Nokia Siemens Networks

Nokia Siemens Networks GSM/EDGE BSS, rel. RG10(BSS), operating documentation

Product Description

SiteWizard 7 MP2.0

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Contents

1 Introduction 7

2 SiteWizard system overview 9
2.1 Remote use 12
2.2 Remote use of SiteWizard applications with the NetAct Node Manager Server 13

3 New functionality in this release 15

4 Flexi EDGE BTS Manager 18

5 BTS Manager 20
5.1 BTS Commissioning Wizard 20
5.2 BTS Supervision 21
5.3 BTS Alarms 21
5.4 BTS Information 21
5.5 EAC States 22
5.6 BTS Maintenance 22
5.7 BTS Testing 23

6 BTS HW Configurator 25

7 UltraSite BTS Hub Manager 27

8 MetroHub Manager 29

9 RRI Manager 31

10 E1/T1 Manager 33

11 STM-1 Manager 35

12 FC STM-1 Manager 37

13 Bridge Manager 39

14 Hopper Manager 41

15 PSM Manager 43

16 LMU and LMUB Manager 45

17 FlexiHub Manager 46

18 Key functionalities 48

19 System requirements 53
19.1 Operating system compatibility 53
19.2 Recommended system requirements for on-site use or remote use (Non-NetAct Node Manager Server) 54
19.3 Recommended system requirements for use with the NetAct Node Manager Server 54

20 Sales and ordering information 55

21 Compatibility information 56
21.1 Flexi EDGE BTS Manager 56
21.2 BTS Manager 56
21.3 HW Configurator 57
21.4 UltraSite BTS Hub Manager 57
21.5 MetroHub Manager 58
21.6 RRI Manager 59
21.7 E1/T1 Manager 60
21.8 STM-1 Manager 61
21.9 FC STM-1 Manager 62
21.10 Bridge Manager 63
21.11 Hopper Manager 64
21.12 FlexiHub Manager 64
21.13 LMUB Manager 65
21.14 LMU Manager 65
21.15 Other compatible applications 66

Summary of changes

SiteWizard 7 MP2.0 Product Description document includes the following changes:

- SiteWizard release number has been updated from 7 MP1.0 to 7 MP2.0
- BTS Manager Version has been updated from CX(M)7 to CX(M)7 MP1.0
- BTS Hardware Configurator Version has been updated from CX7 to CX7 MP1.0
- Flexi EDGE BTS Manager Version has been updated from EP3 MP1.0 to EP3 MP2.0
- Hopper Manager Version has been updated from C4.11 CD2 to C4.12.
- LMU Manager Version has been updated from 4.4 to 4.5.
- LMUB Manager Version has been updated from 1.4 to 1.0 CD5.0
- GCS Version has been updated from R6 to R6.1
- New Functionality for this release has been updated in Table 1.
- Supported units and compatibility tables have been updated throughout the document.
- Product order codes have been updated.
- Release CX(M)4-x is no longer supported and references to it have been removed.

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1 Introduction

SiteWizard is an application package for the commissioning and maintenance of Nokia Siemens Networks GSM base stations. The SiteWizard software package contains manager applications for the BTS and related transmission equipment on a BTS site.

SiteWizard 7 MP2.0 contains the following managers:

- Flexi EDGE BTS Manager EP3 MP2.0
- BTS Manager CX(M)7 MP1.0
- BTS Hardware Configurator CX7 MP1.0
- UltraSite BTS Hub Manager C7 (7.0.9)
- MetroHub Manager C7 (7.0.9)
- RRI Manager C7 (7.0.9)
- E1/T1 Manager C7 (7.0.9)
- STM-1 Manager C7 (7.0.9)
- FC STM-1 Manager C7 (7.0.9)
- Bridge Manager C7 (7.0.9)
- Hopper Manager C4.12
- PSM Manager 4.07
- LMU Manager 4.5
- LMUB Manager 1.0 CD5.0
- GCS R6.1
- FlexiHub Manager 3.0 CD1

Remote functionality is optional for PSM Manager.

GCS (General Communication Service) is required for communication to Nokia Siemens Networks equipment.

PSM Manager does not support Windows Vista.

2 SiteWizard system overview

SiteWizard is a collection of software applications that are used to commission and maintain the Nokia Siemens Networks BTS Site. The SiteWizard package contains a combination of Element Managers, Hub Managers and Card Managers to provide a complete solution for all commissioning and maintenance work.

Element Managers are used together with individual Network elements. For example, the BTS Manager is used to commission and maintain the BTS.

Hub Managers such as UltraSite BTS Hub Manager and MetroHub Manager provide the functionality to commission and maintain the entire Transmission Hub. The Hub Manager, for example, provides the ability to make cross-connections between different transmission units within the Hub. The UltraSite BTS Hub Manager can be launched from within the graphical user interface of the BTS Manager.

Card Managers such as E1/T1 and RRI Manager provide the functionality to commission and maintain the individual unit installed with the Hub. Card Manager can be launched from within the graphical user interface of the Hub or Element Manager.

Note

An overview of the Element Managers, Hub Managers and Card Managers is presented in this document, but the individual product documentation should be consulted for detailed operation of each.

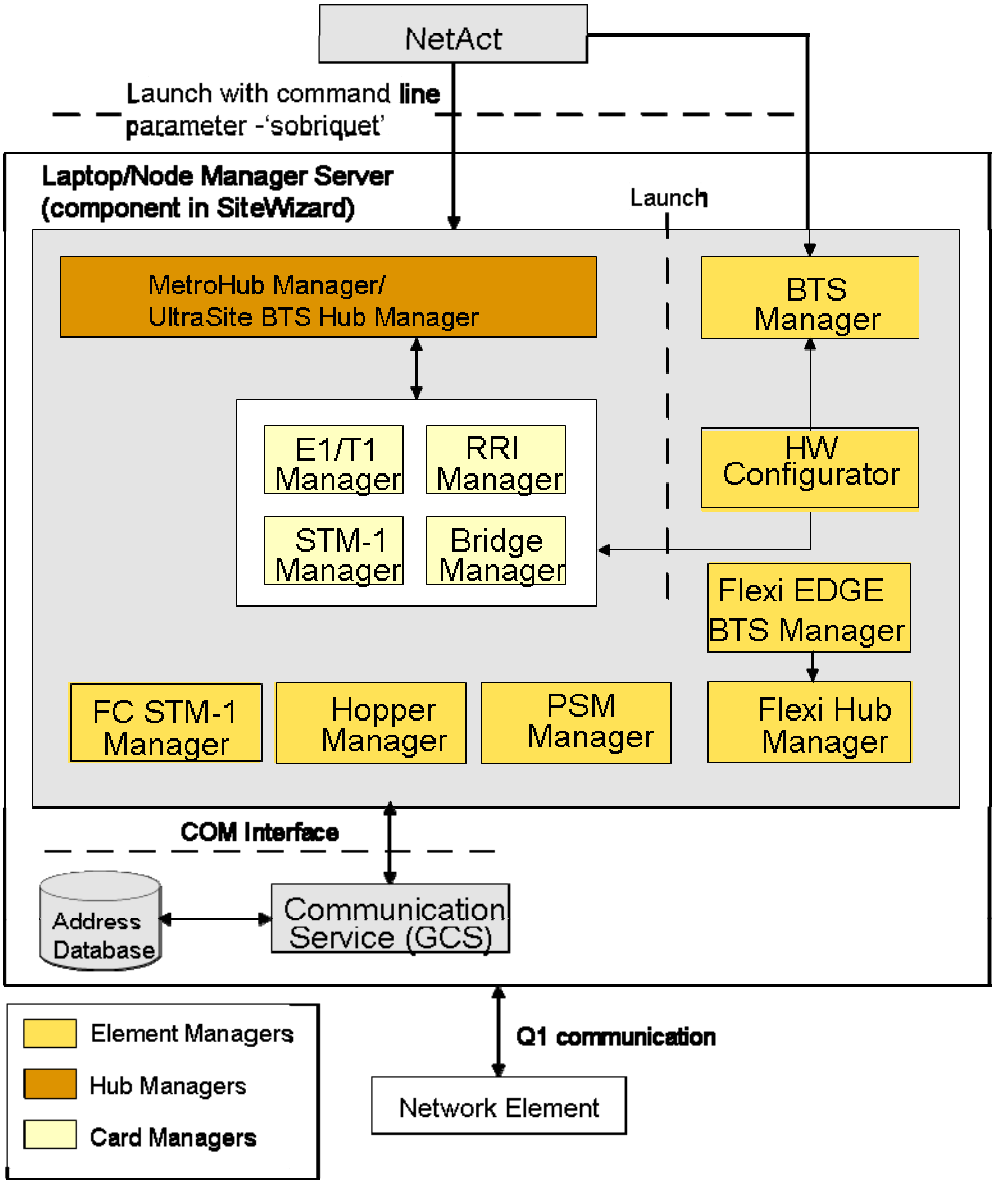

Figure 1. SiteWizard applications

SiteWizard Element Managers are Microsoft Windows-based applications used for performing commissioning, initial configurations and O&M tasks on the BTS and transmission elements. Element Managers can be installed on laptop PCs and used locally to configure

the node settings of the BTS and transmission elements according to a pre-defined network plan. Each Nokia Siemens Networks BTS and transmission unit has a Local Management Port (LMP) that enables the connection to a laptop PC.

Element Managers can also be installed on the NetAct Node Manager Server allowing remote access from the NMS Site for making configuration changes and troubleshooting.

The basic functionalities of all SiteWizard Element Managers include all or some of the following:

- Taking units into use
- Turning interfaces on/off
- Assigning and modifying timeslots
- Activating signalling channels
- Setting the synchronization sources
- Setting and modifying cross-connects
- Activating and deactivating loops for testing purposes
- Troubleshooting alarms

The SiteWizard Element Managers are designed to be compatible with each other allowing installation on a single platform. The applications provide similar functionality with a graphical user interface designed to provide a common look and feel thereby reducing the need for additional training.

The figure below shows the UltraSite BTS Manager being used locally (i.e. connected to the LMP port). The graphical user interface is typical of all SiteWizard Element Managers.

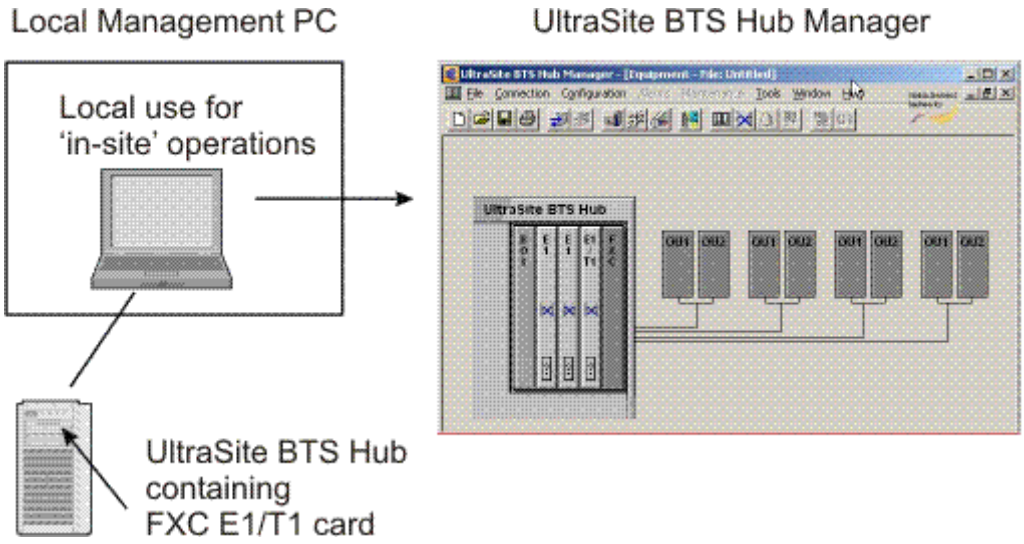

Figure 2. UltraSite BTS Hub Manager used on-site connected to the LMP Port

2.1 Remote use

The SiteWizard applications can be used remotely to perform operations on the network elements without having to visit the Site.

