

**NOKIA**

# Airscale 5G Classical BTS Commissioning & Integration

Nguyen Thanh Binh

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# Preparing SCF file

## Preparing SCF file Template

SCF file template for gNb with 3 sector:

`Commissioning_gHC03657_20190820_1000_template.xml`

## Preparing SCF file

### Modifying btsName and location

- Open SCF file template using notepad++.
- Change btsName accordingly

```
<managedObject distName="MRBTS-1593657" class="com.nokia.srbts:MRBTS" version="SBTS5G19_1811_010" operation="create">  
  <p name="btsName">gHC03657</p>  
</managedObject>
```

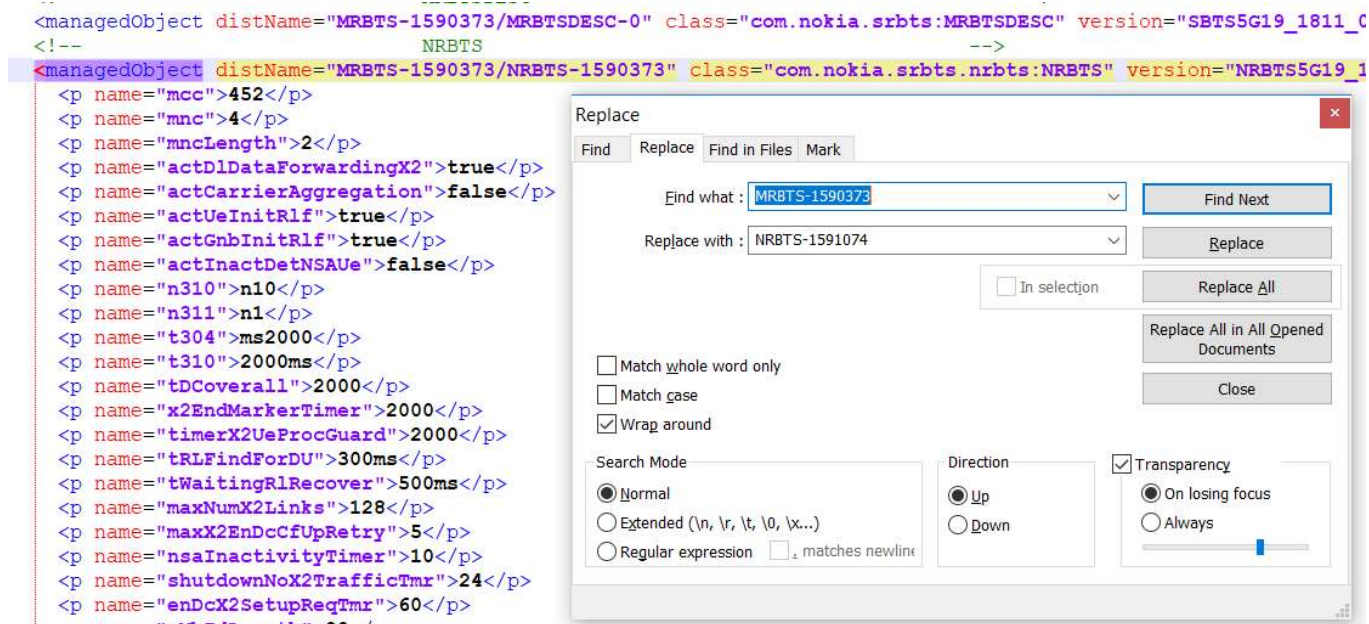
- Change location of gNodeB accordingly

```
<managedObject distName="MRBTS-1593657/EQM-1/APEQM-1" class="com.nokia.srbts.eqm:APEQM" version="EQM5G19_1901_010"  
operation="create">  
  <p name="rapProfile"> 5G19/5g_pid12_class_aeqd_pEoc_3S_p2 </p>  
  <p name="location">gHC03657</p>  
  <p name="rapProductVariantPlanned">AirScaleSubRack</p>  
</managedObject>
```

## Preparing SCF file

### Modifying MRBTS ID and NRBTS ID

- Replace MRBTS ID accordingly using Ctrl + H and select “Replace All”.
- Replace NRBTS ID with the same procedure.



## Preparing SCF file

### Modifying IP address for M-Plane and C/U/S-Plane

- Change IPADDRESSV4-1 for IPIF-1 (C/U/S-Plane)

```
<managedObject distName="MRBTS-1590373/TNLSVC-1/TNL-1/IPNO-1/IPIF-1/IPADDRESSV4-1" class="com.nokia.srbts.tnl:IPADDRESSV4"
version="TNL5G19_1901_010" operation="create">
  <p name="localIpAddr">10.178.120.209</p>                                <!-- IP for C/U/S Plane -->
  <p name="localIpPrefixLength">29</p>
  <p name="ipAddressAllocationMethod">MANUAL</p>
</managedObject>
```

- Change IPADDRESSV4-1 for IPIF-2 (M-Plane)

```
<managedObject distName="MRBTS-1590373/TNLSVC-1/TNL-1/IPNO-1/IPIF-2/IPADDRESSV4-1" class="com.nokia.srbts.tnl:IPADDRESSV4"
version="TNL5G19_1901_010" operation="create">
  <p name="localIpAddr">10.188.120.209</p>                                <!-- IP for M Plane -->
  <p name="localIpPrefixLength">29</p>
  <p name="ipAddressAllocationMethod">MANUAL</p>
</managedObject>
```

## Preparing SCF file

### Modifying VLAN ID for M-Plane and C/U/S-Plane (if needed)

- **Change VLAN ID for IPIF-1 (C/U/S-Plane)**

```
<managedObject class="com.nokia.srbts.tnl:VLANIF" distName="MRBTS-1590373/TNLSVC-1/TNL-1/ETHSVC-1/ETHIF-1/VLANIF-1"
operation="create" version="TNL5G19_1901_010">
  <p name="vlanId">2636</p>
</managedObject>
```

- **Change VLAN ID for IPIF-2 (M-Plane)**

```
<managedObject class="com.nokia.srbts.tnl:VLANIF" distName="MRBTS-1590373/TNLSVC-1/TNL-1/ETHSVC-1/ETHIF-1/VLANIF-2"
operation="create" version="TNL5G19_1901_010">
  <p name="vlanId">2637</p>
</managedObject>
```

## Preparing SCF file

### Updating IP Routing Table

```
<managedObject distName="MRBTS-1590373/TNLSVC-1/TNL-1/IPNO-1/IPRT-1" class="com.nokia.srbts.tnl:IPRT"
version="TNL5G19_1901_010" operation="create">
  <list name="staticRoutes">
```

```
    <item>
```

```
      <p name="destinationIpPrefixLength">0</p>
      <p name="destIpAddr">0.0.0.0</p>
      <p name="gateway">10.178.120.214</p>
      <p name="preference">1</p>
      <p name="routeIpMtu">1460</p>
```

```
    </item>
```

```
    <item>
```

```
      <p name="destinationIpPrefixLength">16</p>
      <p name="destIpAddr">10.73.0.0</p>
      <p name="gateway">10.188.120.214</p>
      <p name="preference">1</p>
      <p name="routeIpMtu">1460</p>
```

```
    </item>
```

```
    <item>
```

```
      <p name="destinationIpPrefixLength">16</p>
      <p name="destIpAddr">192.168.0.0</p>
      <p name="gateway">10.188.120.214</p>
      <p name="preference">1</p>
      <p name="routeIpMtu">1460</p>
```

```
    </item>
```

```
  </list>
```

```
</managedObject>
```

#### Routing for C/U/S-Plane:

- Change GW accordingly.

<!-- Gateway for C/U/S Plane -->

#### Routing for M-Plane:

- Change GW accordingly.

<!-- Gateway for M Plane -->

#### Routing for M-Plane:

- Change GW accordingly.

<!-- Gateway for M Plane -->

## Preparing SCF file

### Modifying Planned Parameters for NRCELL

#### - Change *prachRootSequenceIndex*

|           |                                                                   |                                                                 |
|-----------|-------------------------------------------------------------------|-----------------------------------------------------------------|
| Line 467: | <code>&lt;p name="prachRootSequenceIndex"&gt;108&lt;/p&gt;</code> | <code>&lt;!-- prachRootSequenceIndex for NRCELL-1 --&gt;</code> |
| Line 652: | <code>&lt;p name="prachRootSequenceIndex"&gt;124&lt;/p&gt;</code> | <code>&lt;!-- prachRootSequenceIndex for NRCELL-2 --&gt;</code> |
| Line 837: | <code>&lt;p name="prachRootSequenceIndex"&gt;2&lt;/p&gt;</code>   | <code>&lt;!-- prachRootSequenceIndex for NRCELL-3 --&gt;</code> |

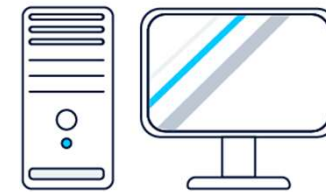
#### - Change *physCellId*

|           |                                                      |                                                     |
|-----------|------------------------------------------------------|-----------------------------------------------------|
| Line 399: | <code>&lt;p name="physCellId"&gt;25&lt;/p&gt;</code> | <code>&lt;!-- physCellId for NRCELL-1 --&gt;</code> |
| Line 584: | <code>&lt;p name="physCellId"&gt;26&lt;/p&gt;</code> | <code>&lt;!-- physCellId for NRCELL-2 --&gt;</code> |
| Line 769: | <code>&lt;p name="physCellId"&gt;27&lt;/p&gt;</code> | <code>&lt;!-- physCellId for NRCELL-3 --&gt;</code> |

# Loading AirScale Classical 5G BTS Software using the BTS Rescue Console

## Updating AirScale Classical 5G BTS Software using the BTS Rescue Console Preparation

The latest Factory Delivery Software (FDSW) is installed on the AirScale System Module



- The new gNB software is downloaded to a local PC.
- An internet browser (Firefox or Chrome compatible with BTS Rescue Console) is installed on local PC.

The site router and transport network with IP planning (addresses, VLANs, routing and QoS) as well as RF Planned Parameters.

# Updating AirScale Classical 5G BTS Software using the BTS Rescue Console

## Overview

Verify gNB hardware and connectivity to RU based on RAP profile required.

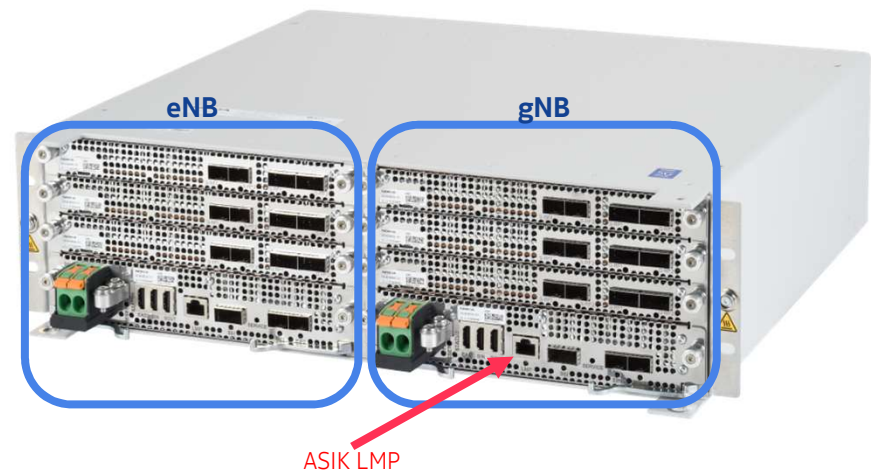
Download AirScale Classical 5G BTS SW to local PC

Remove ABIL modules prior to power-up

Power up gNB

Connect PC to ASIK Local Maintenance Port (LMP)

Open FDSW BTS Rescue Console and Update SW to AirScale Classical 5G BTS Cloud SW



## Updating AirScale Classical 5G BTS Software using the BTS Rescue Console Procedure - Connect the local PC to ASIK board



