



# Baseband Integration – Onsite Procedure

Revision - C

For Software Release(s): 16B,17.Q1,17.Q2,17A

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## NRO Deployment Document (NDD)

8/1543-1/LZA 905 5680



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# General Information

## Purpose

This NDD contains the Baseband Integration steps performed onsite while locally connected to the LMT port of the node. It applies to Baseband 5216/5212. Baseband. The steps in this document can be used for both Greenfield Baseband deployments and Baseband Migration from DUx. This NDD is valid for Baseband nodes that are managed by either an OSS-RC or an ENM OAM platform. The onsite portion of the integration is the same regardless of the OAM platform being used.

This document does not cover the integration process using Smart Laptop USB or the smart phone EASi application. For integration using the Smart Laptop USB please use **Baseband Integration - Smart Laptop USB User Guide** and for integration using the smart phone EASi application please use **Baseband Integration - EASi User Guide**.

For Baseband (5212/5216) physical installation, please refer to **Baseband 5212/5216 Installation Procedure**.

## Intended Audience

- Onsite Field Technician

## Change Request Process

If you have comments or corrections for this document, please click the **Suggest a Change** button below the section you wish to update.

# Overview

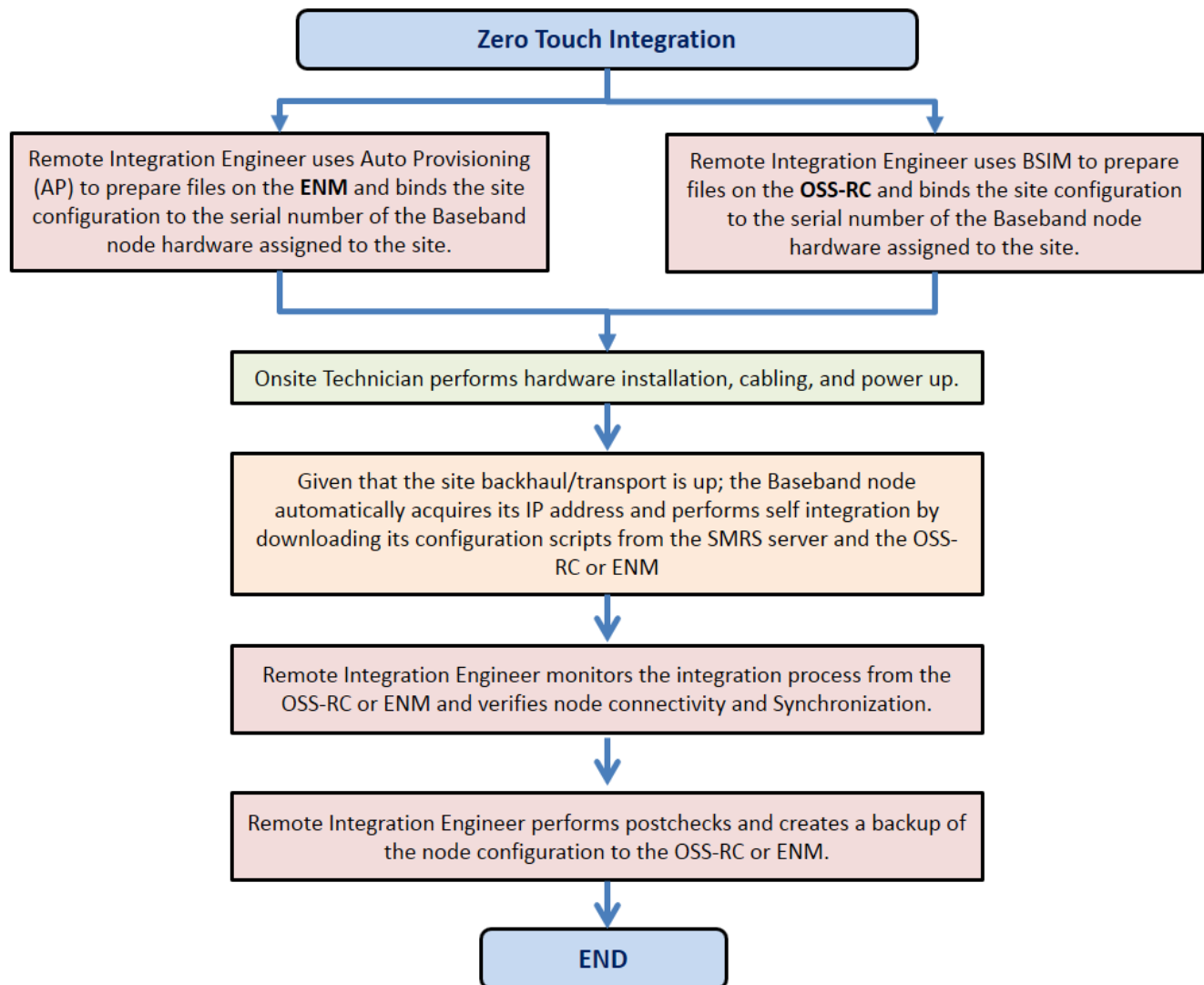
## Overview of Activity

This overview is provided as a high level look at sequences and processes covered by this document. This section does not contain any commands and is not intended to be executed.

This document covers the following onsite integration options:

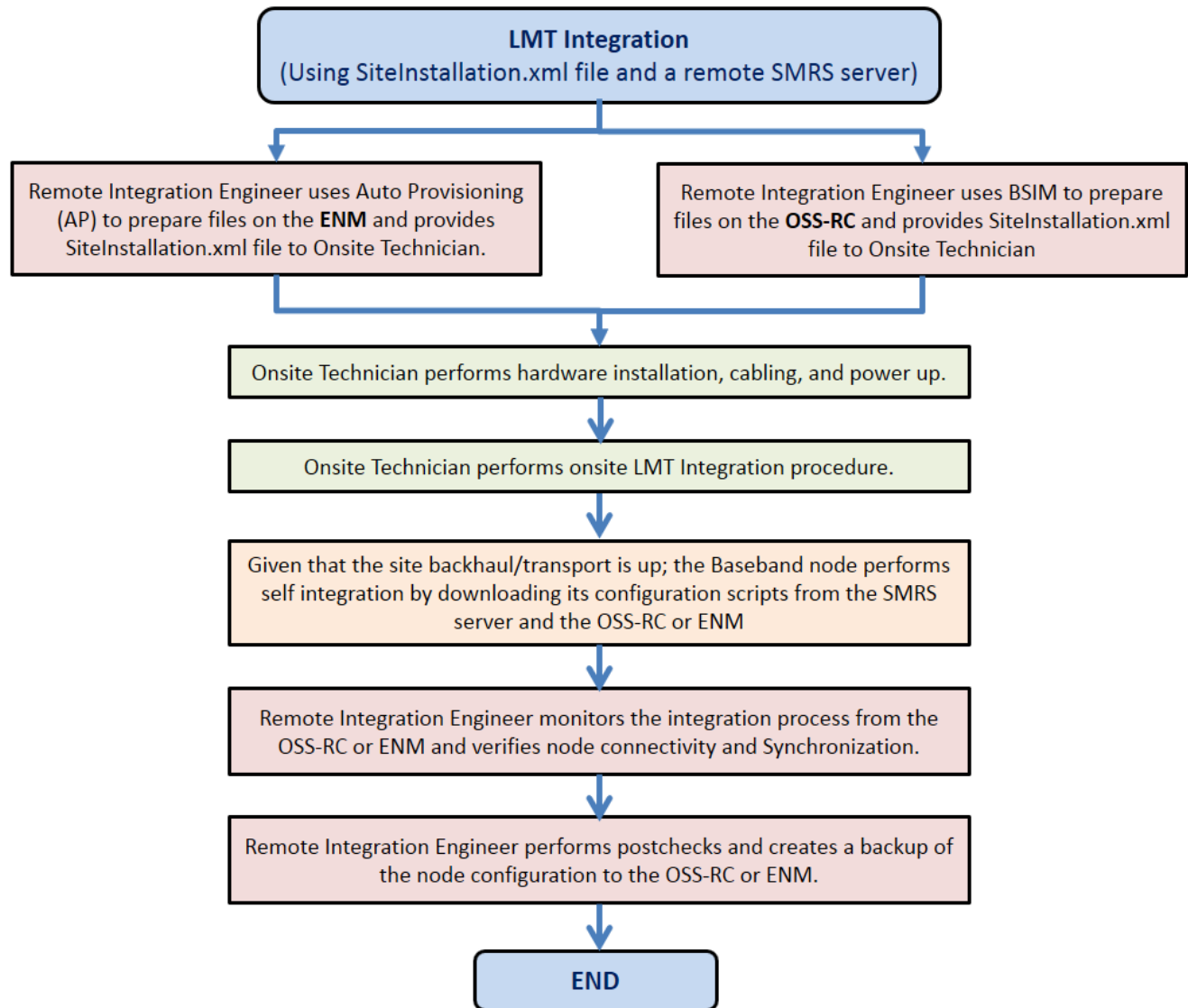
- **Zero Touch Integration:**

In the case of Zero Touch Auto Integration, the onsite field technician only needs to perform the baseband physical installation and cabling. Once powered up, the node will automatically attempt to establish communication with the OAM server and perform automatic integration. Please note that backhaul transport needs to be functioning properly in order for the Zero Touch integration to occur.



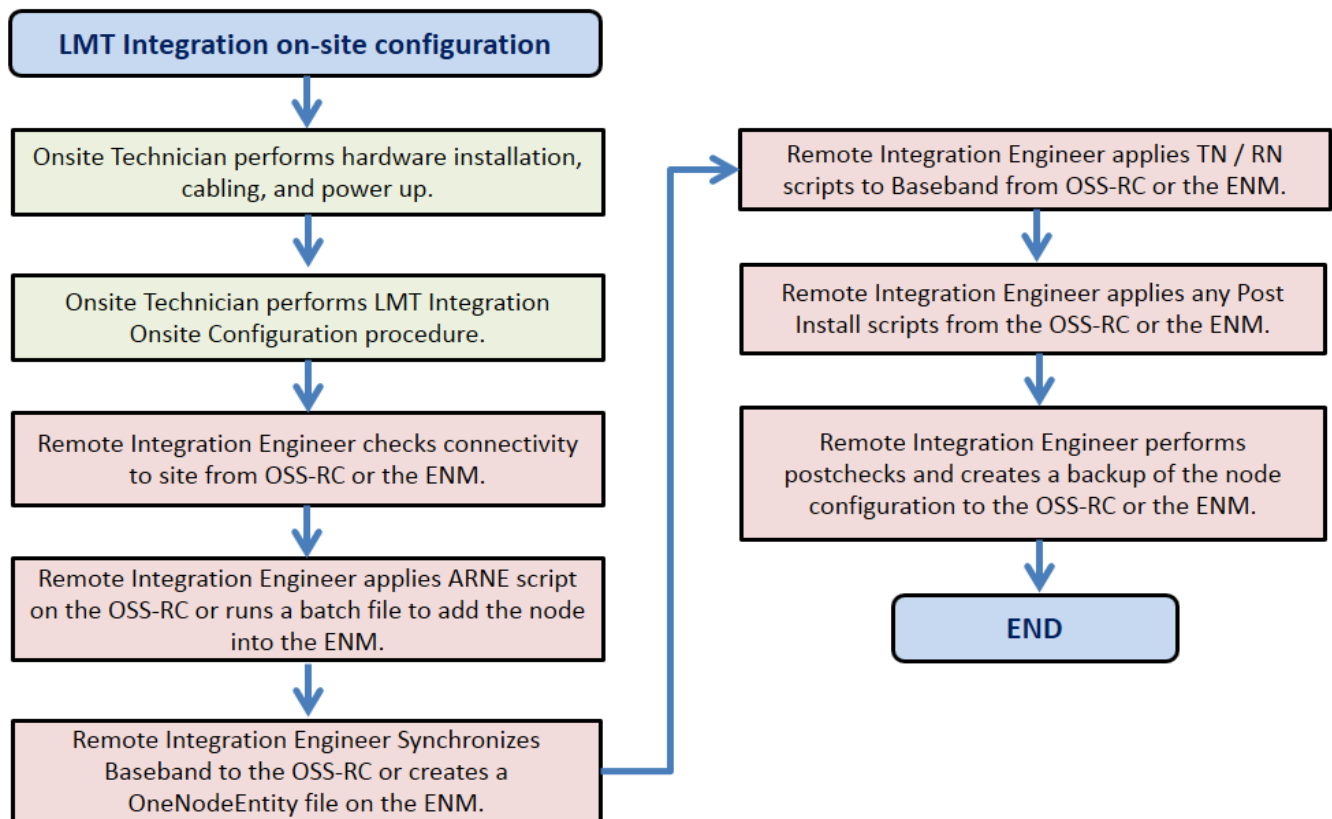
- **LMT Integration:**

This option allows the onsite field technician to use a "SiteInstallation.xml" file to perform the node integration. This site installation file contains the information that the Baseband needs to reach the remote SMRS (Software Management Repository Services) server. The Baseband requires a functioning backhaul connection that will allow it to reach the SMRS server and perform the integration automatically.



- **LMT Integration, OnSite Configuration:**

This option allows the onsite field technician to download the Site\_Basic, Site\_Equipment, License file (LKF), and software Upgrade Package from his laptop to the Baseband node onsite. The rest of the integration, which involves the application of TN/RN and post installation scripts, is performed remotely from the OSS-RC or the ENM.



## Initial Conditions

- In case of a migration (hardware upgrade), the existing G1 node needs to be functional and alarm free.
- A new Baseband node is available.
- The local Ericsson engineering team will provide the network configuration scripts to be loaded on site. A list of these files can be found in the procedures sections of this document.

## Post Conditions

- This NDD covers several integration scenarios. Depending on which integration option is being performed, the node will need either additional configuration files to be applied from the OAM server or it will be ready for postchecks to be performed by the remote integration team.

## Services Inclusions, Exclusions, and Assumptions

### Assumptions

This document assumes all equipment is currently in proper working order and is either alarm free or the customer is aware of any known issues and has made Ericsson and all stakeholders associated with the execution of this document aware of the known alarms/issues.

### Service Impacts

In case of a DUX migration to Baseband, all traffic on the DUX will be down approximately 30 minutes before the new Baseband module can take new calls. This procedure should be performed during a low traffic period as a precautionary measure. All service impacting work should be completed 30 minutes prior to end of maintenance window.

**Note: Cell downtime is 30 minutes or less if the time is counted between lock cell to unlock cell, and not between first script to last script. Lock cell is the time when the last DUX node EUTRANCellFDD is locked. And unlock is the time when the first Baseband EUTRANCellFDD is unlocked**

### Coordination

The following users are involved in the integration process:

Field Technician

- Performs all activities on-site.

Remote Integration Engineer

- Plans the node integration and performs all necessary actions on the OSS-RC or ENM.

OMC Technician

- Monitors the network from an Operation and Maintenance Center (OMC).

### Deliverables and Responsibilities

| Responsible Party | Responsibility              |
|-------------------|-----------------------------|
| Customer          | Site Access                 |
|                   | Passwords                   |
|                   | Equipment/Material          |
|                   | Customer owned Node changes |



|             |   |
|-------------|---|
|             | Customer required or provided documents or equipment (site drawings, special safety requirements, etc)          |
| Ericsson    | Network Engineering will provide scripts as required  |
|             | The NIC will update the node as required. All work will be done remotely  |
|             | Network Integration will perform all configuration services defined in this MOP                                 |
|             | Ericsson will complete physical installation  |
|             | Project Management will ensure Ericsson teams complete work, stay on schedule and co-ordinate with customer PMs |
| Third Party | Prerequisites or activities that will be executed by a third party  |

## Prerequisites and Dependencies

### Prerequisites:

- Configurations and preparations are made in the Operations Support System for Radio and Core (OSS-RC) or the Ericsson Network Management (ENM) server before deploying the node.
- Review all documents or references prior to performing this NDD.

### Dependencies:

- Transmission network from the site to the core network must be up and running.

