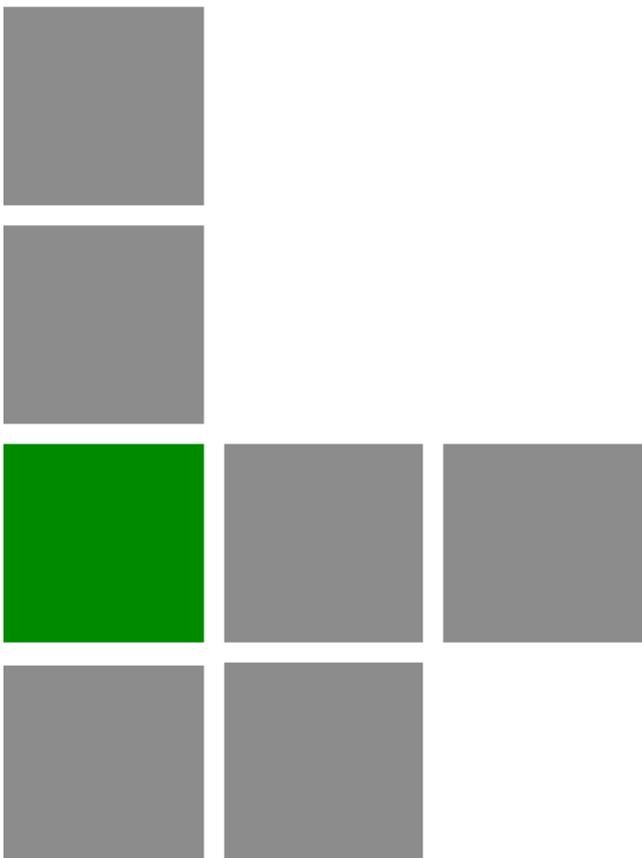


## BreezeMAX<sup>®</sup> Extreme 5000 BTS and CPE Software Upgrade Procedure

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### Technical Note

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Software Version: 1.5  
August 2010  
DN1107

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# 1 Scope

This document provides the software upgrade procedure of the BreezeMAX Extreme Base Transceiver Station (BTS) and BreezeMAX PRO 5000 CPE, from version 1.1 or 1.2 to version 1.5.

## 2 Upgrade Information

- The upgrade procedure for BTS is described in Section 3.
- The upgrade procedure for the PRO 5000 is described in Section 4.
- When elements are not commercially deployed, it is recommended to upgrade the S/W through local connection (as described in Section 3.2 for the BTS and Section 4.2 for the CPE).
- When upgrading an already deployed network, the recommended steps are:
  1. If you are using the NMS system (AlvariSTAR, StarACS, etc), upgrade it to latest version (not part of the scope of this document).
  2. Upgrade the BTS, using one of the following:
    - Telnet (refer to section 3.2), or
    - AlvariSTAR (refer to section 3.3)
  3. Upgrade the subscribers, using one of the following:
    - Direct web connection (LAN port of the SU) – refer to section 4.2
    - Direct web connection (over the air) – refer to section 4.3
    - StarACS – refer to section 4.4

## 3 BTS Software Upgrade Procedure

### 3.1 Pre-Upgrade Procedure

Before initiating the BTS software upgrade procedure, make sure that you meet the following prerequisites:

1. Check connectivity with the BTS.
2. Check that there is a TFTP server accessible from the BTS.
3. Check that appropriate files are available on the TFTP server.

**NOTE**

When upgrading to version 1.5, under the following circumstances, it is mandatory to upgrade the *COUNTRY\_CODES.db* and *RFU\_HEADS.db* files to the latest available version:

- You are using Australia country code 5.8
  - You want to enable 5 MHz BW in 5.4 ETSI, 5.8 ETSI, 5.4 FCC, and 5.8 FCC.
4. Check there is an AlvariSTAR server reachable from the BTS (if AlvariSTAR is intended to be used).
  5. Perform services and event log backup, if necessary.

**NOTE**

When upgrading to version 1.5, it is recommended to first upgrade the CPEs and after that to perform the upgrade procedure for the BTS.

**NOTE**

Upgrading from version 1.1 or 1.2 to version 1.5 does not affect the already defined services. Backup may be useful if anything goes wrong. Note that downgrading from 1.5 to 1.1 will result in loss of the incompatible services (ETH CS based services).

## 3.2 Software Upgrade Using Monitor

1. The software upgrade procedure is performed using the Software Version Control menu and submenus. Navigate to 1-BTS > 4-Unit Control > 4-SW Version Control.
2. Check the existing software versions using 1-BTS > 4-Unit Control > 4-SW Version Control > 1-Show SW Versions.

```
BreezeMAX-Extreme / BTS 10.1.200.10
SW Version 1.2.1.18
BTS
===
1 - Show Summary
2 - Show Properties
3 - Configuration
4 - Unit Control
5 - Fault Management
6 - Performance Counters
>4

BreezeMAX-Extreme / BTS 10.1.200.10
SW Version 1.2.1.18
BTS-Unit Control
=====
1 - Change Password
2 - Reset BTS
3 - Reset to BTS Factory Defaults
4 - SW Version Control
5 - Configuration Files Control
6 - Monitor Inactivity Timeout
>4

BreezeMAX-Extreme / BTS 10.1.200.10
SW Version 1.2.1.18
BTS-Unit Control-SW Version Control
=====
1 - Show SW Versions
2 - Show Activation and Status Parameters
3 - Load to Shadow
4 - Reset and Run from Shadow
5 - Set Running Version As Operational
>1

BTS-Unit Control-SW Version Control-Show SW Versions
=====
Operational SW File           : BreezeEx_1_2_1_18.bzres
Operational SW Version        : 1.2.1.18
Shadow SW File                 : BreezeEx_1_2_1_18s.bzres
Shadow SW Version              : 1.2.1.18
Running From                   : Operational
Operational Boot SW Version    : 1.0.0.8
>
```

**Figure 1: Software Versions Check**

3. Use 3 - Load to Shadow from the Software Version Control menu to point to the TFTP server and the desired software version image (*BreezeEx\_1\_5\_1\_72.bzres* is the 1.5 GA version). Confirm this action when requested.

```
BreezeMAX-Extreme / BTS 10.1.200.10
SW Version 1.2.1.18
BTS-Unit Control-SW Version Control
=====
1 - Show SW Versions
2 - Show Activation and Status Parameters
3 - Load to Shadow
4 - Reset and Run from Shadow
5 - Set Running Version As Operational
>3

BTS-Unit Control-SW Version Control-Load to Shadow
=====
Enter TFTP Server IP Address      : 1.200.1.10
Enter File Path And File Name    : BreezeEx_1_5_1_52.bzres
The unit will load a new file into the shadow.
Do you want to continue? [Y/N] y
```

**Figure 2: Load to Shadow**

4. Check the download process using 2 - Show Activation and Status Parameters. While the download is still on, the status will be “In Progress”.

```
BreezeMAX-Extreme / BTS 10.1.200.5
SW Version 1.1.0.32
BTS-Unit Control-SW Version Control
=====
1 - Show SW Versions
2 - Show Activation and Status Parameters
3 - Load to Shadow
4 - Reset and Run from Shadow
5 - Set Running Version As Operational
>2

BTS-Unit Control-SW Version Control-Show Activation and Status Parameters
=====
>
Process Status                    : In Progress
```