1. Configure the local PC with:  
IP address: 192.168.255.126  
Netmask: 255.255.255.0  
Gateway not needed

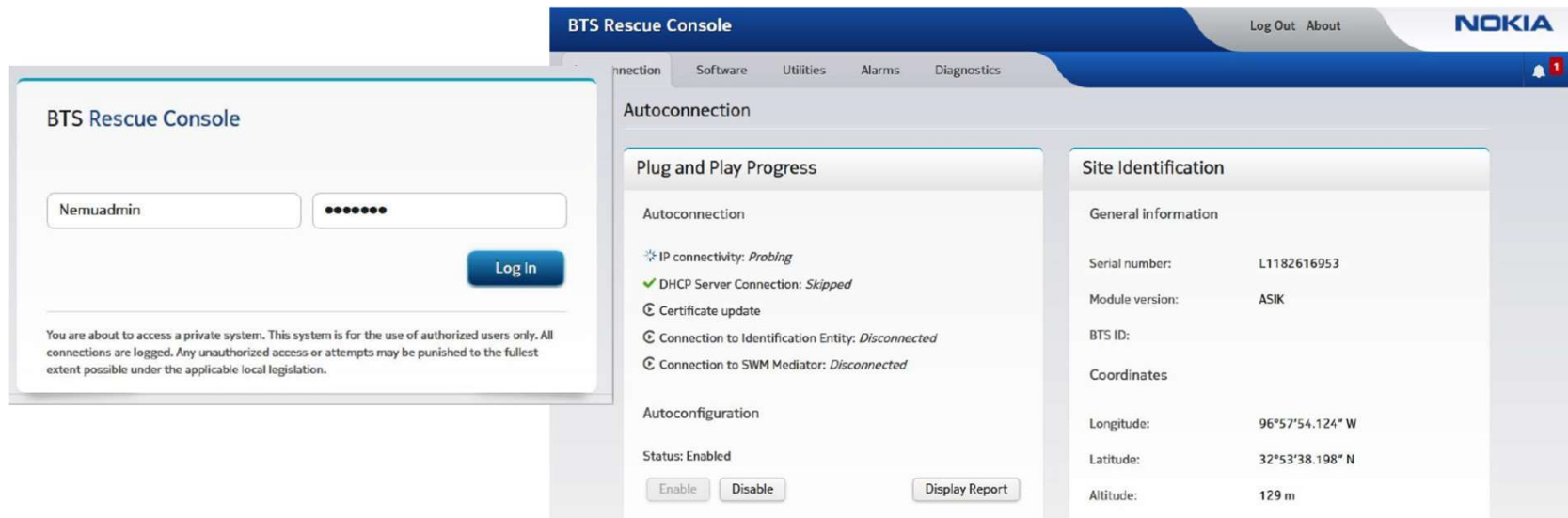
2. Connect the local PC to the LMP port of ASIK with an Ethernet cable.



3. Check the connection by pinging from the local PC (192.168.255.126) to ASIK (192.168.255.129).

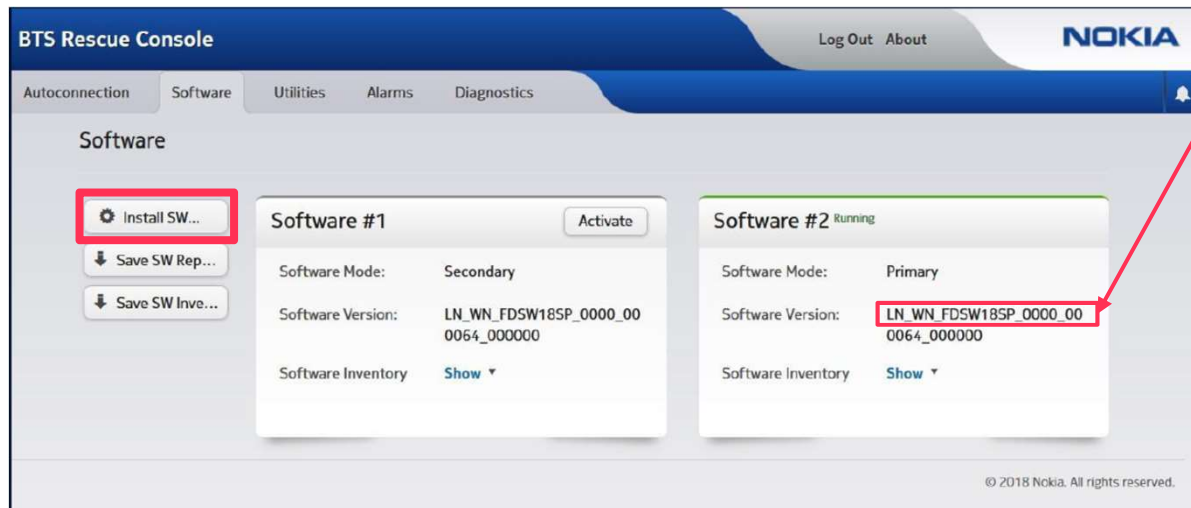
## Updating AirScale Classical 5G BTS Software using the BTS Rescue Console

### Open BTS Rescue Console



4. Open web browser and type <https://192.168.255.129> to connect with BTS Rescue Console.
5. Perform authentication using BTS Rescue Console. Authentication is enabled with the default username or password. (Nemuadmin / nemuuser).

## Updating AirScale Classical 5G BTS Software using the BTS Rescue Console Install SW button



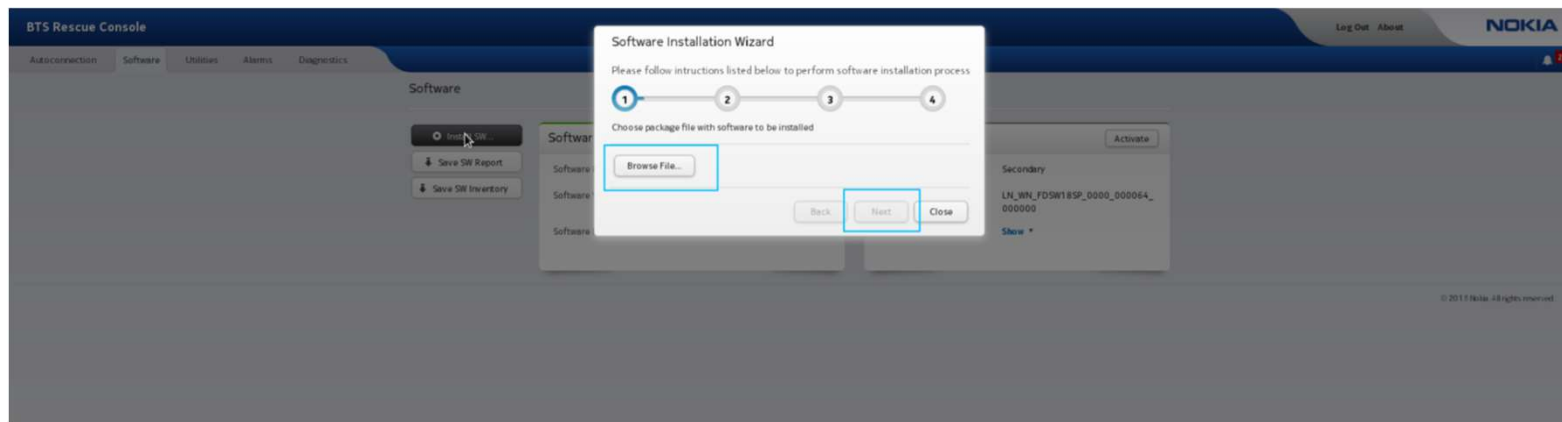
### IMPORTANT:

- The minimum allowed FDSW is LN\_WN\_FDSW18SP\_0000\_000064\_000000.
- If the FDSW level is lower than LN\_WN\_FDSW18SP\_0000\_000064\_000000 please contact NOKIA and do not proceed with C&I.

7. Go to the **Software** tab. Click **Install SW** button.

Note: Unplug ABIL board when upgrading from FDSW to other SW versions via BTS Rescue Console.

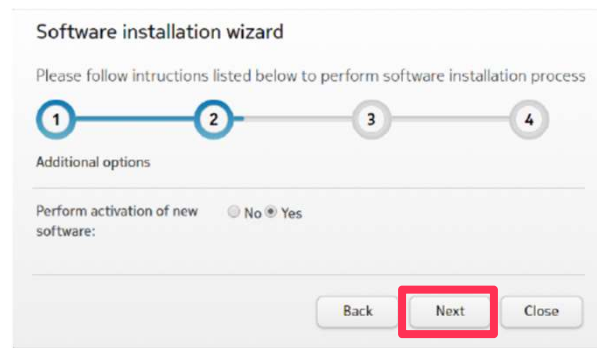
## Updating AirScale Classical 5G BTS Software using the BTS Rescue Console Browse for SW package



8. Click the Browse File button to locate SW package from location available for BTS Rescue Console. Choose a valid software file and click Open.
9. Click Next button to go to next step.

## Updating AirScale Classical 5G BTS Software using the BTS Rescue Console

### Activate the SW



10. Select Yes in Perform activation of new software check box to perform an activation of new software. Selecting No proceeds with software upload, but requires manual SW activation in order to the new SW version to be used.

## Updating AirScale Classical 5G BTS Software using the BTS Rescue Console

### Summary of installation

11. Click Next button to go to next step. The summary of the installation can be seen.

### Software Installation Wizard

Please follow instructions listed below to perform software installation process

1

2

3

4

#### Summary

|                                     |                                  |
|-------------------------------------|----------------------------------|
| Package file:                       | AirScale-5.3835.983.zip          |
| Software # to be replaced:          | 2                                |
| Software version to be replaced:    | LN_WN_FDSW18A_0000_100164_000000 |
| Perform activation of new software: | yes                              |

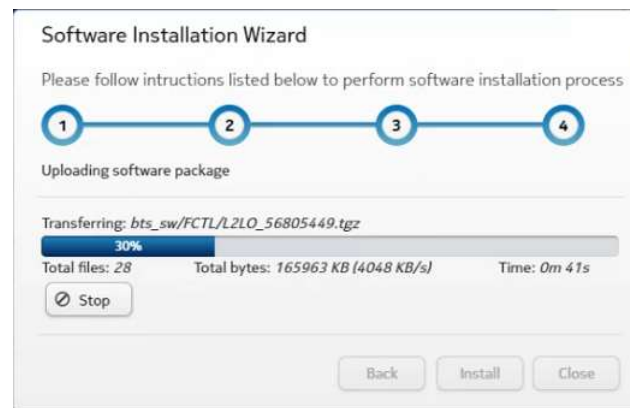
Back

Install

Close

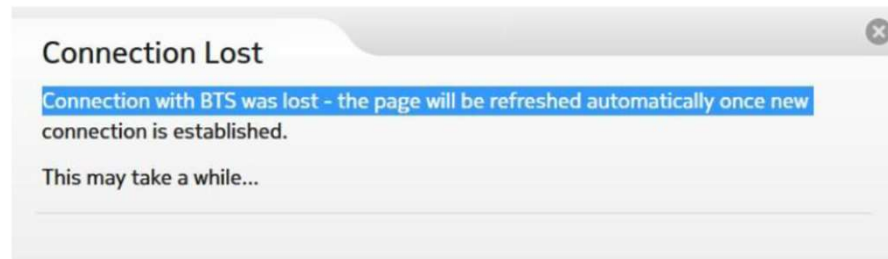
## Updating AirScale Classical 5G BTS Software using the BTS Rescue Console In progress

12. Click Install button to run installation. Click Back or Close to exit the pop-up window.



## Updating AirScale Classical 5G BTS Software using the BTS Rescue Console

### Connection checks



```
Request timed out.  
Request timed out.  
Reply from 192.168.255.1: bytes=32 time=27ms TTL=255  
Reply from 192.168.255.1: bytes=32 time<1ms TTL=255  
Reply from 192.168.255.1: bytes=32 time<1ms TTL=255  
Reply from 192.168.255.1: bytes=32 time<1ms TTL=255  
Reply from 192.168.255.1: bytes=32 time=7ms TTL=255  
Reply from 192.168.255.1: bytes=32 time=7ms TTL=255
```

```
Reply from 192.168.255.129: bytes=32 time<1ms TTL=255  
Reply from 192.168.255.129: bytes=32 time=1ms TTL=255  
Reply from 192.168.255.129: bytes=32 time=1ms TTL=255  
Reply from 192.168.255.129: bytes=32 time=1ms TTL=255  
Reply from 192.168.255.129: bytes=32 time<1ms TTL=255  
Reply from 192.168.255.129: bytes=32 time=1ms TTL=255  
Reply from 192.168.255.129: bytes=32 time=1ms TTL=255
```

