



StarReport



User Manual

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Changed Item	Description	Date
This is the first release	Version 1.5	May 2009
General	Added 5 reports:	Ver.2.0
	Detailed Antenna Inventory	June 2009
	Detailed CPE Inventory - for 16d and 16e-ready networks	
	Detailed ODU Inventory	
	Detailed Power Feeder Inventory	
	Summary CPE Inventory	
	Added two sections:	Ver.2.0
	Users and Groups - Applying Security on Objects and Folders	July 2009
	Sending Scheduled Reports by Mail	
Reports	Changed Report Titles	Ver 2.5
	Added Services Reports	Sept. 2009
	Restructured manual	
Advanced Operations	Updated information according to latest BusineeeObjects version	Ver 2.7 Dec. 2009
Reports	Added BreezeMAX Extreme information in applicable reports.	Ver 2.7 Dec. 2009
Getting Started	Deleted "Setting the Database For Reports"	Ver 3.0
	Changed "Generating and Viewing" to Accessing the InfoView Application	March 2010
	Added Running Reports	
	Deleted Table 3-1 Report Parameters Prompt Values	
	Deleted Setting Report Display Options	
	Added Generating Reports with 3 examples	
	Replaced Figure 2-18, Figure 2-25	
Installation	Changed Installation procedure	Ver.3.1 Rev. A Dec. 2010

Changed Item	Description	Date
Chapter 4 - "Pre-defined Reports - WIMAX 16d" on page 40	New chapter	Ver.3.1 Rev. A Dec. 2010
Chapter 6 - "Advanced Operations" on page 147	Modified procedure and screen captures to reflect The Central Management Console (CMC) changes	Ver.3.1 Rev. A Dec. 2010
Chapter 4 - "Pre-defined Reports - WIMAX 16d" on page 40	 Adde the following reports: "CPEs with the Lowest Average Rate in the Uplink/Downlink" on page 83 "CPEs with the Highest RSSI Average in the Uplink/Downlink" on page 84 "CPEs with the Lowest RSSI in the Uplink/Downlink" on page 85 "CPEs with the Highest SNR Average in the Uplink/Downlink" on page 85 "CPEs with the Highest SNR Average in the Uplink/Downlink" on page 86 "CPEs with the Lowest SNR in the Uplink/Downlink" on page 87 "CPEs Not Reported for More than 10 Hours" on page 88 "AU Historical Capacity Analysis" on page 89 "CPE Historical Radio Link Quality" on page 94 	Ver.3.1 Rev. B July 2011
Chapter 5 - "Predefined Reports - 4Motion" on page 99	New chapter	



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About this Manual

This manual provides information on the StarReport application, used for generating equipment inventory, performance and services configuration reports.

The manual includes instructions for the application installation, and information on how to generate and view the available reports.

The application is based on Web Intelligence reports - the *BusinessObjects Edge Series* product. For more information on the use of Web Intelligence reports, refer to the *Building reports using the Java Report Panel* Manual.





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Chapter 1 - Introduction

In this Chapter

- STAR Management Suite Overview" on page 2
- StarReport Overview" on page 3



STAR Management Suite Overview 1.1

Alvarion's STAR Management Suite offers complete and comprehensive management solution for ensuring the successful deployment of WiMAX services.

The Alvarion STAR Management Suite offers a set of carrier class management tools, each designed to accomplish a certain management purpose.

The STAR Suite covers the entire WiMAX service life-cycle, from the initial installation through the service provisioning and continuing with the various monitoring, reporting and troubleshooting tasks required for a smooth deployment and efficient network operation.

Alvarion's STAR Management Suite includes:

- **AlvariSTAR** Carrier-class Management System for managing Alvarion's WiMAX Base Stations.
- **StarACS** An Automatic Configuration Server (ACS) for managing end-user Fixed and Nomadic devices (CPE) based on TR-69 protocol. StarACS is relevant only for WiMAX 16e Networks.
- **StarQuality** Performance monitoring system for optimizing the WiMAX network.
- StarReport Powerful report generator for generating network configuration, inventory and services reports.



1.2 StarReport Overview

StarReport enables a quick and efficient way for generating network configuration, inventory, performance and services analysis reports. It offers the ability to quickly generate user reports various Inventory reports with flexibility sorting and filtering capabilities, based on the powerful report generator engine from Business-Object.

StarReport includes an enhanced scheduler for generating daily, weekly or monthly reports. In addition, reports can be exported into several file formats such as: PDF, Excel and CSV.

The system generates hardware inventory reports, performance reports and service reports for the following products:

- BreezeMAX (FDD/TDD) equipments (Macro and Micro Base Stations)
- BreezeMAX Extreme
- BreezeMAX 4Motion (16e TDD) equipment (Indoor and Outdoor Macro and Micro BTSs)
- 16d and 16e-ready CPEs

Chapter 2 - StarReport Installation

In this Chapter

- "Installing the BusinessObjects Application" on page 5
- "Importing and Building Database Objects" on page 13



2.1 Installing the BusinessObjects Application

This section describes how to install the BusinessObjects application, and then setting the database by importing data from the StarReport folder.



To install BusinessObjects:

- **1** Make sure that Oracle basic client has been installed prior to StarReport. The Oracle client must access the AlvariSTAR Oracle database using the Oracle User/Password it was installed with.
- 2 In SAP BusinessObjects Edge Series 3.1 Installation Wizard, click **Next**.



Figure 2-1: SAP BusinessObjects Edge Series 3.1 Installation Wizard

3 License Agreement: Read the agreement carefully, select if you accept the agreement terms and click Next.







Figure 2-2: License Agreement

4 Select English and select Create log file during installation. Click **OK**.

SAP BusinessObjects Enterprise XI 3.1 SP3 Setup	×
Please Choose Setup Language	
English	-
Create log file during installation	
OK Cancel	

Figure 2-3: Setup Language

5 User Information: Enter a full name and optionally your organization name. For Product Keycode, enter the keycode that was provided prior to installation.





🙀 SAP BusinessObjects Enter	prise XI 3.1 SP3 Setup	_ 🗆 🗙
User Information The Name field must be filled in	prior to proceeding. The Organization field is optional.	e
Full Name:	Windows User	
Organization:		
Please enter your 26 character in the CD liner notes or the CD	Product Key. You can find this number on the sticker sleeve.	
Product Keycode:		
	< Back Next > Ca	ncel

Figure 2-4: User Information

6 Language Packs: Select English only and click **Next**.

🛃 SAP BusinessObjects Enterprise XI 3.1 SP3 Setup	
Choose Language Packs Select the Language Packs you want to Install	•
English (Required) French Japanese German Spanish Italian Korean Dutch Swedish Portuguese (Brazilian) Simplified Chinese Traditional Chinese All Languages All Languages	•
< Back Next >	Cancel

Figure 2-5: Choose Language Packs

- 7 Install Type: Do not change the selected default option (Custom or Expand Install) for the repository (Figure 2-6). For reference, the options are:
 - » New Install a raw SAP BusinessObjects Enterprise system
 - Custom or Expand Install Use this option to choose the features to install. If you choose this option, proceed with Step 9 to select the features.
 - » Web Tier Choose this option to install the BusinessObjects Web Services and Tomcat.





Figure 2-6: Install Types

- 8 Select the destination for installation and click **Next**:
- 9 Select Features: If you chose Custom or Expand Install in the previous step, expand the SAP BusinessObjects Enterprise feature list and select the features to install (see Figure 2-7). If the is no special requirement, leave the default components as selected. Use the following options:
 - > Enable servers upon installation Select this check-box to enable all system components, so that upon installation completion, no manual configuration is required.
 - » Disk Cost Click this button to view the disk space required for each feature selection.

Click Next.

SAP BusinessObjects Enterprise XI 3.1 5	P3 Setup		
Please select which features you would like	e to install.		o di
SAP BusinessObjects Enterprise Client Components Web Tier Components Server Components Database Access Evort Support Samples Help Files			
Enable servers upon installation			
Disk Cost	< Back	Next >	Cancel

Figure 2-7: Select Features





10 Server Components Configuration: Specify the port numbers and the password for the server administrator. Click **Next**.

🐺 SAP BusinessObjects Enterprise XI 3.1 SP3 Setup
Server Components Configuration
Please specify the port numbers and the password for the SAP BusinessObjects Enterprise Administrator Ports CMS port 6400 Administrator account Password Confirm password Confirm password Confirm password at a later time
<back next=""> Cancel</back>

Figure 2-8: Server Components Configuration

11 Server Intelligence Agent: leave the default and click **Next**.

🙀 SAP BusinessObjects Enterprise XI 3.1 SP	3 Setup 📃 🛛 🗙		
Server Intelligence Agent Enter the node name and the port for your Ser	ver Intelligence Agent		
Server Intelligence Agent is the visible component of Server Intelligence, the service functionality of SAP BusinessObjects Enterprise XI 3.1. This utility simplifies the deployment and management of the SAP BusinessObjects Enterprise servers and improves fault-tolerance by automating the starting, restarting and stopping of those servers.			
The Server Intelligence Agent Node Name can be any name that identifies this node of your deployment. Note: spaces, dashes or periods must not be part of the chosen Node Name.			
Node Name:	NM5_5V053_1		
Port:	6410		
	< Back Next > Cancel		

Figure 2-9: Server Intelligence Agent

12 MySQL Database Server Configuration: Specify the port numbers and passwords for the Root and CMS User accounts of the MySQL DB Server. Click Next.





🔂 SAP BusinessObjects Enterprise XI 3.1	5P3 Setup
MySQL Database Server Configuration Configuring the MySQL Database Server	©.
SAP BusinessObjects Enterprise XI 3.1 SP3 system data. Please specify the port numb accounts below. MySQL Port Number: 3306	will install and use a MySQL database to store er, and passwords for the root and CMS user
MySQL root User Account User: root Password: Confirm Password:	MySQL BusinessObjects User Account User: sa Password: Confirm Password:
[< Back Next > Cancel

Figure 2-10: MySQL Database Server Configuration

- **13** Select Web Application Server: Select the following options to deploy SAP BusinessObjects applications:
 - » Java Web Application Server: Install Tomcat application server and deploy to it.
 - » IIS Web Application Server: Leave the Default Web Site to deploy to.

Click Next.

🔁 SAP BusinessObjects Enterprise XI 3.1 SP3 Setup
Select Web Application Server
Select the application server you want to deploy SAP BusinessObjects applications to:
☑ Java Web Application Server:
Install Tomcat application server and deploy to it.
C Automatically deploy to a pre-installed Web Application Server. Please choose one from the following list.
Tomcat 5.5
C I will deploy the web components after installation.
IIS Web Application Server:
Deploy to the following website:
Default Web Site
< Back Next > Cancel

Figure 2-11: Select Web Application Server

14 Configure Tomcat: Leave the default ports. Click **Next**.





Figure 2-12: Configure Tomcat

15 Start Installation: Click **Next** to initiate the installation.

🙀 SAP BusinessObjects Enterprise XI 3.1 SP3 Setup	
Start Installation	e
Press the Next button to begin or the Back button to reenter the installation information.	
< Back	Cancel

Figure 2-13: Start Installation

The installation process is displayed in a process bar (Figure 2-14).





Figure 2-14: Installation Process

- **16** Wait (approximately. 30 minutes, depending on the computer capabilities) for the installation completion message (See Figure 2-15).
- 17 If you want to start the BusinessObjects application, select Launch BusinessObjects Administration Console and click Finish.



Figure 2-15: Successfully Installed SAP BusinessObjects 3.1





2.2 Importing and Building Database Objects

The Import Wizard guides administrators through the process of importing predefined reports, users, groups, and folders in the newly installed BO platform.

For detailed information refer to the BusinessObject documentation.



To start importing Database Objects:

- 1 Run the Import Wizard from Start > Programs > BusinessObjects > Import Wizard; the Import Wizard Installation window is displayed (Figure 2-16).
- **2** Source Environment: Select Source Business Intelligence Archive Resource (BIAR) File, and click the browsing button () to browse for a file.

The BIAR files are automatically copied by the StarReport installer under *C*:II*Program Files\Business Objects\StarReport.* Select a file and click **Next**.

Select the Bu	siness Intelligence Archive Resource file you want to import
User Name:	
Password:	
BIAR file:	

Figure 2-16: Import Wizard Installation Window

3 Destination Environment: Enter the BusinessObjects Enterprise destination CMS, user name (administrator) and password, and select the Enterprise Authentication. Click **Next**.



Select the destination	environment to which the Wizard will export content.	l
Enter the nar also need to	ne of the BusinessObjects Enterprise XI 3.0 destination C specify your user name and password.	MS. You
CM <u>S</u> Name:	CSS-XP04	
<u>U</u> ser Name:	Administrator	
Password:	XXXXXX	
Authentication:	Enterprise	

Figure 2-17: Destination Environment

- **4** Select Objects to Import: Select all except for:
 - » Restore full cluster server configuration
 - » Import node(s) from a different cluster

Click Next.

🛃 Import Wizard	X
Select objects to import Select the objects to import.	
The Import Wizard enables you to select objects from the source environment to import to the destination environment. Select one or more categories below to import.	
Import repository objects Import calendars Import universes Import profiles Import encyclopedia objects Restore full cluster server configuration Import custom access levels Import custom access levels Import remote connections and replication jobs	
Select All Clear All	
< Back Next > Cancel	Help

Figure 2-18: Select Objects to Import





5 Import Scenarios: Leave the default selected options as in Figure 2-19. Click **Next**.



Figure 2-19: Import Scenarios

6 Incremental Import: Select all options and click **Next**.



Figure 2-20: Incremental Import

7 Note on importing server groups: Click **Next**.





Figure 2-21: A Note on Importing Server Groups

8 Users and Groups: Click **Select All**, and select the two option check-boxes. Click **Next**.

<u>G</u> roups:	en este CAOO (During en Obiente Cate	Users:	
	StarReport		
•	<u> </u>		
Select Al	I <u>C</u> lear All ps <u>h</u> ierarchically		
Select grou	ups that contain selected users		

Figure 2-22: Users and Groups

9 Custom Access Levels: Click Select All and Next.







Figure 2-23: Custom Access Levels

10 Categories: Click **Select All** and select the "Import all objects..." option check-box. Click **Next**.

Figure 2-24: Categories

11 Folders and Objects: Click Select All and select the "Import all instances..." option check-box. Click Next.





Figure 2-25: Folders and Objects

12 Select Application Folders and Objects: Click **Select All** and click **Next**.

Import Wizard	×
Select application folders and objects Select the application folders and objects you want to import. If the selected folders and objects exist on destination system, they will be updated using the source system as a reference.	
Css xp04:6400 (Business0bjects Enterprise XI 3.0) CommonConnections O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O	
Select All Dear All	
< <u>B</u> ack <u>N</u> ext > Cancel H	lelp

Figure 2-26: Select Application Folders and Objects

13 Import Options for Universes and Connections: Select the Import all universes and all connection objects option, and select the Keep universe overloads for imported users and groups check-box. Click Next.





Figure 2-27: Import Options for Universes and Connections

- **14** Import Options for Publications: Select the following options:
- Import all profiles
- Import recipients used by selected publications

Click Next.




Figure 2-28: Import Options for Publications

15 Remote Connections and Replication Jobs: Click **Select All** and **Next**.

🙀 Import Wizard	×
Remote Connections and Replication Jobs Select the remote connections and replication jobs you want to import by selecting the box beside the item.	
🗐 css-xp04:6400 (BusinessObjects Enterprise XI 3.0)	
Select All Qlear All	
/ Bank Newty Cannel	Halp

Figure 2-29: Remote Connections and Replication Jobs

16 Ready to Import: Click **Finish**; the system starts importing the information to the destination environment. The progress is displayed in the wizard window (Figure 2-31)





Figure 2-30: Ready to Import

mporting Objects:		
mport progress:		
nport summary:	v ar a	
Import Info	Warnings	-
🕵 1 of 1 Groups imported	(0 warnings)	
👩 0 of 0 Users imported	(0 warnings)	
🔁 4 of 29 Folders imported	(2 warnings)	
0 of 0 Object packages imported	(0 warnings)	
😬 0 of 3 Objects imported	(0 warnings)	
贈 0 of 0 Shortcuts imported	(0 warnings)	
🕰 0 of 0 Events imported	(0 warnings)	
🗿 0 of 0 Server Groups imported	(0 warnings)	
0 of 0 Repository objects imported	(0 warnings)	
🗰 0 of 0 Calendars imported	(0 warnings)	
👔 0 of 6 Universes imported	(0 warnings)	
	VI. D. L.T.	Coursel

Figure 2-31: Import Progress



Chapter 3 - Getting Started

In this Chapter:

- Setting the Database for Universe" on page 23
- "Accessing the InfoView Application" on page 28
- "Viewing Reports" on page 30
- Generating or Editing Reports" on page 32

3.1 Setting the Database for Universe

INFORMATION



This section is intended for the Administrator only.

Before generating reports, the administrator configures the database settings and the connection to the database from BusinessObjects. This is a connection to the AlvariSTAR oracle database

Use the Designer application in BusinessObjects for the setup. Use the Username and password that were used during AlvariSTAR installation.



To configure the database connectivity for BusinessObjects:

 Click Start and select Programs > BusinessObjects IX 3.1 > BusinessObjects Edge Series > Designer; the Designer Login window is displayed.

User Identification	×
	Business Objects
Enter your name and p	assword to log in.
<u>S</u> ystem	css-xp04
<u>U</u> ser Name:	administrator
Password:	
Authentication	Enterprise
	OK Cancel <u>H</u> elp

Figure 3-1: BusinessObjects Designer Login Window

- 2 Enter the username (administrator) and password (q1w2e3) and click **OK**; the Universe Designer main window is displayed (empty).
- **3** To open an existing universe select File > Open; a list of available Universes is displayed.



Open	? 🗙
Business Objects	Look in: Diverses The two sets and the t
冠 My Folders	File name: Open Files of type: BusinessObjects Universes (*.unv) Cancel

Figure 3-2: Universes Folder

4 Double-click on **@CSS-XP04_6400** to open the list of all Universes under this server.

Open	? 🗙
Business Objects	Look in: Correction Co
	File name: BreezeMAX 802.16d Universe-scom.unv Open
	Files of type: BusinessObjects Universes (*.unv) Cancel
My Folders	Open as read-only

Figure 3-3: List of Universes

- **5** Select the required Universe and click **Open**; the Universe main window is displayed.
- **6** Verify that the universe is set to correct defaults as follows:





Figure 3-4: Designer Main Window

a Check the login parameters by selecting File > Parameters; the Universe Parameters window is displayed.



niverse Parameters 🛛 🔀
Definition Summary Strategies Controls SQL Links Parameter
The following information identifies the universe. A universe is defined by its name and database connection:
Name: BreezeMAX 802.16d Universe-scom
Description:
Connection: Scom
Click here to choose stored procedure universe
OK Cancel <u>H</u> elp

Figure 3-5: Universe Parameters Window

b Click **Edit**. The Edit <universe connection name> Connection window is displayed.



Edit scom connection		×
Login Parameters [2 Define the login pa Client	:/ 4] rameters to access your Oracle database server using Net	
Authentication Mode	Use specified username and password	•
User name:	bwanms	
Password:	*****	
Service:	bwanms	•
Test Connection	< <u>B</u> ack <u>N</u> ext > Cancel	

Figure 3-6: Edit Connection Window

c Verify that the Username and Password are bwanms. If not, edit them and click **Test Connection**. Verify that the message "The server is responding" is displayed. If not, check the Oracle client file *TNSNAMES*.



Figure 3-7: Universe Parameters Window





3.2 Accessing the InfoView Application

InfoView can be accessed at the URL: http://server_ip:8080/InfoViewApp/logon.jsp. Logon is required.

For more information on the use of InfoView interface, refer to *BusinessObjects Edge Series Getting Started Guide* and *BusinessObjects Enterprise Administrator's Guide*.



To access InfoView:

1 Access InfoView via *http://server_ip:<x>/InfoViewApp/logon.jsp.* <x> is the connection port of the server where StarReport is installed. The logon window is displayed.

Log On to I	nfoView		
Enter yo (If you ar	ur user information	n and click Log On. Int information. contact your system administrator.)	
(1) you u			
	User Name:	administrator	
	Password:		

Figure 3-8: BusinessObjects InfoView Logon

INFORMATION



Logon to InfoView can be done with the administrator user that was created during installation or with specific users created by the administrator afterwards.

2 Enter the username and password (for Administrator the password is q1w2e3, unless changed during installation), and click Logon; A list of available report categories (for example: Inventory and Performance) is displayed, including information on the last report run, type, owner and number of instances (how many times the report has been generated).



SAP BUSINESSOBJECTS II	NFO	VIEW				SAP Business Objects
🍪 Home Document List Open 🗸	Send	To 🔹 Dashboards 👻			Help	Preferences About Log Out
						∓ ×
📔 🖹 🕺 New 🗸 Add 🖌 Organ	ize 👻	Actions -		Search title 👻		∢ 1_ of 1 ▶ ⊨
Ė All		Title	Last Run	ү Туре	Owner	Instances
🕀 📴 My Favorites — 🖾 Inbox		Inventory And Configuration Inventory reports based on the AlvariSTAR database		Folder	Administrator	
Public Folders Mathinistration Tools Auditor Seature Samples Report Conversion Tool Search Program Search Program StarReports For WIMAX		Performance reports based on StarQuality information		Folder	Administrator	

Figure 3-9: Example of Report Categories List

3 Expand the categories folder to view the available reports in each category.

Home Decument List Open - Send To -	Dach	aboarde -		Lice and Lic	In Proformancos	About	000
g, nome bocament List Open • Sena 10 •	Dush	1000105 •		110	sp Treferences	About	Tod o
🔁 👺 🍣 New 🗸 Add 🖌 Organize 🖌 Acti	ions 🗸		Search title 🖌] <i>₽</i> N 1	of 1 →	H
- All	Ti	itle *	Last Run	<mark>ү</mark> Туре	Owner	Instance	5
My Favorites My Favorites Dublic Folders Public Folders Public Folders Auditor Feature Samples Report Conversion Tool Feature Samples Search Program StarReport For VIMAX 4M_3.0M Final Inventory and Configuration Final Inventory And Configuration Ferfomance	01 11 -d 11 -d 11 -d 11 -d 11 -d 11 -d 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 12 13 14 14 15 15 16 17 18 19 11 11 11 11 11 12 13 14 15 16	A U Subscription Capacity Analysis I. AU Subscription Capacity Analysis Is report may be applied to a single BTS in the network, and lists the perform defined start and end points. I. AU Subscription Capacity Analysis (2) Is report may be applied to a single BTS in the network, and lists the perform defined start and end points. 2. Average Throughput - Top 20 AUS Ine 20 Base Station Air Units with Highest Throughput(UL/DL) 3. Average Throughput - Bottom 20 AUS Ine 20 Base Station Air Units with Lowest Throughput(UL/DL) 4. Average Utilization - Top 20 AUS Ine 20 Base Station Air Units with Highest Utilization(UL/DL) 5. Average Utilization - Top 20 AUS Ine 20 Base Station Air Units with highest Utilization(UL/DL) 5. Average Utilization - Top 20 AUS Ine 20 Base Station Air Units with highest Subscription(UL/DL) 6. Average Subscription - Top 20 AUS Ine 20 Base Station Air Units with highest Subscription(UL/DL) 7. Average Subscription - Top 20 AUS Ine 20 Base Station Air Units with highest Subscription(UL/DL) 8. Number Of CPEs - Top_Bottom AUS Ine 20 Base Station Air Units with highest Subscription(UL/DL) 8. Number Of CPEs - Top/Bottom AUS Ine 20 Base Station access units with the highest or lowest number of CPEs 8. Number Of CPEs - Top/Bottom AUS Ine 20 Base Station Air Units With the highest or lowest number of CPEs 9. CPE Radio Link Quality, Subscriber Unit Aggregation Radio Link Qualit 0. Average Rate - Top 50 CPEs	Dec 30, 2010 4:30 PM Dec 30, 2010 4:29 PM Dec 30, 2010 4:30 PM	Web Intelligence Report Web Intelligence Report	Administrator Administrator Administrator Administrator Administrator Administrator Administrator Administrator Administrator Administrator Administrator Administrator	3 0 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1	
	TH 11 TH	he 50 Subscriber Units With Highest Rate(UL/DL) 1. Average Rate - Bottom 50 CPEs he 50 Subscriber Units With Lowest Rate(UL/DL)	Dec 30, 2010 4:30 PM	Web Intelligence Report	Administrator	1	

Figure 3-10: Performance Report List



3.3 Viewing Reports

Existing reports can be viewed by running them from the main application window.



To view an existing report:

From the reports list select a report, right-click and select **View** from the menu, or double click on one report (see Figure 3-11).



Figure 3-11: Report Right-click Menu

The report is created and displayed in a table or chart format. Figure 3-12 is an example of the CPE Inventory report.



BTS Name	BTS IP	Count By	СРЕ Туре	Count By Re	gistration Status	Count By P Sta	ermanence itus	Total No.	
	Address	PRO	SI	Registered	Not Registered	Permanent	Temporary	OFCPE	
BTS_1	10.41.191.18	131	32	141	92	232	1	233	
BTS_15	10.42.63.43	9		9	1	10		10	
BTS_22	10.43.255.24	101	3	95	14	108	1	109	
BTS_450	10.42.191.26	8		8		8		8	
BTS_760	10.41.191.14	338	198	448	316	763	1	764	
BTS_84	10.42.63.15	55		49	9	58		58	
BTS_85	10.42.63.19	14		13	2	15		15	
BTS_87	10.42.63.27	5		5	3	8		8	
Total	8 BTSs	661	233	768	437	1,202	3	1,205	

Figure 3-12: Sample of Generated CPE Inventory Report



3.4 Generating or Editing Reports

3.4.1 Overview

You can edit the report to view different information in the columns (parameters).

To generate new reports or modify existing ones, you need to be familiar with BusinessObjects. Please refer to the BusinessObjects documentation, which is provided with the StarReport CDROM.

Alvarion provides the BreezeMAX BusinessObjects "universe" with the StarReport system. The universe is a data entity which includes all information and inter-relations that exist in the management system database. The objects are grouped into classes and subclasses. The classes and their hierarchy is device dependent.

You can display the parameters to be included in your report in two different methods: As objects or as an hierarchic tree.

Objects are grouped into folders called classes. Each class can also contain one or more subclasses. Subclasses contain objects that are a further subcategory of the objects in the upper level of the class.

The role of classes is to organize the objects into logical groups. When you create queries on the universe, classes help you find the objects that represent the information that you want to use in a query.



Figure 3-13: Display Options



In general, the objects are listed in the following top-level items. Some objects include second-level objects that also include specific parameters. Hovering with the mouse over a specific object name displays a tooltip with a brief description of the object.

The parameters are divided into their Object hierarchies. The hierarchy is universe driven - each network element has its own hierarchy.

In Hierarchy display, the same parameters are displayed, however they are ordered differently.

For example, in FDD/TDD, the basic structure includes parameters of the following elements:

- SU Subscriber Unit includes HW, registration, bridging, air interface, frequency scanning, best AU selection, gateway, ethernet port, and Licenses parameters.
- Subscriber Services includes service profile, service group, voice domain, and Q in Q parameters.
- Geographical Area includes parameters in three levels: Region, country and city. There must be exactly three hierarchy levels in the AlvariSTAR location manager.
- COUNTS parameters for collecting inventory information per equipment type.

