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**Nokia Flexi EDGE Base Station, Rel. EP1,
Product Documentation, v.1**

Quick Guide for Nokia Flexi EDGE BTS and FlexiHopper commissioning

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Introduction

This document describes how to commission Nokia Flexi EDGE BTS with Nokia FlexiHopper microwave radios. Only the EasyWizard template based commissioning is described in this document.

This document assumes that the needed configuration has been created to the BSC, and that the needed transmission path has been defined up to the last hop to the BTS.

The following issues are briefly described in this Quick Guide:

- Connection setup
- FIFA commissioning
- Flexi EDGE BTS commissioning

All additional information, such as manual commissioning and troubleshooting instructions, can be found in the Nokia Flexi EDGE BTS customer documentation.

2

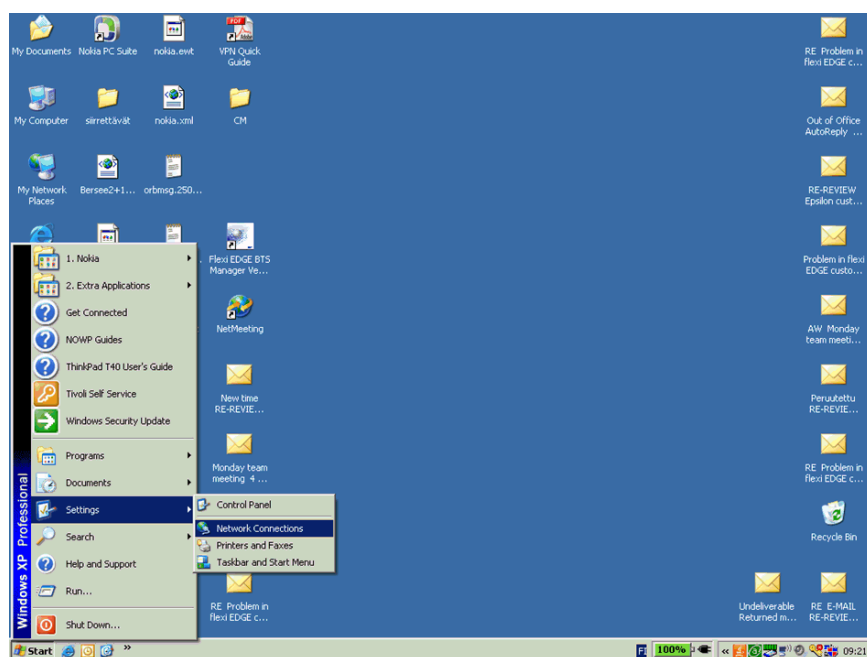
Connection setup



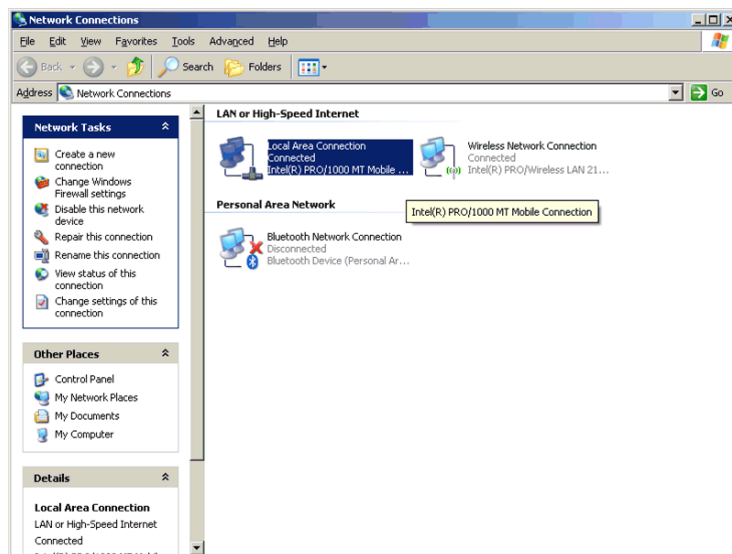
Steps

1. Change IP address settings.

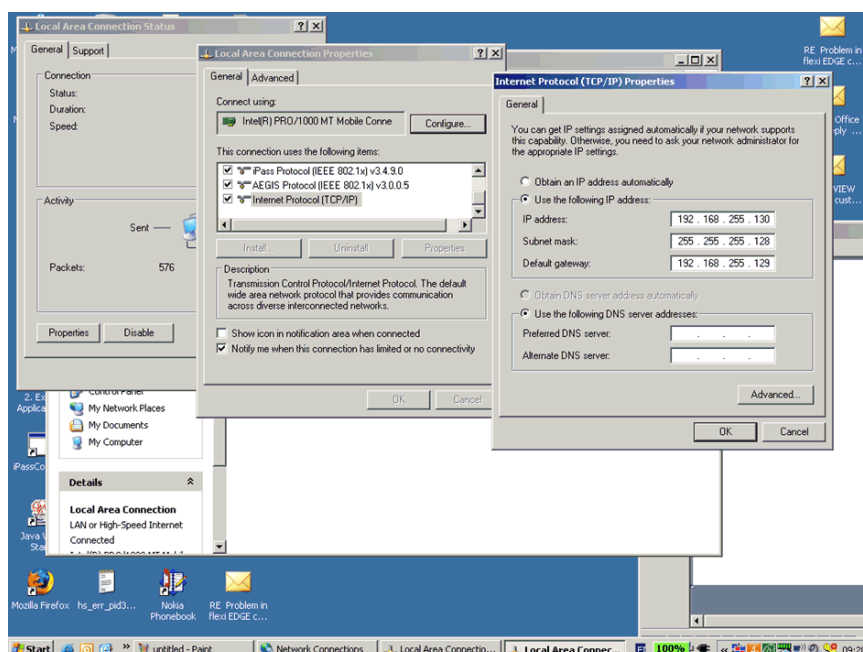
Select **Start** → **Settings** → **Network Connections**.



Select Local Area Connection.



Click **Properties** in the **Local Area Connection Status** dialog box. Select **Internet Protocol (TCP/IP)**, and click **Properties** in the **Local Area Connection Properties** dialog box. Select **Use the following IP address** and define the IP addresses. Click **OK**.