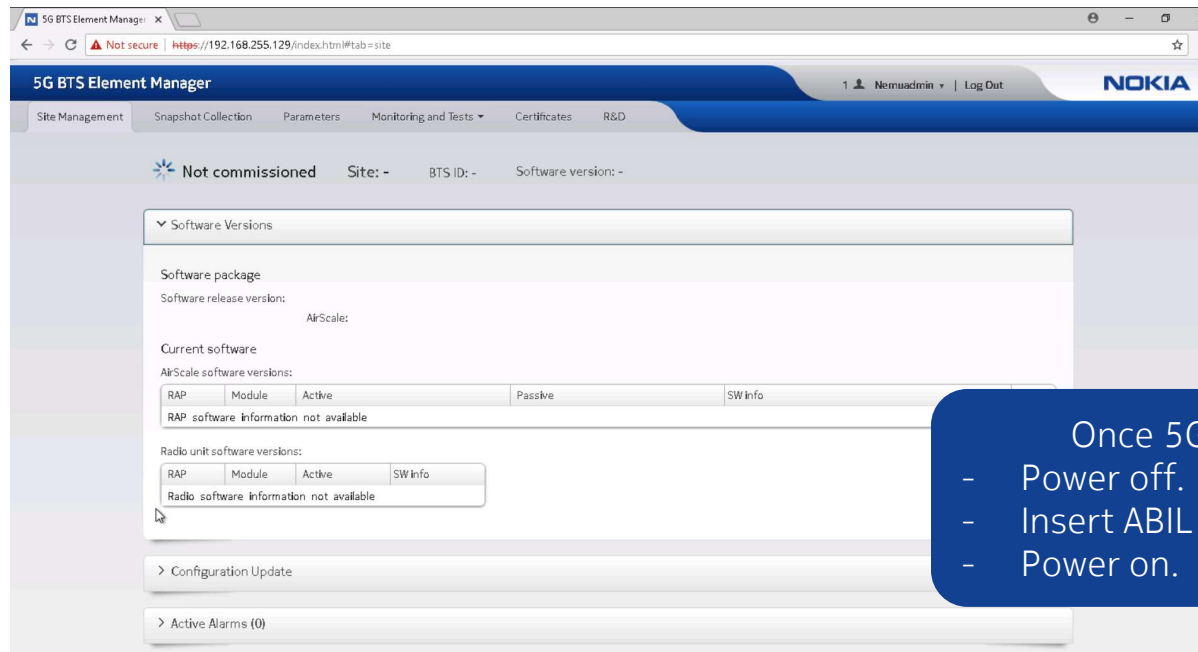
# Updating AirScale Classical 5G BTS Software using the BTS Rescue Console

## Logging in

Chrome or Firefox - <https://192.168.255.1> or <https://192.168.255.129>

Username: Nemuadmin

Password: nemuuser



- Once 5G SW is installed:
- Power off.
  - Insert ABIL modules.
  - Power on.

# Loading the SCF

## Loading the SCF

### Browsing and updating the SCF

The image displays two screenshots of the Nokia configuration interface, illustrating the process of loading and updating the SCF.

**Top Screenshot:**

- Header: Not commissioned Site: - BTS ID: - Software version: -
- Section: Configuration Update
- Sub-section: New configuration
- Fields: Commissioning file: Commissioning\_EI.x Browse... Site name: EDU BTS5 Classical 5G19 BTS ID: 5005 Target: 5G BTS profile: Reset level: No reset
- Buttons: Update
- Sub-section: Current configuration
- Field: Backup Configuration
- Sub-section: RAP profiles
- Buttons: Current Browsed Upload
- Table:

| RAP ID | RAP profile             |
|--------|-------------------------|
| RAP 1  | 5G19/5g_pld11_class_eoc |

**Bottom Screenshot:**

- Header: Not commissioned Site: - BTS ID: - Software version: -
- Section: Configuration Update
- Sub-section: New configuration
- Fields: Commissioning file: Commissioning\_EI.x Browse... Site name: EDU BTS5 Classical 5G19 BTS ID: 5005 Target: 5G BTS profile: Reset level: No reset
- Buttons: Update
- Sub-section: Current configuration
- Field: Backup Configuration
- Sub-section: RAP profiles
- Buttons: Current Browsed Upload
- Table:

| RAP ID | RAP profile             |
|--------|-------------------------|
| RAP 1  | 5G19/5g_pld11_class_eoc |

## Loading the SCF

### After updating the SCF

The screenshot displays the '5G BTS Element Manager' web interface. The top navigation bar includes tabs for 'Site Management', 'Snapshot Collection', 'Parameters', 'Monitoring and Tests', 'Certificates', and 'R&D'. The user 'Nemuadmin' is logged in, with a 'Log Out' option. The main content area shows the site 'gHC01074' in an 'Initializing' state, with 'BTS ID: 1591074' and 'Software version: 5G19\_5.3835.983'. A list of expandable sections includes 'Software Versions', 'Software Update', 'Configuration Update', and 'Active Alarms (0)'. At the bottom, a summary bar shows 'gNB' (expanded), 'Initializing' status, '3' active components, and a 'Reset Site...' button.

**5G BTS Element Manager** 1 Nemuadmin | Log Out **NOKIA**

Site Management Snapshot Collection Parameters Monitoring and Tests Certificates R&D

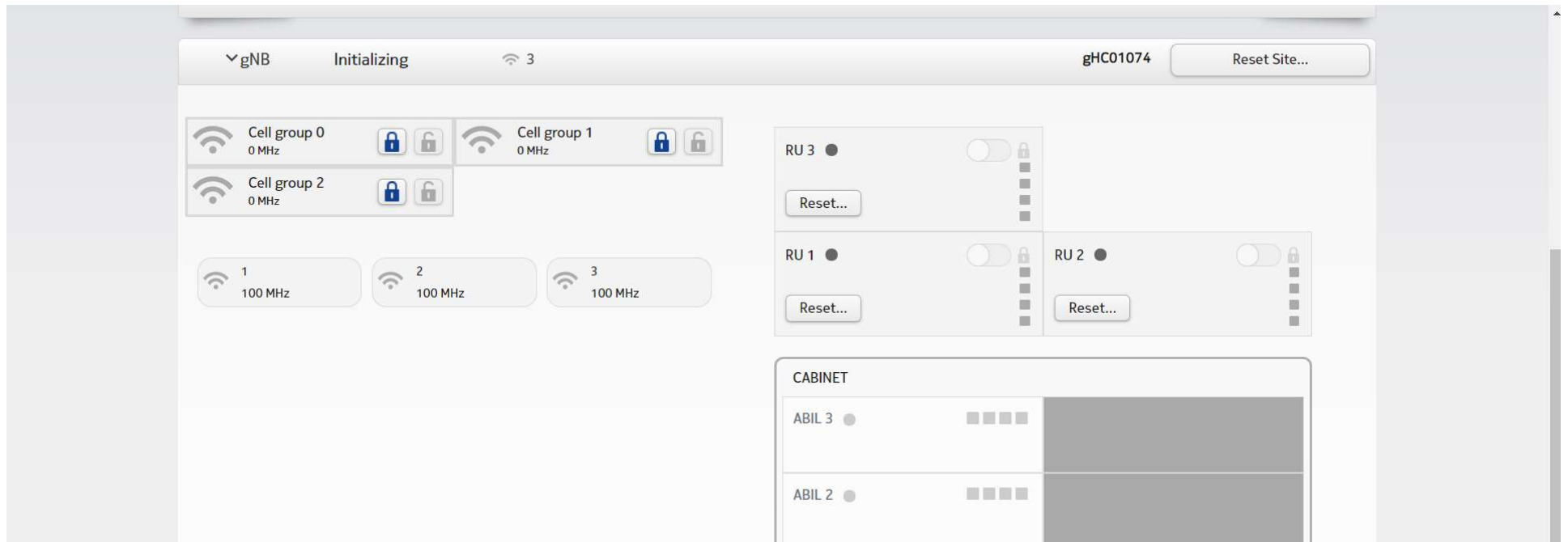
**Initializing** Site: gHC01074 BTS ID: 1591074 Software version: 5G19\_5.3835.983

- > Software Versions
- > Software Update
- > Configuration Update
- > Active Alarms (0)

▼ gNB Initializing 3 gHC01074 [Reset Site...](#)

## Loading the SCF

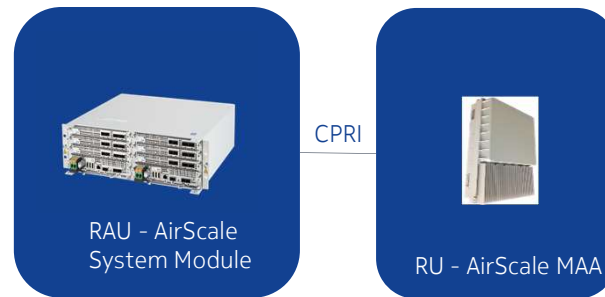
### After updating the SCF



# Connecting the Radio Unit

## Connecting the Radio Unit

CPRI cable connected to RU



CPRI Cables **must be** connected to port Q-RF2 on both ABIL and AEQD unit. Otherwise, the Radio unit can not be detected.

## Connecting the Radio Unit

CPRI cable connected to RU



If CPRI Cables are connected properly, these 03 ports are in dark-gray and synchronized status.

If not, check cables, ports and power supply.

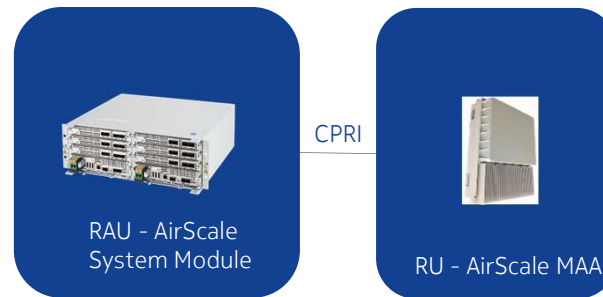
It's take few minutes to detect radio units.

## Connecting the Radio Unit

AEQDs connected



## Connecting the Radio Unit CPRI cable connected to RU



If incompatible SW is detected on RU, perform software update one more time.

Active Alarms (2)

