



**C33525.90\_H0**  
**Nokia MetroHub Transmission Node Rel. C3**

## **Upgrading Nokia MetroHub**



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# 1 Upgrading hardware

## 1.1 Removing units

Before you start



### Warning

Read all applicable warnings and cautions carefully before performing any maintenance tasks.

The general work order for the removal of Nokia MetroHub units during operation is given here.



### Warning

There is a risk of electric shock and hazardous energy level under the front cover of the power interface unit (DIPx).



### Steps

1. **Uninstall the transmission unit logically with the manager.**
2. *If the FXC RRI unit is to be removed*  
*Then*  
**shut down the outdoor unit power before removing the Flexbus cable.**
3. **Disconnect the cabling of the unit.**

4. **Open the retaining screws of the unit with a T10 Torx driver and remove the unit physically.**

---

#### Note

When removing power system units, remove first the power supply unit (DSUx) in the left slot and only then the power interface panel (DIPx). This order makes it easier to remove the units.

---

5. **Install a shield unit if no other unit is to be installed in the empty slot.**

## 1.2 Overview of replacing transmission units

### Summary

The following table shows whether it is possible to physically replace the FXC transmission unit when the power is on, whether traffic is affected by the replacement, and whether UltraSite BTS Hub or MetroHub Manager is needed when changing units.

Table 1. Replacing units

Unit	Hot insert/ remove possible	Traffic affected	Manager needed	Note
New FXC unit	Yes	No	Yes	
Replaced FXC unit	Yes	Yes	Yes	

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#### Note

If a master unit is removed, all traffic going through the node is cut.

If a slave unit is removed, only the traffic going through that particular unit is cut.

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**Note**

If a FXC unit is replaced with a FXC unit of a different type (e.g. replacing FXC E1/T1 with FXC RRI), all cross-connections stored on the master unit (DNCU) for the replaced unit are automatically deleted.

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**Note**

If the master unit is replaced, pure SDH-SDH cross-connections will remain working. Also, direct cross-connections from Flexbus 1 to Flexbus 2 on a slave FXC RRI unit will remain working.

---

You can:

**Steps**

1. **Replace a transmission unit with a unit of the same type**

**Or**

*Replace a transmission unit with a unit of a different type*

## 1.3 Replacing a transmission unit with a unit of the same type

**Purpose**

If a transmission unit is faulty, you can replace it with another unit of the same type by removing the faulty unit and then inserting a replacement unit.

After this, use the *Restore Backup Settings* feature to update the settings of the replaced unit into the new unit from the previously saved backup file.

If the backup file, node offline file, or site configuration file does not correspond to the current settings, you must manually reconfigure the settings.

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**Note**

If the replacement unit has been used previously, it must be set to factory defaults.

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## Note

The *Restore Backup Settings* feature requires that the equipping of the transmission units in UltraSite BTS Hub or MetroHub Manager matches the node file. You cannot add or remove units while using the *Restore Backup Settings* feature.



## Steps

1. **Make a backup file as described in Saving node information in a file.**

This step must be performed independently, if a slave or a master unit is replaced.

2. To replace a slave unit (other than slot 1 unit)



## Steps

- a. **Remove the unit without uninstalling it logically.**
- b. **Insert the new unit.**

The cross-connections and other node settings related to the unit you want to replace are not removed.

- c. **Check unit software version.**

All units within a cabinet must have the same software version. If there is a version mismatch, this is indicated by a blue border in the equipment view and a 221 Version mismatch alarm. Upgrade the software version, if necessary. See *Downloading FXC transmission unit software*.

- d. **Reset the unit to factory default settings.**

Select **Maintenance** → **Resets**.

This step can be omitted if it is certain that the unit is in factory-default state. If the factory reset is performed, ensure that only the unit, not the node, is reset.

- e. **If you replaced an FXC RRI unit and there are outdoor units installed, power Flexbus on now.**

- f. **Restore backup settings.**

For instructions, see *Restoring backup settings from a file*.

Select only the unit to which the settings should be sent.

- 3. To replace a master unit (slot 1 unit)



#### Steps

- a. **Uninstall the transmission unit logically with the manager if not broken.**
- b. **Remove the unit.**
- c. **Insert the new unit.**

#### Further information

All node settings are saved in the master unit, and thus the node settings as well as the master unit settings must be restored from the backup file.

- d. **Disconnect and reconnect the node manager (unless the default speed, 9600, is used).**
- e. **Install all the units logically.**
- f. **Check unit software version.**

All units within a cabinet must have the same software version. If there is a version mismatch, this is indicated by a blue border in the equipment view and a 221 Version mismatch alarm. Upgrade the software version, if necessary. See *Downloading FXC unit software*.

- g. **Reset the node to factory default settings by selecting Maintenance → Resets...**

- h. If you replaced an FXC RRI unit and there are outdoor units installed, power Flexbus on now.
- i. Restore backup settings.

For instructions, see *Restoring backup settings from a file*.

Select **Select all** so that all settings are sent.

## 1.4 Replacing a transmission unit with a unit of a different type

### Before you start

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#### Note

If you replace a transmission unit with a unit of a different type, all settings and cross-connections are lost.

---



### Steps

1. In the manager, connect to a node or open a node file.
2. Point to the unit to be replaced and click the right mouse button to access the Equipment window pop-up menu.
3. Select the Uninstall Unit pop-up menu command.