Note

If you have a personal firewall installed on your PC, you need administrator rights to set the IP address of the BTS in the friend list of you firewall.

2. Perform the visual check to the BTS:

Check the following items:

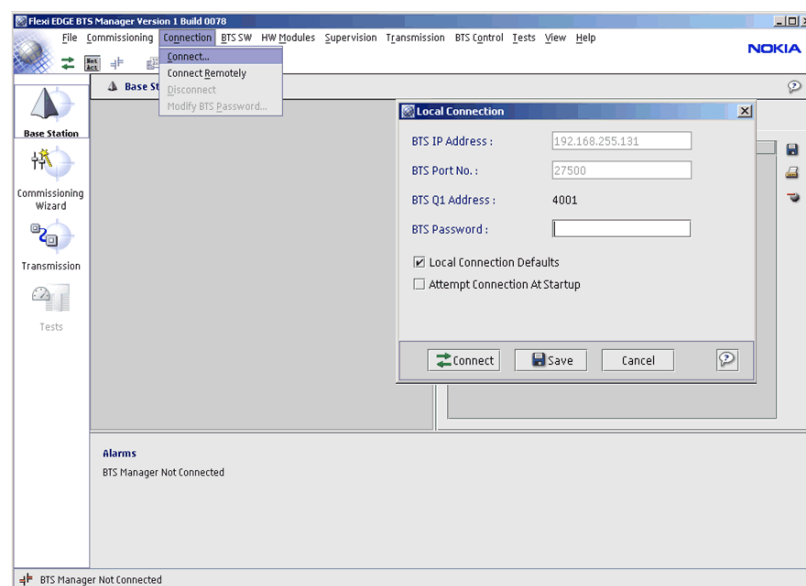
- the grounding
- power cabling
- transmission cables (E1 or FlexBus)
- LED status during power up
- TX/RX antenna connector torque check (7/16 connector 25Nm)

3. Connect the Ethernet cable from the PC to the Flexi EDGE BTS.

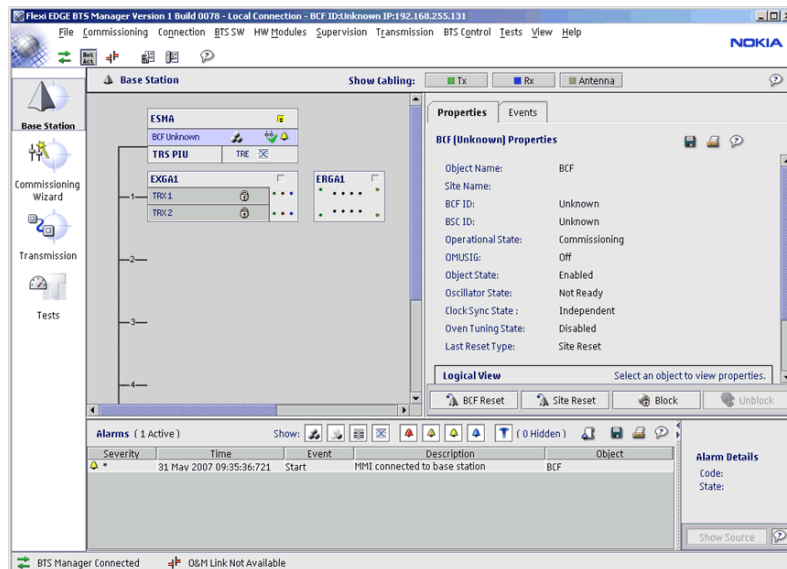
4. Check and connect E1/T1 or Flexbus cables to transmission card.

5. Launch the Flexi EDGE BTS Manager and choose Connection → Connect.

The BTS password not required in the first connection. Click **Connect** to establish the connection.



After the connection is established, the Flexi EDGE BTS Manager main view opens.



6. Update the BTS software if necessary.
7. If the FIFA is used, choose Transmission - Launch FlexiHub Manager and follow the instructions described in FIFA commissioning.

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FIFA commissioning

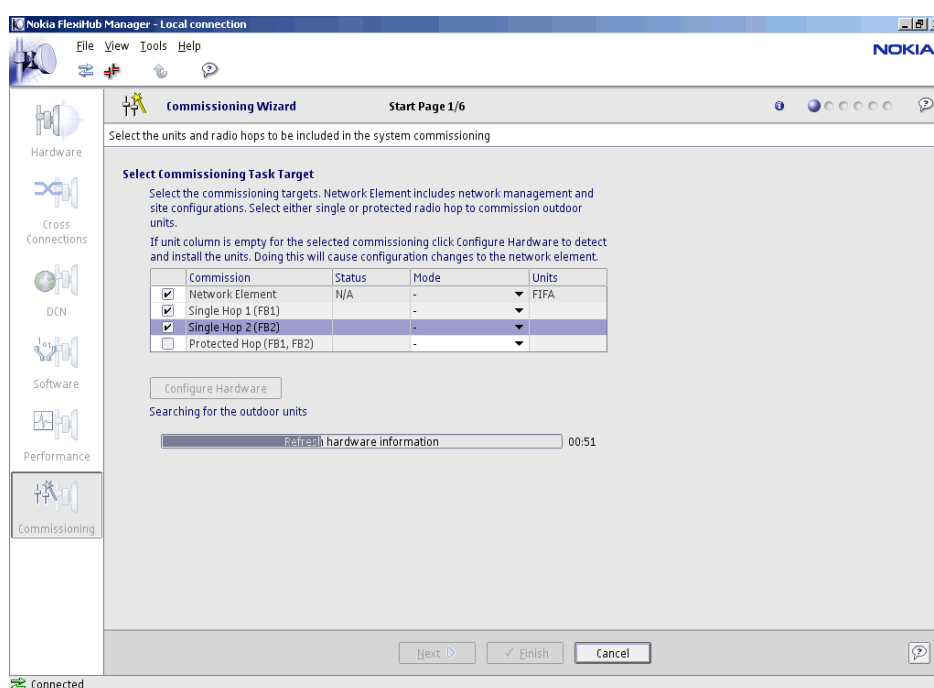
Before you start

All the parameters need to be defined according to the transmission plan.



Steps

1. **Select Commissioning on the FlexiHub Manager's View Bar to start the Commissioning Wizard.**



Select the network element and radio hop(s) to be commissioned, and click **Next**.