All objects are also described in the specific Device Manager User Manual and System Manual.



To modify an existing report:

- **1** Do one of the following:
- From the report list (see Figure 3-11) right-click on the report to edit and select **Modify**.
- From an already generated report (after running using View, see Figure 3-12), click Edit at the top of the window.

The report appears with the data tree pane at the left side (Figure 3-14).





Figure 3-14: Sample of Report in Edit Mode

2 Make any modification, such as: change column location or color, change names, etc.

INFORMATION



In Edit mode, you can change only the names of the columns in the report, but not add/remove columns.

3 To change the information included in the report and re-build the report, click **Edit Query**. The objects appear in the Results Objects pane (Figure 3-15). From the Data tab at the left pane, select the objects you want to include in the report and drag them into the report display. Alternatively, double-click on the objects to add them to the report. To exclude objects (columns) or change their location, drag the column headers into the Data pane or to another location in the report.





Figure 3-15: Edit Query

You can also generate reports that include graphs as shown in Figure 3-16. The procedure for designing this report type is described in the BusinessObjects manual.



Figure 3-16: Report with Graph

To create a new report query:

- **1** Start the InfoView application (see Section 3.2).
- 2 Right-click and select New > Web Intelligence Document.



- **3** From the list of universes select BreezeMAX 802.16d Universe. A new empty query is created.
- **4** Select the objects you want to include in the query and drag them to the Result Objects pane. Alternatively, double click on the objects to add them in the Result Objects pane.
- **5** Click **Run Query** to generate the report.

Refer to the following sections for examples of reports.

3.4.2 Example 1 - Inventory Report

In this example, you will generate a tabular list of the following columns:

Base Station (BS) Operator ID, Cell ID, and Model and the IP Config IP address of the NPUs managed by these BSs.

- **1** Create a new report query as described above.
- 2 In this example, select:
 - >> BreezeMAX FDD TDD > General and double-click on Operator ID, Cell ID, and Model.
 - » BreezeMAX Configuration > NPU > Data & Management Port > BS lp lf Config > and double-click on BTS Data/Mngmt IP Address.

All objects are displayed in the Result Objects window.

🏀 Home Document List Open 🗸 Send To 🗸 Dashboar	rds ↓	Help Preferences About Log Out
New Web Intelligence Document		¥ ×
🗅 📓 📲 🖌 📴 Edit Query 🖻 Edit Report		🍣 Run Query 🕌 🕘 🛛 🗸
🗄 🗔 🛃 📅 Add Query 🔗 🚥		
Data Properties	Result Objects	y X x
GPS Longitude Mngmntifmac Operator Id Cell Id Sends Traps Time Diff between NMS and BS General Trap Control General Gener	Operator Id Cell Id Model Ip If Config IP Address	
Display by objects	To filter the query, drag predefined filters here or drag objects here th	en use the Filter Editor to define
Uispiay by nierarchies		
Uuery 1		4 Þ 🗉
	Last Refresh Dat	e: April 7, 2010 4:23:26 PM GMT+03:00
Discussions		Ŧ
Done		ernet 🔍 100% 🔻

Figure 3-17: Selecting Objects for Generating Report

3 Click **Run Query** to generate the report.



🍪 Home Document List Open 👻	Send To 👻 Da	shboards 👻			Help Preferences About Log Out
New Web Intelligence Document					平 ×
🗅 🔚 🔹 🖾 🕅 🗐 🕶 🛛 📅 Edit Qu	uery 📑 Edit Repo	rt		🍣 Refresh D	uata 🛃 📴 Track 🐂 🧌 🌾 🔍 Drill 🛍 🗐 👔 .
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🗆 🚽 New Web Intelligence Docum			Report Title		
Define the second seco					
- 🧖 Model	Operator Id	Cell Id	Model	Ip If Config IP Addre	
- 🧖 Operator Id	186.190.0	0.0	BreezeMAX BS	10.40.63.17	
	186.190.0	0.0	BreezeMAX BS	10.40.63.32	
	186.190.0	0.250	BreezeMAX BS	10.109.231.1	
	186.190.0	0.250	BreezeMAX BS	10.110.203.1	
	186.190.0	0.250	BreezeMAX BS	10.40.63.7	
	217.11.96	100.48	BreezeMAX MBS		
	217.11.96	105.0	BreezeMAX BS	10.105.0.1	-
•	•		1	1	
Arranged by: Alphabetic order -	📄 🕑 Report 1				4 ▷ 🗉
		=			ast Refresh Date: April 7, 2010 4:23:26 PM GMT+03:00

Figure 3-18: Generated Report (Inventory)

3.4.3 Example 2 - Services Report

In this example, you will generate a tabular list of services.

- **1** Double click on the following objects to include them in the query:
 - » Service Profile Name
 - » Priority Marking Mode
 - » VLAN Transparency Mode
 - » Service Name
 - » Subscriber First Name
 - » Subscriber Last Name
- 2 Click **Run Query** to generate the report.



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	Service Profile Name	Priority Marking Mode	VLAN Transparency Mode	Service Name	Subscriber First Name	Subscriber Last Name
 ✓ ✓	Service Profile Name be1m_vpl100	Priority Marking Mode Transparent	VLAN Transparency Mode Off	Service Name	Subscriber First Name <empty></empty>	Subscriber Last Name
**************************************	Service Profile Name be1m_vpl100 be3m	Priority Marking Mode Transparent Transparent	VLAN Transparency Mode Off Off	Service Name si_r pro7	Subscriber First Name <empty> <empty></empty></empty>	Subscriber Last Name <empty> <empty></empty></empty>
₽	Service Profile Name be1m_vpl100 be3m dscp-ppoe	Priority Marking Mode Transparent Transparent Transparent	VLAN Transparency Mode Off Off	Service Name si_r pro7 pro-1	Subscriber First Name <empty> <empty> <empty></empty></empty></empty>	Subscriber Last Name <empty> <empty> <empty></empty></empty></empty>
3	Service Profile Name be1m_vpI100 be3m dscp-ppoe Internet2048_L2	Priority Marking Mode Transparent Transparent Transparent Transparent	VLAN Transparency Mode Off Off Off Off	Service Name si_r pro7 pro-1 pro3	Subscriber First Name <empty> <empty> <empty> <empty></empty></empty></empty></empty>	Subscriber Last Name <empty> <empty> <empty> <empty></empty></empty></empty></empty>
***	Service Profile Name be1m_vpl100 be3m dscp-ppoe Internet2048_L2 Internet Access L2	Priority Marking Mode Transparent Transparent Transparent Transparent Transparent	VLAN Transparency Mode Off Off Off Off Off	<u>Service Name</u> <u>si_r</u> pro7 pro-1 pro3 cc	Subscriber First Name <empty> <empty> <empty> <empty> <empty></empty></empty></empty></empty></empty>	Subscriber Last Name <empty> <empty> <empty> <empty> <empty></empty></empty></empty></empty></empty>
₽	Service Profile Name be1m_vp1100 be3m dscp-ppoe Internet2048_L2 InternetAccess L2 ppp_be1m	Priority Marking Mode Transparent Transparent Transparent Transparent Transparent Transparent	VLAN Transparency Mode Off Off Off Off Off Off	Service Name si_r pro7 pro-1 pro3 cc sir2	Subscriber First Name <empty> <empty> <empty> <empty> <empty> <empty></empty></empty></empty></empty></empty></empty>	Subscriber Last Name <empty> <empty> <empty> <empty> <empty> <empty></empty></empty></empty></empty></empty></empty>
	Service Profile Name be1m_vp1100 be3m dscp-ppoe Internet2048_L2 InternetAccess L2 ppp_be1m pppoe	Priority Marking Mode Transparent Transparent Transparent Transparent Transparent Transparent Transparent	VLAN Transparency Mode Off Off Off Off Off Off Off	Service Name si_r pro7 pro-1 pro3 cc sir2 pppoe	Subscriber First Name <empty> <empty> <empty> <empty> <empty> <empty> <empty></empty></empty></empty></empty></empty></empty></empty>	Subscriber Last Name <empty> <empty> <empty> <empty> <empty> <empty> <empty> <empty></empty></empty></empty></empty></empty></empty></empty></empty>
	Service Profile Name be1m_vp1100 be3m dscp-ppoe Internet2048_L2 InternetAccess L2 ppp_be1m pppoe pppoe_802.1p_be512_	Priority Marking Mode Transparent Transparent Transparent Transparent Transparent Transparent Transparent Transparent	VLAN Transparency Mode Off Off Off Off Off Off Off Off	Service Name si_r pro7 pro-1 pro3 cc sir2 pppoe voice and data 802	Subscriber First Name <empty> <empty> <empty> <empty> <empty> <empty> <empty> <empty></empty></empty></empty></empty></empty></empty></empty></empty>	Subscriber Last Name <empty> <empty></empty></empty></empty></empty></empty></empty></empty></empty></empty></empty></empty>
₩ ₩	Service Profile Name be1m_vp1100 be3m dscp-ppoe Internet2048_L2 Internet Access L2 ppp_be1m pppoe pppoe_802.1p_be512_ pppoe_nt128/192 802.11	Priority Marking Mode Transparent Transparent Transparent Transparent Transparent Transparent Transparent Transparent	VLAN Transparency Mode Off Off Off Off Off Off Off Off Off	Service Name si_r pro7 pro-1 pro3 cc sir2 pppoe voice and data 802 voice vlan 200	Subscriber First Name <empty> <empty> <empty> <empty> <empty> <empty> <empty> <empty> <empty></empty></empty></empty></empty></empty></empty></empty></empty></empty>	Subscriber Last Name <empty> <empty> <empty> <empty> <empty> <empty> <empty> <empty> <empty> <empty></empty></empty></empty></empty></empty></empty></empty></empty></empty></empty>

Figure 3-19: Generated Report (Services)

3.4.4 Example 3 - SU Software Usage

In this example, you will generate a tabular view of the distribution of software versions (main and shadow) used per SUs.

- **1** Double-click on the following objects to include them in the query:
 - » SU Main Software Version
 - » SU Shadow Software Version
 - » COUNTS > No. SU
- 2 Click **Run Query** to generate the report.





SU Software Usage

SU Main Software Version	SU Shadow Software Version	No. SU
Rel_4_5_1_162	Rel_4_0_2_66	1272
Rel_4_5_1_162	Rel_4_5_1_162	2
Rel_4_5_1_162	Rel_4_5_1_189	14
Rel_4_5_1_162		3
Rel_4_5_1_189	Rel_3_7_1_18	1
Rel_4_5_1_189	Rel_4_5_1_162	6
Rel_4_5_1_189	Rel_4_5_1_201	1
Rel_4_5_1_189		1
Rel_4_5_1_205	Rel_4_5_1_189	1
Unknown	Unknown	6
	Sur	m: 1307

Figure 3-20: Generated Report (SU SW Usage)



Chapter 4 - Pre-defined Reports - WIMAX 16d

In this Chapter:

- "Introduction" on page 41
- "Inventory and Configuration Reports" on page 43
- "Performance Related Reports" on page 62



Introduction 4.1

This chapter describes the pre-defined reports provided by Alvarion on the StarReport platform, for the WIMAX 16d systems.

The StarReport is used to generate a wide variety of reports, based on information gathered from the AlvariSTAR and the StarQuality systems. A trained user may create further reports based on specific requirements.

The next sections describe the report types.

INFORMATION The terms CPE (Customer Premises Equipment) and SU (Subscriber Unit) are used interchangeably in this chapter, as they are used differently in FDD/TDD and 4Motion.

> The terms AU (Access Unit) and BS (Base Station) are used interchangeably in the reports, as they are used differently in FDD/TDD and 4Motion.



To generate a WiMAX 16d pre-defined report:

- **1** In the BusinessObjects InfoView select StarReport for WiMAX 16d.
- 2 Select one of the folders to display the available report types:
 - » Inventory and Configuration Reports
 - » Performance reports

The report list is displayed.

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🖻 🛄 Public Folders	-	02. Detailed BTS Information	Jan 11, 2011 9:11 AM	Web Intelligence Report	Administrator	2
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- Administration Tools	1	03. BTS Uptime	Dec 30, 2010 4:31 PM	Web Intelligence Report	Administrator	1
🖽 🛄 Auditor		WIMAX BTS with Highest and Lowest Uptime				
Feature Samples	1	04. AU General Information	Dec 30, 2010 4:32 PM	Web Intelligence Report	Administrator	1
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Inventory And Configuration	9	08. Services Profile and VLAN Information WiMAX QoS information for the subscriber unit	Dec 30, 2010 4:36 PM	Web Intelligence Report	Administrator	1

Figure 4-1: WiMAX TDD Inventory and Configuration Reports List





4 After running any tabular report, you can filter, re-order, or sort the data by each column, using the sorting lists is Click icon to add simple report filters, or the filtering icon is at the top of the page.



4.2 Inventory and Configuration Reports

These reports provide network-wide or specific BTS data, depending on selected parameters. The various reports display BreezeMAX base station inventory information from network-level to specific detailed data for each location and equipment type. The reports in this type are:

- 1 "General BTS Report" on page 43
- 2 "BTS Detailed Information per Location" on page 46
- **3** "BTS Uptime" on page 48
- 4 "AU General Information Report" on page 49
- **5** "AU Channel Information Report" on page 50
- **6** "CPE Inventory Report" on page 52
- 7 "CPE Detailed Information Report" on page 56
- 8 "Service Profile and VLAN Information" on page 57

4.2.1 General BTS Report

This report provides a high level view of the network, from inventory perspective: Number of BTSs, AUs and SUs per each city of the network, as well as total sums. Using this report, you obtain an initial perspective of the equipment types in use and their geographical distribution, and then navigate to more detailed reports.

This report includes three tabs, as described in the following sections, to display the information both in table and graphical formats.

To generate this report select **01. General BTS Report** from the Inventory and Configuration reports list.

4.2.1.1 BTS Inventory per Location Table

The BTS Inventory per Location report table includes the following columns:

- Country Name upper location level
- Region Name middle location level
- City Name lower location level BTS associated location

INFORMATION



The country/region/city concept is based on the AlvariSTAR standard - there must be three hierarchy levels.



- No. Equipment Total BTS count, with a link to the BTS Detailed Information per Location report for this specific BTS location (see Section 4.2.2).
- No. BS number of Macro Base Stations
- No. MBS number of Micro Base Stations
- No. AU total number of AU cards (not applicable for Micro Base Station)
- No. CPE number of Customer Premises Equipment (subscriber) units
- No. CPE Status Up number of connected CPEs
- No. CPE Status Down number of disconnected CPEs

The table footer displays accumulated statistics (sum of no. of units), where applicable.





4.2.1.2 BS and MBS Distribution Graph

This report provides a graphical representation (bar chart) of the distribution between Micro and Macro BreezeMAX base stations, per location, using tabular data of the "BTS Inventory per Location Table" on page 43.

- Y axis: No. of BTSs
- X axis: Locations, subdivided into Macro/Micro BTSs per location





Figure 4-3: General BTS Report - BS and MBS Distribution per Location

4.2.1.3 CPE Distribution Graph

This report provides a graphical representation (bar chart) of the distribution between CPEs with the status "up" and those with the status "down", per location, using tabular data of the "BTS Inventory per Location Table" on page 43.

- Y axis: No. of CPE (referred to as SU)
- X axis: Locations, subdivided into total number of SUs, Up SUs and Down SUs, per location





Figure 4-4: General BTS Report - CPE Distribution per Location

4.2.2 BTS Detailed Information per Location

This report contains BreezeMAX base stations detailed information. It provides comprehensive data about the BTSs in use in the network, their types, operability status, SW versions, number of AUs, ODUs, SUs, etc.

To generate this report select **02. Detailed BTS Information** from the Inventory and Configuration reports list.

The table includes the following columns:

- BTS IP Address management IP
- BTS Name
- BTS Model Micro or Macro base station
- BTS State Up or Unreachable in the AlvariSTAR database
- NPU Serial Number
- NPU Main SW version
- NPU Shadow SW version
- NPU Running Software whether the NPU running from main or shadow
- BTS General Operator ID



- BTS General Cell ID
- No. AU number of AU cards Link to the AU general information report for this specific BTS (see Section 4.2.4). Not applicable for Micro Base Station.
- No. ODU number of outdoor units
- No. CPE number of CPEs Link to CPE detailed information report for this specific BTS (see Section 4.2.7)
- No. CPE Up Number of connected CPEs
- No. CPE Down Number of disconnected CPEs

You can manipulate the displayed data (filter, sort, etc.) to retrieve data of interest, such as the following examples:

- BTSs for which SW upgrade is required
- BTSs having no SUs attached
- Find a specific BTS of interest according to serial number, IP address, name, etc. and then drill down to view its AUs or SUs
- Find BTSs which are the most or least loaded with AUs, and then drill down to view its AUs or SUs

The following filters are available at the top of the report page:

- NPU Main SW Version
- NPU Shadow SW Version
- BTS Model



		BTS	Deta	iled Ir	nforma	ation p	er Loo	cation						
BTS IP Address	BTS Name	BTS Model	BTS State	NPU Serial Number	NPU Main SW Version	NPU Shadow SW Version	NPU Running Software	BTS General Operator Id	BTS General Cell Id	No. AU	No. ODU	No. CPE	No. CPEs Up	No. CPE: Dow
0.42.191.18	BTS_10	BreezeMAX BS	Up	6685570	3.7.0.14	3.7.0.14	Main	217.11.96	99.85	4	7	<u>203</u>	133	70
0.105.77.1	BTS_100	BreezeMAX MBS	Up	7194449	3.7.0.22	3.6.0.15	Main	217.11.96	105.77	1	2	12	10	2
0.105.78.1	BTS_101	BreezeMAX MBS	Up	6354668	3.7.0.22	3.6.0.15	Main	217.11.96	105.78	1	1	<u>67</u>	64	3
0.43.127.15	BTS_102	BreezeMAX MBS	Up	6989937	3.7.0.22	3.6.0.15	Main	217.11.96	105.79	1	1	44	42	2
0.105.12.1	BTS_103	BreezeMAX BS	Up	6373429	3.7.0.21	3.6.0.13	Main	217.11.96	105.12	2	3	<u>93</u>	82	11
0.105.15.1	BTS_104	BreezeMAX MBS	Unknown	7230064	3.7.0.22	3.6.0.15	Main	217.11.96	105.15		2	105	0	0
0.105.81.1	BTS_105	BreezeMAX MBS	Up	7230056	3.7.0.22	3.6.0.15	Main	217.11.96	105.81	1	1	<u>11</u>	11	0
0.105.146.1	BTS_106	BreezeMAX MBS	Up	7194435	3.7.0.22	3.6.0.15	Main	217.11.96	105.146	1	1	13	12	1
0.105.18.11	BTS_107	BreezeMAX MBS	Up	6989966	3.7.0.22	3.6.0.15	Main	217.11.96	105.18	1	1	<u>6</u>	4	2
0.42.63.25	BTS_11	BreezeMAX BS	Up	7772475	3.7.0.21	3.6.0.13	Main	217.11.96	99.50	2	7	21	16	5
0.42.127.4	BTS_116	BreezeMAX BS	Up	6602880	3.7.0.21	3.6.0.13	Main	217.11.96	99.251	4	4	<u>82</u>	75	7
0.42.63.6	BTS_118	BreezeMAX BS	Up	7683936	3.7.0.21	3.6.0.13	Main	217.11.96	99.241	4	4	47	42	5
0.42.63.7	BTS_119	BreezeMAX BS	Up	6685511	3.7.0.21	3.6.0.13	Main	217.11.96	99.240	3	3	89	70	19
0.42.63.26	BTS_12	BreezeMAX MBS	Up	7659483	3.7.0.22	3.6.0.15	Main	217.11.96	99.19	1	2	5	4	1
0.42.127.6	BTS_121	BreezeMAX BS	Unknown	6225394	3.7.0.21	3.6.0.13	Main	217.11.96	99.56		7	<u>23</u>	0	0
0.42.127.5	BTS_122	BreezeMAX BS	Up	6225333	3.7.0.21	3.6.0.13	Main	217.11.96	99.213	2	7	87	55	32
0.42.63.40	BTS_13	BreezeMAX MBS	Up	7649165	3.7.0.22	3.6.0.15	Main	217.11.96	99.24	1	2	<u>41</u>	38	3
0.42.63.41	BTS_14	BreezeMAX MBS	Up	7650034	3.7.0.22	3.6.0.15	Main	217.11.96	99.34	1	2	11	8	3
0.42.255.37	BTS_140	BreezeMAX MBS	Up	7244611	3.7.0.22	3.6.0.15	Main	217.11.96	99.217	1	2	<u>43</u>	35	8
0.42.255.12	BTS_141	BreezeMAX BS	Up	6170394	3.7.0.21	3.6.0.13	Main	217.11.96	99.220	2	7	123	93	30
				1	18									

Figure 4-5: BTS Detailed Information per Location

4.2.3 BTS Uptime

This report (based on the StarQuality universe) provides a list of the ten BTSs with longest or shortest uptime duration.

To generate this report select **03. BTS Uptime** from the Inventory and Configuration reports list.

4.2.3.1 10 BTSs with Highest Uptime

You may run this report in order to find those BTSs in continuous operation (no restart) for the longest time. This report has significance in terms of network availability, but also provides reference perspective to the report of BTSs with lowest uptime, detailed below (Section 4.2.3.2).

This report contains the following columns:

- BTS Name
- BTS IP Address management IP, with a link to the specific BTS Detailed Information per Location (see Section 4.2.2)
- NPU Uptime NPU cumulative power-on, expressed in [minutes]/[hours]/[days] as applicable



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Row Count	BTS Name	BTS IP Address	NPU Uptime						
1	site_1773	10.10.15.146	8 days, 02:37:23						
2	site_920	10.10.16.176	7 days, 23:29:18						
3	site_337	10.10.16.114	7 days, 18:14:21						
4	site_495	10.10.15.208	7 days, 16:14:54						
5	site_664	10.10.19.181	7 days, 12:47:26						
6	site_1830	10.10.21.20	7 days, 11:05:27						
7	site_1753	10.10.21.17	7 days, 11:02:17						
8	site_327	10.10.21.22	7 days, 11:02:07						
9	site_505	10.10.21.19	7 days, 11:02:07						
10	site 2688	10.10.17.47	7 days, 08:16:26						

Figure 4-6: 10 BTSs with Highest Uptime

4.2.3.2 10 BTSs with Lowest Uptime

Same as defined above for Section 4.2.3.1, however for the lowest uptime BTSs.

You may run this report to find those BTSs that have been restarted recently, and the time since the restart. This report has significance in terms of network availability. When evaluating this report, take into account planned restarts (e.g. due to SW version change).

Row Count	BTS Name	BTS IP Address	NPU Uptime
1	site_436	10.10.19.101	0 days, 00:03:51
2	site_450	10.10.15.112	0 days, 13:59:22
3	site_2038	10.10.18.9	0 days, 17:40:14
4	site_283	10.10.15.209	0 days, 17:49:38
5	site_1854	10.10.16.145	1 days, 00:33:16
6	site_3247	10.10.16.90	1 days, 04:17:07
7	site_2097	10.10.19.35	1 days, 17:00:26
8	site_3135	10.10.17.41	1 days, 20:10:23
9	site_3289	10.10.17.37	1 days, 21:50:33
10	site 2748	10.10.17.48	1 days, 22:57:48

Figure 4-7: 10 BTSs with Lowest Uptime

4.2.4 AU General Information Report

This report contains AU general information for each base station (the entire network), and links to the channel report for AU information per specific location (see Section 4.2.5). You may originate this report from scratch, or navigate to it from the BTS Detailed Information report (see "BTS Detailed Information per Location" on page 46). It provides comprehensive inventory data about the AUs in use in a single



BTS, their types, operability status, SW versions, and the configured value of some significant parameters.

To generate this report select **04. AU General Information** from the Inventory and Configuration reports list.

The report table includes the following columns:

- BTS IP Address management IP
- Slot no. a link to the AU Channel Information report (see Section 4.2.5). Not applicable for Micro Base Station.
- IDU Serial number
- AU Current Base Station ID
- AU IDU Type indoor unit type (two or four channel AU)
- IDU Card HW Revision
- Fault status No Faults, warning, N/A
- AU Diversity Mode -No Diversity, Undefined
- AU Main SW version
- AU Shadow SW version
- AU Running SW running from main or shadow
- Optimal Uplink RSSI (dBm)

AU General Information

BTS IP Address	Slot No.	IDU Serial Number	AU Current Base Station ID	AU IDU Type	IDU Card HW Revision	Fault Status	AU Diversity Mode	AU Main SW Version	AU Shadow SW Version	AU Running Software	Optimal Uplink RSSI (dBm)
172.17.18.15	1	7504223		Four Channels HP 4M	3	No Faults	Second Order	Rel_4_5_1_189	Rel_4_5_1_276	Main	-74
172.17.18.15	2	7504250		Four Channels HP 4M	3	No Faults	Second Order	Rel_4_5_1_189	Rel_4_5_1_276	Main	-74
172.17.18.15	3	90053871		Four Channels HP 4M	3	No Faults	Second Order	Rel_4_5_1_189	Rel_4_5_1_276	Main	-74
172.17.19.177	1	90066066	254.22.0.20.62.1	Four Channels HP 4M	3	No Faults	Second Order	Rel_4_5_1_276	Rel_4_5_1_189	Main	-74
172.17.19.177	3	90053984	254.22.0.20.62.3	Four Channels HP 4M	3	No Faults	Second Order	Rel_4_5_1_276	Rel_4_5_1_189	Main	-74
172.17.19.177	4	7504200	254.22.0.20.62.206	Four Channels HP 4M	3	No Faults	Second Order	Rel 4 5 1 276	Rel 4 5 1 189	Main	-74

Figure 4-8: AU General Information

4.2.5 AU Channel Information Report

This report contains BreezeMAX Access Unit (AU) radio channel information for each base station and AU slot. It provides operational data about the AU channels in a single BTS, their operability status, and the configured value of some significant parameters.



To generate this report select **05. AU Channel Information** from the Inventory and Configuration reports list.