The uninstalled unit can no longer be used.

4. Physically remove the uninstalled unit.
5. Physically install the new unit.

Physically install the new unit as follows:

- a. Slide the unit into the slot. A units can be installed in any slot, with the exception of the following:
    - Both FXC STM-1 and FXC Bridge must be installed for SDH functionality. Install them side by side, with the FXC Bridge unit on the left, if possible.
    - Do not install an FXC STM-1 unit in the first slot, as the FXC STM-1 does not support node master functionality.
    - Do not install more than one FXC STM-1 unit, or more than one FXC Bridge unit.
  - b. Press the unit carefully against the backplane.
  - c. Fix and tighten the unit retaining screws with a T10 Torx screwdriver.
6. **Disconnect and reconnect the node manager.**
  7. **Click the right mouse button to access the Equipment window pop-up menu.**
  8. **Select the Install Unit pop-up menu command.**
  9. **Check the settings of the unit.**

When you installed the unit in step 8, the unit manager menu appeared in the main menu bar (for instance, **FXC STM-1**). Check the settings of the unit through the unit manager menu.

#### **Expected outcome**

The new unit is ready for use.

## **1.5 Replacing a battery backup unit**

### **Before you start**

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#### **Warning**

**Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.**

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**Warning**

If the optional battery unit is used, switching off the AC does not switch off MetroHub.

**Warning**

Do not handle the battery cable carelessly or open plastic parts of the battery unit. There is a hazardous energy level present even if the battery is disconnected from the power interface panel (DIPx).

**Note**

Dispose of the used battery unit by handing it in at a collection point. Never dispose of old batteries as domestic waste.

**Note**

Switch AC on once to start MetroHub when you start to use the internal battery unit.

**Note**

Ensure that there is no battery capacity test going on when changing the battery.

**Steps**

1. **Uninstall the old battery logically, as described in Installing and uninstalling transmission units logically with the manager.**
2. **Remove the old battery.**

3. **Install the new battery as described in Installing an optional battery unit (DBBx) in Nokia MetroHub.**
4. **Install the new battery logically, as described in Installing and uninstalling units logically with the manager.**
5. **Run the battery connection test from Maintenance → Tests.**
6. **Give the new battery identification data from Configuration → Identifications power folder.**



# 2

## Upgrading software

### 2.1 Overview of upgrading the transmission node manager and transmission unit software

#### Before you start

ITN releases from C2.0 support remote software download.

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#### Note

Upgrade from C1.2 on site via the LMP connection.

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Do any necessary hardware or BTS upgrades before the software upgrade.

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#### Note

Remote user access level can be restricted. If user access levels are enabled, only those remote users who have administrator rights gain full read/write access to element manager. For instructions, see *Enabling user access level control*.



#### Steps

1. **Upgrade the node manager from Nokia SiteWizard to your PC or laptop as described in Installing transmission node software from Nokia SiteWizard.**
2. **Upload the node settings for a back-up.**
3. *If upgrading new transmission unit software in MetroSite BTS*  
*Then*

**Open the transmission unit manager.**

**4. Download the FXC transmission unit software.**

If there are several FXC units using the same kind of software package in the same cabinet, download the FXC unit software to the first unit (see *Downloading FXC transmission unit software* for instructions). Then copy the software from the first unit to the other(s), as described in *Copying transmission unit software between transmission units*.

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**Note**

When upgrading, activate the downloaded SW on the master FXC unit (the unit in slot 1) before copying and activating the new SW on the other FXC units.

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**5. Upgrade the radio outdoor unit software last, if it is required.**

## 2.2 Contents of Nokia SiteWizard

### Contents of Nokia SiteWizard 4.15

Nokia SiteWizard 4.15 is needed for the Nokia ITN C3 release.

The following managers and other components are included on Nokia SiteWizard 4.15:

- Nokia BTS Manager CX(M) 4.1 CD1.0
- Nokia BTS HW Configurator CX(M) 4.1 CD1.0
- Nokia MetroHub Manager C4.0
- Nokia E1/T1 Manager C4.0
- Nokia RRI Manager C4.0
- Nokia UltraSite BTS Hub Manager C4.0
- Nokia STM-1 Manager C2.0
- Nokia FC STM-1 Manager C2.0
- Nokia Bridge Manager C2.0
- Nokia Hopper Manager C4.8

- PSM Manager 4.07
- GCS R4.2 SP3 CD1

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### Note

The SCF Editor is no longer supported.

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The transmission element managers on the Nokia SiteWizard 4.15 CD-ROM are compatible with ITN C2.0, C2.1, and C2.2 managers. Furthermore, ITN C3 node managers work also with ITN C1.2, C2.0, C2.1, and C2.2 hardware, but not all features or functions are supported.

Nokia SiteWizard is delivered updated and on two CD-ROMs. The product code is 469958A.

## 2.3 System requirements for Nokia SiteWizard

Table 2. System requirements for Nokia SiteWizard

Item	Specification
Computer	Intel Pentium compatible PC
Operating system	Microsoft Windows XP (English version) Microsoft Windows 2000 (English version, Service Pack 3) Microsoft Windows 98 (English version)
System memory	Windows 2000: 64 MB (128 MB recommended) Windows 98: 32 MB (64 MB recommended)
Monitor	SVGA, 800 x 600 resolution minimum SVGA, 1024 x 768 resolution recommended
Disk space	50 MB minimum 200 MB recommended for full SiteWizard CD-ROM installation

Table 2. System requirements for Nokia SiteWizard (cont.)