Note

When FlexBus 2 is in use, a licence is needed. Always inform Network Operation Center if FlexBus 2 is set as used without the valid licence.

Define the site identification and installation information, and click **Next**.

Nokia FlexiHub Manager - Local connection

File View Tools Help

NOKIA

Commissioning Wizard Site Identifications 2/11

Configure properties of the Network Element

Identifications

Equipment Name: Flexi BTS

Group Name: Project XXX Phase 1

Site Name: LO123

Site Location: London Wimbledon Common

Installation

Installer: John Smith

Installation Date: 2007-05-31

Installation Time: 10:00:00

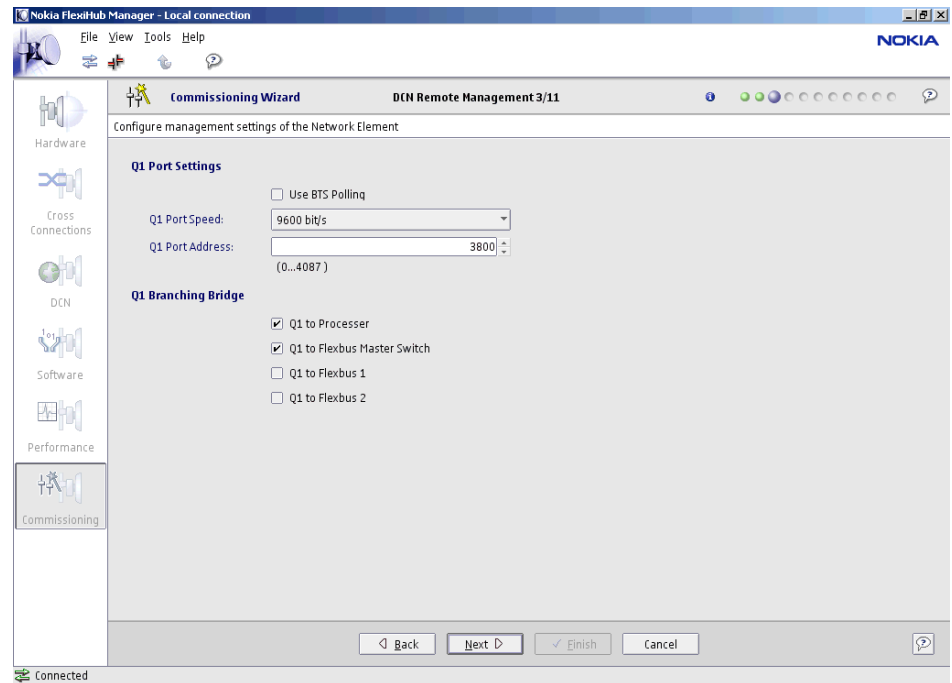
Notes: Wimbledon Common south-west corner

Back Next Finish Cancel

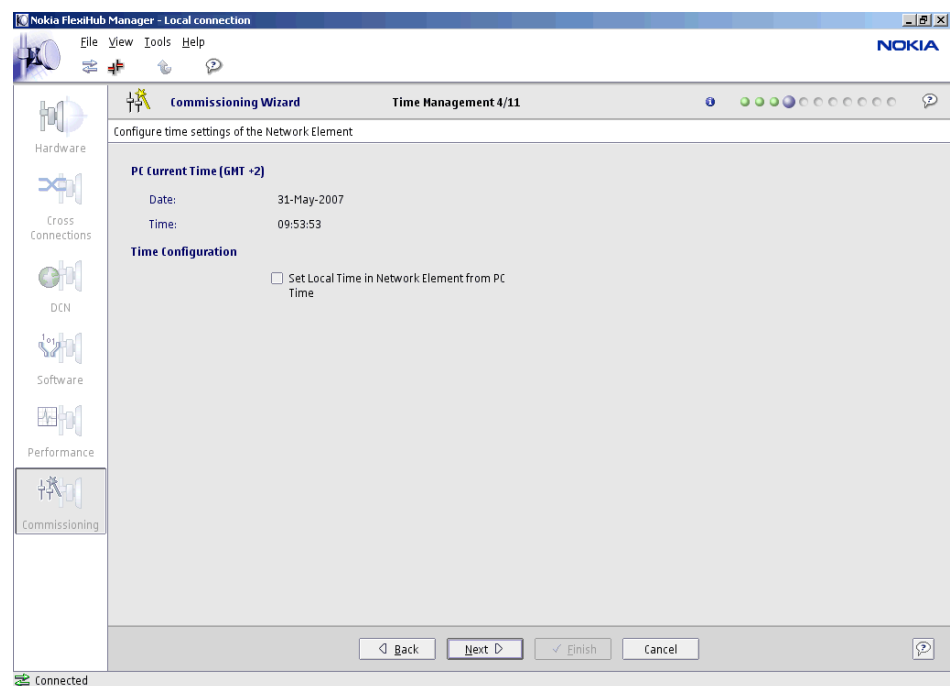
Connected

Fill in the Q1 management information for the remote network management, and click **Next**.