The report table includes the following columns:

- BTS IP Address management IP
- AU slot ID
- Channel
- Current Bandwidth (MHz)
- ODU Actual Frequency Band [GHz]
- Configured TX Frequency (MHz)
- Channel Downlink TX Frequency (MHz) actual transmission frequency
- Uplink RX Frequency (MHz) actual received frequency
- Multirate Support Enabled, Disabled
- UL Basic Rate If multirate is enabled, the report displays the minimal modulation available for the uplink. If multi-rate is disabled, the report displays the fixed modulation rate.
- DL Basic Rate If multirate is enabled, the report displays the minimal modulation available for the downlink. If multi-rate is disabled, the report displays the fixed modulation rate.
- Channel Admin Status
- Channel Operational Status
- Max Cell Radius (Km)

You can manipulate the displayed data (filter, sort, etc.) to retrieve data of interest, such as the following examples:

- AUs for which HW/SW upgrade is required
- Compare configured values of all AUs of the BTS
- Monitor administrative and operational status of AUs

The available filters are:

- BTS IP Address
- AU Channel ID



. ,	ss (Al	l values) 💌	AU Channel	ID (All values)	•								
			AU	Chann	el Infor	matior	า						
BTS IP Address	AU Slot ID	Channel	Current Bandwidth [MHz]	ODU Actual Frequency Band [GHz]	Configured TX Frequency [MHz]	Channel Downlink TX Frequency [MHz]	Uplink RX Frequency [MHz]	Multirate Support	UL Basic Rate	DL Basic Rate	Channel Admin Status	Channel Operational Status	Max Cell Radius [Km]
10.42.191.18	1	1	3.5	3.5B(FDD)	3554.750	3554.750	3454.750	Enabled	BPSK 1/2	BPSK 1/2	Enable	Up	NA
10.42.191.18	2	1	3.5	3.5B(FDD)	3558.250	3558.250	3458.250	Enabled	BPSK 1/2	BPSK 1/2	Enable	Up	NA
10.42.191.18	3	1	3.5	3.5A(FDD)	3551.250	3551.250	3451.250	Enabled	BPSK 1/2	BPSK 1/2	Enable	Up	NA
10.42.191.18	4	1	NA	3.5A(FDD)	3547.750	3547.750	3447.750	Enabled	BPSK 1/2	BPSK 1/2	Enable	Up	NA
					1/1								
					1/1	1							

Figure 4-9: AU Channel Information

4.2.6 CPE Inventory Report

This report includes Customer Premises Equipment (CPE) information, detailed per BTS. It provides a high-level view of the network from the CPE inventory perspective: Number of CPEs, their types and status - per each BTS of the network, as well as total sums.

Using this report, you may obtain an initial evaluation of CPE types in use and their geographical distribution.

The report page includes four tabs, as described in the following sections, to display the information both in table and graphical formats.

To generate this report select **06. CPE Inventory** from the Inventory and Configuration reports list.

The report table includes the following columns:

- BTS Name
- BTS IP Address
- Count by CPE Type:
 - » No. CPE Pro number of CPEs of the PRO models
 - » No. CPE Si number of CPEs of the SI (Self Install) models



- Count by Registration Status:
 - » Registered number of registered CPEs
 - » Not Registered number of non-registered CPEs
- Count by Performance Status:
 - » No. Permanent number of CPE in permanent status (registered in NPU) per BTS
 - » No. Temporary number of CPE in temporary status (not registered in NPU) per BTS
- No. SUs total number of CPEs

The table footer displays accumulated statistics

BTS Name	BTSIP	Count By	CPE Type	Count By Re	gistration Status	Count By P Sta	ermanence tus	Total No.
	Address	PRO	SI	Registered	Not Registered	Permanent	Temporary	OFCPE
ITS_1	10.41.191.18	131	32	141	92	232	1	233
3TS_15	10.42.63.43	9		9	1	10		10
TS_22	10.43.255.24	101	3	95	14	108	1	109
TS_450	10.42.191.26	8		8		8		8
BTS_760	10.41.191.14	338	198	448	316	763	1	764
8TS_84	10.42.63.15	55		49	9	58		58
BTS_85	10.42.63.19	14		13	2	15		15
BTS_87	10.42.63.27	5		5	3	8		8
otal	8 BTSs	661	233	768	437	1,202	3	1,205

Figure 4-10: CPE Inventory

4.2.6.1 CPE Registration Report – Network View

This report displays a bar chart of the registered and not registered CPEs distribution, over the whole network. It provides a visualization of the registration data included in the CPE Inventory Report (see Section 4.2.6 above).

- Y axis: No. of SUs
- X axis: SU registration status (Registered/Not registered)





Figure 4-11: CPE Registration - Total Registration State Summary

4.2.6.2 CPE Type Report

This report includes a graphical view (pie chart) of the distribution of different CPE types. It provides a visualization of the CPE type data included in the CPE Inventory Report (see Section 4.2.6 above).





Figure 4-12: CPE Types Distribution

4.2.6.3 Not Registration CPEs Per BTS

This report displays a bar chart of the distribution of not registered CPEs, per BTS. It provides a visualization of the registration data included in CPE Inventory Report (see Section 4.2.6 above).

- Y axis: Number of not registered CPEs
- X axis: BTS name




Figure 4-13: Not Registered CPEs per BTS

4.2.7 CPE Detailed Information Report

This report contains CPE information for each base station and CPE.

It provides operational data about the CPEs in use in a single BTS, their type, operational status, and SW versions. For additional information, you can from this report to the service-related reports (see Section 4.2.8).

To generate this report select **07. CPE Detailed Information** from the Inventory and Configuration reports list.

The report table includes the following columns:

- BTS IP Address
- Slot ID AU slot number
- CPE Name
- CPE MAC Address with a link to the Services reports (see Section 4.2.8)
- State Up/Down
- CPE Serial Number
- СРЕ Туре
- Persistency Temporary (not registered in NPU)/Permanent (registered in NPU)
- Main Software Version



- Shadow Software Version
- Has NG? Is there a network gateway connected to this CPE (Yes/No)
- Has VG? Is there a voice gateway connected to this CPE (Yes/No)

You can manipulate the displayed data (filter, sort etc.) to retrieve data of interest, such as the following examples:

- Find SUs for which SW upgrade is required
- Find SUs of specific types and/or installed gateways

BTS IP Address	Slot ID	CPE Name	CPE MAC	State	CPE Serial Numb <u>er</u>	СРЕ Туре	Persistency	Main Software Version	Shadow Software Version	Has NG?	Has VG?
0.43.255.24	1	CPE_1002	00 10 E7 8A D8 D1	Up	7801044	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_2857	00 10 E7 82 3C D4	Up	6835078	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_2862	00 10 E7 42 20 9F	Up	6521789	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_2876	00 10 E7 E2 FC 09	Up	6966589	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_2983	00 10 E7 8A F4 42	Up	7813745	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_2991	00 10 E7 42 45 BE	Up	6567858	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_2992	00 10 E7 8A D3 75	Up	7798350	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_2996	00 10 E7 42 27 1B	Up	6524711	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_2998	00 10 E7 42 2A 08	Up	6533599	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_2999	00 10 E7 A2 61 EC	Up	7085256	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_3000	00 10 E7 42 20 A2	Up	6521779	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_3001	00 10 E7 42 29 5F	Up	6533466	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_3002	00 10 E7 42 2A 14	Up	6533618	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_3011	00 10 E7 82 92 6E	Up	6903893	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_3012	00 10 E7 A2 4A 82	Up	7065090	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_765	00 10 E7 A2 79 C2	Up	7097410	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_770	00 10 E7 42 42 28	Up	6566136	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_774	00 10 E7 42 40 5C	Up	6557894	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_776	00 10 E7 2A 48 7D	Up	7413515	CPE 2 PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No
	1	CPE_782	00 10 E7 42 45 2B	Up	6567420	CPE PRO	Permanent	Rel_3_7_1_21	Rel_3_5_1_11	No	No

Figure 4-14: CPEs Detailed Information for BTS

4.2.8 Service Profile and VLAN Information

This report include CPE service information, and includes three tabs, as described in the following sections, to display the information of the entire network or service information per specific CPE.

To generate this report select **08. Service Profile and VLAN Information** from the Inventory and Configuration reports list.

4.2.8.1 Subscriber Information

This report include CPE service information, per specific CPE MAC.

The report table includes the following columns:

BTS IP Address



- BTS Name
- Subscriber ID
- Status Enabled/Disabled
- First Name
- Last Name
- CPE MAC
- Service Profile

				Subse	ribor Infor	nation		
				Subsc		nation		
TS IP	DTONO	Subscriber	84-4	First Name		005 1140	Comico Desfle	
	BIS Name		Status	First Name	Last Name	CPE MAC	Service Profile	
0.41.191.17	MALU23_BM	1-111003	Enable	User 1	User 1	00 10 E7 E2 F6 37	TR-512K-10	
0.42.03.17	LERU29_BM	1.1210234	Enable	User 3	User 3	00 10 E7 2A 15 B3	TR-512K-10	
0.43.200.27	LER143_DM	1-131015	Enable	User 4	User 4	00 10 E7 2A 4B 15		
0.43.233.27	MAL 023 BM	1-1/434E	Enable			00 10 E7 62 D3 BB	TR-512K-10	
0 41 191 17	MAL023_DM	1-14A3AE	Enable			00 10 E7 62 D3 BB	TR-VOZBLIBAL	
0 42 63 50	LER099 BM	1-18K4RF	Enable			00 10 E7 A2 CE CB	TR-1M-10	
0.42.63.50	LER099 BM	1-18K4RF	Enable			00 10 E7 A2 CF CB	TR-VOZRURAL	
0.42.63.22	LER054_BM	1-194045	Enable	E.B.S.		00 10 E7 2A 0E 6D	TR-256K-10	
0.42.63.22	LER054_BM	1-194045	Enable	E.B.S.		00 10 E7 2A 0E 6D	TR-VOZRURAL	
0.42.191.7	BAR100_BM	1-1C69LY	Enable	1-1C69LY	1-1C69LY	00 10 E7 42 6C 79	TR-512K-10	
0.42.127.13	LER093_BM	1-1CQPK4	Enable			00 10 E7 C2 13 53	TR-1M-10	
0.42.127.13	LER093_BM	1-1CQPK4	Enable			00 10 E7 C2 13 53	TR-VOZRURAL	
0.42.191.19	LER026_BM	1-1DAZED	Enable	1-1DAZED-D	1-1DAZED-D	00 10 E7 C2 20 24	TR-1M-1	
0.42.127.30	LER154_BM	1-1FDPZD	Enable			00 10 E7 C2 61 56	TR-1M-10	
0.42.127.30	LER154_BM	1-1FDPZD	Enable			00 10 E7 C2 61 56	TR-VOZRURAL	
0.42.127.13	LER093_BM	1-1FX9BU	Enable			00 10 E7 A2 FA F6	TR-1M-10	
0.41.191.12	MAL017_BM	1-1GDMNN	Enable			00 10 E7 42 21 91	TR-1M-10	
0.42.127.30	LER154_BM	1-1GKVFC	Enable			00 10 E7 C2 34 06	TR-1M-10	

Figure 4-15: Subscriber Information

4.2.8.2 Services Profile Parameters Report

This report contains a Service information matrix per BTS and CPE.

The report table includes the following parameters:

- Title Base Station name
- Subscriber Name and MAC, divided by UL and DL





- Service:
 - Service Name
 - » Type
 - » State
- QoS Profile:
 - » Profile Name
 - » QoS Type
 - » CIR/PS (kbps)
 - » MIR/SI (kbps)/(ms)
- Priority Rule:
 - » Rule Name
 - » Rule Upper Limit (numbers according to the QoS in AlvariSTAR)

You can manipulate the displayed data (filter, sort, etc.) to retrieve data of interest, such as the following examples:

- Specific service configured values
- Comparison between services configured values
- Services allocated to each CPE





Figure 4-16: Services Profile Parameters

4.2.8.3 Services VLAN Information Report

This tab contains a Service information matrix per BTS and CPE.

You can manipulate the displayed data (filter, sort, etc.) to retrieve data of interest, such as the following examples:

- Specific VLAN configured value
- Comparison between VLANs configured values
- VLANs allocated to each CPE

The report table includes the following columns:

- SU MAC Address
- Subscriber ID
- Service Name
- Service Status Up/Down
- Service Type
- Hybrid VLAN Mode
- Classification
- Access VLAN VLAN 4095 appears as "None"



- VLAN List Count
- VLAN List presented in case the VLAN List Count is different then zero.

SU MAC Address	Subscriber ID	Service Name	Status	Туре	VLAN Mode	Classifi- cation	Access VLAN	List	VLAN List
00 10 E7 22 17 C9	1-BRFBA	BRFBA-Data	Up	BMAX L2	Off	On	None	1	1:522,
00 10 E7 22 17 C9	1-BRFBA	BRFBA-Voice	Up	BMAX L2	Off	On	None	1	1:8, 2:
00 10 E7 22 19 5D	1-BT55I	BT55I-Data	Up	BMAX L2	On	Off	505	1	1:-, 2:
00 10 E7 22 19 68	F-0024995	0024995-Data	Up	BMAX L2	Off	On	None	1	1:520,
00 10 E7 22 19 68	F-0024995	0024995-Voice	Up	BMAX L2	Off	On	None	1	1:5, 2:
00 10 E7 22 81 F9	1-BV1SP	BV1SP-Data	Up	BMAX L2	Off	On	None	1	1:506,
00 10 E7 22 81 F9	1-BV1SP	BV1SP-Voice	Up	BMAX L2	Off	On	None	1	1:5, 2:
00 10 E7 42 9A 99	1-MVBS9	MVBS9-Data	Up	BMAX L2	Off	On	None	1	1:517,
00 10 E7 42 9A 99	1-MVBS9	MVBS9-Voice	Up	BMAX L2	Off	On	None	1	1:7, 2:

Figure 4-17: Serviced VLAN Information





4.3 Performance Related Reports

The following pre-defined reports are generated by the StarReport, based on information gathered from the StarQuality[™].

Performance reports provide network-wide or specific (selected) BTS data. Most reports present Key Performance Indicators (KPI) variation over user-selected time interval, while some provide aggregated view.

The reports provide performance information related to the AU or the CPE as the basic reference unit.

Time domain start and end points of a specific report are user-defined, per each report generation.

The various types of reports may be generated for different groups of AUs in the controlled network. The applicable group is defined in the next sections per each report type.

The reports in this type are:

- **1** "AU Subscription Capacity Analysis" on page 63
- 2 "AUs with the Highest Average Throughput in the Uplink/Downlink" on page 69
- **3** "AUs with the Lowest Average Throughput in the Uplink/Downlink" on page 69
- 4 "AUs with the Highest Average Utilization in the Uplink/Downlink" on page 70
- **5** "AUs with the Lowest Average Utilization in the Uplink/Downlink" on page 71
- **6** "AUs with the Highest Average Subscription in the Uplink/Downlink" on page 72
- 7 "AUs with the Lowest Average Subscription in the Uplink/Downlink" on page 73
- 8 "Number of CPEs in AUs" on page 74
- **9** "CPE Related Reports and Graphs" on page 76
- **10** "CPEs with the Highest Average Rate in the Uplink/Downlink" on page 82
- **11** "CPEs with the Lowest Average Rate in the Uplink/Downlink" on page 83
- **12** "CPEs with the Highest RSSI Average in the Uplink/Downlink" on page 84
- **13** "CPEs with the Lowest RSSI in the Uplink/Downlink" on page 85
- **14** "CPEs with the Highest SNR Average in the Uplink/Downlink" on page 86
- **15** "CPEs with the Lowest SNR in the Uplink/Downlink" on page 87
- **16** "CPEs Not Reported for More than 10 Hours" on page 88
- 17 "AU Historical Capacity Analysis" on page 89







18 "CPE Historical Radio Link Quality" on page 94

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🕀 🔛 My Favorites	-	01. AU Subscription Capacity Analysis		Web Intelligence Report	Administrator	3 🔺
E Public Folders		This report may be applied to a single BTS in the network, and lists the perform -defined start and end points.	n			
🕂 📁 _OLD_StarReport For WiMAX 4M_3	-	01. AU Subscription Capacity Analysis (2)		Web Intelligence Report	Administrator	0
Administration Tools		This report may be applied to a single BTS in the network, and lists the perform -defined start and end points.	n			
E Fosturo Compleo	9	02. Average Throughput - Top 20 AUs	Dec 30, 2010 4:30 PM	Web Intelligence Report	Administrator	1
Pedure Samples		The 20 Base Station Air Units with Highest Throughput(UL/DL)				
	1	03. Average Throughput - Bottom 20 AUs	Dec 30, 2010 4:29 PM	Web Intelligence Report	Administrator	1
Soarch Program		The 20 Base Station Air Units with Lowest Throughput(UL/DL)				
Search Program	1	04. Average Utilization - Top 20 AUs	Dec 30, 2010 4:29 PM	Web Intelligence Report	Administrator	1
		The 20 Base Station Air Units with Highest Utilization(UL/DL)				
Starkeport For WIMAX 4M_3.0M	1	05. Average Utilization - Bottom 20 AUs	Dec 30, 2010 4:29 PM	Web Intelligence Report	Administrator	1
Inventory and Configuration		The 20 Base Station Air Units with Lowest Utilization(UL/DL)				
StarReports For WIMAX TDD	1	06. Average Subscription - Top 20 AUs	Dec 30, 2010 4:29 PM	Web Intelligence Report	Administrator	1
Inventory And Configuration		The 20 Base Station Air Units with Highest Subscription(UL/DL)				
····· 🚧 Perfomance	9	07. Average Subscription - Bottom 20 AUs	Dec 30, 2010 4:29 PM	Web Intelligence Report	Administrator	1
		The 20 Base Station Air Units with Lowest Subscription(UL/DL)				
	9	08. Number Of CPEs - Top_Bottom AUs		Web Intelligence Report	Administrator	0
		The 20 base station access units with the highest or lowest number of CPEs				
	-	08. Number Of CPEs - Top/Bottom AUs	Dec 30, 2010 4:30 PM	Web Intelligence Report	Administrator	1
		The 20 base station access units with the highest or lowest number of CPEs				
	-	09. CPE Radio Link Quality		Web Intelligence Report	Administrator	1
		Subscriber Unit Radio Link Quality, Subscriber Unit Aggregation Radio Link Qualit	t			
	-	10. Average Rate - Top 50 CPEs	Dec 30, 2010 4:30 PM	Web Intelligence Report	Administrator	1
		The 50 Subscriber Units With Highest Rate(UL/DL)				
	-	11. Average Rate - Bottom 50 CPEs	Dec 30, 2010 4:30 PM	Web Intelligence Report	Administrator	1
		The 50 Subscriber Units With Lowest Rate(UL/DL)				
	-	12. Average RSSI - Top 50 CPEs		Web Intelligence Report	Administrator	1
4	4				1	i i i i i i i i i i i i i i i i i i i

Figure 4-18: Performance Reports List

4.3.1 AU Subscription Capacity Analysis

This report may be applied to a single BTS in the network, and lists the performance of each of the AUs (up to 6) of the selected BTS, as aggregated between the user-defined start and end points. The report includes six tabs, as described in the following sections, to display the information in table format and in graphical format.

You may run this report in order to find issues of interest, such as:

- Performance comparison between AUs regarding throughput, subscription, number of SUs, etc.
- Navigate to time-domain behavior
- Navigate to CPE level in order to view radio-related performance, associated with the specific AU and its SUs



To select a BTS and generate the report:

- **1** Select **01. AU Subscription Capacity Analysis** from the reports list and select **View**.
- 2 At the top-right toolbar click **Refresh Data**. The Prompts window is displayed.





Figure 4-19: Prompts Window

- **3** Select a BTS IP address from the list.
- 4 Enter Start and End values for the report <dd/m/yyyy hh:mm:ss AM/PM>
- 5 Click Run Query.

4.3.1.1 AU Aggregated Capacity Analysis

The report table includes the following columns:

- BTS Name
- BTS IP Address
- BS Name
- BS MIR+CIR Allocated: Uplink and Downlink (bps)
- BS CIR Allocated: Uplink and Downlink (bps)
- BS Throughput: Uplink and Downlink (bps)
- BS Subscription: Uplink and Downlink (%)
- BS Air Link Utilization: Uplink and Downlink (%)
- No. of CPEs

The table footer displays accumulated statistics, where applicable.





BTS Name BTS IP Address BSS Name Uplink [bps] Downlink [lpps] Uplink [lpps] Uplink [lpps] Downlink [lpps]		DICID		BS MIR Alloca	+CIR ated	BS C Alloca	CIR ated	BS Thro	ughput	BS Subscr	; iption	BS Air Utiliza	Link tion	N
site_1261 10.10.19.45 Slot 1 14,976,000 14,976,000 10,752,000 1,459,004 2,836,587 9.74 18.94 91.04 77.56 1 Slot 2 4,096,000 4,096,000 1,024,000 13,024,000 439,127 768,060 10.72 19.24 48.34 37.21 6 Slot 3 13,568,000 5,120,000 5,120,000 1,436,733 1,498,571 10.59 11.04 88.74 50.51 1 Accumulated per BTS : site_1261 32,640,000 32,640,000 16,896,000 16,896,000 3,334,864 5,123,239 4 4 4	BTS Name	Address	BS Name	Uplink [bps]	Downlink [bps]	Uplink [bps]	Downlink [bps]	Uplink [bps]	Downlink [bps]	Uplink [%]	Down link [%]	Uplink [%]	Down link [%]	0 CP
Stot 2 4,096,000 4,096,000 1,024,000 439,127 768,060 10.72 19.24 48.34 37.21 6 Stot 3 13,568,000 13,568,000 5,120,000 5,120,000 1,436,733 1,498,571 10.59 11.04 88.74 50.51 1 Accumulated per BTS : site_1261 32,640,000 32,640,000 16,896,000 16,896,000 3,334,864 5,123,239 Image: Content of the state of the	site_1261	10.10.19.45	Slot 1	14,976,000	14,976,000	10,752,000	10,752,000	1,459,004	2,836,587	9.74	18.94	91.04	77.56	1
Slot 3 13,568,000 5,120,000 5,120,000 1,436,733 1,498,571 10.59 11.04 88.74 50.51 1 Accumulated per BTS : site_1261 32,640,000 32,640,000 16,896,000 16,896,000 3,334,864 5,123,239 4 4			Slot 2	4,096,000	4,096,000	1,024,000	1,024,000	439,127	788,080	10.72	19.24	48.34	37.21	(
	Accumulated p	er BTS : site_1	261	32,640,000	32,640,000	16,896,000	16,896,000	3,334,864	5,123,239					4

Figure 4-20: AU Aggregated Capacity Analysis

4.3.1.2 AU Detailed Capacity Analysis

This tab lists the performance of each of the AUs (up to 6) of the selected BTS, as recorded between the user-defined start and end points, however with 15 minutes samples.

You can use this tab to view some details of the AUs functionality over time, such as:

- Extreme values (e.g. busy periods)
- Periodicity of load
- The effect of number of subscribers on AU load

The report table includes the following columns:

- BTS Name
- BTS IP Address
- Sample Date and Time time and date of data, 15-minute resolution
- BS MIR+CIR Allocated: Uplink and Downlink (bps)
- BS CIR Allocated: Uplink and Downlink (bps)
- BS Throughput: Uplink and Downlink (bps)
- BS Subscription: Uplink and Downlink (%)
- BS Air Link Utilization: Uplink and Downlink (%)



No of CPEs

AU Detailed Capacity Analysis

Prompt Values:	BTS IP =	: Date From =	: Date To =
rivinge values.	01011 -	, Duce i rom -	, Dute IV -

	PTCID	PC	Sample Date and	BS MIR+CIR	Allocated	BS (Alloc	CIR ated	BS Thro	ughput	BS Sub	oscription	BS Air Utiliza	Link tion	No.
BTS Name	Address	Name	Time	Uplink [bps]	Downlink [bps]	Uplink [bps]	Downlink [bps]	Uplink [bps]	Downlink [bps]	Uplink [%]	Downlink [%]	Uplink [%]	Down link [%]	Of CPEs
site_1261	10.10.19.45	Slot 1	08/12/2010 12:15:00	14,976,000	14,976,000	10,752,000	10,752,000	1,451,179	2,893,329	9.69	19.32	93.35	77.86	17
site_1261	10.10.19.45	Slot 1	08/12/2010 12:30:00	14,976,000	14,976,000	10,752,000	10,752,000	1,418,263	3,135,875	9.47	20.94	86.61	79.67	17
site_1261	10.10.19.45	Slot 1	08/12/2010 12:45:00	14,976,000	14,976,000	10,752,000	10,752,000	1,347,494	2,782,179	9	18.58	89.88	76.69	17
site_1261	10.10.19.45	Slot 1	08/12/2010 13:00:00	14,976,000	14,976,000	10,752,000	10,752,000	1,619,078	2,534,967	10.81	16.93	94.31	76	17
site_1261	10.10.19.45	Slot 2	08/12/2010 12:15:00	4,096,000	4,096,000	1,024,000	1,024,000	401,608	819,350	9.8	20	46.23	37.23	6
site_1261	10.10.19.45	Slot 2	08/12/2010 12:30:00	4,096,000	4,096,000	1,024,000	1,024,000	391,109	726,782	9.55	17.74	45.51	35.69	6
site_1261	10.10.19.45	Slot 2	08/12/2010 12:45:00	4,096,000	4,096,000	1,024,000	1,024,000	465,109	787,374	11.36	19.22	50.7	37.25	6
site_1261	10.10.19.45	Slot 2	08/12/2010 13:00:00	4,096,000	4,096,000	1,024,000	1,024,000	498,681	818,816	12.17	19.99	50.92	38.66	6
site_1261	10.10.19.45	Slot 3	08/12/2010 12:15:00	13,568,000	13,568,000	5,120,000	5,120,000	1,339,926	1,706,032	9.88	12.57	87.66	54.89	18
site_1261	10.10.19.45	Slot 3	08/12/2010 12:30:00	13,568,000	13,568,000	5,120,000	5,120,000	1,258,712	1,560,010	9.28	11.5	86.98	50.39	18
site_1261	10.10.19.45	Slot 3	08/12/2010 12:45:00	13,568,000	13,568,000	5,120,000	5,120,000	1,690,206	1,400,296	12.46	10.32	92.26	47.75	18
site_1261	10.10.19.45	Slot 3	08/12/2010 13:00:00	13,568,000	13,568,000	5,120,000	5,120,000	1,458,089	1,327,945	10.75	9.79	88.07	48.99	18
					•••••••••••••••••••••••••••••••••••••••	1/2								

Figure 4-21: AU Detailed Capacity Analysis

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4.3.1.3 AU Capacity Graphs

◀

The following figures show the graph tabs in the AU Capacity report. The graphs illustrate various data defined for the table described in Section 4.3.1.1 above.





Figure 4-22: AU Aggregated Downlink Capacity (MIR, CIR and Throughput)



Figure 4-23: AU Aggregated Uplink Capacity (MIR, CIR and Throughput)





Figure 4-24: AU Downlink MIR+CIR



Figure 4-25: AU Uplink MIR+CIR





4.3.2 AUs with the Highest Average Throughput in the Uplink/Downlink

This report may be generated for all the BTSs in the network, or to a group of user-selected BTSs. It provides a list of the 20 AUs with highest aggregated (averaged) UL throughput.

A similar report is available for DL in a separate tab on the report page.

This report enables fast detection of the highly loaded (throughput) AUs in the network. You can also drill down to the AU details, and initiate configuration actions (using AlvariSTAR) to reduce excessive load.

To generate this report select 02. Average Throughput - Top 20 AUs from the list.