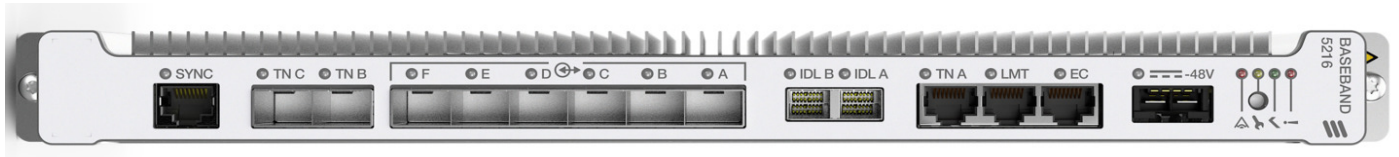
### Equipment Identification

Below are pictures of a DUS and Baseband units. Some of the ports have been relocated on the newer unit. Sufficient slack in existing cables is required or new cable must be run. The port effected the most is the GPS port (renamed SYNC.) It has been relocated from the far right to the far left. TNB and TNC have also been physically moved to the left.

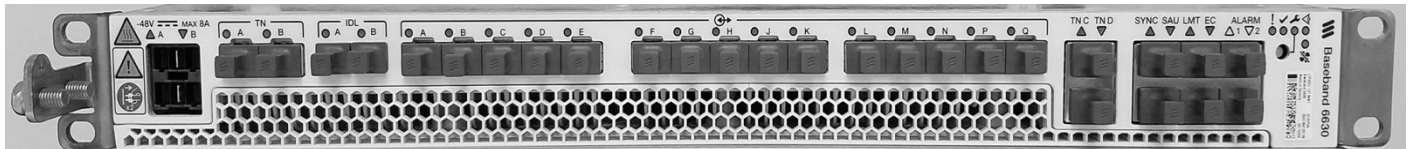
**DUS 41 01**



**Baseband (5212/5216)**



**Baseband (6620/6630)**



**Baseband (C608)**

## Entrance Criteria

### For Greenfield

- All Scripts, software loads, and licenses are available on the on-site technicians laptop.
- Baseband Hardware is available.
- All required configuration files are available on the OSS-RC or ENM platform.

### For Migration

- Customer has confirmed that sufficient slack is available on the existing cables to accommodate the location of the ports on the Baseband unit. If sufficient slack is not available, new cables should be installed prior to any service affecting activities.
- Customer has a complete backup of the DUX configuration in case a fallback is necessary.
- All items listed under Greenfield above.

## Exit Criteria

Baseband is ready for remote integration team to verify connectivity and to perform any post integration activities that are necessary for that node.

## Terminology

The table below shows a list of some of the old integration methods and their corresponding new names starting in release 16B and onward.

| Old Name                             | New Name   |
|--------------------------------------|--|
| Auto integration without laptop      | Zero Touch Integration                             |
| Warehouse integration/installation   | Zero Touch Integration, off-site pre-configuration |
| Auto integration with laptop         | LMT Integration                                    |
| Semi-automatic/automated integration | LMT Integration, on-site configuration             |

## Precautions and Preparations

### Precautions

Observe the general safety precautions against personal injury and equipment damage outlined in the Safety and Environmental documents listed under Section, “Safety and Environmental Documents”.

### Safety and Environmental Documents

[\*Personal Health and Safety Information 124 46-2885\*](#)

[\*System Safety Information 124 46-2886\*](#)

### Required Documents

NRO Deployment Documentation (NDD) can be found in CMS at [prscms.ericsson.net](http://prscms.ericsson.net).

#### Before using this document:

- The user of this document must be proficient in all required safety procedures for the geographic location in which this NDD is being applied.
- In geographic locations requiring accreditation, the document user must have a certification of accreditation on file with his/her company.
- For information related to safety procedures and access to them, the document user will contact his/her safety prime or local Installation or Integration representative.

## Job Preparations

Arrange all materials, tools, and test equipment at the work location so that they are nearby and ready for use.

### Tools & Test Sets

The tools and test sets listed in the table below are required to perform the procedures in this document.

| Tools & Test Sets |                    |
|-------------------|--------------------|
| QTY               | Description        |
| 1                 | PC for Integration |

### Supplies

The supplies listed in the table below are required to perform the procedures in this document.

| Supplies |  |
|----------|--|
| QTY      | Description  |
| 1        | Ethernet Cable for communication to Baseband LMT port. |

### Software

The Onsite technician must have the following software/hardware and be familiar with it's use.

- PC to be used as local terminal & Ethernet cable
- sFTP Server installed on local terminal (Core FTP mini-Server used in this document)
- Latest Firefox or Chrome web browsers

The configuration files needed depending on the integration method being performed at the site. If performing "LMT Integration on-site configuration", it is necessary to have at least 800 MB free space on the C: drive of the local computer to allow for storage of the Baseband software.

Core FTP mini-sftp server:

SFTP Server is installed on the technician's PC. The SFTP server is used for storage and transfer of configuration files to the node through the Local Maintenance Terminal (LMT) port

This document refers to Core FTP mini-sftp server. It can be downloaded for free at <http://CoreFTP.com>



The screenshot shows the Core FTP website with a navigation bar and a main content area. A red callout bubble points to the 'Download' link in the navigation bar.

**core FTP**

Click on Download

Home | Download | Purchase | Support | FAQ | News | Docs | Forums | Contact | Feedback | MailList | Links | Info

### Free FTP client software for Windows

Now you can download Core FTP LE - free Windows software that includes the client FTP features you need. Features like SFTP (SSH), SSL, TLS, FTPS, IDN, browser integration, site to site transfers, FTP transfer resume, drag and drop support, file viewing & editing, firewall support, custom commands, FTP URL parsing, command line transfers, filters, and much, much more!

This free, secure FTP client gives you a fast, easy, reliable way to update and maintain your website via FTP. It also provides a secure method (via SSL, TLS, FTPS, HTTPS, or SFTP) to upload / download files to and from FTP servers. Check out the list of features and you'll find almost every feature you need, all in a free ftp program. There are no popup ads, advertising or spyware and you're never asked or reminded to register.

Version 2.2 - Updated May 4th, 2016 [ details ]

**DOWNLOAD** Core FTP now!

[ view sample screens ]

Need to transfer files between computers via FTP? Try our **SFTP server**.

.EDUs qualify for a free FTP client site license - click **here** for more info.

For advanced users, **Core FTP Pro** is available with advanced features you need. Our goal is simply to bring you the best FTP software on the internet. Look at the list of **features** you get with Core FTP Pro - solve all your current and future ftp client needs for one low price...

**With Core FTP Pro, now you can:**

- Encrypt and decrypt files to servers using the latest encryption methods.
- Schedule ftp transfers (unattended) without additional services.

### Client features include:

- Secure SFTP, SSL, TLS, & FTPS
- International Domain support
- Fast and secure client transfers
- HIPAA compliant security
- Mode Z compression
- User-friendly interface(s)
- Site to Site file transfers
- FULL drag and drop support
- Start/stop/resume of transfers
- Auto retry of failed transfers
- Transfer bandwidth control
- Browser integration
- File masking (wildcards)
- Keep Alive functionality
- Remote file searching
- File permissions (CHMOD)
- Advanced directory listings
- .htaccess & .htpasswd editing
- One click transfers
- Keep Alive functionality
- Automatic S/Key support
- Favorites via menu & drop down
- Desktop shortcuts & drop u/l's
- Command line support



From the Core FTP Server / SFTP server download page, search for the word "mini", to locate and download the mini version of the software.





## Username and Passwords

rbs/rbs is the Baseband local maintenance username and password that is used in this document. Check with your project lead if your region, market, or customer is using a different local maintenance username and password for the Baseband.

## Procedures

### Integration Files

Below is a list of files used onsite for the different types of integration options:

## Zero Touch Auto Integration

Files provided to the On-Site Technician:

- No files are needed onsite for Zero Touch Auto Integration

## LMT Integration Files

Files provided to the On-Site Technician:

- SiteInstallation.xml

## LMT Integration On-site Configuration Files

Files provided to the On-Site Technician:

- RbsSummary.xml
- SiteEquipment.xml
- SiteBasic.xml
- OssNodeProtocol.xml
- Software Upgrade Package
- License Key File (LKF)

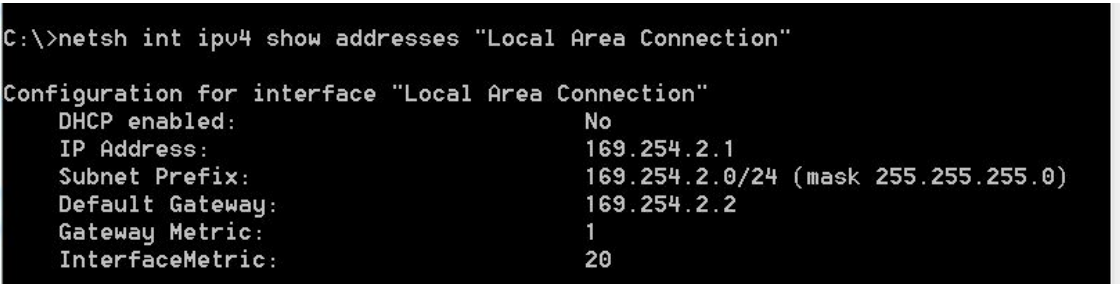
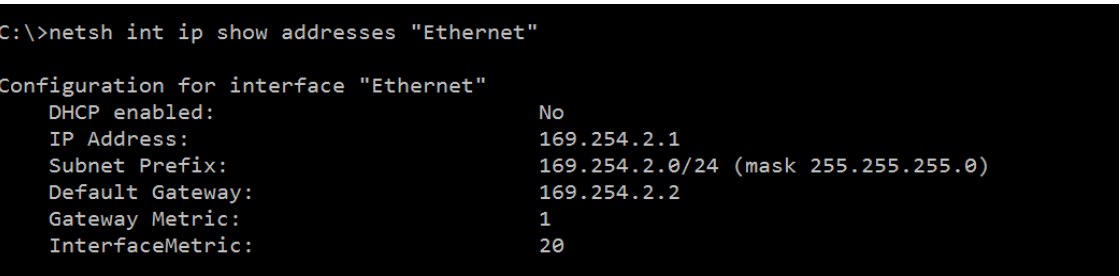
# Connect to Baseband LMT port

## Change Local Terminal IP Address

This procedure will change the IP address of the local terminal to allow it to connect to the Baseband.

| Change IP Address on Laptop |  |
|-----------------------------|--|
| Step                        | Task/Observation   |
| 1                           | Connect a standard Ethernet cable from the local terminal to the LMT port of the Baseband.           |
| 2                           | Go to the Start (Windows) Button, and select Search Programs and Files, and type <b>cmd</b>          |
| 3                           | Under Programs, <b>cmd.exe</b> is listed, right click on it and select <b>Run as administrator</b> . |

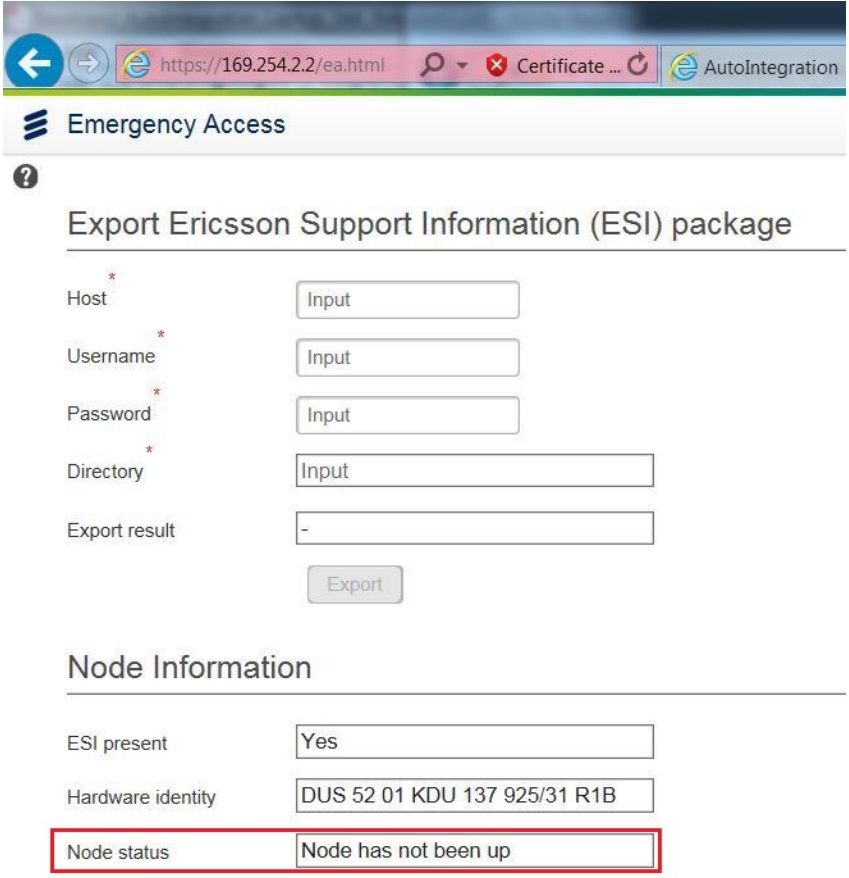


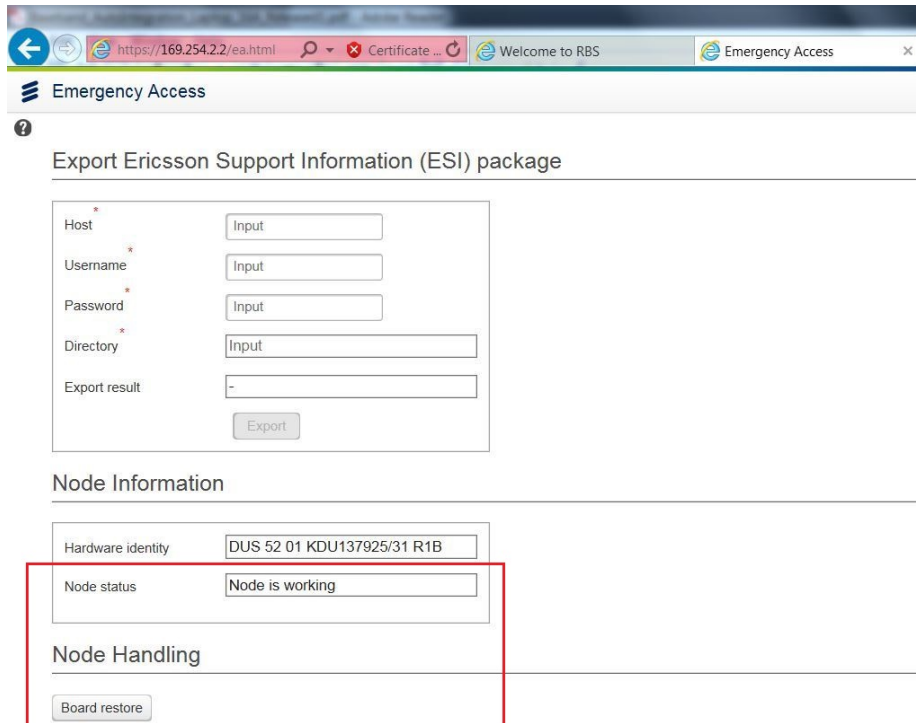
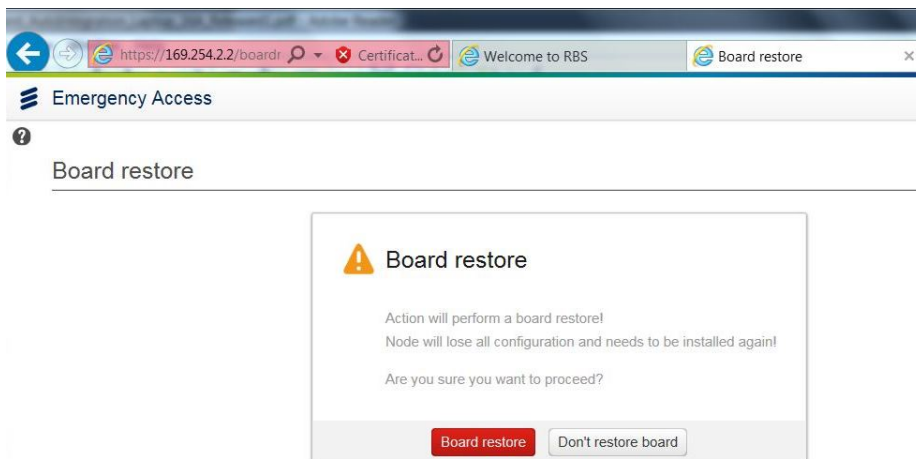
|   |  |
|---|--|
| 4 | When User Access Control asks, Do you want to allow the following program to make changes to this computer?<br>select <b>Yes</b>   |
| 5 | In the command window that opens type:<br><br><i>For Windows 7:</i><br>netsh interface ip set address name="Local Area Connection" static 169.254.2.1 255.255.255.0 169.254.2.2<br><br><i>For Windows 10:</i><br>netsh interface ip set address name="Ethernet" static 169.254.2.1 255.255.255.0 169.254.2.2   |
| 6 | Check that the "Local Area Connection" or "Ethernet" IP address of the computer has been changed.<br><br><i>For Windows 7:</i><br>netsh int ipv4 show addresses "Local Area Connection"<br><br><br><br><i>For Windows 10:</i><br>netsh int ip show addresses "Ethernet"<br><br> |

## LMT Integration (AI with laptop)

This section will cover loading the software, scripts and licenses on the Baseband using a "SiteInstallation.xml" file and a remote SMRS server. This server is setup remotely using either BSIM on the OSS-RC platform or using Auto Provisioning (AP) on the ENM platform OAM server.

