ERICSSON

Ericsson Node Integration Scanner (ENIS)

USER GUIDE

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Contents

1 About This Document

This section contains the following parts:

- Purpose
- Target groups
- Prerequisites
- Typographic conventions

1.1 Purpose

This document describes how to use the Ericsson Node Integration Scanner (ENIS) application when integrating managed elements into a network.

1.2 Target Groups

The intended target groups for this document are the following:

- Installation Engineers
- Field Technicians

1.3 Prerequisites

It is assumed that the reader of this document is familiar with the following:

- Android-based smart phones with the Back/Home/Menu button configuration and an SD card
- Android applications

ENIS is an Android application. An introduction to, or discussion of, Android is outside the scope of this document. The application is a part of the concept of the Base Station Integration Manager (BSIM) Autointegration without a laptop.

1.4 Typographic Conventions

The typographic conventions for all Customer Product Information (CPI) in OSS-RC are found in *OSS Library Typographic Conventions*, Reference [2].

2 ENIS Overview

This section describes the Android system requirements, and basic functions and installation of ENIS.

2.1 System Requirements

ENIS for Android has the following system requirements:

- Platform version 4.X (Ice Cream Sandwich) or higher.
- A mobile device with a camera module featuring HD (1280x720) preview mode, and capable of 200% zoom factor or higher; typically available on a device with 12 megapixels or higher.

Note: ENIS was tested with Sony Xperia S camera for PDF417T barcode scanning.

2.2 Basic Functions of ENIS

ENIS facilitates the integration of managed network elements, nodes, into a telecommunication network.Integrating a node into the operator network requires communicating the node identification details to a management system, OSS. The node identity consists of the OSS name of the node (logical name) and the digital unit (DU) hardware ID, that is a serial number of the DU.

ENIS gathers the logical name and hardware data of the node and forwards it to OSS with a request for binding. Binding is a process of associating the logical name and hardware serial number. Once the binding is completed, the node is powered up and integrated to the network.

ENIS has the following two functions:

- Gathers node auto-integration binding information and forwards it to OSS for addition of new nodes.
- Tracks and reports the processing status of binding information sent to OSS for addition of new nodes.

ENIS Android application requires an SD card to function. Internet connectivity is NOT required to scan codes and create jobs, but is necessary to communicate with OSS.

Requested but not completed binding jobs can be canceled. If a binding job is canceled, the auto-integration of the node cannot take place.

The application supports scanning of Quick Read (QR), Code 128 and PDF147T barcode formats. Other barcodes can be scanned but are not supported by the application, and can produce inconsistent results.

2.3 ENIS Installation

ENIS is an Android application. Android applications are contained in the `.apk` files.

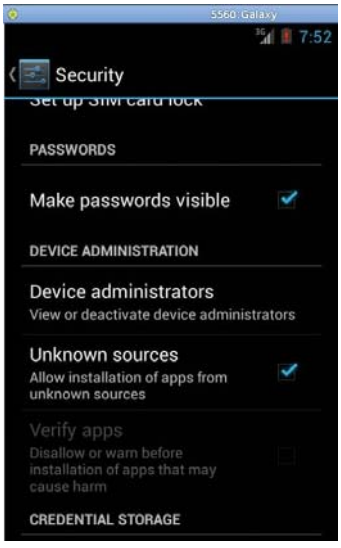
Typically the .apk file has a name similar to: `NodeIntegrationScanner-CXC1733665-R1A09.apk`.

Note: To obtain the ENIS .apk and .bsim file, contact your System Administrator.

To download and install the .apk file do as follows:

1. Allow the phone to install from **Unknown Sources**, that is non-Market applications.

   - For Android versions older than 4.X, navigate to: **Menu > Settings > Applications**.
   - For Android versions 4.X and later, navigate to: **Menu > Settings > Security**.
   - Check the box marked **Unknown Sources**.

