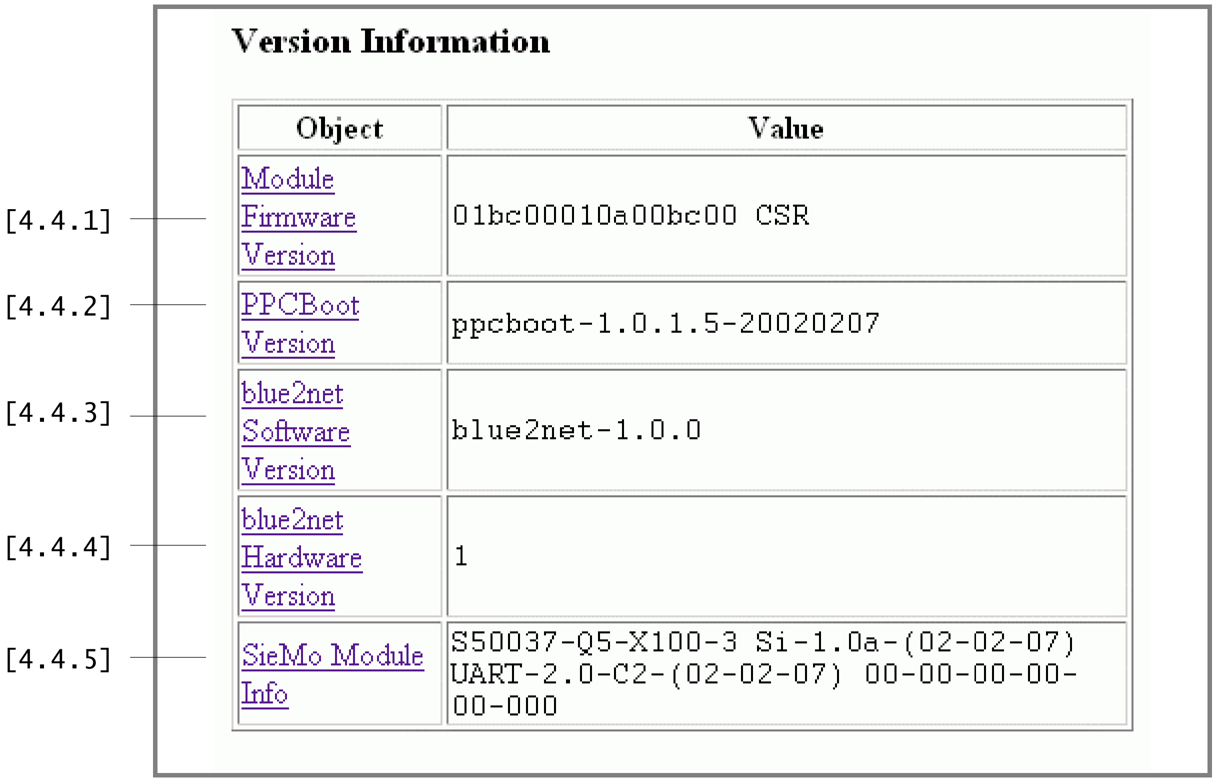
Figure 18 Terminal Server Configuration [4.3]

Objects (see Figure 18)	Hier. level	Explanation
Terminal DNS Server 1	[4.3.1]	IP address of DNS server 1 assigned to terminals. If the 'Terminal IP Address Resolution' [3.1] is set to *dhcp*, this value was retrieved via a DHCP request.
Terminal DNS Server 2	[4.3.2]	IP address of DNS server 2 assigned to terminals. If the 'Terminal IP Address Resolution' [3.1] is set to *dhcp*, this value was retrieved via a DHCP request.
Terminal WINS Server 1	[4.3.3]	IP address of WINS server 1 assigned to terminals. If the 'Terminal IP Address Resolution' [3.1] is set to *dhcp* , this value was retrieved via a DHCP request.
Terminal WINS Server 2	[4.3.4]	IP address of WINS server 2 assigned to terminals. If the 'Terminal IP Address Resolution' [3.1] is set to *dhcp*, this value was retrieved via a DHCP request.
Terminal Domain Name	[4.3.5]	Domain name assigned to terminals. If the 'Terminal IP Address Resolution' [3.1] is set to *dhcp* , this value was retrieved via a DHCP request.

Table 17 Terminal Server Configuration [4.3]

3.7.3 Version Information [4.4]

These objects provide version information on the hardware, firmware and software used in your blue2net. You might need to provide this information when contacting the service hotline.



Version Information

Object	Value
Module Firmware Version	01bc00010a00bc00 CSR
PPCBoot Version	ppcboot-1.0.1.5-20020207
blue2net Software Version	blue2net-1.0.0
blue2net Hardware Version	1
SieMo Module Info	S50037-Q5-X100-3 Si-1.0a-(02-02-07) UART-2.0-C2-(02-02-07) 00-00-00-00-00-000

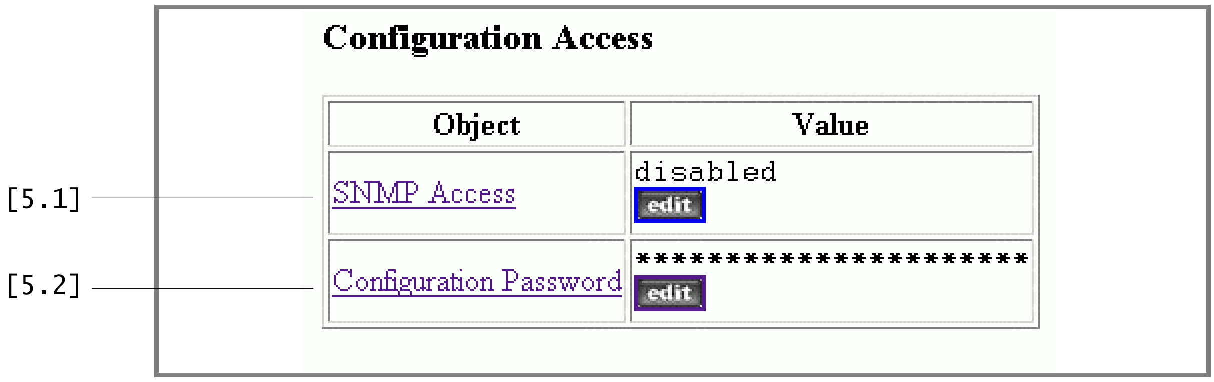
Figure 19 Version Information [4.4]

Objects (see Figure 19)	Hier. level	Explanation
Module Firmware Version	[4.4.1]	Firmware version information of the Bluetooth module.
PPCBoot Version	[4.4.2]	Version of boot loader software.
blue2net Software Version	[4.4.3]	Version of blue2net application software.
blue2net Hardware Version	[4.4.4]	Version of blue2net hardware.
SieMo Module Info	[4.4.5]	Version information for Siemens Bluetooth module SieMo-S50037.

Table 18 Version Information [4.4]

3.8 Configuration Access [5]

This chapter describes the items controlling the access to the configuration of blue2net.



Configuration Access

Object	Value
SNMP Access	disabled
Configuration Password	**********************

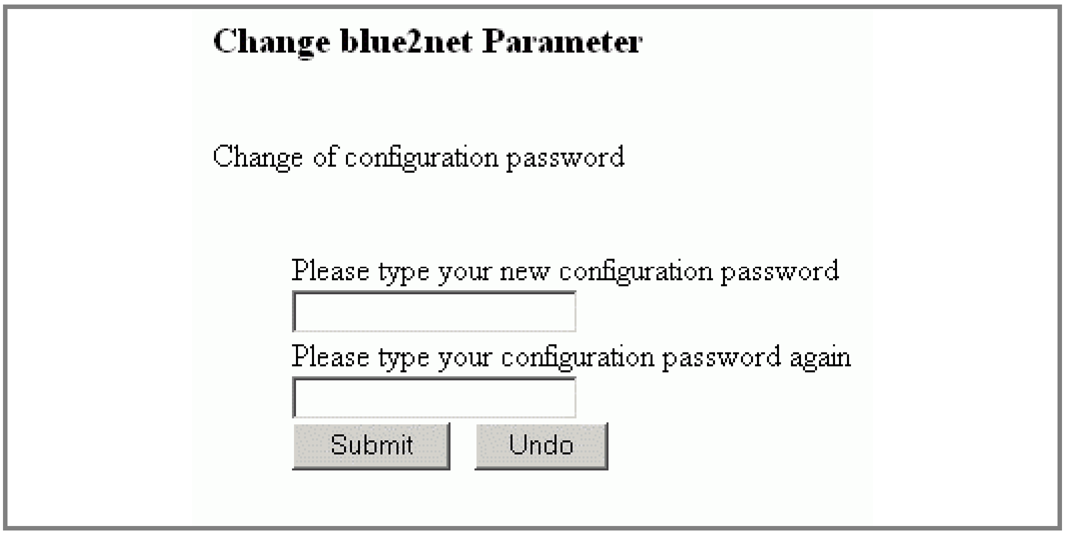
Figure 20 Configuration Access [5]

Objects (see Figure 20)	Hier. level	Factory setting, other values, value range	Explanation
SNMP Access	[5.1]	disabled enabled	This object controls access to an SNMP interface for the configuration of blue2net.
Configuration Password	[5.2]	changeme password of your choice (4…22 characters)	This password is used to authenticate persons who are authorized to configure blue2net via the Web interface. **You should never forget this password!** **Security note**: You should immediately change this password after the installation of blue2net. **Caution!** Danger of lockout! Verify this parameter carefully! (see chapter 5)

Table 19 Configuration Access [5]

3.8.1 Change of the Configuration Password [5.2]

You have to enter the password twice (see Figure 21).