Typical examples of remote usage include:

Fault Finding

- Detailed explanation of alarms received via NetAct
- Remote activation of Software loops for fault tracing
- Remote monitoring of equipment voltages and current levels
- Remote monitoring of microwave radio receive levels
- Remote monitoring of performance statistics at Interface level

Configuration

- Remote changes to cross-connections (re-routing of traffic in fault conditions)
- Remote activation of pre-installed units (adding additional transmission capacity due to network upgrades)
- Remote modification of EDGE Dynamic ABIS Pools (modifying to reflect change in data usage profile at a site)

Maintenance

- Remote software download
- Remote recording of inventory data (serial numbers, hardware versions and software versions)

There are two main methods for establishing the remote connection.

1. Remote use with the NetAct Node Manager Server
2. Remote use with General Communication Services (GCS)

2.2 Remote use of SiteWizard applications with the NetAct Node Manager Server

The NetAct Node Manager Server is a NetAct solution that enables remote management and configuration of the BTS and transmission units. It allows the integration of the SiteWizard Element Managers into one system: Node Managers are installed on the NetAct GUIS Server and they can be launched from NetAct start or the NetAct Top-level User Interface using Windows Terminal Server Edition and Citrix MetaFrame allowing seamless operation.

The functionality of the Element Manager used within NetAct is almost identical to that of the applications used for on-site configurations. The NetAct Node Manager Server can host one or more Element Manager sessions.

The communication protocol used to communicate with the Nokia Siemens Networks transmission elements is a Nokia Siemens Networks proprietary Q1 protocol. This protocol is used in all aspects regarding the management of these elements including fault, performance and configuration management using the Element Manager.

The General Communication Services (GCS) provides the Q1 protocol stack and a database (MS Access – based) used to store the necessary data to allow connection of the Element Manager to the network element this includes:

- Network element name
- Q1 address of the element
- Q1 bus baud rate
- BSC ID number
- BCF number (BOI in UltraSite)

The GCS also provides an application known as the Q1 connection tool which is used to add the above data to the GCS database.

The figure below presents an overview of launching a Node Manager through NetAct.

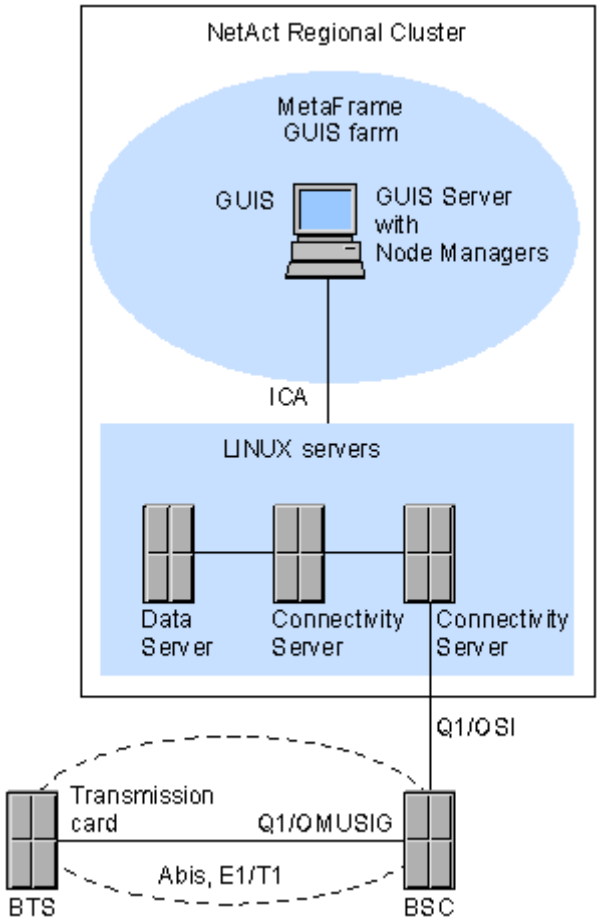

Figure 3. Remote use of SiteWizard Element Managers from NetAct

For further details on SiteWizard use with the NetAct Node Manager Server please refer to the NetAct document *Node Manager Server Principles.*

For further details on GCS please refer to the NetAct document *General Communication Service GCS R6.1 User Manual.*

3 New functionality in this release

The table below gives an outline of the functionality that is new in SiteWizard 7 MP2.0. For full details please consult the individual *ReadMe.html* for each of the Element Managers listed.

Table 1. New functionality in SiteWizard 7 MP2.0

Application	New Functionality
Flexi EDGE BTS Manager EP3 MP2.0	TRX test is not allowed on the Auxiliary TRX if TRX has been locked by BTS Manager. Transmission Protection parameters are included in the Site Information Report Bug Fixes Refer to the List of Generic Faults document available in NOLS.
BTS Manager CX(M)7 MP1.0	No feature changes in CX MMI. Bug Fixes. Refer to the List of Generic Faults document available in NOLS.
BTS Hardware Configurator CX7 MP1.0	No feature changes in CX MMI. Bug Fixes. Refer to the List of Generic Faults document available in NOLS.
Hopper Manager C4.12	Support for FIU 19E 3.2

Application	New Functionality
LMU Manager 4.5	Location coordinates inserted under advanced mode Implementation of Constellation log in LMU Manager LMU units can be identified if several remote LMU Manager connections are active on a PC simultaneously Added compatibility with Windows Vista NSN rebranding Functionality harmonisation with LMUB Manager
LMUB Manager 1.0 CD5.0	LMUB units can be identified if several remote LMUB Manager connections are active on a PC simultaneously Enhanced compatibility with Windows Vista Bug fixes
GCS R6.1 - What is new	Supported operating systems are - Windows XP 32 bit - Windows 2003 32 bit Standard and Enterprise editions - Windows Vista 32 bit Business Edition - Windows 2008 Server 32 bit Standard and Enterprise edition - Windows Vista 64 bit Business Edition - Windows 2008 server 64 bit Standard and Enterprise edition Error logging from scheduled import from the NetAct database enhanced Minor updates in graphical user interface

Application	New Functionality
	Splash screen will not be displayed when connection tool is launched from other applications

4 Flexi EDGE BTS Manager

Flexi EDGE BTS Manager is used for managing the Flexi Edge BTS equipment. It is used for various activities like commissioning the BTS, monitoring events, taking measurements, getting various reports from BTS, configuring data at BTS and viewing alarms at BTS.

These tasks are performed either at the BTS site (known as local connection) or via communication from the NetAct system.

Flexi EDGE Base Transceiver Station is a new modular GSM/EDGE product that increases the maximum radio network capacity per Base Station, and offers a cost effective solution for GSM/EDGE network evolution.

Flexi EDGE Base Station utilizes a common BTS site level platform with the new modular Flexi WCDMA Base Transceiver Station product. The Flexi EDGE Base Station is compatible with BSS release 12 onwards

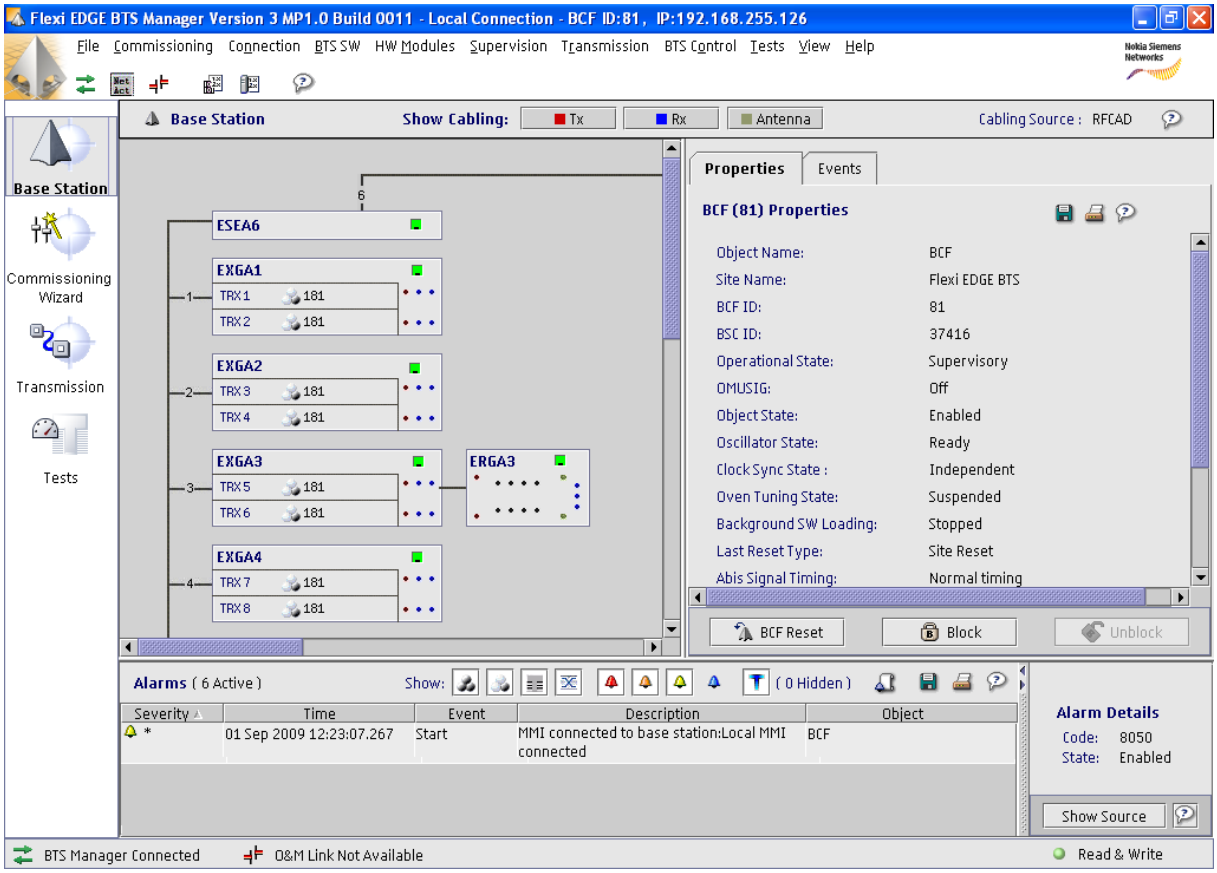

Figure 4. Flexi EDGE BTS Manager window

5 BTS Manager

BTS Manager is an Element Manager used for the configuration, commissioning and maintenance of the UltraSite EDGE and MetroSite base stations.

When BTS Manager is started and connected to a local or remote BTS, the BTS Manager adapts itself according to the type and physical configuration of the BTS (UltraSite EDGE or MetroSite). The transmission menu is embedded in the BTS Manager application only when FC E1/T1 transmission card is installed in the UltraSite or FC E1/T1, FXC E1/T1 or RRI transmission card is installed in the MetroSite BTS.