**Figure 3: Process Status - In Progress**

Upon download completion, the status will change to “Successfully Completed”. Also, the Operational version will be *BreezeEx\_1\_2\_1\_18.bzres* (or *BreezeEx\_1\_1\_0\_32.bzres* if the BTS was running 1.1 version) and the newly downloaded image will be available in Shadow. The running version will still be 1.2.

```

BTS-Unit Control-SW Version Control-Show SW Versions
=====
Operational SW File           : BreezeEx_1_2_1_18.bzres
Operational SW Version        : 1.2.1.18
Shadow SW File                : BreezeEx_1_5_1_52.bzres
Shadow SW Version             : 1.5.1.52
Running From                  : Operational
Operational Boot SW Version   : 1.0.0.8
>

```

**Figure 4: Software Versions after Image Download**

5. Enter 4-Reset and Run from Shadow and confirm the action. After reboot, use 1 - Show SW Version and check that the new image is used (Running From: Shadow).

```

BTS-Unit Control-SW Version Control-Show SW Versions
=====
Operational SW File           : BreezeEx_1_2_1_18.bzres
Operational SW Version        : 1.2.1.18
Shadow SW File                : BreezeEx_1_5_1_52.bzres
Shadow SW Version             : 1.5.1.52
Running From                  : Shadow
Operational Boot SW Version   : 1.0.0.8
>

```

**Figure 5: SW Versions after Reset & Run from Shadow**

6. Use 5 - Set Running Version As Operational and confirm the action; the software versions should resemble the following figure:

```

BTS-Unit Control-SW Version Control-Show SW Versions
=====
Operational SW File           : BreezeEx_1_5_1_52.bzres
Operational SW Version        : 1.5.1.52
Shadow SW File                : BreezeEx_1_2_1_18.bzres
Shadow SW Version             : 1.2.1.18
Running From                  : Operational
Operational Boot SW Version   : 1.0.0.8
>

```

**Figure 6: SW Versions after Setting the Running Version as Operational**

### 3.3 Software Upgrade Using AlvariSTAR

1. Login to AlvariSTAR and open the Equipment Manager tab from the Managed Network menu. Make sure that the BTS device is in “Up” State before performing the software upgrade.

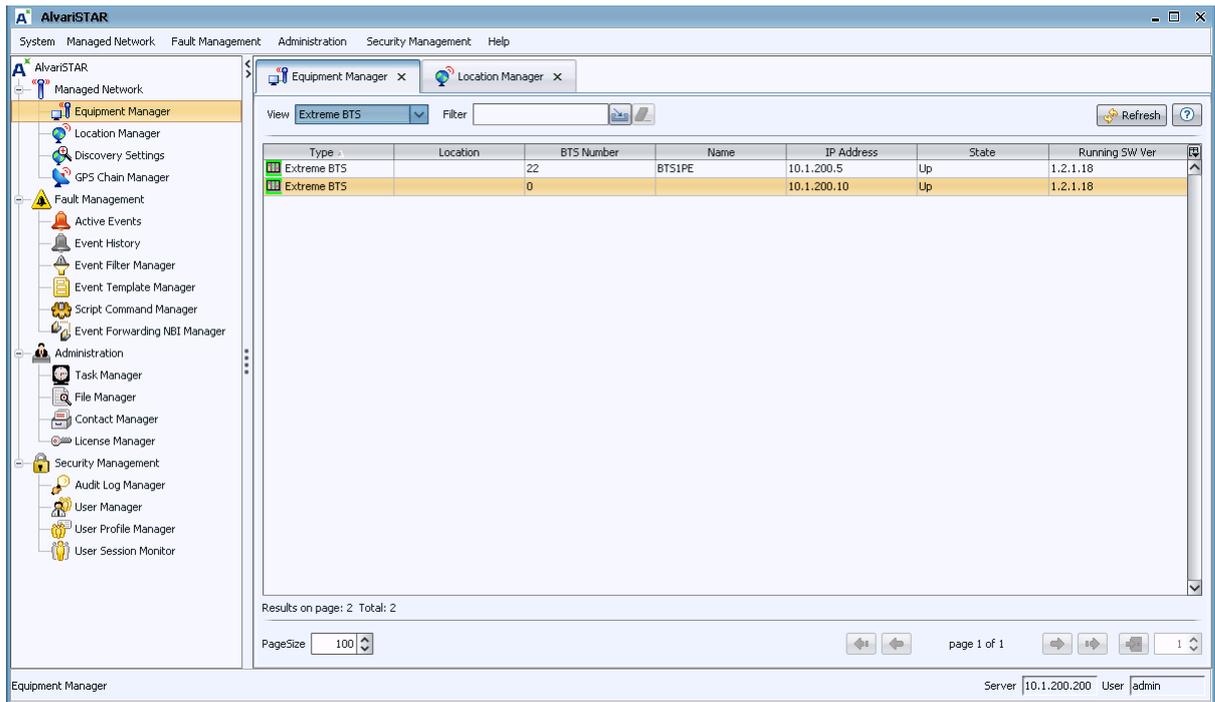


Figure 7: AlvariSTAR Equipment Manager Window

- From the Administration menu, open the Task Manager tab.

