TD 92586GB

Installation and Operation Manual

IMS2

10 January 2011 / Ver. E

Contents

1 Introduction

Integrated Wireless Messaging Services (IMS2) is a web-based tool used for device management, messaging and alarm handling. It is a module based on ELISE2 hardware, designed as an all-in-one solution for Centralized Management of portable devices. This document describes the installation and configuration of IMS2 plus operation of the system. The main functionality is:

- On-site and remote administration of handsets and chargers
- Parameter configuration and software download to handsets and chargers
- Supervision of chargers
- Central phonebook application for handsets
- Text messaging between handsets
- Alarm Handling

Figure 1 shows the IMS2 in a system.

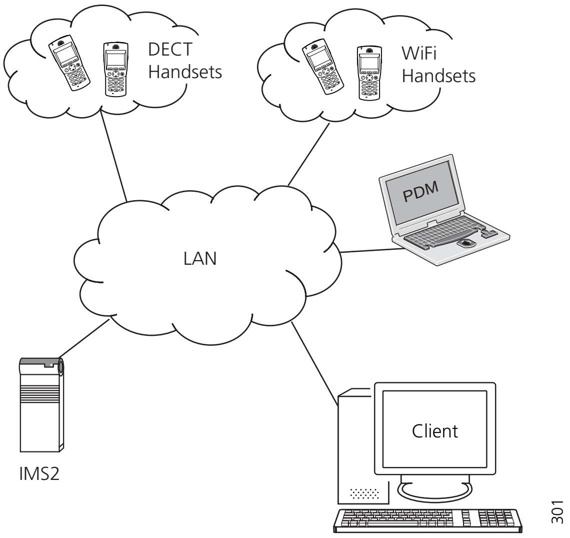


Figure 1. IMS2 in a system.

IMS2 provides a generic application for managing portable devices and chargers in wireless systems.

IMS2 makes it possible to edit parameters and update software in the devices. It saves parameters and software for all devices in a database. All devices are updated remotely from the IMS2.

A serial interface is included to enable pagings from external equipment. The serial interface supports the ESPA 4.4.4 protocol, the Ascom Line protocol and the TAP 1.8 protocol. The Ascom Line protocol is designed to be simple enough to be controlled manually, using a terminal program connected to the serial port.

IMS2 also includes a central phonebook which can be accessed from the handsets. The number of entries in the phonebook depends on whether the internal database or an external database is used as phonebook source.

This document is intended as a guide for installation, maintenance and troubleshooting purposes and is relevant for:

- Installation and configuration, administrator rights
- Daily operation of the system, user rights

1.1 Licenses for IMS2

Basic License for IMS2

- WSM-MAS, including ELISE2 hardware including ELISE2 hardware.

Additional Licenses for IMS2

- WSM-LAS, as WSM-MAS but without ELISE2
- WSM-LAA, Basic Alarm Manager for message and alarm handling
- WSM-LAN, NetPage functionality
- WSM-LAP1, ESPA 4.4.4, Ascom Line Protocol, URL Messaging Protocol, TAP 1.8
- WSM-LAP2, OAP, Open Access Protocol for sending messages and receiving alarms
- WSM-LAP3, License for OAP protocol with interactive messaging, user data and alarm
- WSM-LAM1, Device Management, 100 devices, 250 numbers
- WSM-LAM2, Device Management, 500 devices, 1 250 numbers
- WSM-LAM3, Device Management, 1 000 devices, 2 500 numbers
- WSM-LAM4, Device Management, 2 500 devices, 6 250 numbers

For details regarding licenses and technical specifications, refer to Data Sheet, IMS2, TD 92585GB.

IMS2 running as PDM System version

For backward compatibility, IMS2 can replace PDM System Version. Note that in this case it will only have support for Device Management. It then works with the following licenses:

- PDM-LIC, for 100 devices
- PDM-LID, for 500 devices
- PDM-LIM, for 1 000 devices