Change blue2net Parameter

Change of configuration password

Please type your new configuration password

Please type your configuration password again

Figure 21 Change of the blue2net Configuration Password [5.2.1]

Your changes have not been activated yet. In order to store and activate the changes you made, run one of the activation commands 'Save Settings Temporarily' or 'Save Settings Permanently' (see chapters 3.9.1 and 3.9.2).

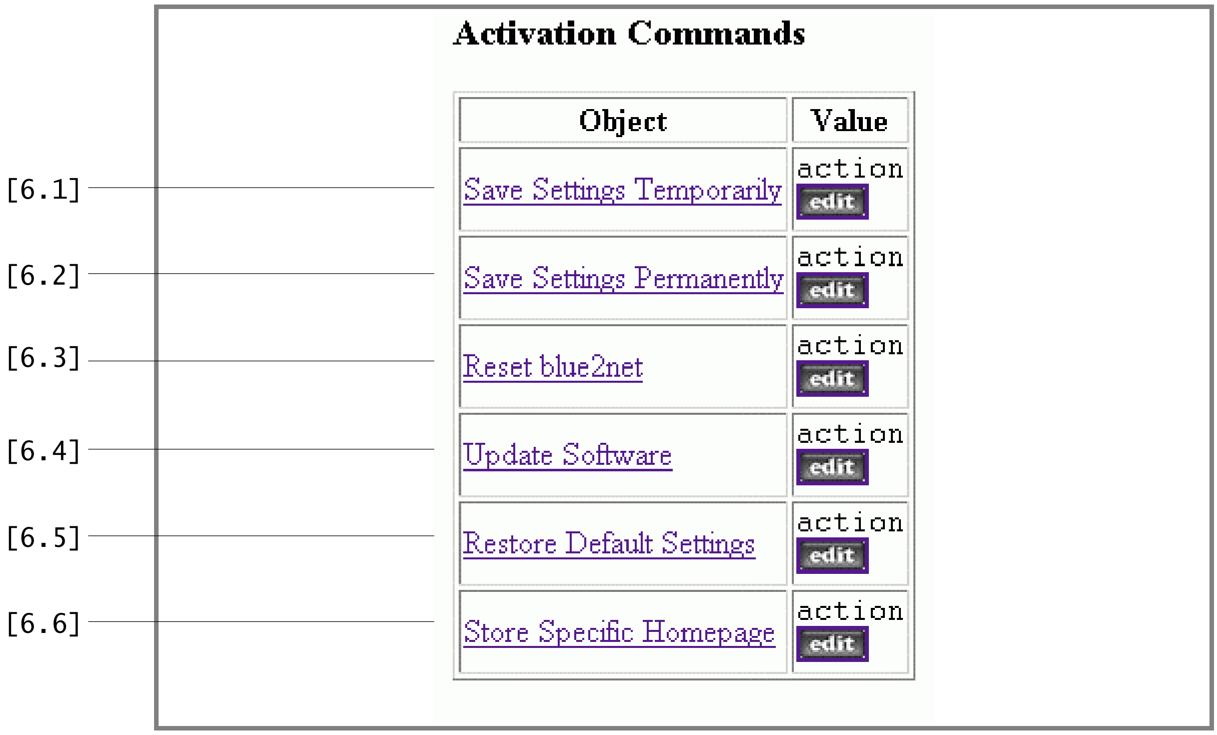
3.9 Activation Commands [6]

Any changes you perform on blue2net settings will only take effect when you save them with either one of the *activation commands* 'Save Settings Temporarily' or 'Save Settings Permanently'.

If you want to restore default settings (factory settings) or if you want to perform a reset to settings stored in permanent memory, you will find the appropriate command here.

After downloading updated software or loading a file for your own specific homepage, you have to save the changes you made in order to let them take effect.

Please mind the warnings below in order to prevent locking yourself out from access via Bluetooth or LAN (see also chapter 5).



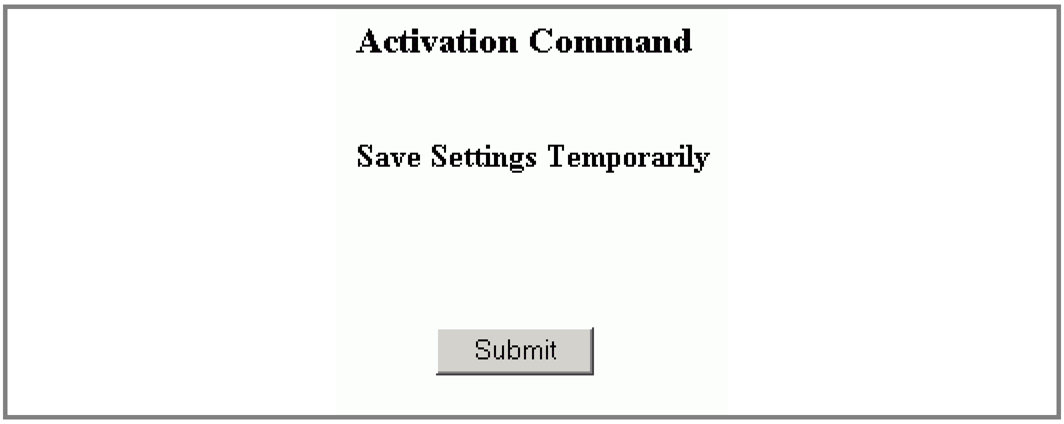
Activation Commands

Object	Value
Save Settings Temporarily	action edit
Save Settings Permanently	action edit
Reset blue2net	action edit
Update Software	action edit
Restore Default Settings	action edit
Store Specific Homepage	action edit

Figure 22 Activation Commands [6]

Click on the <edit> button to get a page like the one below displayed.

Once you click <Submit>, the changes will take effect.



Activation Command

Save Settings Temporarily

Figure 23 Saving blue2net parameters

3.9.1 Save Settings Temporarily [6.1]

Any changes you make in one or more blue2net parameters will not take effect unless you save them (mind the relevance especially for security settings).

You can save them either

- for the current session by selecting 'Save Settings Temporarily', or
- permanently (until further changes are made) by selecting 'Save Settings Permanently'.

'Save Settings Temporarily' saves the changed parameters in temporary memory only. They will be valid only during the current session and will not be stored in permanent memory.

So, after you disconnect your blue2net from the power supply or if you perform a reset, these changes will be lost. They will not be lost if you only close the configuration session by clicking on [Close Session] or [Home].

Advantage: You can test your settings (with the exception of all blue2net IP parameters [2]) before saving them to permanent memory. So, if you lock yourself out (from LAN access and/or Bluetooth access) by specifying the wrong settings, you still have the option to return to the previous permanent settings by disconnecting your blue2net from the power supply or by performing a reset via LAN (see options below). The parameters stored in permanent memory will then become active again. You can then review your settings and apply the correct ones.

If you have configured 'Bluetooth Parameters' and/or 'IP Parameters for Terminals' and then select 'Save Settings Temporarily' while connected via Bluetooth, you will have to reestablish the Bluetooth connection to blue2net.

Caution: It is possible to lock yourself out by saving wrong settings. For more information see chapter 5, Preventing Lockout.

In such a case, you have 2 options for resetting blue2net to the previous settings stored in permanent memory:

1. Disconnect your blue2net from the power supply.
2. Access your blue2net from a Web browser via LAN or Bluetooth. Log in to the blue2net configuration function (blue2net IP address required!), click the <edit> button next to 'Activation Commands', click the <edit> button next to 'Reset blue2net' and activate the function by clicking <Submit>.

Note: If you are not sure what to do, contact the network administrator or look at the respective chapters in this user manual.

3.9.2 Save Settings Permanently [6.2]

Any changes you make in one or more blue2net parameters will not take effect unless you save them (mind the relevance especially for security settings).

You can save them either

- for the current session by selecting 'Save Settings Temporarily', or
- permanently (until further changes are made) by selecting 'Save Settings Permanently'.

'Save Settings Permanently' saves the changed parameters in permanent memory (until further changes are made).

If you have configured 'Bluetooth Parameters' and/or 'IP Parameters for Terminals' and then select 'Save Settings Permanently' while connected via Bluetooth, you will have to reestablish the Bluetooth connection to blue2net.

Caution: Consider testing your settings first as described under 'Save Settings Temporarily' - for in case you locked yourself out by saving the wrong settings in permanent memory, your only option is to send the unit in to the service center (chapter 14) and have it reset to the default settings there. For more information see chapter 5, Preventing Lockout.

Note: If you are not sure what to do, contact the network administrator or look at the respective chapters in this user manual.

3.9.3 Reset blue2net [6.3]

This function lets you reactivate the settings that are stored in permanent memory.

The blue2net unit will be rebooted with the settings from permanent memory. This function has the same effect as disconnecting the unit from the power supply and is particularly useful if the installation location of the unit or the power supply/mains plug are not easily accessible.

Note: Make sure that Bluetooth connections established by other terminals have been closed before performing this function.

Note: If you are not sure what to do, contact the network administrator or look at the respective chapters in this user manual.