The report tables contain the following columns:

- BTS Name
- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- Uplink/Downlink Throughput (as applicable)

AUs wit	th th	e Highest Av	erage Throu	ghput	in the Uplink
Prompt Value	s: Da	ate From = 12/7/20	010 12:00:00 AM	; Date T	o = 12/9/2010 12:00:00 A
	D				Uplink
	Count	BTS Name	BTS IP Address	AU Slot	Throughput [bps]
	Count	BTS Name site_2668	BTS IP Address	AU Slot Slot 2	Throughput [bps] 4,614,412
	Count	BTS Name site_2668 site_2863	BTS IP Address 10.10.19.29 10.10.19.38	AU Slot Slot 2 Slot 3	Throughput [bps] 4,614,412 4,432,293
	Count 1 2 3	BTS Name site_2668 site_2863 site_584	BTS IP Address <u>10.10.19.29</u> <u>10.10.19.38</u> <u>10.10.18.26</u>	AU Slot Slot 2 Slot 3 Slot 3	Throughput [bps] 4,614,412 4,432,293 3,793,433
	Count 1 2 3 4	BTS Name site_2668 site_2863 site_584 site_2668	BTS IP Address 10.10.19.29 10.10.19.38 10.10.18.26 10.10.19.29	AU Slot Slot 2 Slot 3 Slot 3 Slot 1	Throughput [bps] 4,614,412 4,432,293 3,793,433 3,760,661
	Count 1 2 3 4 5	BTS Name site_2668 site_2863 site_584 site_2668 site_2668	BTS IP Address 10.10.19.29 10.10.19.38 10.10.18.26 10.10.19.29 10.10.19.29	AU Slot Slot 2 Slot 3 Slot 3 Slot 1 Slot 3	Throughput [bps] 4,614,412 4,432,293 3,793,433 3,760,661 3,574,792
	Count 1 2 3 4 5 6	BTS Name site_2668 site_2863 site_584 site_2668 site_2668 site_1340	BTS IP Address 10.10.19.29 10.10.19.38 10.10.19.29 10.10.19.29 10.10.19.29 10.10.15.176	AU Slot Slot 2 Slot 3 Slot 3 Slot 1 Slot 3 Slot 4	Throughput [bps] 4,614,412 4,432,293 3,793,433 3,760,661 3,574,792 3,547,969
	Row Count 1 2 3 4 5 6 7	BTS Name site_2668 site_2863 site_584 site_2668 site_2668 site_1340 site 2233	BTS IP Address 10.10.19.29 10.10.19.38 10.10.18.26 10.10.19.29 10.10.15.176 10.10.18.91	AU Slot Slot 2 Slot 3 Slot 3 Slot 1 Slot 3 Slot 4 Slot 2	Throughput [bps] 4,614,412 4,432,293 3,793,433 3,760,661 3,574,792 3,547,969 3,4415,553
	Row Count 1 2 3 4 5 6 7 8	BTS Name site_2668 site_2863 site_584 site_2668 site_2668 site_1340 site_2233 site 2233	BTS IP Address 10.10.19.29 10.10.19.38 10.10.19.29 10.10.19.29 10.10.19.29 10.10.15.176 10.10.18.91 10.10.18.91	AU Slot Slot 2 Slot 3 Slot 3 Slot 1 Slot 3 Slot 4 Slot 2 Slot 1	Throughput [bps] 4,614,412 4,432,293 3,793,433 3,760,661 3,574,792 3,547,969 3,415,553 3,008,053
	Row Count 1 2 3 4 5 6 7 8 9	BTS Name site_2668 site_2863 site_584 site_2668 site_2668 site_1340 site_2233 site_2233 site_2233	BTS IP Address 10.10.19.29 10.10.19.38 10.10.18.26 10.10.19.29 10.10.19.29 10.10.15.176 10.10.18.91 10.10.18.91 10.10.18.26	AU Slot Slot 2 Slot 3 Slot 3 Slot 1 Slot 3 Slot 4 Slot 2 Slot 1 Slot 1	Throughput [bps] 4,614,412 4,432,293 3,793,433 3,760,661 3,574,792 3,547,969 3,415,553 3,008,053 2,828,210

Figure 4-26: AUs with the Highest Average Throughput in the Uplink

4.3.3 AUs with the Lowest Average Throughput in the Uplink/Downlink

Same as defined above for Top 20 AUs Regarding Average Throughput (UL/DL) report (see Section 4.3.2), but for the lowest aggregated throughput.



This report enables fast detection of the least loaded (throughput) AUs in the network. You can also navigate to the AU details to investigate the reasons for the low load (e.g. very few SUs).

To generate this report select **03. Average Throughput - Bottom 20 AUs** from the Performance reports list.

Prompt Value	s: [
		Date From = 12/7/2	010 12:00:00 AM	; Date To	o = 12/9/2010 12:00:
_					
c	Row Count	BTS Name	BTS IP Address	AU Slot	Avg. Uplink Throughput [bps]
	1	site 3233	10.10.19.169	Slot 3	214,478
	2	site_283	10.10.15.209	Slot 2	214,490
	3	site_222	10.10.16.80	Slot 4	214,493
	4	site_1080	10.10.19.52	Slot 3	214,497
	5	site_327	10.10.21.22	Slot 4	214,504
	6	site_287	10.10.19.36	Slot 3	214,546
	7	site_3215	10.10.19.180	Slot 2	214,555
	8	site_327	10.10.21.22	Slot 2	214,556
	9	site_1049	10.10.19.201	Slot 1	230,147
	10	site_1063	10.10.19.209	Slot 1	233,619
	11	site_3295	10.10.18.13	Slot 1	234,155
	12	site_3295	10.10.18.13	Slot 2	234,156
	13	site_3295	10.10.18.13	Slot 3	234,156
	14	site_942	10.10.19.208	Slot 1	234,163
	15	cito 1092	10 10 0 50	01-1-0	004 400

Figure 4-27: AUs with the Lowest Average Throughput in the Uplink

4.3.4 AUs with the Highest Average Utilization in the Uplink/Downlink

This report may be generated for all the BTSs in the network, or for a group of user-selected BTSs. It provides a list of the 20 AUs with the highest aggregated (averaged) UL utilization.

A similar report is available for DL.

This report enables fast detection of the highly utilized AUs in the network. You can also drill down to the AU details, and initiate configuration actions (using AlvariSTAR) to reduce excessive utilization.

To generate this report select 04. Average Utilization - Top 20 AUs from the list.

- BTS Name
- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- Airlink Utilization (%) UL/DL (as applicable)



Row Count	BTS Name	BTS IP Address	AU Slot	Air Link Uplink Utilization [%]
1	site_1659	<u>10.10.18.87</u>	Slot 3	99.45
2	site_1659	10.10.18.87	Slot 2	99.34
3	site_2371	10.10.18.89	Slot 2	98.86
4	site_1659	10.10.18.87	Slot 1	98.84
5	site_2371	<u>10.10.18.89</u>	Slot 1	98.52
6	site_3215	10.10.19.180	Slot 3	98.4
7	site_2038	<u>10.10.18.9</u>	Slot 3	98.11
8	site_2668	10.10.19.29	Slot 1	97.81
9	site_201	<u>10.10.19.166</u>	Slot 1	97.46
10	site_2863	10.10.19.38	Slot 3	97.45
11	site_2038	<u>10.10.18.9</u>	Slot 1	97.04
12	site_2668	10.10.19.29	Slot 2	97
13	site_1200	<u>10.10.17.44</u>	Slot 3	96.94
14	site_2233	<u>10.10.18.91</u>	Slot 3	96.8
15	site_3289	<u>10.10.17.37</u>	Slot 2	96.72
16	site_3010	10.10.19.44	Slot 2	96.71
17	site_3215	<u>10.10.19.180</u>	Slot 1	96.56
18	site_319	10.10.19.48	Slot 1	95.72
19	site_201	<u>10.10.19.166</u>	Slot 2	95.59
20	site 2371	10.10.18.89	Slot 3	95.42

Figure 4-28: AUs with the Highest Average Utilization in the Uplink

4.3.5 AUs with the Lowest Average Utilization in the Uplink/Downlink

Same as defined above for the Top 20 AUs Regarding Utilization (UL/DL) report (see Section 4.3.4), but for the lowest aggregated utilization.

This report enables fast detection of the least utilized AUs in the network. You can also drill down to the AU details to investigate the reasons for the low utilization (e.g. very few SUs).

To generate this report select **05. Average Utilization - Bottom 20 AUs** from the Performance reports list.



t Values:	Date From = 12/7/	2010 12:00:00	AM ; Dat	e To = 12/9/2010	0 12:00:00 /
Row Coun	BTS Name	BTS IP Address	AU Slot	Air Link Uplink Utilization [%]	
1	site_3222	10.10.18.37	Slot 2		
2	site_1417	10.10.16.82	Slot 4	29.76	
3	site_3222	10.10.18.37	Slot 3	29.76	
4	site_3295	10.10.18.13	Slot 1	29.76	
5	site_3295	10.10.18.13	Slot 2	29.76	
6	site_3295	10.10.18.13	Slot 3	29.76	
7	site_942	10.10.19.208	Slot 1	29.76	
8	site_287	10.10.19.36	Slot 2	29.55	
9	site_1080	10.10.19.52	Slot 3	27.26	
10	site_283	10.10.15.209	Slot 2	27.26	
11	site_287	10.10.19.36	Slot 3	27.26	
12	site_3233	10.10.19.169	Slot 3	27.26	
13	site_327	10.10.21.22	Slot 2	27.26	
14	site_327	10.10.21.22	Slot 4	27.26	

Figure 4-29: AUs with the Lowest Average Utilization in the Uplink

4.3.6 AUs with the Highest Average Subscription in the Uplink/Downlink

This report may be generated for all the BTSs in the network, or for a group of user-selected BTSs. It provides a list of the 20 AUs with highest aggregated (averaged) UL subscription.

A similar report is available for DL.

To generate this report select **06. Average Subscription - Top 20 AUs** from the Performance reports list.

- BTS Name
- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- Subscription UL/DL [%] (as applicable)





Row	BTS Name	BTS IP Address	AU Slot	Downlink
Count			01.1.4	Subscription [%]
1	site_1063	10.10.19.209	Slot 1	100
2	site_1080	<u>10.10.19.52</u>	Slot 3	100
3	site_1083	<u>10.10.0.59</u>	Slot 2	100
4	site_1083	<u>10.10.0.59</u>	Slot 3	100
5	site_1083	<u>10.10.0.59</u>	Slot 4	100
6	site_1282	<u>10.10.19.146</u>	Slot 2	100
7	site_1417	<u>10.10.16.82</u>	Slot 4	100
8	site_1431	10.10.15.48	Slot 2	100
9	site_1767	10.10.21.18	Slot 4	100
10	site_1773	10.10.15.146	Slot 3	100
11	site_1773	10.10.15.146	Slot 4	100
12	site_1850	10.10.21.21	Slot 4	100
13	site_1854	10.10.16.145	Slot 3	100
14	site 2047	10.10.19.177	Slot 1	100
15	site 222	10.10.16.80	Slot 4	100
16	site 283	10.10.15.209	Slot 2	100
17	site 287	10 10 19 36	Slot 3	100

Figure 4-30: AUs with the Highest Average Subscription in the Downlink

4.3.7 AUs with the Lowest Average Subscription in the Uplink/Downlink

Same as defined above for the Top 20 AUs regarding subscription (UL/DL) report (see Section 4.3.6 above), but for the lowest aggregated subscription.

To generate this report select 07. Average Subscription - Bottom 20 AUs from the list.



Row Count	BTS Name	BTS IP Address	AU Slot	Uplink Subscription %
1	site_3215	10.10.19.180	Slot 1	0.53
2	site_1659	10.10.18.87	Slot 2	2.69
3	site_832	10.10.19.211	Slot 3	3.62
4	site_832	10.10.19.211	Slot 2	3.72
5	site_1200	10.10.17.44	Slot 3	4.22
6	site_3010	10.10.19.44	Slot 1	4.23
7	site_3359	10.10.18.94	Slot 2	4.53
8	site_1496	10.10.18.15	Slot 1	4.59
9	site_3289	10.10.17.37	Slot 1	4.69
10	site_2233	10.10.18.91	Slot 3	4.77
11	site_2721	10.10.19.111	Slot 1	4.95
12	site_1033	10.10.19.108	Slot 1	5.02
13	site_2548	10.10.19.215	Slot 1	5.19
14	site_201	10.10.19.166	Slot 1	5.32
15	site_2283	10.10.18.83	Slot 3	5.5
16	site_70	10.10.19.110	Slot 2	5.52



Number of CPEs in AUs 4.3.8

This report may be generated for all the BTSs in the network, or for a group of user-selected BTSs.

This report includes two tabs, as described in the following sections, to display the information for AUs with highest number of CPEs, and AUs with lowest number of CPEs.

To generate this report select 08. Number Of CPEs - Top/Bottom AUs from the list.

4.3.8.1 **Top 20 AUs with Highest Number of CPEs**

This tab provides a list of the 20 AUs with the highest aggregated (averaged) number of CPE, and thus enables fast detection of the highly loaded AUs in the network, regarding number of SUs.

You can also navigate to the AU details, and initiate configuration actions (using AlvariSTAR) to reduce excessive SUs (e.g. re-allocation to AUs).

- BTS Name
- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- No. of CPEs



ipt Va	alues: Date From =	12/1/2010 12:00:00	Alvi ; Date	10 = 12/9/2010 1	2:00:0
_					
Row Count	BTS Name	BTS IP Address	AU Slot	Number of CPEs	
1	site_1200	10.10.17.44	Slot 3	67	
2	site_1659	10.10.18.87	Slot 3	48	
3	site_1659	10.10.18.87	Slot 2	46	
4	site_70	10.10.19.110	Slot 3	45	
5	site_201	10.10.19.166	Slot 1	44	
6	site_2668	10.10.19.29	Slot 1	40	
7	site_750	10.10.16.18	Slot 3	39	
8	site_2668	10.10.19.29	Slot 2	37	
9	site_3215	10.10.19.180	Slot 1	36	
10	site_2233	10.10.18.91	Slot 2	35	
11	site_1340	10.10.15.176	Slot 4	33	
12	site_3010	10.10.19.44	Slot 2	31	
13	site_2371	10.10.18.89	Slot 3	31	
14	site_2863	10.10.19.38	Slot 3	30	
15	site_2668	10.10.19.29	Slot 3	30	
16	site_2233	10.10.18.91	Slot 3	29	
17	site_2371	10.10.18.89	Slot 1	29	

Figure 4-32: Top 20 AUs with Highest Number of CPEs

4.3.8.2 Bottom 20 AUs regarding no. of SUs

Same as defined above for Top 20 AUs regarding no. of CPEs (see Section 4.3.8 above), but for the lowest number of CPEs.

This report enables fast detection of the least loaded AUs in the network, regarding number of SUs. You can drill down to the AU details.



Devu				Mumber
Count	BTS Name	BTS IP Address	AU Slot	of CPEs
1	site_1006	10.10.16.81	Slot 2	0
2	site_1080	10.10.19.52	Slot 3	0
3	site_1083	10.10.0.59	Slot 3	0
4	site_116	10.10.17.33	Slot 3	0
5	site_1417	10.10.16.82	Slot 4	0
6	site_1431	10.10.15.48	Slot 2	0
7	site_1773	10.10.15.146	Slot 3	0
8	site_1773	10.10.15.146	Slot 4	0
9	site_1850	10.10.21.21	Slot 4	0
10	site_1854	10.10.16.145	Slot 3	0
11	site_2047	10.10.19.177	Slot 1	0
12	site_222	10.10.16.80	Slot 4	0
13	site_233	10.10.16.15	Slot 3	0
14	site_2688	10.10.17.47	Slot 4	0
15	site_283	10.10.15.209	Slot 2	0
16	site_287	10.10.19.36	Slot 3	0
17	site 2877	10 10 15 18	Slot 3	0

Figure 4-33: Bottom 20 AUs with Lowest Number of CPEs

4.3.9 CPE Related Reports and Graphs

The following reports provide performance information related to the CPE as the basic reference unit.

The various types of CPE related reports may be generated for different groups of CPEs in the controlled network. The applicable group is defined below per each report type.

Time domain start and end points of a specific report are user-defined, per each report generation.

To generate these reports select 0.9 CPE Radio Link Quality from the Performance reports list.

4.3.9.1 [BTS Name]¹ - CPE Radio Link Quality - Aggregated

This report may be generated for a single BTS in the network, and presents the aggregated performance of the selected CPEs (up to 3,000) of the specific BTS, as aggregated between the user-defined start and end points.

You may generate this report, and then manipulate its output to obtain a concept of the radio behavior of CPEs of a specific BTS, as aggregated over a period of time.

Other activities you can do with the output data:

- Navigate to a specific CPE
- Generate top/bottom type CPE reports to find extreme behavior CPEs
- 1. [BTS Name] The BTS name appears at the title of this report.





Navigate to time-domain behavior of selected CPEs

The report table includes the following columns:

- CPE Name
- AU Slot
- RSSI (dBm): Uplink Avg. and Downlink Avg.
- Uplink SNR [dB]: Avg. Min., and Max.
- Downlink SNR [dB]: Avg. Min., and Max.
- Uplink Rate
- Downlink Rate



Figure 4-34: CPE Radio Link Quality - Aggregated

4.3.9.2 [BTS Name]¹ - CPE Radio Link Quality Measurements

This report may be generated for a single BTS in the network, and presents the performance of the selected CPEs (up to 3,000) of a specific BTS, as recorded between the user-defined start and end points, but with a 15 minute samples.

You may generate this report in order to analyze the functionality of the AUs over time, and search for parameters such as: extreme values, periodicity of behavior, etc.

1. [BTS Name] - The BTS name appears at the title of this report.



The report table includes the following columns:

- SU Name
- AU Slot
- Full Date and Time: [dd/mm/yyyy], [hh/min/sec] AM/PM
- Avg. RSSI [dBm]: avg, min and max
- Avg. Uplink SNR [dB]: avg, min and max
- Avg. Downlink SNR [dB]: avg, min and max
- Avg. Uplink Rate [dB]: avg, min and max
- Avg. Downlink Rate [dB]: avg, min and max

		Se - CPE Rau					~~~	L L P PAG	opt	•						
				n deu	lant	y ivi	eas	um	em	.5						
	D = 172 17 1	9 91 · Date From =	0/1/2010	12.00-	00 01	I · Da	te Te	- 0/3	1/201	0 1 2	.00.0	0.014				
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Cil Nome	All Clot	Full Data and Time	Avg. [dB	RSSI im]	Avg. l	Jplink S [dB]	INR	Avg. SN	Downli IR [dB]	nk	Avg Ra	g. Uplink ite [dB]	۲.	Avg. D Rate	ownline [dB]	nk
SU Name	AU SIOL	Fuil Date and Time	Uplink	Down link	avg	max	min	avg	max	min	avg	max	min	avg n	nax	min
SU 00-10-E7-4A-A1-C5	Slot 1	8/10/2010 2:15:00 AM	-67.07	-56	28.6	37	17	26.93	29	26	8	8	8	8	8	8
SU 00-10-E7-4A-A1-C5	Slot 1	8/10/2010 2:30:00 AM	-66.8	-56	29.47	37	19	27.07	29	26	8	8	8	8	8	8
SU 00-10-E7-4A-A1-C5	Slot 1	8/10/2010 2:45:00 AM	-66.87	-56	30.27	36	19	27.13	29	27	8	8	8	8	8	8
SU 00-10-E7-4A-A1-C5	Slot 1	8/10/2010 3:00:00 AM	-66.87	-56	29.53	38	19	27	29	26	8	8	8	8	8	8
SU 00-10-E7-4A-A1-C5	Slot 1	8/10/2010 3:15:00 AM	-66.47	-56	29.2	37	16	27.13	29	26	8	8	8	8	8	8
SU 00-10-E7-4A-A1-C5	Slot 1	8/10/2010 3:30:00 AM	-66.8	-56	29.8	37	18	26.73	28	26	8	8	8	8	8	8
SU 00-10-E7-4A-A1-C5	Slot 1	8/10/2010 3:45:00 AM	-66.53	-56	29.47	37	18	26.8	29	26	8	8	8	8	8	8
	Slot 1	8/10/2010 4:00:00 AM	-66.67	-56	29.87	36	18	26.93	29	26	8	8	8	8	8	8
SU 00-10-E7-4A-A1-C5																



4.3.9.3 CPE Radio Link Quality Graphs

The following figures illustrate the graph tabs in the CPE Aggregated Radio Link Quality report. The graphs include various data defined for the table described in Section 4.3.9.1 and Section 4.3.9.2 above).





Figure 4-36: Uplink RSSI Average Graph



Figure 4-37: Downlink RSSI Average Graph





Figure 4-38: Uplink SNR Min, Max and Average Graph



Figure 4-39: Downlink SNR Min, Max and Average Graph







Figure 4-40: Uplink Min, Max and Average Rate Graph



Figure 4-41: Downlink Min, Max and Average Rate Graph







4.3.10 CPEs with the Highest Average Rate in the Uplink/Downlink

This report may be generated for all BTSs in the network, or to a group of user-selected BTSs. It provides a list of the 50 SUs with the highest average UL rate.

A similar report is available for DL.

This report enables a fast detection of the highest rate SUs in the network. You can also navigate to the CPE details for more information.

To generate this report select 10. Average Rate - Top 50 CPEs from the reports list.

- BTS Name
- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- CPE Name
- Average rate UL/DL (as applicable)



Row Count	BTS Name	BTS IP Address	AU Slot	CPE Name	Avg. Uplink Rate
1	site_1033	10.10.19.108	Slot 2	SU 00-10-E7-8A-71-0F	8
2	site_1033	10.10.19.108	Slot 2	SU 00-10-E7-8A-71-53	8
3	site_1033	10.10.19.108	Slot 2	SU 00-10-E7-8A-8A-84	8
1	site_1033	10.10.19.108	Slot 2	SU 00-10-E7-8A-8C-DE	8
5	site_1033	10.10.19.108	Slot 2	SU 00-10-E7-AA-A5-00	8
6	site_1033	10.10.19.108	Slot 2	SU 00-10-E7-EA-1F-06	8
7	site_1033	10.10.19.108	Slot 2	SU 00-10-E7-EA-4F-E8	8
3	site_1033	10.10.19.108	Slot 3	SU 00-10-E7-8A-79-FE	8
9	site_1033	10.10.19.108	Slot 3	SU 00-10-E7-8A-88-C9	8
10	site_1033	10.10.19.108	Slot 3	SU 00-10-E7-8A-8A-EA	8
11	site_1033	10.10.19.108	Slot 3	SU 00-10-E7-8A-8B-7E	8
12	site_1033	10.10.19.108	Slot 3	SU 00-10-E7-8A-8C-CD	8
13	site_1033	10.10.19.108	Slot 3	SU 00-10-E7-8A-91-0D	8
14	site_1033	10.10.19.108	Slot 3	SU 00-10-E7-CA-D5-DD	8
15	site_1033	10.10.19.108	Slot 3	SU 00-10-E7-CA-D7-EC	8
16	site_1033	10.10.19.108	Slot 3	SU 00-10-E7-CA-D9-1E	8
17	site_1049	10.10.19.201	Slot 3	SU 00-10-E7-CA-D7-A9	8
18	site_1080	10.10.19.52	Slot 2	SU 00-10-E7-8A-72-07	8
19	site_1080	10.10.19.52	Slot 2	SU 00-10-E7-EA-30-0B	8
20	site_1083	10.10.0.59	Slot 2	SU 00-10-E7-8A-99-E0	8
21	site_1083	10.10.0.59	Slot 4	SU 00-10-E7-CA-D5-A0	8
22	site_1200	10.10.17.44	Slot 1	SU 00-10-E7-8A-70-E5	8
23	site_1200	10.10.17.44	Slot 1	SU 00-10-E7-8A-71-C4	8
24	site_1200	10.10.17.44	Slot 1	SU 00-10-E7-8A-79-5C	8
25	cito 1200	10 10 17 44	Slot 1	SILOO 10 E7 94 92 AD	c

CPEs with the Highest Average Rate in the Uplink

Figure 4-42: CPEs with the Highest Average Rate in the Uplink

4.3.11 CPEs with the Lowest Average Rate in the Uplink/Downlink

This report may be generated for all BTSs in the network, or to a group of user-selected BTSs. It provides a list of the 50 SUs with the lowest average UL rate.

A similar report is available for DL.

This report enables a fast detection of the lowest rate SUs in the network. You can also navigate to the CPE details for more information.

To generate this report select 11. Average Rate - Bottom 50 CPEs from the reports list.

The report table contains the following columns:

BTS Name

- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- CPE Name



Average rate UL/DL (as applicable)

Row Count	BTS Nan	me BTS IP Address	AU Slot	CPE Name	Avg. Downlink Rate
1	131	<u>192.168.100.131</u>	Not registered	SU 00-10-E7-E2-34-AE	1.01
2	131	<u>192.168.100.131</u>	Slot 8	SU 00-10-E7-62-15-1F	8.00

Figure 4-43: CPEs with the Lowest Average Rate in the Downlink

4.3.12 CPEs with the Highest RSSI Average in the Uplink/Downlink

This report may be generated for all BTSs in the network, or to a group of user-selected BTSs. It provides a list of the 50 SUs with the highest RSSI (Received signal strength indication) average.

A similar report is available for DL.

This report enables a fast detection of the highest RSSI rate of SUs in the network. You can also navigate to the CPE details for more information.

To generate this report select 12. Average RSSI - Top 50 CPEs from the reports list.

- Raw Count entry number
- BTS Name
- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)



- AU Slot
- CPE Name
- Average Uplink RSSI (dBm)

Row Count		BTS Name	BTS IP Address	AU Slot	CPE Name	Avg. Uplink RSSI [dBm]
1	131		<u>192.168.100.131</u>	Slot 8	SU 00-10-E7-62-15-1F	-78.5
2	131		<u>192.168.100.131</u>	Not registered	SU 00-10-E7-E2-34-AE	-89.8

Figure 4-44: CPEs with the Highest RSSI Average in the Uplink

4.3.13 CPEs with the Lowest RSSI in the Uplink/Downlink

This report may be generated for all BTSs in the network, or to a group of user-selected BTSs. It provides a list of the 50 SUs with the lowest RSSI (Received signal strength indication) average.

A similar report is available for DL.

This report enables a fast detection of the lowest RSSI rate of SUs in the network. You can also navigate to the CPE details for more information.

To generate this report select 13. Average RSSI - Bottom 50 CPEs from the reports list.

- Raw Count entry number
- BTS Name





- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- CPE Name
- Average Uplink/Downlink RSSI (dBm)

Row Count		BTS Name	BTS IP Address	BS Name	CPE Name	Avg. Uplink RSSI [dbm]
1	131		<u>192.168.100.131</u>	Not registered	SU 00-10-E7-E2-34-AE	-89.8
2	131		192.168.100.131	Slot 8	SU 00-10-E7-62-15-1F	-78.5

Figure 4-45: CPEs with the Lowest RSSI Average in the Uplink

4.3.14 CPEs with the Highest SNR Average in the Uplink/Downlink

This report may be generated for all BTSs in the network, or to a group of user-selected BTSs. It provides a list of the 50 SUs with the highest SNR (Signal to Noise Ratio) average.

A similar report is available for DL.

This report enables a fast detection of the highest SNR average of SUs in the network. You can also navigate to the CPE details for more information.

To generate this report select 14. Average SNR - Top 50 CPEs from the reports list.