5.1 BTS Commissioning Wizard

BTS Manager includes the BTS Commissioning Wizard - an easy way to commission the BTS. The Wizard provides the following options:

- Manual Commissioning lets you enter the parameters, and guides you through the commissioning task.
- Undo Commissioning sets the BTS to non-commissioned mode.

This functionality is not available remotely and can only be performed locally at the BTS site.

For UltraSite EDGE BTS, the Commissioning Wizard in the BTS Manager is the third phase in the whole commissioning sequence. The whole sequence consists of the following phases:

1. HW configuration definition in BTS HW Configurator
2. FXC transmission unit configuration in UltraSite BTS Hub Manager

   This phase is skipped if there is a FC E1/T1 unit in the configuration.
3. BTS Commissioning Wizard in BTS Manager

FC E1/T1 transmission unit is configured during this phase.

5.2 BTS Supervision

The BTS Manager supervision functions allow you to monitor and control the BTS operation. The configuration of the BTS can be viewed in graphical format or as logical objects in the UltraSite or MetroSite Supervision window. The user can manage the objects in both BTS configuration views. Monitoring the status information is continuous and automatic during the BTS Manager session.

This functionality is available remotely and locally.

5.3 BTS Alarms

UltraSite and MetroSite BTSs have an advanced diagnostic system, which clearly reduces the number of alarms generated by the BTS.

The alarm reclassification system reduces the number of alarms by grouping them to higher-level base station objects. For example, if all TRXs of a sector become faulty, the user sees the "Sector Faulty" alarm instead of several "TRX Faulty" alarms. Only unit level and base station level alarms are sent to the BSC, and appropriate recovery and diagnostic procedures are launched automatically when possible.

Alarm monitoring is also continuous and automatic during the BTS Manager session. The user will see all alarms coming from the BTS in the Alarms window in real time. The alarm view can be customised with commands in the Supervision | Filter Alarms submenu. The Alarms window is automatically opened during the BTS Manager start-up if a BTS is connected.

This functionality is available remotely and locally.

5.4 BTS Information

Information on the BTS configuration and status can be viewed with several commands: BTS SW | Versions, Objects | Properties, Objects | LAPD Link Status, Objects | HW Versions, Supervision | External Devices, Supervision | View Site Configuration | List, Supervision | Site Information, Supervision | Antenna Cabling (UltraSite only), Supervision |

TSx Cabling (UltraSite only), Supervision | BB2-TSx Connection (UltraSite only), Tools | Site-specific Notepad (UltraSite only).

This functionality is available remotely and locally.

5.5 EAC States

The External Alarms and Controls line states can be monitored in the EAC States dialogue box. The user can change the EAC output states and view the states of the EAC inputs used. The EAC lines to be used are determined during the BTS commissioning.

This functionality is available remotely and locally.

5.6 BTS Maintenance

The BTS Manager maintenance functions allow software management; Master Clock Generator (MCLG) control and BTS object control.

The purpose of the software management is to check, load or activate the BTS SW locally. The SW management commands are located on the BTS SW menu.

The MCLG control functions are available through the Objects | Clock Control command.

You can reset, block or unblock BTS units with the Objects | Control command or through object pop-up menus in the UltraSite and MetroSite Supervision window. These procedures are mainly used when BTS units are being replaced or prepared for local tests.

This functionality is not available remotely and can only be performed locally at the BTS site.

When adding TRXs to the cabinet, or altering the Abis settings for existing TRXs, you can use the Tools | Update Abis Allocation command to read the new Abis allocations from the transmission unit and send them to the BTS.

This functionality is available remotely and locally.

For more information on BTS maintenance, see the MetroSite Base Station Maintenance document or UltraSite Site Base Station Maintenance document in the corresponding BTS User Manual.

5.7 BTS Testing

The Tests menu in the BTS Manager contains commands for testing the BTS: TRX Test, Send BCCH Carrier, TRX Traffic Trace, and TRX Loop Test.

The TRX Test dialogue box provides all necessary controls for defining the test parameters; also the test results are displayed in that dialogue box. The TRX tests are meant for testing the total performance of TRXs as widely as possible. The test results can be saved in a test log file.

This test is available remotely and locally.

The Send BCCH Carrier dialogue box allows you to start and stop BCCH carrier transmission for testing purposes.

This test is only available when the Abis connection to the BTS is disconnected or disabled, and therefore this test is only available locally.

The TRX Traffic Trace dialogue box allows you to trace traffic in the TRX timeslots.

This test is available remotely and locally.

The TRX Loop Tests dialogue box allows you to start and stop TRX loop tests. Also the test results are displayed in the dialogue box.

This test is available remotely and locally.

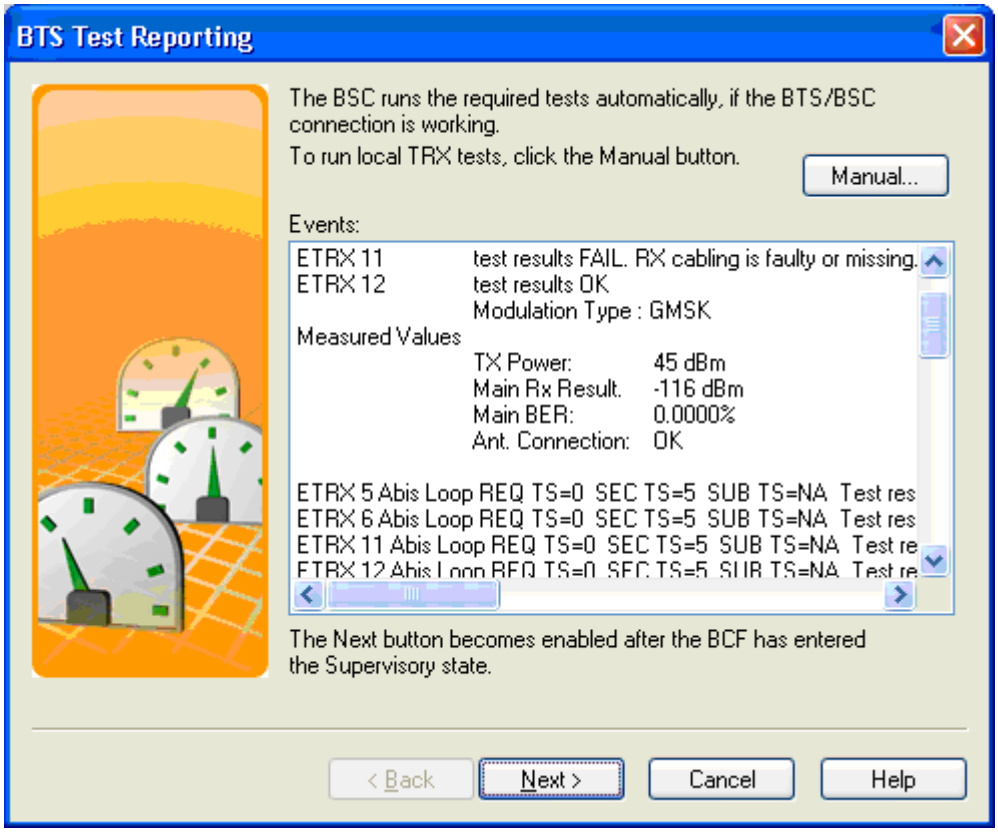

Figure 5. TRX Test dialogue box open

6 BTS HW Configurator

BTS HW Configurator is a tool for creating, checking and updating the configuration of an UltraSite EDGE BTS cabinet.

There are basically two ways you can use the BTS HW Configurator. You can launch it during the BTS commissioning procedure or you can use it for checking and modifying a BTS configuration for maintenance purposes. For more information on the commissioning procedure, see the commissioning document in the BTS User Manual.

The user interface displays a graphical view of the cabinet and you can select which information is displayed: cabinet, units, BB2-TSx cross-connections, TX cabling, RX main cabling, RX diversity cabling, antennas or passive units.

The quickest way to create a new configuration or modify an existing configuration is the Wizard. There is a pre-defined configuration file (Basic Configs.hwc) in the folder where the BTS HW Configurator is installed. This file contains basic BTS configurations that you can use for creating new configurations.

You can create a new BTS configuration also by choosing File | New, and using the Properties dialogue boxes for defining the configuration.

You can check or modify an existing configuration by opening a BTS HW Configuration File, selecting the configuration and modifying the configuration in the Properties dialogue boxes.

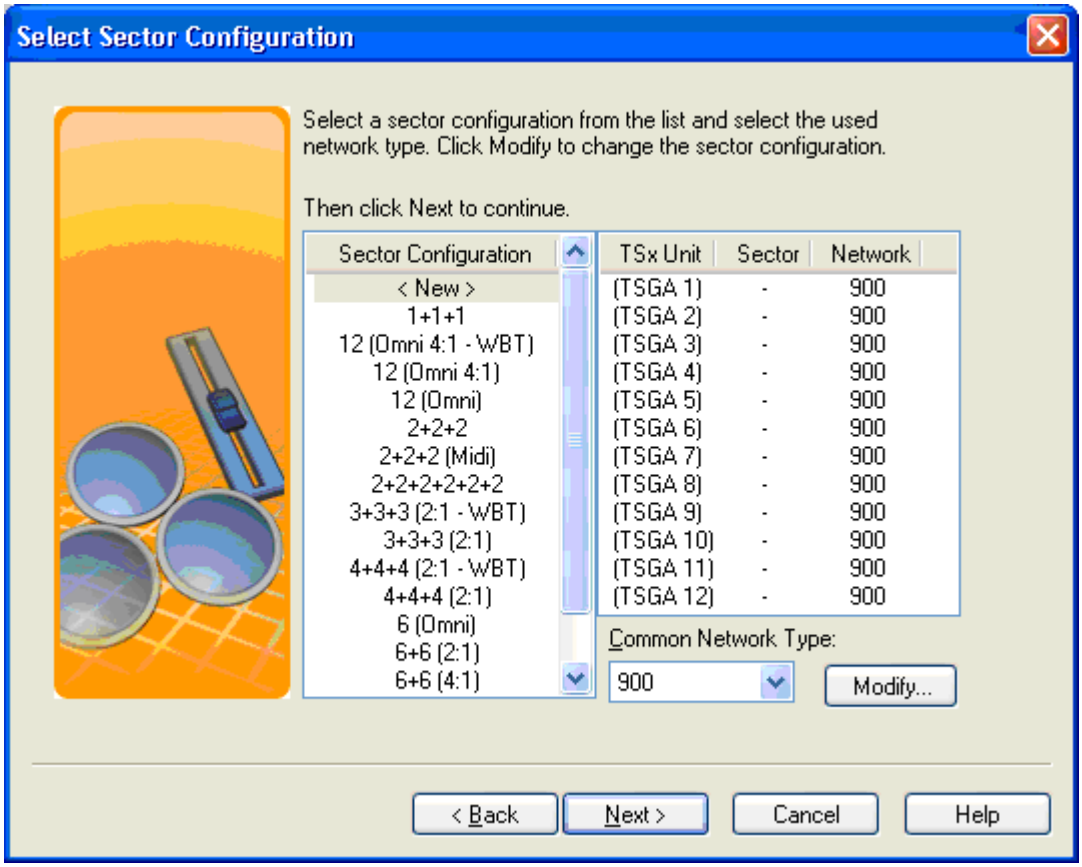

Figure 6. Hardware Configurator Sector Configuration dialogue box

7 UltraSite BTS Hub Manager

UltraSite BTS Hub Manager manages an UltraSite BTS Hub cross-connection node in a transmission network. The UltraSite BTS Hub cross-connection node contains at least one (master) FXC unit and up to three other FXC units. One FXC card (primarily located in the leftmost FXC card slot) acts as a clock master to the node.