3.9.4 Update Software [6.4]

The blue2net manufacturer might supply a software update to improve the performance of the device or to eliminate faults or flaws.

Visit the blue2net homepage from time to time to check for updates.

'Update Software' must be activated after the updated software has been downloaded from a service homepage and transferred into your blue2net’s file system.

For details on how to proceed, please see chapter 6

Note: If you are not sure what to do, contact the network administrator or look at the respective chapters in this user manual.

3.9.5 Restore Default Settings [6.5]

'Restore Default Settings' resets all configuration values in the permanent memory to the default settings (factory settings). To see what exactly these values are, refer to the list in chapter 12.

All customized configuration values will be irreversibly reset. In order to restore your own configuration values, you have to reenter them one by one.

Use 'Restore Default Settings' if you want to clear all settings as a way to regain control of all parameters.

Note: If you are not sure what to do, contact the network administrator or look at the respective chapter in this user manual.

3.9.6 Store Specific Homepage [6.6]

Use the 'Store Specific Homepage' function to load your own applications (e.g. HTML files, games) into blue2net’s permanent memory. For details on how to proceed, please see chapter 7.1.

Note: If you are not sure what to do, contact the network administrator or look at the respective chapter in this user manual

4 Use Scenarios

This chapter should make it easier for you to get typical configuration settings right, especially at the beginning when you are not yet fully acquainted with the configuration functions. It is not intended to cover all possible scenarios. Other settings might be required to properly adjust blue2net to your specific security requirements and /or preferences. Please pay attention to chapter 5, Preventing Lockout

4.1 Business Scenario with Controlled Access

Typical scenarios: meeting rooms or conference rooms where participants are granted the default Bluetooth passkey [1.12] or temporary access.
Characteristics: The security level is high. Only selected persons have access to the LAN, only authorized persons have access to the configuration settings.

Parameter	Hier. lev.	Set to	Reason
Bluetooth Device Name	[1.1]	Name of your choice (1...16 characters)	In an environment with many blue2net units, they should all have a unique name for clear differentiation.
Terminal Table	[1.10]	All terminals unregistered (BT address set to 00:00:00:00:00:00)	All users should get access with the 'Default Bluetooth Passkey' [1.12]
Default Access Mode	[1.11]	enabled (default value)	Any terminal can access the LAN but needs the 'Default Bluetooth Passkey' [1.12] as the 'Auth. Level' [1.8.4] is set to *auth* or *authandenc*
Default Bluetooth Passkey	[1.12]	Passkey of your choice (1…16 characters)	The passkey is disclosed to authorized persons only. For security reasons, change this value frequently!
Auth. Level	[1.8.4]	auth or authandenc	In order to avoid access by unauthorized persons. The 'Default Bluetooth Passkey' [1.12] is required to gain access.
Terminal IP Address Resolution	[3.1]	masquerading (default value)	No IP addresses are required for terminals.
Configuration Password	[5.2]	Password of your choice (4…22 characters)	Only authorized persons (e.g. a system administrator) can configure blue2net. Attention! Do not forget the new password!

Table 20 Use scenarios: settings for a business scenario with controlled access

4.2 Public Use Scenario (Hot Spot)

Typical scenarios: airport lounges, hotel bars, Internet cafes.
Characteristics: Quick and easy access, no authorization, unselected users, only authorized persons have access to the blue2net configuration settings.

Parameter	Hier. lev.	Set to	Reason
Bluetooth Device Name	[1.1]	Name of your choice (1...16 characters)	Required to identify your blue2net among other Bluetooth devices. In an environment with many blue2net units, they should all have a unique name for clear differentiation.
Terminal Table	[1.10]	Bluetooth device addresses of your most frequently used terminals, Bluetooth Passkey and IP address	If you want to support "VIPs" with a fixed terminal IP address. In this case set 'Terminal IP Address Resolution' [3.1] to *masqueradingpool*.
Default Access Mode	[1.11]	enabled (default value)	Easy access for everyone.
Auth. Level	[1.8.4]	noauth (default value)	In Hot Spot scenarios you will allow access to your facilities for everyone.
Terminal IP Address Resolution	[3.1]	masqueradingpool	Use this setting when support for "VIPs" is your choice. For the "VIP" terminals, you have to configure IP addresses in the Terminal Table [1.10]
Terminal IP Address Resolution	[3.1]	masquerading (default value)	No IP addresses are required for terminals.
Configuration Password	[5.2]	Password of your choice (4…22 characters)	Only authorized persons (e.g. a system administrator) can configure blue2net. Attention! Do not forget the new password!

Table 21 Use scenarios: settings for public use scenarios (hot spot)

4.3 Home Use Scenario with Cable Modem

Typical scenarios: Several family members want to have access to the Internet via one cable modem. A DHCP server is available on the Internet Service Provider's server. Only authorized persons have access to the blue2net configuration settings.
Characteristics: For securityreasons, the blue2net unit needs to be protected against access by neighbors or unauthorized users outside the apartment or house. A firewall may be installed to protect the PCs.

Parameter	Hier. lev.	Set to	Reason
Bluetooth Device Name	[1.1]	Name of your choice (1...16 characters)	Required to identify your blue2net among other Bluetooth devices.
Default Access Mode	[1.11]	enabled (default value)	You can use any of your Bluetooth terminals.
Default Bluetooth Passkey	[1.12]	Passkey of your choice (1…16 characters)	To avoid access by non-family members. Attention! Do not forget the new Default Bluetooth Passkey!
Auth. Level	[1.8.4]	authandenc	To avoid access by non-family members Attention! Do not forget the configured Bluetooth Passkey!
Firewall Settings	[2.6.1]	enabled	In order to prevent attacks from the LAN side (e.g. cable modem). Refer to chapter 9 "Firewall" for detailed rules.
Terminal IP Address Resolution	[3.1]	masquerading (default value)	No IP addresses are required for terminals.
Configuration Password	[5.2]	Password of your choice (4…22 characters)	Only authorized persons may configure blue2net. Attention! Do not forget the new password!

Table 22 Use scenarios: settings for home use

5 Preventing Lockout

Among the settings there are some that deserve particular attention. Wrong settings, passwords or addresses may lock you out from access to blue2net either both via Bluetooth and Ethernet (LAN) or only one of the two.

This is not a malfunction of blue2net. For security reasons some settings are unavoidable, but may cause lockout from access under the circumstances mentioned below.

It is therefore recommended to pay particular attention to these settings.

Keep records of the following settings:

• Configuration Password	[5.2]
• Default Bluetooth Passkey	[1.12]
• blue2net IP Address Resolution	[2.1]
• Fixed blue2net IP Addresses	[2.2]
• Fallback blue2net IP Addresses	[2.3]
• IP Masquerading	[2.5]
• Terminal IP Address Resolution	[3.1]

Keep them in places separate from the blue2net unit, the PDA or laptop.

Please also keep in mind the instructions regarding the saving of settings as described in chapter 3.9.2, as you should only record permanently saved settings.

5.1 Lockout from Access via Bluetooth and Ethernet (LAN)

Parameter	Hier. level	Before setting it to	Keep in mind
Configuration Password	[5.2]	Other than default	When you change the Configuration Password (which you should always do for security reasons), make sure not to forget the new password, otherwise you will be locked out from configuration access. You would have to bring or send your blue2net to your next service support center for having it restored to its default settings.

Table 23 Lockout scenarios: Lockout from Bluetooth and Ethernet (LAN)

5.2 Lockout from Access via Bluetooth

Parameter	Hier. level	Before setting it to	Keep in mind
Connectability Mode	[1.5]	nonconnectable	The only possibility to access your blue2net again is via Ethernet (LAN). No Bluetooth connection is possible any more!
Max. No. of Terminals Connected	[1.6]	0	
Auth. Level	[1.8.4]	auth or authandenc	If you activate authentication (which you should do for security reasons), make sure you remember the configured Bluetooth passkeys of your terminals, [1.12] and [1.10.3].
Default Access Mode	[1.11]	disabled	Only terminals contained in the terminal table [1.10] have access rights. Make sure you remember the Bluetooth device addresses [1.10.2] and the appropriate Bluetooth passkeys [1.10.3] for these terminals. If you have no terminals registered in the terminal table [1.10], you will have no access.
Default Bluetooth Passkey	[1.12]	Other than default	When you change the 'Default Bluetooth Passkey' (which you should always do for security reasons), make sure not to forget the new passkey. If you have no terminals registered in the terminal table [1.10], you will have no access.
Terminal IP Address Resolution	[3.1]	dhcp	If no DHCP service is available, blue2net never gets an IP address for a terminal and so no connection is possible.

Table 24 Lockout scenarios: Lockout from Bluetooth access

5.3 Lockout from Access via Ethernet (LAN)

Parameter	Hier. level	Before setting it to	Keep in mind
blue2net IP Address Resolution	[2.1]	predefined	Remember your fixed blue2net IP addresses [2.2.1] and [2.2.2]
blue2net IP Address Resolution]	[2.1]	dhcp but DHCP service not available	Remember your fallback blue2net IP addresses [2.3.1] and [2.3.2]

Table 25 Lockout scenarios: Lockout from access via Ethernet (LAN)

6 Update Software

The software update function enables you to make use of the latest features and improvements.

Note: After a software update, you will have the same parameter settings as before. There is no need to reenter settings that were stored in permanent memory.

Visit the blue2net homepage in order to check for updates of both the software and the user guide.

A software update takes effect after the reboot was performed by blue2net.

