

User's Guide
bintec R1200 / R1200w(u) / R3000 / R3000w / R3400 / R3800(wu)
Gateway Management

Purpose This document is part of the user's guide to the installation and configuration of bintec gateways running software release 7.4.10 or later. For up-to-the-minute information and instructions concerning the latest software release, you should always read our **Release Notes**, especially when carrying out a software update to a later release level. The latest **Release Notes** can be found at www.funkwerk-ec.com.

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The information in this manual is subject to change without notice. Additional information, changes and **Release Notes** for bintec gateways can be found at www.funkwerk-ec.com.

As multiprotocol gateways, bintec gateways set up WAN connections in accordance with the system configuration. To prevent unintentional charges accumulating, the operation of the product should be carefully monitored. Funkwerk Enterprise Communications GmbH accepts no liability for loss of data, unintentional connection costs and damages resulting from unsupervised operation of the product.

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Guidelines and standards bintec gateways comply with the following guidelines and standards:

R&TTE Directive 1999/5/EG

CE marking for all EU countries and Switzerland

You will find detailed information in the Declarations of Conformity at www.funkwerk-ec.com.

**How to reach Funkwerk
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1 Updating Software

As Funkwerk Enterprise Communications GmbH is constantly improving the software for all its products, this chapter is about updating the software of your gateway.

www.funkwerk-ec.com

Every new system software version brings new features, enhanced performance, and solves problems that may have occurred with earlier releases. You will find up-to-date system software at www.funkwerk-ec.com. Here you can also find the most recent documentation for your gateway.



If you want to update your software, make sure you read the relevant Release Notes. They describe all changes introduced with the new system software.

The result of interrupted updating operations could be that your gateway cannot be booted any longer. Do not turn your gateway off during the update. Before starting the update, deactivate auto logout by entering `t 0` in the SNMP shell.

An update of BOOTmonitor and/or logic may be recommended in individual cases. Furthermore, for gateways with ADSL interface or SHDSL interface a DSL Logic update may be necessary. In this case, you will find explicit instructions in the relevant release notes. Incorrect updating operations (e.g. power cut during the update) may result in the impossibility of booting your gateway. Update BOOTmonitor or logic only if Funkwerk Enterprise Communications GmbH explicitly recommends it.

1.1 The Command "update"

There are various ways to update the software of your gateway. This chapter will show you how to update with the help of the `update` command in the SNMP shell.

To do To update the system software, proceed as follows:

1. Activate a TFTP server on your PC.
If running a Windows PC: In the Windows **Start** menu, click **Programs** →

BRICKware → **DIME Tools** to start DIME Tools (you will find information on the installation of BRICKware in the **Quick Install Guide** of your gateway). Activate the TFTP server. Note that the TFTP server allows access to files from its root directory only. You can specify the root directory in the menu **CONFIGURATION** → **TFTP SERVER**:

2. Call www.funkwerk-ec.com in your browser.

The Funkwerk homepage opens. In the download section of your gateway, you will find the latest software and documentation.

3. Save the current system software, e.g. R3000w-s7301.r3a, in the intended directory on your PC. You can leave the file name as it is.
4. Log in to your gateway if you have not already done so.
5. Deactivate auto logout with `t 0`.
6. In the SNMP shell, enter `update <IP address> <file name>`.
`<IP address>` is the IP address of the PC running the TFTP server,
`<file name>` is the name of the system software you have saved on your PC.

The system software file is first transferred to your gateway's RAM and its integrity is verified. The following prompt is displayed in the SNMP shell:
 Perform update (y or n)?

7. Enter `y` and confirm with **Return**.

The software update is carried out. The new system software is saved to the Flash ROM. The SNMP shell displays: Reboot now (y or n)?

8. Enter `y` and confirm with **Return**.

The gateway reboots using the new system software. An existing configuration is inherited.

1.1.1 Updating a DSL Logic

You can update the ADSL logic or the SHDSL logic with the `update` command on the SNMP shell, too. The update procedure for the logic is the same as for the system software. You should, however, save the old DSL logic on your PC and must delete it from the Flash ROM of your gateway

prior to importing a new one. If your gateway does not work properly with the new DSL logic, you can then restore the old DSL logic.

To do To update the DSL logic, proceed as follows:

1. Activate a TFTP server on your PC.
If running a Windows PC: In the Windows **Start** menu, click **Programs** → **BRICKware** → **DIME Tools** to start the DIME Tools (you will find information on the installation of BRICKware in the **Quick Install Guide** of your gateway). Activate the TFTP server. Note that the TFTP server allows access to files from its root directory only. You can specify the root directory in the menu **CONFIGURATION** → **TFTP SERVER**.
2. Download the new DSL logic from the Internet. For this purpose, open the www.funkwerk-ec.com site in your web browser.
The Funkwerk homepage is opened. In the download section of your gateway, you will find the latest software and documentation.
3. Save the latest ADSL logic or SHDSL logic, e.g. *R3000w-ADSLi-6.2.1.r3f*, in the root directory of the TFTP server on your PC. You can leave the file name as it is.
4. Log in to your gateway if you have not already done so.
5. Deactivate auto logout with `t 0`.
6. Access the Flash ROM management shell: `update -i`.
7. Call a listing of all files stored in the Flash ROM: `ls -l`.