- Raw Count entry number
- BTS Name
- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- CPE Name
- Average Uplink/Downlink SNR (db)

Row Count	BTS Name	BTS IP Address	AU Slot	CPE Name
131		<u>192.168.100.131</u>	Not registered	SU 00-10-E7-E2-34-AE
131		<u>192.168.100.131</u>	Slot 8	SU 00-10-E7-62-15-1F

Top 50 Avg SNR UL Top 50 Avg SNR DL

Figure 4-46: CPEs with the Highest SNR Average in the Uplink

4.3.15 CPEs with the Lowest SNR in the Uplink/Downlink

This report may be generated for all BTSs in the network, or to a group of user-selected BTSs. It provides a list of the 50 SUs with the lowest SNR (Signal to Noise Ration) average.

A similar report is available for DL.

This report enables a fast detection of the lowest SNR rate of SUs in the network. You can also navigate to the CPE details for more information.

To generate this report select **15. Average SNR - Bottom 50 CPEs** from the reports list.



The report table contains the following columns:

- Raw Count entry number
- BTS Name
- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- CPE Name
- Average Uplink/Downlink SNR (db)

Row Count	BTS Name	BTS IP Address	AU Slot	CPE Name	Avg. Uplink SNR [db
1	131	<u>192.168.100.131</u>	Not registered	SU 00-10-E7-E2-34-AE	12.43
2	131	<u>192.168.100.131</u>	Slot 8	SU 00-10-E7-62-15-1F	22.61

Figure 4-47: CPEs with the Lowest SNR Average in the Uplink

4.3.16 CPEs Not Reported for More than 10 Hours

This report may be generated for all BTSs in the network, or to a group of user-selected BTSs. It provides a list of SUs that have no quality measurements indication for more than 10 hours.

This report enables a fast detection of dysfunctional or disconnected CPEs in the network. You can also navigate to the CPE details for more information.

To generate this report select 16. CPEs Not Reported for More than 10 Hours from the reports list.



The report table contains the following columns:

- Raw Count entry number
- BTS IP Address with a link to the BTS Detailed Information per Location report (see Section 4.2.2)
- AU Slot
- CPE Name
- Last reported date and time of last report

Row Count	BTS IP Address	AU Slot	CPE Name	Last Reported
1.	192.168.100.130	registered	SU 00-10-E7-62-01-43	6/30/2011 12:00:00 AM
2.	192.168.100.130	registered	SU 00-10-E7-82-19-F9	6/30/2011 12:00:00 AM
3.	192.168.100.130	registered	SU 01-01-01-01-01-01	6/30/2011 12:00:00 AM
4.	192.168.100.131	registered		6/30/2011 12:00:00 AM
5.	192.168.100.131	Slot 8	SU 00-10-E7-62-15-1F	6/30/2011 12:00:00 AM
6	192 168 100 131	Slot 8	SU 00-10-E7-E2-34-AE	6/30/2011 12:00:00 AM
7.	192.168.100.139	registered	SU 00-10-E7-22-22-22	6/30/2011 12:00:00 AM

Figure 4-48: Cpes Not Reported for More than 10 Hours

4.3.17 AU Historical Capacity Analysis

This report may be generated for a single BTS in the network, and lists the performance measurements of each of its AUs. The report displays the same measurements as report 01. AU Subscription Capacity Analysis (see "AU Subscription Capacity Analysis" on page 63), only for older data and with different resolution: measurements older than three months in a 1-hour resolution.

To generate this report select 17. AU Historical Capacity Analysis from the reports list.

The following sections have a reference to the description in the AU Subscription Capacity Analysis report.

4.3.17.1 AU Aggregated Historical Capacity Analysis

Refer to "AU Aggregated Capacity Analysis" on page 64.



DTO	BTS IP	BS_	BS M Allo	IR+CIR cated	B: Allo	S CIR	BS Thr	oughput	BS Sul	scription	BS / U <u>tili</u>	Air Link ization	Aug No
BISName	Address	Name	Uplink [bps]	Downlink [bps]	Uplink [bps]	Downlink [bps]	Uplink [bps]	Downlink [bps]	Uplink [%]	Downlink [%]	Uplink [%]	Downlink [%]	01 CPI
130	192.168.100.1	30 Slot 2 Slot 8	3 43	2 39	0	0	212,763	255,130	100	100	31.13	37.33	
Accumulated	per BTS 130:		46	41	0	0	212,763	255,130					

Figure 4-49: AU Aggregated Historical Capacity Analysis

4.3.17.2 AU Historical Detailed Capacity Analysis

Refer to "AU Detailed Capacity Analysis" on page 65.



ITS Name	BTS IP Address	BS Name	Full Date and Time	BS MIR+CIR Allocated		BS CIR Allocated		BS Throughput		BS Subscription		BS Air Link Utilization		Avg.
				Uplink [bps]	Downlink [bps]	Uplink [bps]	Downlink [bps]	Uplink [bps]	Downlink [bps]	Uplink [%]	Down link [%]	Uplink [%]	Down link [%]	NO. Of CPEs
30	192.168.100.1	30 Slot 2	29/06/2011 20:15:00			0	0	215,184	258,029	100	100	31.13	37.33	0
30	192.168.100.1	1 30 Slot 2	29/06/2011 20:30:00	13	15	0	0	215,152	258,022	100	100	31.13	37.33	0
30	192.168.100.1	1 30 Slot 2	29/06/2011 20:45:00	19	26	0	0	215,229	258,090	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	29/06/2011 21:00:00	0	0	0	0	215,158	257,996	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	29/06/2011 21:15:00	0	0	0	0	215,152	258,014	100	100	31.13	37.33	0
30	192.168.100.1	1 30 Slot 2	29/06/2011 21:30:00	0	0	0	0	215,189	258,043	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	29/06/2011 21:45:00	56	20	0	0	215,156	258,021	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	29/06/2011 22:00:00	0	0	0	0	215,190	258,043	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	29/06/2011 22:15:00	0	0	0	0	215,186	258,036	100	100	31.13	37.33	0
30	192.168.100.1	1 30 Slot 2	29/06/2011 22:30:00	12	18	0	0	215,152	258,022	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	29/06/2011 22:45:00	0	0	0	0	215,181	258,034	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	29/06/2011 23:00:00	12	15	0	0	215,199	258,049	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	29/06/2011 23:15:00			0	0	215,150	258,014	100	100	31.13	37.33	0
30	192.168.100.1	1 30 Slot 2	29/06/2011 23:30:00	0	0	0	0	215,233	258,092	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	29/06/2011 23:45:00	0	0	0	0	215,120	257,973	100	100	31.13	37.33	0
30	192.168.100.1	1 30 Slot 2	30/06/2011 00:00:00	0	0	0	0	215,192	258,043	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	30/06/2011 00:15:00	0	0	0	0	215,217	258,070	100	100	31.13	37.33	0
30	192.168.100.1	1 30 Slot 2	30/06/2011 00:30:00	0	0	0	0	215,125	257,986	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	30/06/2011 00:45:00	0	0	0	0	215,191	258,036	100	100	31.13	37.33	0
30	192.168.100.1	30 Slot 2	30/06/2011 01:00:00	0	0	0	0	215,162	258,037	100	100	31.13	37.33	0

AU Historical Detailed Capacity Analysis

🖹 AU Agg Capacity 📄 AU Capacity 🖹 AU Agg Capacity DL Gragh 📄 AU Agg Capacity UL Gragh 📄 AU Capacity UL Gragh 📄 AU Capacity UL Gragh

Figure 4-50: AU Historical Detailed Capacity Analysis

4.3.17.3 AU Aggregated Capacity Downlink/Uplink Graphs

Refer to "AU Capacity Graphs" on page 66.


Figure 4-51: AU Aggregated Downlink MIR, CIR and Throughput



Figure 4-52: AU Aggregated Uplink MIR, CIR and Throughput





Figure 4-53: AU Downlink MIR+CIR



Figure 4-54: AU Uplink MIR+CIR





4.3.18 CPE Historical Radio Link Quality

This report displays the same measurements as report 09. CPE Radio Link Quality (see "CPE Related Reports and Graphs" on page 76), only for older data and with different resolution: measurements older than three months in a 1-hour resolution.

To generate this report select 18. CPE Historical Radio Link Quality from the reports list.

The following sections have a reference to the description in the CPE Radio Link Quality report.

4.3.18.1 CPE Aggregated Radio Link Quality

Refer to "[BTS Name] - CPE Radio Link Quality - Aggregated" on page 76.

		i m		1.000				-						
130 - C	PE Historica	al Rad	dio Lir	ik Qı	ality ·	- Ag	gre	gate	d					
ot Values: BTS IP	= 192.168.100.130	; Date F	From = 8/	1/2010	12:00:00	AM ;	Date	To = 8	8/1/20	11 12	2:00:0	0 AM		
		RSSI	[dBm]	Uplin [nk SNR dB]	Dov	vnlink : [dB]	SNR	U	olink R	ate	Dov	vnlink I	Rate
UPE Name	AUSIO	Uplink Avri.	Downlink Avra	Avg. N	din. Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.
SU 00-10-E7-62-01-43	Not registered	-105	-29	93	0 371	15	30	30	5	1	5	1	1	1
				1/1										
Padio Link Qualify	15Min Radio Link Quali	tv 🛙 🖬	RSSI UL Gra	ph 🚺	RSSI DL G	iraph	E	SNR UL (Graph		SNR DL	Graph		RATE UL Graph

Figure 4-55: CPE Historical Radio Link Quality - Aggregated

4.3.18.2 15Min Radio Link Quality

Refer to "[BTS Name] - CPE Radio Link Quality Measurements" on page 77.





Figure 4-56: CPE Historical Radio Link Quality Measurements

4.3.18.3 RSSI UL Graph

Refer to "CPE Radio Link Quality Graphs" on page 78.





Figure 4-57: Historical Uplink RSSI Average



Figure 4-58: Historical Downlink RSSI Average





Figure 4-59: Historical Uplink SNR Min, Max and Average



Figure 4-60: Historical Downlink SNR Min, Max and Average





Figure 4-61: Historical Uplink Min, Max and Average Rate



Figure 4-62: Historical Downlink Min, Max and Average Rate



Chapter 5 - Predefined Reports - 4Motion

In this Chapter:

- "Introduction" on page 100
- "Inventory and Configuration Reports" on page 102



5.1 Introduction

This chapter describes the pre-defined reports provided by Alvarion on the StarReport platform, for the 4Motion system.

The StarReport is used to generate a wide variety of reports, based on information gathered from the AlvariSTAR and the StarQuality systems. A trained user may create further reports based on specific requirements.

The next sections describe the report types.

INFORMATION The terms CPE (Customer Premises Equipment) and SU (Subscriber Unit) are used interchangeably in this chapter, as they are used differently in FDD/TDD and 4Motion.



The terms AU (Access Unit) and BS (Base Station) are used interchangeably in the reports, as they are used differently in FDD/TDD and 4Motion.



To generate a pre-defined 4Motion report:

- **1** In the BusinessObjects InfoView select StarReport for 4Motion.
- 2 Select Inventory and Configuration Reports. The report list is displayed.

😂 🍣 New 🗸 Add 🖌 Organize 🗸 A	ctions	5 🕶		Search title 👻	
I		Title *	Last Run	<mark>ү</mark> Туре	Owner
" 🔤 My Favorites " 쓰 Inbox	-	01. Total Network Inventory per Location		Web Intelligence Report	Administrator
Public Folders	- P	02. Detailed Network Equipment per Location		Web Intelligence Report	Administrator
Auditor Feature Samples		03. NPU Card Details per Location		Web Intelligence Report	Administrator
 Report Conversion Tool Report Samples 		04. AU Card Details per Location		Web Intelligence Report	Administrator
📁 Search Program 🗀 StarReport For StarACS	-	05. ODU Details per Location		Web Intelligence Report	Administrator
StarReport For WiMAX 4M_3.0M Inventory and Configuration	- 	06. Antenna Types per Location		Web Intelligence Report	Administrator
StarReports For WiMAX TDD	- -	07. Quick View Configuration		Web Intelligence Report	Administrator
Perfomance		08. Detailed View Configuration		Web Intelligence Report	Administrator
	-	09. Neighboring Relation Configuration		Web Intelligence Report	Administrator
		10. Consistency Check Configuration		Web Intelligence Report	Administrator

Figure 5-1: Inventory and Configuration Reports List

3 In the reports list, right-click on a selected report and select **View**. The report is generated and displayed after a few seconds.





4 After running any tabular report, you can filter, re-order, or sort the data by each column, using the sorting lists icon to add simple report filters, or the filtering icon icon at the top of the page.





5.2 Inventory and Configuration Reports

5.2.1 Total Network Inventory per Location

This report provides a high level view of the network, from inventory perspective: Number of BTSs per each city of the network, as well as total sums. Using this report, you can:

- Obtain an initial perspective of the equipment types in use and their geographical distribution
- Filter information for each location and equipment type
- Navigate to more detailed reports

This report includes two tabs, as described in the following sections, to display the information both in a graphical and a table formats.

To generate this report select **01. Total Network Inventory per Location** from the Inventory and Configuration reports list.

5.2.1.1 Total Network Inventory per Location Chart

This report provides a graphical representation (bar chart) of the distribution of BTSs per location, using tabular data of the "Total Network Inventory per Location Table" on page 103.

- Y axis: No. of BTSs
- X axis: Location (city names)





Figure 5-2: Total Network Inventory per Location Chart

5.2.1.2 Total Network Inventory per Location Table

The Total Inventory per Location report table includes the following columns:

- Country Name upper location level
- Region Name middle location level
- Market Name
- City Name lower location level BTS associated location







NOTE

INFORMATION



The country/region/market/city concept is based on the AlvariSTAR standard - there must be four hierarchy levels.

- BTS Model/NE Type Network element type the actual equipment, such as: Macro BTS ODU, Micro BTS ODU, MC ASN-GW.
- Number of BTS Total BTS count, with a link to the BTS Detailed Information per Location report for this specific BTS location (see Section 5.2.2).

No	Country Name	Region Name	Market Name	City Name	NE Type	Number of BTS
1	WiMAX Network	Island	East	10_01 ASN 1099	4M Macro BTS	<u>6</u>
2	WiMAX Network	Island	East	10_06 ASN 1097	4M Macro BTS	4
3	WiMAX Network	Island	East	10_24 ASN 1096	4M Macro BTS	<u>6</u>
4	WiMAX Network	Island	East	10_28 ASN 1098	4M Macro BTS	<u>5</u>
5	WiMAX Network	Island	East	10_48 ASN 1095	4M Macro BTS	Z
6	WiMAX Network	Island	East	12_01 ASN 1299	4M Macro BTS	3
7	WiMAX Network	Island	East	12_09 ASN 1298	4M Macro BTS	3
В	WiMAX Network	Island	East	12_10 ASN 1297	4M Macro BTS	Z
9	WiMAX Network	Island	East	12_19 ASN 1296	4M Macro BTS	5
10	WiMAX Network	Island	East	13_01 ASN 1396	4M Macro BTS	1
11	WiMAX Network	Island	East	13_07 ASN 1398	4M Macro BTS	Z
12	WiMAX Network	Island	East	13_08 ASN 1399	4M Macro BTS	<u>3</u>
13	WiMAX Network	Island	East	13_17 ASN 1397	4M Macro BTS	<u>7</u>
14	WiMAX Network	Island	East	13_17 ASN 1397	4M Macro BTS ODU	1
15	WiMAX Network	Island	East	14_08 ASN 1495	4M Macro BTS	5
16	WiMAX Network	Island	East	14_12 ASN 1496	4M Macro BTS	<u>6</u>
17	WiMAX Network	Island	East	14_15 ASN 1499	4M Macro BTS	<u>6</u>
18	WiMAX Network	Island	East	14_23 ASN 1497	4M Macro BTS	<u>6</u>
19	WiMAX Network	Island	East	14_25 ASN 1498	4M Macro BTS	<u>6</u>
20	WiMAX Network	Island	East	15_03 ASN 1598	4M Macro BTS	<u>4</u>
21	WiMAX Network	Island	East	15_08 ASN 1599	4M Macro BTS	Z
22	WiMAX Network	Island	East	16_01 ASN 1699	4M Macro BTS	<u>6</u>
23	WiMAX Network	Island	East	16_13 ASN 1698	4M Macro BTS	<u>6</u>
24	WiMAX Network	Island	East	17_04 ASN 1799	4M Macro BTS	<u>6</u>
25	WiMAX Network	Island	East	17_11 ASN 1798	4M Macro BTS	<u>5</u>
26	WiMAX Network	Island	East	17_13 ASN 1797	4M Macro BTS	<u>5</u>
27	WiMAX Network	Island	East	17_13 ASN 1797	4M Macro BTS ODU	1
28	WiMAX Network	Island	East	17 24 ASN 1796	4M Macro BTS	2

Total Network Inventory per Location

Figure 5-3: Total Network Inventory per Location (table)

5.2.2 Detailed Network Equipment per Location

This report contains BTS detailed information. It provides comprehensive data about the BTSs in use in the network, their locations, models, IP addresses, and their managed equipment (AUs, ODUs, etc.).





To generate this report, you can either click on the Number of BTS link in the Total Network Inventory per Location table (see Section 5.2.1.2), or select **02. Detailed Network Equipment per Location** from the Inventory and Configuration reports list.

The table includes the following columns:

- No. entry number
- Country Name
- Region Name
- Market Name
- City Name
- BTS Model/NE Type Network element type the actual equipment, such as: Macro BTS ODU, Micro BTS ODU, MC ASN-GW.
- BTS Name
- BTS IP Address management IP
- Site ID
- BTS Location
- Number of NPUs number of NPUs with a link to the detailed NPU HW report for this specific BTS (see Section 5.2.3).
- Number of AUs number of AU cards with a link to the detailed AU report for this specific BTS (see Section 5.2.4).
- Number of PIUs number of power interface units
- Number of PSUs number of power supply units
- Number of ODUs number of outdoor units with a link to the ODU detailed report (see Section 5.2.5).
- Number of GPSs
- Number of PW Feeders number of power feeders
- Number of Antennas number of antennas with a link to the detailed antenna report for this specific BTS (see Section 5.2.6)



5 Model (All value:	s) 💌															
				Detail	ed Network	Equipmer	it per l	Location								
Country Name	Region Name	Market Name	City Name	BT S Model	BT S Name	BTS lpAddress	Site ID	BTS Location	Number of NPUs	Num ber of A Us	Number of PIUs	Number of PSUs	Number of ODUs	Number of GP\$s	Number of PW Feeders	Nu
WIMAX	Island	East	10_01 ASN	4M Macro BTS	10_01 ASN 1099	10.110.1.51	1001		1	3	2	4	3	1	0	3
WIMAX	Island	East	10_01 ASN	4M Macro BTS	10_11	10.110.11.51	1011		1	3	2	4	3	1	0	3
WIMAX	Island	East	10_01 ASN	4M Macro BTS	10_14	10.110.14.51	1014		1	3	2	4	3	1	0	3
WIMAX	Island	East	10_01 ASN	4M Macro BTS	10_16	10.110.16.51	1016		1	3	2	4	3	1	0	3
WIMAX	Island	East	10_01 ASN	4M Macro BTS	10_17	10.110.17.51	1017		1	3	2	4	3	1	0	3
WIMAX	Island	East	10_01 ASN	4M Macro BTS	10_21	10.110.21.51	1021		1	3	2	4	3	1	0	3
WIMAX	Island	East	10_06 ASN	4M Macro BTS	10_05	10.110.5.51	1005		1	3	2	4	3	1	0	3
WiMAX	Island	East	10_06 ASN	4M Macro BTS	10_06 ASN 1097	10.110.6.51	1006		1	3	2	4	3	1	0	3
WIMAX	Island	East	10_06 ASN	4M Macro BTS	10_08	10.110.8.51	1008		1	3	2	4	3	1	0	-
WIMAX	Island	East	10_06 ASN	4M Macro BTS	10_09	10.110.9.51	1009		1	3	2	4	3	1	0	2
WIMAX	Island	East	10.07 10_24 ASN	4M Macro BTS	10 22	10.110.22.51	1022		1	3	2		2		0	2
WiMAX	Island	East	1098 10_24 ASN	4M Macro BTS	10 23	10.110.23.51	1023		1	3	2	4	2		0	2
WiMAX	Island	East	1098 10_24 ASN	4M Macro BTS	10 24 ASN 1096	10.110.24.51	1024		5	3	2	4	2		0	2
WiMAX	Island	East	1098 10_24 ASN	4M Macro BTS	10 25	10,110,25,51	1025		1	3	2	4	2		0	2
WiMAX	Island	Fast	1098 10 24 ASN	4M Macro BTS	10.30	10 110 30 51	1030		1	3	2	-	2		0	2
WiMAX	Island	Fast	1098 10_24 ASN	4M Macro BTS	10.31	10 110 31 51	1031		1	3	2	-	2		0	2
WiMAX	Island	Fast	1098 10_28 ASN	4M Macro BTS	10 19	10 110 19 51	1019		-	3	2		2	÷	0	2
WiMAX	Island	Fast	10_28 ASN	4M Macro BTS	10, 20 ei klar	10 110 20 51	1020		1	3	2		2		0	2
WIMAX	Island	East	10 28 ASN	AM Macro BTS	10 20 ASN 1090	10 110 29 51	1029		÷	-	-	•	2	1	-	2
WIMAX	Island	East	10 28 ASN	4M Macro BTS	10_20 ASI4 1030	10.110.22.51	1020		4	2	2	4	3	1	0	3
WiMAX	Island	Cast	10 28 ASN	44 Macro 010	10_32	10.110.32.31	10.52		-	~	2	4	3	1	0	3
Nietwork Wild Ax	Island	East	10 48 ASN	4M Macro BTS	10_41	10.110.41.51	1041			2	2	4	3	1	0	3
WiMAX	laland	East	10 48 ASN	AM Macro BTS	10 26	10 110 28 51	1026		÷	2	2	4	3	1	0	3
Network	island	East	1095 10 48 ASN	AM Macro BTS	10_30	10 110 22 51	1020		4	2	2	4	2	1	0	3
Network	Island	Cast	10 48 ASN	All Macro DTC	10_00	10.110.00.01	1000		-	2	2	4	2	1	0	2
Network	Island	Cast	1095	4M Macro BTS	10_35	10.110.39.51	1035		1	2	2	4	3	1	0	3
Network	island	East	1095	4M Macro BTS	10_44	10.110.44.51	1044		1	2	2	4	3	1	0	3
Network	is land	cast	1095 10 48 ASN	WIMACIO BIS	10_40	10.110.40.01	1040		1	2	2	4	3	1	0	3
Network	Bland	cast	1095 12 01 ASN	ANI Macro BIS	10_48 ASN 1095	10.110.48.01	1048		Ľ	2	2	4	3	1	0	3
Network	Island	East	1299	4M Macro BTS	12_01 ASN 1299	10.112.1.51	1201		1	2	2	4	3	1	0	3
Note ork	Island	East	12_01 ASN	4M Macro BTS	12_02	10.112.2.51	1202		1	3	2	4	3	1	0	3
Notwork	Island	East	12_01 ASN 1299	4M Macro BTS	12_03	10.112.3.51	1203		1	3	2	4	3	1	0	3
WiMAX	Island	East	12_09 ASN	4M Macro BTS	12_06	10.112.6.51	1206		1	3	2	4	3	1	0	3
WiMAX	le land	Fact	12 09 ASN	4M Marco RTS	12 07	10 112 7 51	1207		1	2						

Figure 5-4: Detailed Network Equipment per Location

5.2.3 **NPU Card HW Details per Location**

This report provides a summary of NPU hardware details. It provides a detailed tabular data tab, as well as two additional tabs presenting NPUs version- revision values distribution and SW versions distribution.

To generate this report, you can either click on the Number of NPU link in the Detailed Network Equipment per Location table (see Section 5.2.2), or select 03. NPU Card HW Details per Location from the Inventory and Configuration reports list.

5.2.3.1 NPU Card HW Details per Location (table)

This table details the NPU Version-Revision value pairs distribution, over the whole network.

The table includes the following columns:

- No. entry number
- Country Name
- Region Name
- Market Name
- City Name



BTS Name

BTS Model/NE Type - Network element type – the actual equipment, such as: Macro BTS ODU, Micro BTS ODU, MC ASN-GW.

- Site ID
- BTS Location
- BTS IP Address
- NPU Serial Number
- NPU HW Version Number
- NPU HW Revision Number
- NPU Oper SW Version Number current software version

				Ν	PU Card H	W Details p	er Loca	ation					
No	Country Name	Region Name	Market Name	City Name	ET S Name	NE Type	Site ID	BTS Location	BT S IP Address	NPU Serial Number	NP U HW Version Number	NPU HW Revision Number	NPU Oper S\ Version Numb
					anca	4M Macro BTS	1984	TLV North	192.168.198.4				
					mODU	4M Micro BTS ODU	1989		192.168.198.9	NA	NA	NA	NA
					NMS 3.0	4M Macro BTS	1983		192.168.198.3				
						4M Macro BTS	198		192.168.198.11	90035177	6	8	npu_3_0_10_9
						4M Macro BTS	2003		192.168.200.3				
						4M Macro BTS	2004		192.168.200.4				

Figure 5-5: NPU Card HW Details per Location

5.2.3.2 Number of BTS vs. Hardware Version/Revision Number

This tab is a pie-chart of the distribution of the various NPU HW versions and revisions, over the whole network (by displaying the number of BTSs using the NPUs).





Figure 5-6: Number of BTS vs. Hardware Version/Revision Number

5.2.3.3 Number of BTS vs. Software Version

This tab provides a pie-chart of the NPU SW Version distribution, over the whole network, by displaying the number of BTSs using these NPUs.







5.2.4 AU Card Details per Location

This report provides a summary of AU HW and SW details. It provides a detailed tabular data tab, and three additional tabs displaying AU types distribution, AU HW version/revision values distribution and SW versions distribution.

To generate this report, you can either click on the Number of AU link in the Detailed Network Equipment per Location table (see Section 5.2.2), or select **04** AU Card Datails per Location from the Inventory and Configuration reports list

04. AU Card Details per Location from the Inventory and Configuration reports list.

5.2.4.1 AU Card Details per Location Table

This table details the AU distribution, over the whole network.

The table includes the following columns:

- No. entry number
- Country Name
- Region Name
- Market Name



City Name

BTS Model/NE Type - Network element type – the actual equipment, such as: Macro BTS ODU, Micro BTS ODU, MC ASN-GW.

- BTS Name
- Slot ID
- BTS Location
- BTS IP Address
- AU Slot Number
- AU Installed Type:
 - » In a Macro Indoor BTS only AU 4x4 Modem is applicable.
 - In a Macro Outdoor BTS the applicable options are AU 4x4 Modem for a 4-channels AU and AU 2x2 Modem for a 2-channels AU.
- AU Serial Number
- AU HW Version Number
- AU HW Revision Number
- AU IF Version Number The version of the the internal IF card located inside the AU
- AU Boot SW Version Number The version of the downloaded software image that can be used to boot up the AU.
- AU Oper SW Version Number The software that is currently running on the card.