UltraSite BTS Hub Manager manages the transmission functionality of the UltraSite BTS. UltraSite BTS Hub Manager handles the node functionalities located on the master FXC card (including, for example, synchronization, alarms, cross-connections, and node settings).

UltraSite BTS Hub Manager can be launched from within the graphical user interface of the BTS Manager and can in turn embed the card managers, for example the RRI & E1/T1 Manager.

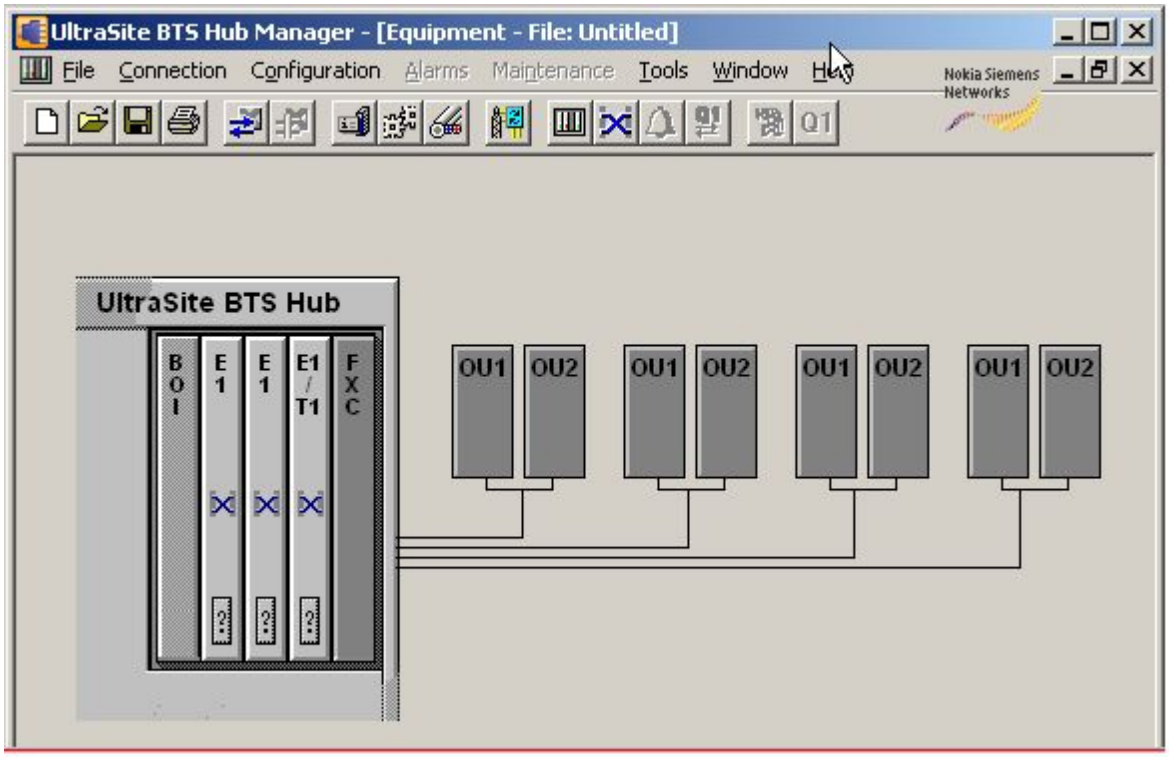

Figure 7. UltraSite BTS Hub Manager Equipment view

8 MetroHub Manager

MetroHub Manager manages a MetroHub cross-connection node in a transmission network. The MetroHub cross-connection node contains at least one (master) FXC unit and up to four additional FXC units.

MetroHub Manager manages the whole MetroHub node including transmission functionality. The Manager handles the node functionalities located on the master FXC card (including, for example, synchronization, alarms, cross-connections, and node settings).

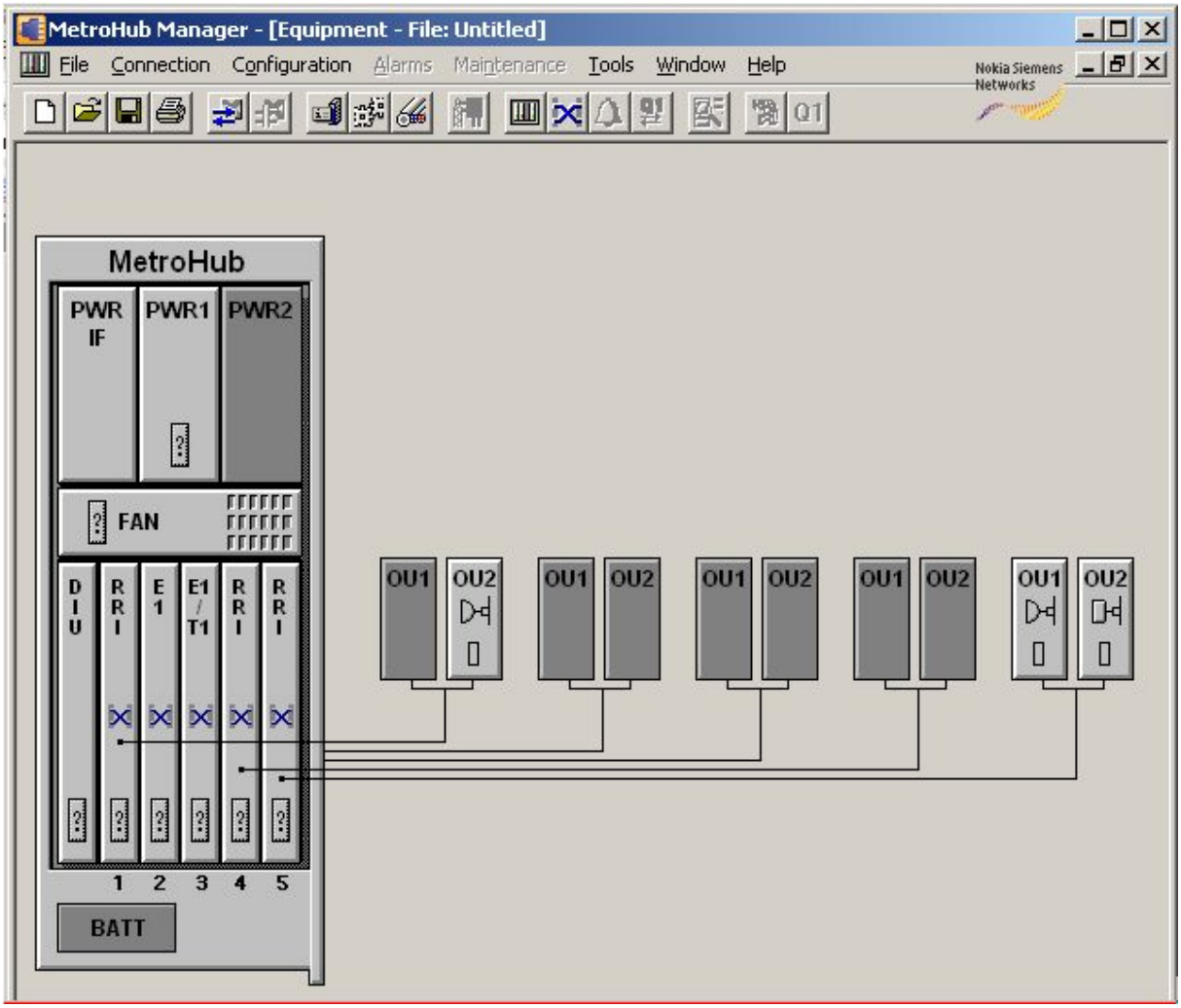

Figure 8. MetroHub Manager Equipment view

9 RRI Manager

RRI Manager manages an F(X)C RRI unit and connected outdoor units (FlexiHopper and MetroHopper) in a MetroSite BTS, UltraSite BTS Hub and/or MetroHub cross-connection node. It is also required for the BTS Manager to support the transmission management of the F(X)C RRI unit and connected outdoor units in a MetroSite BTS or/and UltraSite BTS Hub.

The FXC RRI unit provides 2 external flexbus interfaces which can provide 16 2M channels each for cross-connections. The unit provides 16 2M internal platform interfaces allowing to add/drop 16 times 2M capacity from/to the node. The radio units can be connected to flexbus interfaces. Other than 16 2M channels, each flexbus provides also an overhead, which can be used for carrying Q1 EOC for management signalling. The FXC RRI unit supports single hop and Hot standby (HSB) mode. In the current support of HSB, the radio path in one flexbus is protected by the path in another flexbus of the same unit. The Radio Wizard in the RRI Manager provides an easy way to manage the outdoor unit.

The Maintenance menu command allows you to perform tests on the unit, view measurements, download software and activate the new software, view and clear statistics counters, and restore factory settings to the node.

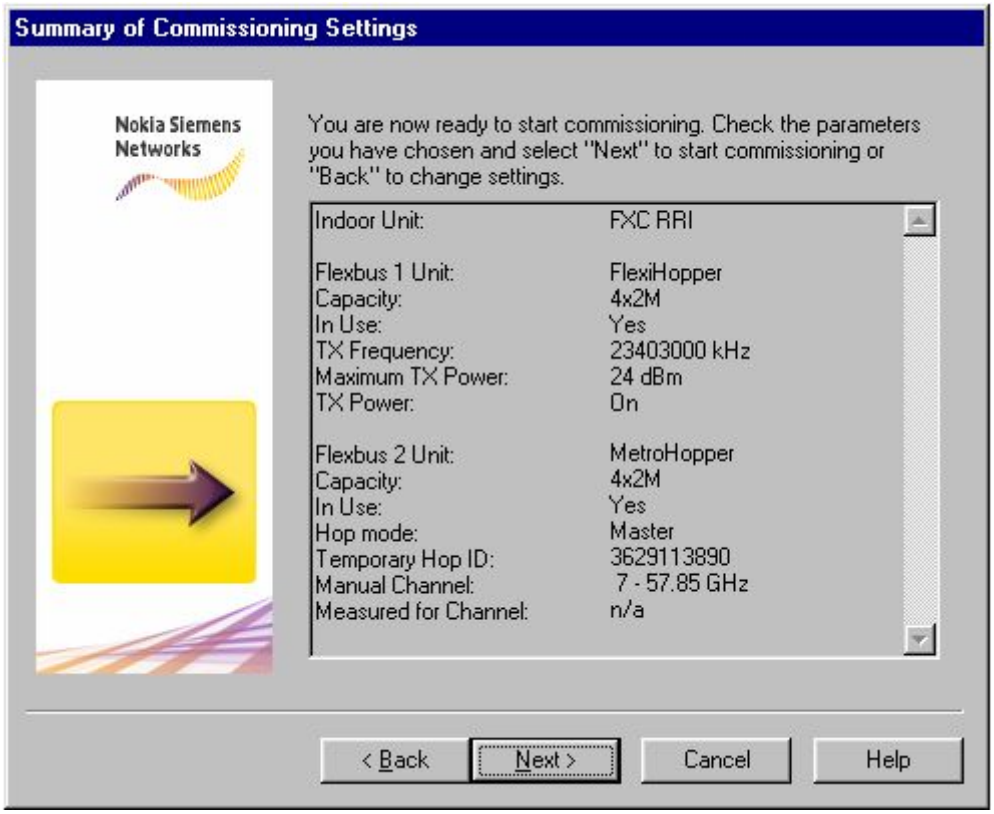

Figure 9. RRI Manager Commissioning Settings dialogue box

10 E1/T1 Manager

E1/T1 Manager manages F(X)C E1/T1 cards installed in a MetroSite BTS, UltraSite BTS Hub and/or MetroHub cross connection node. It is also required for the BTS Manager to support the transmission management of the F(X)C E1/T1 unit in a MetroSite BTS and UltraSite BTS Hub.