1.2 Abbreviations and Glossary

Ascom Line Protocol	A simple alternative to ESPA 4.4.4 with all basic features of paging call available but with a very limited status report.
BAM	Basic Alarm Manager: tool in the IMS that can be used to handle triggered inputs and alarms and user data from handsets. In IMS2, this tool is referred to as Alarm Handling.
Central Phonebook	A Phonebook stored in a database in the control module or reached from the control module.
Charger	Can be a desktop charger or a charging rack
Company Phonebook	A Phonebook that is uploaded to a handset from the Device Manager. The entries are locked for editing in the handset.
Contacts	The name of the phonebook in a handset.
CSV file	Comma Separated Value: A file with data, where values in each row are separated by a delimiter, which can be a comma, a semicolon or a tab.
DECT	Digital Enhanced Cordless Telecommunications: A global standard for cordless telephony.
Device	Can be a DECT or VoWiFi handset, an alarm transmitter, a pager or a charger developed to work together with IMS2 and the Device Manager. See the user manual for respective device.
DHCP	Dynamic Host Configuration Protocol
EAP	Extensible Authentication Protocol
ELISE2	Embedded LInux SErver A hardware platform used for IMS2.
ESPA 4.4.4	A message-based serial protocol intended for communication with external equipment. Built upon the ISO1745 transport specification.
ESS	Ascom Enhanced System Services: Unite module that handles centralized number planning, remote connection, system supervision, fault handling, group handling, message routing, centralised logging, activity logging, and user access administration.
FTP	File Transfer Protocol
GUI	Graphical User Interface
IMS	Integrated Message Server: Unite module that enables messaging to and from the connected cordless telephone system
IMS2	Integrated Wireless Messaging and Services
IPBS	IP-DECT Base Station
IPDI	International Portable DAM Identity DAM (DECT Authentication Module) See IPEI for more information.

IPEI
International Portable Equipment Identity:
IPEI/IPDI is needed to enable network subscription of the handset. At delivery of the handset, IPEI and IPDI are the same and either can be used for network subscription. If the IPEI and the IPDI differ, the IPDI shall be used for network subscription.

JRE
Sun Java Runtime Environment.

LAN
Local Area Network. A group of computers and associated devices that share a common communication line.

Language file
Language file for portable devices or IMS2.
Language file for IMS2 uses XML (eXtensible Markup Language.).

LDAP
Lightweight Directory Access Protocol

License file
A file containing license keys for devices. The file can be exported from the license web and imported to the Device Manager in the IMS2.

License key/number
The unique license key for a specific device or for IMS2 with a specific functionality.

Messenger
Product license for Messaging solutions for Ascom handset.

NetPage
Tool for generating messages from a web browser.

Number
Settings for the complete set of parameters of a single device, tied to a specific identity.

OAP
Open Access Protocol:
Ascom defined XML based messaging and alarm protocol.

OTA
Over the Air

Parameter definition file
Defines the parameters for a portable device model, for example a handset, alarm transmitter etc.

PKCS#12
A chryptography standard, defining a file format used to store keys and certificates.

Handset
Cordless handset, alarm transmitters/transceivers etc.

Product information file
A file containing information needed for licensing and upgrade of a device. The file can be exported from IMS2 and imported to the License web.

Protector
Ascom name for handsets with alarming capabilities

RTLS
Real Time Location System

Talker
Ascom name for handsets primarily used for pure telephony.

TAP
Telelocator Alphanumeric Protocol:
An industry standard protocol for the input of paging requests.

Unite system
Unite is the Ascom name for the Ascom Professional Messaging system.
The Unite communication protocol is used for communication between IMS2s in systems with more than one IMS2.

UNL
Universal Networking Language

UNS
Unite Name Server:
Unite module component that holds the Unite number plan and Unite destinations

VoWiFi Voice over Wireless Fidelity:
is a wireless version of VoIP and refers to IEEE 802.11a, 802.11b, 802.11g, or 802.11n network.

WiFi WiFi is a term developed by the Wi-Fi Alliance® to describe wireless local area network (WLAN) products that are based on the Institute of Electrical and Electronics Engineers' (IEEE) 802.11 standards. Today, most people use WiFi as a reference to wireless connectivity.

WLAN Wireless LAN

1.3 Overview

From the IMS2 start page (see Figure 2) it is possible to select different functionality modules.