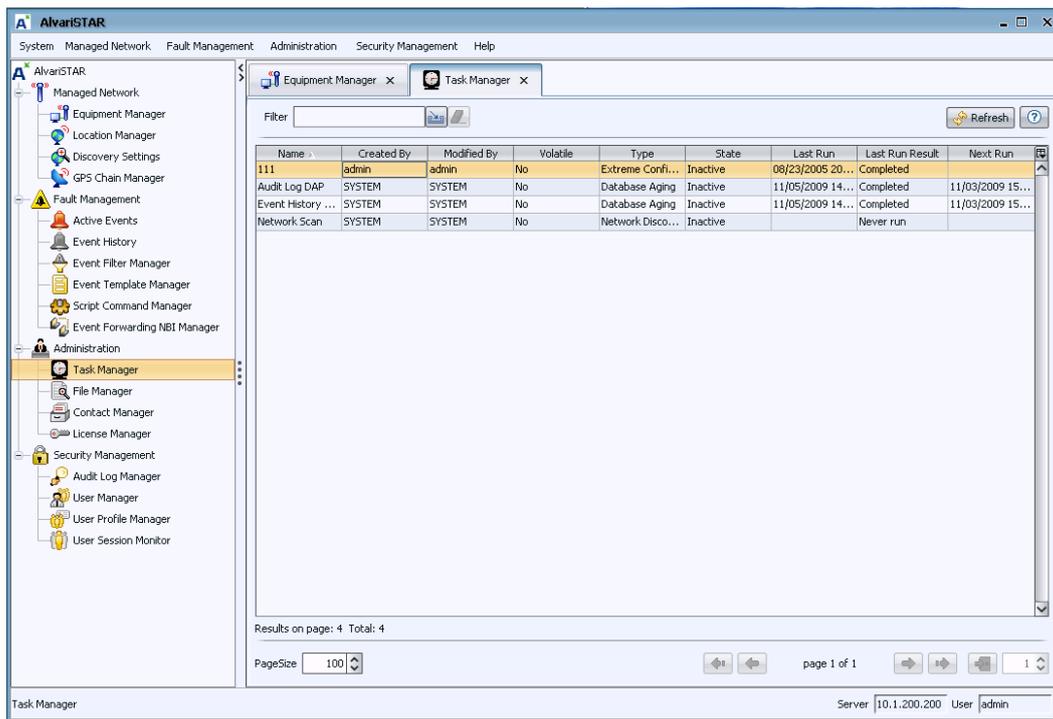
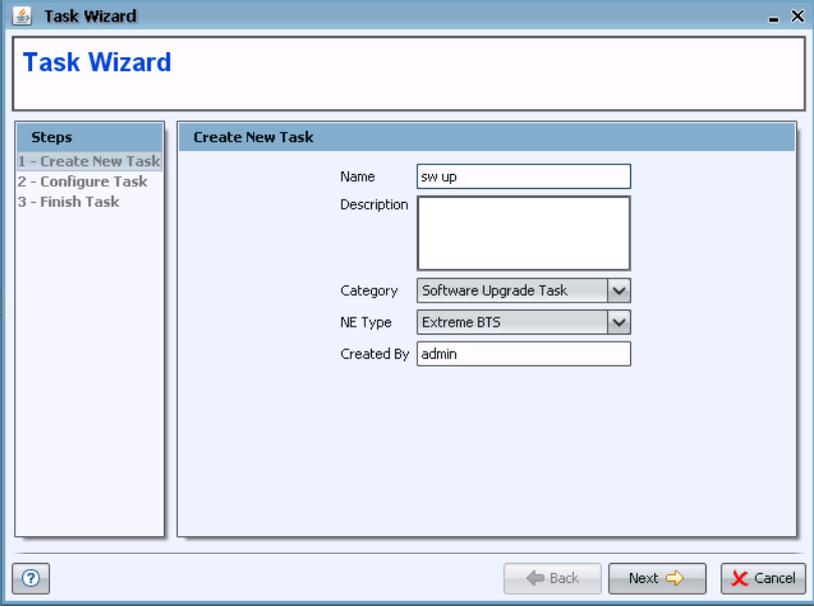


Figure 8: Task Manager

- Right-click in the opened pane and select New. A Task Wizard is displayed.



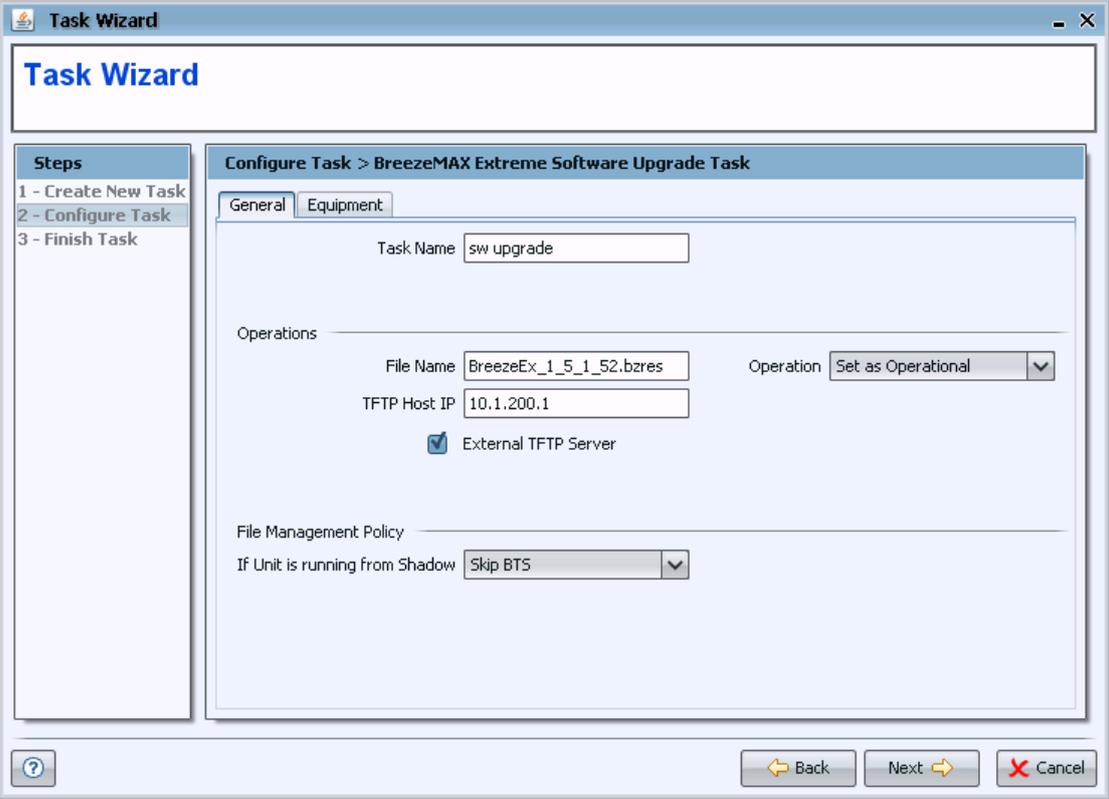
The screenshot shows the 'Task Wizard' window with the 'Create New Task' step selected. The 'Steps' pane on the left lists: 1 - Create New Task, 2 - Configure Task, and 3 - Finish Task. The main area contains the following fields:

- Name: sw up
- Description: (empty text box)
- Category: Software Upgrade Task (dropdown menu)
- NE Type: Extreme BTS (dropdown menu)
- Created By: admin

At the bottom, there are buttons for '?', 'Back', 'Next', and 'Cancel'.

Figure 9: Task Wizard – Create New Task

- From the Category drop-down menu select Software Upgrade Task and from the Network Equipment (NE) Type list select Extreme BTS. Fill in a name and a description (if needed) and click **Next**. The Configure Task window is displayed.



The screenshot shows the 'Task Wizard' window with the 'Configure Task' step selected. The 'Steps' pane on the left lists: 1 - Create New Task, 2 - Configure Task, and 3 - Finish Task. The main area is titled 'Configure Task > BreezeMAX Extreme Software Upgrade Task' and has two tabs: 'General' and 'Equipment'. The 'General' tab is active and contains the following fields:

- Task Name: sw upgrade
- Operations section:
  - File Name: BreezeEx\_1\_5\_1\_52.bzres
  - Operation: Set as Operational (dropdown menu)
  - TFTP Host IP: 10.1.200.1
  - External TFTP Server
- File Management Policy section:
  - If Unit is running from Shadow: Skip BTS (dropdown menu)

At the bottom, there are buttons for '?', 'Back', 'Next', and 'Cancel'.