6.1 How to Download New Software

Note: During the update it is very important not to interrupt the power supply. If you unplug your blue2net, you will have to send it in for service.

Updating the software via the Ethernet (LAN) is only possible if the firewall is disabled. On how to disable the firewall see chapters 2.7, 3.5, and 3.5.3. It is not necessary to disable the Firewall if you are performing the update from your Bluetooth terminal.

During the update the LED flashes very rapidly.

Note: If you are not sure what to do, contact the network administrator.

How to obtain updated software:

1. Use a PC or laptop that is connected to the Internet.

2. Visit our homepage '**http://www.siemens.at/bluetooth**' from your PC or laptop.

3. Download the latest software version (b2n_image) and save it on your hard disk (e.g. under C:\temp\).

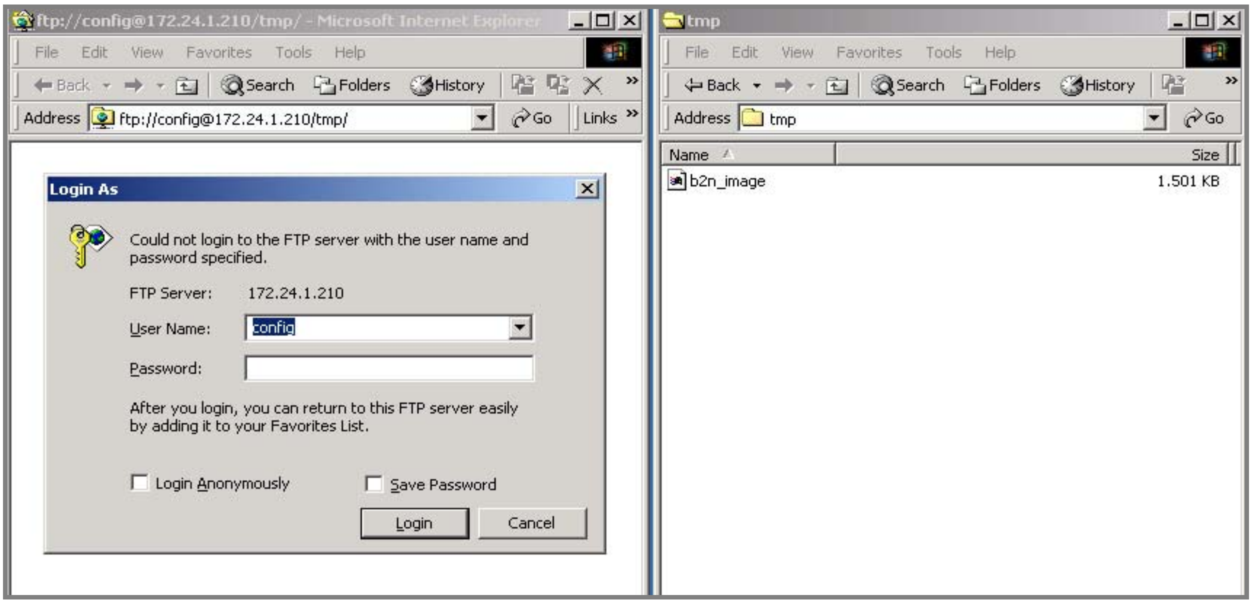
4. Open your Web browser and the file manager (e.g. Windows Explorer) and preferably arrange both windows on the screen side by side (see Figure 24).

5. Establish a connection via LAN (Firewall disabled!) or Bluetooth to your blue2net.

6. Find out your 'blue2net IP address' [4.2.1] (e.g. via the blue2net Web interface (see Figure 3): click on 'Configuration' / click on the <edit> button next to 'Current Configuration' / click on 'Objects' next to 'blue2net IP Configuration' / get the value next to 'blue2net IP Address').

7. Enter '**ftp://config@< blue2net IP Address >/tmp/**' in your Web browser's location/URL field (see Figure 24).

8. When prompted for login information, enter the user name "config" and your configuration password ("changeme" by default).


ftp://config@172.24.1.210/tmp/ - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Folders History
Address ftp://config@172.24.1.210/tmp/
Go Links
Login As
Login Cancel
tmp
File Edit View Favorites Tools Help
Back Search Folders History
Address tmp
Go
Name
Size

Could not login to the FTP server with the user name and password specified.

FTP Server: 172.24.1.210

User Name: config

Password:

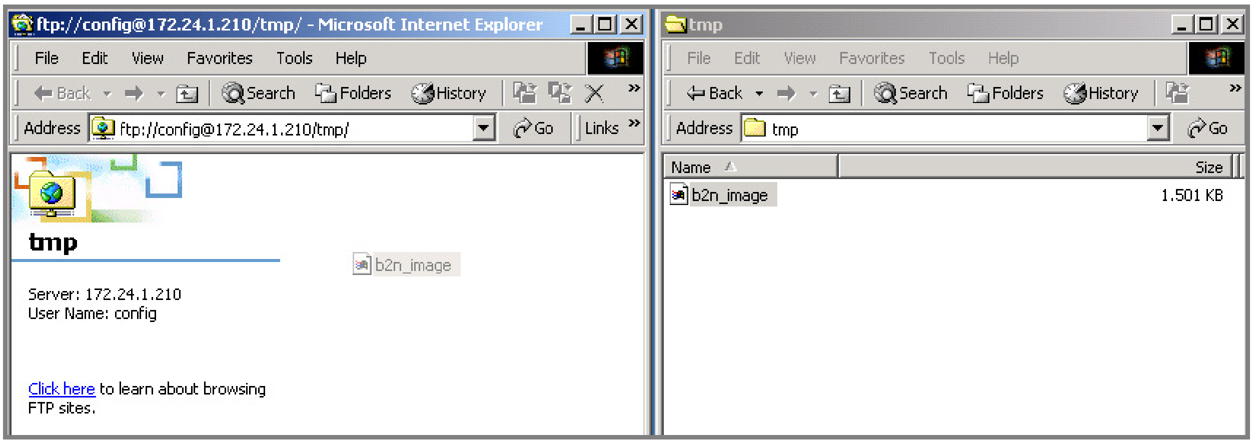
After you login, you can return to this FTP server easily by adding it to your Favorites List.

□ Login Anonymously □ Save Password

b2n_image 1.501 KB

Figure 24 Software update: Login to blue2net

9. Copy the "b2n_image" file from the hard disk directory (e.g. C:\temp\) to the blue2net file system. This can be done e.g. by "drag and drop".

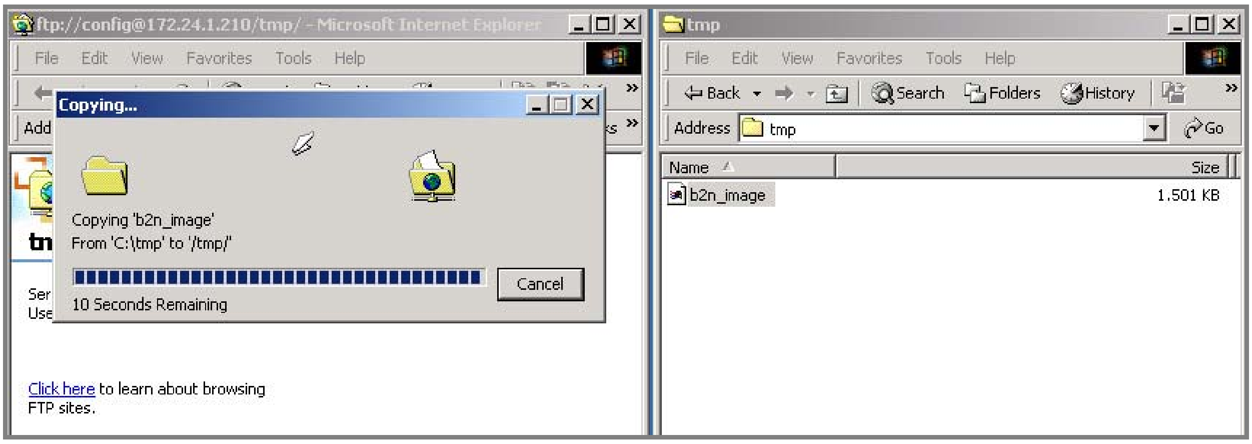

ftp://config@172.24.1.210/tmp/ - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Folders History
Address ftp://config@172.24.1.210/tmp/
Go Links
tmp
b2n_image
tmp
File Edit View Favorites Tools Help
Back Search Folders History
Address tmp
Go
Name
Size

Server: 172.24.1.210
User Name: config

Click here to learn about browsing FTP sites.

b2n_image 1.501 KB

Figure 25 Software update: Dragging the software image file to blue2net



ftp://config@172.24.1.210/tmp/ - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Copying...
Cancel
Click here to learn about browsing FTP sites.
tmp
File Edit View Favorites Tools Help
Back Search Folders History
Address tmp
Go
Name
Size
b2n_image
1.501 KB

Copying 'b2n_image'
From 'C:\tmp' to '/tmp/'

10 Seconds Remaining

Figure 26 Software update: Progress of copying the software image file

Save the new software

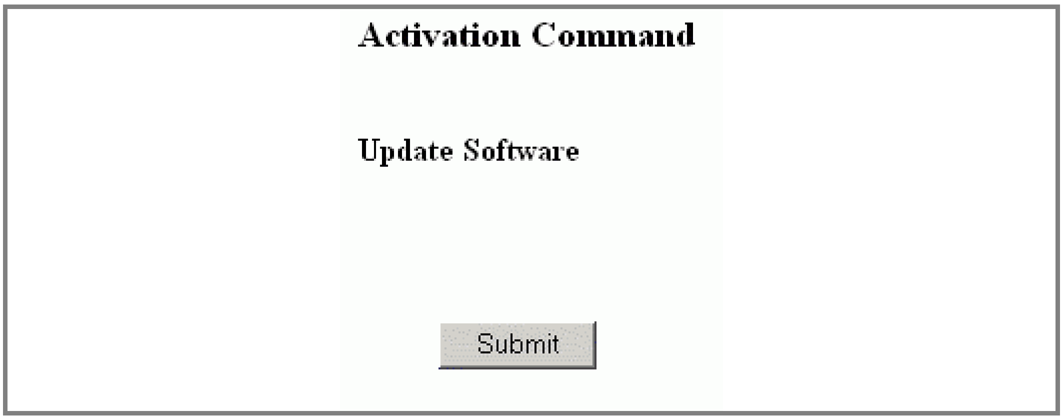
10. After copying, change to the blue2net main configuration page (see Figure 4).