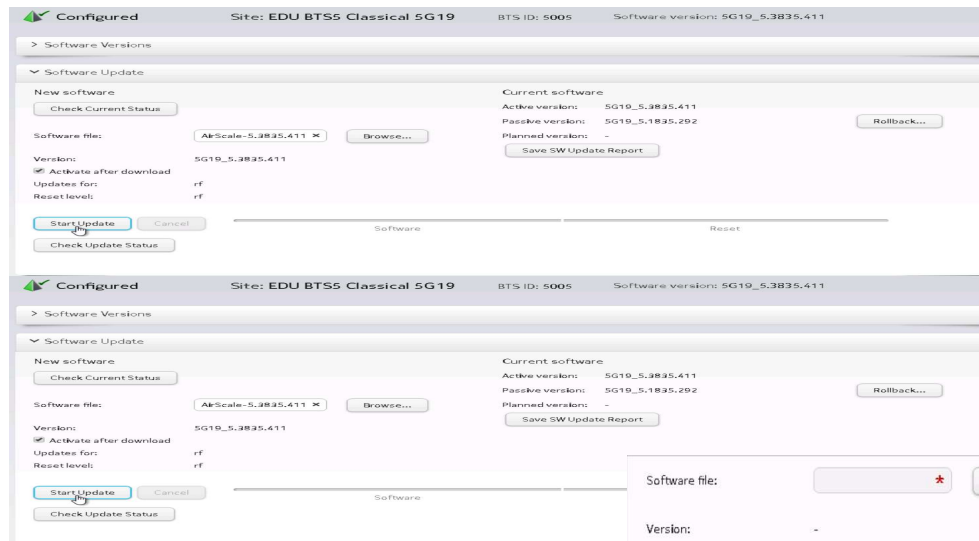
Filter... Show alarm history

Toggle Statistics

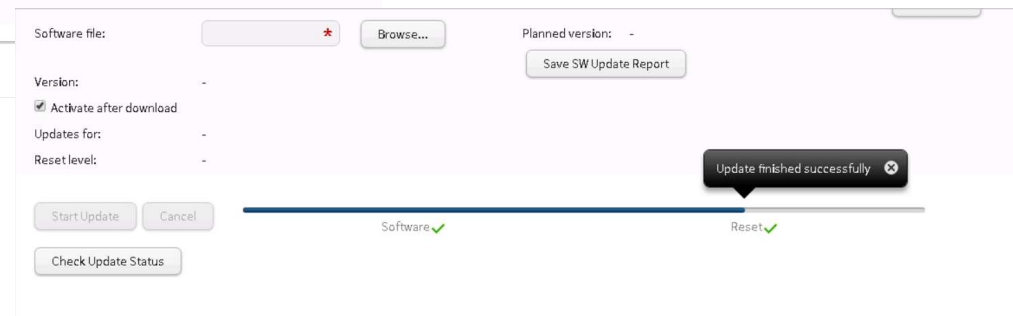
| Severity | Fault name                                          | Reported alarm                                                                                                                                                                                                                                                                      | Source               | Affected technologies | Time                |
|----------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------|---------------------|
| Critical | 23 Incompatible SW version detected in unit: AELF-1 | 7104 CELL SERVICE PROBLEM                                                                                                                                                                                                                                                           | EQM 1/APEQM 1/RMOD 1 | SG_NR                 | 10.10.2018 15:24:55 |
|          | Probable cause:                                     | Indeterminate                                                                                                                                                                                                                                                                       |                      |                       |                     |
|          | Meaning:                                            | A new unit with an incompatible SW might have been inserted into the 5G BTS. Automatic SW update is ongoing.                                                                                                                                                                        |                      |                       |                     |
|          | Type:                                               | Quality of service                                                                                                                                                                                                                                                                  |                      |                       |                     |
|          | Instructions:                                       | An automatic SW update is ongoing. Fault will be canceled after SW update is finished.<br>NOTE: If the fault 10:EFaultId_NoConnectionToUnitAI is also active on the source unit, then the SW update must be postponed until the fault 10:EFaultId_NoConnectionToUnitAI is canceled. |                      |                       |                     |
| Major    | 4494 Fault cause as SpuriousReset                   | 7101 RESET NOTIFICATION                                                                                                                                                                                                                                                             | RAC                  | SG                    | 10.10.2018 15:23:08 |
|          | Probable cause:                                     | Indeterminate                                                                                                                                                                                                                                                                       |                      |                       |                     |
|          | Meaning:                                            | There has been a BTS reset caused by software components supervision failure.                                                                                                                                                                                                       |                      |                       |                     |
|          | Type:                                               | Quality of service                                                                                                                                                                                                                                                                  |                      |                       |                     |
|          | Instructions:                                       | The fault will be cleared automatically.                                                                                                                                                                                                                                            |                      |                       |                     |

## Connecting the Radio Unit

### Update the software



- Click “Software Update”, then browse to locate SW package.
- Then click “Start Update”.
- Wait until AEQDs are in green status (~15mins).



# Configuring eNodeB to support Dual Connectivity

# Configuring eNodeB using the Web Element Manager

## Overview

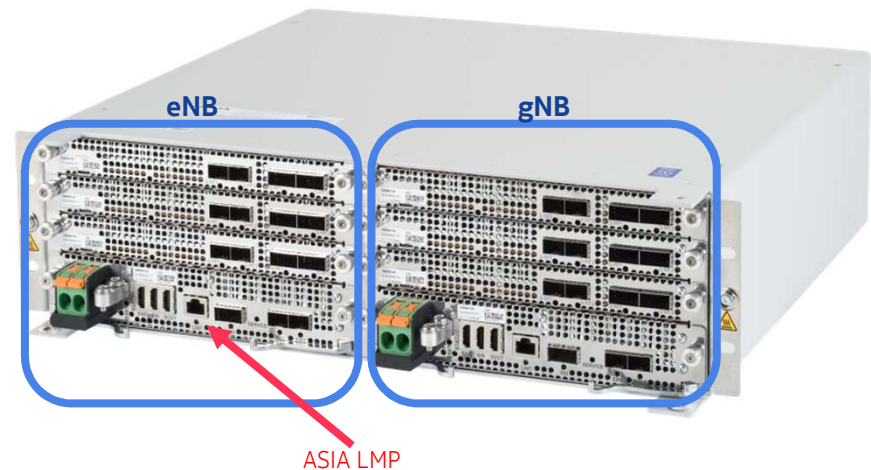
Login to eNodeB via  
<https://192.168.255.129>

Change Synchronization mode to Phase  
Sync

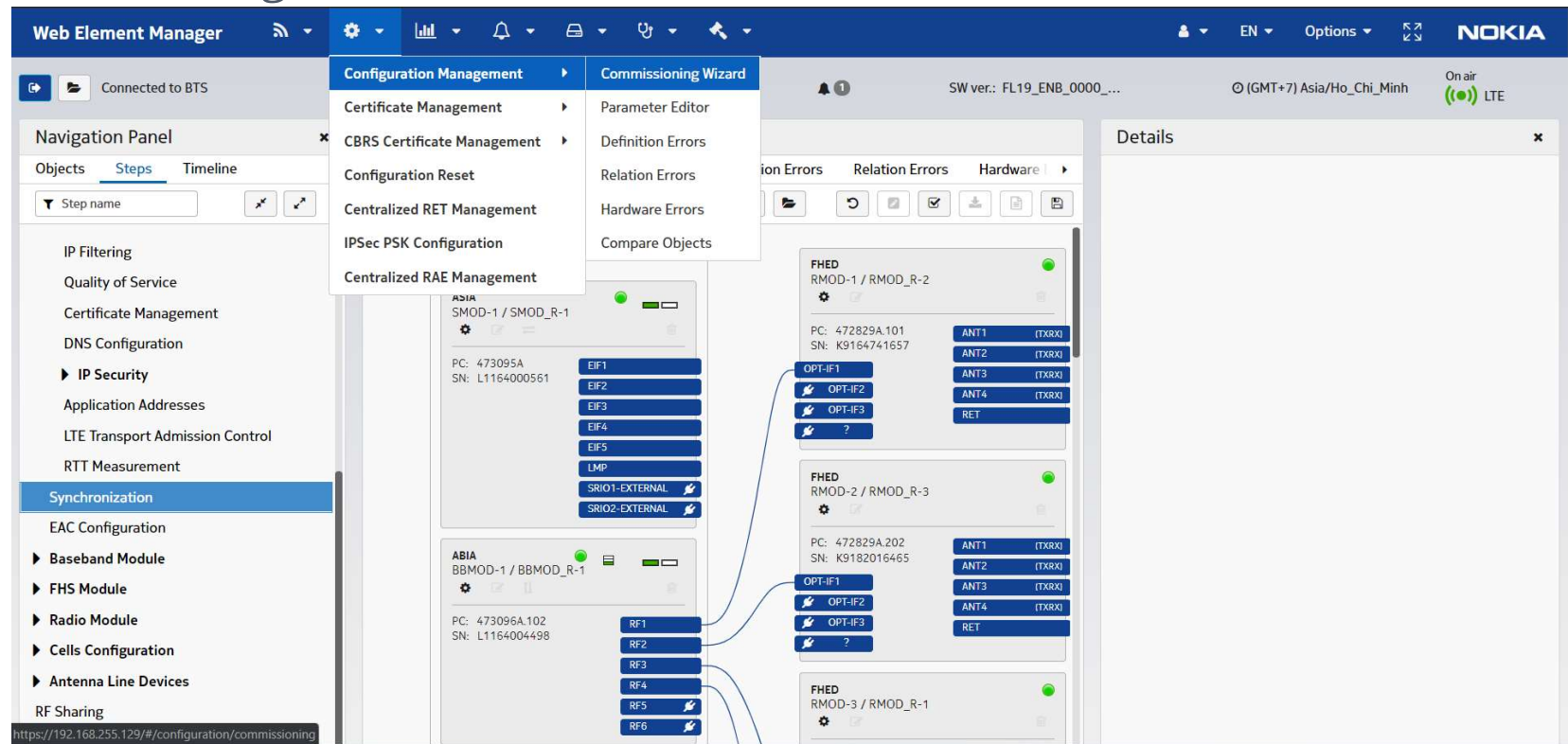
Create object LNADJGNB,  
LNRELGNBCELL, NRDCDPR