The FC E1/T1 card has one 2M interface which can be programmed into the E1 or T1 mode. The FC E1/T1 card has no cross-connection features, so it cannot be used in a loop network.

There are two different hardware versions of the FXC E1/T1 card: one version (FXC E1/T1 Symm) has 100 ohm and 120 ohm physical connectors, and the other version (FXC E1 Asymm) has a 75 ohm interface and support for E1/sync input modes. The FXC E1/T1 card has 4 x 2M interfaces, which can be programmed into a T1 100 ohm, E1 120 ohm, E1 75 ohm or sync input mode (LIF 4). Cross-connections can be made at 8k, 16k, 32k, 64k, n x 64k and 2M granularity. A connection can be made between 2M interfaces and also between a 2M-line interface and a D-bus interface. The D-bus is the internal interface of the BTS. Chained, loop and star-network topologies are supported.

The Maintenance menu command allows you to perform tests on the unit, view measurements, view and set the status of interface loops, download software and activate the new software, view and clear statistics counters, and restore factory settings to the node.

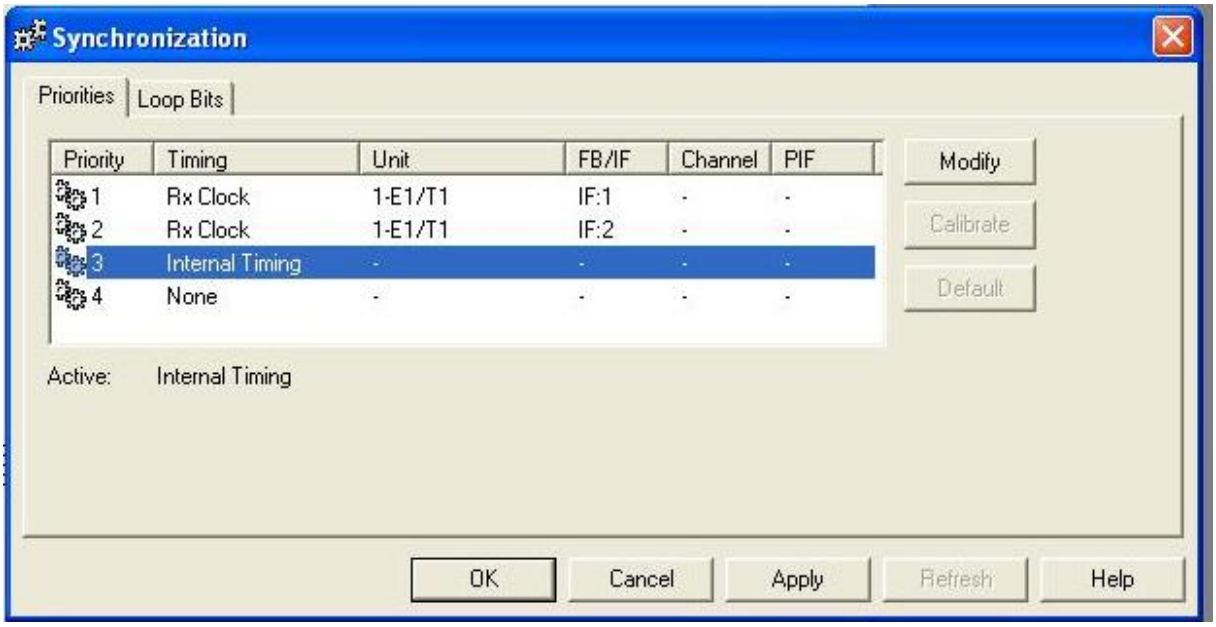

Figure 10. E1/T1 Manager Synchronization settings dialogue box

11 STM-1 Manager

The STM-1 Manager manages the FXC STM-1 unit and the SDH part of the FXC Bridge unit in an UltraSite BTS Hub or ConnectSite 100 BTS. It is also required for managing the SDH part of the Bridge in the FC STM-1 and the STM-1 part of the FC STM-1 unit in a MetroSite or ConnectSite 10 BTS.

The STM-1 transmission units enable cross-connection at SDH transmission rates.

Note

The STM-1 unit is supported in UltraSite and MetroSite from CX(M)4.1 SW onwards.

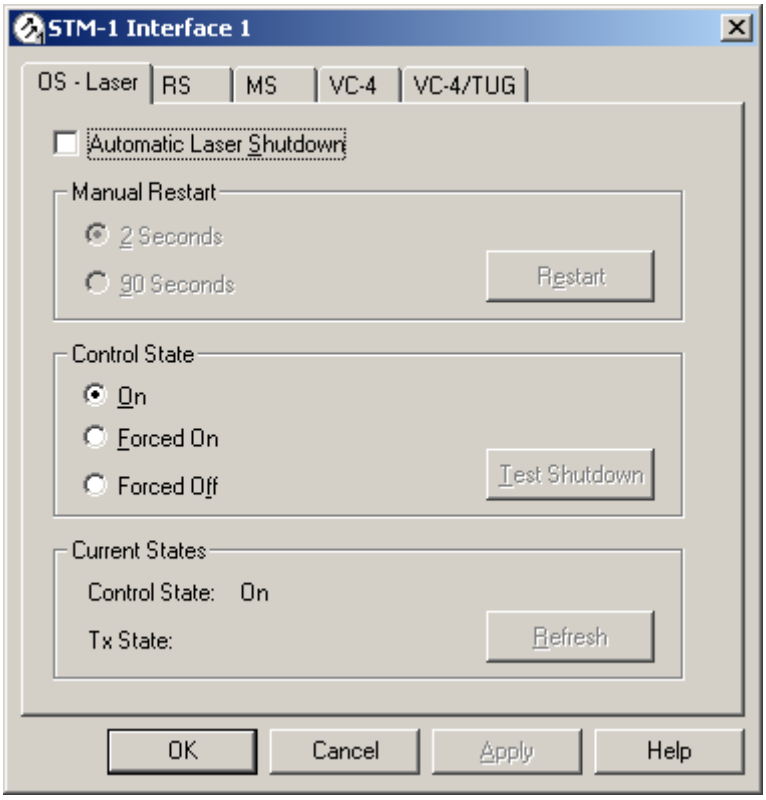

Figure 11. STM-1 Manager Optical Selection dialogue box

12 FC STM-1 Manager

The FC STM-1 Manager is used to manage the FC STM-1 unit in a MetroSite or ConnectSite 10 BTS.

The FC STM-1 unit provides a combined functionality of the FXC STM-1 and FXC Bridge and can only be plugged into a ConnectSite 10 or a MetroSite BTS cabinet. The FC STM-1 removes the dependency of chaining MetroHub to MetroSite in order to provide SDH transmission capability to the BTS, making the solution cost-effective.

The management functionality remains similar to that of managing the FXC STM-1 and FXC Bridge units in an UltraSite BTS Hub or a ConnectSite 100 BTS.

Note

The FC STM-1 unit is supported in MetroSite from CXM4.1 SW onwards.

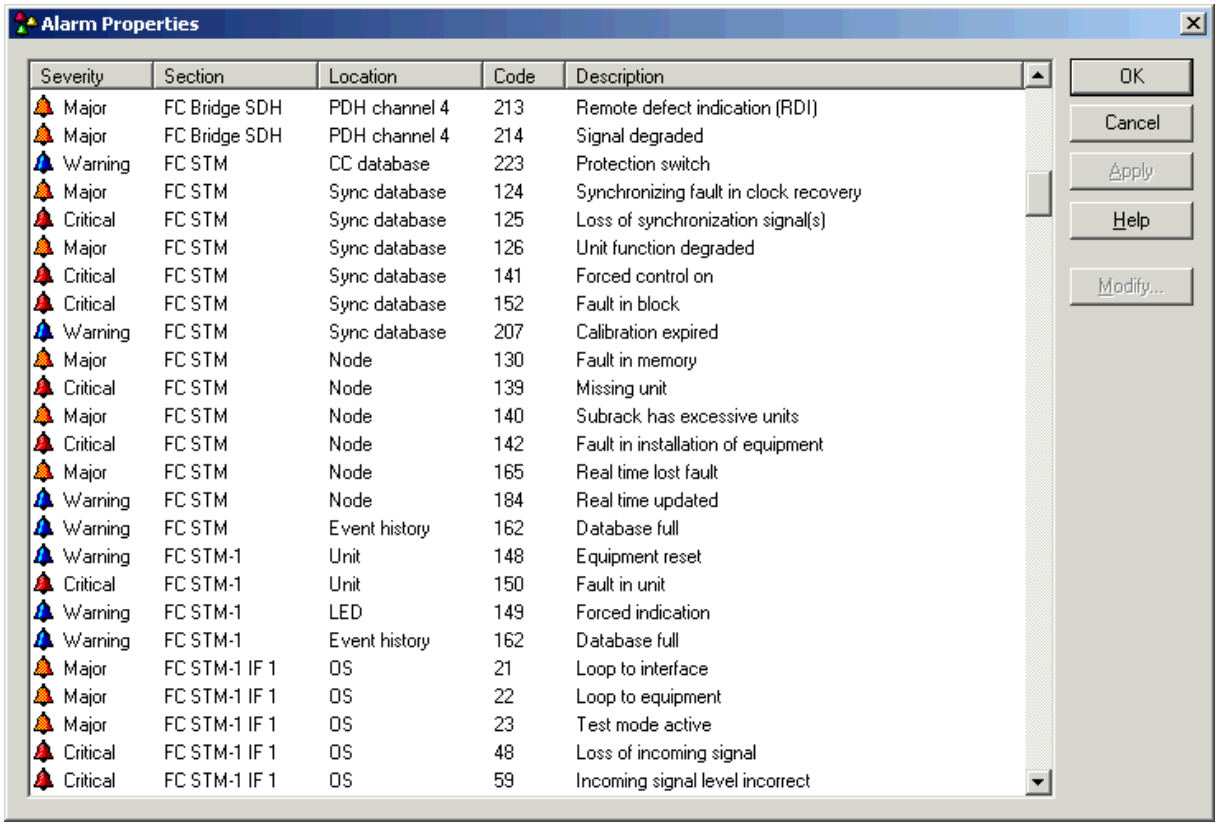

Figure 12. STM-1 Manager Alarm Properties dialogue box

13 Bridge Manager

The Bridge Manager manages the FXC Bridge unit in an UltraSite BTS Hub or a ConnectSite 100 BTS. It is also required for managing the PDH part of the Bridge in the FC STM-1 unit in a MetroSite or ConnectSite 10 BTS.

The Bridge unit (as FXC Bridge or part of the FC STM-1 unit) acts as a bridge between the PDH and SDH worlds. It can be plugged into MetroHub, UltraSite BTS Hub or ConnectSite 100 BTS cabinets.

Note

The FXC Bridge unit is supported in UltraSite and MetroSite from CX(M)4.1 SW onwards.