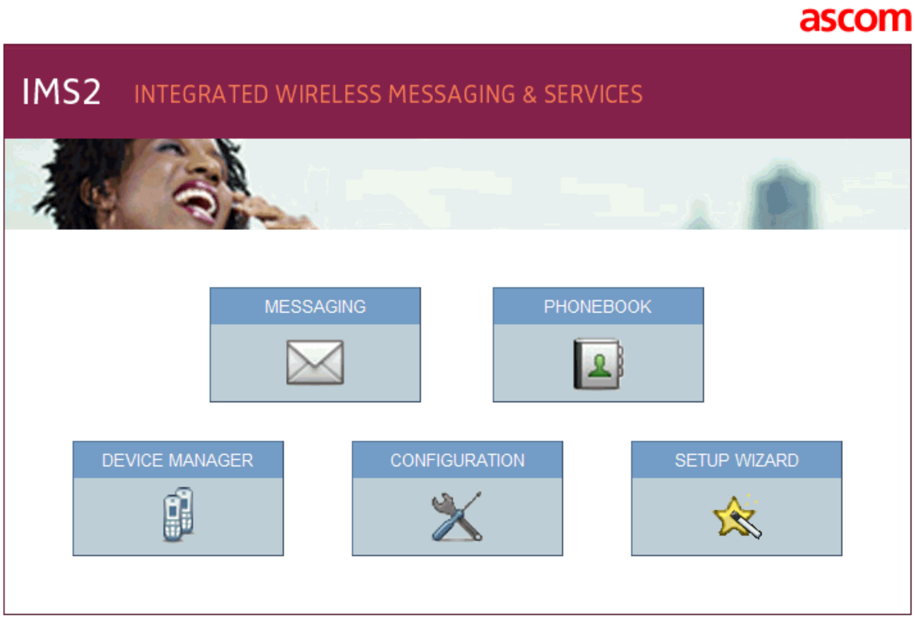


Figure 2. IMS2 start page.

- Messaging, see 6 Operation - Messaging on page 30.
- Phonebook, see 7 Central Phonebook Administration on page 32.
  Describes how to handle phonebook entries.
- Device Manager, see 8 Device Manager on page 36.
  Describes device management.
- Configuration, see 4.6 Configuration Page on page 24.
  Setup page for the IMS2 settings.
- Setup Wizard, see 5 IMS2 Setup Wizard and Configuration on page 28.
  The first time and as long as IMS2 is not configured, the setup wizard will start automatically.

1.4 How to Use this Document

This document is used for the installation and configuration of the product, as well as for the administration and daily operation.

This sub chapter includes the following steps:

- Installation and setup for IMS2
- Extended configuration
- Configuration for IMS2 running as PDM System version
- Phonebook administration
- Daily operation

In order to simplify, for example an installation, use the following description:

1.4.1 Installation and Setup for IMS2

- For installation and basic configuration, see the following chapters:
  - 2 Installation and Configuration on page 10
  - 5 IMS2 Setup Wizard and Configuration on page 28

1.4.2 Extended Configuration

Some extended configuration is included in the basic license, other requires an additional license, see below:

- For settings included in the WSM-MAS license:

  Refer to chapters:
  - 11 System 900 on page 92
  - 12 Messaging Groups on page 95
  - 13 Basic Configuration on page 97
  - 7 Central Phonebook Administration on page 32
  - 14 Remote Management on page 128
  - 15 Absence Handling on page 130
  - 16 Base Station Conversion on page 132

- For settings included in the WSM-LAA license option:

  Refer to chapters:
  - 13.2 Alarm Handling on page 106

- For settings included in the WSM-LAN license option:

  Refer to chapters:
  - 17 Messaging on page 133

- For settings included in the WSM-LAP1 license option:

  Refer to chapters:
  - 18.2.8 Creating a URL Call on page 148
  - 19 Serial Interface on page 153

- For settings included in the WSM-LAP2 license option:

  Refer to chapters:
  - 20 Open Access Protocol (OAP) on page 159
    See also Function Description, Open Access Protocol (OAP), TD 92215GB.

- For settings included in the WSM-LAP3 license option:

  Refer to chapters:
  - 20 Open Access Protocol (OAP) on page 159
    See also Function Description, Open Access Protocol (OAP), TD 92215GB.

- For settings included in the WSM-LAM1 license option:

  Refer to chapters:
  - 8 Device Manager on page 36 (100 devices)

- For settings included in the WSM-LAM2 license option:

  Refer to chapters:
  - 8 Device Manager on page 36 (500 devices)

- For settings included in the WSM-LAM3 license option:

  Refer to chapters:

  - 8 Device Manager on page 36 (1 000 devices)

- For settings included in the WSM-LAM4 license option:

  Refer to chapters:

  - 8 Device Manager on page 36 (2 500 devices)
  -

A summary of extended configuration can be found in chapter 5.2 Optional Settings on page 29.

1.4.3 Configuration for IMS2 running as PDM System version

- For settings included when IMS2 is running as PDM System Version, the following chapters are valid:
  - 2 Installation and Configuration on page 10
  - 8 Device Manager on page 36
  - 13.5 Backup the Configuration on page 118
  - 13.6 Restore the Configuration on page 118

1.4.4 Charger Installation

Follow the instructions in the manual for the charger.

1.4.5 Central Phonebook administration

- For administration of the central phonebook, refer to chapter 7 Central Phonebook Administration on page 32.

1.4.6 Daily Operation

- For the daily operation, that is, creating and sending messages, see chapter 6 Operation - Messaging on page 30.