		Number (All Va	lues) 🔻									,						
						ALLC	ard Def	ails ne	r Location	.								-
						A0 00		ans pe	Location									
No	Country Name	Region Name	Market Name	City Name	BT \$ Model	BT \$ Name	Slot ID	BT \$ Location	BTSIPAddress	AU Slot Number	AU Installed Type	AU Serial Number	AU HW Version Number	AU HW Revision Number	AU IF Version Number	AU Boot SW Version Number	AU Oper SW Version Num b	er
1	WIMAX Network Is	sland	East	10_01 ASN 109	4M MacroBTS	10_11	1011		10.110.11.51	1	AU 4x4 Modem	90024085	1169	2	5	2.1.0	AU_3_0_10_128	
2	WIMAX Network Is	sland	East	10_01 ASN 1095	4M Macro BTS	10_11	1011		10.110.11.51	2	AU 4x4 Modem	90024340	1169	2	5	2.1.0	AU_3_0_10_128	
3	WiMAX Network Is	sland i	East	10_01 ASN 1095	4M MacroBTS	10_11	1011		10.110.11.51	3	AU 4x4 Modem	90024590	1169	2	5	2.1.0	AU_3_0_10_126	
																		_
	All Card D	etails per Lor	cation =	All HW Dietri	bution ELA	II Type Distri	bution		W Distribution									•

Figure 5-8: AU Card Details per Location

5.2.4.2 AU HW Distribution

This tab is a pie-chart of the distribution of the various AU HW versions and revisions, over the whole network (by displaying the number of BTSs using the AUs).





Figure 5-9: AU HW Distribution

5.2.4.3 AU Type Distribution

This tab is a pie-chart of the distribution of the various AU HW types over the whole network (by displaying the number of BTSs using the AUs).

- In a Macro Indoor BTS only AU 4x4 Modem is applicable.
- In a Macro Outdoor BTS the applicable options are AU 4x4 Modem for a 4-channels AU and AU 2x2 Modem for a 2-channels AU.





Figure 5-10: AU Type Distribution

5.2.4.4 AU SW Distribution

This tab is a pie-chart of the distribution of the various AU SW version, over the whole network (by displaying the number of BTSs using the AUs).





Figure 5-11: AU SW Distribution

5.2.5 ODU Details per Location

This report provides a summary of ODU HW and SW details. It provides a detailed tabular data tab, and an additional tab displaying ODU types distribution.

To generate this report, you can either click on the Number of ODUs link in the Detailed Network Equipment per Location table (see Section 5.2.2), or select **05. ODU Details per Location** from the Inventory and Configuration reports list.

5.2.5.1 ODU Details per Location Table

This table details the ODU distribution, over the whole network.

The table includes the following columns:

- No. entry number
- Country Name
- Region Name
- Market Name
- City Name



- BTS Model/NE Type Network element type the actual equipment, such as: Macro BTS ODU, Micro BTS ODU, MC ASN-GW.
- BTS Name
- Site ID
- BTS Location
- BTS IP Address
- ODU Number
- ODU Inst Type The installed ODU type (or ODU not Associated to sector).
- ODU Serial Number
- ODU Port HW Version
- ODU Port HW Revision
- ODU Port HPA Card Indicates whether the port is connected to an HPA card (installed/not installed).
- ODU Port HPA HW Version The hardware version of the HPA connected to this port. Applicable only if an HPA card exists in an installed and associated ODU.
- ODU Port HC08 SW Version The software version of the HCO8 controlling card connected to this port.
- ODU Port CPLD SW Version The software version of the CPLD controlling card connected to this port.



^م 7	DU Port HC08 S	SW Version (All values)	ODU P	ort CPLD SW Version ((All values)		JDU POR HW	Version (All Value	s) <u> </u>	DU POR HVV Revi	sion (All Valu	es) 💽 Joi	JU POR HPA	nw version	(All values)		
									etails per	Locat	ion							
No	Country Name	Region Name	Market Name	City Name	NE Type	BT S Name	Site ID	BT S Location	BT \$ IP Address	ODU Number	ODU InstType	ODU Serial Number	ODU Port HW Version	ODU Port HW R⊵vision	ODU Port HPA Card	ODU Port HPA HW Version	ODU Port HC08 SW Version	ODU Port CPLD SW Version
					4M Macro BTS	anca	1984	TLV North	192.168.198.4									
2					4M Macro BTS	NMS 3.0	1983		192.168.198.3	1	ODU not associated to sector		unknown	unknown	Not installed	unknown	unknown	un known
3					4M Macro BTS	NMS 3.0	1983		192.168.198.3	2	ODU not associated to sector		un known	unknown	Not Installed	unknown	un known	un known
4					4M Macro BTS		198		192.168.198.11	1	ODU-2590-289 0-000N-38-1x1- N-0	7367942	un know n	unknown	Not Installed	unknown	unknown	unknown
5					4M Macro BTS		198		192.168.198.11	2	ODU-2590 -269 0-000N - 38 - 1x1 - N-0	7312011	unknown	unknown	Not Installed	unknown	unknown	unknown
)					4M Macro BTS		2003		192.168.200.3									
,					4M Macro BTS		2004		192.168.200.4									
					4M Micro BTS OD U	mODU	1989		192.168.198.9	1	ODU not Detected	90049807 HP2						
)					4M Micro BTS OD U	mODU	1989		192.168.198.9	2	ODU not Detected	unknown						
																		_
)etails per l	Location	DDL	Type Distribution	-												

Figure 5-12: ODU Details per Location

5.2.5.2 ODU Type Distribution

This tab displays a pie-chart of the distribution of the ODU installation types, over the whole network. The installation type can be either one of the following:

- ODU name
- ODU not associated with a sector
- ODU not detected





Figure 5-13: ODU Type Distribution

5.2.6 Antenna Types per Location

This report provides a summary of the antenna details. It provides a detailed tabular data tab, and an additional tab displaying antenna types distribution.

To generate this report, you can either click on the Number of Antennas link in the Detailed Network Equipment per Location table (see Section 5.2.2), or select **06. Antenna Types per Location** from the Inventory and Configuration reports list.

5.2.6.1 Antenna Types per Location (table)

This table details the antenna distribution, over the whole network.

The table includes the following columns:

- No. entry number
- Country Name
- Region Name
- Market Name
- City Name
- BTS Model/NE Type Network element type the actual equipment, such as: Macro BTS ODU, Micro BTS ODU, MC ASN-GW.
- BTS Name



Site ID

.

- BTS Location
- BTS IP Address
- Antenna Product Type Product ID of the antenna
- Number of Antennas connected to the specific BTS

No	Country Name	Region Name	Market Name	City Name	NE Type	BTS Name	Site ID	BTS Location	BTS IP Address	Antenna Product Type	Number o Antennas
1					4M Macro BTS	anca	1984	TLV North	192.168.198.4		0
2					4M Macro BTS	NMS 3.0	1983		192.168.198.3	default1PortV	2
3					4M Macro BTS		198		192.168.198.11	default1PortV	2
4					4M Macro BTS		2003		192.168.200.3		0
5					4M Macro BTS		2004		192.168.200.4		0
6					4M Micro BTS ODU	mODU	1989		192.168.198.9	default1PortV	1

Figure 5-14: Antenna Types per Location

5.2.6.2 Antenna Types Distribution

This tab displays a pie-chart of the distribution of the antenna types, over the whole network. The available options includes a list of default and standard antennas. The default is default1portV.







5.2.7 Quick View Configuration

This report provides a summary of the 4Motion configuration details. It displays a detailed tabular data tab, and includes a link to a detailed table per specific BTSs.

To generate this report, select **07. Quick View Configuration** from the Inventory and Configuration reports list.

The report table includes the following columns:

- BTS Number
- BS ID a link to a detailed configuration table for the specific BS (see Figure 5-17)



General

- » Preamble Group 1 or 2, according to the value set during the Radio Network Plan.
- Segment Number The segment (BS) number in a three sector BS (0-2). This number influences the values available for Preamble Group selection (see above) preamble selection and the configuration of Map (see below) used for the FDC transmission.
- DL Diversity Mode The downlink diversity mode used by the system: Matrix A/B or Beam Forming. The Beam Forming option is not applicable for 2-channels AU (Macro Outdoor BTS) and Micro Outdoor BTS.
- » Maximum Cell Radius (Km) The available values are 1, 2, 4, 8, 15, 23. 30
- » Scheduler Mode The basis for allocating excess bandwidth among relevant users:
 - Equal Rate: Throughput Fairness
 - Equal Time: Resource Fairness
- Permutation
 - Downlink Data Zone. Permutation Base The permutation base used in the downlink data zone. The valid range is 0 - 31.
 - >> Uplink Feedback Zone. Permutation Base The permutation base used in the uplink feedback zone. The valid range is 0 69.
 - > Uplink Data Zone. Permutation Base The permutation base used in the uplink data zone. The valid range is 0 69.
- MAP
 - Minimum Size (symbols) The initial size (in symbols) of the first zone. The available options are 2, 4,....34 (2xN where N=1-17) or No Limitation.
 - Basic Map Repetition The basic repetition used in the transmission of the maps using QPSK 1/2. The available options are 1, 2, 4 and 6. (1 means no repetitions).
- Power Control
 - Allowed Interference Level Correction of maximum allowed UL MCS based on measured DL CINR. The options are Very High, High, Medium, Low.
- Basic Rate





- » Basic Rate The uplink modulation basic rate:
 - ♦ QPSK 1/2 Repetition 6
 - ♦ QPSK 1/2 Repetition 4
 - ♦ QPSK 1/2 Repetition 2
 - QPSK 1/2
 - ♦ QPSK 3/4
 - ♦ 16-QAM 1/2
 - ♦ 16-QAM 3/4
 - ♦ 64-QAM 1/2
 - ♦ 64-QAM 2/3
 - ♦ 64-QAM 3/4
 - ♦ 64-QAM 5/6
- » Basic Rate for Data The downlink basic rate for data:
 - ♦ QPSK 1/2 Repetition 6
 - ◊ QPSK 1/2 Repetition 4
 - ♦ QPSK 1/2 Repetition 2
 - ♦ QPSK 1/2
 - ♦ QPSK 3/4
 - ♦ 16-QAM 1/2
 - ♦ 16-QAM 3/4
 - ♦ 64-QAM 1/2
 - ♦ 64-QAM 2/3
 - ♦ 64-QAM 3/4
 - ♦ 64-QAM 5/6
- » Basic Rate for Management The downlink basic rate for management:
 - ♦ QPSK 1/2 Repetition 6
 - ♦ QPSK 1/2 Repetition 4
 - ♦ QPSK 1/2 Repetition 2
 - QPSK 1/2





- ♦ QPSK 3/4
- ♦ 16-QAM 1/2
- ♦ 16-QAM 3/4
- ♦ 64-QAM 1/2
- ♦ 64-QAM 2/3
- ♦ 64-QAM 3/4
- ♦ 64-QAM 5/6
- » Scheduler DL Abuse Protection Level Applicable only if the Scheduler Mode is Equal Rate.
 - ♦ None: No Protection
 - ♦ Low: Limit the DL resources allocated to MSs with very low DL transmission Rate.
 - ♦ Medium: Limit the DL resources allocated to MSs with low and very low DL transmission Rate.
- » Scheduler UL Abuse Protection Level Applicable only if the Scheduler Mode is Equal Rate.
 - ♦ None: No Protection
 - ♦ Low: Limit the UL resources allocated to MSs with very low UL transmission Rate.
 - ♦ Medium: Limit the UL resources allocated to MSs with low and very low UL transmission Rate.





Quick	View	Config	uration

				General				Permutation		MA		Power Control			Basic Rate		
BT S Number	BS ID	Pre am ble Group	Segment Number	DL Diversity Mode	Maximum Cell Radius (Km)	Scheduler Mode	Downlink Data Zone Per mutation Base	Uplink Feedback Zone Per mutation Base	Uplink Data Zone .Per mutation Base	Minimum Size (symbols)	Basic Map Repetition	Allowed Interference Level	Basic Rate	Basic Rate for Data	Basic Rate for Management	Scheduler DLAbuse Protection Level	Sched UL Ab Protec n Lev
1	87.111.111.1.1.1	1	2	Matrix A/B	4	Equal Rate	20	20	20	No Limitation		High	QPSK 1/2	QPSK 1/2 Repettion 6	QPSK 1/2 Repetition 2	Low	Low
1	87 111 111 1 1 2	1	1	Matrix A/B	4	Equal Rate	3	3	3	No Limitation	0	High	OPSK 1/2	QPSK1/2 Repetition 6	QPSK1/2 Repetition 2	Low	Low
1	87 111 111 1 13	1	0	Matrix A/B	4	Equal Rate	13	13	13	Nolimitation		High	OPSK 1/2	QPSK1/2 Repetition 6	QPSK1/2 Repetition 2	Low	Low
3	87 111 111 1 3 1	1	2	Matrix A/B	15	Foual Rate	29	29	29	No Limitation	8	High	OPSK 1/2	QPSK1/2 Repetition 6	QPSK 1/2 Repetition 2	None	None
2	87 111 111 1 3 2	1	1	Matrix A/B	15	Equal Rate	22	22	22	No Limitation	6	High	OPSK 1/2	QPSK1/2 Repetition 6	QPSK 1/2 Repetition 2	Low	Low
	97 111 111 1 2 2		4	Matrix A/B	15	Equal Pate	2	2	2	No Limitation	8	High	OPSK 1/2	QPSK1/2 Reportion 6	QPSK1/2 Repetition 2	Low	Low
			2	Matrix A/D	10	Equal Date	20	20	20	No Limite for		LOS N		QPSK 1/2	QPSK 1/2	Law	Law
	97.111.111.1.4.1		2	Matrix A/D	10	Equal Rate	20	20	20	No Limitation		ngu Usa	OPEK 10	QPSK 1/2	QPSK1/2	Low	Low
	<u>ora (1.1.4.2</u>			Matrix AVB	10	Equal Rate	-	20	-	No Limitation		ngii	000K40	QPSK 1/2	QPSK 1/2	LOW	LOW
	87.111.111.1.4.3	1	1	Matrix A/B	10	Equal Rate	/	1	1	NOLIMITATION	•	High	QPSK1/2	QPSK1/2	QPSK 1/2	LOW	LOW
5	<u>8/.111.111.1.5.1</u>	1	1	Matrix A/B	15	Equal Rate	22	22	22	No Limitation	6	High	QPSK 1/2	QPSK 1/2	QPSK 1/2	Low	Low
5	87.111.111.1.5.2	1	0	Matrix A/B	15	Equal Rate	16	16	16	No Limitation	8	High	QPSK1/2	Repetition 6 QPSK 1/2	Repetition 2 QPSK 1/2	Low	Low
5	87.111.111.1.5.3	1	2	Matrix A/B	15	Equal Rate	23	23	23	No Limitation	6	High	QPSK 1/2	Repetition 6 QPSK 1/2	Repetition 2 QPSK 1/2	Low	Low
3	87.111.111.1.6.1	1	2	Matrix A/B	15	Equal Rate	13	13	13	No Limitation	6	High	QPSK 1/2	Repettion 6 QPSK 1/2	Repetition 2 QPSK 1/2	Low	Low
8	<u>87.111.111.1.6.2</u>	1	2	Matrix A/B	15	Equal Rate	20	20	20	No Limitation	8	High	QPSK 1/2	Repettion 6 OPSK 1/2	Repetition 2 OPSK 1/2	Low	Low
6	87.111.111.1.6.3	1	1	Matrix A/B	15	Equal Rate	14	14	14	No Limitation	6	High	QPSK 1/2	Repettion 6	Repetition 2	Low	Low
7	<u>87.111.111.1.7.1</u>	1	2	Matrix A/B	15	Equal Rate	14	14	14	No Limitation	8	High	QPSK 1/2	Repetition 6	Repetition 2	Low	Low
7	87.111.111.1.7.2	1	1	Matrix A/B	15	Equal Rate	18	18	18	No Limitation	6	High	QPSK 1/2	Repetition 6	Repetition 2	Low	Low
7	87.111.111.1.7.3	1	1	Matrix A/B	15	Equal Rate	8	0	6	No Limitation	8	High	QPSK 1/2	Repettion 6	Repetition 2	Low	Low
8	87.111.111.1.8.1	1	1	Matrix A/B	15	Equal Rate	9	9	9	No Limitation	8	High	QPSK 1/2	QPSK1/2 Repettion 6	Repetition 2	Low	Low
в	87.111.111.1.8.2	1	2	Matrix A/B	15	Equal Rate	12	12	12	No Limitation	8	High	QPSK 1/2	QPSK 1/2 Repetition 6	QPSK 1/2 Repetition 2	Low	Low
8	87.111.111.1.8.3	1	2	Matrix A/B	15	Equal Rate	20	20	20	No Limitation	8	High	QPSK 1/2	QPSK 1/2 Repettion 6	QPSK 1/2	None	None
9	87.111.111.1.9.1	1	1	Matrix A/B	15	Equal Rate	18	18	18	No Limitation		High	OPSK 1/2	QPSK 1/2 Repetition 6	QPSK 1/2 Repetition 2	Low	Low

Quick View Configuration

Figure 5-16: Quick View Configuration





Report N Last R un Last R efr	lame:08.[n:6/14/112 reshed By:	Detailed Vie 2:57 PM Administra	ew Configu ator	ration															
								F	rame Structure								Per	muta tion	
BT S Number	r E	35 ID	Bandwidth (MHz)	Center frequency (MHz)	Tota I UL Duration (Slots)	Maximum Cell Radius (Km)	Minimum Size (symbols)	Maximu Size (symbol:	m Basic Map s) Repetition	Segment Number	Cell ID	Preamble Pr Group	ream ble Index	DL Diversity Mode	Schedu Mode	uler Zone. e mutat Bas	ata UL Per Zone Pe tion e Base	uL Data Zone Per mutation Base	Start of Ranging Code s
101	87.111.111	.1.1.2	10 :	3595 6	4	4 I	No Limitation	No Limitatio	on 6	1	3 1	1	A	latrix A/B	Equal Ra	ite 3	3	3	• •
Detai	iled Viev	w Confi	guratio	n															•
		Basic Rate								Pa	wer Contro	ol						Mobility	Beam Form
Basic Rate UL	Basic Rate for Data DL	Basic Rate for Managemen	Schedule DL Abuse	r Scheduler UL Abuse	Allowed	d Target	ACK CG		OPSK1/2	OPSK3/4	16-QAM 1	1/2 16-QAM 3			OAM 2/2	64-QAM 3/4	64-QAM 5/6	Deployment	Calibration
			Level	Level	Level	(dBm)	(dB) (dE	B) (dB)	(dB)	(dB)	(dB)	(dB)	(1B)	(dB)	(dB)	(dB)	Deproyment	Attenuator
IPSK1/2	QPSK 1/2 Repetition 6	DL QPSK 1/2 Repetition 2	Low	Low	Level High	(dBm)	(dB) (dB	3) (dB) 9	(dB)	(dB)	(dB) 19	(dB) 22	23	18) 25	(dB) 20	(d8) 8	(dB) 28	Mobile	Attenuator
JPSK 1/2	QPSK 1/2 Repettion 6	DL QPSK12 Repetition 2	Low	Level	High	(dBm)	(dB) (dB	9	(dE) 13 10	(dB) 8	(dB)	(dB)	23	25	(dB) 22	(d3) 8	(d8) 28	Mobile	Attenuator

Figure 5-17: Detailed View Configuration - One Base Station

5.2.8 Detailed View Configuration

This report provides a detailed view of the 4Motion configuration.

To generate this report, select **08. Detailed View Configuration** from the Inventory and Configuration reports list.

The report table includes the following columns:

- BTS Number
- BS ID







- » Bandwidth (MHz) The BS channel bandwidth (5 MHz, 7 MHz, 10MHz).
- » Center frequency (MHz) The center of the frequency band in which the BS will transmit, in MHz.
- Total UL Duration (Slots) The total duration of the uplink in a frame, in slots (one slot equals 3 symbols). The range is 4-7 or 10 for bandwidth of 5 or 10MHz, 3-5 or 7 for bandwidth of 7MHz.
- » Maximum Cell Radius (Km) Available values are 1, 2, 4, 8, 15, 23. 30.
- Minimum Size (symbols) The initial size (in symbols) of the first zone. The available options are 2, 4,....34 (2xN where N=1-17) or No Limitation.
- Maximum Size (symbols) Maximum size (in symbols) for first zone. Used mainly for performance control capability within frame. The available options are 2, 4,....34 (2xN where N=1-17) or No Limitation.
- Basic Map Repetition The basic repetition used in the transmission of the maps using QPSK 1/2. The available options are 1, 2, 4 and 6. (1 means no repetitions).
- Segment Number The segment (BS) number in a three sector BS (0-2). This number influences the values available for Preamble Group selection (see above) preamble selection and the configuration of Map (see below) used for the FDC transmission.
- Cell ID The Cell ID (IDCell) used for preamble selection. The range is 0 - 31.
- » Preamble Group 1 or 2, according to the value set during the Radio Network Plan.
- » Preamble Index The Preamble Index used by the BS (0-113).
- DL Diversity Mode The downlink diversity mode used by the system: Matrix A/B or Beam Forming. The Beam Forming option is not applicable for 2-channels AU (Macro Outdoor BTS) and Micro Outdoor BTS.
- » Scheduler Mode The basis for allocating excess bandwidth among relevant users:
 - ♦ Equal Rate: Throughput Fairness
 - ♦ Equal Time: Resource Fairness



Permutation

- » DL Data Zone. Permutation Base The permutation base used in the downlink data zone. The valid range is 0 31
- >> UL Feedback Zone. Permutation Base The permutation base used in the uplink feedback zone. The valid range is 0 - 69.
- » UL Data Zone. Permutation Base The permutation base used in the uplink data zone. The valid range is 0 69.
- Start of Ranging Codes The starting number of the group of codes used for the uplink. The available options are 0, 64, 128, 192.

Basic Rate

- » Basic Rate UL The uplink modulation basic rate:
 - QPSK 1/2 Repetition 6
 - QPSK 1/2 Repetition 4
 - ♦ QPSK 1/2 Repetition 2
 - QPSK 1/2
 - QPSK 3/4
 - 16-QAM 1/2
 - ♦ 16-QAM 3/4
 - ♦ 64-QAM 1/2
 - ♦ 64-QAM 2/3
 - ♦ 64-QAM 3/4
 - ♦ 64-QAM 5/6
- » Basic Rate for Data DL The downlink basic rate for data:
 - QPSK 1/2 Repetition 6
 - QPSK 1/2 Repetition 4
 - ♦ QPSK 1/2 Repetition 2
 - QPSK 1/2
 - QPSK 3/4
 - ♦ 16-QAM 1/2
 - ♦ 16-QAM 3/4





- ♦ 64-QAM 2/3
- ♦ 64-QAM 3/4
- ♦ 64-QAM 5/6
- » Basic Rate for Management DL The downlink basic rate for management:
 - ♦ QPSK 1/2 Repetition 6
 - ♦ QPSK 1/2 Repetition 4
 - ♦ QPSK 1/2 Repetition 2
 - QPSK 1/2
 - QPSK 3/4
 - ♦ 16-QAM 1/2
 - ♦ 16-QAM 3/4
 - ♦ 64-QAM 1/2
 - ♦ 64-QAM 2/3
 - ♦ 64-QAM 3/4
 - ♦ 64-QAM 5/6
- » Scheduler DL Abuse Protection Level Applicable only if the Scheduler Mode is Equal Rate.
 - None: No Protection
 - ♦ Low: Limit the DL resources allocated to MSs with very low DL transmission Rate.
 - ♦ Medium: Limit the DL resources allocated to MSs with low and very low DL transmission Rate.
- » Scheduler UL Abuse Protection Level Applicable only if the Scheduler Mode is Equal Rate.
 - None: No Protection
 - ♦ Low: Limit the UL resources allocated to MSs with very low UL transmission Rate.
 - ♦ Medium: Limit the UL resources allocated to MSs with low and very low UL transmission Rate.


- Power Control
 - » Allowed Interference Level
 - Target Ni (dBm)
 - » ACK (dB)
 - » CQI (dB)
 - » CDMA (dB)
 - » QPSK 1/2 (dB)
 - » QPSK 3/4 (dB)
 - » 16-QAM 1/2 (dB)
 - » 16-QAM 3/4 (dB)
 - » 64-QAM 1/2 (dB)
 - » 64-QAM 2/3 (dB)
 - » 64-QAM 3/4 (dB)
 - » 64-QAM 5/6 (dB)
- Mobility
 - » Deployment The type of deployment in the area served by the BS: Fix or Mobile.
- Beam Forming
 - Calibration Attenuator The calibration attenuation used to help mitigate potential out of band interference to beam forming calibration caused by other base stations. The options are No Attenuation Used, Low Attenuation, High Attenuation.
 - » Neighbor Beam Forming Indicates whether any of the neighboring BSs operates in Beam Forming mode (Yes/No).



Report Name : 08. Detailed View Configuration Last Run : 6/14/11 3:40 PM Last Refreshed By : Administrator

							Fram	ne Structure						
BTS Number	BSID	Bandwidth (MHz)	Center frequency (MHz)	Total UL Duration (Slots)	Maximum Cell Radius (Km)	Minimum Size (symbols)	Maximum Size (symbols)	Basic Map Repetition	Segment Number	Cell ID	Preamble Group	Preamble Index	DL Diversity Mode	Scheduler Mode
198	255.243.41.2.2.2	7	2023.5	5	2	No Limitation	No Limitation	6	0	0	1	0	Matrix A/B	Equal Rate
198	255.243.41.2.6.25	5	2625	5	2	No Limitation	No Limitation	4	0	0	1	0	Matrix A/B	Equal Rate
198	255.243.41.2.6.35	5	2635	5	2	No Limitation	No Limitation	4	0	0	1	0	Matrix A/B	Equal Rate
1983	255.243.41.35.3.6	10	2559	10	8	No Limitation	No Limitation	4	0	0	1		Matrix A/B	Equal Rate
1983	255.243.41.35.3.7	10	2559	5	2	8	8	2	0	0	1		Beam Forming	Equal Rate
1984	255.243.41.12.133.0	5	2302.5	4	2	No Limitation	No Limitation	2	0	15	1		Matrix A/B	Equal Rate
1989	255.243.41.12.133.1	5	3450.000	7	30	12	14	2	1	10	2	106	Matrix A/B	Equal Time
2003					NA									
2004	255.243.41.5.5.5				2									Equal Rate

Detailed	View Con	figuration
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	Permutation				Basic Rate										F	ower Control	
DL Data Zone.Per mutation Base	UL Feedback Zone.Per mutation Base	UL Data Zone.Per mutation Base	Start of Ranging Codes	Basic Rate UL	Basic Rate for Data DL	Basic Rate for Management DL	Scheduler DL Abuse Protection Level	Scheduler UL Abuse Protection Level	Allowed Interference Level	Target Ni (dBm)	ACK (dB)	CQI (dB)	CDMA (dB)	QPSK 1/2 (dB)	QPSK 3/4 (dB)	16-QAM 1/2 (dB)	16
0	0	0	0	QPSK 1/2	QPSK 1/2	QPSK 1/2	None	None	High	-127	12	12	9	13	16	19	22
0	0	0	0	QPSK 1/2	QPSK 1/2	QPSK 1/2	None	None	High	-127	12	12	9	13	16	19	22
0	0	0	0	QPSK 1/2	QPSK 1/2	QPSK 1/2	None	None	High	-127	12	12	9	13	16	19	22
0	0	0	0	QPSK 1/2	QPSK 1/2	QPSK 1/2 Repetition 4	None	None	High	-127	12	12	9	13	16	19	22
0	0	0	0	QPSK 1/2	QPSK 1/2	QPSK 1/2	None	None	High	-127	12	12	9	13	16	19	22
0	1	0	0	QPSK 1/2	QPSK 1/2	QPSK 1/2	None	None	High	-127	12	12	9	13	16	19	22
10	10	10	64	QPSK 1/2	QPSK 1/2 Repetition 6	QPSK 1/2	None	None	Low	-130.000	12	12	9	13	16	19	22
			0	QPSK 1/2	QPSK 1/2	QPSK 1/2	None	None	High	-127	12	12	9	13	16	19	22

ower Control		Mobility	Beam Fo	orming				
16-QAM 1/2 (dB)	16-QAM 3/4 (dB)	64-QAM 1/2 (dB)	64-QAM 2/3 (dB)	64-QAM 3/4 (dB)	64-QAM 5/6 (dB)	Deployment	Calibration Attenuator	Neighbor Beam Forming
19	22	23	25	26	28	Fix	Low Attenuator	No
19	22	23	25	26	28	Fix	Low Attenuator	No
19	22	23	25	26	28	Fix	Low Attenuator	No
19	22	23	25	26	28	Fix	Low Attenuator	No
19	22	23	25	26	28	Fix	Low Attenuator	No
19	22	23	25	26	28	Fix	Low Attenuator	No
19	22	23	25	26	28	Fix	Low Attenuator	Yes
10	22	23	25	26	28	Fix	Low Attenuator	

			•

Figure 5-18: Detailed View Configuration - All Base Stations

5.2.9 Neighboring Relation Configuration

This report displays a summary of the configuration of relations between neighboring BSs. It provides information as to the conditions by which handover requests and scan requests are sent between neighbor BSs, by displaying the values to trigger these requests.