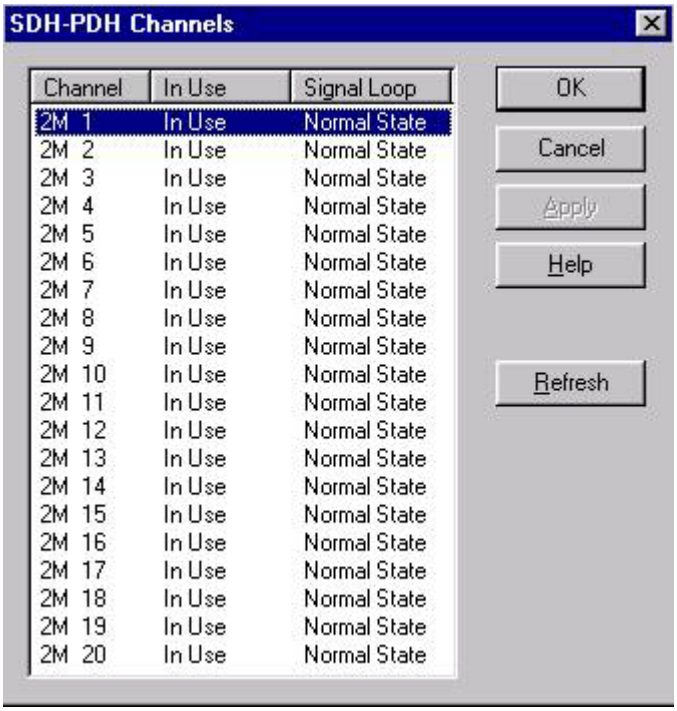

Figure 13. Bridge Manager Loop dialogue box

14 Hopper Manager

The Hopper Manager provides an easy-to-use graphical interface to manage the following units:

- FIU 19 indoor unit
- FIU 19 E indoor unit
- RRIC indoor unit
- FlexiHopper and FlexiHopper Plus outdoor unit
- MetroHopper outdoor unit

The Hopper Manager is used for commissioning and maintaining FlexiHopper and MetroHopper microwave radios and the indoor units listed above. The application can be used both locally on site and remotely from the network operation center.

During commissioning, the Hopper Manager is used for defining the microwave radio configuration parameters including the following functionalities:

- capacity
- frequency
- transmit power
- management settings – Q1 or SNMP
- cross-connection creating, viewing and editing
- enabling the performance counters
- unit alarms viewing
- hop performance viewing
- enabling the software loops to assist in fault finding

Once the microwave radio hop is commissioned Hopper Manager can be used remotely for maintenance activities including:

- fault finding and rectification

- unit alarms viewing
- performance counters viewing
- radio receive levels viewing
- software downloading and activation

For detailed information regarding new features in Hopper Manager C4.12, please refer to the Hopper Manager readme file.

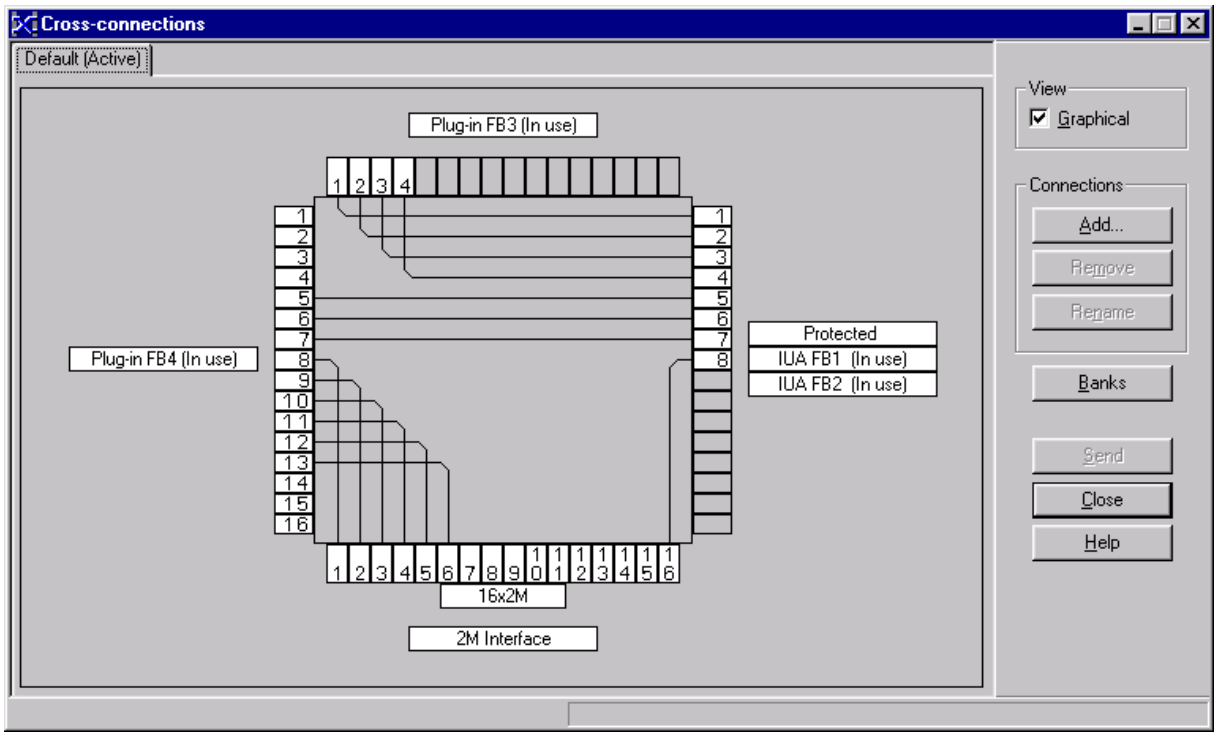

Figure 14. Hopper Manager Cross-Connections dialogue box

15 PSM Manager

PSM Manager provides an easy-to-use graphical user interface to manage BBUs (Battery Back-Up Units) and SSSs (Site Support Systems) from NetAct. PSM Manager provides network operators with more accurate information on power supply status, the option to control the power supply remotely, and to maximize the electrical efficiency of the batteries and charging system. This enables more reliable information on the power supplies, and thus, less service related visits. This allows accurate preventive maintenance and eliminates unnecessary maintenance, such as changing batteries regularly due to their age only.

PSM Manager provides support for all BBUs (Battery Back-Up Units) and SSSs (Site Support Systems) including:

- BBUs for Talk-, UltraSite- and WCDMA (AXC) family BTSs
- SiSSs for Talk-family BTSs
- SiSSs for UltraSite- and WCDMA (AXC) family BTSs

PSM Manager runs under Microsoft Windows 98, Microsoft Windows NT 4.0, Windows 2000, or Windows XP operating systems.

The PSM Manager can be used both locally on site for commissioning purpose and remotely for maintenance activities.

During commissioning, the PSM Manager is used for defining the battery back-up configuration parameters including the following functionalities:

- unit configuration settings
- management settings - Q1
- setting of alarm trigger parameters
- battery test settings
- definition of External Alarm input polarity

Once the Power Supply System is commissioned, PSM Manager can be used remotely for maintenance activities, such as:

- scheduling, execution and viewing of battery test results

- viewing of battery voltages and loads including battery symmetry measurement
- viewing of rectifier voltages and charge currents

For details on PSM Manager compatibility, please refer to the PSM Manager readme file that can be found in the installation directory.

For detailed information regarding new features in PSM Manager 4.07 please refer to the PSM Manager Readme file.

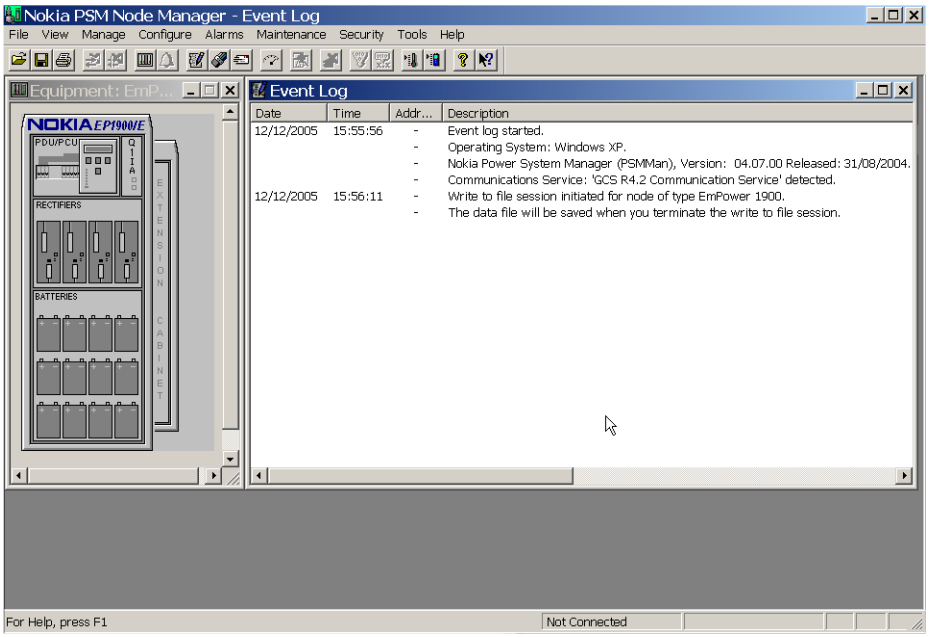

Figure 15. PSM Manager Equipment View and Event Log

16 LMU and LMUB Manager

LMU and LMUB Managers provide an easy-to-use graphical interface to manage the Location Measurement Units, LMU and LMUB.

LMU and LMUB Managers are used for commissioning and maintaining the LMU and LMUB respectively. The applications can be used both locally on site and remotely from the network operation center.

The main features of the LMU and LMUB Managers are:

- Commissioning Wizard
- local and remote software downloading
- installation, GPS, and GSM signal status monitoring
- system and communication parameters
- downloading of NetAct Planner data

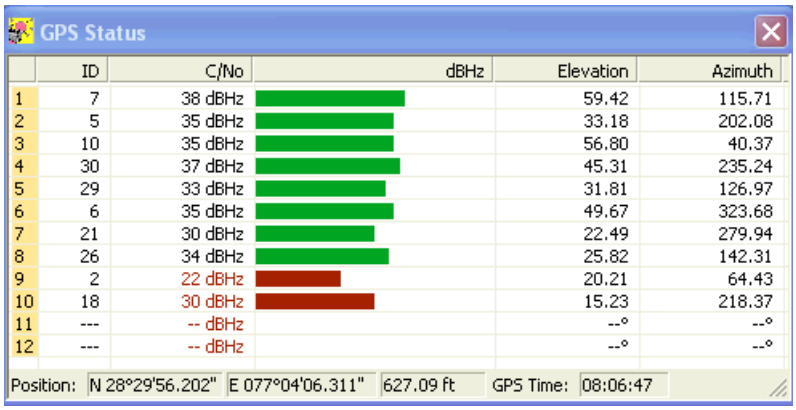

Figure 16. LMUB Manager GPS Status Window

17 FlexiHub Manager

FlexiHub Manager handles FlexiHub Node and FlexiHopper XC Microwave Radio.