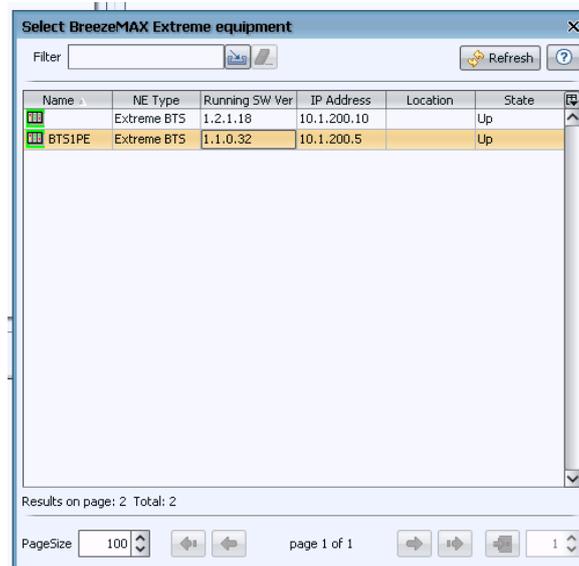
Figure 10: Task Wizard – Configure Task

- In the General tab, fill in the TFTP Host IP and the File Name (if External TFTP server is selected), or select the desired image (if Internal server is used) from the dropdown menu. From the Operation drop-down list select Set as Operational and for File Management Policy use Skip BTS.

**NOTE**

When using internal TFTP server, make sure that all the desired software images are available under `[AlvariSTAR_HOME]\filessystem\firmware\pico` folder.

- Select the equipment requiring the software upgrade: Select the Equipment tab, click **Add** and double-click the devices to select and add them to the list.



**Figure 11: Adding Equipment**

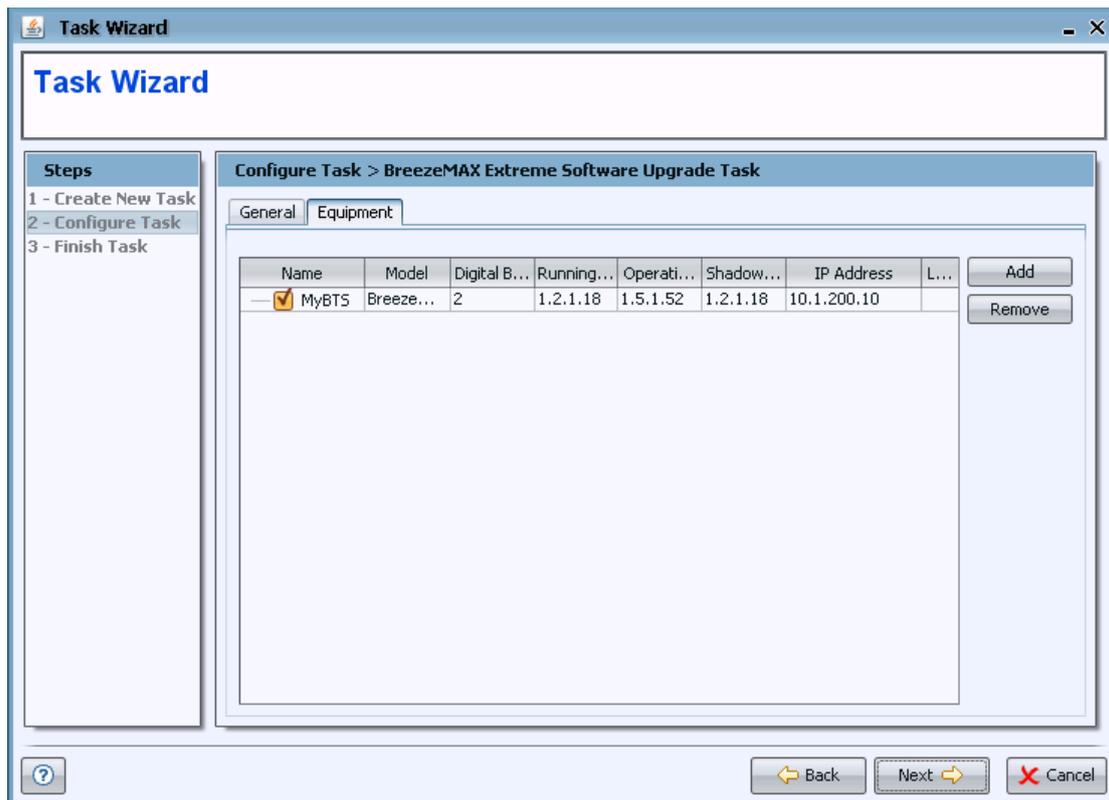


Figure 12: Select Equipment

- When all the desired devices have been added, click **Next**. The Finish Task window is displayed.

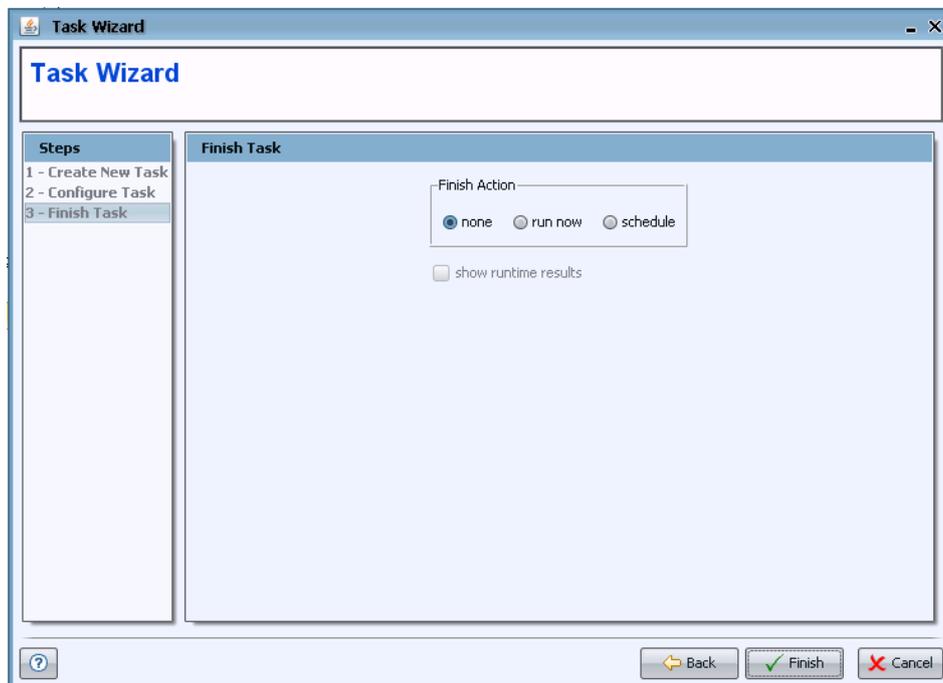


Figure 13: Finish Task

- Select how and when the task should be run:
  - None - save the task for future usage

- Run Now - start the upgrade procedure immediately
  - Schedule - run the task at a specific time.
9. Check the progress of the task by selecting it from the Task Manager.