Enable Dual Connectivity feature

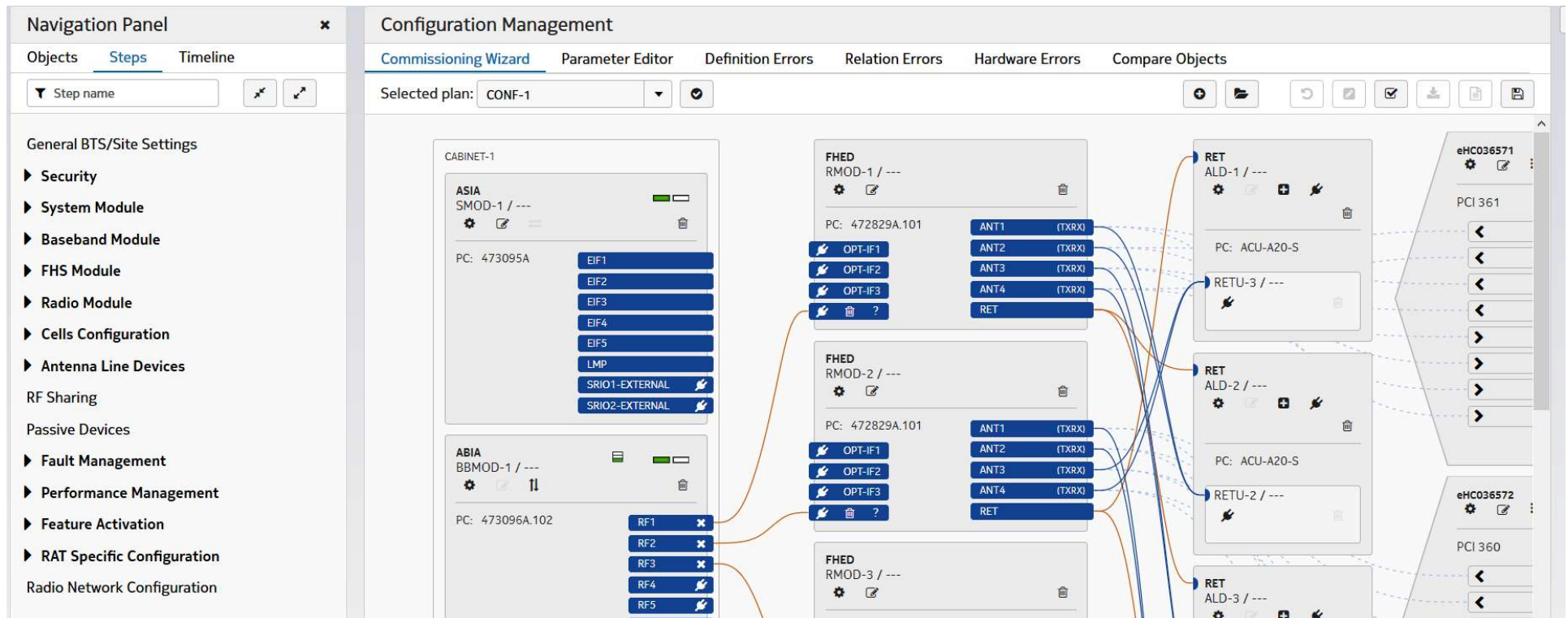
Apply new configuration



# Configuring eNodeB using the Web Element Manager Commissioning Wizard

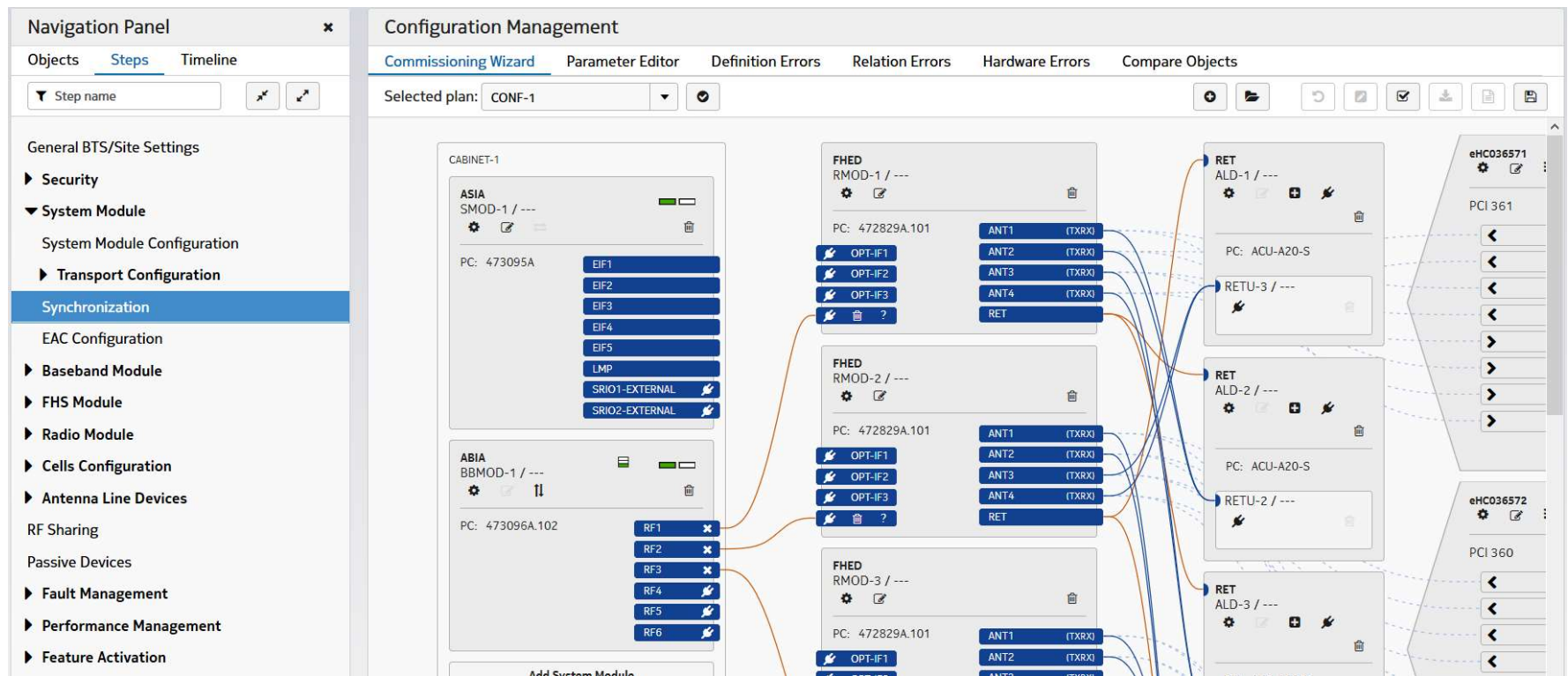


# Configuring eNodeB using the Web Element Manager Commissioning Wizard



# Configuring eNodeB using the Web Element Manager

## Change Synchronization mode - 1



# Configuring eNodeB using the Web Element Manager

## Change Synchronization mode - 2

Commissioning Wizard - 27 of 62 - Synchronization

General BTS/Site Settings

- Security
- System Module
  - System Module Configuration
  - Transport Configuration
  - Synchronization**
- EAC Configuration
- Baseband Module
- FHS Module
- Radio Module
- Cells Configuration
- Antenna Line Devices
- RF Sharing
- Passive Devices
- Fault Management
- Performance Management
- Feature Activation
- RAT Specific Configuration
- Radio Network Configuration

**Synchronization**

BTS Synchronization mode: **1** PhaseSync

Activate hybrid synchronization: ☐

Manual frame timing adjustment: 0 microseconds

**Synchronization input settings**

Synchronization sources **2**

| Synchronization sources | Synchronization master:             |
|-------------------------|-------------------------------------|
| SMOD-1 (ASIA)           | <input checked="" type="checkbox"/> |

Hover mode in temperature con... ☐

**Synchronization input priority**

| Synchronization input priority | Synchronization input type <b>3</b> |
|--------------------------------|-------------------------------------|
| 1                              | 1pps/ToD from Sync Hub Master       |
| 2                              | <Select value>                      |
| 3                              | <Select value>                      |
| 4                              | <Select value>                      |
| 5                              | <Select value>                      |

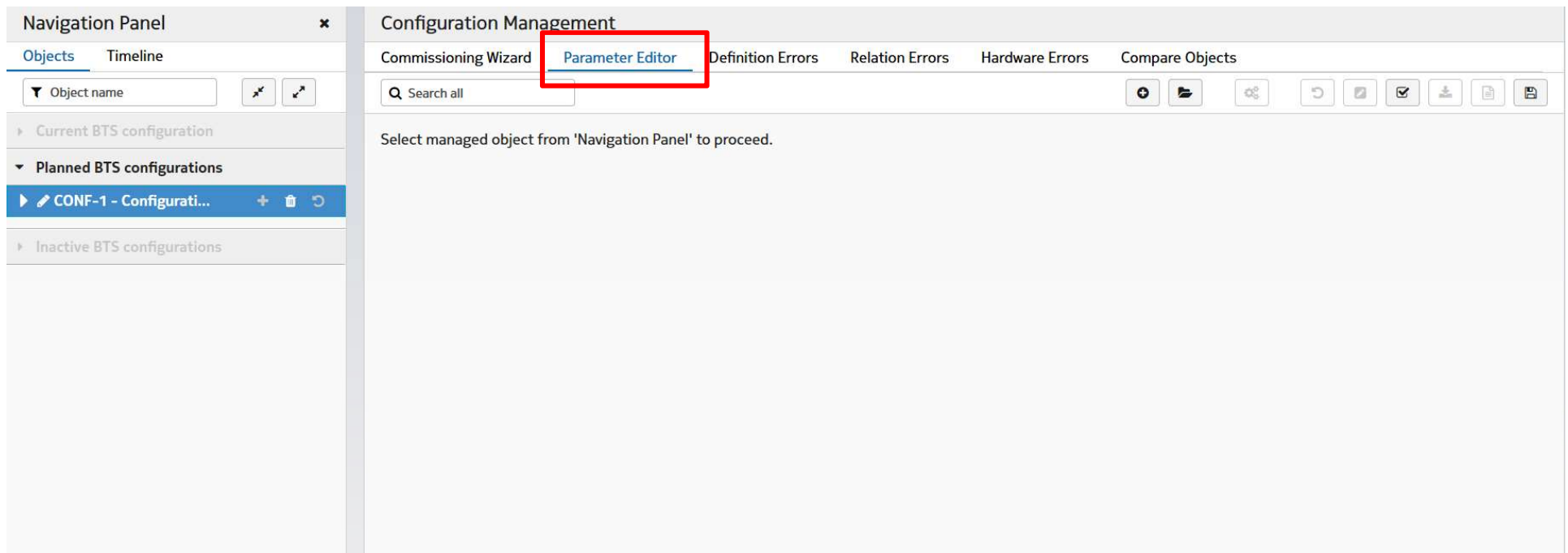
Total Delay from SHM: **4** 46 ns

**Leap second settings**

Back Next **5** Done Cancel

# Configuring eNodeB using the Web Element Manager

## Updating parameters - 1



# Configuring eNodeB using the Web Element Manager

## Updating parameters - 2

The screenshot displays the Nokia Web Element Manager interface for Configuration Management. The left sidebar shows the Navigation Panel with 'Objects' and 'Timeline' tabs. The main area has tabs for 'Commissioning Wizard', 'Parameter Editor', 'Definition Errors', 'Relation Errors', 'Hardware Errors', and 'Compare Objects'. The 'Parameter Editor' tab is active, showing a search bar with 'maxbtstime' (marked with a red box and '1'). Below the search bar, the 'Parameters search results' table is visible. The table has columns: Status, Parameter name, Abbreviation, Planned Value, and Actions. The first row shows the parameter 'maxBtsTimeError' with a value of '1000' (marked with a red box and '2').

| Status          | Parameter name                                                                       | Abbreviation    | Planned Value | Actions |
|-----------------|--------------------------------------------------------------------------------------|-----------------|---------------|---------|
| ▼ All para... ▼ | Filter                                                                               | Filter          |               |         |
|                 | Absolute Allowed Maximum Time Error for BTS<br>MRBTS-593657/LNBTS-593657/LNBTS_FDD-0 | maxBtsTimeError | 1000 ms       | ⚙️ 🗑️ ↺ |

# Configuring eNodeB using the Web Element Manager

## Creating LNADJGNB - 1

The screenshot displays the Nokia Web Element Manager interface for configuring eNodeB. The main window is titled 'Configuration Management' and shows a table of parameters for the selected object 'LNADJGNB'. The 'Add Object' dialog box is open, allowing the user to create a new object. The dialog box contains the following fields and options:

- Object class:** LNADJGNB (highlighted with a red box and number 2)
- Plan to copy from:** (empty dropdown)
- Copy from:** (empty dropdown)
- Including subobjects:** ☐
- Id:** 0 (highlighted with a red box and number 3)
- Load default values:** ☒
- Submit** button (highlighted with a red box and number 4)

The background interface shows the 'Navigation Panel' on the left with a tree view of configurations. The 'Planned BTS configurations' section is expanded, showing the 'LNADJGNB' object. The 'Configuration Management' section in the center shows a table of parameters for the selected object.

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# Configuring eNodeB using the Web Element Manager

## Creating LNADJGNB - 2

Commissioning Wizard

Parameter Editor

Definition Errors

Relation Errors

Hardware Errors

Compare Objects

Q Search all

+

📁

🔗

↺

📄

✅

📥

📄

💾

LNADJGNB-0

MRBTS-593657/LNBTS-593657/LNADJGNB-0

Neighbouring gNB

| Status          | Parameter name                        | Abbreviation        | Planned Value  | Actions |
|-----------------|---------------------------------------|---------------------|----------------|---------|
| ▽ All para... ▾ | Filter                                | Filter              |                |         |
|                 | Identity of neighbor gNB within PLMN  | adjGnbld            |                |         |
|                 | Length of adjGnbld                    | adjGnbldLength      | bits           |         |
| * ✎             | Administrative state                  | administrativeState | unlocked ▾     | 🔗 ↺     |
| * ✎             | C-Plane IP address of neighbor gNB    | cPlaneIpAddr        | 10.178.121.33  |         |
| *               | Neighbor gNB identifier               | InAdjGnbld          | 0              | ↺       |
|                 | Primary PLMN identity of neighbor eNB | plmnId              |                |         |
|                 | Status of X2 link to gNB              | x2ToGnbLinkStatus   | Select value ▾ |         |

C-Plane IP gNB

# Configuring eNodeB using the Web Element Manager

## Creating LNRELGNBCELL - 1

The screenshot displays the Web Element Manager interface for configuring eNodeB. The main window is titled "Configuration Management" and includes tabs for "Commissioning Wizard", "Parameter Editor", "Definition Errors", "Relation Errors", "Hardware Errors", and "Compare Objects". The "Parameter Editor" tab is active, showing a table of parameters for the "LNCEL-1" object.

The "Add Object" dialog box is open, showing the following fields:

- Object class:** LNRELGNBCELL (highlighted with a red box and yellow number 2)
- Plan to copy from:** (empty dropdown)
- Copy from:** (empty dropdown)
- Including subobjects:** ☐
- Id:** 0 (highlighted with a red box and yellow number 3)
- Load default values:** ☒ (highlighted with a red box and yellow number 3)
- Submit** button (highlighted with a red box and yellow number 4)

The background table shows parameters for the "LNCEL-1" object, including "Time to trigger for A1 to deactivate", "A2 based redirect for VoLTE calls", "Time to trigger for A2 to activate", and "Time to trigger for A2 to deactivate".

## Configuring eNodeB using the Web Element Manager

### Creating LNRELGNBCELL - 2

## Configuration Management

[Commissioning Wizard](#)
[Parameter Editor](#)
[Definition Errors](#)
[Relation Errors](#)
[Hardware Errors](#)
[Compare Objects](#)

### LNRELGNBCELL-0 MRBTS-593657/LNBTS-593657/LNCEL-1/LNRELGNBCELL-0

LTE Neighbor Relation to gNB Cell

| Status          | Parameter name                                                    | Abbreviation                        | Planned Value                               | Actions |
|-----------------|-------------------------------------------------------------------|-------------------------------------|---------------------------------------------|---------|
| ▽ All para... ▾ | <input type="text" value="Filter"/>                               | <input type="text" value="Filter"/> |                                             |         |
| *               | Length of gnbld within nrCellId                                   | gnbldLength                         | <input type="text" value="22"/> 1           |         |
| *               | New Radio neighbor relation cell identifier                       | InRelGnbCellId                      | <input type="text" value="0"/>              |         |
| *               | LTE-NR Dual Connectivity (EN-DC) allowed                          | IteNrDualConnectAllowed             | <input type="text" value="allowed"/> ▾      |         |
| *               | New Radio global cell identifier                                  | nrCellId                            | <input type="text" value="26110476289"/> 2  |         |
| *               | ▼ Primary PLMN ID of en-gNB in NR-CGI of related neighbor NR-cell | nrCgiPlmnId                         |                                             |         |
|                 | ▼ Structure 1                                                     |                                     |                                             |         |
| *               | MCC in primary PLMN identity                                      | mcc                                 | <input type="text" value="452"/> 3          |         |
| *               | MNC in primary PLMN identity                                      | mnc                                 | <input type="text" value="4"/>              |         |
| *               | MNC length in primary PLMN identity                               | mncLength                           | <input type="text" value="2"/>              |         |
|                 | Neighbour relation status                                         | nrStatus                            | <input type="text" value="Select value"/> ▾ |         |