**Note:** Do not perform this procedure if you already integrated the Baseband using the "LMT, Onsite Integration" procedure.

| Baseband LMT Integration (using SMRS Server) |  |
|--|--|
| Step   | Task/Observation   |
| 1  | <p>Open a browser and connect to the Baseband Emergency Access window.</p> <p><a href="https://169.254.2.2/ea.html">https://169.254.2.2/ea.html</a></p>  <p><b>Note:</b> Approve the security certificate for this node local web site. The IP address of the LMT port is by default 169.254.2.2.</p> |
| 2  | <p>If the Node status shows "Node has not been up" then skip this step.</p> <p>If Node status shows "Node is working" then click on "Board restore" to clear all existing data from the Baseband.</p>  |

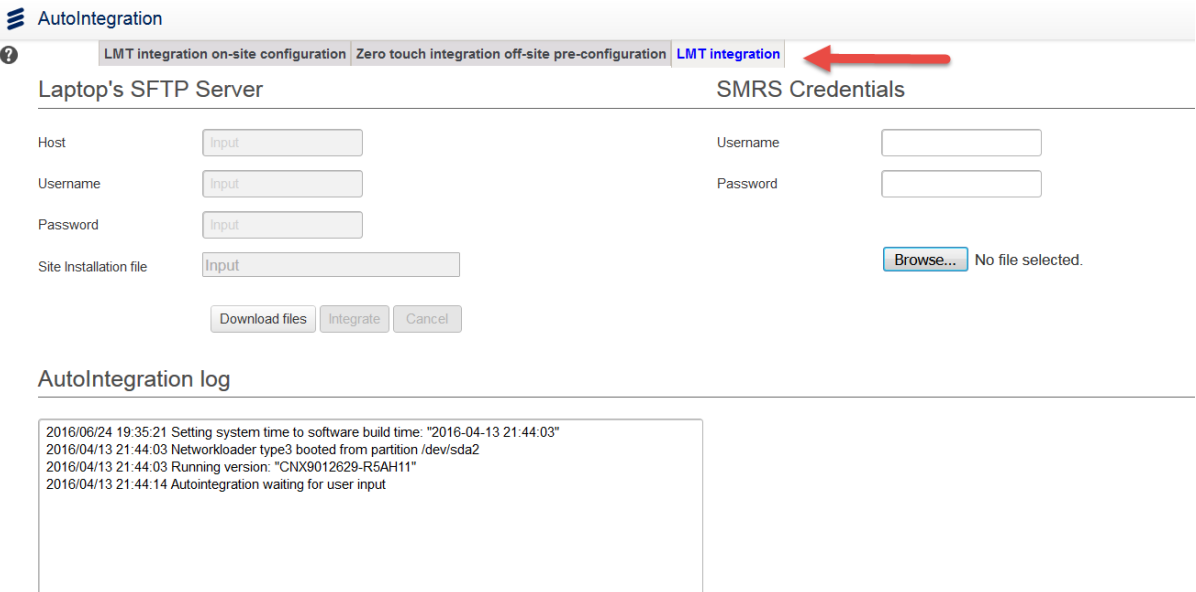



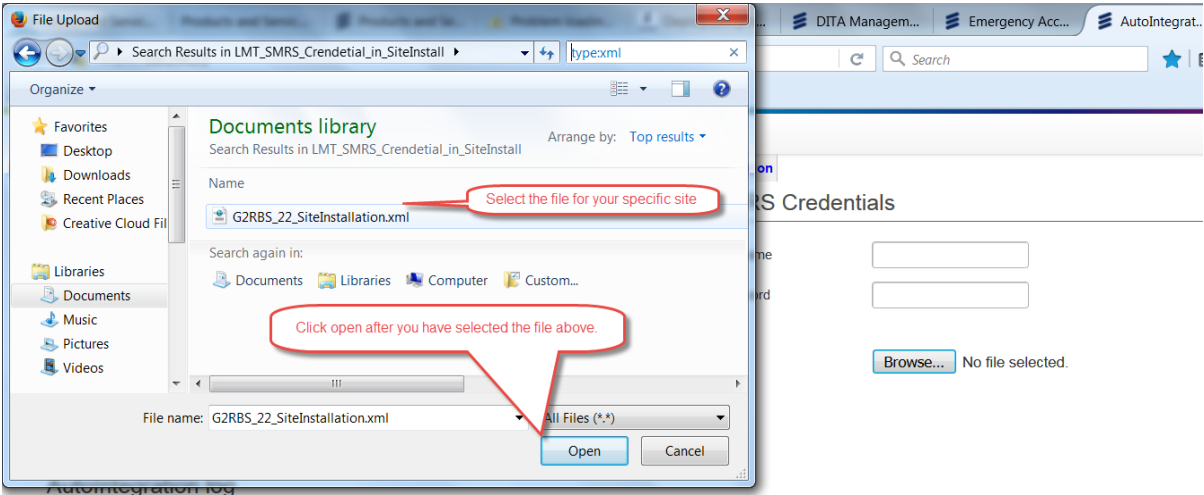
**Note: It takes about 5 minutes for the board restore to complete.**


3

Open a new browser window and connect to the Baseband LMT IP address.

<https://169.254.2.2>

|   |   |
|---|---|
|   | <p>Verify "LMT integration" tab is selected and is colored in blue</p> <p><b>Note: Approve the security certificate for this node local web site. The IP address of the LMT port is by default 169.254.2.2.</b></p>  |
| 4 | <p>Click "Browse" to open up the windows file explorer window; navigate to the folder where the site configuration files have been saved, and select the SiteInstallation.xml file for your specific site.</p>  |

|   |  |
|---|--|
|   |  <p>2016/06/24 19:35:21 Setting system time to software build time: "2016-04-13 21:44:03"<br/> 2016/04/13 21:44:03 Networkloader type3 booted from partition /dev/sda2<br/> 2016/04/13 21:44:03 Running version: "CNX9012629-R5AH11"<br/> 2016/04/13 21:44:14 Autointegration waiting for user input</p> <p><b>Note: A separate SiteInstallation.xml file is created for each site and may have extra characters in the name</b></p> |
| 5 | <p>Click on the <b>Download Files</b> button.</p> <p>The system will start downloading and installing the software. This will take 20 to 40 minutes.</p>   |

|   |   |
|---|---|
|   | <div>  <b>AutoIntegration</b> </div> <div> <span>?</span> <span>LMT integration on-site configuration</span> <span>Zero touch integration off-site pre-configuration</span> <span><b>LMT integration</b></span> </div> <div> <div>Laptop's SFTP Server</div> <div> <div>Host</div> <div>Username</div> <div>Password</div> <div>Site Installation file</div> </div> <div> <div>Input</div> <div>Input</div> <div>Input</div> <div>Input</div> </div> <div> <div>Download files</div> <div>Integrate</div> <div>Cancel</div> </div> </div> <div> <div>SMRS Credentials</div> <div> <div>Username</div> <div>Password</div> </div> <div> <div>Browse...</div> <div>G2RBS_22_SiteInstalla</div> </div> </div> <div> <div>AutoIntegration log</div> <div>Starts downloading files</div> <div> <div>2016/06/24 19:35:21 Setting system time to software build time: "2016-04-13 21:44:03"</div> <div>2016/04/13 21:44:03 Networkloader type3 booted from partition /dev/sda2</div> <div>2016/04/13 21:44:03 Running version: "CNX9012629-R5AH11"</div> <div>2016/04/13 21:44:14 Autointegration waiting for user input</div> </div> </div> <div> <p><b>Note:</b> Depending on the content of the SiteInstallation.xml file, it may be necessary to manually input the username and password for the SMRS server in the "SMRS Credentials" fields above. Please contact your next level of support if you encounter an error or have problems connecting to the remote SMRS server.</p> </div> |
| 6 | Once the download is complete click on the <b>Integrate</b> button.   |

|  |  |
|--|--|
|  | <div> <div>Integrate or cancel</div> <div> <div>Host*</div><input type="text" value="Input"/></div> <div>Username*</div><input type="text" value="Input"/></div> <div>Password*</div> <input type="text" value="Input"/> |
|--|--|

Site Installation file\*

Download files

Integrate

Cancel

AutoIntegration log

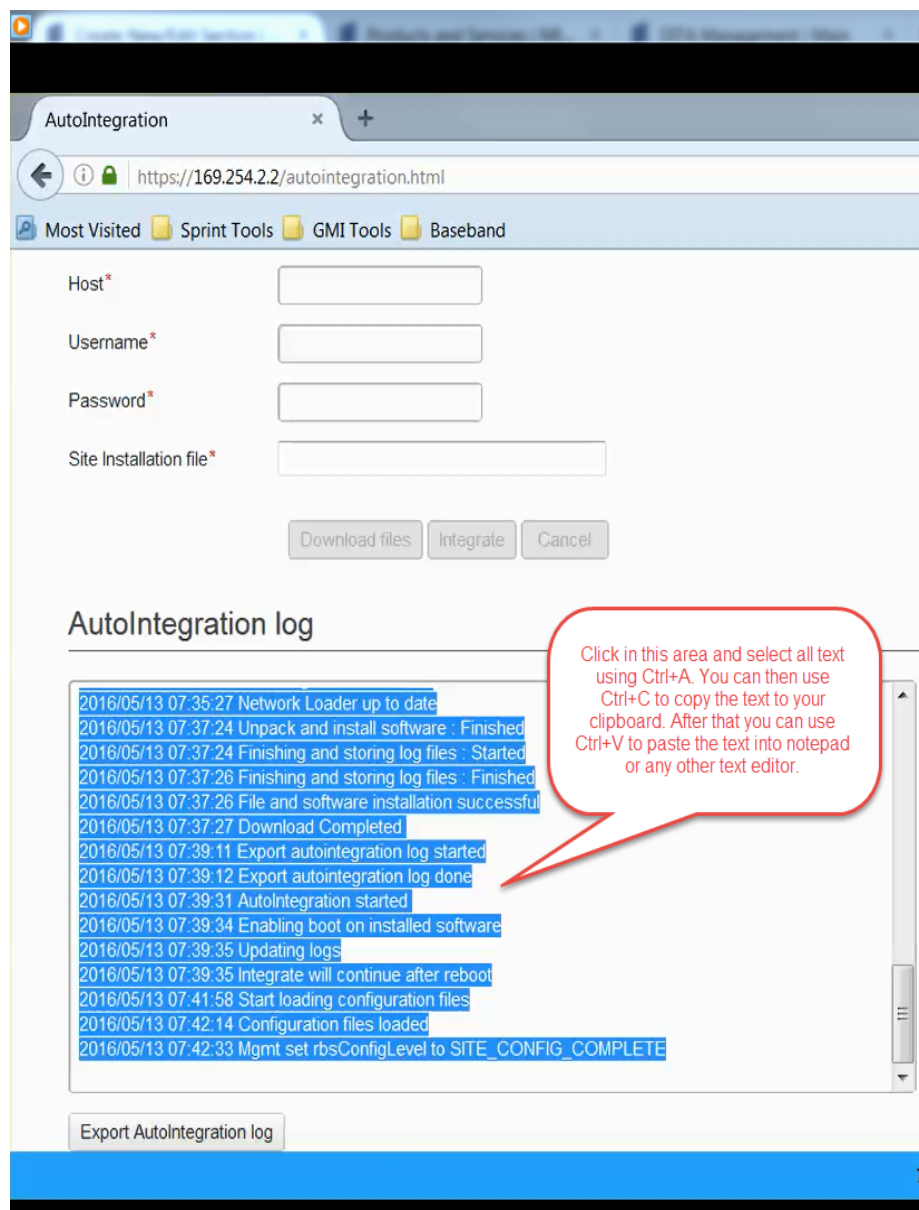
```

2015/10/27 13:44:29 Download progress: 36%
2015/10/27 13:44:49 Download progress: 54%
2015/10/27 13:45:09 Download progress: 71%
2015/10/27 13:45:29 Download progress: 89%
2015/10/27 13:45:41 Download of Software package : Finished
2015/10/27 13:45:41 Prepare filesystem : Started
2015/10/27 13:45:58 Prepare filesystem : Finished
2015/10/27 13:45:58 Unpack and install software : Started
2015/10/27 13:45:58 Checking Network Loader
2015/10/27 13:46:05 Network Loader up to date
2015/10/27 13:47:59 Unpack and install software : Finished
2015/10/27 13:47:59 Finishing and storing log files : Started
2015/10/27 13:48:01 Finishing and storing log files : Finished
2015/10/27 13:48:01 File and software installation successful
2015/10/27 13:48:02 Download Completed

```

Export AutoIntegration log

The easiest way to save the log is to click in the log window and select all, then copy and paste the log content into notepad or any other text editor.



You could also click on the "Export AutoIntegration log" button and provide your local laptop IP address, username, password, and filename you would like to give for the log. The web browser will use sftp to send the log file to your PC.



AutoIntegration

LMT integration on-site configuration
Zero touch integration off-site pre-configuration
LMT integration

Laptop's SFTP Server
SMRS Credentials

Host\*

Username\*

Password\*

Site Installation file\*

Browse...
No file selected.

Download files
Integrate
Cancel

AutoIntegration log

```

2016/05/12 14:47:01 Unpack and install software : Started
2016/05/12 14:47:01 Checking Network Loader
2016/05/12 14:47:08 Network Loader up to date
2016/05/12 14:49:07 Unpack and install software : Finished
2016/05/12 14:49:07 Finishing and storing log files : Started
2016/05/12 14:49:09 Finishing and storing log files : Finished
2016/05/12 14:49:09 File and software installation successful
2016/05/12 14:49:10 Download Completed
2016/05/12 14:53:59 AutoIntegration started
2016/05/12 14:54:02 Enabling boot on installed software
2016/05/12 14:54:03 Updating logs
2016/05/12 14:54:03 Integrate will continue after reboot
2016/05/12 14:56:25 Start loading configuration files
2016/05/12 14:56:41 Configuration files loaded
2016/05/12 14:56:56 Mgmt set rbsConfigLevel to SITE_CONFIG_COMPLETE

```

Export AutoIntegration log

Click Export AutoIntegration log

70%

Autointegration - export

https://169.254.2.2/export.html

Most Visited
Sprint Tools
GMI Tools
Baseband

Autointegration

?

Export Autointegration log

Host\*
169.254.2.1

Username\*
rbs

Password\*
...