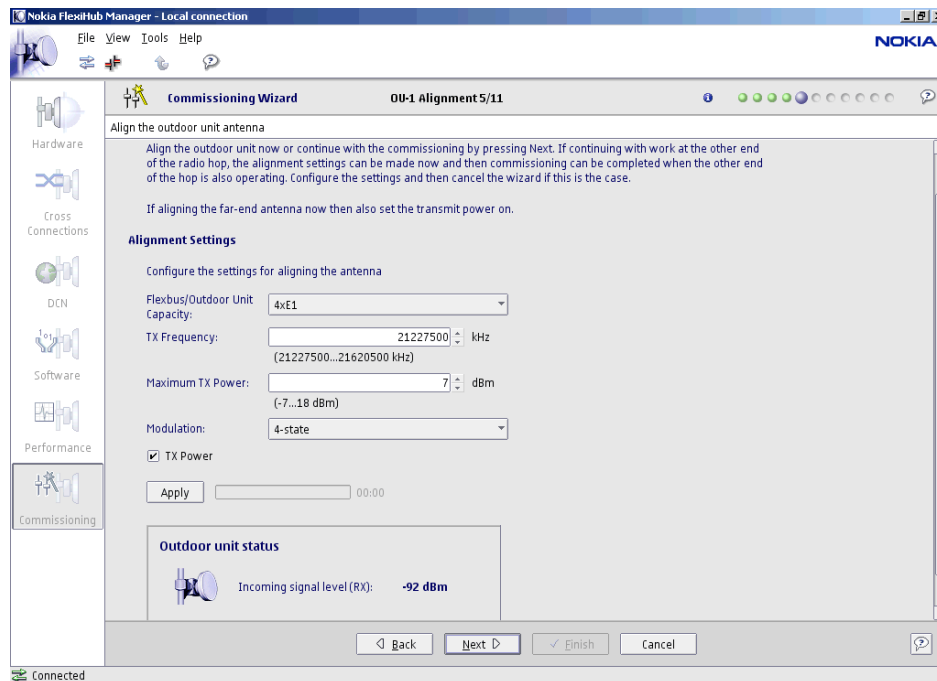
FIFA commissioning



Set the real time clock settings, and click **Next**.

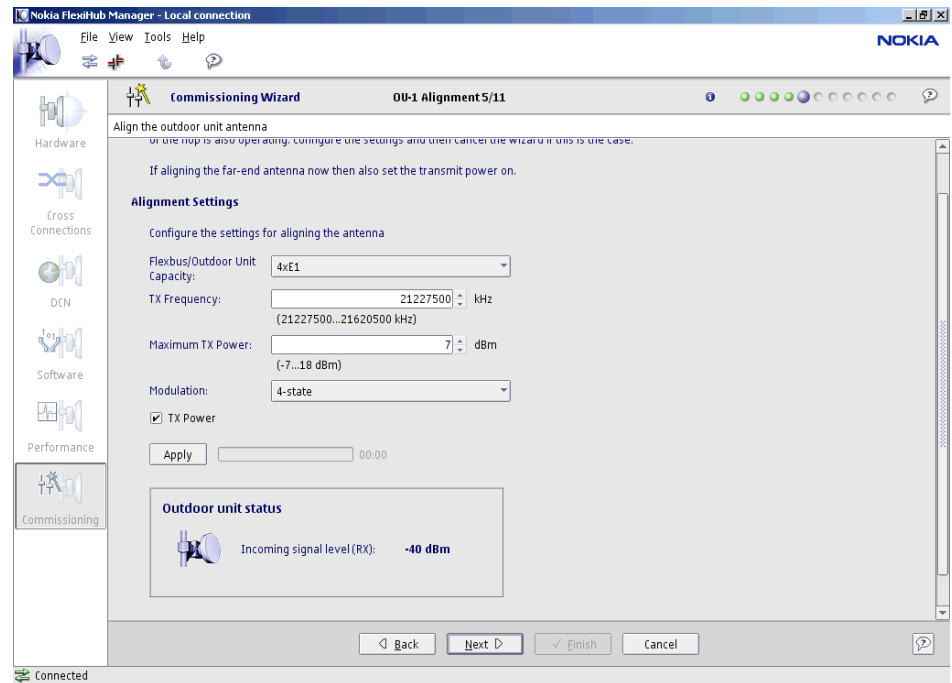


Define the alignment settings, and click **Apply**.

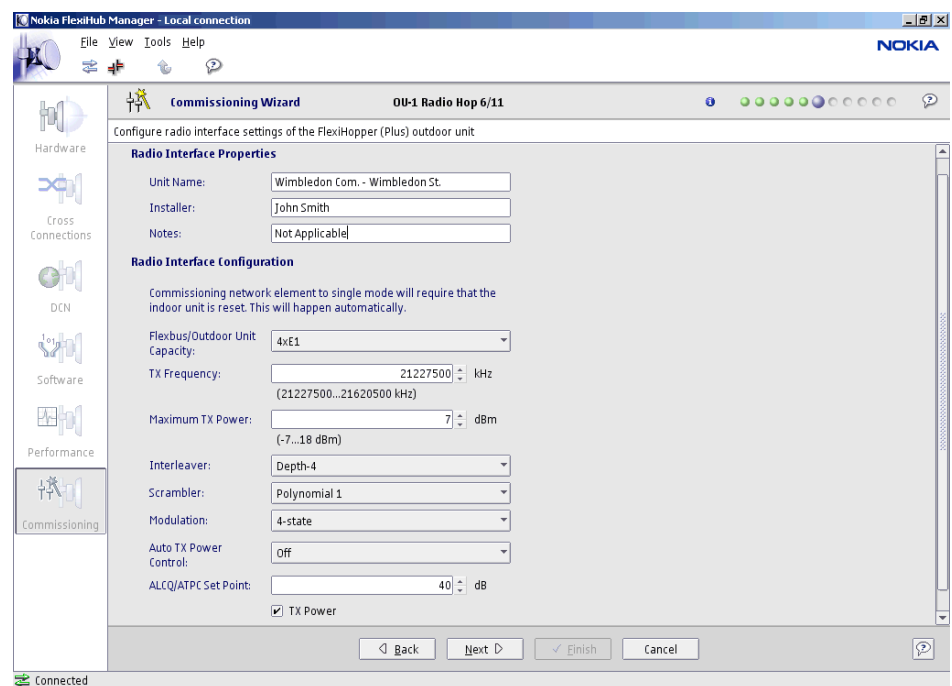


Ensure that the incoming signal level (RX) fulfils the requirements. To reach the planned RX level, a link alignment should be performed. The alignment requires at least one person to both ends. An analog multimeter is a good tool for monitoring the AGC voltage during alignment. Click **Next**.