## Configuring eNodeB using the Web Element Manager

### Creating LNRELGNBCELL - 3

- Create LNRELGNBCELL for all LNCEL-1, LNCEL-2 and LNCEL-3 of eNodeB.
- We have 3 cell in gNB → Create 3 LNRELGNBCELL (0,1,2) for each LNCEL.
- $\text{nrCellID} = \text{gNbID} \times 2^{14} + \text{Lcrld of 5Gcell}$
- Eg:

$\text{nrCellID of gHC3657\_1} = 1593657 \times 2^{14} + 1 = 26110476289$

$\text{nrCellID of gHC3657\_2} = 1593657 \times 2^{14} + 2 = 26110476290$

# Configuring eNodeB using the Web Element Manager

## Creating NRDCDPR - 1

The screenshot displays the Nokia Web Element Manager interface for configuring an eNodeB. The main window is titled 'Configuration Management' and shows the 'Parameter Editor' tab. The left sidebar, 'Navigation Panel', lists various configuration objects, with 'LNBT5-593657' selected. A red box with a yellow '1' highlights the '+' icon in the left panel, indicating the step to add a new object. The main area shows a table of parameters for 'LNBT5-593657' (LTE BTS). An 'Add Object' dialog box is open, showing the 'Object class' as 'NRDCDPR' (highlighted with a red box and yellow '2'). The 'Plan to copy from' and 'Copy from' fields are empty. The 'Including subobjects' checkbox is unchecked. The 'Id' field is set to '0' (highlighted with a red box and yellow '3'). The 'Load default values' checkbox is checked. The 'Submit' button is highlighted with a red box and yellow '4'. The background shows a table of parameters for 'LNBT5-593657' (LTE BTS) with columns for Status, Parameter name, and Planned Value.

| Status | Parameter name                            | Planned Value |
|--------|-------------------------------------------|---------------|
| *      | Activate 1xCsFB                           | false         |
| *      | Activate Support of 8 EPS Bearers         | false         |
| *      | Activate A3-based SCell selection         | false         |
| *      | Activate AACB alarms counters and status  | false         |
| *      | Activate CFR based access class barring   | false         |
| *      | Activate automatic access class barring p | false         |
| *      | Activate RRC connection triggered access  | false         |
| *      | Activate RACH load triggered access class | None          |
| *      | Activate AC triggered SRVCC               | false         |
| *      | Activate additional A3 handover checks    | false         |

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# Configuring eNodeB using the Web Element Manager

## Creating NRDCDPR - 2

Configuration Management

Commissioning Wizard
Parameter Editor
Definition Errors
Relation Errors
Hardware Errors
Compare Objects

Search all

NRDCDPR-0 MRBTS-593657/LNBTS-593657/NRDCDPR-0

New Radio Dual Connectivity Default Profile

| Status        | Parameter name                                         | Abbreviation              | Planned Value | Actions |
|---------------|--------------------------------------------------------|---------------------------|---------------|---------|
| ▽ All para... | Filter                                                 | Filter                    |               |         |
|               | Carrier aggregation LTE-NR DC cell list                | cAggrLteNrDcCellList      |               | + - ↺   |
|               | Data volume threshold for NR DC                        | dataVolThreshold          | 1024 kB       | + - ↺   |
| *             | Downlink pathloss change                               | dIPathlossChg             | 3 db          | + - ↺   |
|               | Dynamic trigger LTE-NR DC configuration list           | dynTriggerLteNrDcConflist |               | + - ↺   |
| *             | p-MaxEUTRA power offset applied in EN-DC               | enDCpMaxEUTRApowerOffset  | 3 dB          | + - ↺   |
| *             | p-MaxNR power offset applied in EN-DC                  | enDCpMaxNRpowerOffset     | 3 dB          | + - ↺   |
| *             | New Radio Dual Connectivity default profile identifier | nrDcDPId                  | 0             | + - ↺   |
|               | NR DC measurement Configuration                        | nrDcMeasConfig            |               | + - ↺   |
|               | Structure 1                                            |                           |               | - ↺     |
|               | B1 RSRP threshold for NR DC                            | b1ThresholdNrRsrp         | -100 dBm      | + - ↺   |
|               | B1 RSRQ threshold for NR DC                            | b1ThresholdNrRsrq         | 19.5 dB       | + - ↺   |
|               | B1 NR DC RSRP Time to trigger                          | b1TimeToTriggerRsrp       | 40ms          | + - ↺   |
|               | B1 NR DC RSRQ Time to trigger                          | b1TimeToTriggerRsrq       | 256ms         | + - ↺   |
| *             | B1 Trigger Quantity for NR DC                          | b1TriggerQuantity         | RSRP          | + - ↺   |
| *             | NR DC carrier frequency                                | carrierFreqNrCell         | 650016        | + - ↺   |
| *             | Frequency Band Indicator NR                            | freqBandIndicatorNR       | 78            | + - ↺   |

# Configuring eNodeB using the Web Element Manager

## Creating NRDCDPR - 3

Commissioning Wizard **Parameter Editor** Definition Errors Relation Errors Hardware Errors Compare Objects

Q Search all

**NRDCDPR-0** MRBTS-593657/LNBTS-593657/NRDCDPR-0

New Radio Dual Connectivity Default Profile

| Status        | Parameter name                                         | Abbreviation              | Planned Value | Actions |
|---------------|--------------------------------------------------------|---------------------------|---------------|---------|
| ▽ All para... | Filter                                                 | Filter                    |               |         |
|               | Carrier aggregation LTE-NR DC cell list                | cAggrLteNrDcCellList      |               | + - ↺   |
| ✎             | Data volume threshold for NR DC                        | dataVolThreshold          | 1024 kB       | ⚙️ 🗑️ ↺ |
| * ✎           | Downlink pathloss change                               | dLPathlossChg             | 3 db          | ⚙️ ↺    |
| ✎             | ▼ Dynamic trigger LTE-NR DC configuration list         | dynTriggerLteNrDcConfList |               | + - ↺   |
| ✎             | ▼ Structure 1                                          |                           |               | - ↺     |
| * ✎           | Local cell resource ID                                 | lcId                      | -1            | ↺       |
| * ✎           | Dynamic trigger method                                 | method                    | coverageBased | ↺       |
| * ✎           | p-MaxEUTRA power offset applied in EN-DC               | enDCpMaxEUTRApowerOffset  | 3 dB          | ⚙️ ↺    |
| * ✎           | p-MaxNR power offset applied in EN-DC                  | enDCpMaxNRpowerOffset     | 3 dB          | ⚙️ ↺    |
| *             | New Radio Dual Connectivity default profile identifier | nrDcDPId                  | 0             | ⚙️ ↺    |
| ✎             | ▼ NR DC measurement Configuration                      | nrDcMeasConfig            |               | + - ↺   |
| ✎             | ▼ Structure 1                                          |                           |               | - ↺     |
| ✎             | B1 RSRP threshold for NR DC                            | b1ThresholdNrRsrp         | -100 dBm      | 🗑️ ↺    |
| ✎             | B1 RSRQ threshold for NR DC                            | b1ThresholdNrRsrq         | 19.5 dB       | 🗑️ ↺    |
| ✎             | B1 NR DC RSRP Time to trigger                          | b1TimeToTriggerRsrp       | 40ms          | ⚙️ 🗑️ ↺ |
| ✎             | B1 NR DC RSRQ Time to trigger                          | b1TimeToTriggerRsrq       | 256ms         | ⚙️ 🗑️ ↺ |
| * ✎           | B1 Trigger Quantity for NR DC                          | b1TriggerQuantity         | RSRP          | ↺       |

# Configuring eNodeB using the Web Element Manager

## Creating NRDCDPR - 4

Commissioning Wizard **Parameter Editor** Definition Errors Relation Errors Hardware Errors Compare Objects

Q Search all

**NRDCDPR-0** MRBTS-593657/LNBTS-593657/NRDCDPR-0  
New Radio Dual Connectivity Default Profile

| Status        | Parameter name                                | Abbreviation          | Planned Value | Actions |
|---------------|-----------------------------------------------|-----------------------|---------------|---------|
| ▽ All para... | Filter                                        | Filter                |               |         |
| *✎            | B1 Trigger Quantity for NR DC                 | b1TriggerQuantity     | RSRP          | ↺       |
| *✎            | NR DC carrier frequency                       | carrierFreqNrCell     | 650016        | ↺       |
| *✎            | Frequency Band Indicator NR                   | freqBandIndicatorNR   | 78            | ↺       |
| ✎             | Hysteresis RSRP for B1 NR DC                  | hysB1ThresholdRsrp    | 0 dB          | ⚙️ 🗑️ ↺ |
| ✎             | Hysteresis RSRQ for B1 NR DC                  | hysB1ThresholdRsrq    | 2 dB          | ⚙️ 🗑️ ↺ |
| *✎            | Quantity configuration index for NR           | quantityConfigId      | 0             | ↺       |
| *✎            | Duration for SS/PBCH blocks                   | ssbDuration           | sf1           | ↺       |
| *✎            | Offset for SS/PBCH blocks                     | ssbOffset             | 0             | ↺       |
| *✎            | Periodicity of SS/PBCH blocks                 | ssbPeriodicity        | sf10-r15      | ↺       |
| *✎            | Subcarrier spacing of NR carrier              | ssbSubcarrierSpacing  | 30kHz         | ↺       |
| ✎             | ▼ Quantity configuration for NR DC            | nrDcQuantityConfig    |               | + 🗑️ ↺  |
| ✎             | ▼ Structure 1                                 |                       |               | - ↺     |
| *✎            | Filtering coefficient used for RSRP for NR DC | filterCoefficientRsrp | fc4           | ⚙️ ↺    |
| *✎            | Filtering coefficient used for RSRQ for NR DC | filterCoefficientRsrq | fc4           | ⚙️ ↺    |
| *✎            | Quantity configuration index                  | quantityConfigId      | 0             | ↺       |
| *✎            | Periodic PHR timer                            | tPeriodicPhr          | 50sf          | ↺       |
| *✎            | Prohibited PHR timer                          | tProhibitPhr          | 0sf           | ⚙️ ↺    |

# Configuring eNodeB using the Web Element Manager

## Enabling Dual Connectivity - LteNrDualConnectivity

Configuration Management

Commissioning Wizard

Parameter Editor

Definition Errors

Relation Errors

Hardware Errors

Compare Objects

Q LteNrDualConnectivity

3

x

1

+

Parameters search results

| Status          | Parameter name                                                                          | Abbreviation                  | Planned Value | Actions |
|-----------------|-----------------------------------------------------------------------------------------|-------------------------------|---------------|---------|
| ▽ All para... ▾ | Filter                                                                                  | Filter                        |               |         |
| *               | Activation of CA in LTE-NR Dual Connectivity<br>MRBTS-593657/LNBTS-593657               | actCAaggrLteNrDualConnecti... | disabled ▾    | 2 ⚙️ ↺  |
| *               | Activation of dynamic trigger for LTE-NR Dual Connectivity<br>MRBTS-593657/LNBTS-593657 | actDynTrigLteNrDualConnec...  | true ▾        | ⚙️ ↺    |
| *               | Activation LTE-NR Dual-Connectivity<br>MRBTS-593657/LNBTS-593657                        | actLteNrDualConnectivity      | true ▾        | ⚙️ ↺    |

# Configuring eNodeB using the Web Element Manager

## Enabling Dual Connectivity - LteNrDualConnectPrep

Configuration Management

Commissioning Wizard

Parameter Editor

Definition Errors

Relation Errors

Hardware Errors

Compare Objects

Q tLteNrDualConnectPrep 1 x

1

+

Parameters search results

| Status          | Parameter name                                                                                        | Abbreviation          | Planned Value | Actions  |
|-----------------|-------------------------------------------------------------------------------------------------------|-----------------------|---------------|----------|
| ▽ All para... ▾ | Filter                                                                                                | Filter                |               |          |
|                 | Supervision timer for LTE-NR Dual Connectivity over X2 interface (EN-DC)<br>MRBTS-593657/LNBTS-593657 | tLteNrDualConnectPrep | 500 ms        | 2 % 🗑️ ↺ |