Filename\*
BaseBand\_Integration.log

Export
Back

Export-button starts the autointegration log export

11

Contact the remote integration team and inform them of the completion of the integration process through SMRS server. At this point, the remote integration engineer should verify

|  |  |
|--|--|
|  | node status in the OSS-RC or the ENM database, perform post checks, and create a backup. |
|--|--|

The following table shows a brief description of the various RBS configuration levels that can be seen in the AutoIntegration log.

| RbsConfigLevel Status Description |   |
|-----------------------------------|---|
| rbsConfigLevel                    | Description   |
| SITE_CONFIG_COMPLETE              | Site configuration is completed. The node is ready for integration by OSS.  |
| OSS_ACTIVATING_CONFIGURATION      | OSS continues with configuration.   |
| OSS_CONTROL_NODE_CONN             | OSS activates node connection to the control node.  |
| UNLOCKING_CELLS                   | Unlocked cells are coming into service.   |
| INTEGRATION_COMPLETE              | The node is integrated in a network.  |
| READY_FOR_SERVICE                 | The node is ready to carry traffic. Integration is complete and operationalState is ENABLED for all configured cells and sectors in the node. |
| OSS_CONFIGURATION_SUCCESSFUL      | The node is successfully configured by OSS.   |
| OSS_CONFIGURATION_FAILED          | Node configuration by OSS has failed.   |
| ACTIVATING_FEATURES               | All features with valid licenses are activated.   |
| ACTIVATING_FEATURES_FAILED        | Not all features with valid licenses installed are correctly activated.   |
| OSS_CONTROL_NODE_CONN_FAILED      | Node connection to control node failed.   |
| UNLOCKING_CELLS_FAILED            | One or more cells failed to unlock.   |
| RAN_INTEGRATION_WAS_CANCELLED     | AutoIntegration was cancelled but the ME is still manageable from OSS.  |

## LMT Integration Onsite Configuration

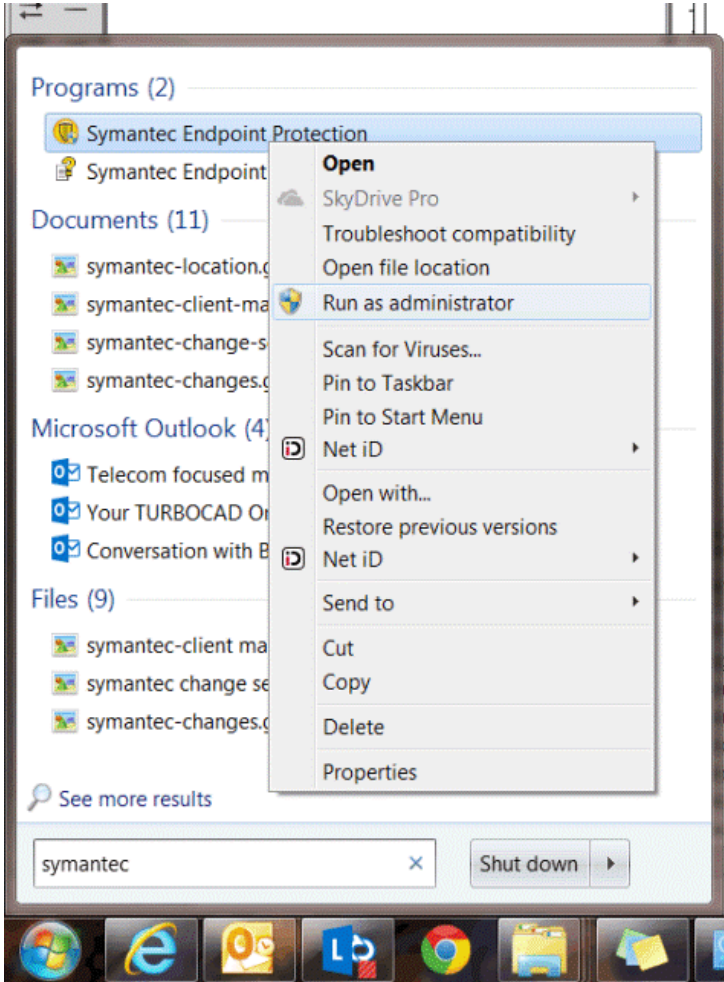
The section below covers Baseband integration using the "LMT Integration on-site configuration" tab in the Network Loader Web User Interface. The onsite technician will need to disable any potential firewalls software and enable sftp server software on the PC connected to the Baseband in preparation for this method of integration. Using the LMT onsite integration option, the onsite technician will be able to load the software Upgrade Package, the Site Basic & Site Equipment scripts, and the LKF license files to the Baseband locally from his connected laptop PC.

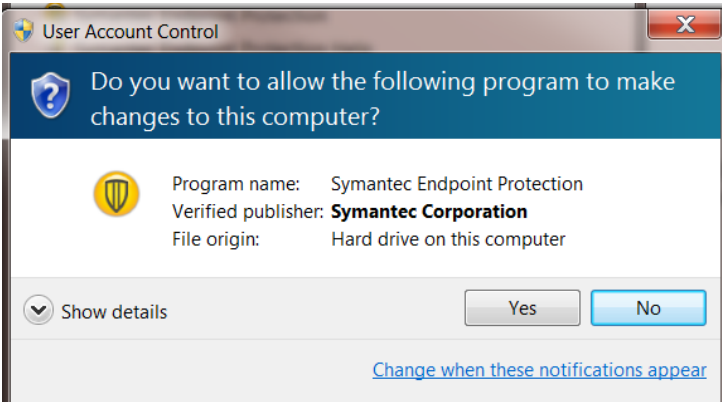

The onsite portion of the Baseband integration can be performed without having a functional backhaul at that time. However, backhaul transport will be required to complete the remote integration process from the OSS-RC or ENM server.

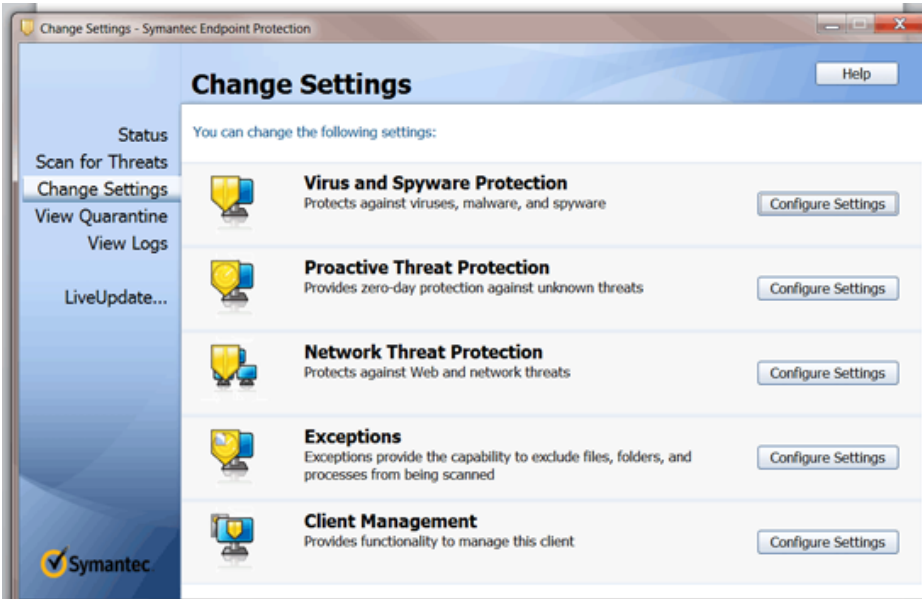
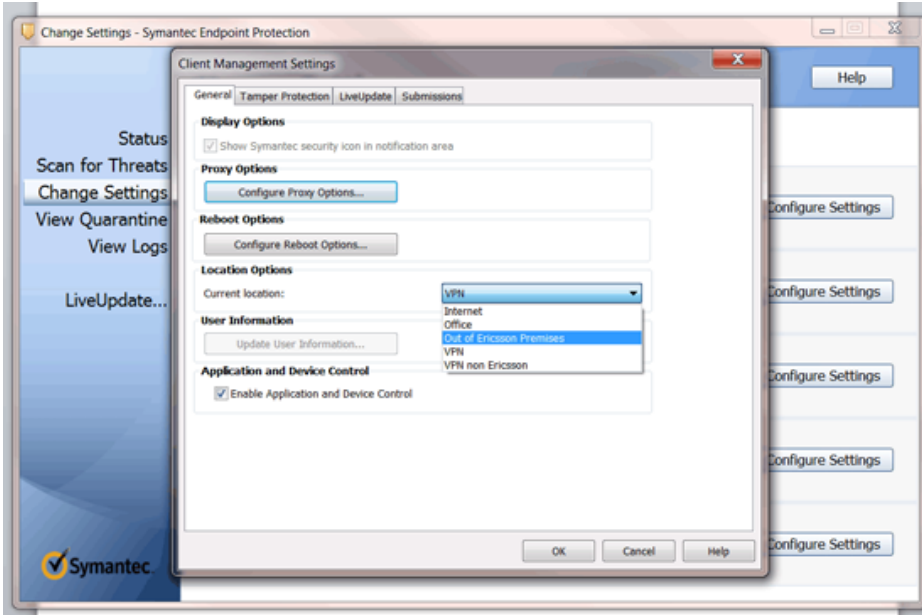
**Note:** Do not perform this procedure if you already integrated the Baseband using the previous "LMT Integration" procedure.

## Disable Firewall

This procedure will disable the Symantec firewall on an Ericsson computer when it is not connected to an Ericsson network.

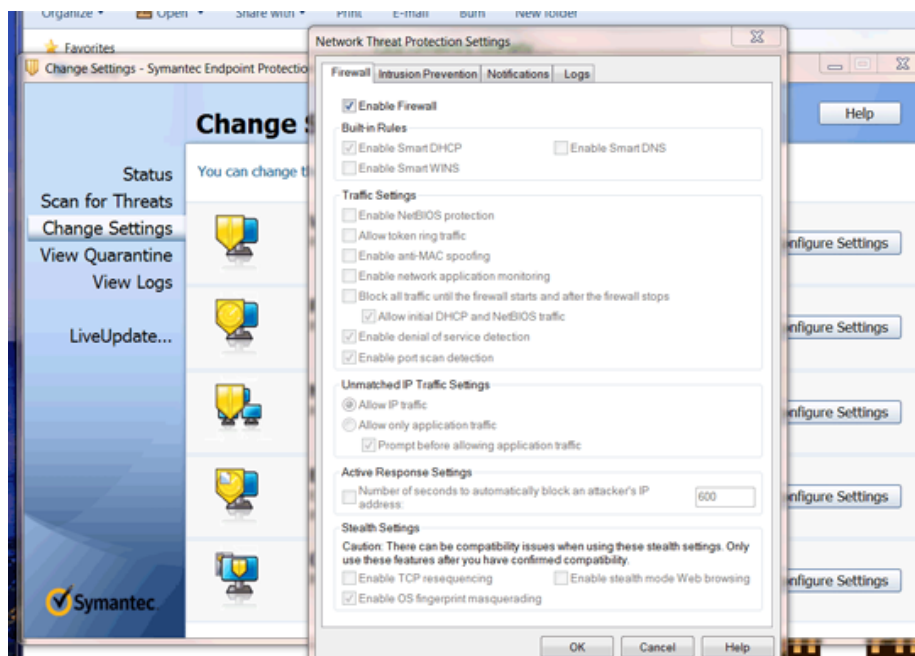
| Disable Symantec Firewall |  |
|---------------------------|--|
| Step                      | Task/Observation   |
| 1                         | Go to the Start (Windows) Button, and select Search Programs and Files, and type <b>Symantec</b> .   |
| 2                         | <p>Right click on Symantec Endpoint Protection and choose <b>Run as Administrator</b>.</p>  |

|   |  |
|---|--|
| 3 | <p>When the message pops up asking if you want the program to make changes to your computer, click <b>yes</b>.</p>  <p>The image shows a Windows User Account Control (UAC) dialog box. The title bar says 'User Account Control'. The main text asks: 'Do you want to allow the following program to make changes to this computer?'. Below this, it lists: 'Program name: Symantec Endpoint Protection', 'Verified publisher: Symantec Corporation', and 'File origin: Hard drive on this computer'. At the bottom, there is a 'Show details' link, 'Yes' and 'No' buttons, and a link that says 'Change when these notifications appear'.</p>   |
| 4 | <p>Click Change Settings.</p>  <p>The image shows the 'Status - Symantec Endpoint Protection' window. The title bar says 'Status - Symantec Endpoint Protection'. The main area has a green checkmark and says 'Your computer is protected. No problems detected. Protection definitions are current'. Below this, it lists installed security components: 'Virus and Spyware Protection' (definitions: Monday, March 16, 2015 r17), 'Proactive Threat Protection' (definitions: Saturday, March 07, 2015 r11), and 'Network Threat Protection' (definitions: Monday, March 16, 2015 r11). Each component has an 'Options' button. On the left, there is a sidebar with links: 'Status', 'Scan for Threats', 'Change Settings', 'View Quarantine', 'View Logs', and 'LiveUpdate...'. The Symantec logo is at the bottom left.</p> |
| 5 | <p>Next to Client Management click - <b>Configure Settings</b>.</p>  |

|   |   |
|---|---|
|   |   |
| 6 | <p>Set the location setting to - <b>Out of Ericsson Premises</b>.<br/>Click <b>OK</b>.</p>  |
| 7 | Wait 20 seconds for the system to update.   |
| 8 | Next to Network Threat Protection, click <b>Change Settings</b> .   |



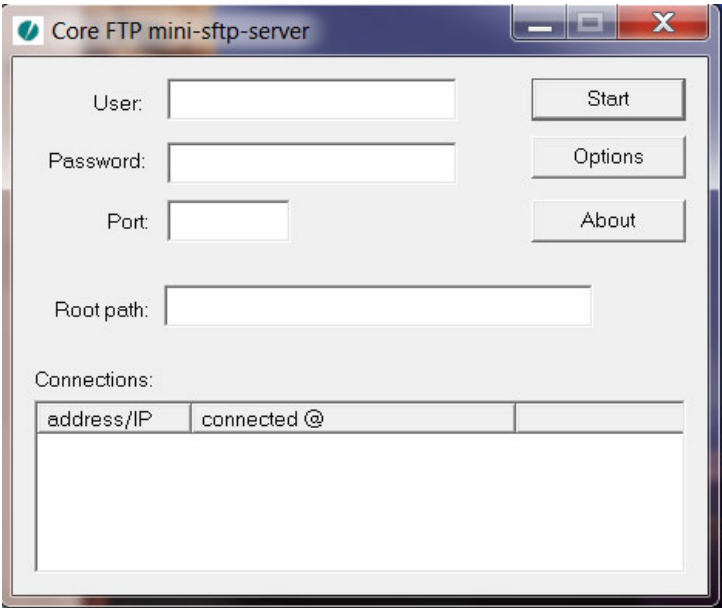
Remove the check from the box labeled Enable Firewall and Click **OK**.

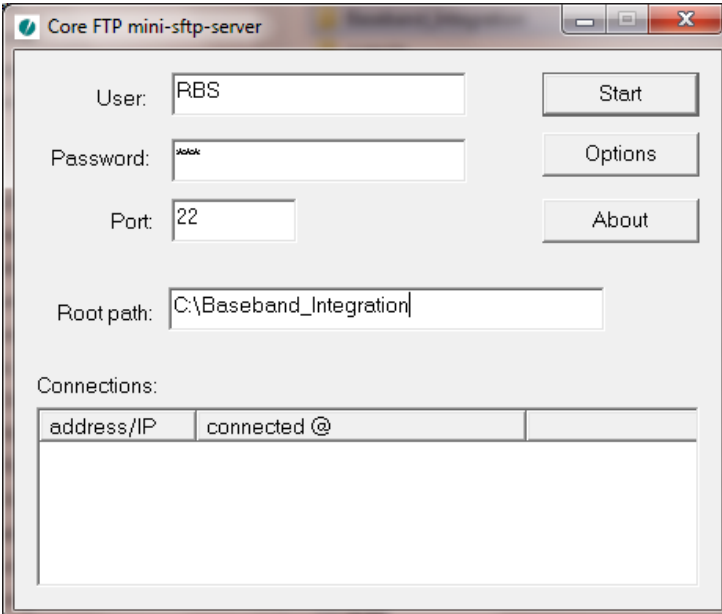


## Start SFTP server on PC

The instructions in this document refer to Core FTP mini-ftp server.