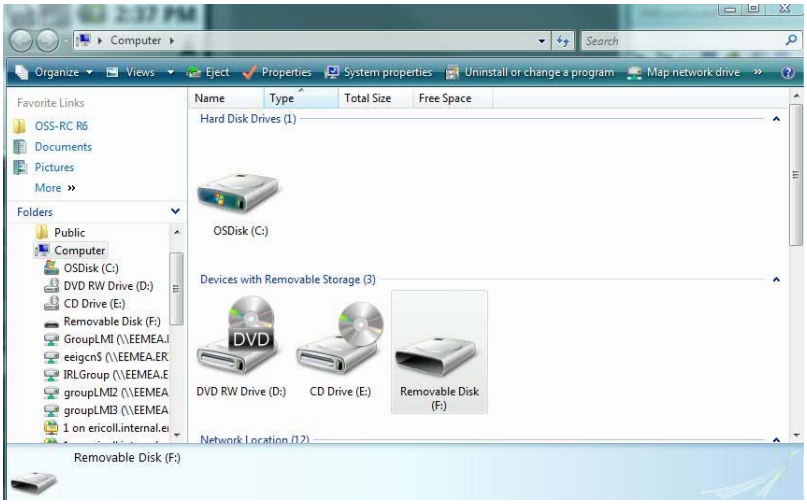


2. Manually copy .apk file to the SD card.

   - Install a File Manager on the Android device. Android systems do not support browsing files on the SD card. Installation of a third party File Manager is required to access the `.apk` files on the SD card.

- Copy .apk file to the SD card.

  Once a File Manager is installed, connect the Android device to a computer using a USB cable. Mount the device as a USB removable storage device and copy the .apk file into it.



3. Using the File Manager navigate to the `.apk file` and select it. When a dialog box opens up, click **install** and follow the on-screen directions to install the application.

2.4 ENIS Software Upgrade

The ENIS software upgrade procedure is identical to the initial installation procedure outlined in Section 2.3 on page 4.

Note: To obtain the ENIS .apk software update file and .bsim file, contact System Administrator.

2.5 ENIS Configuration

The ENIS application must be configured using a .bsim configuration file before the initial use. To configure ENIS, do as follows:

1. Enter the supplied URL to locate the .bsim file and tap the **Download** button to install the .bsim file.

2. When a login screen is displayed, type the password provided with the .bsim file. Password is case-sensitive. Successful input of the password brings the home screen of the ENIS App. A failure is notified by a pop-up message that explains the cause of the failure and gives guidance on how to fix it.

Note: If ENIS application is to be reconfigured with a new .bsim file, uninstall the existing application and repeat the steps from Section 2.2 on page 3 and Section 2.3 on page 4.

3 Getting Started

This chapter is for new or infrequent users of ENIS. It describes how to start and exit ENIS.

3.1 Starting ENIS

To start ENIS, do as follows:

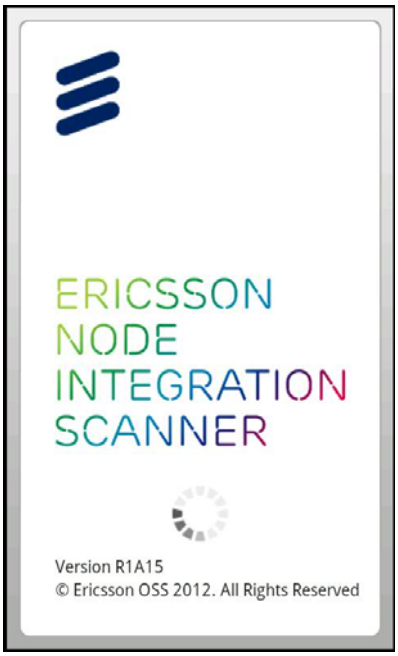
1. On the Android device, navigate to the ENIS icon and select it.

2. Enter the password in a login dialog box.

   Press **Submit** to submit password, **Cancel** to exit password dialog.

Note: Password entry is not required for subsequent access unless the application is explicitly closed.

3. When the correct password is entered, the ENIS splash screen is displayed and the application is loaded. If the password is entered incorrectly three times, the application launch is ended and the application must be relaunched.



4. Enable GPS or Network Location.

If GPS reception or Network Location is supported but currently disabled, a prompt to enable it is displayed. To disable the prompt dialog, see ENIS Application Menu.

3.2 Exiting ENIS

To exit ENIS, press **Menu** > **Quit**.