Item	Specification
Accessories	CD-ROM drive Windows compatible mouse or pointing device Free 9-pin serial port and LMP cable (PC-BTS/Node) Windows compatible printer (optional)

## 2.4 Installing transmission node manager software from Nokia SiteWizard

### Purpose

Use Nokia SiteWizard to install Nokia node managers, communication components, and tools required to manage related Nokia equipment. Each SiteWizard CD-ROM contains a compatible set of managers.

### Before you start

To avoid compatibility problems, note the following:

- Check the compatible versions of managers.
- If your PC already contains previous node manager installations, it is recommended that you uninstall them before installing the new versions from the SiteWizard CD-ROM.
- The user ID used in the installation process must have local administrator rights when the software is being installed.

---

### Note

Remote user access level can be restricted. If user access levels are enabled, only those remote users who have administrator rights gain full read/write access to element manager. For instructions, see *Enabling user access level control*.

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### Steps

1. **Start Windows.**
2. **Insert the Nokia SiteWizard installation CD-ROM into the CD-ROM drive.**

Insert the Nokia SiteWizard installation CD-ROM into your PC's CD-ROM drive. The setup program should start automatically within a few seconds.

3. *If the setup program does not start automatically*  
*Then*

**Double-click the CD-ROM drive icon in the My Computer window to open the CD-ROM disk and then double-click the setup.exe program icon in the window.**

4. **Follow the instructions displayed in the setup program.**

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### Note

GCS should be chosen for installation along with the Node Managers.

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### Expected outcome

The setup program copies the selected files. The user is notified when the installation is complete.

## 2.5 Checking the transmission unit product codes and versions with the manager

### Purpose

The FXC unit product code and version number is printed on the label on top of the unit. This label identifies the hardware and the software version of the unit at the time of shipping from Nokia.

The FXC unit product code and the separate product code for software can be checked locally or by the Network Management System (NMS) or NetAct.

---

**Before you start**

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**Note**

For ITN C1.2 hardware, the boot code, boot code version, and hardware version are not displayed.

---

**Note**

In the event of a software update to FXC E1, FXC E1/T1, FXC RRI, or FXC Bridge, the **Product Version** and **Product Version for HW** will be set to N/A.

---

**Steps**

1. **Open the FXC unit's manager by clicking the unit.**
2. *If the unit is an FXC E1 unit*  
*Then*  
  
**Read the identifications in the E1 Manager under FXC E1/T1 → Identifications.**
3. *If the unit is an FXC RRI unit*  
*Then*  
  
**Read the identifications in the RRI Manager under FXC RRI → Identifications → Unit/Outdoor Unit.**
4. *If the unit is an FXC STM-1 unit*  
*Then*  
  
**Read the identifications in the STM-1 Manager under FXC STM-1 → Identifications.**
5. *If the unit is an FXC Bridge unit*  
*Then*  
  
**Read the identifications in the Bridge Manager under FXC Bridge → Identifications.**

**Expected outcome**

The manager displays the **Identifications** dialogue box.

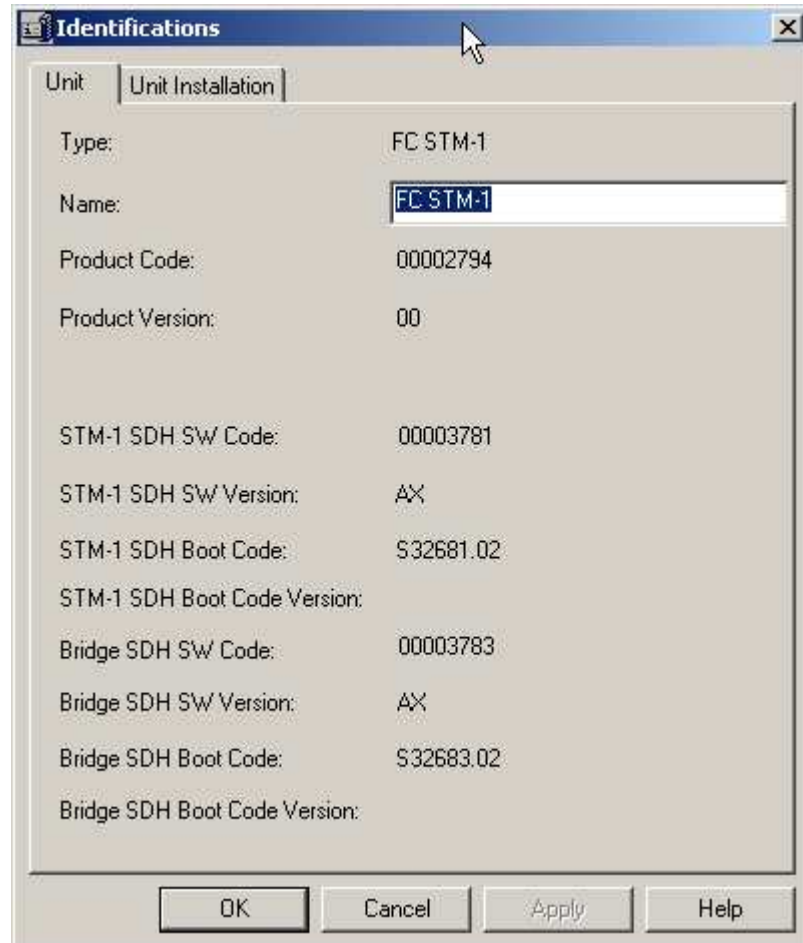


Figure 1. Identifications dialogue box

## 2.6 Downloading FXC transmission unit software

**Purpose**

You can download unit software into an FXC unit with the node manager both locally and remotely. Remote download is supported in ITN C2.0 and later releases.