11. Make all other users exit the Bluetooth connections they have established.

12. Click on the <edit> button next to 'Activation Commands' [6].

13. Click on the <edit> button next to 'Update Software' [6.4].

14. Save the software update by clicking on the <Submit> button.



Activation Command

Update Software

Figure 27 Saving the software update

15. Now blue2net will be rebooted with the new software (this might take up to 2 minutes). Settings that were saved to permanent memory will remain unchanged.

Now the new software is ready to use.

7 Store Specific Homepage

To be able to use this feature, you should be familiar with designing Web pages and with the Linux tool “tar”.

There is the possibility to store your own specific homepage on blue2net. In order to do so, use the Linux tool “tar" to pack and compress your HTML files into a file named **b2n_user.gz**. The size of the compressed file b2n_user.gz must not exceed 60 Kbytes.

The appropriate command line for the Linux tool is:

```
tar –cvzf b2n_user.gz <your HTML source directory>.
```

The specific homepage is permanently available after the reboot was performed by blue2net.

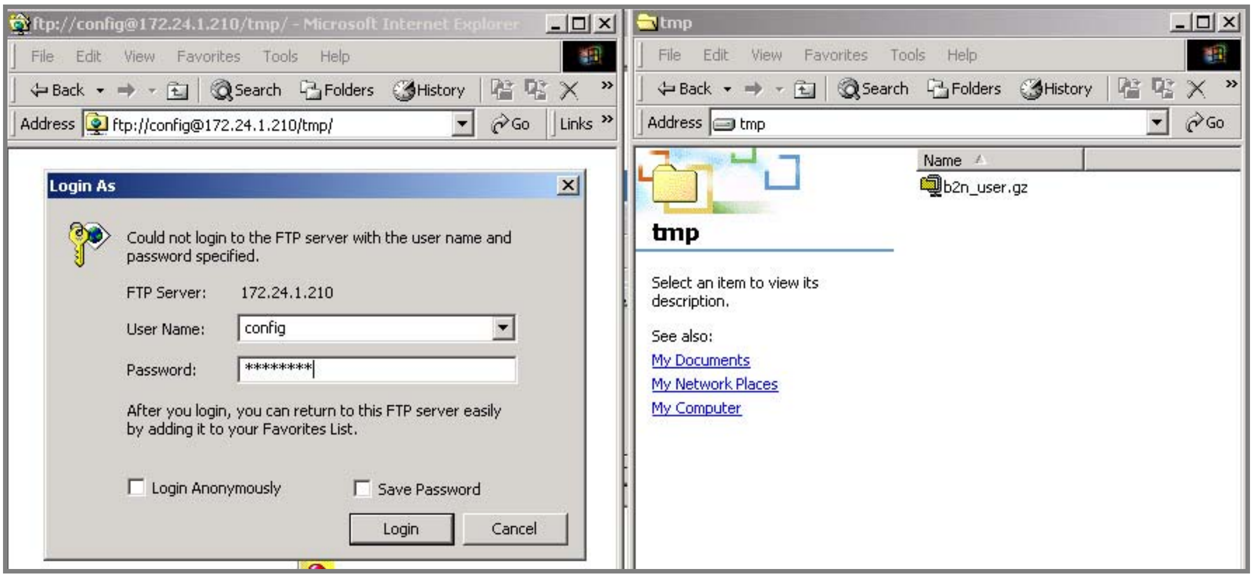
7.1 How to Load Your Specific Homepage

Loading your own specific homepage file onto your blue2net is similar to performing a software update (see chapter 6).

Loading your specific homepage via the Ethernet (LAN) is only possible if the firewall is disabled. On how to disable the firewall see chapters 2.7, 3.5, and 3.5.3. It is not necessary to disable the Firewall if you are performing the loading from your Bluetooth terminal.

Loading the file for the specific homepage:

1. Open your Web browser and the file manager (e.g. Windows Explorer) and preferably arrange both windows on the screen side by side (see Figure 28).
2. Establish a connection via LAN (Firewall disabled!) or Bluetooth to your blue2net.
3. Find out your 'blue2net IP address' [4.2.1] (e.g. via the blue2net Web interface (see Figure 3): click on 'Configuration' / click on the <edit> button next to 'Current Configuration' / click on 'Objects' next to 'blue2net IP Configuration' / get the value next to 'blue2net IP Address').
4. Enter '**ftp://config@< blue2net IP Address >/tmp/**' in the location/URL field of your Web browser.
5. When prompted for login information, enter the user name "config" and your configuration password ("changeme" by default).


ftp://config@172.24.1.210/tmp/ - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Folders History
Address ftp://config@172.24.1.210/tmp/
Go Links
tmp
Address tmp
Name
b2n_user.gz
My Documents
My Network Places
My Computer
Login Cancel

Login As

Could not login to the FTP server with the user name and password specified.

FTP Server: 172.24.1.210

User Name: config

Password: ********

After you login, you can return to this FTP server easily by adding it to your Favorites List.

□ Login Anonymously □ Save Password

tmp

Select an item to view its description.

See also:

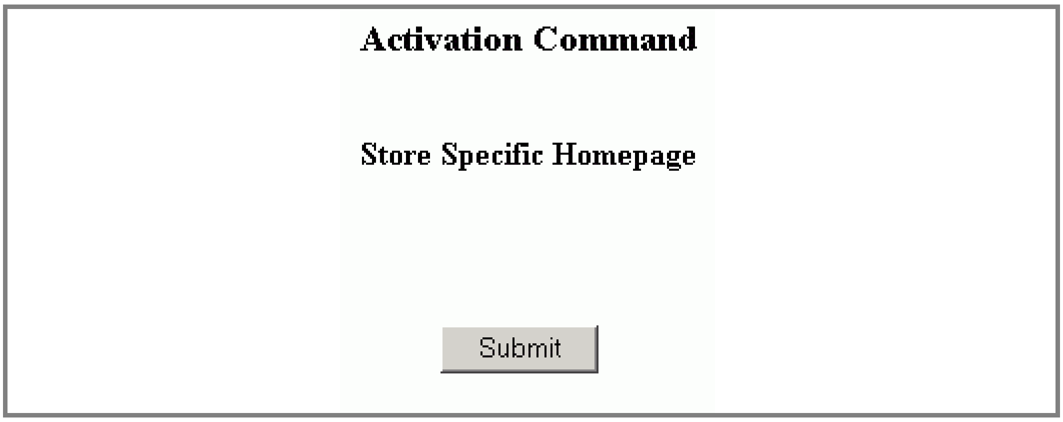
Figure 28 Specific homepage: Login to blue2net

6. Copy the '**b2n_user.gz**' file from the hard disk directory (e.g. C:\temp\) to the blue2net file system. This can be done e.g. by 'drag and drop'.
7. After copying, change to the blue2net main configuration page (see Figure 4).

Storing the specific homepage:

8. Click on the <edit> button next to 'Activation Commands' [6].
9. Click on the <edit> button next to 'Store Specific Homepage' [6.6].
10. Store the homepage to blue2net (temporarily) by clicking on <Submit>.

    ATTENTION! After this step, the homepage will not yet have been saved permanently. However, what you can do now is to check whether your homepage is displayed correctly. If you then want to save your specific homepage permanently, proceed as follows.



Activation Command

Store Specific Homepage

Figure 29 Specific homepage: Storing the specific homepage

Saving the specific homepage:

11. Make all other users exit the Bluetooth connections they have established.

12. Open the blue2net main configuration page (see Figure 4).

13. Click on the <edit> button next to 'Activation Commands' [6].

14. Click on the <edit> button next to 'Save Settings Permanently' [6.2].

15. Save your specific homepage by clicking on the <Submit> button.

16. blue2net will now be rebooted (this might take up to 2 minutes).

Now your specific homepage is ready to use.

8 Troubleshooting

This section provides useful information to help you resolve difficulties you might encounter. Fault symptoms, possible causes, and remedies are described below.

Please bear in mind that any malfunction (e.g. not being able to establish or maintain a stable Bluetooth connection) or reduction of the data transmission rate could also result from flaws in your Bluetooth terminal, sometimes in combination with the operating system on terminal side.