Once started, the ENIS application runs on the Android device until one of the following events takes place:

- Application is explicitly closed by the user.
- Application is terminated by the Android platform.

While running in the background, the application continues to process the requests, and communicates the job status through the status bar. For more details, see Notifications.

4 Using ENIS

This section describes the ENIS task list and ENIS application menu.

4.1 ENIS Task List

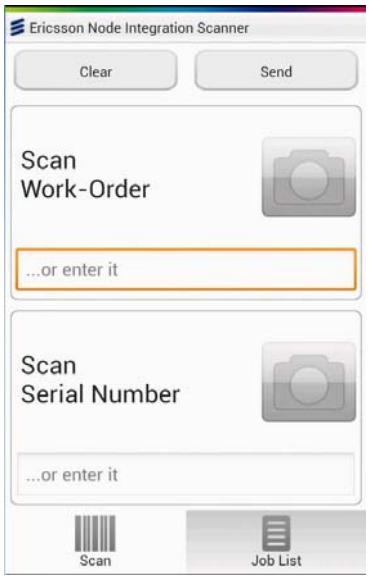
The following ENIS tasks exist:

- Scan Barcodes
- Job List Management

4.1.1 Scan Barcodes

This section shows how to scan barcodes using ENIS on Android.

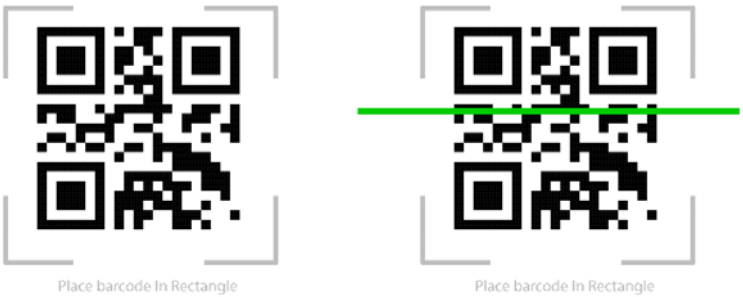
The scanning tab is displayed as default selection on the main application screen.



To scan the barcode, do as follows:

1. Scan the QR code on the work order.

   Press the **Work-Order** scan camera icon to launch the barcode scanner. Ensure that the barcode is within the rectangle on the barcode scanner screen. When the barcode is read, a green line is displayed across the screen and the application returns to the main screen.

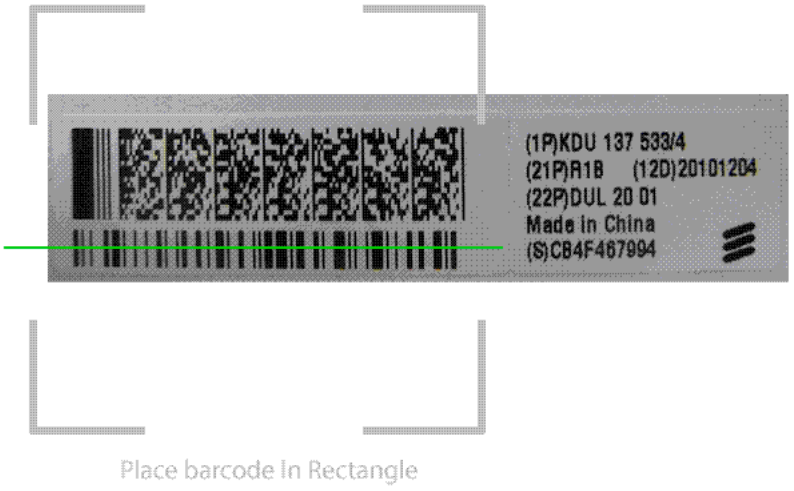


If the barcode fails to scan, press the **Back** button to return to the main application screen, and manually enter the work order. Selecting the …**or enter it** field launches the keyboard-based data entry.

2. Scan the barcode on the node.

   Press **Serial Number** scan camera icon to launch the barcode scanner. Ensure that the barcode is within the rectangle on the barcode scanner screen. The barcode is located on the node label. When the barcode is read, a green line is displayed across the screen and the application returns to the main screen.

   If the barcode fails to scan, press the **Back** button to return to the main application screen, select the …**or enter it** field, and manually enter the serial number.