To generate this report, select **09. Neighboring Relation Configuration** from the Inventory and Configuration reports list.

The report table includes the following columns:

- BS ID the BS whose neighbors are checked
- Neighbor the neighbor BSs of the "main" BS
- Handover request
 - » Trigger Type one of the following handover request triggers:
 - Neighbor CINR(Handover request)>(dB)
 - Neighbor RSSI(Handover request)>(dBm)
 - Neighbor CINR-Own CINR(Handover request)>(dB)
 - Neighbor RSSI-Own RSSI(Handover request)>(dBm)
 - Oistance(Handover request)-(m)
 - ♦ Own CINR(Handover request)<(dB)
 - Own RSSI(Handover request)<(dBm)</p>
 - Trigger Value The threshold value for the trigger. For CINR triggers the range is -64 to 63.5 in steps of 0.5 (dB). For RSSI triggers the range is -103.75 to -40 in steps of 0.25 (dBm). For Distance triggers the range (in meters) is 0-3400 in steps of 50 if BS BW is 10 MHz, 0-6800 in steps of 50 if BS BW is 5 MHz, 0-4800 in steps of 50 if BS BW is 7 MHz.
- Scan request
 - » Trigger Type one of the following scan request triggers:
 - ♦ Own CINR(Scan request<(dB)
 - Own RSSI(Scan request)<(dBm)</p>
 - Distance(Scan Request)-(m)
 - Trigger Value The threshold value for the trigger. For CINR triggers the range is -64 to 63.5 in steps of 0.5 (dB). For RSSI triggers the range is -103.75 to -40 in steps of 0.25 (dBm). For Distance triggers the range (in meters) is 0-3400 in steps of 50 if BS BW is 10 MHz, 0-6800 in steps of 50 if BS BW is 5 MHz, 0-4800 in steps of 50 if BS BW is 7 MHz.



	Neighbor	ing Relatio
BS ID	Neighbor	Trigg
7.111.111.10.32.1	87.111.111 10.35.3	NeighborRSSI-C
	87.111.111 10.35.3	
	87.111.111 10.46.3	NeighborRSSI-C
	87.111.111 10.46.3	
7.111.111.10.32.2	87.111.111 10.31.1	NeighborRSSI-C
	87.111.111 10.31.1	
	87.111.111 10.31.3	NeighborRSSI-C
	87.111.111 10.31.3	
	87.111.111 10.35.3	NeighborRSSI-C
	87.111.111 10.35.3	

leighboring Relation Con	figuration
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		nandoverreques		Scan request			
BS ID	Neighbor	Trigger Type	Trigger Value	Trigger Type	Trigger Value		
7.111.111.10.32.1	87.111.111 10.35.3	NeighborRSSI-OwnRSSI>(dBm)	3				
	87.111.111 10.35.3			Own RSSI < (dBm)	-50		
	87.111.111 10.46.3	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.46.3			Own RSSI < (dBm)	-50		
7.111.111.10.32.2	87.111.111 10.31.1	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.31.1			Own RSSI < (dBm)	-50		
	87.111.111 10.31.3	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.31.3			Own RSSI < (dBm)	-50		
	87.111.111 10.35.3	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.35.3			Own RSSI < (dBm)	-50		
7.111.111.10.32.3	87.111.111 10.22.1	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.22.1			Own RSSI < (dBm)	-50		
	87.111.111 10.28.1	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.28.1			Own RSSI < (dBm)	-50		
	87.111.111 10.28.2	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.28.2			Own RSSI < (dBm)	-50		
7.111.111.10.48.1	87.111.111 10.36.1	NeighborRSSI-OwnRSSI>(dBm)	3				
	87.111.111 10.36.1			Own RSSI < (dBm)	-50		
	87.111.111 10.38.3	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.38.3			Own RSSI < (dBm)	-50		
	87.111.111 10.39.1	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.39.1			Own RSSI < (dBm)	-50		
	87.111.111 10.39.2	NeighborRSSI - Own RSSI > (dBm)	3				
	87.111.111 10.39.2			Own RSSI < (dBm)	-50		
	87.111.111 10.39.3	NeighborRSSI-OwnRSSI>(dBm)	3				
	87.111.111 10.39.3			Own RSSI < (dBm)	-50		
	87.111.111 10.44.1	NeighborRSSI-OwnRSSI>(dBm)	3				
	87.111.111 10.44.1			Own RSSI < (dBm)	-50		
	87.111.111 10.44.2	NeighborRSSI-OwnRSSI>(dBm)	3				
	87.111.111 10.44.2			Own RSSI < (dBm)	-50		
	87.111.111 10.46.2	NeighborRSSI-OwnRSSI>(dBm)	3				
	87.111.111 10.46.2			Own RSSI < (dBm)	-50		
	87.111.111 10.48.2	NeighborRSSI-OwnRSSI>(dBm)	3				
	87.111.111 10.48.2			Own RSSI < (dBm)	-50		
	87.111.111 10.48.3	NeighborRSSI-OwnRSSI>(dBm)	3				
	87.111.111 10.48.3			Own RSSI < (dBm)	-50		
7 444 444 40 40 0	07 444 444 40 92 4	NeighborDCCL Our DCCLs (dBm)	0				

Figure 5-19: Neighboring Relation Configuration



5.2.10 Consistency Check Configuration

This report displays a summary of the inconsistent configuration of various BSs over the network. The report is divided into five tabs, each displaying a table of inconsistencies in the configurations of different parameters.

In each table, the sub-title displays specific parameters related to different configurations and three columns:

- BS ID a BS for which inconsistency exists
- Actual Value the currently configured values for the parameter in the BS.
- Desired Value specifies the value set by the radio planning for best functionality of the system.

To generate this report, select **10. Consistency Check Configuration** from the Inventory and Configuration reports list.

5.2.10.1 Consistency Check Configuration - Frame Structure

This tab lists the inconsistencies related to frame structure.

The report table includes the following parameters for which inconsistencies exist:

- Bandwidth (MHz) The BS channel bandwidth (5 MHz, 7 MHz, 10MHz)
- Basic Map Repetition The basic repetition used in the transmission of the maps using QPSK 1/2. The available options are 1, 2, 4 and 6. (1 means no repetitions).
- DL Diversity Mode The downlink diversity mode used by the system: Matrix A/B or Beam Forming. The Beam Forming option is not applicable for 2-channels AU (Macro Outdoor BTS) and Micro Outdoor BTS.
- Frame Number Offset Controls the offset applied between the internal frame count and the reported frame number. The range is 0 -15.
- IR CDMA Allocations Period (Frames) The period of IR CDMA (Infrared Code Division Multiple Access) allocations, in frames. The available options are 1, 2, 4, 6, 8, 10 frames.
- Map Major Groups 6 bits representing the selection of Map Major Groups 0 to 5 where the left-most bit (MSB) represents Major Group 5.
- Maximum Cell Radius (Km) The available values are 1, 2, 4, 8, 15, 23. 30.
- Maximum MAP Size (slots) Limits the maximum size of maps (in slots). The available options are 10, 20,...300 (10xN where N=1-30) or No Limitation.
- Maximum Size (symbols) Maximum size (in symbols) for first zone. Used mainly for performance control capability within frame. The available options are 2, 4,....34 (2xN where N=1-17) or No Limitation.





- Minimum Size (symbols) The initial size (in symbols) of the first zone. When reuse 3 is used within first zone, this parameter should be equal across all BSs within deployment. The available options are 2, 4,....34 (2xN where N=1-17) or No Limitation.
- RCID Usage whether RCID is enabled or disabled.
- Scheduler Mode The basis for allocating excess bandwidth among relevant users: Equal Rate: Throughput Fairness, or Equal Time: Resource Fairness. The selected mode is applicable for both uplink and downlink schedulers.
- Total Uplink Duration (Slots) The total duration of the uplink in a frame, in slots (one slot equals 3 symbols). The range is 4-7 or 10 for bandwidth of 5 or 10MHz, 3-5 or 7 for bandwidth of 7MHz.

The following table lists the desired values from the Frame Structure Consistency Check report. Note that some of the desired values are simple ones, that is, have the same value for any BS configuration, however, others depend on some parameters, such as BW, Map, or Diversity:

Parameter Name	Desired Value	Conditions
Bandwidth (MHz)	10	Diversity Mode IS "Beam Forming" AND "Map Major Group" IN ((1,1,0,0,0,0) OR (0,0,1,1,0,0) OR (0,0,0,0,1,1) OR (1,1,1,1,1,1)
	7 or 10	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,1,1,1,1,1)
	5	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,0,1,0,1,0)
Basic Map Repetition	2	Diversity Mode IS "Beam Forming" AND "Map Major Group" IN ((1,1,0,0,0,0) OR (0,0,1,1,0,0) OR (0,0,0,0,1,1)) AND Bandwidth IS "10 MHz"
	6	Diversity Mode IS "Beam Forming" AND "Map Major Group" IS (1,1,1,1,1)) AND Bandwidth IS "10 MHz"
	6	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,1,1,1,1,1) AND Bandwidth IS "7 MHz or 10 MHz"
	2	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,0,1,0,1,0) AND Bandwidth IS "5 MHz"
DL Diversity Mode	matrixA/B	Always
Frame Number Offset	1	Always

Table 5-1: Frame Structure Desired Values



Parameter Name	Desired Value	Conditions
IR CDMA Allocations Period (Frames)	2	Always
Map Major Groups	1,1,0,0,0,0	Diversity Mode IS "Beam Forming" AND
	0,0,1,1,0,0	Bandwidth IS "10 MHz"
	0,0,0,0,1,1	
	1,1,1,1,1,1	
	1,1,1,1,1,1	Diversity Mode IS "Matrix A/B" AND Bandwidth IS "7 MHz OR 10 MHz"
	1,0,1,0,1,0	Diversity Mode IS "Matrix A/B" AND Bandwidth IS "5 MHz"
Maximum Cell Radius (Km)	8	Always
Maximum MAP Size (slots)	No Limitation	Always
Maximum Size (symbols)	No Limitation	Always
Minimum Size (symbols)	12	Diversity Mode IS "Beam Forming" AND "Map Major Group" IN ((1,1,0,0,0,0) OR (0,0,1,1,0,0) OR (0,0,0,0,1,1)) AND Bandwidth IS "10 MHz"
	No Limitation	Diversity Mode IS "Beam Forming" AND "Map Major Group" IS (1,1,1,1,1)) AND Bandwidth IS "10 MHz"
		Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,1,1,1,1) AND Bandwidth IS "7 MHz or 10 MHz"
		Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,0,1,0,1,0) AND Bandwidth IS "5 MHz"
RCID Usage	Disable	Always
Scheduler Mode	Equal Rate	Always
Total Uplink Duration	4	Bandwidth IS "7 MHz"
	6	Bandwidth IS "5 MHz OR 10 MHz"

Table 5-1: Frame Structure Desired Values





Figure 5-20: Consistency Check Configuration - Frame Structure

5.2.10.2 Consistency Check Configuration - Basic Rate

This tab lists the inconsistencies related to modulation basic rate.

The report table includes the following parameters for which inconsistencies exist:

- UL Basic Rate The uplink modulation basic rate:
 - » QPSK 1/2 Repetition 6
 - » QPSK 1/2 Repetition 4
 - » QPSK 1/2 Repetition 2
 - » QPSK 1/2



- » QPSK 3/4
- » 16-QAM 1/2
- » 16-QAM 3/4
- » 64-QAM 1/2
- » 64-QAM 2/3
- » 64-QAM 3/4
- » 64-QAM 5/6
- DL Basic Rate for Data The downlink basic rate for data:
 - » QPSK 1/2 Repetition 6
 - » QPSK 1/2 Repetition 4
 - » QPSK 1/2 Repetition 2
 - » QPSK 1/2
 - » QPSK 3/4
 - » 16-QAM 1/2
 - » 16-QAM 3/4
 - » 64-QAM 1/2
 - » 64-QAM 2/3
 - » 64-QAM 3/4
 - » 64-QAM 5/6
- DL Basic Rate for Management The downlink basic rate for management:
 - » QPSK 1/2 Repetition 6
 - » QPSK 1/2 Repetition 4
 - » QPSK 1/2 Repetition 2
 - » QPSK 1/2
 - » QPSK 3/4
 - » 16-QAM 1/2
 - » 16-QAM 3/4



- » 64-QAM 1/2
- » 64-QAM 2/3
- » 64-QAM 3/4
- » 64-QAM 5/6

Scheduler DL Abuse Protection Level - Applicable only if the Scheduler Mode is Equal Rate.

- » None: No Protection
- » Low: Limit the DL resources allocated to MSs with very low DL transmission Rate.
- » Medium: Limit the DL resources allocated to MSs with low and very low DL transmission Rate.
- Scheduler UL Abuse Protection Level Applicable only if the selected Scheduler Mode is Equal Rate.
 - » None: No Protection
 - » Low: Limit the UL resources allocated to MSs with very low UL transmission Rate.
 - » Medium: Limit the UL resources allocated to MSs with low and very low UL transmission Rate.

The following table lists the desired values from the Basic Rate Consistency Check report. Note that some of the desired values are simple ones, that is, have the same value for any BS configuration, however, others depend on some parameters, such as BW, Map, or Diversity:

Parameter Name	Desired Value	Conditions
UL Basic Rate	QPSK 1/2	Always
DL Basic Rate for Data	QPSK 1/2 Rep6	Diversity Mode IS "Beam Forming" AND "Map Major Group" IN ((1,1,0,0,0,0) OR (0,0,1,1,0,0) OR (0,0,0,0,1,1)) AND Bandwidth IS "10 MHz"
	QPSK 1/2 Rep4	Diversity Mode IS "Beam Forming" AND "Map Major Group" IS (1,1,1,1,1) AND Bandwidth IS "10 MHz"
	QPSK 1/2 Rep4	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,1,1,1,1) AND Bandwidth IS "7 MHz or 10 MHz"
	QPSK 1/2 Rep1	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,0,1,0,1,0) AND Bandwidth IS "5 MHz"

Table 5-2: Basic Rate Desired Parameters



Parameter Name	Desired Value	Conditions
DL Basic Rate for Management	QPSK 1/2 Rep6	Diversity Mode IS "Beam Forming" AND "Map Major Group" IN ((1,1,0,0,0,0) OR (0,0,1,1,0,0) OR (0,0,0,0,1,1)) AND Bandwidth IS "10 MHz"
	QPSK 1/2 Rep4	Diversity Mode IS "Beam Forming" AND "Map Major Group" IS (1,1,1,1,1) AND Bandwidth IS "10 MHz"
	QPSK 1/2 Rep4	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,1,1,1,1,1) AND Bandwidth IS "7 MHz or 10 MHz"
	QPSK 1/2 Rep1	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,0,1,0,1,0) AND Bandwidth IS "5 MHz"
DL Abuse Protection Level	Medium	Always
UL Abuse Protection Level	Medium	Always

Table	e 5-2: Basic	Rate Des	ired Parame	ters



Consistenc	y Check Co	nfiguration	
UL Basic Rate	Actual Value	Desired Value	
		QPSK 1/2	
DI Racio Pate			
for Data	Actual Value	Desired Value	
255.243.41.12.133.0	QPSK 1/2	QPSK 1/2 Repetition 1	
255.243.41.12.133.1	QPSK 1/2 Repetition 6	QPSK 1/2 Repetition 1	
255.243.41.2.2.2	QPSK 1/2	QPSK 1/2 Repetition 4	
255.243.41.2.6.25	QPSK 1/2	QPSK 1/2 Repetition 1	
255.243.41.2.6.35	QPSK 1/2	QPSK 1/2 Repetition 1	
255.243.41.35.3.6	QPSK 1/2	QPSK 1/2 Repetition 4	
255.243.41.35.3.7	QPSK 1/2	QPSK 1/2 Repetition 6	
DL Basic Rate for Management	Actual Value	Desired Value	
255.243.41.12.133.0	OPEK 1/2		
	GEBK 1/2	QPSK 1/2 Repetition 1	
255.243.41.12.133.1	QPSK 1/2	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1	
255.243.41.12.133.1 255.243.41.2.2.2	QPSK 1/2 QPSK 1/2 QPSK 1/2	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4	
255.243.41.12.133.1 255.243.41.2.2.2 255.243.41.2.6.25	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1	
255.243.41.12.133.1 255.243.41.2.2.2 255.243.41.2.6.25 255.243.41.2.6.35	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1	
255.243.41.12.133.1 255.243.41.2.2.2 255.243.41.2.6.25 255.243.41.2.6.35 255.243.41.2.6.35 255.243.41.35.3.7	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6	
255 243 .41 .12 .133 .1 255 243 .41 .2 .2 .2 255 243 .41 .2 .6 .25 255 243 .41 .2 .6 .35 255 .243 .41 .35 .3 .7	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6	
255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.35 255 243.41.35.3.7 DL Abuse	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6	
255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.35 255 243.41.35.3.7 DL Abuse Protection	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 Actual Value	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6	
255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.35 255 243.41.35.3.7 DL Abuse Protection Level	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 Actual Value	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6 Desired Value	
255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.35 255 243.41.35.3.7 DL Abuse Protection Level 255 243.41.12.133.0	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 Actual Value None	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6 Desired Value Medium	
266 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.36 255 243.41.36.3.7 DL Abuse Protection Level 255 243.41.12.133.0 255 243.41.12.133.0	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 Actual Value None None	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6 Desired Value Medium Medium	
255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.35 255 243.41.36.3.7 DL Abuse Protection Level 255 243.41.12.133.0 255 243.41.12.133.1 255 243.41.2.2.2	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 None None None	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6 Desired Value Medium Medium Medium	
255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.35 255 243.41.2.6.35 255 243.41.35.3.7 DL Abuse Protection Level 255 243.41.12.133.0 255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.5	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 None None None	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6 Desired Value Medium Medium Medium	
255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.35 255 243.41.2.6.35 255 243.41.2.6.35 DL Abuse Protection Level 255 243.41.12.133.0 255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.25	QPSK 1/2 QPSK 1/2 QPS	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6 Desired Value Medium Medium Medium Medium	
255 243.41.12.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.35 255 243.41.35.3.7 DL Abuse Protection Level 255 243.41.12.133.0 255 243.41.2.133.1 255 243.41.2.2.2 255 243.41.2.6.25 255 243.41.2.6.35	QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 QPSK 1/2 None None None None None None	QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 4 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 1 QPSK 1/2 Repetition 6 Desired Value Medium Medium Medium	

Figure 5-21: Consistency Check Configuration - Basic Rate

5.2.10.3 Consistency Check Configuration - Power Control

This tab lists the inconsistencies related to power control.

The report table includes the following parameters for which inconsistencies exist:

- 16-QAM 1/2 (dB) The C/N in dB required for transmitting 16-QAM 1/2, reported to the MS for power control purposes. The range is -20 to 50 (dB).
- 16-QAM 3/4(dB) The C/N in dB required for transmitting 16-QAM 3/4, reported to the MS for power control purposes. The range is -20 to 50 (dB)





- 64-QAM 1/2 (dB) The C/N in dB required for transmitting 64-QAM 1/2, reported to the MS for power control purposes. The range is -20 to 50 (dB)
- 64-QAM 2/3 (dB) The C/N in dB required for transmitting 64-QAM 2/3, reported to the MS for power control purposes. The range is -20 to 50 (dB)
- 64-QAM 3/4 (dB) The C/N in dB required for transmitting 64-QAM 3/4, reported to the MS for power control purposes. The range is -20 to 50 (dB)
- 64-QAM 5/6 (dB) The C/N in dB required for transmitting 64-QAM 5/6, reported to the MS for power control purposes. The range is -20 to 50 (dB)
- ACK (dB) The C/N in dB required for sending ACK, reported to the MS for power control purposes. The range is -20 to 50 (dB).
- Allowed Interference Level Correction of maximum allowed UL MCS based on measured DL CINR. The options are Very High, High, Medium, Low.
- CDMA (dB) The C/N in dB required for transmitting CDMA, reported to the MS for power control purposes. The range is -20 to 50 (dB).
- CQI (dB) The C/N in dB required for sending CQI, reported to the MS for power control purposes. The range is -20 to 50 (dB).
- QPSK 1/2 The C/N in dB required for sending QPSK 1/2, reported to the MS for power control purposes. The range is -20 to 50 (dB).
- QPSK 3/4 The C/N in dB required for sending QPSK 3/4, reported to the MS for power control purposes. The range is -20 to 50 (dB).
- Target Ni (dBm) The target noise and interference level for the PUSC zone, in dBm. The range is -130 to -110 in steps of 1 (dBm).
- Uplink Median Noise (dBm) The median value of the noise floor histogram. If the uplink median noise level exceeds this value, an excessive uplink median noise alarm is generated. The value is in dBm/tone.

The following table lists the desired values from the Power Control Consistency Check report. Note that some of the desired values are simple ones, that is, have the same value for any BS configuration, however, others depend on some parameters, such as BW, Map, or Diversity:

Parameter Name	Desired Value	Conditions
16-QAM 1/2 (dB)	16	Always
16-QAM 3/4 (dB)	22	Always
64-QAM 1/2 (dB)	23	Always
64-QAM 2/3 (dB)	25	Always
64-QAM 3/4 (dB)	26	Always

Table 5-3: Power Control Desired Values





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Parameter Name	Desired Value	Conditions
64-QAM 5/6 (dB)	28	Always
ACK (dB)	12	Always
Allowed Interference Level	Medium	Diversity Mode IS "Beam Forming" AND "Map Major Group" IN ((1,1,0,0,0,0) OR (0,0,1,1,0,0) OR (0,0,0,0,1,1)) AND Bandwidth IS "10 MHz"
	High	Diversity Mode IS "Beam Forming" AND "Map Major Group" IS (1,1,1,1,1) AND Bandwidth IS "10 MHz"
		Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,1,1,1,1) AND Bandwidth IS "7 MHz or 10 MHz"
		Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,0,1,0,1,0) AND Bandwidth IS "5 MHz"
CDMA (dB)	9	Always
CQI (dB)	12	Always
QPSK 1/2	13	Always
QPSK 3/4	16	Always
Target Ni (dBm)	-127	Always
Uplink Median Noise (dBm)	-122	Always

Table 5-3: Power Control Desired Values (Continued)







5.2.10.4 Consistency Check Configuration - Mobility

This tab lists the inconsistencies related to mobility.

The report table includes the following parameters for which inconsistencies exist:

- Deployment The type of deployment in the area served by the BS: Fix or Mobile.
- Trigger Neighbor General is the value given when the trigger is configured to apply to any BS defined in the neighbor list. Otherwise it will have the value of a specific neighbor BS ID.
- Trigger Value HO The threshold value for the trigger. For CINR triggers the range is -64 to 63.5 in steps of 0.5 (dB). For RSSI triggers the range is -103.75 to -40 in steps of 0.25 (dBm). For Distance triggers the range (in meters) is 0-3400 in steps of 50 if BS BW is 10 MHz, 0-6800 in steps of 50 if BS BW is 5 MHz, 0-4800 in steps of 50 if BS BW is 7 MHz.





- » Neighbor CINR(Handover request)>(dB)
- » Neighbor RSSI(Handover request)>(dBm)
- » Neighbor CINR-Own CINR(Handover request)>(dB)
- >> Neighbor RSSI-Own RSSI(Handover request)>(dBm)
- » Distance(Handover request)-(m)
- >> Own CINR(Handover request)<(dB)
- » Own RSSI(Handover request)<(dBm)
- Trigger Value Scan The threshold value for the trigger. For CINR triggers the range is -64 to 63.5 in steps of 0.5 (dB). For RSSI triggers the range is -103.75 to -40 in steps of 0.25 (dBm). For Distance triggers the range (in meters) is 0-3400 in steps of 50 if BS BW is 10 MHz, 0-6800 in steps of 50 if BS BW is 5 MHz, 0-4800 in steps of 50 if BS BW is 7 MHz.
- Trigger Type Scan One of the following handover request triggers:
 - > Own CINR(Scan request<(dB)</p>
 - > Own RSSI(Scan request)<(dBm)</p>
 - » Distance(Scan Request)-(m)

The following table lists the desired values from the Mobility Consistency Check report. Note that some of the desired values are simple ones, that is, have the same value for any BS configuration, however, others depend on some parameters, such as BW, Map, or Diversity:

Parameter Name	Desired Value	Conditions
Deployment	Fix	Always
Trigger Neighbor	General	Always

Table 5-4: Mobility Desired Values



Parameter Name	Desired Value	Conditions
Trigger Value	3 for Handover -50 for Scan	Diversity Mode IS "Beam Forming" AND "Map Major Group" IN ((1,1,0,0,0,0) OR (0,0,1,1,0,0) OR (0,0,0,0,1,1)) AND Bandwidth IS "10 MHz"
	3 for Handover -65 for Scan	Diversity Mode IS "Beam Forming" AND "Map Major Group" IS (1,1,1,1,1)) AND Bandwidth IS "10 MHz"
	3 for Handover -65 for Scan	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,1,1,1,1) AND Bandwidth IS "7 MHz or 10 MHz"
	3 for Handover -65 for Scan	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,0,1,0,1,0) AND Bandwidth IS "5 MHz"

Table 5-4: Mobility	Desired	Values	(Continued)
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Figure 5-23: Consistency Check Configuration - Mobility





This tab lists the inconsistencies related to beam forming.