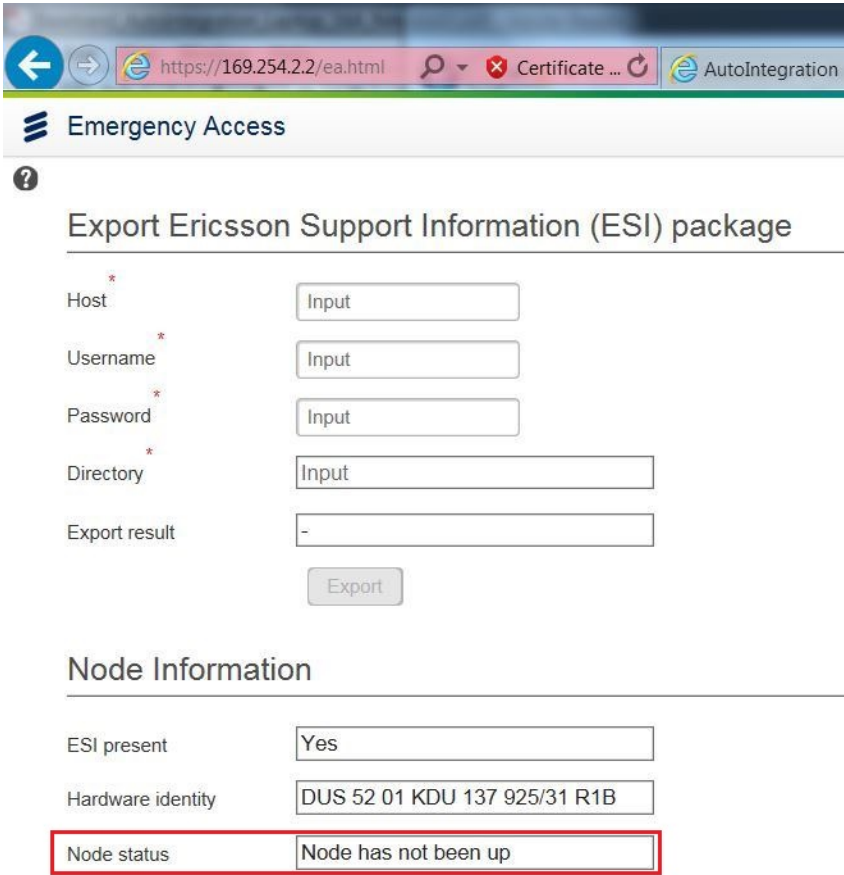
| Start SFTP Server |   |
|-------------------|---|
| Step              | Task/Observation  |
| 1                 | <p>Open the SFTP server software.</p>  |
| 2                 | In the user field type: <b>rbs</b>  |
| 3                 | In the password field type: <b>rbs</b>  |
| 4                 | In the port field type: <b>22</b>   |
| 5                 | In the root path type: <b>C:\Node_Integration</b>   |

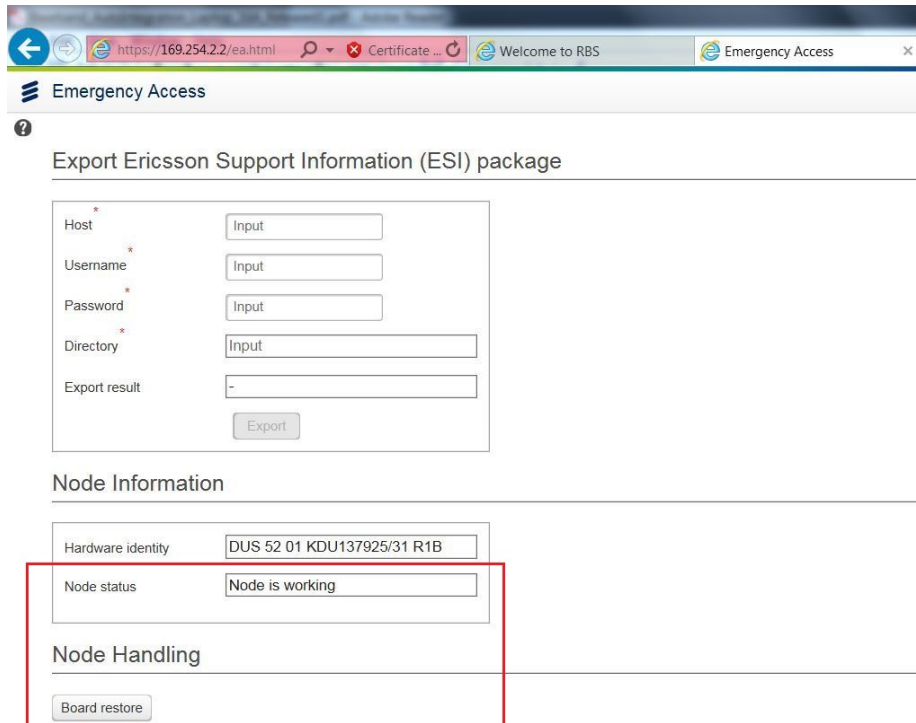
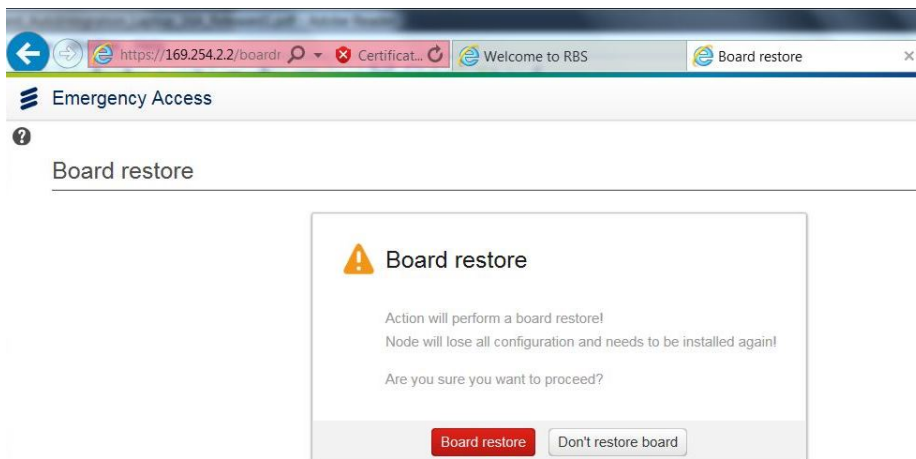
|   |  |
|---|--|
|   |  |
| 6 | Click - <b>START</b>   |

### Baseband integration using locally stored configuration files.

| Baseband integration using the Network Loader's "LMT Integration on-site configuration" tab. |  |
|--|--|
| Step   | Task/Observation   |
| 1  | Open a browser and connect to the Baseband Emergency Access window.<br><br><a href="https://169.254.2.2/ea.html">https://169.254.2.2/ea.html</a> |



|   |  |
|---|--|
|   |  <p><b>Note: Approve the security certificate for this node local web site. The IP address of the LMT port is by default 169.254.2.2.</b></p> |
| 2 | <p>If the Node status shows "Node has not been up" then skip this step.</p> <p>If Node status shows "Node is working" then click on "Board restore" to clear all existing data from the Baseband.</p>                            |

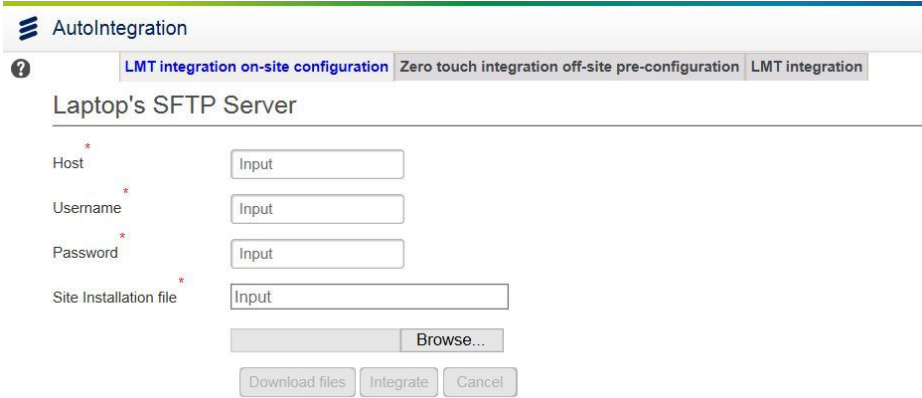
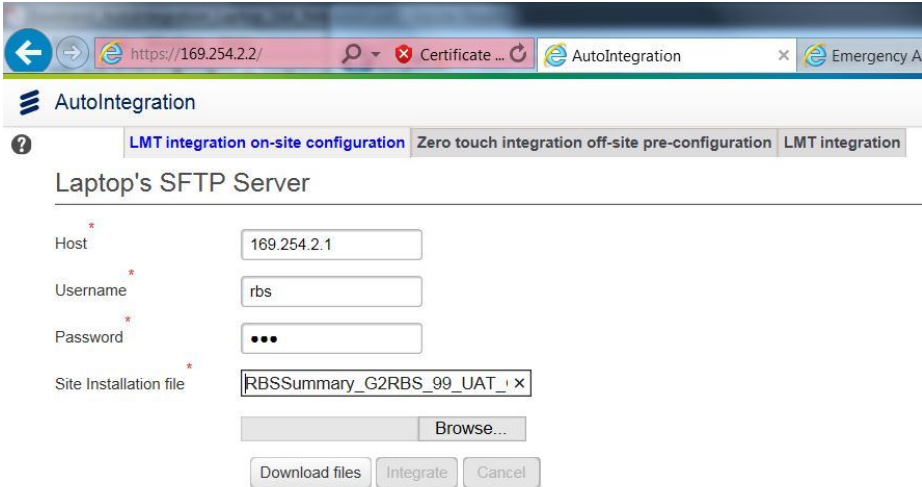



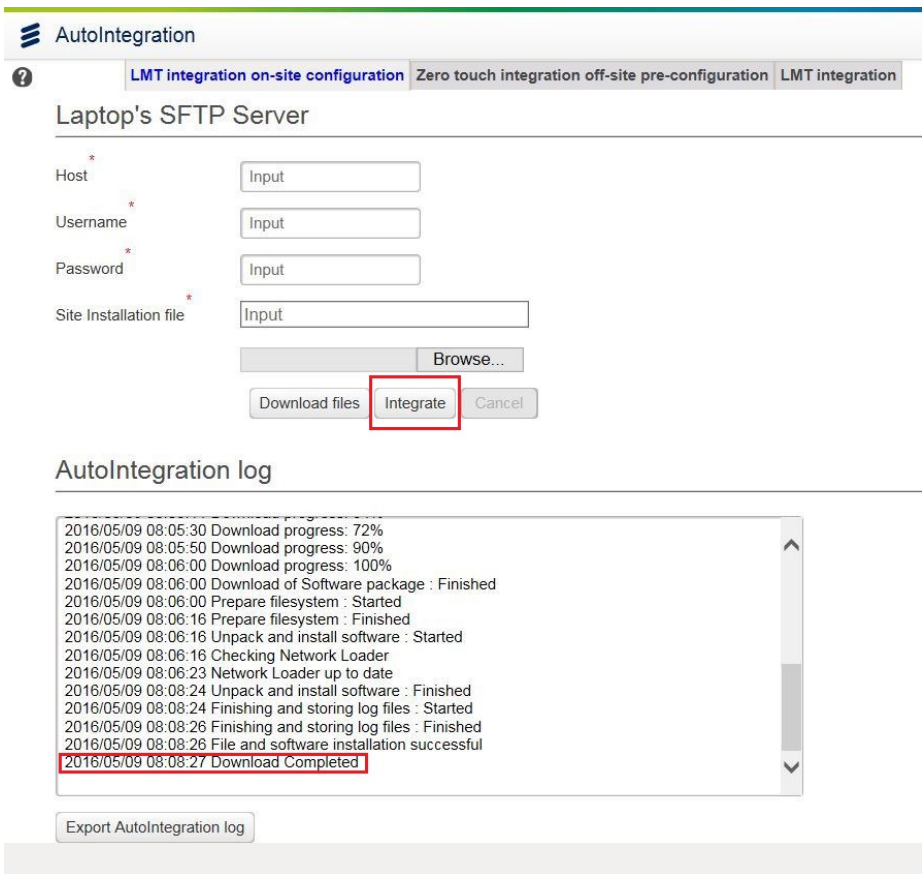
**Note: It takes about 5 minutes for the board restore to complete.**

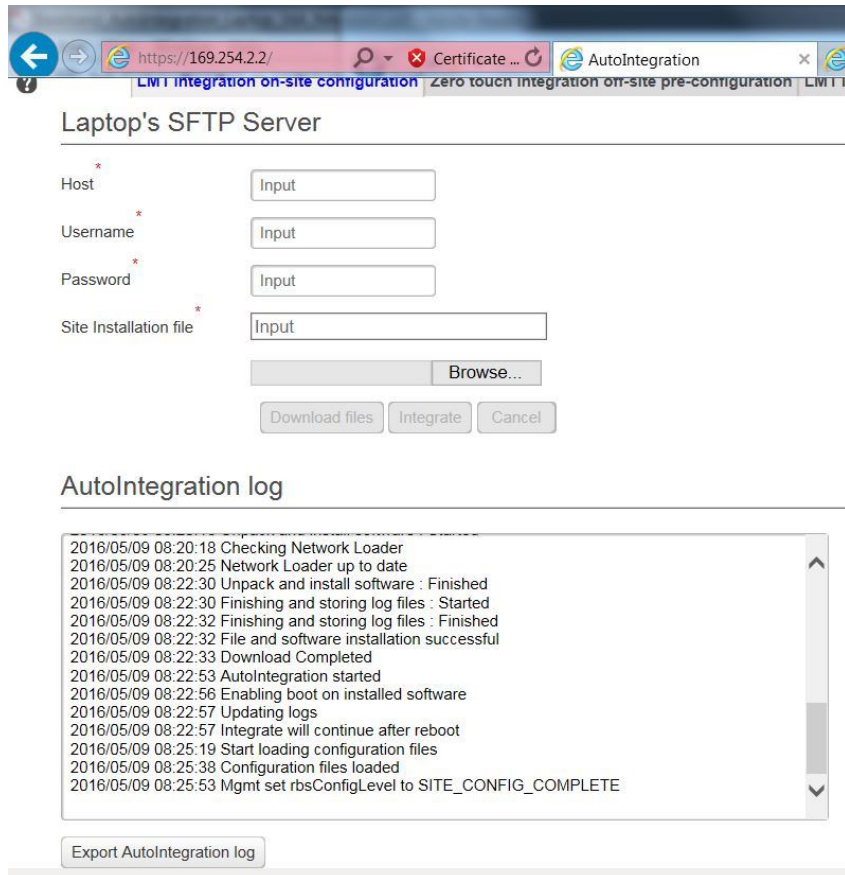
3

Open a new browser window and connect to the Baseband node using the LMT port IP address.

<https://169.254.2.2>

|   |   |
|---|---|
|   | <p>Verify "LMT integration on-site configuration" tab is selected and is colored in blue</p>  <p><b>Note: Approve the security certificate for this node local web site. The IP address of the LMT port is by default 169.254.2.2.</b></p>  |
| 4 | In the HOST field type the IP address of the local terminal: <b>169.254.2.1</b>   |
| 5 | In the Username field type: <b>rbs</b>  |
| 6 | In the password Field type: <b>rbs</b>  |
| 7 | <p>In the Site Installation File field type the full name of the RBS Summary File.</p> <p><b>Note: The RBS Summary File is created for each site and may have extra characters in the name.</b></p> <p>You will need to type the full file name as it is shown.</p> <p>For example: RBSSummary_G2RBS_22_Lu_SK_Telecom_2015_10_23T06_53_32Z.xml</p>  |

|    |  |
|----|--|
| 8  | <p>Click on the <b>Download Files</b> button.</p> <p>The system will start downloading and installing the software. This step can take up to 20 minutes.</p> <p><b>Note: If you observe any errors during the execution of the script, please take a capture of the error and send it to the engineering team that provided you the script</b></p>   |
| 9  | <p>Once the download is complete click on the <b>Integrate</b> button.</p>  <p><b>Note: If you observe any errors during the execution of the script, please take a capture of the error and send it to the engineering team that provided you the script</b></p> |
| 10 | <p>The system will start integration and reboot.</p>   |
| 11 | <p>Wait 5 to 10 minutes and check the AutoIntegration log to see if SITE_CONFIG_COMPLETE message is displayed.</p>   |



**Note:** It is normal for the blue progress bar at the bottom of the browser window to stop at 70% when using this method of integration.