Transmission Loader, introduced in ITN C2.1, is an application for remote software download. It enables automatic remote software upgrade to network elements, using existing Q1 management channels. For more information, refer to the Transmission Loader documentation available in NOLS under Maintenance.

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## Note

Readers should note that all images in this document are typical in nature and are for general reference only. For hardware, the versions depicted may differ from the latest version of equipment. For software, any version numbers shown in any of the windows/screens/dialogue boxes may not be the same as the actual software that is to be installed. It is important to remember that the procedure steps must be followed, as these will give advice on the correct software to be installed and the correct text that will be displayed in each window/screen/dialogue box.

---

## Before you start

Software can be downloaded to one unit at a time. If you have more units of the same type in the cabinet, download software into one unit first and then use *software copy* to update the rest of the units. Software copy is supported in ITN C2.0 and later releases.

---

## Note

When upgrading to ITN C2.2 release, the downloaded SW on the master FXC unit has to be activated before the SW on other FXC units.

---

## Summary

The FXC units have two software banks, and the active software bank always contains the running software. Downloaded software is always stored into the inactive software bank.

Downloading does not disturb the traffic in the transmission unit. However, after the download is completed, you need to activate the software with the manager. To activate the software, the unit executes a restart, which disturbs traffic in the transmission network. In MetroSite EDGE BTS and UltraSite EDGE BTS, all active calls may be cut.

---

## Note

Remote software download through the Q1 management channel may decrease the performance of remote alarm and performance monitoring via NetAct during software download.

---

The FXC application file extension is .pkt or .pkz (e.g. S36122D0.pkz). The file name includes the software code of the application. The extension .pkt is used for an uncompressed file and .pkz for compressed file. Therefore the .pkz file size is smaller and download is faster with it. Compressed file is uncompressed in the unit before stored into the flash. File compression is supported by ITN C2.0 and later releases. Release SDH C1.0 does not support file compression (FXC Bridge and FXC STM-1).

### *Software/hardware compatibility*

The application file compatibility (SW/HW) is checked at the beginning of the download by the unit software. If the file to be downloaded is not compatible, the download is not executed further. In that case the manager displays an error dialogue box when the download starts.



Figure 2. Download error message when SW/HW compatibility check fails

The inactive software bank is always cleared after a failed SW download.

### *Software/software compatibility*

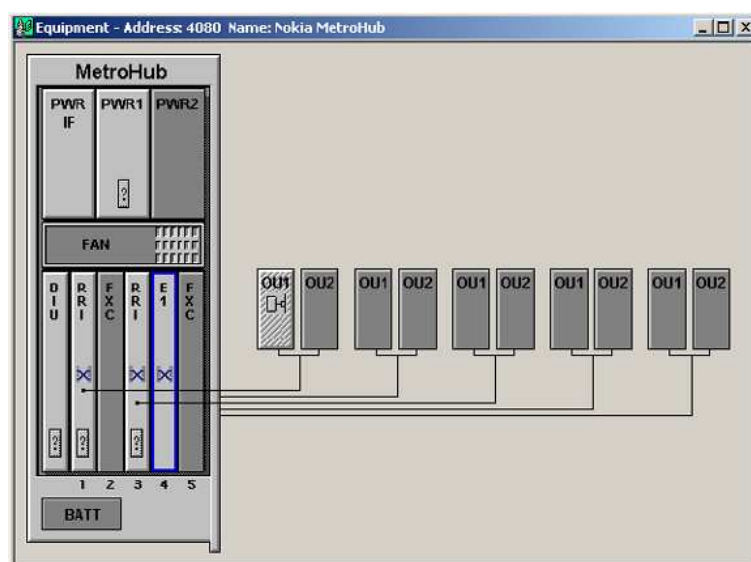
All the FXC unit software in a cabinet must be from the same release, for example ITN C2.1. The node master unit checks the release compatibility, and all the slave units must have the same release software. If a unit has active software from a different release, the node gives the *221 Version mismatch* alarm and incompatible units are shown in the equipment view with a blue border. For removing the blue border and cancelling the alarm, see *221 Version mismatch*.

---

## Note

The 221 Version mismatch alarm has to be cancelled in order to manage the node successfully.

---



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## Note

The equipment view looks slightly different for UltraSite.

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Figure 3. Version mismatch in the equipment view



## Steps

1. Start the node manager.

2. **Establish a connection to the node.**
3. **In the Equipment view, click the FXC unit to be upgraded.**

The FXC menu appears in the menu bar (on the left side of the Tools menu).

4. *If the FXC unit to be upgraded is an FXC RRI*  
*Then*

**Select FXC RRI → Unit software → Unit.**

The **Unit Software Management** dialogue box opens.

5. *If the FXC unit to be upgraded is an FXC E1/T1*  
*Then*

**Select FXC E1 → Unit software.**

The **Unit Software Management** dialogue box opens.