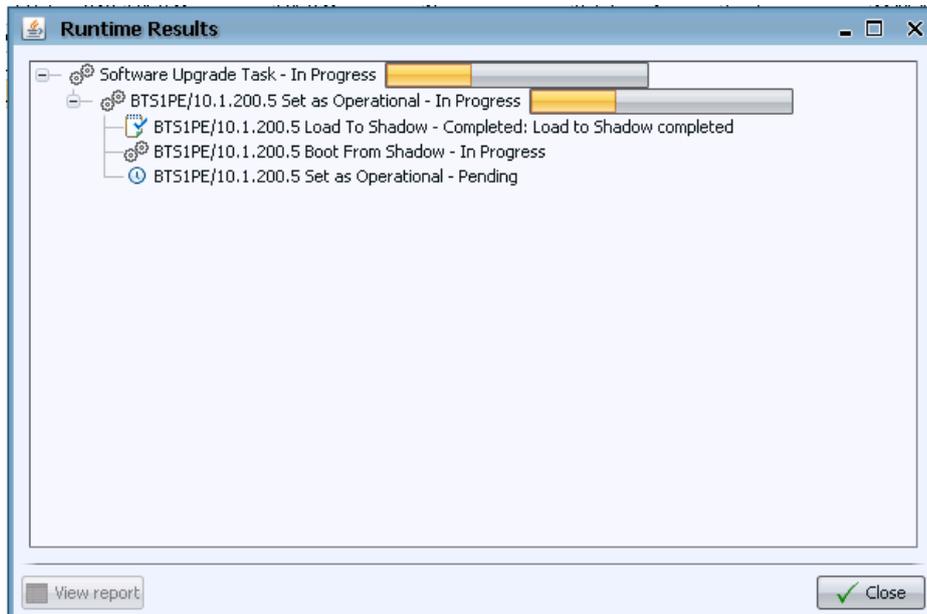


Figure 14: Runtime Results

### 3.4 Upgrading the *COUNTRY\_CODES.db* and *RFU\_HEADS.db* Files

When upgrading from release 1.1 or 1.2 to 1.5, it is recommended to upgrade also the *COUNTRY\_CODES.db* and *RFU\_HEADS.db* files to the latest available version.

#### 3.4.1 Upgrading the *Country\_Codes.db* File

Follow these steps to upgrade the *COUNTRY\_CODES.db* file using the Telnet application:

1. Navigate to 1-BTS > 5-Unit Control > 5-Configuration Files Control > 2-Download Configuration File (Restore File).
2. Select File Type: 4-Country Code File, and fill in all the other requested data (TFTP server, etc.). Confirm the operation.

```

BreezeMAX Extreme / BTS 10.1.200.10
SW Version 1.5.1.52
BTS-Unit Control-Configuration Files Control
=====
1 - Upload Configuration File (Backup File)
2 - Download Configuration File (Restore File)
3 - Show Activation and Status Parameters
>2

BTS-Unit Control-Configuration Files Control-Download Configuration File (Restore File)
=====
Select File Type      :
Enter 1 - Full Configuration File, 2 - Services (SP & MSF) File, 3 - RFU Heads file, 4 - Country Codes File
Select File Type      : 4
Enter TFTP Server IP Address      : 10.1.200.1
Enter File Path And File Name     : COUNTRY_CODES.db
The unit will download the selected file from the selected TFTP server.
For restoring the new configuration in the device a reset is required.
The reset is not part of this operation.
Do you want to continue? [Y/N] y

BreezeMAX Extreme / BTS 10.1.200.10
SW Version 1.5.1.52
BTS-Unit Control-Configuration Files Control
=====
1 - Upload Configuration File (Backup File)
2 - Download Configuration File (Restore File)
3 - Show Activation and Status Parameters

```

**Figure 15: COUNTRY\_CODES.db Upgrade**

3. Check the operation status using option 3 - Show Activation and Status Parameters.
4. Check the new *COUNTRY\_CODES.db* file version using the option 2 - Show Properties from the BTS menu.

### 3.4.2 Upgrading the *RFU\_HEADS.db* File

Follow these steps to upgrade the *RFU\_HEADS.db* file using the Telnet application:

1. Navigate to 1-BTS > 5-Unit Control > 5-Configuration Files Control > 2-Download Configuration File (Restore File).
2. Select File Type: 3- RFU Heads file, and fill in all the other requested data (TFTP server, etc.). Confirm the operation.

```
BreezeMAX Extreme / BTS 10.1.200.10
SW Version 1.5.1.52
BTS-Unit Control-Configuration Files Control
=====
1 - Upload Configuration File (Backup File)
2 - Download Configuration File (Restore File)
3 - Show Activation and Status Parameters
>2

BTS-Unit Control-Configuration Files Control-Download Configuration File (Restore File)
=====
Select File Type :
Enter 1 - Full Configuration File, 2 - Services (SP & MSF) File, 3 - RFU Heads file, 4 - Country Codes File
Select File Type : 3
Enter TFTP Server IP Address : 10.1.200.1
Enter File Path And File Name : RFU_HEADS.db
The unit will download the selected file from the selected TFTP server.
For restoring the new configuration in the device a reset is required.
The reset is not part of this operation.
Do you want to continue? [Y/N] y

BreezeMAX Extreme / BTS 10.1.200.10
SW Version 1.5.1.52
BTS-Unit Control-Configuration Files Control
=====
1 - Upload Configuration File (Backup File)
2 - Download Configuration File (Restore File)
3 - Show Activation and Status Parameters
>
```

**Figure 16: RFU\_HEADS.db Upgrade**

3. Check the operation status using option 3 - Show Activation and Status Parameters.
4. Check the new *RFU\_HEADS.db* file version using the option 2 - Show Properties from the 1- BTS menu.

## 4 PRO 5000 CPE Software Upgrade

### 4.1 Pre-Upgrade Procedure

Before initiating the CPE software upgrade procedure, and depending on the upgrade method, follow these steps:

1. Connect the CPE unit to the PC (only for direct connection method).
2. Configure the PC IP Address = 192.168.254.250 (only for direct connection method).
3. Check that you have connectivity with the CPE.
4. Check that there is a TFTP server accessible from the CPE (e.g. PumpKIN).

**IMPORTANT**

In order to upgrade from 4.6.5.55 software version to 1.5.1.23, the intermediate version 1.2.0.3 is mandatory. In such cases, follow one of the below described procedures to first upgrade from 4.6.5.55 to the intermediate 1.2.0.3 version and then repeat the same procedure to upgrade from 1.2.0.3 to 1.5.1.23.

## 4.2 Direct Connection Method

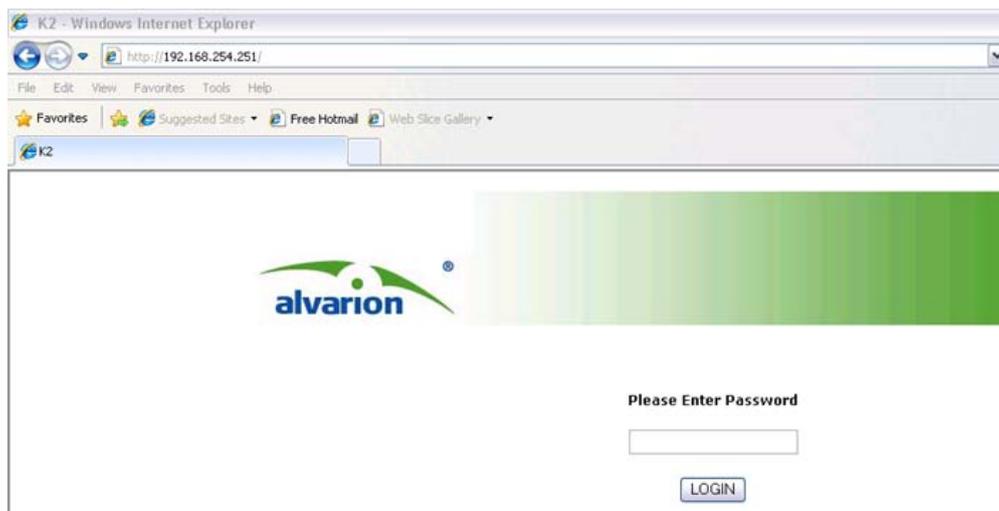
Follow these steps to properly upgrade the CPE software version:

1. Check that the TFTP server is started and contains, in its root directory, the software image that you are about to download.
2. Open a web browser and go to the following URL:  
<http://192.168.254.251>

**NOTE**

192.168.245.251 represents the default IP address of the CPE.