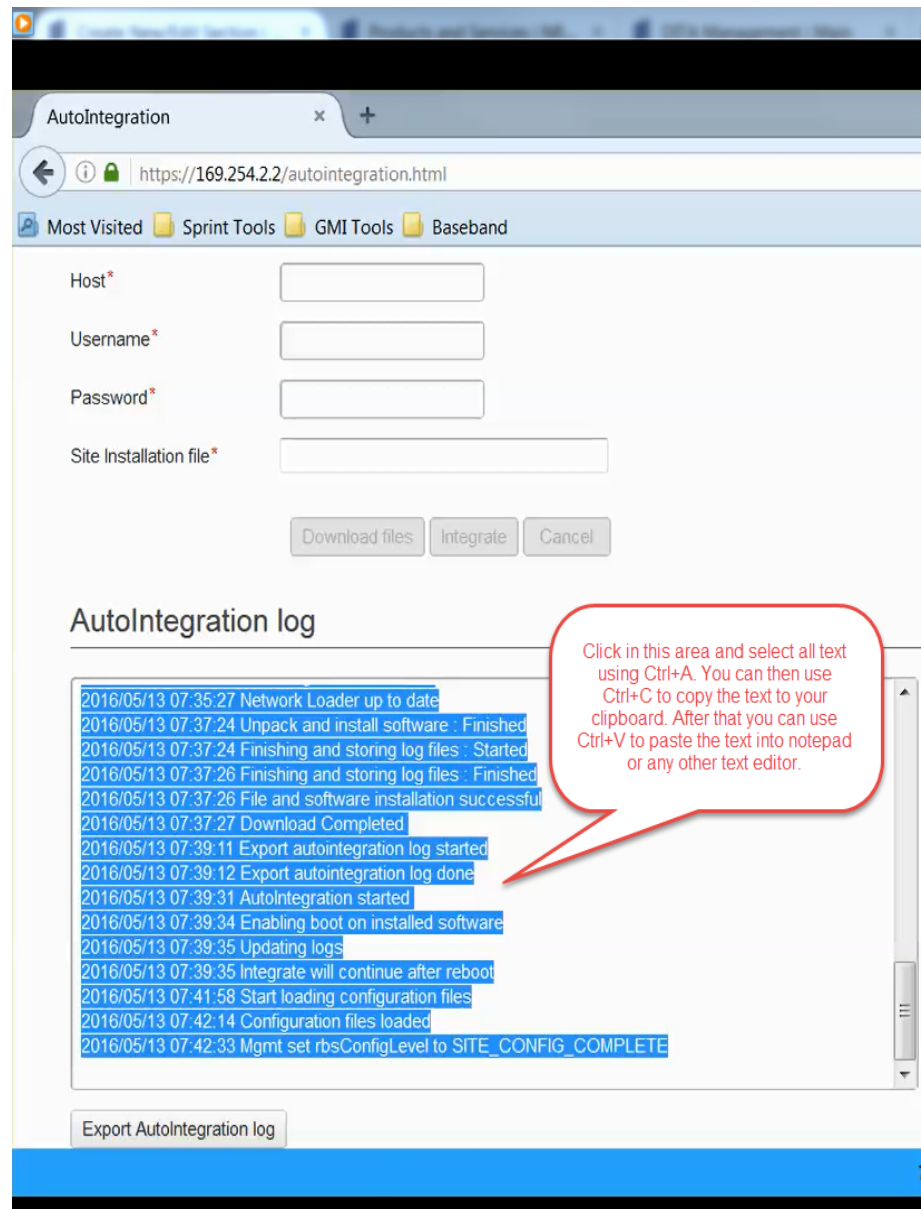
12

Check the Emergency Access browser window to ensure the Node Status shows: "Node is working."

13

Save the AutoIntegration log that is displayed on the web browser window to your PC and give it a name indicative of the site name.

The easiest way to save the log is to click in the log window and select all, then copy and paste the log content into notepad or any other text editor.



You could also click on the "Export AutoIntegration log" button and provide your local laptop IP address, username, password, and filename you would like to give for the log. The web browser will use sftp to send the log file to your PC.

AutoIntegration

?
LMT integration on-site configuration
Zero touch integration off-site pre-configuration
LMT integration

Laptop's SFTP Server
SMRS Credentials

Host\*
Username\*
Password\*
Site Installation file\*
Download files
Integrate
Cancel

Username
Password
Browse... No file selected.

AutoIntegration log

2016/05/12 14:47:01 Unpack and install software : Started  
2016/05/12 14:47:01 Checking Network Loader  
2016/05/12 14:47:08 Network Loader up to date  
2016/05/12 14:49:07 Unpack and install software : Finished  
2016/05/12 14:49:07 Finishing and storing log files : Started  
2016/05/12 14:49:09 Finishing and storing log files : Finished  
2016/05/12 14:49:09 File and software installation successful  
2016/05/12 14:49:10 Download Completed  
2016/05/12 14:53:59 AutoIntegration started  
2016/05/12 14:54:02 Enabling boot on installed software  
2016/05/12 14:54:03 Updating logs  
2016/05/12 14:54:03 Integrate will continue after reboot  
2016/05/12 14:56:25 Start loading configuration files  
2016/05/12 14:56:41 Configuration files loaded  
2016/05/12 14:56:56 Mgmt set rbsConfigLevel to SITE\_CONFIG\_COMPLETE

Export AutoIntegration log
Click Export AutoIntegration log
70%

Autointegration - export
https://169.254.2.2/export.html
Most Visited
Sprint Tools
GMI Tools
Baseband

Autointegration

?
Export Autointegration log

Host\*
Username\*
Password\*
Filename\*
Export
Back

169.254.2.1
rbs
BaseBand\_Integration.log
Export-button starts the autointegration log export



## Contact Remote Integration Team

The LMT Integration On-site Configuration procedure above downloads and applies the software Upgrade Package, Site Basic, Site Equipment, and License Key File to the Baseband. The remainder of the integration process, including applying the TN and RN files, will be completed remotely from the ENM or the OSS-RC by the remote integration engineer.

Call the NIC (Network Integration Center) and inform them that the onsite integration of the Baseband has been completed. If possible, send the NIC a copy of the autointegration log from the activity performed onsite.

Confirm that remote integration engineer can access the node remotely from the OSS-RC or the ENM server.

At this time, the remote integration engineer should synchronize the node to the OSS-RC or the ENM database and continue the node integration process by applying the TN/RN and all post installation scripts associated with the site.

The remote integration steps for OSS-RC are outlined in the **Baseband Integration – Remote Procedure for OSS-RC** and the remote integration steps for the ENM platform are outlined in the **Baseband Integration – Remote Procedure for ENM**. Both NDDs can be found on the CMS web portal.

## Appendices

### Appendix - Configuration Files Description

The table below provides a brief description of the standard configuration files used during Baseband node integration.

| File Name              | File Type      | File Content   |
|------------------------|----------------|--|
| RbsSummary             | Netconf (.xml) | Contains the paths to the SiteBasic and SiteEquipment files used in the integration.                     |
| SiteBasic              | Netconf (.xml) | Contains Security management, system management, and transport network configuration.                    |
| SiteEquipment          | Netconf (.xml) | Contains information related to node hardware.   |
| Transport Network (TN) | Netconf (.xml) | Contains configuration related to the transport / backhaul of the node.                                  |
| Radio Network (RN)     | Netconf (.xml) | Contains configuration related to the wireless / radio access technology being deployed i.e. LTE, WCDMA, |

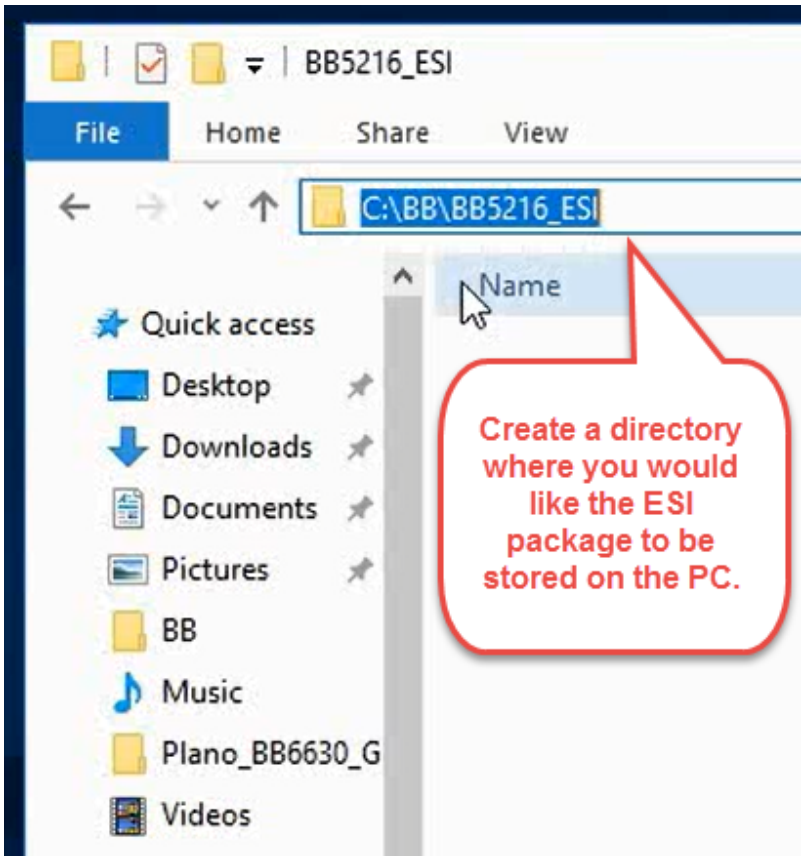


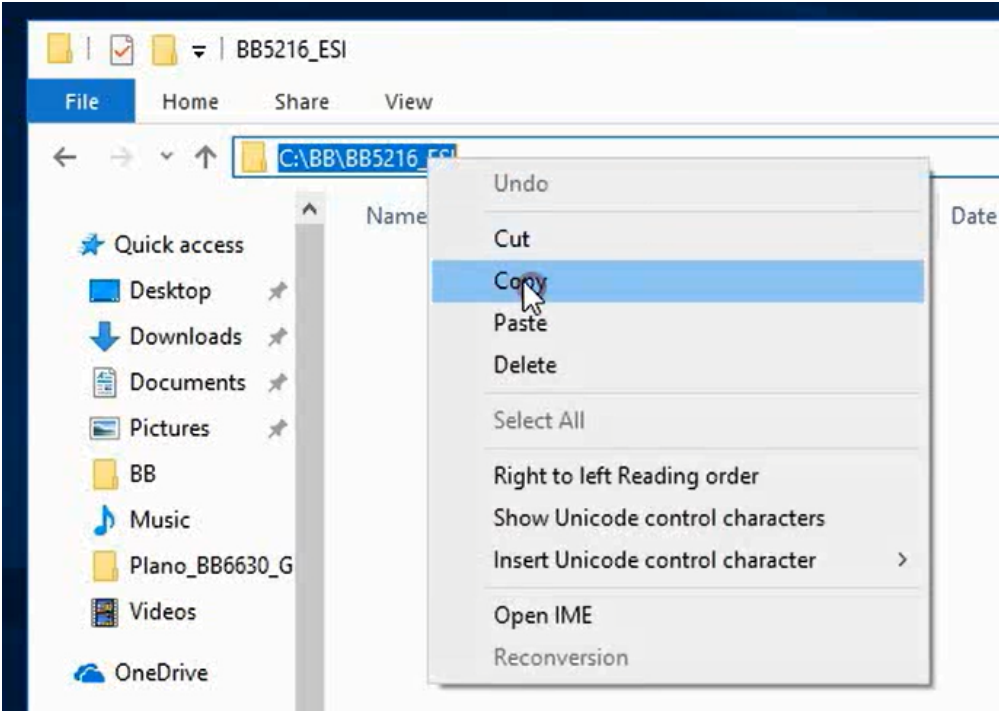
|                           |                |  |
|---------------------------|----------------|--|
|                           |                | GSM.   |
| Feature Activation script | Moshell (.mos) | Activates Node features.                                   |
| Post Integration script   | Moshell (.mos) | Applies customer / market specific parameters to the site. |
| Cell Relations script     | Moshell (.mos) | Defines node cell relations.                               |
| Upgrade Package (UP)      | ZIP            | Contains Network Loader and Software Installation files.   |
| License Key File (LKF)    | XML            | License keys for node features.                            |

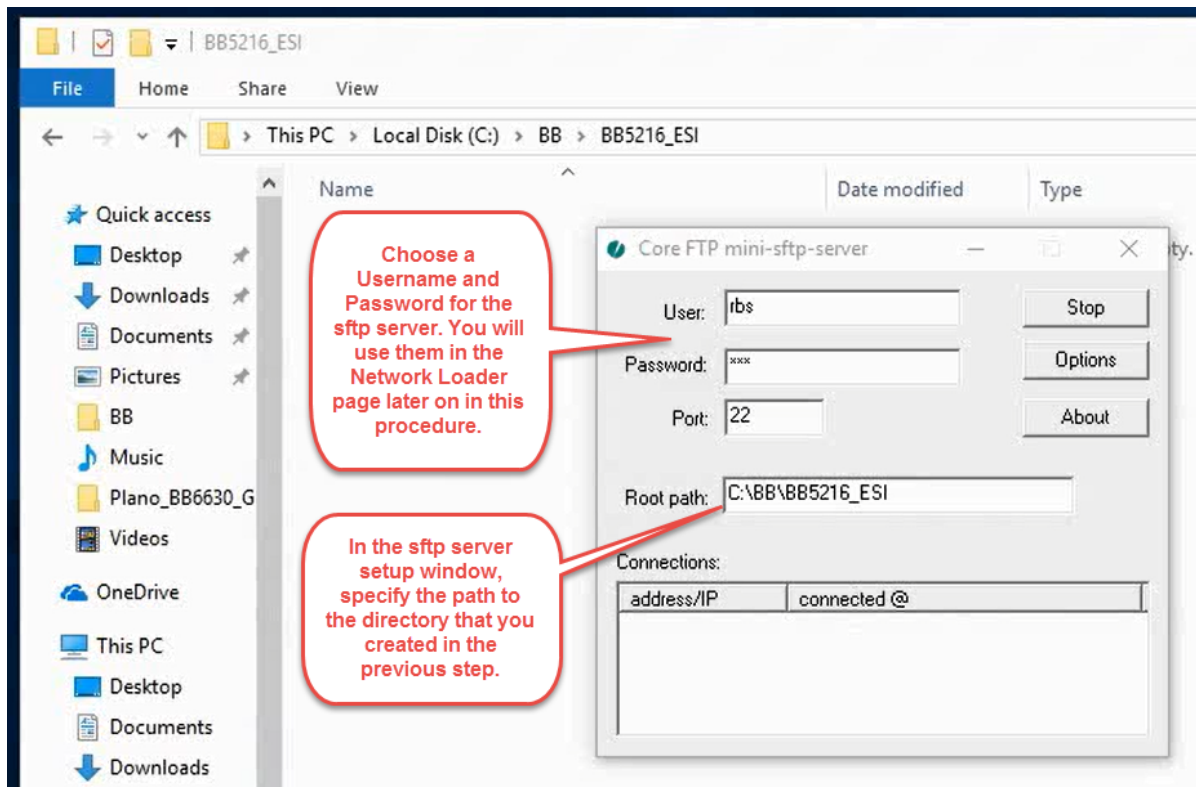
## Appendix - Collect ESI Package

There may be some instance where the support team might ask the onsite Field Engineer to collect an Ericsson Support Information (ESI) package from the Baseband node. Refer to previous sections in this document on how to connect to the Baseband, disable the PC firewall, and start sftp server on the local PC terminal. Use the following steps to perform the data collection to send to the next level of support.