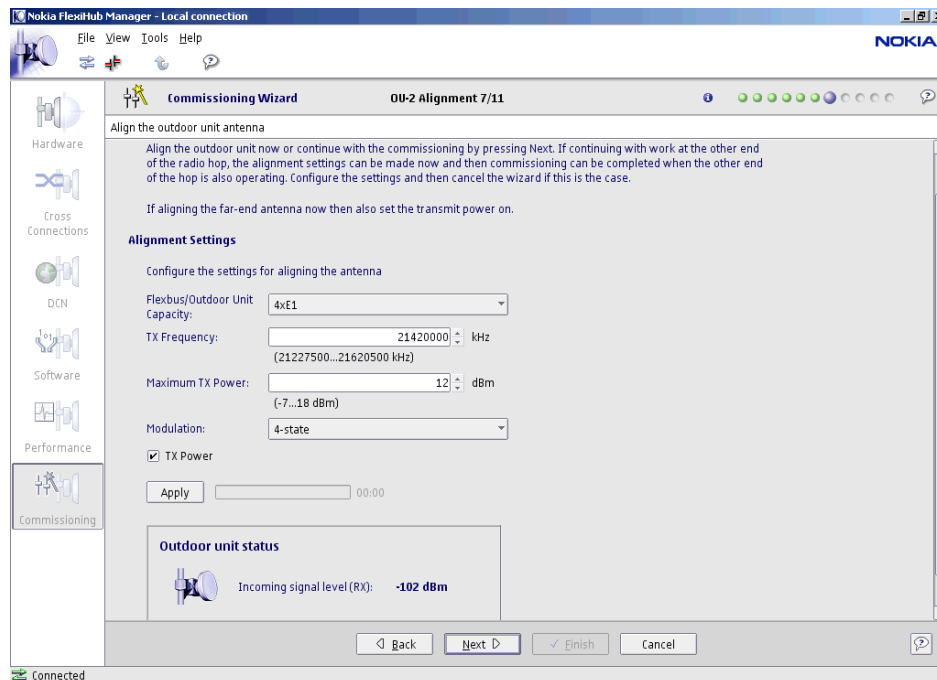
FIFA commissioning



Define the radio interface settings, and click **Next**.



If there are two outdoor units, define the alignment settings for the second unit, and click **Apply**. Ensure that the incoming signal level (RX) fulfils the requirements. Click **Next**.



If there are two outdoor units, define the radio interface settings for the second unit, and click **Next**.

Nokia FlexiHub Manager - Local connection

File View Tools Help

Commissioning Wizard **OU-2 Radio Hop 8/11**

Configure radio interface settings of the FlexiHopper (Plus) outdoor unit

Radio Interface Properties

Unit Name: Wimbledon Com. - Flinter St.

Installer: John Smith

Notes: Not Applicable

Radio Interface Configuration

Commissioning network element to single mode will require that the indoor unit is reset. This will happen automatically.

Flexbus/Outdoor Unit Capacity: 4x1

TX Frequency: 21420000 kHz
(21227500...21620500 kHz)

Maximum TX Power: 12 dBm
(-7...18 dBm)

Interleaver: Depth-4

Scrambler: Polynomial 1

Modulation: 4-state

Auto TX Power Control: Off

ALCQ/ATPC Set Point: 40 dB

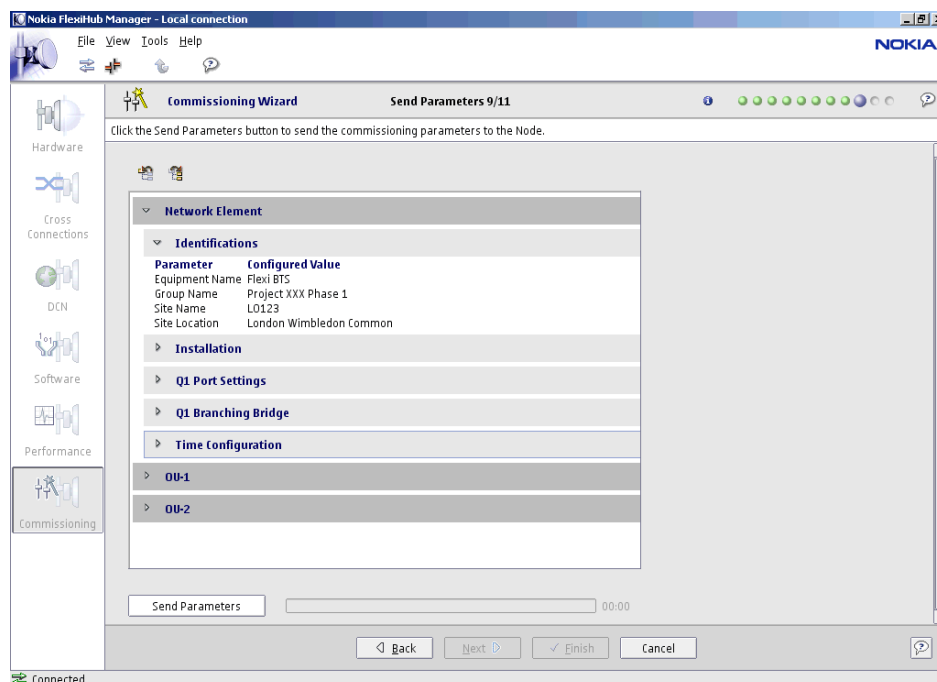
☒ TX Power

Back Next Finish Cancel

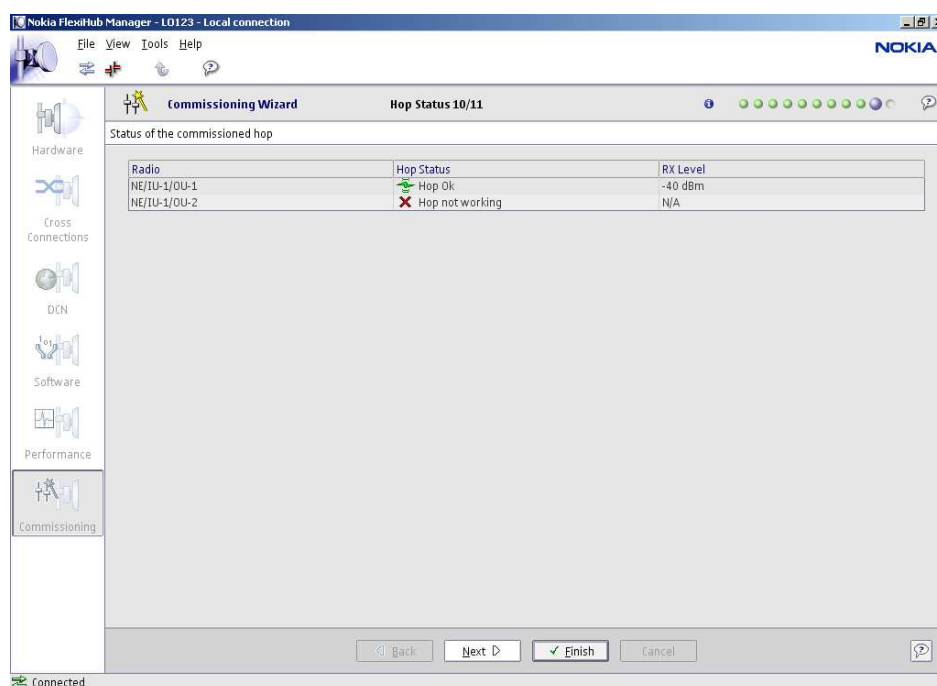
Connected

Check that the parameters are according to the transmission plan, and click **Send Parameters** to send the settings to the node. After the parameters are successfully sent, click **Next**.