3. Login using the appropriate credentials (default is “installer”).



**Figure 17: Login Page**

The CPE web interface configuration main menu is displayed:



**Figure 18: Web Interface Main Menu**

4. Click **Unit Control** at the upper main menu bar; the lower menu bar is displayed.
5. Click **SW Versions Control**; the SW Versions Control page is displayed.



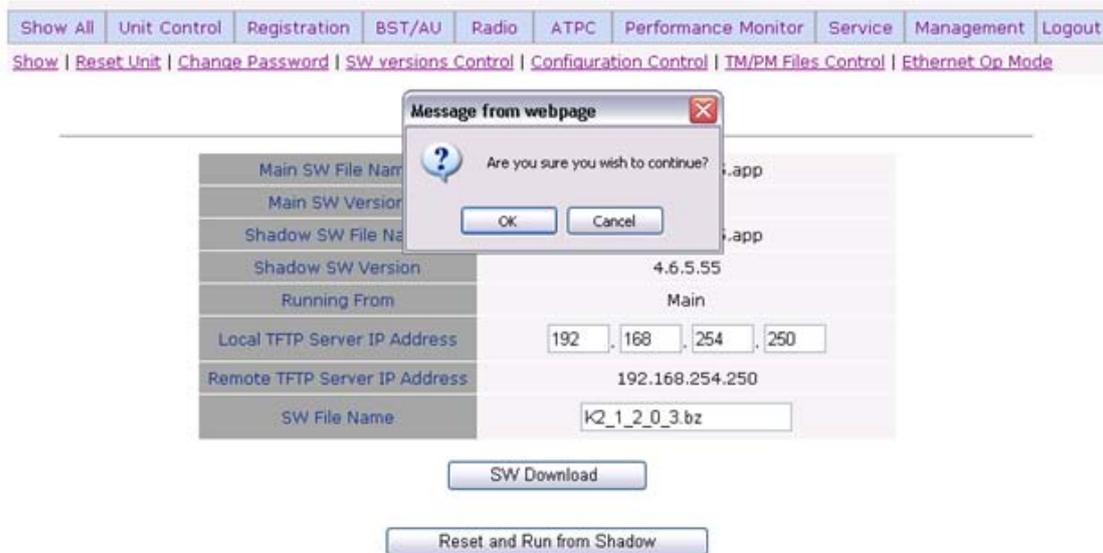
**Figure 19: SW Versions Control Menu Page**



**NOTE**

Make sure that the current running SW version is 1.2.0.17 or 4.6.5.55 (Main SW Version field).

6. Enter the appropriate IP address of your TFTP server (192.168.254.250) in the Local TFTP Server IP Address field.
7. Enter the appropriate file name of the new software version (K2\_1\_5\_1\_23.bz for version 1.5) in the SW File Name field.
8. Click **SW Download**, and confirm this operation. The download operation might take several minutes.



**Figure 20: SW Versions Control Menu Page with Confirmation Window**

Upon successful download operation the following message is displayed:

Firmware Download finished!

- Click **SW Versions Control** at the lower menu bar and then click **Reset and Run from Shadow**. Confirm this operation.



**Figure 21: Reset and Run from Shadow Confirmation Window**



**NOTE**

After reset, if the radio link is up, the new downloaded software version will be set as the main software version. In this case, clicking Set running version as Main is not required (step 10).

- After reset, navigate to **SW Versions Control** page (steps 1 to 5). Click **Set running version as main**.

11. If the upgrade software operation has been successful, the new downloaded software version is displayed in the Main SW Version field, and the previous software version is displayed in the Shadow SW Version field.

**IMPORTANT**

In order to upgrade from software version 4.6.5.55 to 1.5.1.23, the intermediate version 1.2.0.3 is mandatory.

## 4.3 After Deployment – Over the Air Upgrade Method

For this upgrade method you should know the IP address of the CPE. If you need to find it out, access the BTS to which the respective CPE is associated using one of the following described methods.

### 4.3.1 Finding the CPE IP Address through CLI

Connect to the BTS to which the respective CPE is associated using Telnet. After logging in, navigate to 8-MS > 1-Show Summary. The CPE IP address appears in the MS IP Address line.

```
BreezeMAX-Extreme / BTS 10.1.200.10
SW Version 1.2.1.18
Main
====
1 - BTS
2 - ASN GW
3 - Sector
4 - BS
5 - Radio Channel
6 - Antenna
7 - GPS
8 - MS
X - Exit
>8

BreezeMAX-Extreme / BTS 10.1.200.10
SW Version 1.2.1.18
MS
==
1 - Show Summary
2 - Show Summary By BS
3 - Show Concise Summary
4 - Show Concise Summary By BS
5 - Select By MAC
>1

MS-Show Summary
=====
MS MAC Address           : 00-10-e7-41-43-90
MS IP Address            : 10.1.200.61
BS ID                    : 1
Operational Status      : Authorized
-----

Total Number Of MSs           : 1
Total Number Of MSs Connected to BS 1: 1
Total Number Of MSs Connected to BS 2: 0
>
```