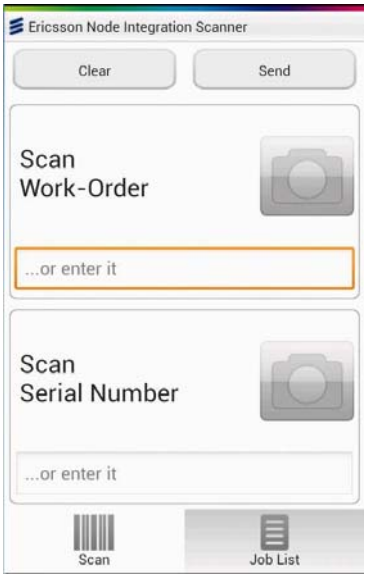


   Note: The serial number is the right-most string of 10 characters starting with **S**.

3. Send Binding Request.

   When both scans are captured, the **Send** button is enabled.

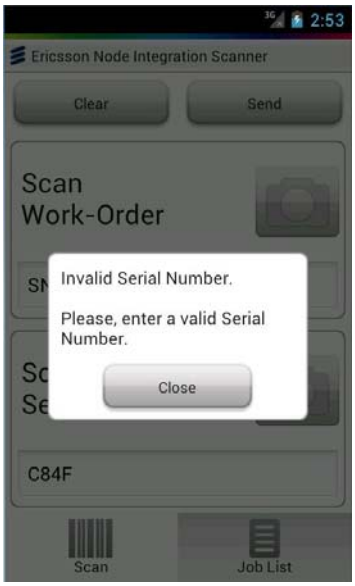
   If the data is incorrect, press the **Clear** button to delete the data, and re-enter the correct data.



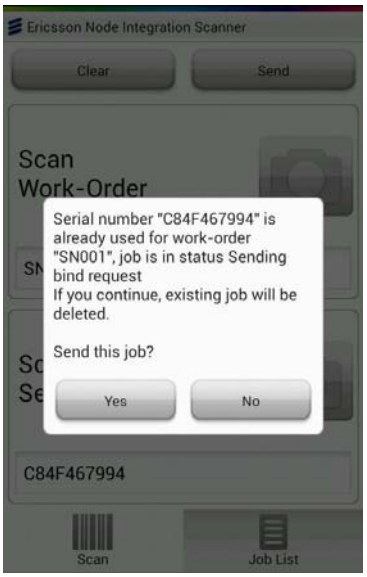
4. Press **Send** on the Scan screen to send the data and press **Yes** to confirm.

   - If the serial number is valid, the confirmation screen is displayed. Press **Yes** to confirm sending.

   - If the serial number is invalid, a dialog box is displayed asking to enter a valid serial number.

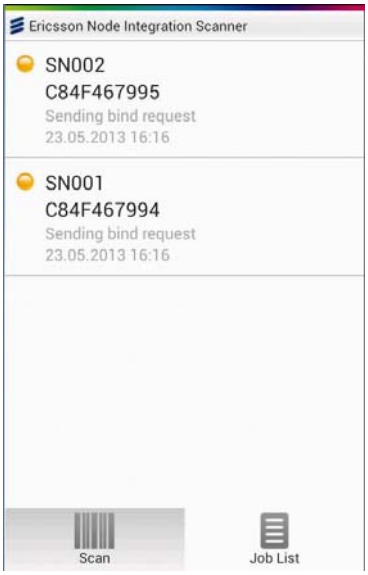


- If the node name or serial number is in use for another job, a dialog box is displayed asking user to confirm overwriting of the conflicting jobs. The overwritten job is removed from the previous list of jobs.



- If the job with the same node name and serial number already exists in the jobs menu, a dialog box is displayed asking user to confirm sending.