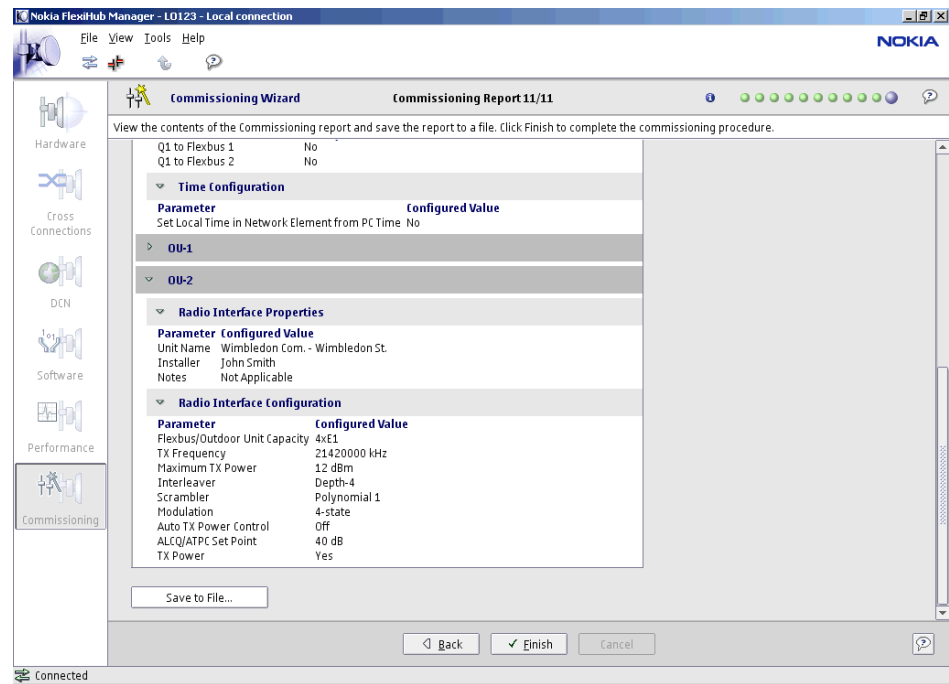
Quick Guide for Nokia Flexi EDGE BTS and FlexiHopper commissioning



Check the Hop Status. Click **Next**.



Save the commissioning report, and click **Finish**.



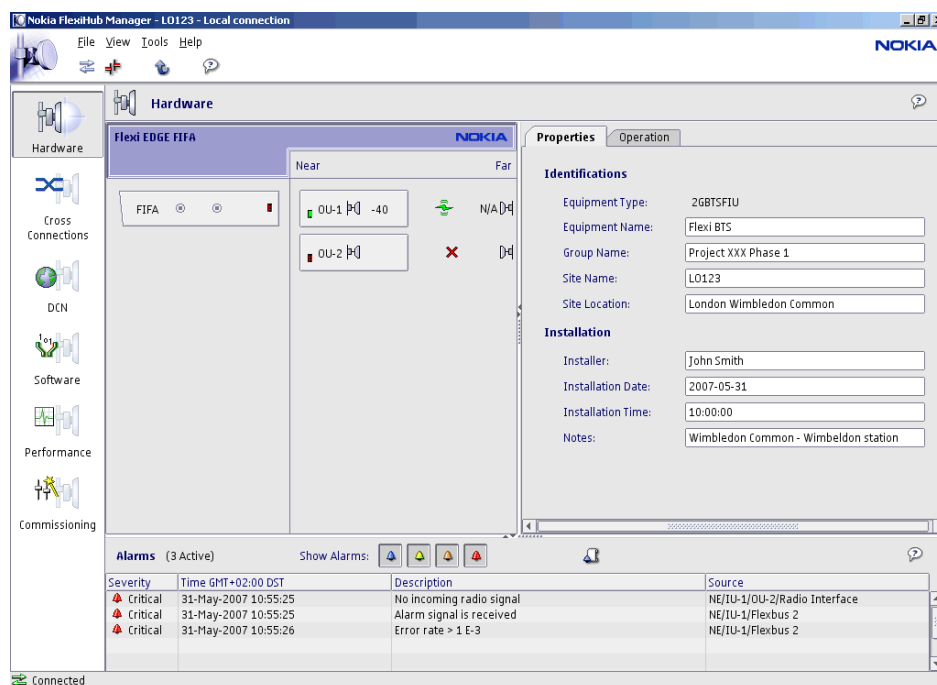


Figure 1. The FlexiHub Manager main view after successful commissioning.

2. **Select Cross Connections on the FlexiHub Manager's View Bar to open the Cross-Connections view, and check the cross connections.**
3. **Exit the FlexiHub Manager and return to the Flexi EDGE BTS Manager.**

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Flexi EDGE BTS commissioning

Before you start

All the parameters need to be defined according to the network plan.



Note

In case the transmission plug-in unit (PIU) module type changes, perform undo commissioning with removal of bypass traffic after the new PIU is inserted. After that, commission the Nokia Flexi EDGE BTS.