Figure 22: MS Show Summary Menu from CLI

### 4.3.2 Finding the CPE IP Address through AlvariSTAR

1. Login to AlvariSTAR and open the Equipment Manager tab, from the Managed Network menu.

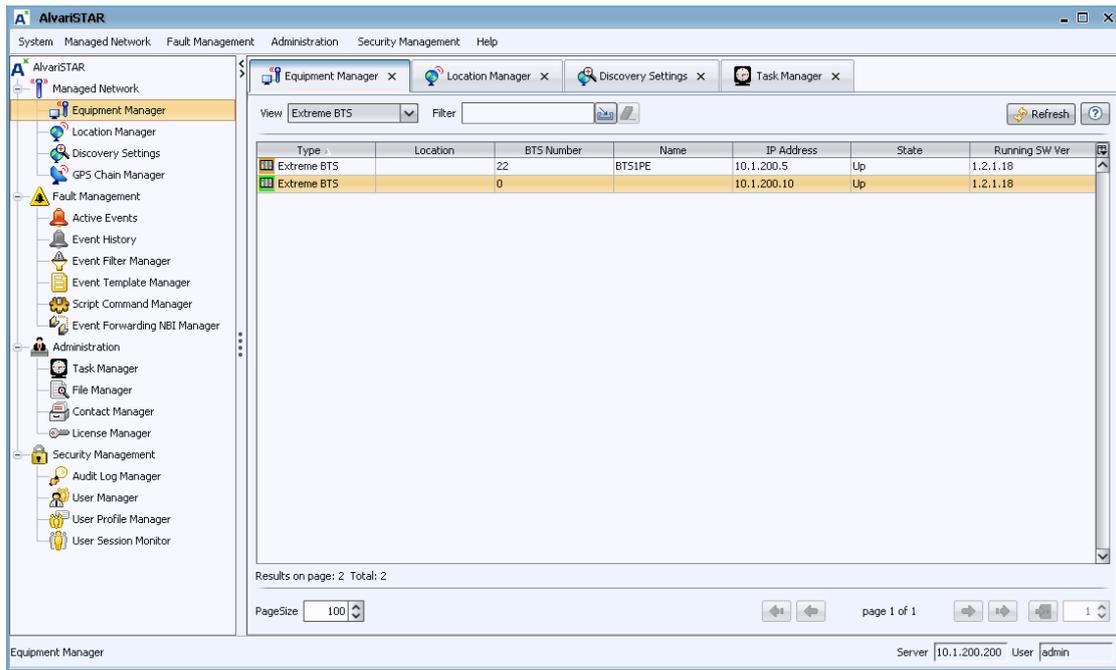


Figure 23: AlvariSTAR Equipment Manager Window

2. Select the BTS to which the respective CPE is associated. Select the MS menu. The IP address of the MS (CPE) appears in the IP Address column.

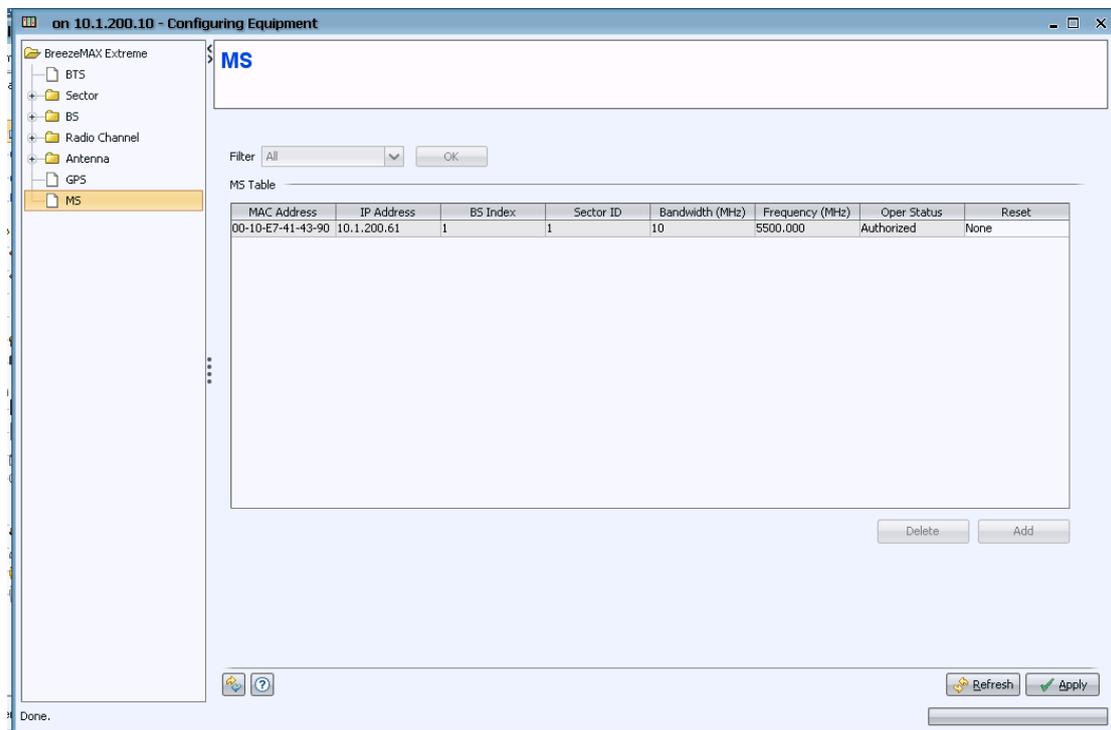


Figure 24: AlvariSTAR MS Window

### 4.3.3 Upgrade Procedure

The software upgrade procedure is the same as the one described in Section 4.2 Direct Connection Method with two minor modifications:

- Replace the 192.168.254.251 IP address (which is the default CPE IP address on LAN side) with the IP address of the CPE on WAN side as found above.
- The TFTP server should reside in the backbone and should be accessible from the CPE.

## 4.4 CPE Upgrade Using StarACS

### 4.4.1 General

The naming convention of BreezeMAX PRO 5000 CPE within the StarACS system is “Alvarion Sequans”. For detailed description, refer to the *StarACS User Manual*.

Upgrading a group of CPEs to the required version involves the following steps, described in the next sections:

1. File Settings
2. Loading Firmware Images to StarACS File System
3. Creating an Equipment Template
4. Performing Firmware Upgrade for a Group of CPEs using the template.

### 4.4.2 File Settings

The purpose of this procedure is to set the connections between servers in order to be able to upload the Firmware files to the StarACS system.

1. Verify if the FTP and TFTP servers are installed on the StarACS system.
2. Login to StarACS and go to Settings > File Server. Fill in the IP address of the StarACS server in the second and fourth sections (Download server details and CPE upload server details). See Figure 24.

The screenshot shows the StarACS V2.8.5.3 settings interface. The top navigation bar includes 'CPE Profile', 'Update a CPE', 'Update Group', 'Reports', 'File Management', and 'Settings'. The left sidebar lists settings categories: ACS and DB, Email Server, Alerts, User Management, ACS Users, File Server (selected), and Sessions. The main content area is divided into sections for file management servers:

- File management ftp server details:** Address: ftp://192.168.10.21, Username: acs, Password: 123456
- Download server details:** Address: 192.168.10.21, Username: (empty), Password: (empty)
- File management upload ftp server details:** Address: ftp://192.168.10.21, Username: acs, Password: 123456
- CPE upload server details:** Address: 192.168.10.21

Figure 25: File Server Window

#### 4.4.3 Loading Firmware Images to StarACS File System

The purpose of this procedure is to upload the Firmware files to the StarACS system and later to use them for the actual CPE upgrade.

1. Check if the appropriate Firmware image files are available on the computer you are using to open StarACS.

For each of the required Firmware images do the following:

2. In StarACS go to File Management > Add. Use the drop-down menus to choose the following:
  - Manufacturer: Alvarion
  - Model name: Sequans
  - File type: Firmware Image
3. Use the **Browse** button to find the firmware image file and then click **Send Update** (at the bottom-left side of the screen). The image files are loaded to the StarACS server.