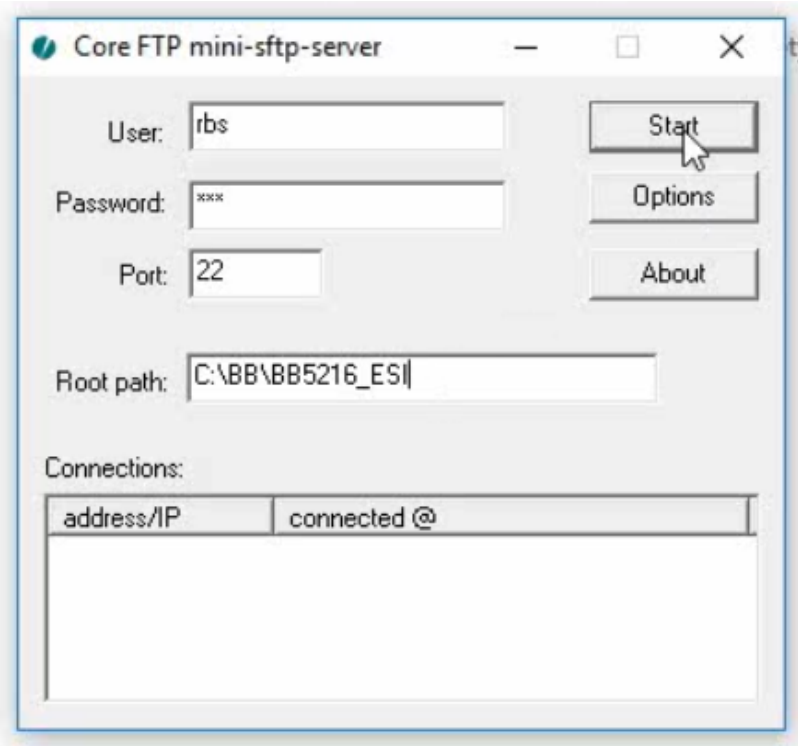
| Exporting ESI Package from Baseband |   |
|-------------------------------------|---|
| Step                                | Task/Observation  |
| 1                                   | Connect to the LMT port of baseband node. Refer to the section called "Connect to Baseband" for more details on how to set the IP address on your PC. |
| 2                                   | Disable any Firewall software that might be running on your PC. Refer to the section called "Disable Firewall" for more details.                      |
| 3                                   | Create a folder on your PC where you would like the ESI file be placed.   |

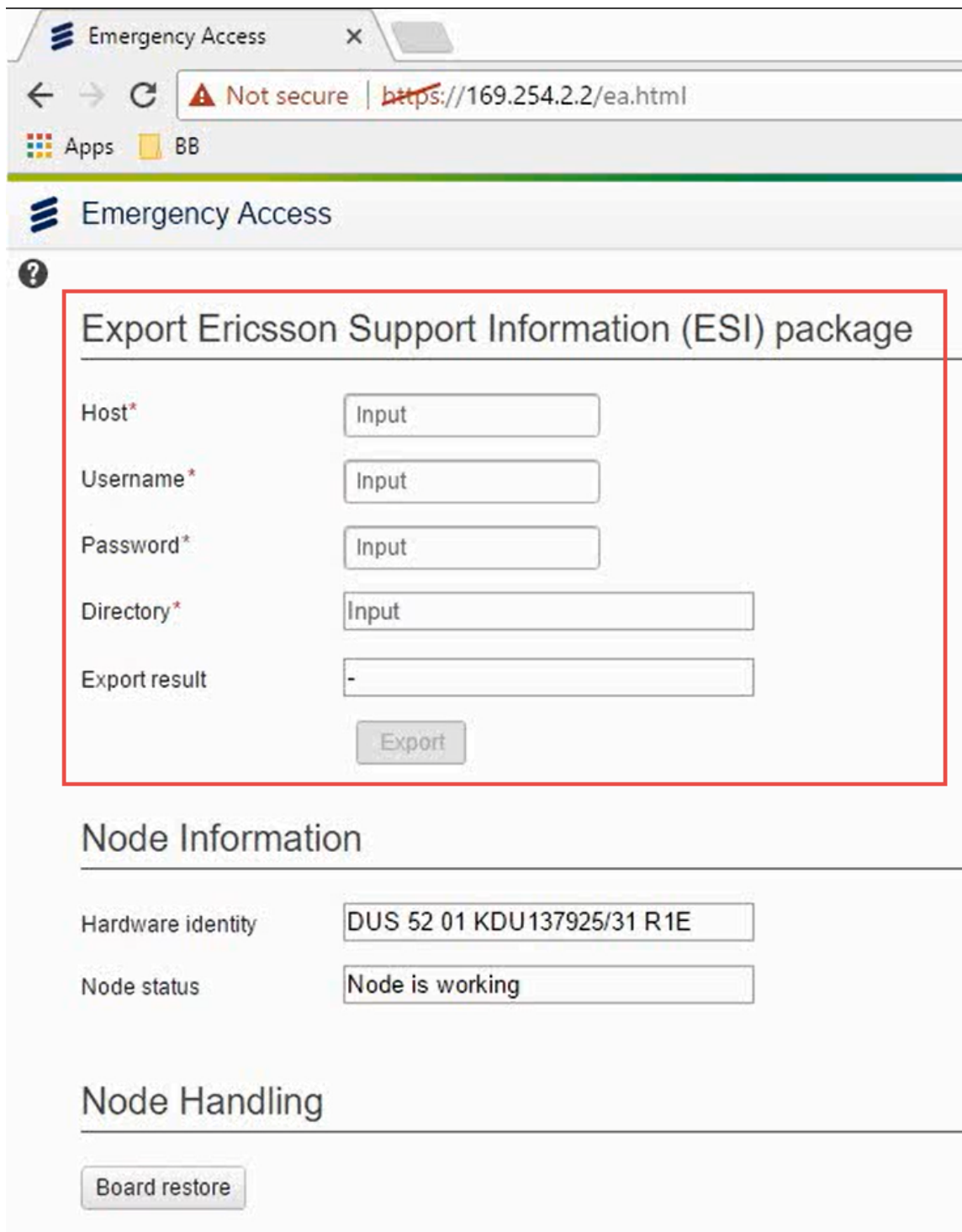
|   |  |
|---|--|
|   |                               |
| 4 | <p>Copy the path to the directory as you will need it when setting up the sftp server in the following step.</p> |

|   |   |
|---|---|
|   |   |
| 5 | <p>Refer to "Start SFTP server on PC" section in this document to start the sftp server on the PC that is connected to the Baseband LMT port. Make sure you specify the path to the directory that you created in the previous step in the "root path" field.</p> |



6 Click on "Start" to start the sftp server.

|   |   |
|---|---|
|   |    |
| 7 | <p>Open a browser and connect to the Baseband Emergency Access window.</p> <p><a href="https://169.254.2.2/ea.html">https://169.254.2.2/ea.html</a></p> |



Emergency Access

Not secure | <https://169.254.2.2/ea.html>

Apps BB

Emergency Access

?

### Export Ericsson Support Information (ESI) package

Host\*

Username\*

Password\*

Directory\*

Export result

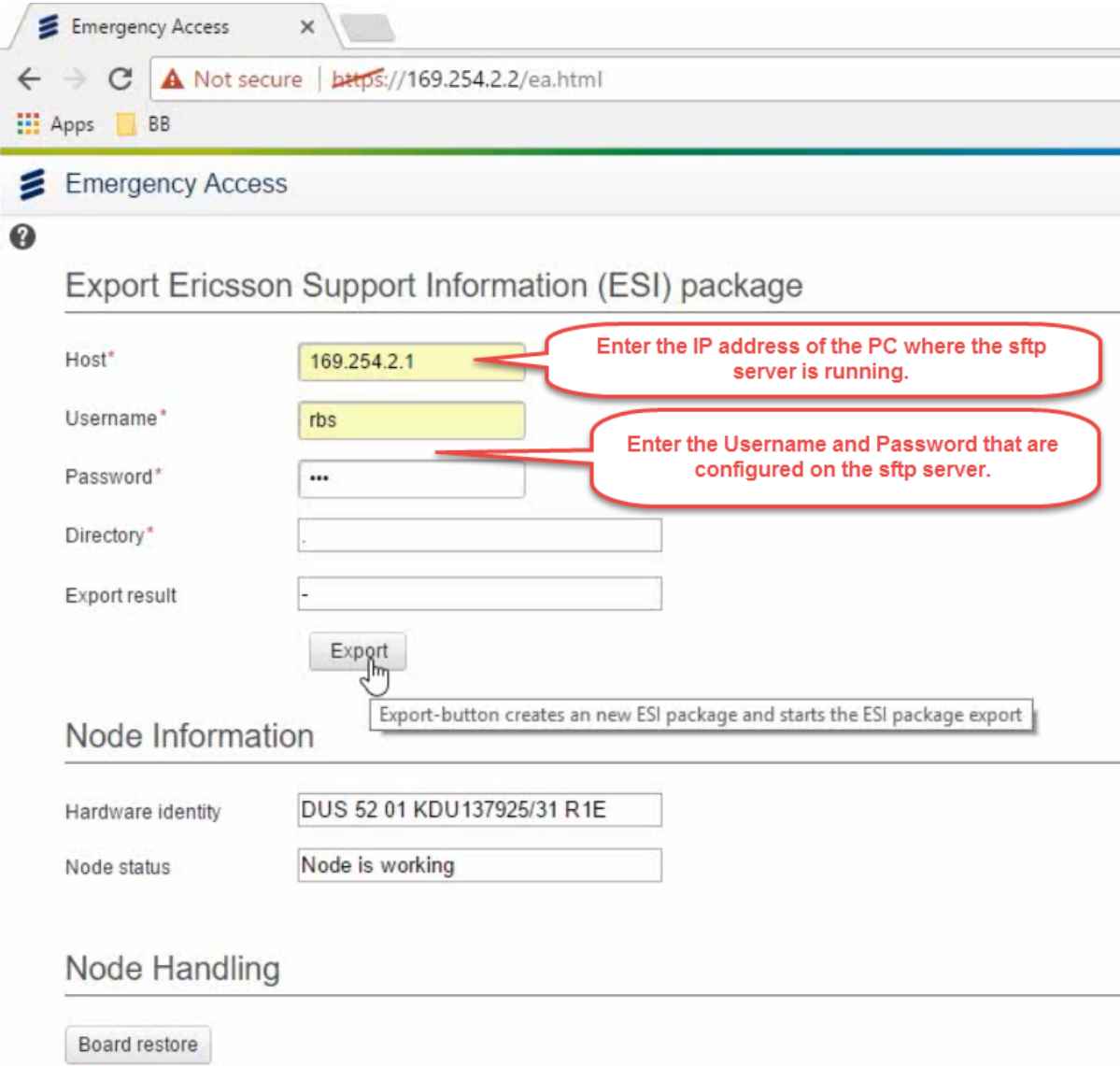
### Node Information

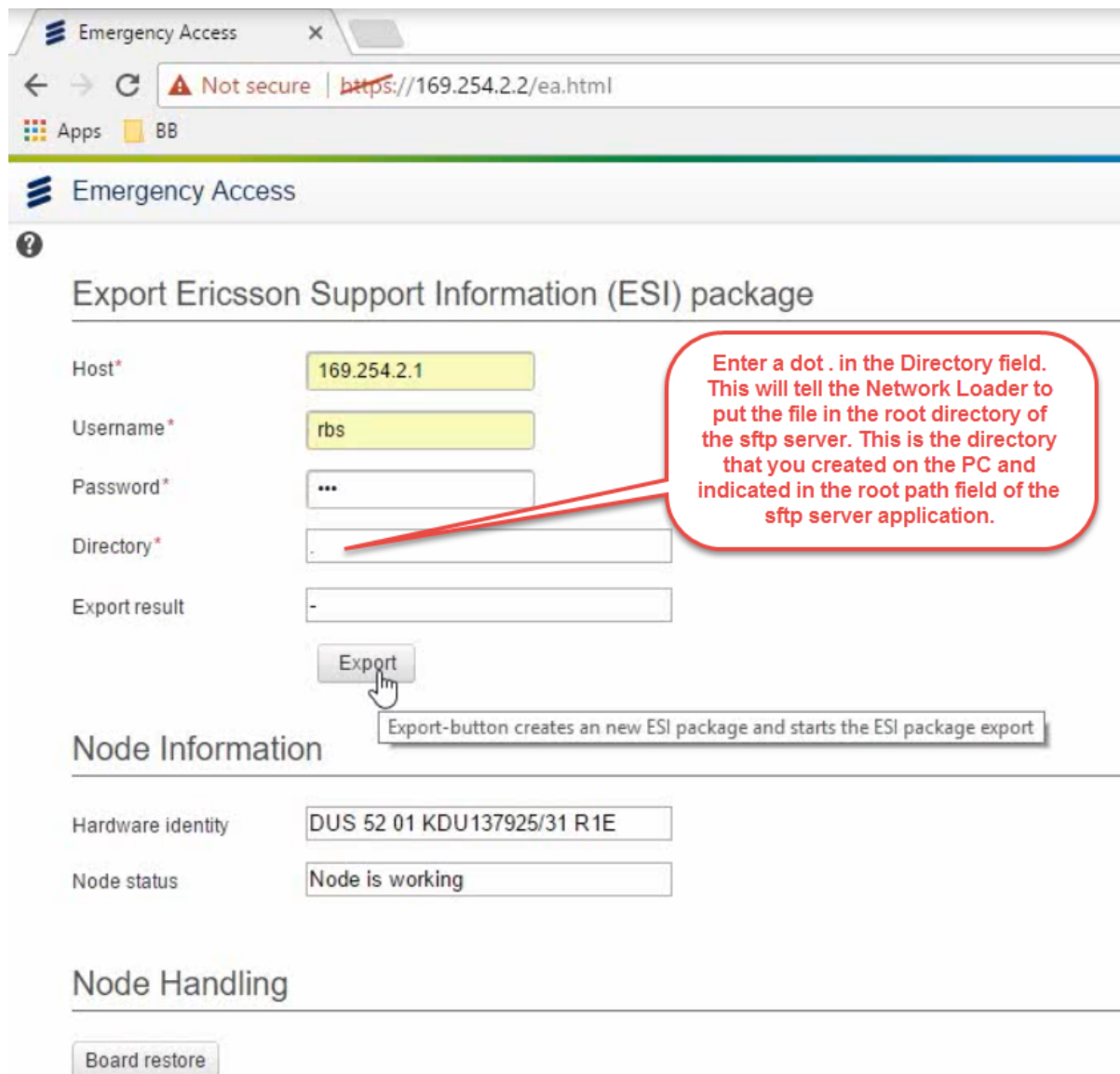
Hardware identity

Node status

### Node Handling

**Note:** Approve the security certificate for this node local web site. The IP address of the LMT port is by default 169.254.2.2.

|   |   |
|---|---|
| 8 | <p>Enter the host IP address, Username, and Password in the corresponding fields of the Baseband Emergency Access window.</p>  |
| 9 | <p>In the Directory field, put a (.) dot. This will tell the Network loader to put the ESI package in the root path directory of the sftp server.</p>   |



The screenshot shows a web browser window titled "Emergency Access" with the URL <https://169.254.2.2/ea.html>. The page displays the "Export Ericsson Support Information (ESI) package" form. The form fields are as follows:

- Host\*: 169.254.2.1
- Username\*: rbs
- Password\*: ...
- Directory\*: .
- Export result: -

Below the form is an "Export" button. A red callout box points to the "Directory\*" field with the text: "Enter a dot . in the Directory field. This will tell the Network Loader to put the file in the root directory of the sftp server. This is the directory that you created on the PC and indicated in the root path field of the sftp server application." A tooltip for the "Export" button states: "Export-button creates an new ESI package and starts the ESI package export".