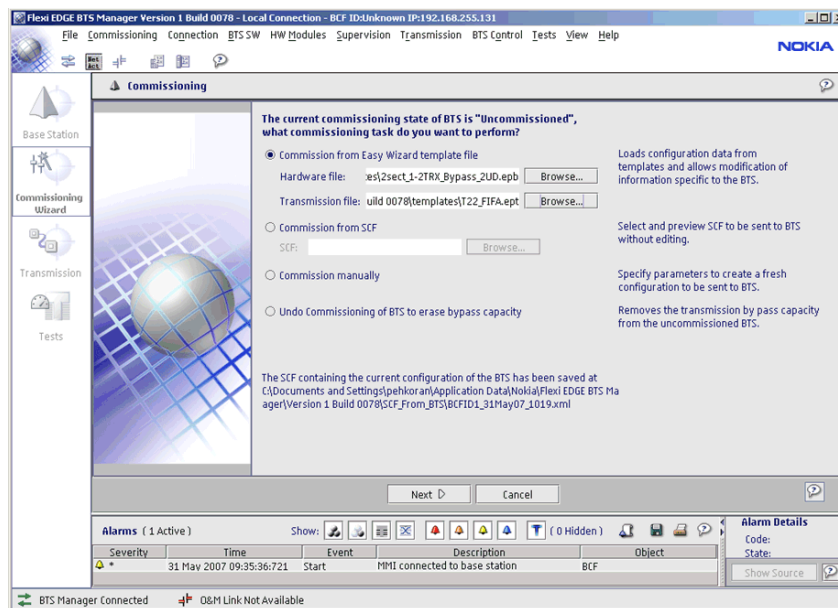


Steps

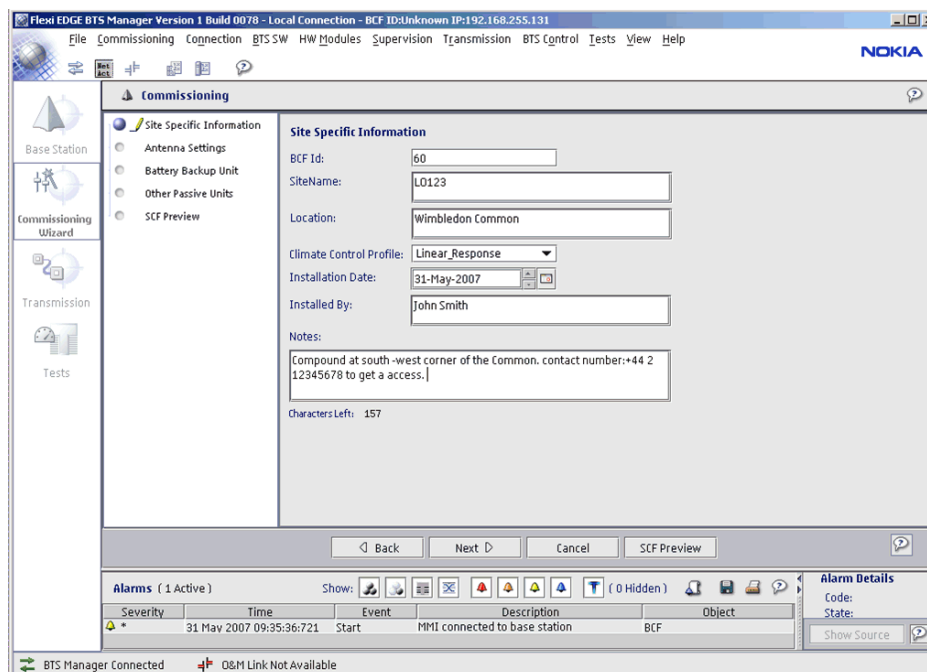
1. **Select Commissioning on the Flexi EDGE BTS Manager's View Bar to start the Commissioning Wizard.**

Select the **Commission from EasyWizard template file** option. Browse for the correct Hardware and Transmission files by selecting the **Browse** options. Click **Next**.

Quick Guide for Nokia Flexi EDGE BTS and FlexiHopper commissioning



Enter the site specific information, and click **Next**.



Enter the antenna settings, and define the MHA settings if MHAs are used. Click **Next**.

The screenshot shows the 'Flexi EDGE BTS Manager Version 1 Build 0078' window. The 'Commissioning' tab is active, and the 'Antenna Settings' sub-tab is selected. On the left, a tree view shows 'ANT 1' through 'ANT 12'. The main area displays settings for 'ANT 1'. The 'Antenna ID' is 1, and it is 'Connected To: ERxA 1 AntA'. Fields for 'Antenna Product Type' and 'Antenna Serial No.' are present. The 'MHA Type' is set to 'NONE'. Below this, there are fields for 'MHA Product Type', 'MHA Serial No.', and 'MHA by pass supported'. 'Power Limits' are defined by 'MHA current lower limit (mA)' and 'MHA current upper limit (mA)'. 'High Gain MHA Details' include a 'Receiver Band' dropdown, 'Cable loss' (set to +32.0 dB), and 'Gain Setting' (set to +24.3 dB). At the bottom, there are 'Back', 'Next', 'Cancel', and 'SCF Preview' buttons. An 'Alarms' section at the bottom shows one active alarm: 'MMT connected to base station' at '31 May 2007 09:35:36:721'. The status bar at the very bottom indicates 'BTS Manager Connected' and 'O&M Link Not Available'.

Enter the battery backup unit parameters, and click **Next**.

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The screenshot shows the 'Flexi EDGE BTS Manager Version 1 Build 0078' window. The 'Commissioning' tab is active, and the 'Battery Backup Unit' configuration is selected in the left sidebar. The main area contains the following fields:

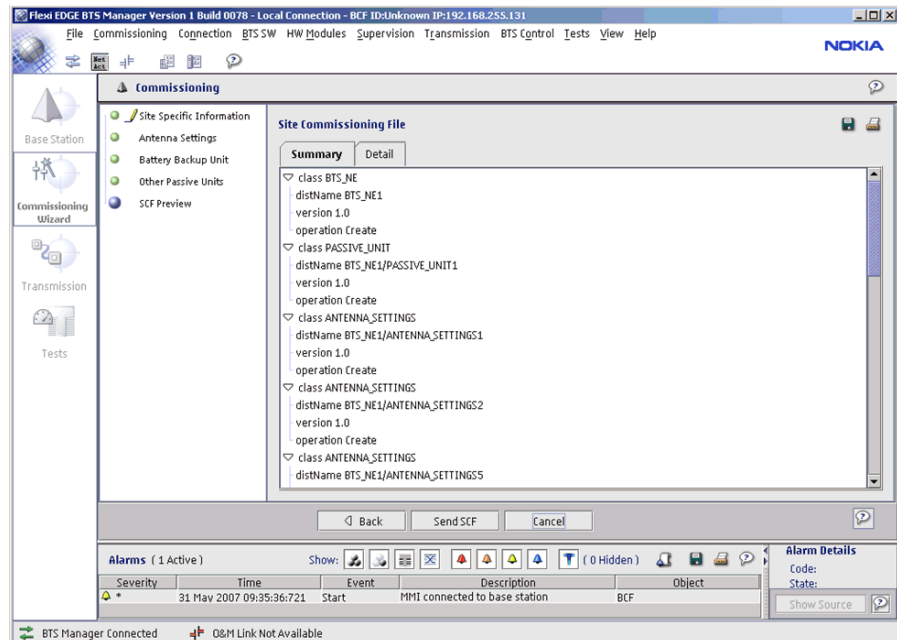
- Unit Type: No BBU Present (dropdown)
- Serial No.: (text field)
- Product Type: (text field)
- Installation Date: 31-May-2007 (calendar)
- Expiry Date: 31-May-2007 (calendar)
- Description: (text area)
- CharactersLeft: 0