The following network elements are supported:

- FlexiHub Node
- FlexiHopper XC Microwave Radio
- Flexi WCDMA BTS transmission sub-module FTFA
- Flexi EDGE BTS transmission sub-module FIFA

The following microwave radios are supported when connected to FTFA or FIFA transmission sub-module:

- FlexiHopper Plus
- FlexiHopper
- FlexiHopper 4E1
- MetroHopper

The following functionalities are supported in FlexiHopper XC:

- Local or remote IP DCN
- Fault management
- Configuration management

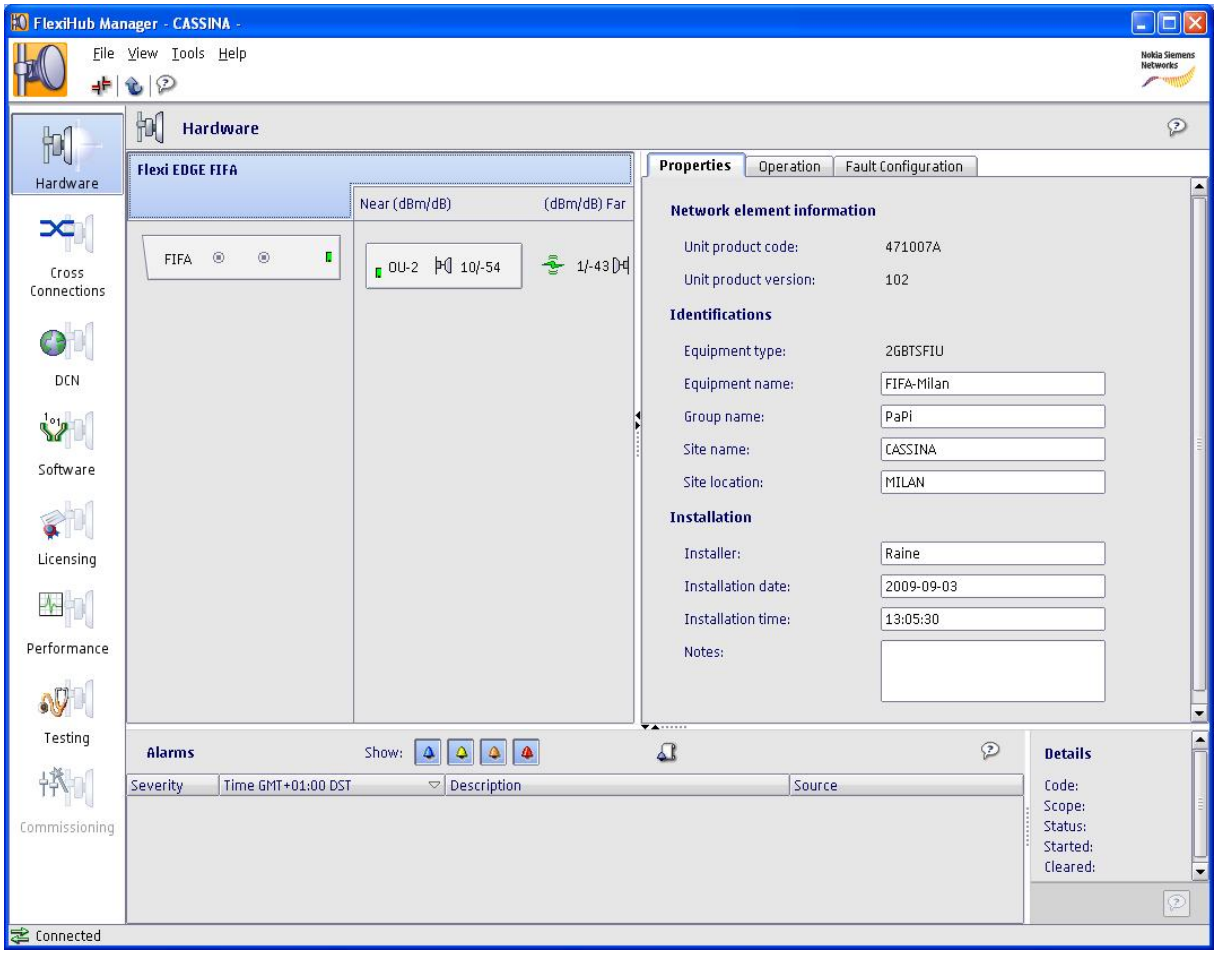

Figure 17. FlexiHub Manager Hardware View

18 Key functionalities

The table on the following pages summarizes the SiteWizard key functionalities and whether these functionalities can be performed locally, remotely or both.

Table 2. Key functionalities

Manager	Function	Locally	Remotely
BTS Manager	Commissioning Wizard	Y	N
	Supervision: BTS Alarms/BTS Info/EAC States	Y	Y
	Maintenance: SW Upload/Activation	Y	Some
	Testing: BTS Loop Testing etc.	Y	Some
BTS HW Configurator	Cabinet Info	Y	Y
	Cabinet PIUs	Y	Y
	BB2 Cross Connection Settings	Y	Y
	TX Cabling Configuration	Y	Y
	RX Cabling Configuration	Y	Y
	Antenna Settings	Y	Y
	Passive Units	Y	Y
	Configuration File Download	Y	Y
MetroHub Managers	Cross Connections	Y	Y
	Unit/NE Identification	Y	Y
	Synchronization Settings	Y	Y

Manager	Function	Locally	Remotely
	Q1 Management	Y	Y
	Service Interface Settings	Y	Y
	Programmable Alarms: define/modify	Y	Y
	Alarm Properties: define severity/modify	Y	Y
	Configuration Report	Y	Y
RRI Manager (MetroSite)	Define/Modify Outdoor Units	Y	Y
	Cross Connections	Y	Y
	Unit/NE Identification	Y	Y
	Synchronization Settings	Y	Y
	Q1 Management	Y	Y
	Service Interface Settings	Y	Y
	Programmable Alarms: define/modify	Y	Y
	Alarm Properties: define severity/modify	Y	Y
	Configuration Report	Y	Y
	View Alarms	Y	Y
	Measurement Reports	Y	Y
E1/T1 Manager	Select Transmission Interface (FC/FXC)	Y	Y
	Cross Connections	Y	Y
	Unit/NE Identification	Y	Y
	Synchronization Settings	Y	Y
	Q1 Management	Y	Y
	Service Interface Settings	Y	Y
	Line Interface Settings	Y	Y
	Alarm Properties: define severity/modify	Y	Y
	Configuration Report	Y	Y
	View Alarms	Y	Y
	Traffic Manager (such as Sampling Rate)	Y	Y

Manager	Function	Locally	Remotely
US BTS Hub Managers	Cross Connections	Y	Y
	Unit/NE Identification	Y	Y
	Synchronization Settings	Y	Y
	Q1 Management	Y	Y
	Service Interface Settings	Y	Y
	Traffic Manager (such as Sampling Rate)	Y	Y
	Alarm Properties: define severity/modify	Y	Y
	D-Bus allocation	Y	Y
	Configuration Reports	Y	Y
Bridge Manager	Select 2M SDH-PDH Channels	Y	Y
	Unit Identification	Y	Y
	Alarm Properties: define severity/modify	Y	Y
STM-1 Manager	Performance Monitoring - SDH-PDH channels	Y	Y
	Unit Identification	Y	Y
	Alarm Properties: define severity/modify	Y	Y
	Optical Interface Settings	Y	Y
FC STM-1 Manager	Cross Connections	Y	Y
	Unit/NE Identification	Y	Y
	Synchronization Settings	Y	Y
	Q1 Management	Y	Y
	Service Interface Settings	Y	Y
	Traffic Manager (such as Sampling Rate)	Y	Y
	Alarm Properties: define severity/modify	Y	Y
	D-Bus Allocation	Y	Y
	Configuration Reports	Y	Y
LMU and LMUB	Commissioning	Y	Y (with limitations)
	Software Download	Y	Y

Manager	Function	Locally	Remotely
Manager	Unit Reset	Y	Y
	Parameter Setting	Y	Y
	GPS Status Monitoring	Y	Y
	Setting Clock Parameters	Y	Y
Hopper Manager	Define/Modify Outdoor Units	Y	Y
	Cross Connections	Y	Y
	Unit/NE Identification	Y	Y
	Synchronization Settings	Y	Y
	Q1 Management	Y	Y
	Service Interface Settings	Y	Y
	Programmable Alarms: define/modify	Y	Y
	Alarm Properties: define severity/modify	Y	Y
	Configuration Report	Y	Y
	View Alarms	Y	Y
	Measurement Reports	Y	Y
FlexiHub Manager	Define/Modify Outdoor Units	Y	Y
	Cross Connections	Y	Y
	Unit/NE Identification	Y	Y
	Q1 Management (FIFA/FTFA)	Y	Y
	View Alarms	Y	Y
	View Performance	Y	Y
Flexi EDGE BTS Manager	Commissioning: Commissioning Wizard	Y	Y (recommissioning)
	Commissioning: Commissioning Report	Y	Y
	Supervision: BTS Alarms/EAC States	Y	Y
	Supervision: Unit Identification and Information	Y	Y

Manager	Function	Locally	Remotely
	Supervision: BSC Configuration of BTS	Y	Y
	Supervision: RF, Bus and Antenna Cabling	Y	Y
	Supervision: Site Information Report	Y	Y
	Maintenance: SW Upload/Activation	Y	Not Recommended
	Testing: BTS Loop Testing etc.	Y	Y
	TRS PIU Identification	Y	Y
	Line Interface Settings	Y	No OMUSIG IF change
	Sub-2M Cross-Connections	Y	Y
	Abis Traffic Settings	Y	No OMUSIG IF change
	Synchronization Settings	Y	Y
	Q1 Management	Y	Y

The following functionality is not possible when the BTS Manager is used remotely:

- SW Loading
- BTS Commissioning (Undo Commissioning)
- ABIS Disable/Enable
- LMP Speed Change
- BCF/Sector/TRX block and unblock
- Send BCCH Carrier

19 System requirements

The following requirements need to be met in order to use the SiteWizard Managers.

Note

Only English versions of Microsoft Windows operating systems are supported by SiteWizard.

19.1 Operating system compatibility

Table 3. Operating system compatibility

Operating system	Compatibility
Microsoft Windows XP Professional Edition	Local on-site use supported
Microsoft Windows 2003 Server Edition	NetAct Node Manager Server supported
Microsoft Windows Vista Business Edition	Restricted functionality supported for Local on-site use

SiteWizard 7 MP2.0 does not support any other Windows operating systems.

19.2 Recommended system requirements for on-site use or remote use (Non-NetAct Node Manager Server)

- An Intel Pentium compatible CPU (500 MHz or more recommended)
- Memory: 128 MB of RAM at minimum (256 MB recommended) or according to the installed operating system
- Monitor: min. SVGA with 800x600 resolution (recommended 1024x768 resolution)
- Hard disk: 500 MB or more of free space on a hard disk for SiteWizard applications
- Pointing device: mouse, trackball, touch pad or equivalent
- A keyboard
- CD drive
- 9-pin serial port in the PC for local connection (USB connector can be used but a USB < - > serial converter is required)
- Ethernet port in the PC for local connection (Flexi EDGE BTS Manager only)
- LMP cable for local connection
- Windows compatible printer (optional)

When using a USB < - > Serial adapter it is important to reconfigure this adapter communication port address to one between 1 and 4. It usually configures itself automatically with a 'virtual communication port address e.g. = 17'. This must be checked and changed to Communication port 1 or 2 for example. If this is not done, Element Managers that allow connections via communications port 1 – communications port 4 will not see any other ports and thus connectivity is not possible.

19.3 Recommended system requirements for use with the NetAct Node Manager Server

For details on the NetAct Node Manager Server's system requirements, refer to NetAct documentation.