# Configuring eNodeB using the Web Element Manager

## Enabling Dual Connectivity - pdcpProf1001

Configuration Management

Commissioning Wizard

Parameter Editor

Definition Errors

Relation Errors

Hardware Errors

Compare Objects

Q pdcpProf1001

1 x

+

+

+

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✓

⬇

📄

📄

Parameters search results

| Status          | Parameter name                                                 | Abbreviation  | Planned Value   | Actions |
|-----------------|----------------------------------------------------------------|---------------|-----------------|---------|
| ▽ All para... ▾ | Filter                                                         | Filter        |                 |         |
|                 | ▼ Profile 1001 of PDCP parameters<br>MRBTS-593657/LNBTS-593657 | pdcpProf1001  |                 | + 🗑 ↺   |
|                 | ▼ Structure 1                                                  |               |                 | - ↺     |
| *               | PDCP profile id<br>MRBTS-593657/LNBTS-593657                   | pdcpProfileId | 1001            | 🔍 ⚙ ↺   |
| *               | Sequence number size DL<br>MRBTS-593657/LNBTS-593657           | snSizeDL      | 18bit ▾         | 🔍 ⚙ ↺   |
| *               | Sequence number size UL<br>MRBTS-593657/LNBTS-593657           | snSizeUL      | 18bit ▾         | 🔍 ⚙ ↺   |
| *               | Status report required<br>MRBTS-593657/LNBTS-593657            | statusRepReq  | None selected ▾ | 🔍 ⚙ ↺   |
| *               | Timer discard<br>MRBTS-593657/LNBTS-593657                     | tDiscard      | 300ms ▾         | 🔍 ⚙ ↺   |

# Configuring eNodeB using the Web Element Manager

## Enabling Dual Connectivity - IteNrDualConnectSupport

Configuration Management

Commissioning Wizard Parameter Editor Definition Errors Relation Errors Hardware Errors Compare Objects

Q IteNrDualConnectSuppc 4 x 1

Parameters search results

| Status          | Parameter name                                                | Abbreviation            | Planned Value | Actions |
|-----------------|---------------------------------------------------------------|-------------------------|---------------|---------|
| ▽ All para... ▾ | Filter                                                        | IteNrDualConnect 2      |               |         |
| *               | ▼ QCI translation table QCI 6<br>MRBTS-593657/LNBTS-593657    | qciTab6                 |               | + ↺     |
|                 | ▼ Structure 1                                                 |                         |               | - ↺     |
| *               | LTE-NR Dual connectivity support<br>MRBTS-593657/LNBTS-593657 | IteNrDualConnectSupport | EN-DC 3       | ⚙️ ↺    |
| *               | ▼ QCI translation table QCI 7<br>MRBTS-593657/LNBTS-593657    | qciTab7                 |               | + ↺     |
|                 | ▼ Structure 1                                                 |                         |               | - ↺     |
| *               | LTE-NR Dual connectivity support<br>MRBTS-593657/LNBTS-593657 | IteNrDualConnectSupport | EN-DC ▾       | ⚙️ ↺    |
| *               | ▼ QCI translation table QCI 8<br>MRBTS-593657/LNBTS-593657    | qciTab8                 |               | + ↺     |
|                 | ▼ Structure 1                                                 |                         |               | - ↺     |
| *               | LTE-NR Dual connectivity support<br>MRBTS-593657/LNBTS-593657 | IteNrDualConnectSupport | EN-DC ▾       | ⚙️ ↺    |
| *               | ▼ QCI translation table QCI 9<br>MRBTS-593657/LNBTS-593657    | qciTab9                 |               | + ↺     |
|                 | ▼ Structure 1                                                 |                         |               | - ↺     |
| *               | LTE-NR Dual connectivity support<br>MRBTS-593657/LNBTS-593657 | IteNrDualConnectSupport | EN-DC ▾       | ⚙️ ↺    |

# Configuring eNodeB using the Web Element Manager

## Enabling Dual Connectivity - nrPdcPProfIdx

Configuration Management

Commissioning Wizard **Parameter Editor** Definition Errors Relation Errors Hardware Errors Compare Objects

nrPdcPProfIdx 4 x

Parameters search results

| Status          | Parameter name                                             | Abbreviation  | Planned Value | Actions |
|-----------------|------------------------------------------------------------|---------------|---------------|---------|
| ▽ All para... ▾ | Filter                                                     | nrPdcPProfIdx |               |         |
| *               | ▼ QCI translation table QCI 6<br>MRBTS-593657/LNBTS-593657 | qciTab6       |               | + ↺     |
|                 | ▼ Structure 1                                              |               |               | - ↺     |
|                 | NR PDCP profile index<br>MRBTS-593657/LNBTS-593657         | nrPdcPProfIdx | 1001          | 🗑️ ↺    |
| *               | ▼ QCI translation table QCI 7<br>MRBTS-593657/LNBTS-593657 | qciTab7       |               | + ↺     |
|                 | ▼ Structure 1                                              |               |               | - ↺     |
|                 | NR PDCP profile index<br>MRBTS-593657/LNBTS-593657         | nrPdcPProfIdx | 1001          | 🗑️ ↺    |
| *               | ▼ QCI translation table QCI 8<br>MRBTS-593657/LNBTS-593657 | qciTab8       |               | + ↺     |
|                 | ▼ Structure 1                                              |               |               | - ↺     |
|                 | NR PDCP profile index<br>MRBTS-593657/LNBTS-593657         | nrPdcPProfIdx | 1001          | 🗑️ ↺    |
| *               | ▼ QCI translation table QCI 9<br>MRBTS-593657/LNBTS-593657 | qciTab9       |               | + ↺     |
|                 | ▼ Structure 1                                              |               |               | - ↺     |
|                 | NR PDCP profile index<br>MRBTS-593657/LNBTS-593657         | nrPdcPProfIdx | 1001          | 🗑️ ↺    |

# Configuring eNodeB using the Web Element Manager

## Validate plan

Navigation Panel

Objects

Timeline

Object name

LNADJW-502

LNADJW-503

LNADJW-504

LNADJW-505

LNADJW-506

LNADJW-507

LNADJW-508

LNADJW-509

LNADJW-510

LNADJW-511

LNBTS\_FDD-0

LNCCEL-1

LNCCEL-2

LNCCEL-3

Configuration Management

Commissioning Wizard

Parameter Editor

Definition Errors

Relation Errors

Hardware Errors

Compare Objects

Q nrPdcprProfIdx

4

X

Validate Plan

Parameters search results

| Status          | Parameter name                                             | Abbreviation   | Planned Value | Actions |
|-----------------|------------------------------------------------------------|----------------|---------------|---------|
| ▽ All para... ▾ | Filter                                                     | nrPdcprProfIdx |               |         |
| *               | ▼ QCI translation table QCI 6<br>MRBTS-593657/LNBTS-593657 | qciTab6        |               | + ↺     |
|                 | ▼ Structure 1                                              |                |               | - ↺     |
|                 | NR PDCP profile index<br>MRBTS-593657/LNBTS-593657         | nrPdcprProfIdx | 1001          | 🗑️ ↺    |
| *               | ▼ QCI translation table QCI 7<br>MRBTS-593657/LNBTS-593657 | qciTab7        |               | + ↺     |
|                 | ▼ Structure 1                                              |                |               | - ↺     |
|                 | NR PDCP profile index<br>MRBTS-593657/LNBTS-593657         | nrPdcprProfIdx | 1001          | 🗑️ ↺    |
| *               | ▼ QCI translation table QCI 8<br>MRBTS-593657/LNBTS-593657 | qciTab8        |               | + ↺     |
|                 | ▼ Structure 1                                              |                |               | - ↺     |
|                 | NR PDCP profile index<br>MRBTS-593657/LNBTS-593657         | nrPdcprProfIdx | 1001          | 🗑️ ↺    |

# Configuring eNodeB using the Web Element Manager

## Activate plan - 1

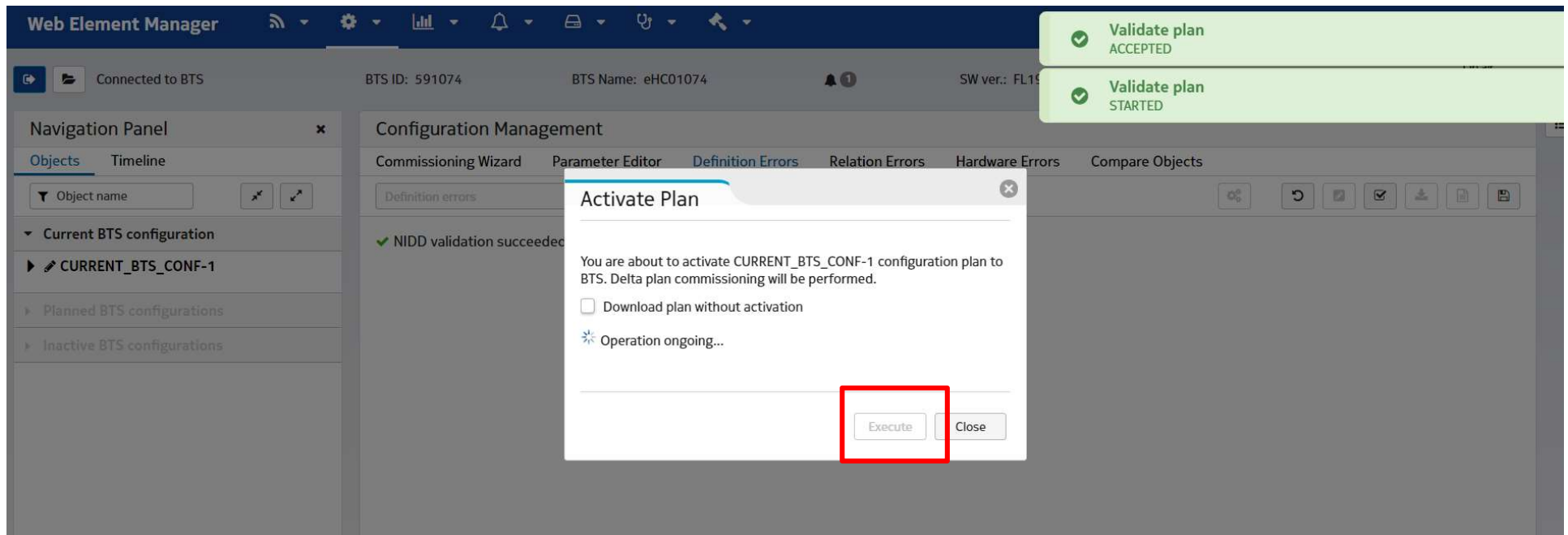
If no error, Click Activate Plan.

The screenshot displays the Nokia Web Element Manager interface. The top navigation bar includes the 'Web Element Manager' title and various icons for connectivity, settings, and status. The main header shows 'Connected to BTS', 'BTS ID: 591074', 'BTS Name: eHC01074', 'SW ver.: FL19\_ENB\_0000\_...', and 'On air (LTE)'. The left sidebar contains a 'Navigation Panel' with 'Objects' and 'Timeline' tabs, and a list of configurations including 'CURRENT\_BTS\_CONF-1'. The main content area is titled 'Configuration Management' and features tabs for 'Commissioning Wizard', 'Parameter Editor', 'Definition Errors', 'Relation Errors', 'Hardware Errors', and 'Compare Objects'. The 'Definition Errors' tab is active, showing a message: 'NIDD validation succeeded.' Below this message, a toolbar contains several icons, with the 'Activate Plan' icon (a person with a checkmark) highlighted by a red box. A tooltip labeled 'Activate Plan' is visible next to this icon.