5. The data is sent as a job for BSIM to process. Jobs are listed in the **Job List** tab.

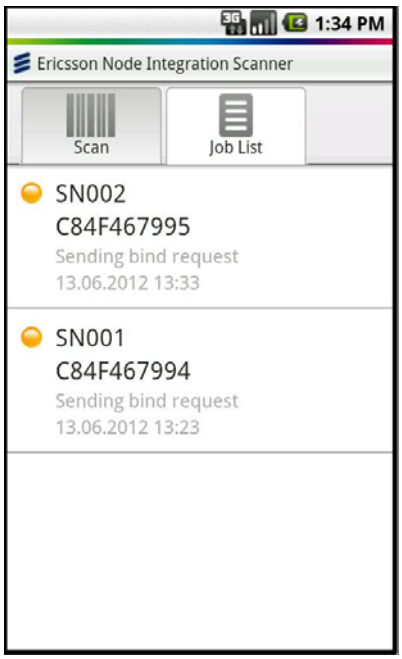


4.1.2 Job List Management

The **Job List** tab contains the list of all binding requests sent to OSS.

Bind requests are sent only when the application has internet connectivity. If ENIS cannot contact OSS, the new jobs are stored until connectivity is available and then sent automatically.

Stored jobs are displayed in the list with the status **Sending bind request**.

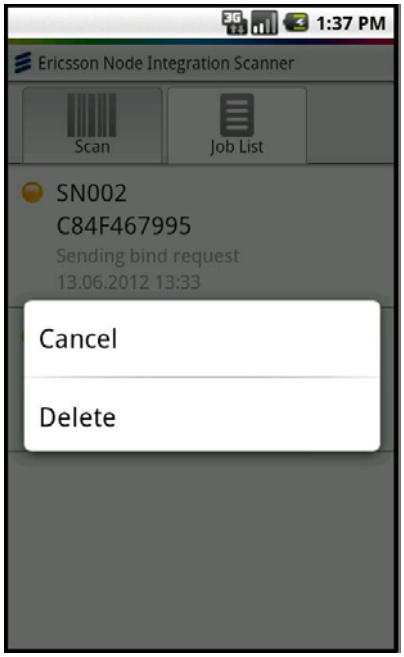


4.1.2.1 Job List Context Menu

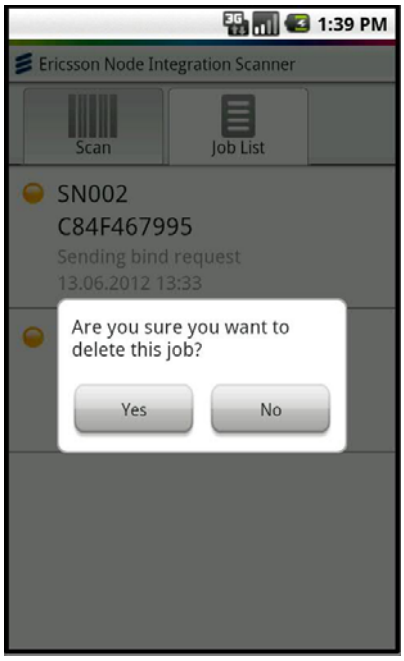
Jobs can be deleted or canceled from the list using the job list context menu. Deleting a job removes it from the list, but does not automatically cancel it. When the job is deleted, all further updates are ignored.

To cancel or delete a job, do as follows:

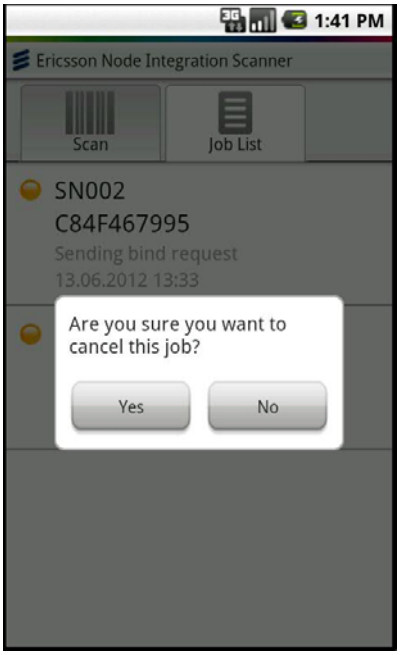
1. Touch and hold a job item to launch the context menu and select **Cancel** or **Delete**.



2. Confirm the delete action selection.



3. Confirm the cancel action selection.



4.1.2.2 No Jobs

When the job list is empty, **No Jobs** message is displayed.

4.1.2.3 Job States

The available job states are described in Table 1.