20 Sales and ordering information

SiteWizard 7 MP2.0 can be downloaded from Nokia Online Services NOLS (www.online.nokia.com). NOLS provides you with access to value-adding services and in-depth information about Nokia Siemens Networks Solutions and Products.

Table 4. Sales and ordering information

Sales description	Product order code
SiteWizard 7 MP2.0 via NOLS	471923A.103

21 Compatibility information

21.1 Flexi EDGE BTS Manager

Flexi EDGE BTS Manager EP3 MP2.0 supports the following units:

Table 5. Supported units

UNIT/Cabinet	SW Version
Flexi EDGE BTS	EP3 EP3 MP1.0 Note: Major mismatch warning displayed at establishment of connection with BTS SW EP2 and its MP/CD releases

21.2 BTS Manager

BTS Manager CX(M)7 MP1.0 supports the following units:

Note

The BTS Manager remote use is only possible with release CX(M)4.0 onwards.

Table 6. Supported units

Base station	SW version

Base station	SW version
MetroSite	CXM6 -x CXM7-x -x: all maintenance releases (MP) releases supported
UltraSite	CX6-x CX7-x -x: all maintenance releases (MP) releases supported

21.3 HW Configurator

BTS Hardware Configurator CX7 supports the following units:

Note

The HW Configurator Manager remote use is only possible with release CX4.0 onwards.

Table 7. Supported units

Base station	SW version
UltraSite	CX6-x CX7-x -x: all maintenance releases (MP) releases supported

21.4 UltraSite BTS Hub Manager

The UltraSite BTS Hub Manager is compatible with ITN units within the UltraSite EDGE BTS cabinet.

UltraSite BTS Hub Manager C7 (7.0.9) supports the following units:

Table 8. Supported units

Unit	SW code and versions
FC E1/T1	S36112.01 C1
FXC Bridge	Bridge SDH part: P32684.01 E0, D0, C0, B1, B0, A0
	Bridge PDH part: S32685.01 E0, D0, C0, B0, A0
FXC STM-1	P32682.01 E0, D0, C0, B1, B0, A0
FXC RRI (HW version E55833.01 C0 and later)	S55837.01 E0, D0, C0, B0
FXC RRI (HW version E55833.01 B0 and earlier)	S55832.01 G0, F0
FXC E1/T1	S36122.01 H0, G0, F0, E0
FXC E1	S36122.01 H0, G0, F0, E0

UltraSite BTS Hub Manager C7 (7.0.9) is compatible with the following applications:

Table 9. Compatible applications

Manager	SW versions
E1/T1 Manager	C7 (7.0.9)
RRI Manager	C7 (7.0.9)
Bridge Manager	C7 (7.0.9)
STM-1 Manager	C7 (7.0.9)

21.5 MetroHub Manager

The MetroHub Manager is compatible with ITN units within the MetroHub Transmission Node cabinet.

MetroHub Manager C7 (7.0.9) supports the following units:

Table 10. Supported units

Unit	SW code and versions
FXC Bridge	Bridge SDH part: P32684.01 E0, D0, C0, B1, B0, A0 Bridge PDH part: S32685.01 E0, D0, C0, B0, A0
FXC RRI (HW version E55833.01 C0 and later)	S55837.01 E0, D0, C0, B0
FXC RRI (HW version E55833.01 B0 and earlier)	S55832.01 G0,F0
FXC STM-1	P32682.01 E0, D0, C0, B1, B0, A0
FXC E1/T1	S36122.01 H0, G0, F0, E0
FXC E1	S36122.01 H0, G0, F0, E0

MetroHub Manager C7 (7.0.9) is compatible with the following applications:

Table 11. Compatible applications

Manager	SW versions
RRI Manager	C7 (7.0.9)
E1/T1 Manager	C7 (7.0.9)
Bridge Manager	C7 (7.0.9)
STM-1 Manager	C7 (7.0.9)

21.6 RRI Manager

The RRI Manager is compatible with FXC RRI units within the UltraSite EDGE BTS, MetroSite EDGE BTS and MetroHub Transmission Node cabinets.

RRI Manager C7 (7.0.9) supports the following units:

Table 12. Supported units

Unit	SW code and versions
FXC RRI (HW version E55833.01 C0 and later)	S55837.01 E0, D0, C0, B0
FXC RRI (HW version E55833.01 B0 and earlier)	S55832.01 G0, F0
MetroHopper Outdoor Unit	C3.1, C3.2, C4.0
FlexiHopper Outdoor Unit	C3.3.4, C3.4, C5.2.4, C5.3, FH 6.6, FH 6.7
FlexiHopper Plus Outdoor Unit	FHP2.6, FHP2.7

RRI Manager C7 (7.0.9) is compatible with the following applications:

Table 13. Compatible applications

Manager	SW version
MetroHub Manager	C7 (7.0.9)
UltraSite BTS Hub Manager	C7 (7.0.9)
BTS Manager	CX(M)6 CD2.0

21.7 E1/T1 Manager

The E1/T1 Manager is compatible with FXC E1/T1 and FXC E1 units within the UltraSite EDGE BTS, MetroSite EDGE BTS and MetroHub Transmission Node cabinets. It is furthermore compatible with the FC E1/T1 unit within the UltraSite EDGE BTS and MetroSite EDGE BTS cabinet.

E1/T1 Manager C7 (7.0.9) supports the following units:

Table 14. Supported units

Unit	SW code and versions
FXC E1	S36122.01 H0, G0, F0, E0
FXC E1/T1	S36122.01 H0, G0, F0, E0

Unit	SW code and versions
FC E1/T1	S36112.01 C1

E1/T1 Manager C7 (7.0.9) is compatible with the following applications:

Table 15. Compatible applications

Manager	SW version
MetroHub Manager	C7 (7.0.9)
UltraSite BTS Hub Manager	C7 (7.0.9)
BTS Manager	CX(M)6 CD2.0

21.8 STM-1 Manager

The STM-1 Manager is compatible with the FXC STM-1 unit within the UltraSite EDGE BTS and MetroHub Transmission Node cabinets. It is furthermore compatible with the FC STM-1 unit within the MetroSite EDGE BTS cabinet.

STM-1 Manager C7 (7.0.9) supports the following units:

Table 16. Supported units

Unit	SW code and versions
FXC STM-1	P32682.01 E0, D0, C0, B1, B0, A0
FC STM-1	Bridge PDH part: 00003784 C0, B0, A0, 00
	Bridge SDH part: 00003783 C0, B0, A0, 00
	STM1 part: 00003781 C0, B0, A0, 00

STM-1 Manager C7 (7.0.9) is compatible with the following applications:

Table 17. Compatible applications

Manager	SW version
MetroHub Manager	C7 (7.0.9)
UltraSite Hub Manager	C7 (7.0.9)
FC STM-1 Manager	C7 (7.0.9)

21.9 FC STM-1 Manager

The FC STM-1 Manager is compatible with the FC STM-1 unit within the MetroSite EDGE BTS cabinet.

FC STM-1 Manager C7 (7.0.9) supports the following units:

Table 18. Supported units

Unit	SW code and versions
FC STM-1	Bridge PDH part: 00003784 C0, B0, A0, 00
	Bridge SDH part: 00003783 C0, B0, A0, 00
	STM1 part: 00003781 C0, B0, A0, 00

FC STM-1 C7 (7.0.9) Manager is compatible with the following applications:

Table 19. Compatible applications

Unit	SW code and versions
STM-1 Manager	C7 (7.0.9)
Bridge Manager	C7 (7.0.9)
BTS Manager	CX(M)6 CD2.0

21.10 Bridge Manager

The Bridge Manager is compatible with the FXC Bridge unit within the UltraSite EDGE BTS and MetroHub Transmission Node cabinets. It is furthermore compatible with the FC STM-1 unit within the MetroSite EDGE BTS cabinet.

Bridge Manager C7 (7.0.9) supports the following units:

Table 20. Supported units

Unit	SW code and versions
FXC Bridge	Bridge PDH part: S32685.01 E0, D0, C0, B0, A0
	Bridge SDH part: P32684.01 E0, D0, C0, B1, B0, A0
FC STM-1	Bridge PDH part: 00003784 C0, B0, A0, 00
	Bridge SDH part: 00003783 C0, B0, A0, 00
	STM 1 part: 00003781 C0, B0, A0, 00

Bridge Manager C7 (7.0.9) is compatible with the following applications:

Table 21. Compatible applications

Manager	SW version
MetroHub Manager	C7 (7.0.9)
UltraSite Hub Manager	C7 (7.0.9)
FC STM-1 Manager	C7 (7.0.9)

21.11 Hopper Manager

Hopper Manager C4.12 supports the following units:

Table 22. Supported units

UNIT/Cabinet	SW version
RRIC	P55298.01 C2 / P55285.01 B2
FIU 19	P55230.01 A8 / P55234.01 F4
FIU 19E	P55303.01 C3 / P55306.01 D0
FlexiHopper	P55040.01 H9 / P55046.01 E9
FlexiHopper Plus	P58040.01 H0
FlexiHopper 4E1	P58040.01 G0
MetroHopper	P55820.01 F1

Hopper Manager is compatible with the above-mentioned software versions for each product. Each manager version is also backwards compatible with the previous version of the software listed.

21.12 FlexiHub Manager

FlexiHub Manager 3.0 CD1 supports the following units:

Table 23. Supported units

UNIT/Cabinet	SW Version
Flexi WCDMA BTS Transmission sub-module FTFA	Rel. 1.0, 1.1, 1.2 and 1.3
Flexi EDGE BTS Transmission sub-module FIFA	Rel. 1.1, 1.2 and 1.3
FlexiHopper Plus	Rel. 2.6 and later (P58040.01 F3 and later)
FlexiHopper	Rel. 3.4 and later (P55040.01 H9 and later) Rel. FH 5.3 and later (P55046.01 E9

UNIT/Cabinet	SW Version
	and later) Rel. FH 6.6 and later (P58040.01 F3 and later)
FlexiHopper 4E1	Rel. 2.6 and later (P58040.01 F3 and later)
MetroHopper	Rel. C3.1 and later (P55820.01 E1 and later)
FlexiHub	Rel. 1.1, 2.1 and 2.2

FlexiHub Manager is compatible with the above-mentioned software versions for each product. Each manager version is also backwards compatible with the previous version of the software listed.

For further details refer to FlexiHub Manager release notes.

21.13 LMUB Manager

LMUB Manager supports the following applications

Table 24. Compatible application

Manager	SW version
LMUB Manager	LMUB 1.0 CD3.0 LMUB 1.0 CD4.0 LMUB 1.0 CD5.0

21.14 LMU Manager

LMU Manager supports the following applications

Table 25. Compatible applications

Manager	SW version
LMU Manager	LMU 4.5

Manager	SW version
	LMU 4.4

21.15 Other compatible applications

SiteWizard 7 MP2.0 applications are compatible with the following:

Table 24. Compatible applications

Manager	SW version
Transmission Loader	C2.0
GCS Communication stack	R6.1
NetAct	OSS4.1 and above

References

1. MetroHub Transmission Node Product Documentation
2. MetroSite EDGE BTS Product Documentation
3. UltraSite EDGE BTS Product Documentation
4. ITN C3 CD2 Correction Documentation
5. FlexiHopper (Plus) Microwave Radio Product Documentation
6. MetroHopper Microwave Radio Product Documentation
7. PSM Product Documentation
8. LMU Product Documentation
9. LMUB Product Documentation
10. NetAct Node Manager Server Principles
11. General Communication Service GCS R6.1 User Manual
12. Flexi EDGE Base Station Product Documentation