The report table includes the following parameters for which inconsistencies exist:

- Calibration Attenuator The calibration attenuation used to help mitigate potential out of band interference to beam forming calibration caused by other base stations. The options are No Attenuation Used, Low Attenuation, High Attenuation.
- Neighbor Beam Forming Indicates whether any of the neighboring BSs operates in Beam Forming mode.

The following table lists the desired values from the Beam Forming Consistency Check report. Note that some of the desired values are simple ones, that is, have the same value for any BS configuration, however, others depend on some parameters, such as BW, Map, or Diversity:

Parameter Name	Desired Value	Conditions
Calibration Attenuator	Low Attenuator	Always
Neighbor Beam Forming	Yes	Diversity Mode IS "Beam Forming" AND "Map Major Group" IN ((1,1,0,0,0,0) OR (0,0,1,1,0,0) OR (0,0,0,0,1,1)) AND Bandwidth IS "10 MHz"
	Yes	Diversity Mode IS "Beam Forming" AND "Map Major Group" IS (1,1,1,1,1)) AND Bandwidth IS "10 MHz"
	NA	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,1,1,1,1) AND Bandwidth IS "7 MHz or 10 MHz"
	NA	Diversity Mode IS "Matrix A/B" AND "Map Major Group" IS (1,0,1,0,1,0) AND Bandwidth IS "5 MHz"

Table 5-5: Beam Forming Desired Values



	Consisten	cy Check Configuration			
	Calibration Attenuator	Actual Value	Desired Value		
			Low Attenuator		
	Neighbor Beam Forming	Actual Value	Desired Value		
	255.243.41.12.133.0	No	-		
	255.243.41.12.133.1	Yes	-		
	255.243.41.2.2.2	No	-		
	255.243.41.2.6.25	No	-		
	255.243.41.2.6.35	No	-		
	255.243.41.35.3.6	No	-		
	255.243.41.35.3.7	No	Yes		
Frame Structure	🖹 Basic Rate 📘 🗎 Pi	ower Control 📗 🗎	Mobility Beam Fo	rming	

Figure 5-24: Consistency Check Configuration - Beam Forming



Chapter 6 - Advanced Operations

In this Chapter:

- "Introduction" on page 148
- "Users and Groups Applying Security on Objects and Folders" on page 150
- Sending Scheduled Reports by Mail" on page 160







The Central Management Console (CMC) is a web-based tool which offers a single interface through which the administrator can perform various administrative tasks, including user management, content management, and server management.

Only users with valid credentials to BusinessObjects Enterprise (administrators) can log on to the CMC and set preferences.

This chapter presents the basic information for configuring users, groups and security. For detailed information, refer to the BusinessObjects manuals.

To access CMC (from Windows Start menu):

 Click Start and select Programs > BusinessObjects XI 3.1 > BusinessObjects Enterprise > BusinessObjects Enterprise Central Management Console. The Log On to the Central Management Console window is displayed.

Bus	iness Objects an SAP company	
Log	On to the Central Management Console	Help
	Enter your user information and click Log On. (If you are unsure of your account information, contact your system administrator.)	
	System: CSS-xp04:6400 User Name: administrator Password: Authentication: Enterprise	
	Log On	

Figure 6-1: Log On to the Central Management Console

- **2** Type the name of your Central Management Server (CMS) in the System field.
- **3** Type your user name and password.



If you're using LDAP or Windows NT authentication, you may log on using an account that has been mapped to the BusinessObjects Enterprise Administrators group.

- **4** Select Enterprise in the Authentication Type list.
- 5 Click Log On. The Central Management Console is displayed.



Figure 6-2: Central Management Console





6.2 Users and Groups - Applying Security on Objects and Folders

The "Users and Groups" management area of the Central Management Control (CMC) provides the tasks related to creating, mapping, changing and organizing the information about users and groups. After the user accounts and groups have been created, you can add objects and specify their permissions. You can add users to a group to simplify operating with a large number of users that need the same security rights. When users log on, they can view the objects using InfoView.

6.2.1 Creating New Groups and Users

A group is a collection of users who share the same account privileges. You can create groups that share the same access parameters to reports or folders. After creating a new group, users and subgroups can be added.



To create a new group:

- 1 In the CMC application click the access the Users and Groups management area.
- 2 Right-click on Group List and select New > New Group, or click the Create New Group icon (

the top-left corner. The Create New User Group dialog box is displayed (see Figure 6-4).



Manage - Actions - Search title - Manage - Actions - Search title - Image - Actions - Image - Actions - Search title - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Actions - Image - Action - Image - Actions - Image - Action	Users and Groups			Welcome: Administrator Help	an SAP	ompany og Out
Image Type Description Date Modified Image Administrators User Group Users who can administrate this 15:13 23/11/2009 Image Administrators User Group User Group Users who can administrate this 15:13 23/11/2009 Image Administrators User Group All users of this system 15:13 23/11/2009 Image QaaWS Group Designer User Group Query as a Web Service Group 15:13 23/11/2009 Image QaaWS Group Designer User Group User Group Users granted access to the Report 15:13 23/11/2009 Image StarReport User Group User Group Users granted access to the Tran 15:13 23/11/2009 Image StarReport Universe Designer Users User Group Users granted access to the Univ 15:13 23/11/2009 Image Translators User Group Users Group Users granted access to the Univ 15:13 23/11/2009 Image Translators User Group Users Group Users granted access to the Univ 15:13 23/11/2009 Image Translators User Group Users Group Users granted access to the Univ 15:13 23/	Manage - Actions -			Search title 👻	& M ∢ 1_ of 1	_ ₽
	Buser List B	Name Administrators Everyone QaaWS Group Designer Report Conversion Tool Users StarReport Translators Universe Designer Users	Type User Group User Group User Group User Group User Group User Group	Description Users who can administrate this : All users of this system Query as a Web Service Group D Users granted access to the Repo Users granted access to the Tran Users granted access to the Unive	Date Hodified 15:13 23/11/2009 15:13 23/11/2009 15:13 23/11/2009 15:13 23/11/2009 15:13 23/11/2009 15:13 23/11/2009 15:13 23/11/2009	

Figure 6-3: Users and Groups Menus

3 Enter the group name and description (optional).



Figure 6-4: New Group

4 Click **OK**; A group is created.





To create a new user:

- In the CMC application click the icon to access the Users and Groups management area (see Figure 6-3).
- 2 Right-click on User List and select New > New User, or click the Create New User icon () at the top-left corner. The Create New User dialog box is displayed (see Figure 6-5).

New User			? □ ×
Authentication Type: Enterprise			^
Account Name:			
Full Name:			
Email:			
Description:			
Enterprise Password Settings:			
Password: Password never expires			
Confirm: User must change password at next logon			
User cannot change password			
Connection Type:			
Concurrent User			
Named User			
	Create	Create & Close	Cancel

Figure 6-5: New User

- **3** Enter the appropriate information in the following fields:
- Authentication type for working with the default BusinessObjects authentication select Enterprise.
- Account name –the name of the user to be created
- Complete Full Name, E-mail and Description information optional free text
- Enterprise Password Settings initial password



- Limitations that can be applied for that specific user:
 - » Password never expires
 - » User must change password on next logon
 - » User cannot change password
- Connection type "Concurrent User" must be selected for the current license type
- 4 Click **Save and Close**. The user is added to the system and is automatically added to the "Everyone" group. You can now add the user to a group or specify rights directly to the user.

6.2.2 Mapping a User to a Specific Group

Users can be added to groups by adding them to an existing group, or have the user "join" a group from the users list.



To map a user to a group:

Do one of the following:

- Option 1 (see Figure 6-6)
- **1** From the Group list: Select the group, and select Add Members to Group from the Actions menu.
- 2 Select the user from the User list and send it to the Selected users/groups window, using the arrow buttons (><). Click **OK**.



				acci of gi cape
rch title 👻	<i>P</i>	H 4 1 of 1 ▶ H		N 1 of 1 ▶ N
User List	Title	Date Modified	Tit	le ^ Date Modified
Group List	Administrator	23.06.2009 14:54	🚨 use	er1 23.06.2009 15:55
Group Hierarchy	🗳 Guest	04.06.2009 11:11		
	🔓 QaaWSServletPrincipal	22.06.2009 15:08		
	🖁 user1	23.06.2009 15:55		
			> <	

Figure 6-6: Add Members to Group

- Option 2 (see Figure 6-7 and Figure 6-8)
- **1** Open the User list and select the user you want to add; more users can be selected at the same time by holding the Shift or Ctrl keys.
- 2 Select Join Group; The Join Group: User window is displayed.

	Users and Groups 📃						Welcome: Administrator P	references Log off About Help
۲	Manage + Actions +						Search title 👻	<i>•</i>
	😤 🐮 🕹 🚨 🗟 🔒							🎯 H 🔺 1 of 1 🕨 H
	🗝 🚨 User List		Name		Full Name	Туре	Description	Date Modified
	🏭 Group List	8	Administrator			User	Administrator account	23.06.2009 16:30
80	🖻 🏭 Group Hierarchy	8	Guest			User	Guest account	04.06.2009 11:11
	- 🔐 Administrators	8	QaaWSServletPri	incipal		User	QaaWS User who can generate the	22.06.2009 15:08
	Everyone	4	User1	Duanantiaa		User		23.06.2009 16:29
	QaaWS Group Designer	8	User2	properties		User		23.06.2009 16:29
-	Report Conversion Tool (8	User3	Join Group		User		23.06.2009 16:29
7,4	StarReport	8	User4	Profile Values		User		23.06.2009 16:29
256	Translators	8	User5	Account Manaq	er	User		23.06.2009 16:29
2	🐃 📫 Universe Designer Users			Manage				
				1. na logo				
S (
_ ¢₽		1						

Figure 6-7: Join Group - 1

3 From the Group list select the group to add the user to; send the selected group to the Destination Group section using the arrow buttons (><).



	Jo	oin Group: test1						🕜 🗆 ×
	Ch	oose a Destination Group to Ad	ld Se	elected Users/Groups to				
5 M								New Group
	1	Available Groups					Destination Group(s)	
8		Search title 🖌			H ◀ 1 of 1 ► H		Name	
	Ľ	- 🏜 Group List		Name	Date Created		StarReport	
22		🖽 🏜 Group Hierarchy	22	Administrators	04.06.2009 11:11			
			22	QaaWS Group Designer	04.06.2009 11:11			
6			<u>88</u>	Report Conversion Tool Users	04.06.2009 11:11			
-4-			<u>88</u>	StarReport	23.06.2009 16:29			
14			22	Translators	04.06.2009 11:11			
20			<u>88</u>	Universe Designer Users	04.06.2009 11:11			
9								
6								
						>		
						<		
69								
©								
ž.								
8								
1								
								OK Cancel

Figure 6-8: Join Group - 2

4 Click **OK**. The user is added to the group.

6.2.3 Allocating Security Rights on an Object or Folder

After installing the application and importing the BIAR file, only the administrator user has permission to view the newly created StarReport folder and its content in CMC or InfoView. By default, on a new installation, the permissions for the root of the folders (called "All Folders" in CMC) is denied to everyone including new users.

You can give access to a group or user on a specific object or folder. When adding rights on the root folder, all the folders under it will inherit it.

Newly created users can log in to InfoView, view the objects or folders for which they were given access and manage them according to the access levels.



To grant access to a group or user:

- 1 In the CMC application click the Folder icon 📋 to access the folders management area.
- 2 Right-click on **All Folders** and select Properties; The Properties: Root Folder window is displayed.



Figure 6-9: Properties: Root Folder

3 Select User Security from the left pane; The User Security: Root Folders window is displayed (see Figure 6-10).

User Security: Root Fol	der					? □ ×
Properties User Security	Ad	Id Principals Remo	ve View	Security	Assign Security	
Limits		Name	Full Name	Туре	Access	
	<u>80</u>	Administrators		User Group	Advanced	
-	<u>88</u>	Everyone		User Group	Advanced	
						Close

Figure 6-10: User Security Window

4 Select the "Everyone" user and click **Assign Security**; The Assign Security: Access Levels window is displayed.



Assign Security						1	? 🗗 🗙
Object: Root Folder							
Principal: Everyone						_	
Inheritance: 🔲 Inherit F	From Parent Folder					Remove Ac	cess
🗖 Inherit F	From Parent Group						
Access Levels Adv	anced						
Available Access Leve	ls		Assigned	Access Levels			
	4 4 <mark>1</mark> of1 ▶ ⊮				- H	∢ 1 of 1	$\mathbb{P} = \mathbb{H}$
Title	Description		Title	Description			
Full Control	Grants full access			No item to display			
Schedule	Grants view rights for objects, view-on-demand conter						
View	Grants view rights for objects	>					
View On Demand	Grants view rights for objects, and view-on-demand co						
		~					
					Apply	OK Ca	ncel
•							

Figure 6-11: Assign Security Window

5 In the Access Level tab, allocate View on Demand access level from the Available Access Levels section to the Assigned Access Levels section using the arrow buttons (><); If you want to give access only to one folder under the root, use the **Remove Access** button to manually remove the rights from the other folders. Click **Apply** to immediately activate the change. Click **OK** and close the Assign Security window.

The following table describes the available access levels:

Access level	Description	Rights Involved
View	If set on the folder level, a principal (user that has this right) can view the folder, objects within the folder, and each object's generated instances.	View objectsView document instances
	If set at the object level, a principal can view the object, its history, and generated instances.	

Table 6-1: Available Security Levels



Access level	Description	Rights Involved
Schedule	A principal can generate instances by scheduling an object to run against a specified data source once or on a recurring basis. The principals can view, delete, and pause the scheduling of instances that they own. They can also schedule reports to different formats and destinations, set parameters and database logon information, choose servers to process jobs, add contents to the folder, and copy the object or folder.	 View access rights, plus: Schedule the document to run Define server groupsto process jobs Copy objects to anotherfolder Schedule to destinations Export and Print the reports data Edit objects that the user owns Delete instances that the user owns Pause and resume document instances that the user owns
View On Demand	A principal can refresh data on demand against a data source.	Schedule access level rights, plus: Refresh the report data
Full Control	A principal has full administrative control of the object.	 All available rights, including: Add objects to the folder Edit objects Modify rights users have to objects Delete objects Delete instances

Table 6-1: Available Security Lev	vels (Continued)
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To allocate rights on a specific folder to a specific group/user:

1 Re-open the User Security window (See Figure 6-10) and click **Add Principals** from the top buttons. The Add Principals window is displayed.



Add Principals	? 🗆 ×
Object: Root Folder C All C Groups C Users Look for: Available users/groups QaaWS Group Designer Report Conversion Tool Users StarReport	Find Now Clear Selected users/groups Guest Translators
Universe Designer Users	
	Add and Assign Security Cancel

Figure 6-12: Add Principals Window

- **2** Select the Groups option.
- Select a group and move it to the Selected users/groups pane using the arrow buttons (> < >> <<).
 Click Add and Assign Security; the Assign Security window is displayed (see Figure 6-11).
- **4** Select the security level and move it to the Assigned Access Levels pane.
- **5** Click **Apply** to activate the change.
- 6 Click **OK** to return to the User Security window.





6.3 Sending Scheduled Reports by Mail

6.3.1 Mail Server Configuration

With Simple Mail Transfer Protocol (SMTP) mail support, you can choose to send the instances of an object, for example: a report instance, to one or more e-mail destinations. After it has run the object, the system will send a copy of the output instance as an attachment to the e-mail address(es) you specified. To use a destination, you must have the destination enabled and configured on the job servers.

This chapter presents the basic information for sending reports by mail. For a more detailed explanation, refer to the BusinessObject manuals.



To enable sending reports by e-mail:

1 In the CMC application click the 🚔 icon to access the Servers management area (Figure 6-13).

Servers	•							Wel	come: Adminis	trator Preferences Log	j off About Help
🏷 Manage 🗸 Actions 🗸									Search	n title 👻	<i>P</i>
📮 🤭 🔭 🗞 । 🖉 💷 ।	• III II+	1	20							æ∣ k ∢	1 of 2+ > >
🔤 🔚 🗊 Servers List			Server Name	State	Enabled	Stale	Kind	Host Name	PID	Description	Date Modified
📄 🖹 🗐 Server Groups List		8	STARREPORTS.AdaptiveJobServer	🔂 Running	🗟 Enabled		Job Server	StarReports	2968	Adaptive Job Server	22.06.2009 15:08
📓 🗐 Server Groups		8	STARREPORTS.AdaptiveProcessin	🔂 Running	🗟 Enabled		Adaptive Processi	StarReports	3000	Adaptive Processing Serve	e 22.06.2009 15:09
🐣 🕀 🕹 Nodes		8	STARREPORTS.CentralManageme	🔂 Running	👶 Enabled		Central Managem	StarReports	2128	Central Management Serv	« 22.06.2009 15:08
📃 🖻 🖲 Service Categories		8	STARREPORTS.ConnectionServer	🔂 Running	🔂 Enabled		Connection Serve	StarReports	2976	Connection Server	22.06.2009 15:09
🗐 🗄 🔂 Server Status		8	STARREPORTS.CrystalReportsCac	🔂 Running	👶 Enabled		Crystal Reports C	StarReports	2988	Crystal Reports Cache Ser	~ 22.06.2009 15:08
*		8	STARREPORTS.CrystalReportsJob	🔂 Running	🕏 Enabled		Job Server	StarReports	3172	Crystal Reports Job Serve	r 22.06.2009 15:08
*		8	STARREPORTS.CrystalReportsPro	🔂 Running	🕏 Enabled		Crystal Reports Pi	StarReports	3008	Crystal Reports Processing	3 22.06.2009 15:09
2		8	STARREPORTS.DashboardAnalytic	🕏 Running	🕏 Enabled		Dashboard Analyt	StarReports	3068	Dashboard Analytics Serve	≥ 22.06.2009 15:09
		8	STARREPORTS.DashboardServer	🕏 Running	🕏 Enabled		Dashboard Serve	StarReports	3104	EPM Dashboard Server	22.06.2009 15:09
		8	STARREPORTS.DesktopIntelligenc	🕏 Running	🕏 Enabled		Desktop Intelliger	StarReports	3376	Desktop Intelligence Cach	€ 22.06.2009 15:08
		8	STARREPORTS.DesktopIntelligenc	🔂 Running	🕏 Enabled		Job Server	StarReports	3112	Desktop Intelligence Job S	× 22.06.2009 15:08
88		8	STARREPORTS.DesktopIntelligenc	🔂 Running	🕏 Enabled		Desktop Intelliger	StarReports	3272	Desktop Intelligence Proce	: 22.06.2009 15:08
		8	STARREPORTS.DestinationJobSer	🔂 Running	🗟 Enabled		Job Server	StarReports	3120	Destination Job Server	22.06.2009 15:08
1	-	8	STARREPORTS.EventServer	🔂 Running	🗟 Enabled		Event Server	StarReports	3132	Event Server	22.06.2009 15:08
8	-	8	STARREPORTS.InputFileRepositor	🔂 Running	🗟 Enabled		File Repository Se	StarReports	3184	Input File Repository Serv	€ 22.06.2009 15:08
٢											
<u></u>											
8											
<u>3.</u>											

Figure 6-13: Servers List

2 From the Server Name column select the server name *<HostName>.AdaptiveJobServer* to enable or disable a destination. Right-click on the job server and select **Destination** from the menu (Figure 6-14); The Destination window is displayed (see Figure 6-15).



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			We	lcome:	Administrator Help	Preferer	nces About Log Out
					Search title	•	Q
						ī	😌 H 🔺 🔟 of 1 🕨 H
Name	State	Enabled	Stale	Kind	F	lost Name	PID Description
04.AdaptiveJobServer	🕫 Running	🕏 Enabled		Job	Properties	p04	2628 Adaptive Job Se 📤
)4.AdaptiveProcessingServe	🕏 Running	🕏 Enabled		Adaț	Start Sorvor	:p04	788 Adaptive Proces
)4.CentralManagementServ	🕏 Running	🕏 Enabled		Cent	Doctart Server	:p04	2076 Central Manage
)4.ConnectionServer	🕏 Running	🕏 Enabled		Conr	Stop Sorver	:p04	2340 Connection Serv
)4.CrystalReportsCacheSer	🕏 Running	🕏 Enabled		Crys	Earco Tormination	:p04	2620 Crystal Reports
)4.CrystalReportsJobServer	🕏 Running	🕏 Enabled		Job :		p04	2348 Crystal Reports
)4.CrystalReportsProcessin	🕏 Running	🗟 Enabled		Crys	Enable Server	p04	2328 Crystal Reports
)4.DashboardAnalyticsServ	🕏 Running	🕏 Enabled		Dasl	Disable Server	p04	2352 Dashboard Anal
)4.DashboardServer	🕏 Running	🗟 Enabled		Dasł	Metrics	:p04	2616 Dashboard Serv
)4.DesktopIntelligenceCach	🕏 Running	🕏 Enabled		Desł	Audit Events	p04	2520 Desktop Intellig
)4.DesktopIntelligenceJobS	🕏 Running	🗟 Enabled		Job :	Destination	p04	2484 Desktop Intellig
)4.DesktopIntelligenceProc	🕏 Running	🗟 Enabled		Desł	Placeholders	ф04	4272 Desktop Intellig
)4.DestinationJobServer	🕏 Running	🗟 Enabled		Job :	Clone Server	:p04	4280 Destination Job
)4.EventServer	🕏 Running	🗟 Enabled		Ever	Evicting Corver Croune	:p04	2876 Event Server
)4.InputFileRepository	🕏 Running	🗟 Enabled		File	Add to Server Croup	ф04	4384 Input File Repos
)4.ListOfValuesJobServer	🕏 Running	🗟 Enabled		Job :	Add to Server Group	:p04	4420 List of Values Jo
)4.MultiDimensionalAnalysi	🕏 Running	🗟 Enabled		Ada	User Security	p04	4428 Multi-Dimension
)4.OutputFileRepository	🕏 Running	🗟 Enabled		File	New	• p04	4436 Output File Rep
)4.PMMetricsServer	🕏 Running	🗟 Enabled		PM N	Tools	, p04	4444 PM Metrics Serv
)4.PMRepositoryServer	🕏 Running	🗟 Enabled		PM F	Doloto	:p04	4452 PM Repository S
)4.PMRulesServer	🕏 Running	🗟 Enabled		PM Ke		ээ хр04	4472 PM Rules Server
)4.PredictiveAnalysisServer	🕏 Running	🕏 Enabled		Predic	tive Analysis Server c	ss-xp04	4488 Predictive Analy

Figure 6-14: Server Management Right-Click Menu





Destination: STARREPO	RTS.CrystalRepor	rtsJobServer					🕜 🗆 ×
Hide Navigation							
Properties User Security Audit Events Destination Existing Server Gro Matrice	Destination: F	ile System 🔍	Add Remove				<u>_</u>
Placeholders	Domain Name						
r ideal iolidar a	Domain Marine.						
	Host:						
	Port:	: 25					
	Authentication:	None	-				
	User Name:						
	Password:						
	From:						
	To:						
	Cc:						
	Subject:		Add placeholder	•			
	Message:	:	Add placebolder	-			
	Add Attachment						
		Attachment:					
		Automatically Generated					
		Specific Name		Add placeholder	~		
		Add File Extension					
							Caus & Chasa Canast
Ⅰ ►						Save	

Figure 6-15: Server Destination Window

- **3** To enable an E-mail destination, select **Email** in the Destination list and click **Add**. Some fields are displayed for configuration (Figure 6-15).
- **4** Fill in the relevant information for your destination:
- Domain name the SMTP server domain name
- Host the SMPT server name
- Port the SMTP server port
- Authentication select Plain or Login if the job server must be authenticated using one of these methods in order to send mail.
- User name provide a Job Server with a username that has permission to send e-mail
- Password provide the Job Server with the password for the SMTP server
- From the return e-mail address
- **5** To save your configuration, click **Save and Close**.
- 6 Repeat Steps 2 through 5 for the *<HostName>.DestinationJobServer* and *<HostName>.PublicationJobServer*



6.3.2 Scheduling a Report to be Sent by Mail

You can configure a report to be sent by e-mail to a destination on a certain schedule.



To schedule a report to be sent by e-mail:

- 1 In the CMC application click the Folder icon 🛅 to access the folders management area.
- 2 Select All Folders > StarReport_x.y (x.y is the version number) and choose the report you want to schedule. Right-click and select Schedule, or select Schedule from the Actions menu. A window with the instance (report) title is displayed.

Schedule: 02. Detailed BTS Information ? 🗆 🛪								
Schedule: 02. Det Poperties Categories Schedule Instance Title Recurrence Schedule For Notification Prompts Formats and Caching Events Scheduling 50 Webi Process User Security History Limits	tailed BTS Information * • • × Instance Title 02. Detailed BTS Information							
↓	Schedule Cancel	-						

Figure 6-16: Instance Title

3 From the Schedule menu at the left pane select **Formats and Destination**; The Formats and Destination window is displayed.




Schedule: 02. Det	ailed BTS Information		? 문 >
Schedule: 02. Det Poperties Categories Schedule Instance Title Recurrence Schedule For Notification Prompts Formats and De Caching Events Scheduling Serv Webi Process Se User Security History Limits	ailed BTS Information Formats and Destinations • Output Format and Des Output Format	tination Output Format Details Destinations for Web Intelligence - 02. Detailed BTS Information Inbox I File location I FTP server I Email recipients ond Settings	? d ² /
<)			Schedule Cancel

Figure 6-17: Schedule - Formats and Destinations

- **4** Select an Output Format, and the **Email Recipients** destination for the selected format.
- **5** Click Destinations Options and Settings to expand its options.
- **6** Select either one or both of the following:
 - >> Use the Job Server's defaults. If you deselect this option, some fields are displayed for configuration (see Figure 6-18).
 - » Cleanup instance after scheduling



Schedule: 02. De	tailed BTS Information		? □ ×
Default Settings Properties Categories Schedule Instance Title Recurrence	Formats and Destinations • Destinations Options and Settings		
Schedule For Notification	Destinations for the output format	Options and Settings	
Schedule For Notification Prompts Formats and Caching Events Scheduling St Webi Process User Security History Limits	Email recipients	Use the Job Server's defaults From: To: Cc: Subject: Add attachment: Specific name: Add file extension Message: Cleanup instance after scheduling	
		Schedule	

Figure 6-18: Destinations Options and Settings - Email Recipients

- **7** Fill in the information in the fields.
- **8** From the Schedule menu at the left pane select **Recurrence**; The Recurrence window is displayed with some fields for configuration (see Figure 6-19).



Schedule: 02. De	stailed BTS Information	? 🗆 ×
 Default Settings Properties Categories 	Recurrence	
▼ Schedule Instance Title	Run object: Now	
Recurrence Schedule For	Object will run now.	
Prompts	Number of retries allowed: 0	
Formats and	Retry interval in seconds: 1800	
Events		
Scheduling S Webi Process	u S	
User Security		
Limits		
		Schedule Cancel

Figure 6-19: Schedule - Recurrence Window

- **9** Choose the recurrence to run the report.
- **10** Click **Schedule**. An e-mail will be sent to the selected e-mail address each time the report is being run.