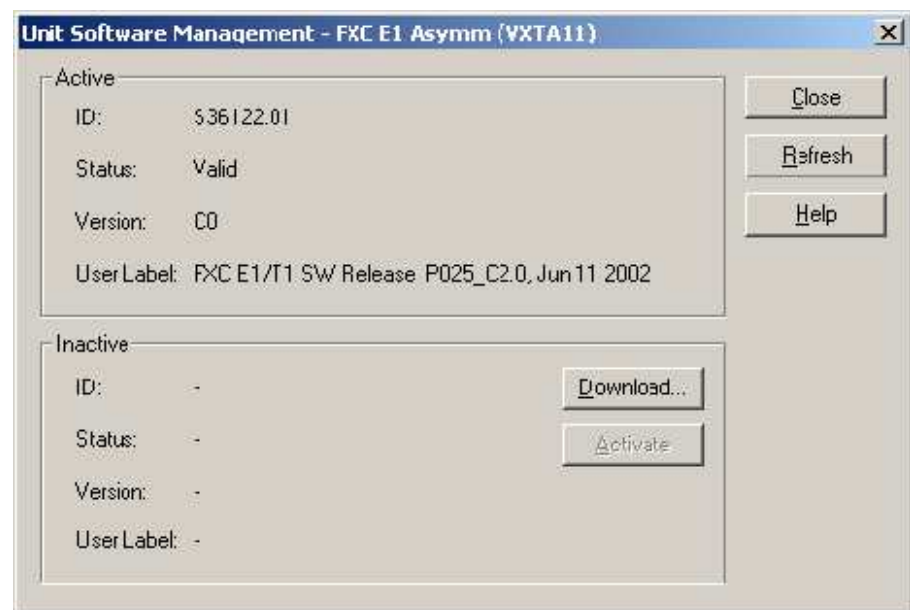


Figure 4. Unit Software Management dialogue box

6. *If the FXC unit to be upgraded is an FXC STM-1 unit*  
*Then*

**Select FXC STM-1 → Unit software.**

The **Unit Software Management** dialogue box opens, and the FXC STM-1(SDH) page is displayed.

7. *If the FXC unit to be upgraded is an FXC Bridge unit  
Then*

**Download both the SDH software component and PDH software component for the FXC Bridge unit.**

Download both the SDH and PDH software components for the FXC Bridge unit as follows:

- a. Select **FXC STM-1 → Unit software**.
- b. Select the **FXC Bridge (SDH)** tab.
- c. Follow steps 8 to 11 of this procedure, and step 13.
- d. Select **FXC Bridge → Unit software**.
- e. Follow steps 8 to 11 of this procedure, and step 13.

**8. Click Download.**

A standard Windows file selection dialogue box opens.

**9. Select the file to be downloaded and click Open.**

The download starts, and the **Downloading Data** dialogue box is displayed.

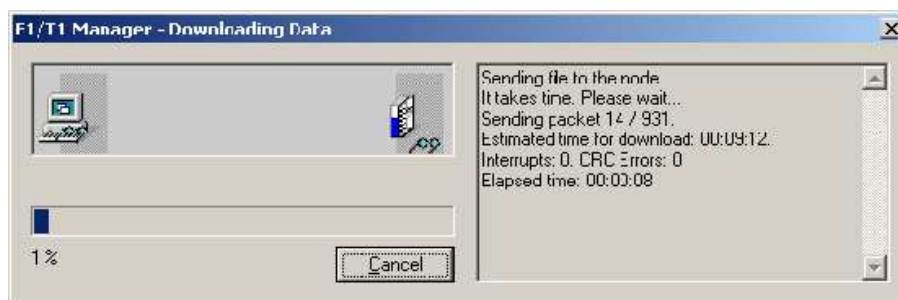


Figure 5. Downloading Data dialogue box

The dialogue box displays information about the reliability of the management channel used. The following counters are available:

- Packet counter (which shows how many packets have been downloaded)
- SWDL interrupt counter
- CRC error counter

The estimated duration, and the actual elapsed time, are displayed.

The discontinuation of the download can be easily seen when the packet counter stops. If, for example, the connection is lost, the SWDL interrupt counter is increased by one. The CRC error counter displays the number of erroneous packets. The values indicate the performance of the DCN channel.

The *Downloading Data* dialogue box is displayed during the whole downloading process. It is closed after the download has been completed and the *Unit Software Management* dialogue box is activated.

---

### Note

To cancel the download, click **Cancel**. Note that the dialogue box may take between 75 to 110 seconds to respond.

---

**10. In case the transmission unit is operating in a Nokia BTS, block the BCF with Nokia BTS Manager or request BCF lock from the BSC.**

**11. Activate the downloaded software by clicking Activate.**

The manager starts the software activation, and the unit executes a restart.

---

### Note

When upgrading to the ITN C2.2 release, activate the downloaded SW on the master FXC unit before the other FXC units.

Activating new software disturbs traffic in the transmission network. In MetroSite EDGE BTS and UltraSite EDGE BTS, all active calls may be cut.

When the activation is complete, the manager displays the downloaded software in the active bank. The previously active software is now inactive.