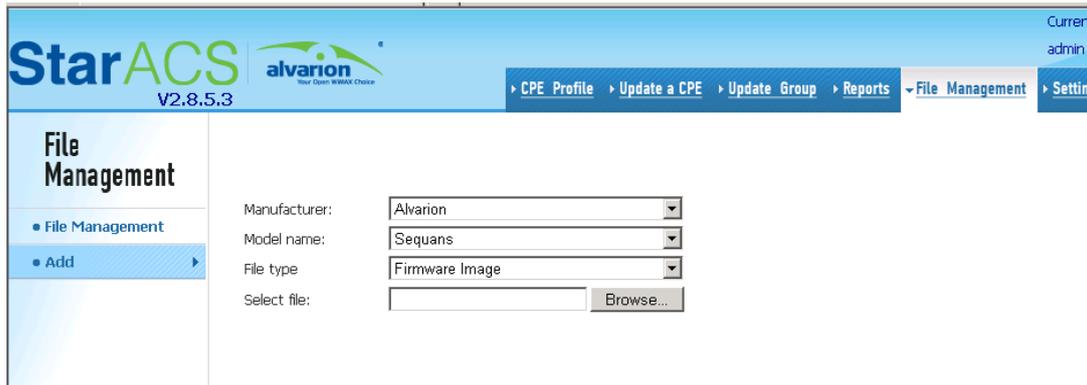


Figure 26: File Management Window

#### 4.4.4 Creating an Equipment Template

In order to manage groups of CPEs and perform group operations, StarACS can use a template profile for the relevant equipment. This template profile is created based on one of the CPEs of the same type existing in the system. Later on, this template is applied to the group of CPEs.

1. Go to the Update a CPE tab and select a CPE from which to create a template (in the following example – Alvarion/Sequans - see Figure 26).

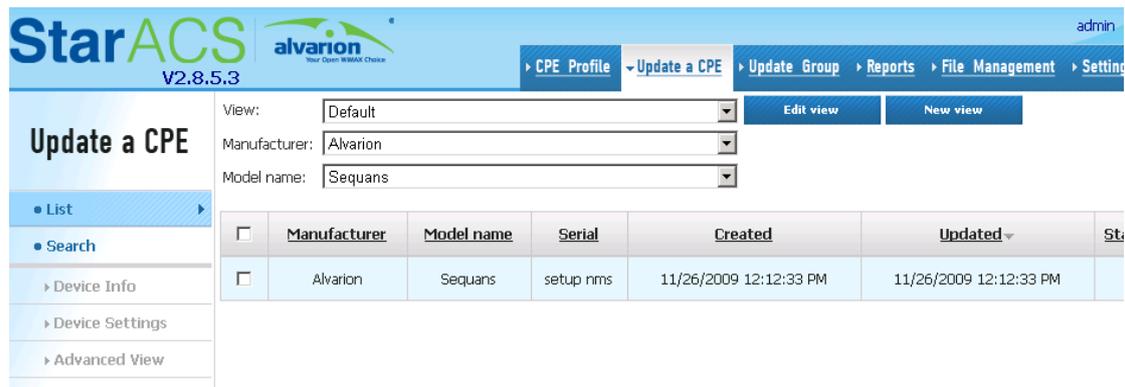


Figure 27: Update a CPE Window

2. Click the Device Info menu option; the information about the device is displayed (see Figure 27).
3. Click the **Create Template** button; a template is created. If there is an existing template you will be prompted to approve the replacement of the old template with the new.

starACS V2.8.5.3 alvarion Your Open WIMAX Choice

CPE Profile Update a CPE Update Group Reports File Management Settings

## Update a CPE

- List
- Search
- Device Info
- Device Settings
- Advanced View
- Device Monitoring
- File Download
- File Upload
- Custom RPC
- Device History
- Device Activity

0 Pending tasks  
05 Completed tasks  
0 Rejected tasks  
0 Failed tasks

Recheck Status

Info Model name: CPE Pro SQ  
Description: Alvarion WIMAX Model CPE Pro SQ Variant 5.XGHz  
Serial Number: setup nms  
Hardware Version: ROB  
Running SW Version: 1.2.0.1  
Shadow SW Version: 1.2.0.1089  
Uptime (seconds): 160618  
Registration Date: 11/26/2009 12:12:33 PM  
Last Connection: 11/26/2009 12:12:33 PM  
Identity:  
Realm:  
Serving BS ID: 2.3.3.42.226.1  
MAC Address: 00:12:CF:54:9E:07  
Connection Request URL: http://192.168.56.3:56360/goform/cpeurl

Reboot Factory Reset Create Template Delete Run from shadow Set as main  
Reprovision CPE

Figure 28: Device Info Page

- A window appears informing that the template was created successfully. Click **OK**.



Figure 29: Template Confirmation Window

#### 4.4.5 Performing Firmware Upgrade for a Group of CPEs

- Go to the Update Group tab and choose **New** from the menu list at the left side of the window. The New Update Group page is displayed (see Figure 29).

**Figure 30: New Update Group Page**

- From the Manufacturer drop-down list select Alvarion, and from the Model Name select Sequans. (These options are part of the template created in section 4.4.4). The full information of group update is displayed (Figure 31).

**Figure 31: Full Group Update Window**

- Fill in the following:
  - Name: Enter the Update name (free text)
  - Send to: Choose the CPEs to update (see detailed instructions in the *StarACS User Manual*)
  - Activate: Select when to perform the update: immediate/scheduled, etc. (see instructions in the *StarACS User Manual*)
  - Click the **Download file** tab (see Figure 31) and select Firmware Image from the File type drop-down list.

**Activate:**

Immediately

Scheduled to Date: 11/26/2009 Time: 12:00 AM

Period 1:  AM  AM Amount  Time interval  Minutes

Period 2:  AM  AM Amount  Time interval  Minutes

Pause after  Stop on pause

Server Local Management LAN Device WAN Device Services WiMAX Operator Profile **Actions** Download file

Firmware Image

Select in list  Manual

Not found

Request device to connect  Wait for the next device connection

Save and Activate Save Cancel Advanced View

**Figure 32: Download File Tab and Fields**

4. In the Select File section choose **manual**.
5. In the 'URL' textbox enter the IP of the machine the TFTP server is installed on.
6. In the 'Target Location' textbox enter the name of the firmware image you wish to download to the CPEs. NOTE – it needs to be placed in the TFTP server home directory.
7. In the 'File Size' textbox enter the size of the firmware image file IN BYTES rounded up.
8. Scroll-down in the Download File tab and click **Save** (see Figure 33).

The screenshot shows a software configuration window with the following elements:

- Version:** All (dropdown)
- Name:** a (text input)
- Send to:** All (dropdown)
- Buttons:** Edit Group, Create Group, Select Devices
- Scheduled to:** Date: 11/26/2009, Time: 12:00 AM
- Period 1:** [ ] [ ] AM, Amount [ ]
- Period 2:** [ ] [ ] AM, Amount [ ]
- Pause after:** [ ] Stop on pause [ ]
- Navigation Tabs:** Device Info, Management Server, Local Management, LAN Device, WAN Device, Services, WiMAX Operator Prof
- File Selection:** File name: Not found (dropdown), Target location: [ ]
- Buttons:** Save, Cancel
- Options:**  Request device to connect,  Wait for the next device connection
- Bottom Buttons:** Save and Activate, Save, Cancel, Advanced View

**Figure 33: Download File Tab (Scrolled Down)**

9. Select whether the profile is to be activated immediately by selecting **Request device to connect** or later by selecting **Wait for the next device connection**.
10. Click **Save and Activate** to activate the group update task.