Table 1 Job States

State	Meaning	Available actions	Comments
Sending bind request	Bind request is created and is waiting to be sent.	Delete Cancel	If ENIS cannot contact the OSS, the requests to cancel jobs are stored until the contact is established. Stored cancel jobs are displayed in the list with the status **Canceling**.
Waiting bind response	Bind request is sent, job is waiting for the response from OSS.	Delete Cancel	If ENIS cannot contact the OSS, the requests to cancel jobs are stored until the contact is established. Stored cancel jobs are displayed in the list with the status **Canceling**.
Complete	OSS responded that binding is completed.	Delete Cancel	If ENIS cannot contact the OSS, the requests to cancel jobs are stored until the contact is established. Stored cancel jobs are displayed in the list with the status **Canceling**.
Job Failed	OSS responded that binding failed.	Delete	

Table 1 Job States

Canceling	• If the corresponding bind request has already been sent: cancel request is created and is waiting to be sent. • If the corresponding bind request has not been sent yet (the job is in “Sending bind request state”): bind request is being recalled from outgoing message queue.	Delete	
Waiting Cancel Response	Cancel request is sent, job is waiting for response from OSS.	Delete	
Canceled	• If the corresponding bind request had already been sent when canceled OSS responded that cancelation was successful. • If the corresponding bind request has not been sent yet (that is, the job is in “Sending bind request state”): bind request is being recalled from outgoing message queue.	Delete	
Cancel Failed	OSS responded that cancelation failed.	Delete	

Sent jobs await the response and update from OSS. When response is received, the job state is updated.

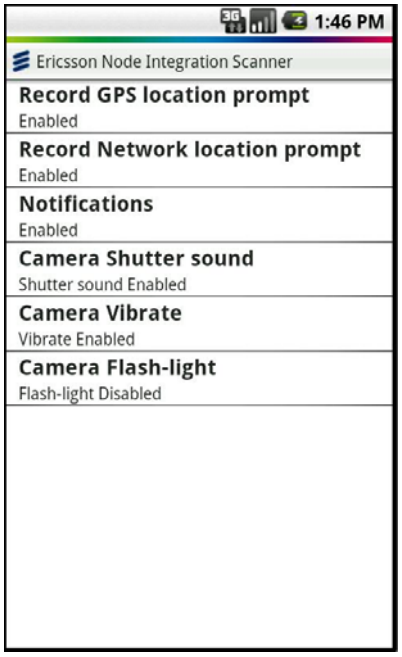
4.2 ENIS Application Menu

This section describes the additional information and **Settings** available from the ENIS Application Menu.

4.2.1 Settings

1. To access ENIS settings press **Menu** button and select **Settings**.

2. ENIS Settings are displayed.

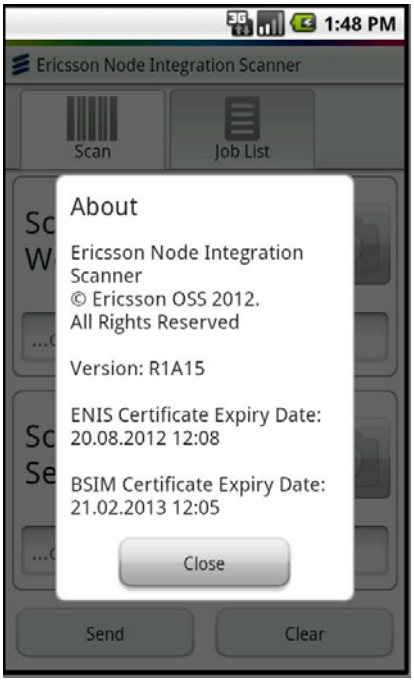


4.2.2 About

About displays ENIS copyright and version information, and installed security certificates expiry dates.

1. To display more information about ENIS press **Menu** and select **About**.

2. **About** dialog box is displayed.