A list should be displayed as follows:

```
Flash-Sh > ls -l
Flags      Version Length  Date                               Name ...
Vr-x-bc-B  7.4.02  3310775 2005/12/13 11:35:12 boss.bin
Vr--l--f   6.0.10  398138  2006/06/02 12:44:04 RNY-ADSLi.rny
Flash-Sh >
```

8. Save the listed ADSL logic or SHDSL logic of your gateway on your PC. If necessary, you can use this file to restore the formerly used logic on your gateway.

To do so, download the respective logic from the download section of the Funkwerk webside too. You can find the appropriate DSL Logic with the help of the version number. On the homepage in the download section, the

version number is contained in the file name, e.g. *R3000w-ADSLi-6.0.10.r3f* for **R3000w** revision 6.0.10.

9. Delete the DSL logic file on your gateway.

```
rm RNY-ADSLi.rny.
```

10. Verify that the file has been removed: `ls -l`.

Again, a list similar to the following should be displayed (if you have, e.g., deleted the logic for ADSL over ISDN):

```
Flash-Sh > ls -l
Flags      Version Length Date           Name ...
Vr-x-bc-B 7.4.02  3310775 2005/12/13 11:35:12 boss.bin
Flash-Sh >
```

11. Perform a "reorg" to ultimately delete the file from the Flash ROM: `reorg`.

12. Exit the Flash ROM management shell: `exit`.

You have now deleted the outdated logic file and can proceed to install the new one.

13. In the SNMP shell, enter `update <IP address> <file name>`.

`<IP address>` is the IP address of the PC running the TFTP server,
`<file name>` is the name of the new DSL logic you have saved on your PC.

The DSL logic file is first transferred to your gateway's RAM and its integrity is verified. The following prompt is displayed in the SNMP shell: `Perform Flash-ROM update (y or n)?`

14. Enter `y` and confirm with **Return**.

The update is carried out. The new DSL logic is saved to the Flash ROM. The SNMP shell displays: `File update successfully finished`.

15. If you performed an update of a very old DSL logic, you should check the availability of a new system software corresponding to your new logic on the Funkwerk homepage. If necessary, you should update the system software, too.

After the update of the ADSL logic (and the corresponding system software), you should verify in either case whether the parameter **ADSL CONFIGURED MODE** in the **xDSL** menu is set to an adequate value. It should either be set to a

value specific for the type of connection you have (*ADSL 1*, *ADSL 2* oder *ADSL 2 Plus*) or it should be set to *multimode*.

**Note**

In multimode, it may take a little longer until an ADSL connection is established, since potentially all possible types of connections are attempted.

16. Call www.funkwerk-ec.com in your browser.

The homepage of Funkwerk Enterprise GmbH is displayed.

In rare cases, your gateway may be inoperable with the new DSL logic and therefore your gateway cannot connect to the Internet. Then, we recommend to delete the new DSL logic and install the earlier used DSL logic saved on your PC.

1.2 Incremental Update

For an update, your gateway requires a contiguous block of free RAM that is larger than the system software file you intend to install. If insufficient memory is available on your gateway, the gateway offers an incremental update which directly saves the system software to the Flash ROM in individual segments. Software integrity is not verified during this kind of update. Proceed as follows:

If insufficient memory is available, the following prompt is displayed in the SNMP shell: Do you want to perform an incremental update (y or n)?

1. First, enter n.
2. Enter `update -v <IP address> <file name>`.

The integrity of the system software is verified, but the software is not yet saved to the Flash ROM.

If the system software check was successful:

3. Type in `update <IP address> <file name>`.

The SNMP shell displays the following prompt: Perform update (y or n)?

4. Enter `y` and confirm with **Return**.

Your gateway performs an incremental update and the system software is loaded to the Flash ROM. This procedure takes longer than a normal update.

The SNMP shell displays the following prompt: `Reboot now (y or n)?`

5. Enter `y` and confirm with **Return**.

The gateway reboots using the new system software. An existing configuration is inherited.



Attention!

**If the incremental update is interrupted, your gateway will no longer boot!
Make sure the incremental update is not interrupted!**

2 Resetting Your Gateway to the Ex Works State

You can reset your gateway to the "factory reset" (ex works) state by means of a special reset sequence (switching on and off). This state corresponds to a booted gateway in the ex works state.

In the "factory reset" state, the default configuration is used and any existing boot configuration is ignored but not deleted.

Proceed as follows to reset your gateway to the "factory reset" state:

- If the gateway is in operation, switch it off and then on again.
The gateway runs through the boot sequence.
- Observe the LEDs on the front of your gateway.
After the gateway runs through the start mode, the block of eight LEDs on the right side lights up.
If the gateway is connected to your PC via the serial interface and **HyperTerminal** is started, the message `Press <sp> for boot monitor or any other key to boot system` is now displayed on the screen.
- Switch off the gateway while the block of eight LEDs on the right side are lit up. You have approx. four seconds for this.
- Repeat the on/off operation twice.
Your gateway has now been switched on and off three times altogether.
- Switch on your gateway for the fourth time.
If you do not interrupt the boot sequence this time, the gateway starts in the "factory reset" state.
This state is indicated by the block of eight LEDs on the right side flashing three times.

To protect your gateway against unauthorized access in the "factory reset" state, you need the password of the previously active boot configuration for logging in.

You can log in with this password, e.g. for loading, modifying and saving the boot configuration.

As an option, you can enter `erase bootconfig` after the login prompt. This command deletes all the existing configurations and the gateway is rebooted.

You can create the same effect by switching the gateway on and off five times instead of only three times.

If you switch the gateway off and on again, it starts with the saved boot configuration.