8.1 Hardware

Symptoms	Possible cause	Possible solution
The LED indicator is not lit	Faulty power supply	Check the power supply
The LED indicator is not steadily lit	Faulty system settings	Unplug the power supply and plug in again
No network access	Faulty network cable or socket	Check the network connection

Table 26 Troubleshooting: Hardware

8.2 Bluetooth Connection

Symptoms	Possible cause	Possible solution
You cannot "find" the blue2net unit with your Bluetooth terminal	See for possible cause on symptom “The data rate is very low.” in this table below	See for possible solutions on symptom “The data rate is very low.” in this table below
	blue2net Discoverability Mode [1.4] is set to *nondiscoverable*	Set the blue2net discoverability mode [1.4] to *discoverable*
You cannot see a service from blue2net	The maximum number of terminals has already been connected to blue2net	Check the value of 'Max. No. of Terminals Connected' [1.6] and 'Multipoint Mode' [1.3]
	'Connectability Mode' [1.3] is set to *disabled*	Set 'Connectability Mode' [1.3] to *enabled*
You cannot connect to blue2net with your Bluetooth terminal	Some terminals do not support the LAN access profile	blue2net currently supports only the LAN access profile

Symptoms	Possible cause	Possible solution
	You have changed 'Default Access Mode' [1.11] to *disabled*	Set the 'Default Access Mode' [1.11] to *enabled* or put the 'Terminal BT Address' [1.10.2] of your Bluetooth terminal in the 'Terminal Table' [1.10].
	Your Bluetooth terminal is a member of the 'Terminal Table' [1.10]	Use the 'Terminal Bluetooth Passkey' [1.10.3] you have assigned for your terminal in the 'Terminal Table' [1.10].
The data rate is very low.	The radio signal level is low	1. Check the orientation of the blue2net case (see Figure 1). 2. Try to reduce the distance between blue2net and the Bluetooth terminals. 3. Check if you have any absorbing or shielding objects between blue2net and the Bluetooth terminals.
	The radio signal is subject to interference (e.g. microwave oven)	Move the blue2net to another position (see chapter 2.2).

Table 27 Troubleshooting: Bluetooth connection

8.3 LAN Access

Symptoms	Possible cause	Possible solution
You cannot reach the LAN (e.g. no Internet access possible).	The IP parameters for blue2net [2] are not suitable for your LAN.	Check the IP parameters for blue2net [2]. Ask your system administrator or Internet Service Provider for correct IP parameters for blue2net [2].
You can reach external computers (Internet) via their IP address, but not via their names (e.g. www.siemens.at).	The DNS IP address configuration is wrong (see chapter 3.6.2 regarding 'Terminal Fixed Servers' [3.5]).	Ask your system administrator or Internet Service Provider for the correct DNS IP address.

Symptoms	Possible cause	Possible solution
Your Bluetooth terminal is connected to blue2net but cannot be reached from outside (e.g. you cannot provide a Web server on your Bluetooth terminal).	'Terminal IP Address Resolution' [3.1] is set to *masquerading.*	Exclude certain terminals from masquerading by assigning them a fixed IP address in the Terminal Table [1.10]. Then set 'Terminal IP Address Resolution' [3.1] to *masqueradingpool*. All terminals listed in the terminal table [1.10] will be visible from outside.
	'Default Firewall' [2.6.1] is set to *enabled*	That is one of the reasons for using the firewall: being invisible from outside. Carefully consider disabling the firewall.

Table 28 Troubleshooting: LAN access

8.4 Software Update

Symptoms	Possible cause	Possible solution
The image file cannot be stored on blue2net.	You have copied too many files to the blue2net /tmp directory. Memory exceeded.	Reset blue2net (see chapter 3.9.3). It is recommended to copy only blue2net software files (b2n_image) to your blue2net.

Table 29 Troubleshooting: Software update

8.5 Configuration Access

Symptoms	Possible cause	Possible solution
A Bluetooth connection is established to blue2net, but you cannot reach the built-in Web server.	You typed in a wrong IP address for accessing blue2net.	Check the IP address of blue2net (see chapter 2.6).
	You have configured a proxy for PPP connection on your Web browser.	Change the configuration on the Web browser to "no proxy" or exclude the IP address of blue2net.
	You typed http://... instead of http**s**://.... in the location/URL field of the browser.	Please change it to http**s**://....
You are prompted repeatedly for the configuration pwd.	Cookies are not enabled on your Web browser.	Enable cookies on you Web browser.

Table 30 Troubleshooting: Configuration access

9 Firewall in blue2net

The firewall in blue2net may be established in order to prevent attacks from the LAN side (e.g. cable modem).

It is assumed that all devices being able to connect via Bluetooth are trustworthy, and no countermeasures are taken against them (except that using SNMP configuration via Bluetooth is not allowed).

If you enable the firewall you will still be able to use the following services:

Service Name	Protocols	Ports
HTTP	tcp / udp	80
HTTP webcaching	tcp / udp	8080
HTTPS	tcp / udp	443
FTP	tcp / udp	20, 21, over 1500
MS MEDIA PLAYER	tcp	1755, 7007
QUICKTIME	tcp	458, 545
REALPLAYER	tcp	1090, 554, 7070
DHCP	tcp / udp	67 (in), 68 (out)
DNS	tcp	53
DNS	udp	53 (only to servers)
POP2/3	tcp / udp	109/110
POP3 SEC	tcp / udp	995
POPPASSD	tcp / udp	106
KPOP	tcp / udp	1109
SMTP	tcp / udp	25
SMTP SEC	tcp / udp	465
IMAP 2	tcp / udp	143
IMAP SEC	tcp / udp	993
TIME	tcp / udp	37

Table 31 Services that can be used while the firewall is enabled

For all these services it is necessary that the transactions be started from inside the firewall (from a device connected via Bluetooth).

When the firewall is enabled the only thing you can do from outside (LAN side) is to configure blue2net (because this is done via https and password protection is used). Updating the software and loading of a specific homepage are not possible via the Ethernet if the firewall is enabled.

On how to enable/disable the firewall see chapters 2.7, 3.5, and 3.5.3.

10 Regulatory Statement

10.1 General

- The Siemens Bluetooth^{TM} Radio Module SieMo S50037 is integrated into this piece of equipment.
- This piece of equipment has to be installed and used in accordance with the instruction manual.
- This piece of equipment is intended to be placed on the market in all States where the Bluetooth^{TM} technology and the used frequency band is released.
- For detailed information regarding type approval of this equipment (e.g. where this equipment is already approved) please contact the authorized local distributor or the manufacturer.

10.2 European Union (EU) and EFTA Member States

Based on the assessed Siemens Bluetooth^{TM} radio module SieMo S50037 inside this equipment complies with the R&TTE directive 1999/5/EC and has been provided with the CE mark accordingly. It conforms to the following specifications/standards:

Applied specifications / standards	Essential Requirement (corresponding article of R&TTE)
EN 60950/ IEC 60950:2000	Safety (Art. 3.1a)
EN 300 328 (ETS 300 328): Part 1, V1.1.1 and Part 2, V1.2.2 (2000-07) EN 301 489-17 (ETS 300 826): V1.1.1 (2000-09)	Electromagnetic Compatibility (Art. 3.1b)
EN 300 328 (ETS 300 328): Part 1, V1.1.1 and Part 2, V1.2.2 (2000-07)	Radio Frequency Spectrum Efficiency (Art. 3.2)

Table 32 Conformity with standards and specifications

Note that the radio frequency band used by this equipment is not harmonized throughout the European Community. According to the R&TTE directive 1999/5/EC is this equipment

a ‘Class 2’ equipment and marked accordingly with the assigned Class Identifier.

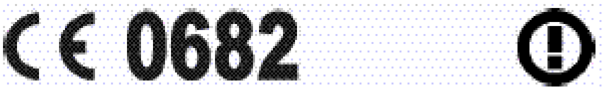


Figure 30 CE Conformity Marking

10.3 United States of America (USA)

This equipment complies with part 15 of the Federal Communications Commission (FCC) rules and is labeled in accordance with the FCC rules.

FCC ID: P6L-blue2net

Operation is subject to the following two conditions:

1. This device must not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Note: Any changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

11 Bluetooth Compliance

This product is a qualified Bluetooth^{TM} product and compliant with Bluetooth^{TM} specifications version 1.1.

BLUETOOTH is a trademark owned by Bluetooth SIG, Inc., U.S.A, and licensed to Siemens AG.