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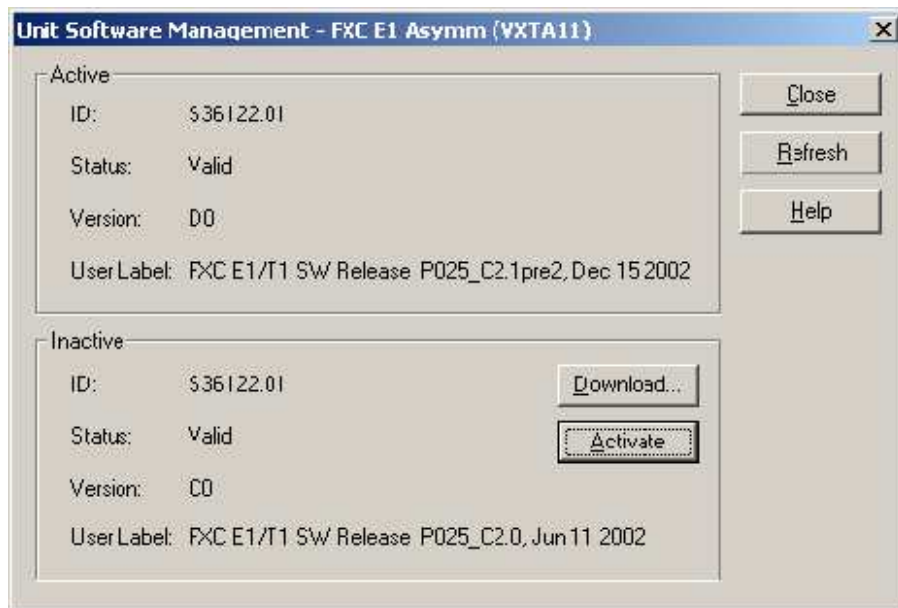


Figure 6. Unit Software Management dialogue box after software download

12. In case the transmission unit is operating in a Nokia BTS, unblock the BCF with Nokia BTS Manager or request BCF unlock from the BSC.
13. Click Close.

## 2.7 Copying transmission unit software between transmission units

### Summary

Inside a node, software can be copied between similar types of FXC units:

- from any bank of an FXC E1(/T1) to the inactive bank of an FXC E1(/T1)
- from any bank of an FXC RRI to the inactive bank of an FXC RRI

The compatibility of the software is checked before it is downloaded (or copied). The file to be copied is compared to the one in the target. Only software with the same software code are allowed to replace each other.

---

## Note

Different hardware versions may in some cases require different software. Refer to the *Nokia ITN Integrated Transmission Node Release C3, Compatibility* document, which is available in NOLS.

---

The master unit of the node has a copy queue where the copy commands are situated. The master unit executes the commands in the background one by one. The copy queue has a maximum of four copy commands. If the queue is full, the queue must be cleared before any new commands can be accepted. A copy command can also include a software activation command, if the target is not the master unit.



## Steps

1. **Start the node manager.**
2. **Establish a connection to the node.**
3. **Select Maintenance → Software Copy...**

The **Software Copy** dialogue box opens.

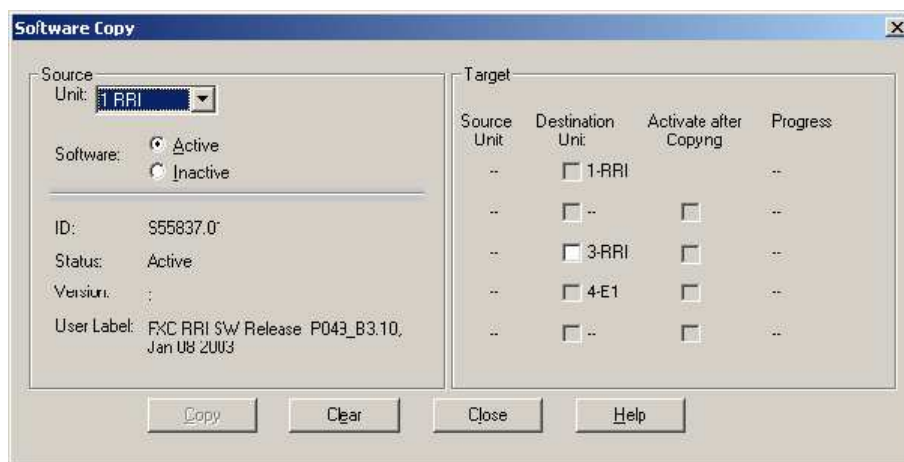


Figure 7. Software Copy dialogue box

The *Software Copy* dialogue box includes an individual software activation check box for each target FXC unit, which allows software activation after copying on only the selected units, instead of all units. The source and progress indication are also displayed for each target FXC unit.

The right-most column in the *Software Copy* dialogue box shows the progress, in percent, when copying is ongoing.

4. **Select the source unit and the bank.**
5. **Select the target unit from the target group by clicking the checkbox.**
6. *If you want the manager to activate the software after copying*  
*Then*

**Check the Activate after copying check box.**

When upgrading to ITN C2.2 release, activate the downloaded SW on the master FXC unit before copying and activating the new SW on the other FXC units.

7. *If you want to copy software from another source unit into another target unit*  
*Then*

**Repeat the steps above as many times as needed.**

8. **Click the Copy button.**

**Expected outcome**

Software copying starts, and the progress is displayed in the **Software Copy** dialogue box.

