Integrating RBSs On-Site Using ENIS

OPERATING INSTRUCTIONS

Contents

1 Introduction

This document describes how to integrate an RBS into the network without a laptop using the Ericsson Node Integration Scanner (ENIS) Android application on User Equipment (UE). Integrating an RBS on-site is part of the full process of adding RBSs to the network. For an overview of the full process, see *Add RBS*.

RBS autointegration can be performed using different methods in both trusted and untrusted networks. For a description of all supported RBS integration methods, see *Add RBS*.

By using the ENIS application the field engineer scans the QR (Quick Response) code of the work order and the serial number from a barcode on the RBS. The ENIS application then sends this data in an e-mail to the Operations Support System – Radio and Core (OSS-RC) which performs the actual mapping of the node serial number to the node logical name and site. The next step is that the initial configuration file (ICF) is automatically downloaded from the Autointegration Web Service (AIWS) server to the RBS during the on-site integration. This continues until the RBS is fully configured. No intervention from an OSS-RC operator is required.

Stand-alone integration and semi-automated integration are alternative integration procedures compared with the above mentioned procedure. For these integration methods, the On-Site RBS Integrator (ORI) is used to download the configuration file called Combined file. See *Integrating RBSs On-Site Using ORI*.

1.1 Prerequisites

Before starting the procedure, the prerequisites listed below must be fulfilled.

1.1.1 Documents

The following documents are available:

• Site Installation Documentation (SID)

The contents of the following documents are known:

• *Personal Health and Safety Information*

• *System Safety Information*

1.1.2 Tools

The following tools are at hand on-site:

- User Equipment (UE) with the ENIS application installed must be at hand on-site. For UE requirements and ENIS description, see *Ericsson Node Integration Scanner (ENIS)*.

- A client laptop with Secure File Transport Protocol (SFTP) server installed. The laptop is only needed for semi-automated integration and stand-alone integration. See *Integrating RBSs On-Site Using ORI*.

1.1.3   Conditions

The following conditions are met:

- The node is configured with a basic software package compatible with the upgrade package.

- The vendor credentials are stored by Ericsson on the RBS during manufacturing.

- The transport network is available for Operation and Maintenance (O&M) traffic, control plane traffic, and user plane traffic.

- All configuration data necessary for the integration is prepared: RBS configuration parameters are stored on the OSS-RC Master Server. See Section 1.2 on page 3.

- A non-OSS DHCP server is configured, as described in *IP Transport*.

  A non-OSS Domain Name System (DNS) server is prepared with DNS resolutions for the Autointegration Web Service (AIWS) and the Security Gateway (SEG).

- The AIWS server in OSS-RC is configured.

- The E-mail server for hardware binding is installed and configured.

- The Serving Gateway (SGW) node and the Mobility Management Entity (MME) node are installed, enabled, and prepared with S1 termination points.

- The cell identity that the UE can display during user plane traffic activity is available, for example Cell Global Identity (CGI) or Physical Cell Identity (PCI).

- Internet connectivity is available to allow the UE to communicate with the OSS-RC.

- A work order including ENIS QR (Quick Response) code is available.

Do!

Always use an approved ESD wrist strap when working with sensitive equipment. Damage to components mounted on printed board assemblies can occur if an ESD wrist strap is not used.

1.2 Configuration Data

The on-site integration is based on configuration files that holds the configuration parameters. For Autointegration without laptop, the ICF is used. For semi-automated integration and stand-alone integration, the Combined file is used. For more information regarding the ICF and the Combined file, see *Add RBS*.

2 Procedure

This section describes the activities to be performed at the site when integrating an RBS.

Note: If the RBS does not respond to actions as described in this document, contact the next level of support for assistance.

2.1 Autointegration with ENIS

Perform the following steps.

The use of the ENIS application is described in *Ericsson Node Integration Scanner (ENIS)*.

1. With the ENIS application installed on the UE, scan the barcode on the RBS and the QR code on the work order.

2. Send the retrieved serial number and node logical name to the OSS-RC with the ENIS application.

   When the hardware binding is successfully completed, it is listed as **Complete** in the **Job List** tab.

3. Install and power up the RBS. See *Install RBS*. To verify that the RBS is ready for integration, check that the green indicator marked ✔ is on.

4. The autointegration procedure now starts automatically.

   Note: Do not interrupt the autointegration procedure. The procedure runs for approximately 10 minutes but can take longer, depending on network performance.

5. Check the indicator status. For a description of the optical indicators, see *RBS Description*.

6. When the green indicator is on, the integration procedure is finished and the RBS is up and running.

   Note: If the initial autointegration procedure fails, the RBS will start a new attempt to integrate every 15 minutes.

   Note: If any problems related to the ENIS application occur, the ENIS logs can be used for troubleshooting, see *Ericsson Node Integration Scanner (ENIS)*.

7. To verify that the RBS is fully integrated, contact OSS-RC.

3   Checking Hardware Status

After successful autointegration procedure is complete, the green indicator marked ◁ is on.

If the red indicator marked **!** is on, make a visual inspection of the hardware unit and act on problems found. If the problem remains, contact the next level of support for assistance.