12 Default Values

[Hier.level]	Parameters & Objects	Factory setting (default value)
[1]	**Bluetooth Parameters**	–
[1.1]	Bluetooth Device Name	blue2net
[1.2]	Bluetooth Device Address	unique value for the Bluetooth device
[1.3]	Multipoint Mode	enabled
[1.4]	Discoverability Mode	discoverable
[1.5]	Connectability Mode	connectable
[1.6]	Max. No. of Terminals Connected	7
[1.7]	Number of Services	– (read-only)
[1.8]	Service Table	–
[1.8.1]	Service Index	– (read-only)
[1.8.2]	Service Name	LAN ACCESS 1
[1.8.3]	Service Description	LAN ACCESS via blue2net
[1.8.4]	Auth. Level	noauth
[1.8.5]	Service Provider	SIEMENS
[1.8.6]	Service URL	http://www.siemens.at/bluetooth
[1.8.7]	Service ID	1
[1.9]	Number of Terminals	– (read-only)
[1.10]	Terminal Table	–
[1.10.1]	Terminal Index	– (read-only)
[1.10.2]	Terminal Bluetooth Address	00:00:00:00:00:00
[1.10.3]	Terminal Bluetooth Passkey	1234
[1.10.4]	Terminal IP Address	0.0.0.0
[1.11]	Default Access Mode	enabled
[1.12]	Default Bluetooth Passkey	1234
[2]	**IP Parameters for blue2net**	–
[2.1]	blue2net IP Address Resolution	dhcp
[2.2]	Fixed blue2net IP Configuration	–
[2.2.1]	Fixed blue2net IP Address	192.168.1.2
[2.2.2]	Fixed blue2net Netmask	255.255.255.0
[2.2.3]	Fixed blue2net Gateway	192.168.1.1
[2.3]	DHCP blue2net IP Objects	–
[2.3.1]	Fallback blue2net IP Address	192.168.1.2
[2.3.2]	Fallback blue2net Netmask	255.255.255.0
[2.3.3]	Fallback blue2net Gateway	192.168.1.1
[2.4]	Time Server IP	0.0.0.0
[2.5]	IP Masquerading	192.168.2.2
[2.6]	Firewall Settings	–
[2.6.1]	Default Firewall	disabled
[3]	**IP Parameters for Terminals**	–
[3.1]	Terminal IP Address Resolution	masquerading
[3.2]	Number of Terminal IP Addr. Pool Entries	– (read-only)
[3.3]	Terminal IP Address Pool Table	–
[3.3.1]	Terminal IP Address Index	– (read-only)
[3.3.2]	Terminal IP Address Pool Value	192.168.1.11….17
[3.4]	Terminal Net Mask	255.255.255.0
[3.5]	Terminal Fixed Servers	–
[3.5.1]	Terminal DNS Server 1	192.168.3.11
[3.5.2]	Terminal DNS Server 2	192.168.3.12
[3.5.3]	Terminal WINS Server 1	192.168.3.13
[3.5.4]	Terminal WINS Server 2	192.168.3.14
[3.5.5]	Terminal Domain Name	my.domain.at

Table 33 Factory settings (default values) (1)

[Hier.level]	Parameters & Objects	Factory setting (default value)
[4]	**Current Configuration**	–
[4.1]	MAC Address	fixed unique value for this device
[4.2]	blue2net IP Configuration	–
[4.2.1]	blue2net IP Address	– (read-only)
[4.2.2]	blue2net Netmask	– (read-only)
[4.2.3]	blue2net Gateway	– (read-only)
[4.3]	Terminal Server Configuration	–
[4.3.1]	Terminal DNS Server 1	– (read-only)
[4.3.2]	Terminal DNS Server 2	– (read-only)
[4.3.3]	Terminal WINS Server 1	– (read-only)
[4.3.4]	Terminal WINS Server 2	– (read-only)
[4.3.5]	Terminal Domain Name	– (read-only)
[4.4]	Version Information	–
[4.4.1]	Module Firmware Version	– (shows version)
[4.4.2]	PPCBoot Version	– (shows version)
[4.4.3]	blue2net Software Version	– (shows version)
[4.4.4]	blue2net Hardware Version	– (shows version)
[4.4.5]	SieMo Module Info	– (shows version)
[5]	**Configuration Access**	–
[5.1]	SNMP Access	disabled
[5.2]	Configuration Password	changeme
[5.2.1]	Change of configuration pwd	–
[6]	**Activation Commands**	–
[6.1]	Save Settings Temporarily	– (activation command)
[6.2]	Save Settings Permanently	– (activation command)
[6.3]	Reset blue2net	– (activation command)
[6.4]	Update Software	– (activation command)
[6.5]	Restore Default Settings	– (activation command)
[6.6]	Store Specific Homepage	– (activation command)

Table 34 Factory settings (default values) (2)

13 Abbreviations and Terms

Term	Explanation
Authentication	A security procedure
Authorization	A security procedure where a device is given permission to access a particular service
BT	Bluetooth
CE	Conformity Europe
connectable	A Bluetooth device is connectable if it will respond to paging, so it is possible for another device to connect to it
DHCP	Dynamic Host Configuration Protocol
discoverable	A Bluetooth device is discoverable if it will respond to inquiries of other Bluetooth devices so other devices in the area can discover its presence
DNS	Domain Name Server
DRAM	Dynamic Read and Write Memory
FCC	Federal Communications Commission
FTP	File Transfer Protocol
HTTP	HyperText Transfer Protocol
HTTPS	secure HyperText Transfer Protocol
HW	Hardware
IMAP	Internet Mail Access Protocol
IMAP SEC	Internet Mail Access Protocol secure
IP	Internet Protocol
ISP	Internet Service Provider
KPOP	Post Office Protocol Kerberos
blue2net	LAN Access Point
LAN	Local Area Network
LED	Light Emitting Diode
MAC	Medium Access Control
Passkey	Another name for PIN
PCMCIA	Personal Computer Memory Card Int'l Association, synonym for a standard für PC-Cards, such as Bluetooth cards, modem cards and Fax cards
PDA	Personal Digital Assistant
PIN	Personal Identification Number

Table 35 Abbreviations and terms (1)

Term	Explanation
POP	Post Office Protocol
POP3 SEC	Post Office Protocol 3 secure
POPPASSD	Post Office Protocol with Password
PPCBoot	Power PC Booting
PPP	Point to Point Protocol
PROM	Programmable Read Only Memory
RAM	Read and Write Memory
RAS	Remote Access Service
SDP	Service Discovery Protocol
SIG	Special Interest Group
SMTP	Simple Mail Transfer Protocol
SMTP SEC	Simple Mail Transfer Protocol secure
SNMP	Simple Network Management Protocol
SW	Software
TCP	Transmission Control Protocol
TCP/IP	Transmission Control Protocol / Internet Protocol
UDP	Universal Datagram Protocol
URL	Uniform Resource Locator
USB	Universal Serial Bus
WINS	Windows Internet Naming Service
xDSL	x Digital Subscriber Line

Table 36 Abbreviations and terms (2)

14 Service / Contact

In the case of malfunctions of your blue2net unit, please contact your local dealer.

For technical information, software updates, and FAQs, please refer to www.siemens.at/bluetooth.

15 Warranty and Product Liability

Siemens AG offers a 12-month warranty to distributors following the date of purchase.

Any configuration action which results in lockout is not subject to warranty. In this case please contact your local dealer.

The device should not be opened under any circumstances, otherwise the warranty and liability shall expire.

Outside the scope of the Product Liability Act, seller shall be liable only if the damage in question is proved to be due to intentional acts or acts of gross negligence, within the limits of statutory provisions. Seller shall not be liable for damage due to acts of ordinary negligence nor for consequential damages or damages for economic losses, loss of savings or interest or damage resulting from third-party claims against buyer. Neither does the scope of product liability extend to medical applications and hospital environments.

Seller shall not be liable for damages in case of non-compliance with instructions for assembly, commissioning and operation (such as are contained in instructions for use) or non-compliance with licensing requirements.