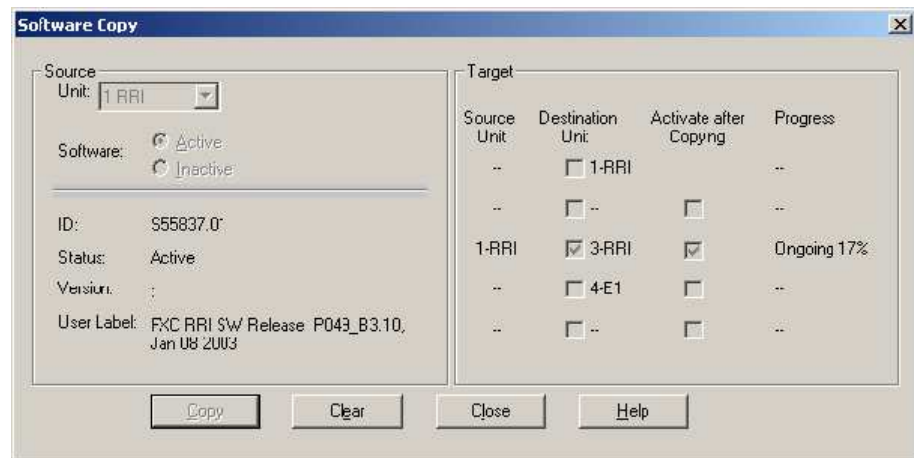


Figure 8. Software Copy dialogue box when copying ongoing

After all the copy commands are executed and the **Progress** is set to **Done**.

#### Unexpected outcome

If there are mistakes in the copy definitions, click **Clear**. Note that this clears all the selections you have made.

#### 9. Click Close to close the dialogue box.

When the dialogue box is reopened, the copy progress is updated.

## 2.8 Downloading transmission unit software to outdoor units

### Purpose

New software can be downloaded to outdoor units from Nokia UltraSite EDGE BTS, Nokia MetroSite EDGE BTS or Nokia MetroHub via an FXC RRI unit.

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## Before you start

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### Note

Activating the new software disturbs the traffic in the transmission network. In Nokia MetroSite EDGE BTS and Nokia UltraSite EDGE BTS, all active calls may be cut.

---

Before downloading, ensure that you have the correct file for each radio type available.



### Steps

1. To upgrade new outdoor unit software in Nokia UltraSite EDGE BTS or Nokia MetroHub



#### Steps

- a. **Click either the outdoor unit or the corresponding FXC RRI unit.**

The FXC RRI menu opens in the menu bar.

- b. **Select FXC RRI → Unit Software → Outdoor Unit for the radio you need to upgrade.**

The **Software Management** dialogue box opens for the radio you need to upgrade.

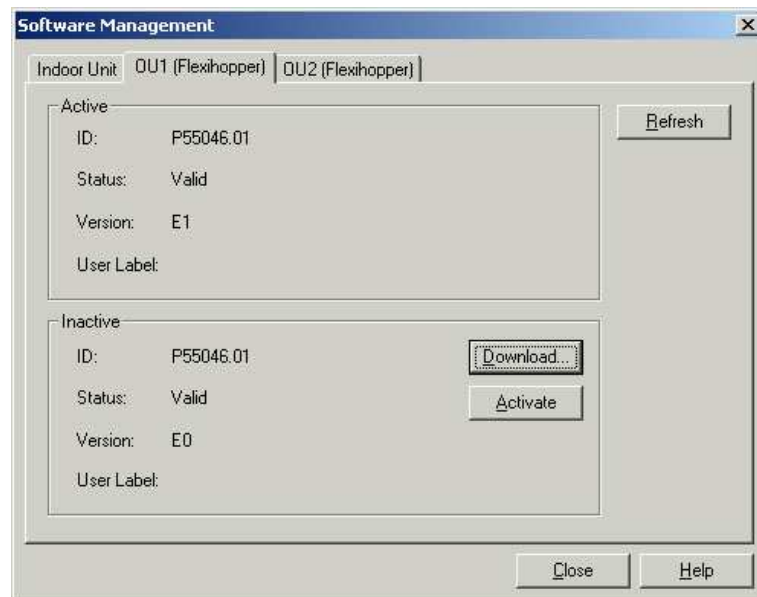


Figure 9. Software Management dialogue box

2. To upgrade new outdoor unit software in Nokia MetroSite



#### Steps

- a. **Select Transmission → Open.**

Nokia RRI Manager opens.

- b. **Select Maintenance → Unit Software → Outdoor Unit for the radio you need to upgrade.**

The **Software Management** dialogue box opens for the radio you need to upgrade.

3. **Click Download to browse for a file.**
4. **Click Open to start the download.**

The RRI Manager checks that SW code of the downloaded SW is the same as the running SW in the outdoor unit.

If the code is not the same, an error dialogue box is displayed, which informs you that the selected binary is not compatible with the OU.

5. Click **Activate** to activate the new software in each of the radio units.

---

#### Note

Activating the new software will cause an outdoor unit reset and thus interrupting running traffic through that outdoor unit. Management communication to the outdoor unit and traffic will be interrupted until the outdoor unit has been started up again. Start-up of the outdoor unit may take 30 seconds to 1 minute. The actual start-up time after a reset depends on the outdoor unit type.

---

6. Repeat the procedure for the other outdoor units.

## 2.9 Installing and uninstalling transmission units logically with the manager

### Purpose

A MetroHub or BTS is only aware of a certain transmission unit if this unit has been installed beforehand with the manager.

---

#### Note

The manager indicates a SW mismatch in a unit in an uninstalled state by a blue border and a hash fill for that unit.