# Configuring eNodeB using the Web Element Manager

## Activate plan - 2

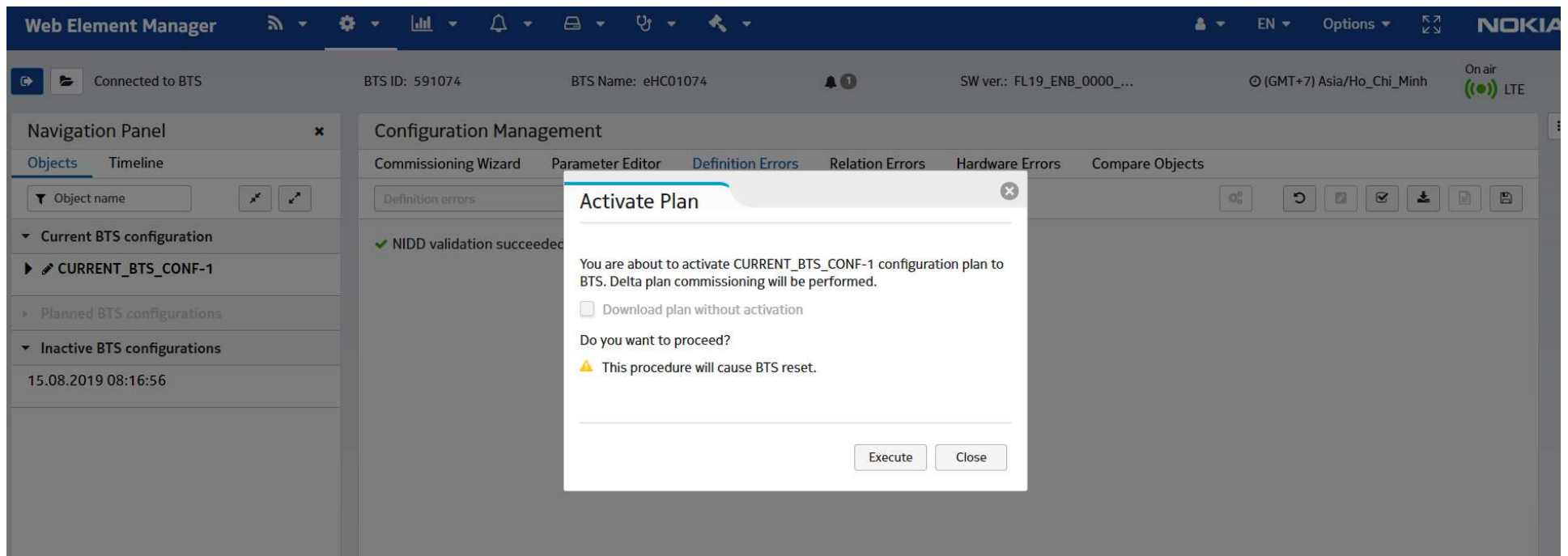
Click Execute



## Configuring eNodeB using the Web Element Manager

### Activate plan - 3

A warning will appear. Click Execute. EnodeB will be reset.



# Verify Working Classical 5G BTS

# Verify Working Classical 5G BTS

## BTS Element Manager Status

gNB configured 1 Nokia Irving Reset Site...

Cell group 0 0 MHz

1 100 MHz

AEUF 1 ● Reset...

FYGM ● Reset...

AMOB CABINET

|  |                                                                                       |          |
|--|---------------------------------------------------------------------------------------|----------|
|  |                                                                                       |          |
|  | ABIL 2 <span style="color: green;">●</span> <span style="color: gray;">■ ■ ■ ■</span> | Reset... |
|  | ABIL 1 <span style="color: green;">●</span> <span style="color: gray;">■ ■ ■ ■</span> | Reset... |
|  | ASIK 1 <span style="color: green;">●</span> <span style="color: gray;">■ ■ ■</span>   | Reset... |

Reset DU

|     | Reported alarm          | Source | Affected technologies | Time                |  |
|-----|-------------------------|--------|-----------------------|---------------------|--|
| set | 7101 RESET NOTIFICATION | RAC    | 5G                    | 10.10.2018 15:23:08 |  |

Nokia Irving Reset Site...

AEUF 1 ● Reset...

FYGM ● Reset...

AMOB CABINET

|  |                                                                                       |          |
|--|---------------------------------------------------------------------------------------|----------|
|  |                                                                                       |          |
|  | ABIL 2 <span style="color: green;">●</span> <span style="color: gray;">■ ■ ■ ■</span> | Reset... |
|  | ABIL 1 <span style="color: green;">●</span> <span style="color: gray;">■ ■ ■ ■</span> | Reset... |
|  | ASIK 1 <span style="color: green;">●</span> <span style="color: gray;">■ ■ ■</span>   | Reset... |

## Verify Working Classical 5G BTS

### Check alarms

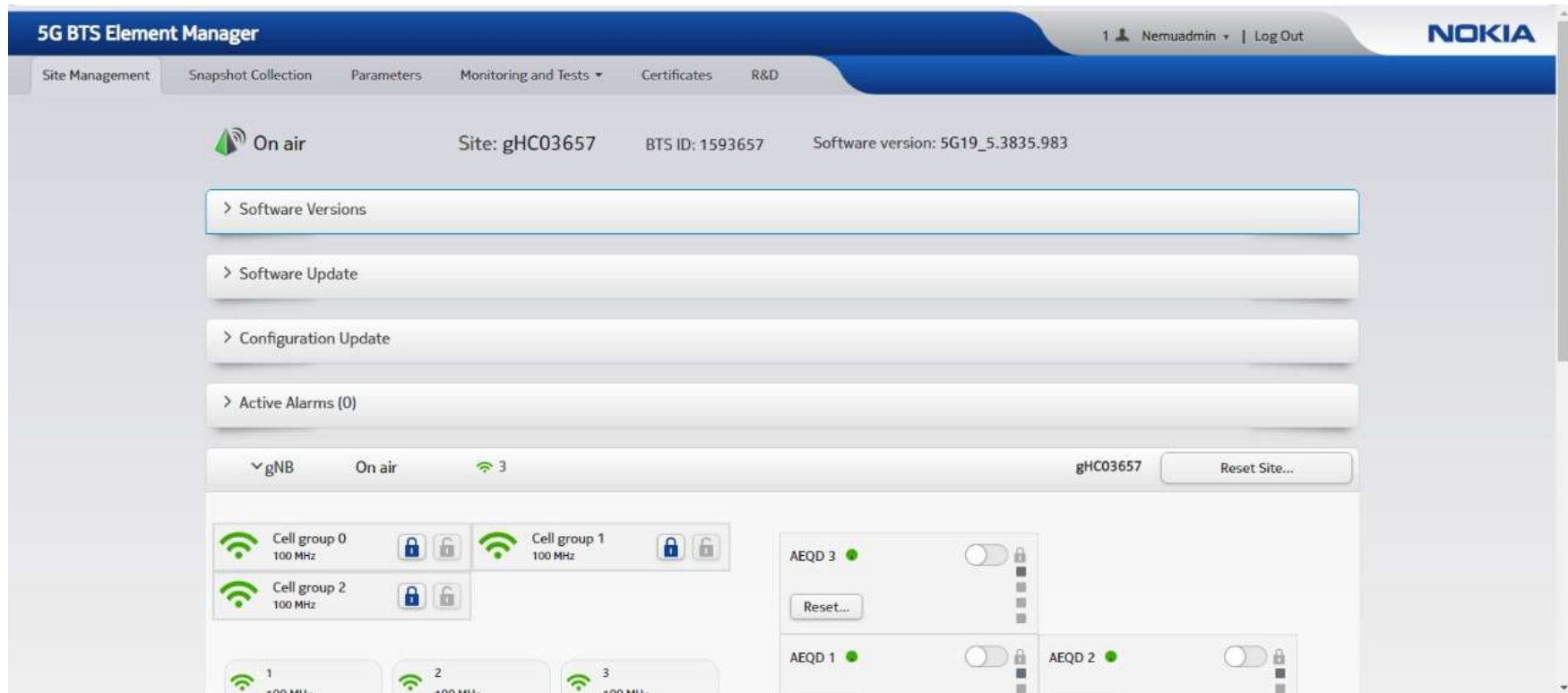
▼ Active Alarms (1)

▼ Filter...     ☐ Show alarm history  Toggling fault rules set. Toggling Statistic

| Severity                                                                                  | Fault name                                     | Reported alarm                            | Source                                      | Affected technologies | Time                   |                                                                                     |
|-------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------|---------------------------------------------|-----------------------|------------------------|-------------------------------------------------------------------------------------|
| ▶  Minor | 4125 GPS receiver alarm: position questionable | 7108 BASE STATION SYNCHRONIZATION PROBLEM | MNL 1/MNLENT<br>1/SYNC 1/CLOCK<br>1/GNSSE 1 | Common                | 18.09.2018<br>16:03:46 |  |

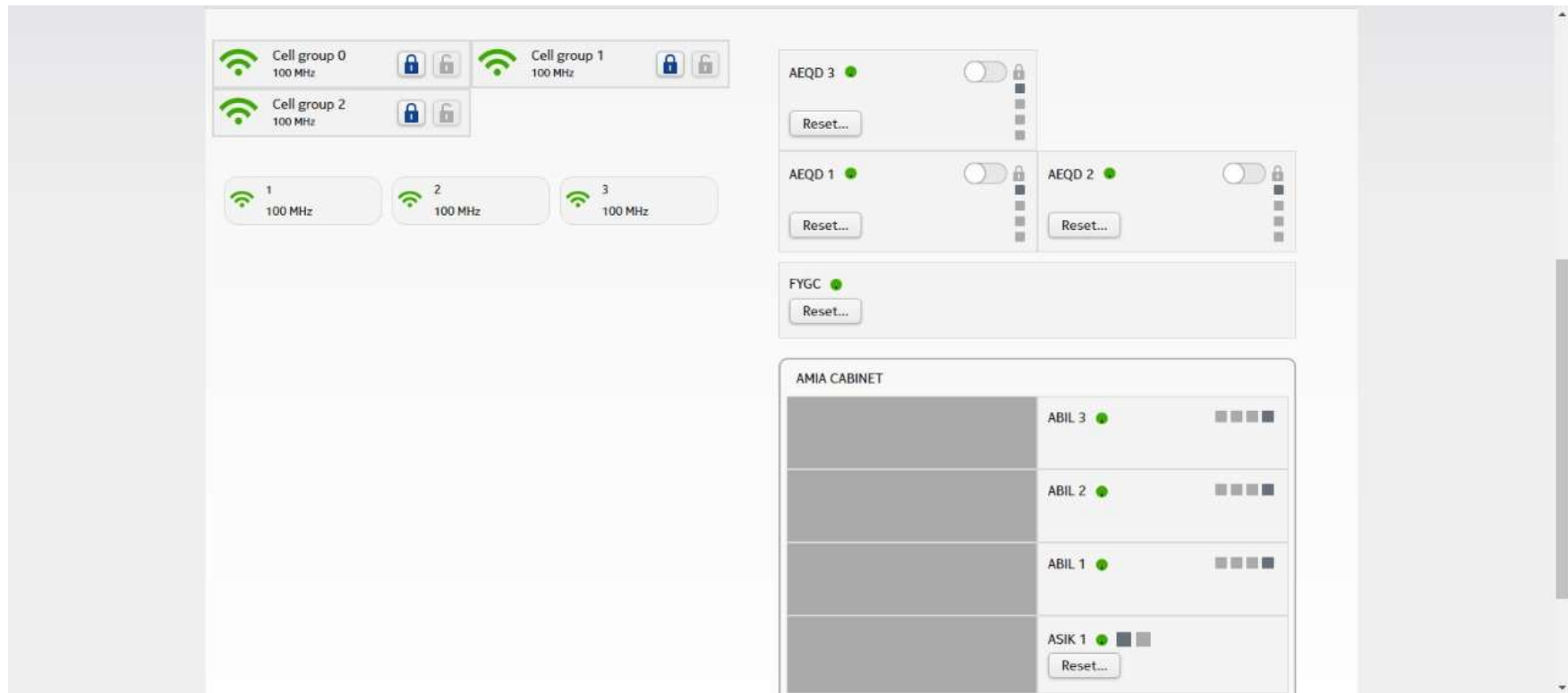
- If there is “SW corrupted” alarm → Reset Site.
- GPS Receiver alarm will be cleared automatically after GPS module is online.
- “No X2 Connection” alarm will be cleared after 4 mins if LNADJGNB is configured properly on eNb. → Cells will be on-air 30s after canceling of X2 alarm .

## Verify Working Classical 5G BTS On-air status



## Verify Working Classical 5G BTS

### On-air status



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## Revision history and metadata

**Document ID:** DXXXXXXXXX

**Document Location:**

**Organization:**

| Version | Description of changes   | Date       | Author             | Owner | Status | Reviewed by | Reviewed date | Approver | Approval date |
|---------|--------------------------|------------|--------------------|-------|--------|-------------|---------------|----------|---------------|
| 1.0     | Initial                  | 12-08-2019 | Binh, Nguyen Thanh |       |        |             | DD-MM-YYYY    |          | DD-MM-YYYY    |
| 1.1     | Update parameter         | 13-08-2019 | Binh, Nguyen Thanh |       |        |             |               |          |               |
| 1.2     | Update eNb Configuration | 20-08-2019 | Binh, Nguyen Thanh |       |        |             |               |          |               |
|         |                          |            |                    |       |        |             |               |          |               |
|         |                          |            |                    |       |        |             |               |          |               |
|         |                          |            |                    |       |        |             |               |          |               |
|         |                          |            |                    |       |        |             |               |          |               |
|         |                          |            |                    |       |        |             |               |          |               |
|         |                          |            |                    |       |        |             |               |          |               |