At the bottom, there are buttons for 'Back', 'Next', 'Cancel', and 'SCF Preview'. Below these is an 'Alarms' section showing 1 active alarm: 'MMI connected to base station' with severity 'Warning' and time '31 May 2007 09:35:36:721'. The status bar at the bottom indicates 'BTS Manager Connected' and 'O&M Link Not Available'.

Enter the passive unit parameters, and click **Next**.

The screenshot shows the 'Flexi EDGE BTS Manager Version 1 Build 0078' window. The 'Commissioning' tab is active, and the 'Other Passive Units' configuration is selected in the left sidebar. The main area contains a table for 'Other Passive Units' with the following columns: Unit Name, Serial No., Product Type, and Description. The table has a header row and several empty rows for data entry. Below the table are buttons for 'Back', 'Next', 'Cancel', and 'SCF Preview'. The 'Alarms' section at the bottom shows the same active alarm as the previous screen. The status bar at the bottom indicates 'BTS Manager Connected' and 'O&M Link Not Available'.

Check that the parameters are according to the plan, and click **Send SCF** to send the settings to the BTS.



After the BTS has been successfully commissioned, save the commissioning report and click **Finish**.

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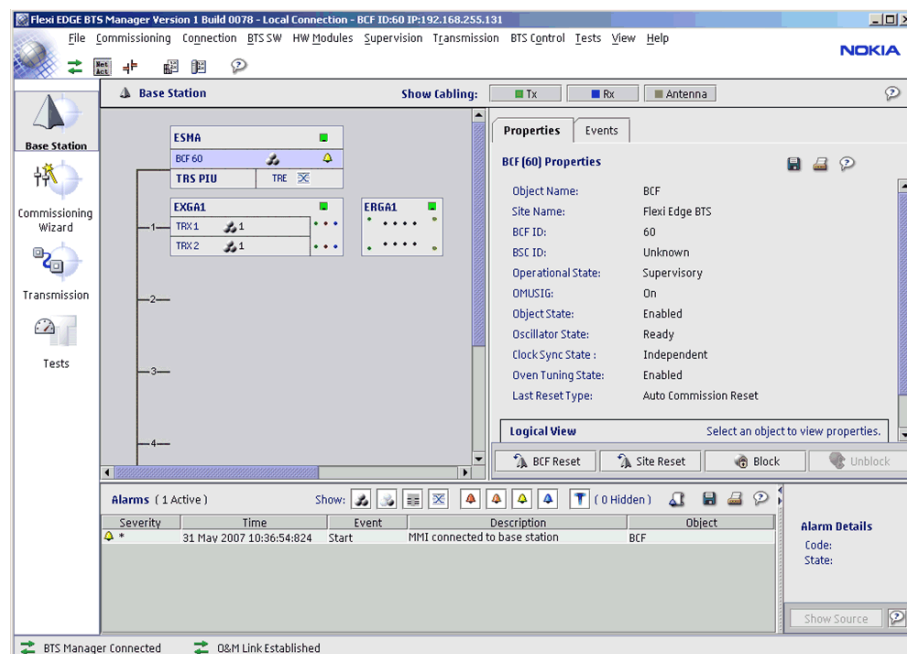
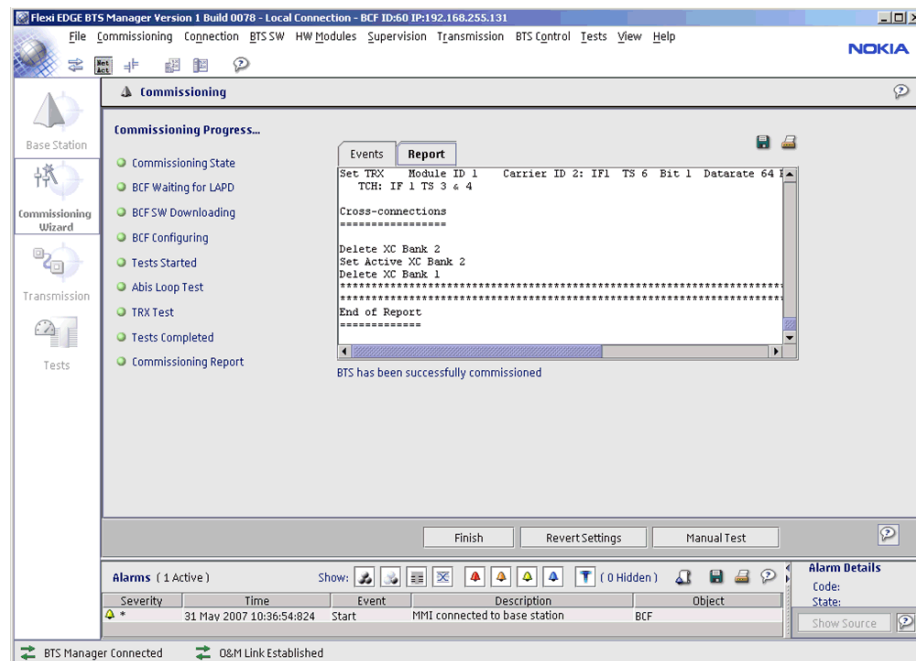


Figure 2. The Flexi EDGE BTS Manager main view after successful commissioning.