Below the form is the "Node Information" section, which includes:

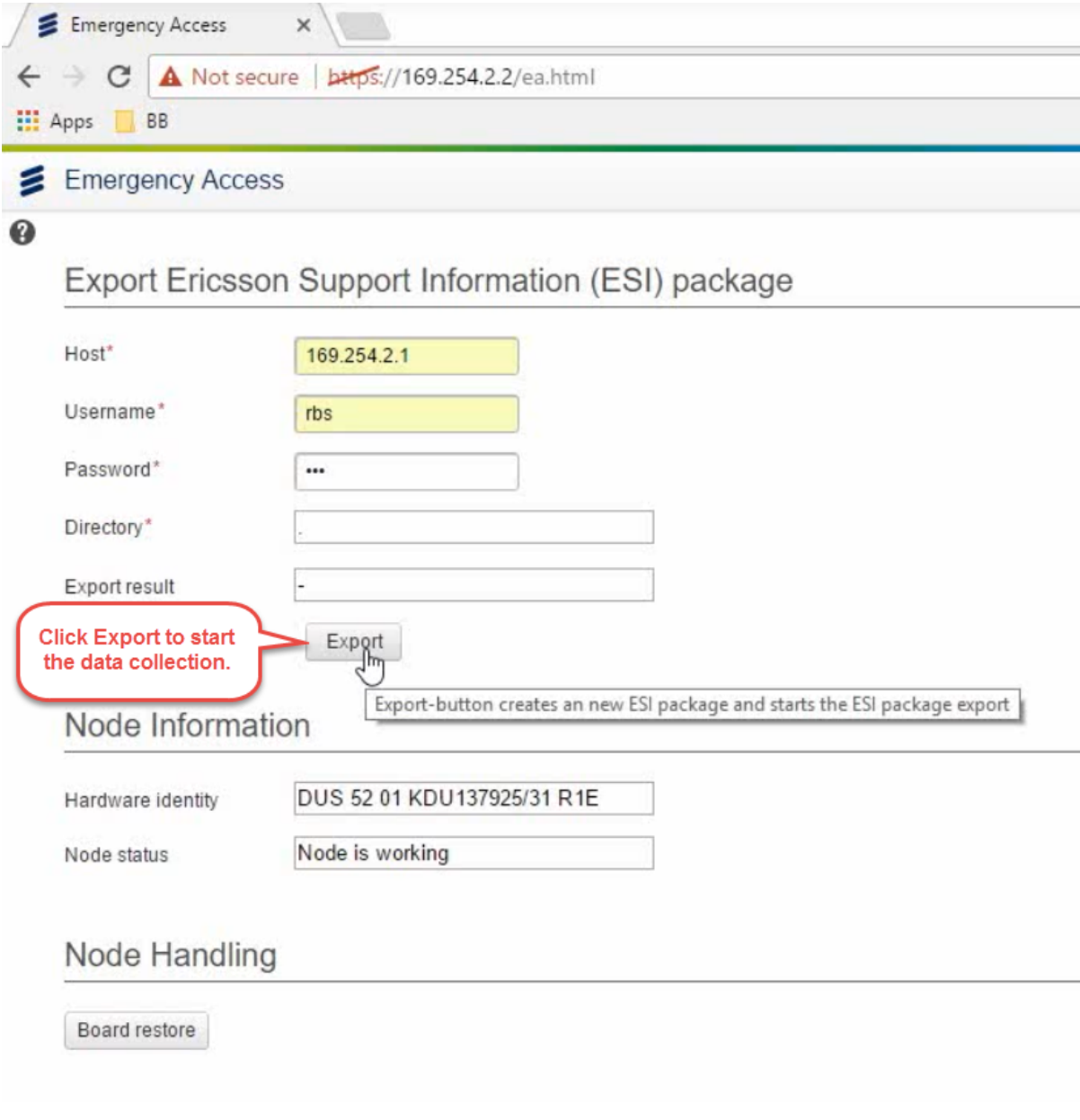
- Hardware identity: DUS 52 01 KDU137925/31 R1E
- Node status: Node is working

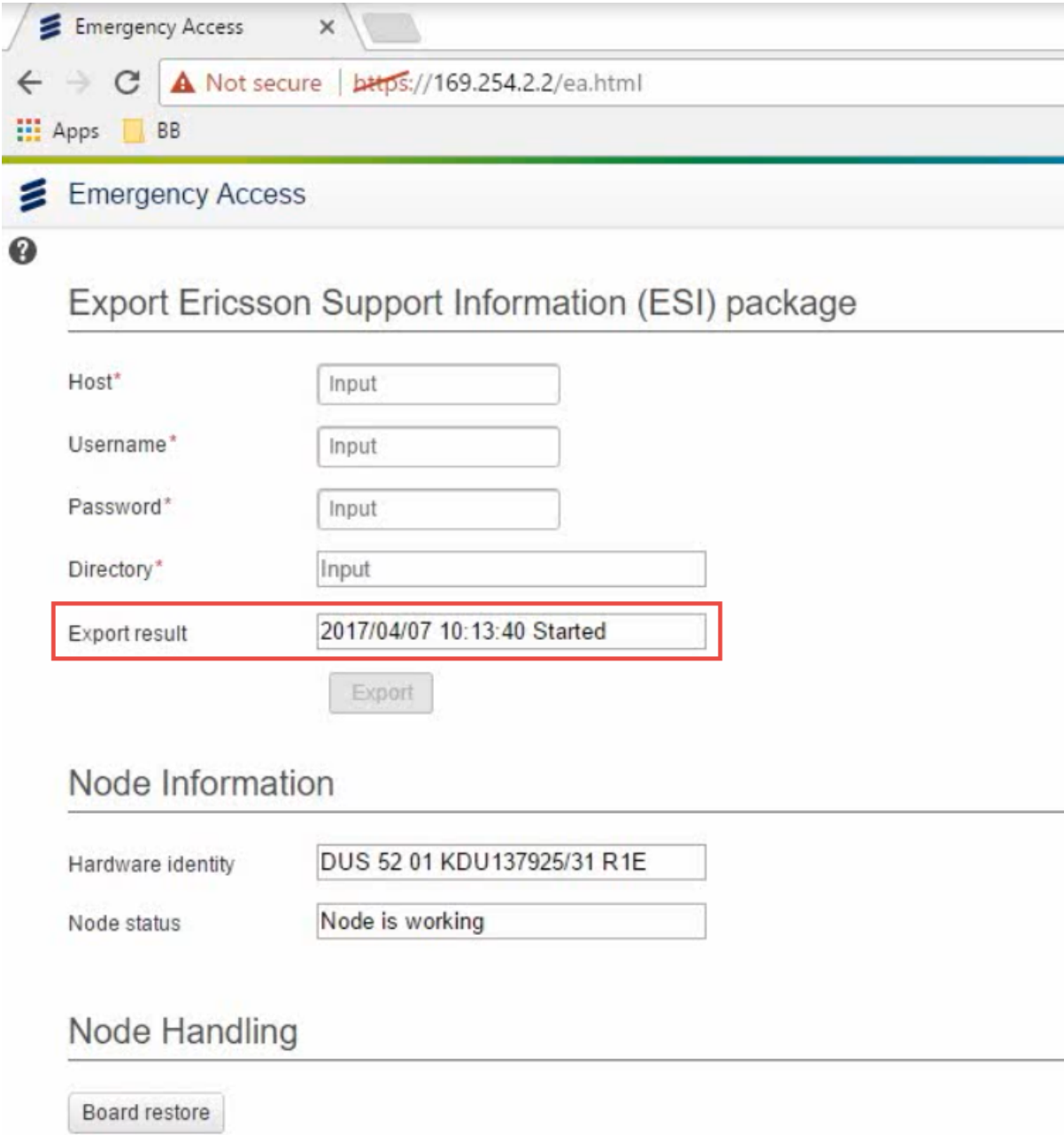
At the bottom is the "Node Handling" section, which includes a "Board restore" button.

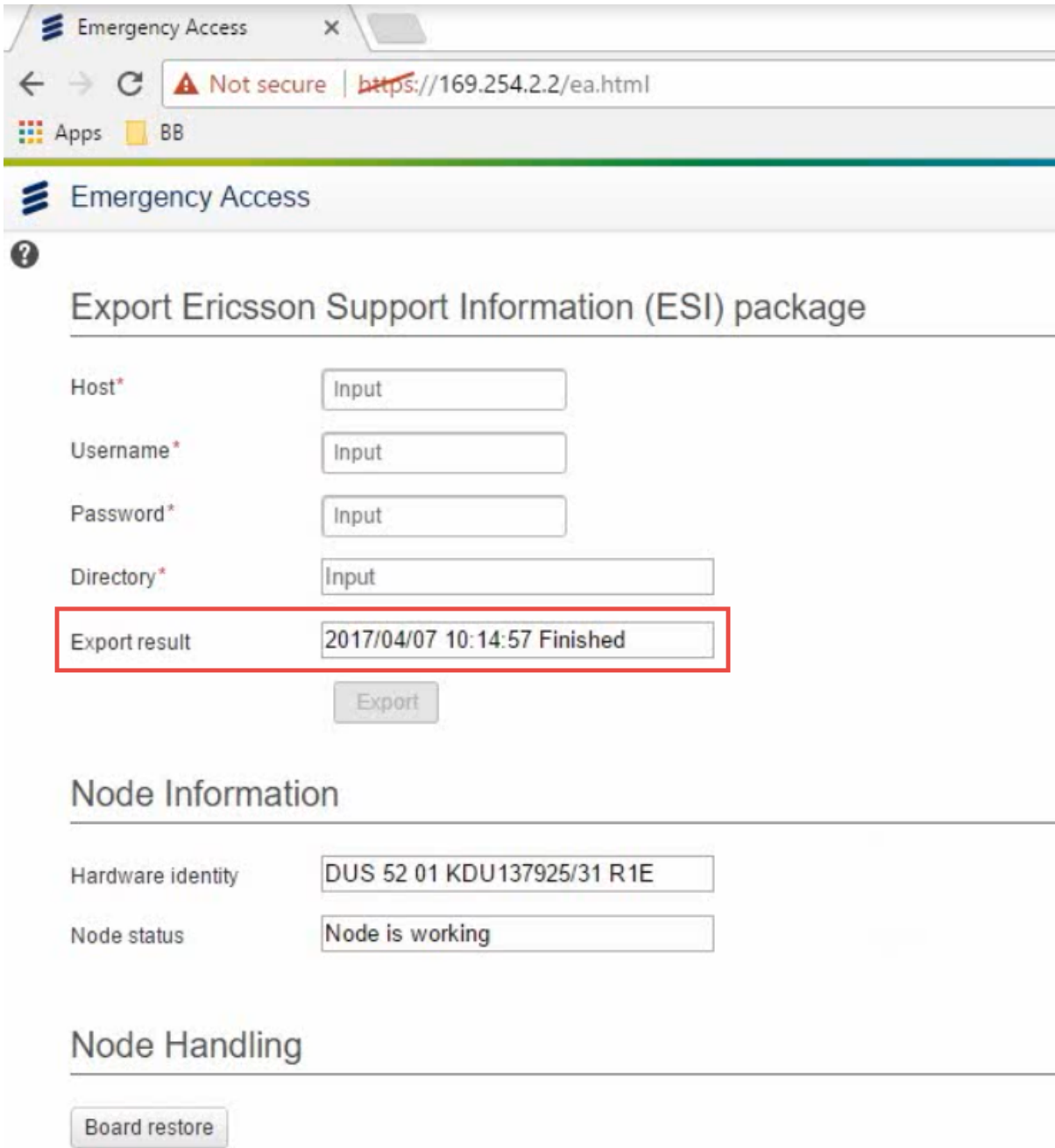
10

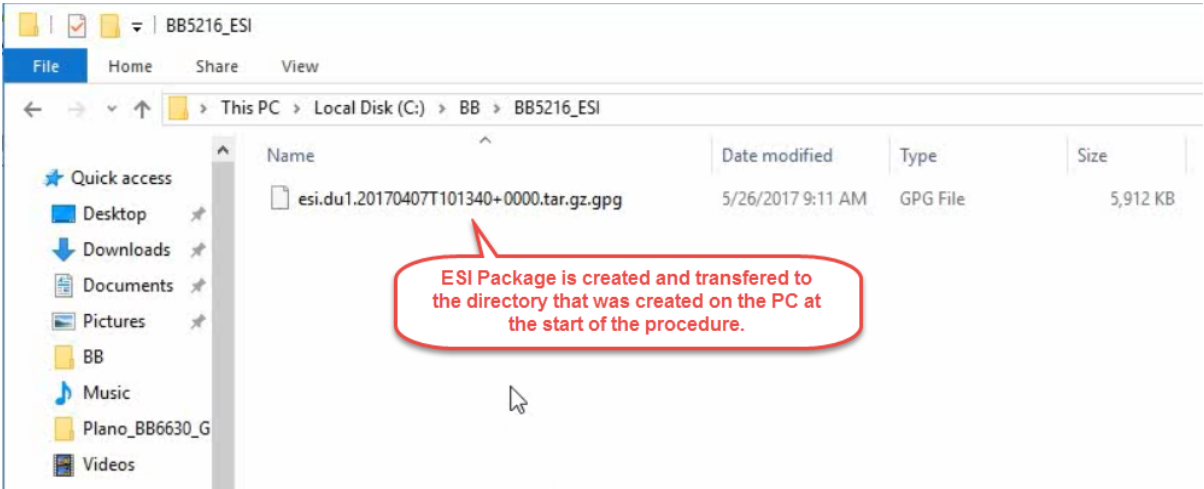
Click on the **Export** button.



|    |   |
|----|---|
|    |                        |
| 11 | The window will refresh and the "Export result" field will show that the ESI data collection has started. |

|    |   |
|----|---|
|    |  |
| 12 | Wait a few minutes until the "Export result" field shows Finished.                  |

|    |   |
|----|---|
|    |              |
| 13 | At this point you should find the ESI data collection file in the folder you created on the PC. |

|    |   |
|----|---|
|    |             |
| 14 | Attach the file to an email and send it to the next level of support that requested the data. |

## Appendix - Intellectual Property Rights (IPR)

This document contains Ericsson Intellectual Property (IP) also known as Intellectual Property Rights (IPR). This document was created using modified/selective content from the Telcordia GR-1275 Central Office/Network Environment Equipment Installation/Removal Generic Requirements Issue 12.

This document is not intended for use by external customers or any customer delegate, including Third Party vendors and/or sub-contractors. Review of this document with customers should only occur with the knowledge, consent and control of Ericsson personnel in a manner where content is not distributed to the customer.

The following Table of IPR examples is provided as reference information and examples to identify Ericsson Intellectual Property (IP). This information is provided for use by Ericsson Customer Unit interfacing functions.

- Detailed Acceptance Plans/Test Cases
- Detailed Assembly Instructions/Diagrams
- Cable Diagrams
- Connections
- Ericsson Developed Tools
- Installation Instructions
- Commissioning Instructions
- Integration Instructions
- Integration files/scripts

- Software upgrade command lines
- Processes
- Configuration files/scripts
- Ericsson Developed Applications (Apps)
- Industrial design
- Session logs
- Restricted User Level Passwords
- IOT (Inter-Operability Test) and Integration Processes
- Copyright material
- Patent material
- Trademark material
- Ericsson Radio Frequency Specs
- Debug logs
- Detailed Patch Procedures
- Any capture of Ericsson messaging traffic (i.e. Wire Shark)

## Glossary

The Glossary is used to define the Terms and Acronyms used throughout the document.

| Term/Acronym | Definition                                    |
|--------------|---|
| AIWS         | Auto Integration Web Service                  |
| AP           | Auto Provisioning                             |
| ARNE         | Add Remove Network Element                    |
| BSIM         | Base Station Integration Manager              |
| CLI          | Command Line Interface                        |
| DU           | Digital Unit                                  |
| DUR          | Document Update Request                       |
| ENM          | Ericsson Network Manager                      |
| FTP          | File Transfer Protocol                        |
| G1           | Generation 1 node (i.e. DUL / DUS / DUG)      |
| G2           | Generation 2 node (i.e. Baseband 5212 / 5216) |
| GUI          | Graphical User Interface                      |
| IPR          | Intellectual Property Rights                  |

|        |  |
|--------|--|
| L/G    | LTE / GSM                                  |
| L/W    | LTE / WCDMA                                |
| LKF    | License Key File                           |
| LMT    | Local Maintenance Terminal                 |
| NDD    | NRO Deployment Document                    |
| NIC    | Network Integration Center                 |
| OMC    | Operations and Maintenance Center          |
| OSS-RC | Operations Support System - Radio and Core |
| RBS    | Radio Base Station                         |
| RN     | Radio Network                              |
| RRU    | Remote Radio Unit                          |
| SFTP   | Secure FTP                                 |
| SIF    | Site Installation File                     |
| SMRS   | Software Management Repository Services    |
| TN     | Transport Network                          |
| UP     | Upgrade Package                            |
| USB    | Universal Serial Bus                       |

## Change Request Process

If you have comments or corrections for this document, please click the **Suggest a Change** button below the section you wish to update.