---



### Steps

1. To install a unit logically in the offline mode:



#### Steps

- a. Open a node file (.dat or .nod) or an SCF file (.xml).
- b. Right-click an empty slot to access the pop-up menu in the Equipment window.
- c. Select **Unit** → **Install FXC (RRI, E1, E1/T1, Bridge, or STM-1)** from the pop-up menu.

**Expected outcome**

The installed unit can now be used.

2. To install a unit logically in the connected mode:

**Before you start**

You can only install a unit that is physically present in the connected mode.

**Steps**

- a. **Insert a new unit into UltraSite EDGE BTS or MetroHub Manager.**
- b. **Connect to a node.**
- c. **Right-click the desired unit (the unit is displayed with diagonal stripes) to access the pop-up menu in the Equipment window.**
- d. **Select Install Unit from the pop-up menu.**

**Or**

Select **Install All** from the pop-up menu if you want to install all units at the same time.

3. To uninstall a unit logically with the manager

**Purpose**

You can logically uninstall one or more selected transmission units.

---

**Note**

Some unit-related node settings (for example: EOC, synchronisation, cross-connections) are erased when a unit is uninstalled.

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**Steps**

- a. **Connect to a node or open a node file.**
- b. **Point to the unit(s) to be uninstalled and click the right mouse button to access the Equipment window pop-up menu.**

- c. **Select the Uninstall Unit pop-up menu command.**

**Expected outcome**

The uninstalled unit(s) can no longer be used, and you can physically remove the unit(s).

**Further information**

You can also insert a new unit when you have already established a connection to the node. In that case, to make the unit appear in the **Equipment** window, you need to select **Refresh All** from the **Equipment** window pop-up menu.

# 3

## Configuration report for Nokia MetroHub or BTS transmission Hub

The configuration report contains all the configuration information of the connected Nokia MetroHub or BTS transmission Hub. To obtain a configuration report select **Tools** → **Configuration Report** on the manager menu.

The content of a configuration report is the configuration of the node itself including:

- identifications
- hardware configuration
- interface settings
- service interface configuration
- synchronisation settings
- cross-connections
- EACs and alarm configuration
- Q1 management settings
- outdoor unit settings

You can also modify the contents of the configuration report.

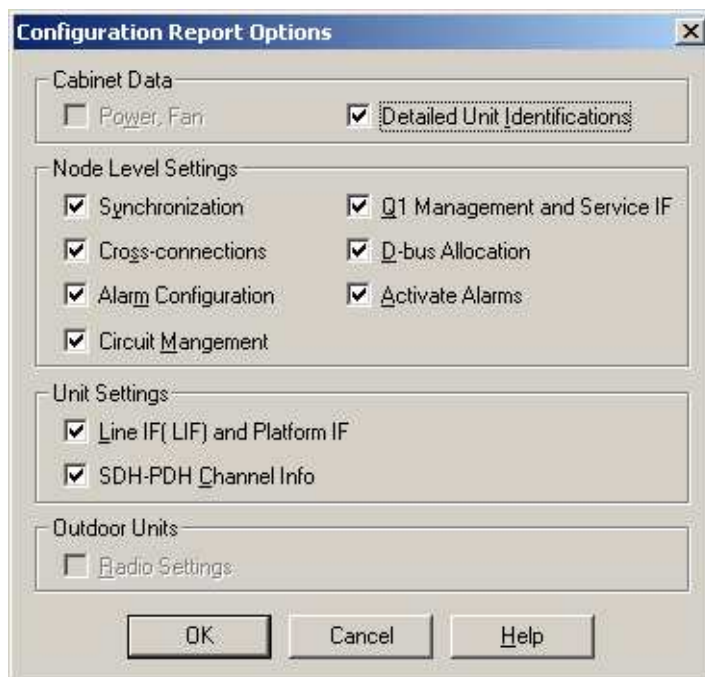


Figure 10. Configuration Report Options dialogue box

The configuration report can be saved on the PC or a disk as a text file with the extension .cnr and it has to be opened with a text editor.

## Related Topics

### Removing units

#### Instructions

Installing and uninstalling the transmission unit logically with the manager

### Overview of replacing transmission units

#### Instructions

Replacing a transmission unit with a unit of the same type

Replacing a transmission unit with a unit of a different type

### Replacing a transmission unit with a unit of the same type

#### Instructions

Overview of replacing transmission units

Installing and uninstalling the transmission unit logically with the manager

Downloading FXC transmission unit software

Saving node information in a file

Restoring backup settings from a file

## **Replacing a transmission unit with a unit of a different type**

### Instructions

Overview of replacing transmission units

## **Replacing a battery backup unit**

### Instructions

Overview of replacing transmission units

Installing an optional battery unit (DBBx) in Nokia MetroHub

Installing and uninstalling transmission units logically with the manager

## **Overview of upgrading the transmission node manager and transmission unit software**

### Instructions

Enabling user access level control

Installing transmission node manager software from Nokia SiteWizard

Downloading FXC transmission unit software

Copying transmission unit software between transmission units

## **Installing transmission node manager software from Nokia SiteWizard**

### **Instructions**

Overview of upgrading the transmission node manager and transmission unit software

Downloading FXC transmission unit software

Copying transmission unit software between transmission units

## **Downloading FXC transmission unit software**

### **Instructions**

Starting the node manager

Copying transmission unit software between transmission units

### **Reference**

221 Version mismatch