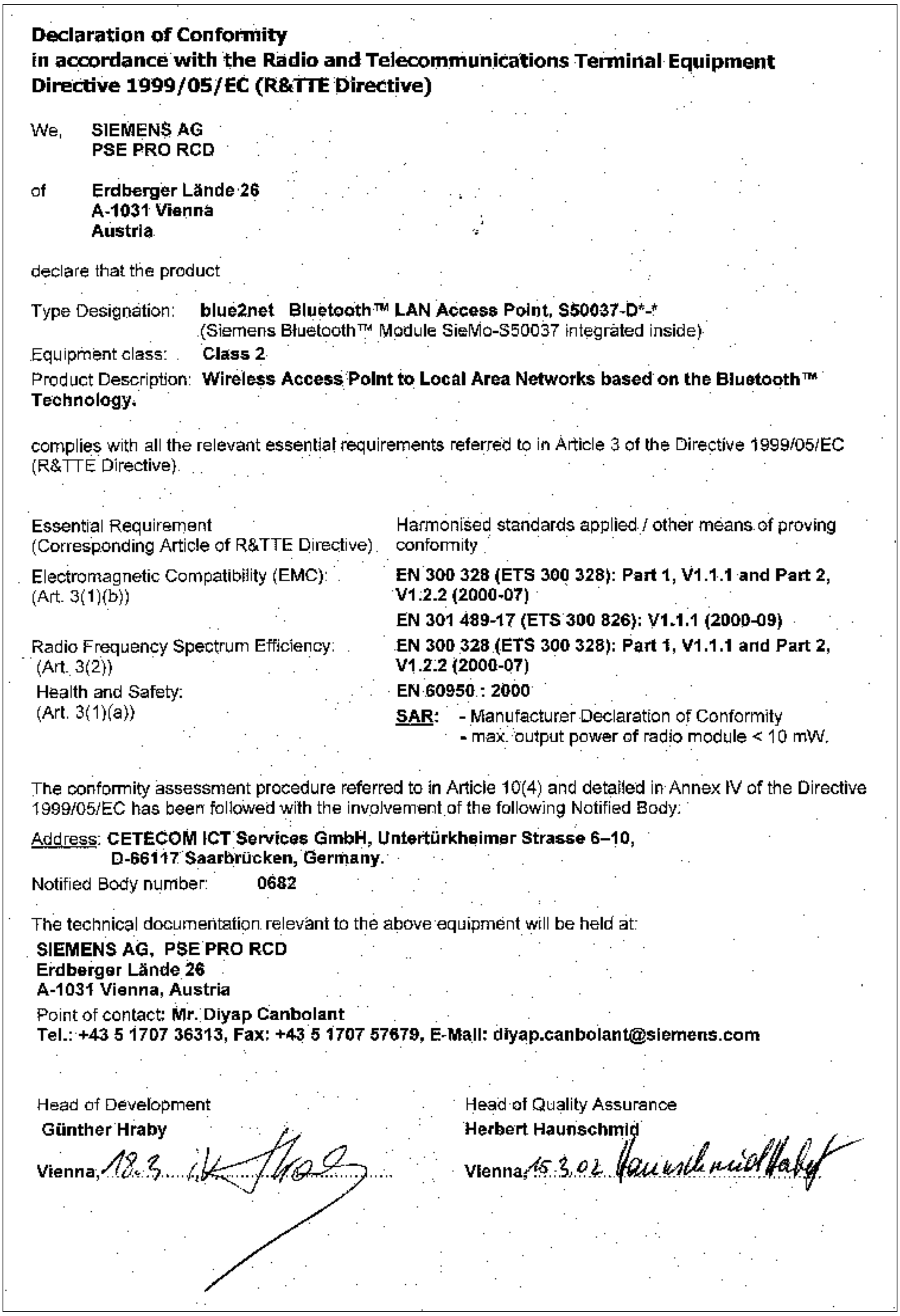
16 Technical Data

Radio Technology	Bluetooth V1.1, power class 2, 2 dBm
Frequency Range	2.402 to 2.480 GHz
Transmission Range	20m
Data rates (maximum)	asymmetric: 723 Kbits/s downlink 57 Kbits/s uplink symmetric: 434 Kbits/s downlink and uplink
Multipoint	yes, master / slave switch; connecting up to 7 simultaneous data users
Bluetooth Profiles	LAN Access Profile Generic Access Profile Serial Port Profile PAN prepared
Receiver Sensitivity	better -80 dBm
Antenna	patch antenna integrated
Bluetooth Module	Siemens SieMo S50037
Processor	Power PC
Memory DRAM / Flash	16 MB / 2 MB
Operating System	Embedded Linux
Ethernet	10 Mbit/s, connector RJ45
Power Supply	4.5 V, 1 A, external supply, connector RJ11
Power Consumption	< 2,5 W
Dimensions	150 x 140 x 32 mm (5.90 x 5.51 x 1.26 inches)
Weight	200 g (7.05 oz)
Operating Conditions	indoor use only
Temperature	0 to +40 °C (+32 to +104 °F)
Configuration	built-in Web server
blue2net IP address assignment	DHCP or predefined (fixed)
Terminal IP address assignment	masquerading or DHCP or predefined (fixed)
Security	configuration: Password and HTTPS Bluetooth passkeys built-in firewall
Software upgrades	Software upgrade is available at http://www.siemens.at/bluetooth
More information	http://www.siemens.at/bluetooth

Table 37 Technical Data

17 Index

18 CE-Declaration



Declaration of Conformity
in accordance with the Radio and Telecommunications Terminal Equipment Directive 1999/05/EC (R&TTE Directive)

We, **SIEMENS AG**
PSE PRO RCD

of **Erdberger Lände 26**
A-1031 Vienna
Austria

declare that the product

Type Designation: **blue2net Bluetooth™ LAN Access Point, S50037-D*-***
(Siemens Bluetooth™ Module SieMo-S50037 integrated inside)

Equipment class: **Class 2**

Product Description: **Wireless Access Point to Local Area Networks based on the Bluetooth™ Technology.**

complies with all the relevant essential requirements referred to in Article 3 of the Directive 1999/05/EC (R&TTE Directive).

Essential Requirement (Corresponding Article of R&TTE Directive)	Harmonised standards applied / other means of proving conformity
Electromagnetic Compatibility (EMC): (Art. 3(1)(b))	**EN 300 328 (ETS 300 328): Part 1, V1.1.1 and Part 2, V1.2.2 (2000-07)** **EN 301 489-17 (ETS 300 826): V1.1.1 (2000-09)**
Radio Frequency Spectrum Efficiency: (Art. 3(2))	**EN 300 328 (ETS 300 328): Part 1, V1.1.1 and Part 2, V1.2.2 (2000-07)**
Health and Safety: (Art. 3(1)(a))	**EN 60950 : 2000** **SAR:** - Manufacturer Declaration of Conformity - max. output power of radio module < 10 mW.

The conformity assessment procedure referred to in Article 10(4) and detailed in Annex IV of the Directive 1999/05/EC has been followed with the involvement of the following Notified Body:

Address: **CETECOM ICT Services GmbH, Untertürkheimer Strasse 6–10,**
D-66117 Saarbrücken, Germany.

Notified Body number: **0682**

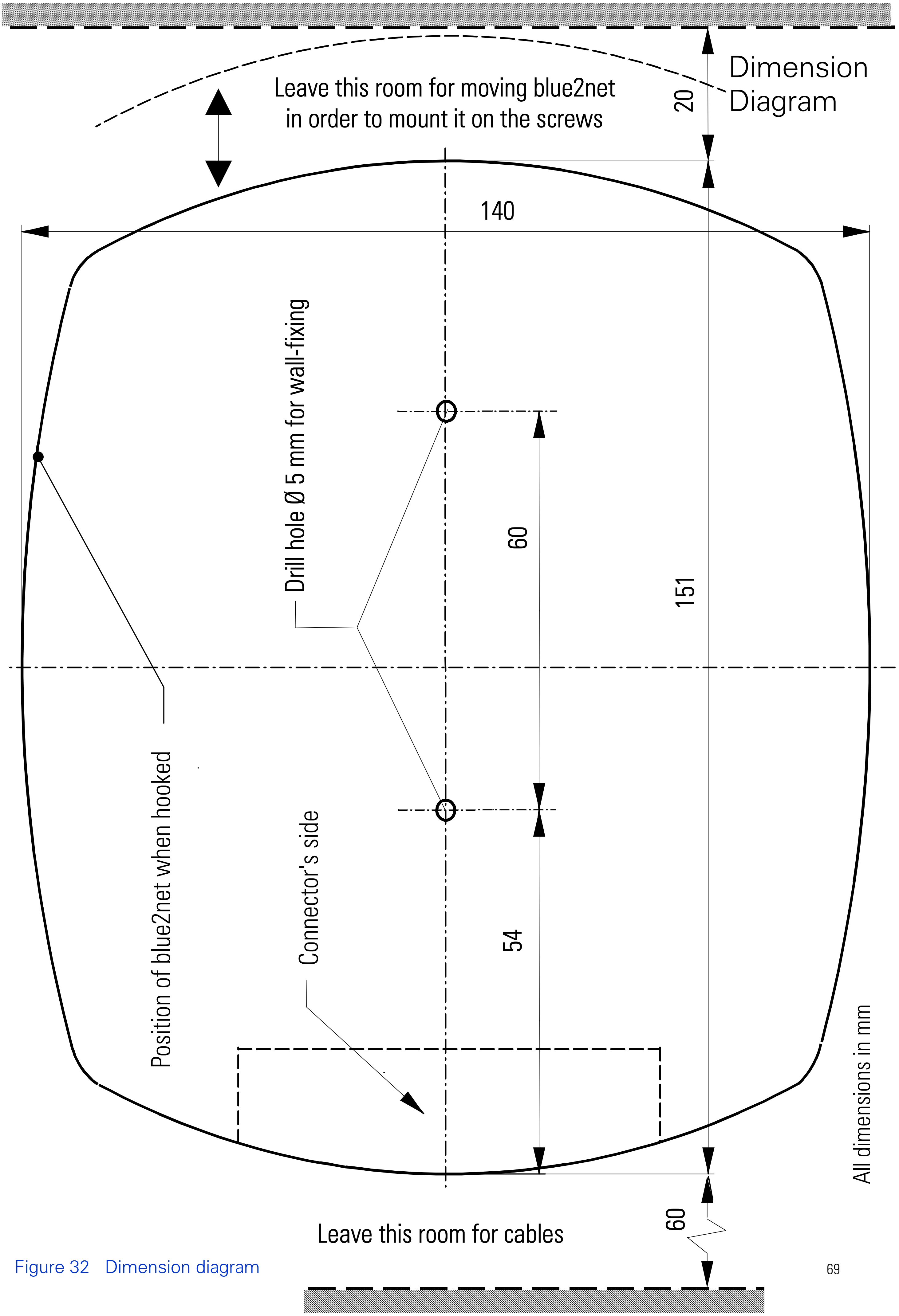
The technical documentation relevant to the above equipment will be held at:

SIEMENS AG, PSE PRO RCD
Erdberger Lände 26
A-1031 Vienna, Austria
Point of contact: **Mr. Diyap Canbolant**
Tel.: +43 5 1707 36313, Fax: +43 5 1707 57679, E-Mail: diyap.canbolant@siemens.com

Head of Development
Günther Hraby
Vienna, 18.3. ....

Head of Quality Assurance
Herbert Haunschmid
Vienna, 15.3.02

Figure 31 Declaration of Conformity



Dimension
Diagram
Leave this room for moving blue2net
in order to mount it on the screws
20
140
Drill hole Ø 5 mm for wall-fixing
60
151
Position of blue2net when hooked
Connector's side
54
All dimensions in mm
60
Leave this room for cables

Figure 32 Dimension diagram