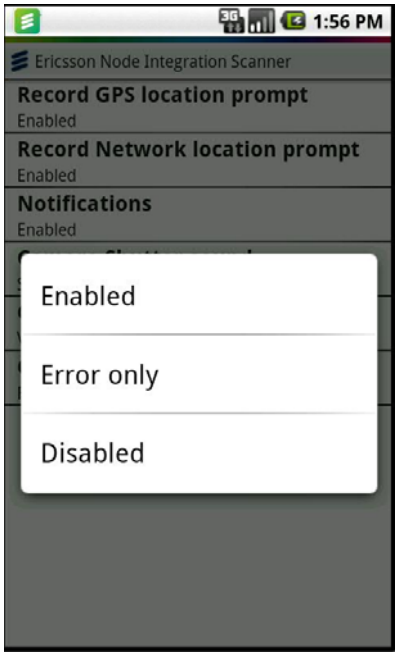


4.2.3 Notifications

Notifications communicate information to a user through the notification bar. Notifications operate when the application is running even if the application screen is not visible. ENIS uses notifications to communicate a job state

changes and application errors to the user. Selecting a notification brings up the job list with the latest status displayed at the top.

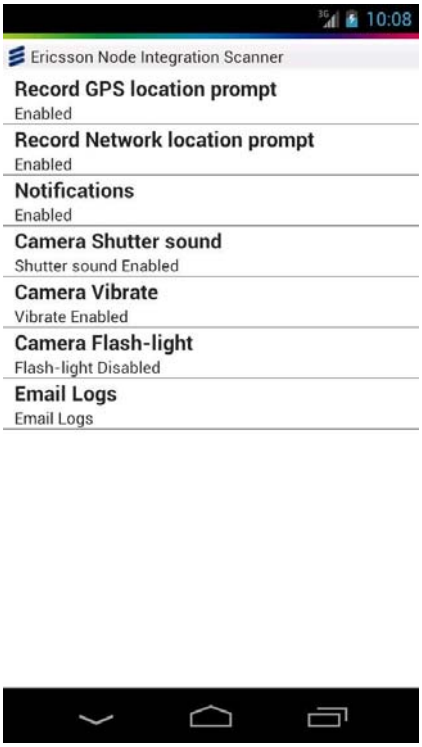
Notifications can be **Enabled**, **Disabled** or enabled for **Error only**. To adjust the settings, go to **Settings** for Notifications.



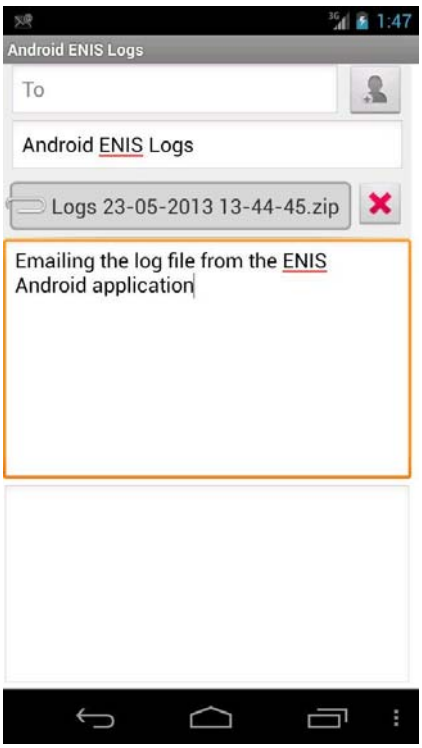
4.2.4 Emailing Logs

To e-mail logs, do as follows:

1. Go to **Settings** > **Email Logs**.



2. New e-mail with attached logs is displayed. The application used to send e-mail is the default mail application installed by the user.



3. Enter an e-mail address and send e-mail.

5 Troubleshooting

Logs are stored on the SD card under `/Android/data/com.ericsson.oss.bsim.nis`. If problems occur, I forward the contents of the log file to support

Logs are sent through the installed File Manager. For more information about File Manager, see Section 2.3 on page 4.

To send logs for troubleshooting, do as follows:

1. Select **Menu** >**New** > **Zip File** > `Supply file name`.
2. Press log directory to launch context menu and select **Edit** > **Copy**.
3. Navigate to `zip file` and select a toolbar **Paste**.
4. Press `zip file` to launch context menu. Select **Send** and indicate e-mail client to use.

Reference List

[1] *Operations Support System (OSS) Glossary*, 0033-AOM 901 017/2

[2] *OSS Library Typographic Conventions*, 1/154 43-AOM 901 017/4