1.5 Included in the delivery

- ELISE2 hardware
- Power supply 100-240V DC and cables for EU, UK, US and AUS
- ‘’Getting started’’ instructions leaflet
- Ordinary RJ45 (straight through pinouts) network cable for connection to the LAN
- License certificate

1.6 Technical Solution

IMS2 consists of a server and a client part. The server runs on the ELISE2 hardware and is configured from a web interface. The Java based client is run on a PC connected to the Local Area Network (LAN) and is loaded from the server (Device Manager).

1.7 Requirements

Refer to Data Sheet, IMS2, TD 92585GB.

2 Installation and Configuration

After installing the IMS2, the basic configuration is easily done with the help of a setup wizard. The setup wizard includes all basic settings needed to get the IMS2 up and running.

2.1 Required information

Make sure the following information is available:

2.1.1 Information required for the Installation

- MAC address – found on the license certificate enclosed in delivery
- An IP address is needed, see leaflet or Installation Guide, ELISE2, TD 92232GB.

2.1.2 Information required for the Configuration

- License number – found on the license certificate enclosed in delivery
- Network parameters – ask your network administrator
- Type of connected wireless phone system
- IP address to connected system (if connected via IP)
- Other messaging systems to send messages to (optional)
- LDAP properties if an LDAP server is used for Central Phonebook requests (optional)

2.2 Mounting

For mounting, see Installation Guide, ELISE2, TD 92232GB.

2.3 Hardware Installation and Configuration

For installation and configuration, see Installation Guide, ELISE2, TD 92232GB for more information.

Note: Attach the ferrite bead on the power supply cable. Follow the enclosed assembly card for EMC protection, M0271500.

2.4 Software Installation

For software installation, see Installation Guide, ELISE2, TD 92232GB for more information.

2.5 IMS2 Setup

When accessing IMS2 the first time, follow the instructions in section Configuration in the Assembly Card, Getting Started M0276300 (enclosed in delivery), or see Installation Guide, ELISE2, TD 92232GB.

The setup wizard is described in chapter 5.1 Basic Configuration Steps on page 28.

Note: The IP address must not change during operation because renew of IP address via DHCP is not handled. Other equipment connected to this product also expects a fixed IP address in some cases. If the IP plan is changed, this product must be restarted to update the IP address. Otherwise there is a risk for IP address collision.

For information about Power Down and Restart, see Installation Guide, ELISE2, TD 92232GB.

2.6 Update of IMS2

Update of software is done via the web interface.

There are two choices, "Install software" and "Install image".

If new software is installed by doing an update of IMS2 using an *.eas file, the information stored in the database will not be overwritten.

If a new image file is installed, using an *.img file, the database information is deleted, and software and definition files are removed.

For instructions on how to upgrade, both .eas and .img files, see Installation Guide, ELISE2, TD 92232GB. It is recommended to do a backup before upgrading.

Make sure that no Device Manager client is open during an update of the IMS2. It is also important that no ftp client is logged in to the IMS2. If the Microsoft Internet Explorer is used as ftp client, close it before upgrade.

Note: Customized NetPage GUI will be overwritten when upgrading. See also 18.6 Update the User Interface after a new IMS2 Release on page 152.

2.7 Multiple IMS2 Configuration

In some situations, it is necessary to configure more than one IMS2 in a system. This chapter presents examples for multiple IMS2 configuration.

This is required in systems:

- with centralized management for more than 1 000 devices, see 2.7.1 More than 1 000 devices, all handsets registered on one IMS2 on page 12.
- for DECT, with centralized management in combination with a traffic load expected to be more than 4 000 messages per hour (or an equivalent amount of central phonebook enquires), see 2.7.2 High messaging load in DECT on page 14.
- for WiFi, with centralized management in combination with a traffic load expected to be more than 4 000 messages per hour (or an equivalent amount of central phonebook enquires), see 2.7.3 High Messaging load in WiFi on page 16.
- with multi-master IP-DECT systems (one IMS2 per IP-DECT master, in combination with number planning), see 2.7.4 Multi-master IP-DECT systems and Multiple DECT systems on page 18.
- with a multiple DECT system (one IMS2 per DECT system, in combination with number planning), see 2.7.4 Multi-master IP-DECT systems and Multiple DECT systems on page 18.

For detailed instructions on how to do these settings, refer to the corresponding chapters in this manual.

2.7.1 More than 1 000 devices, all handsets registered on one IMS2

On each IMS2 up to 1 000 devices can be configured. If there are more than 1 000 devices that shall be configured, one possible solution is to use two IMS2 modules and to register the handsets on one IMS2 and the chargers on another IMS2 (see Figure 3).

Figure 3

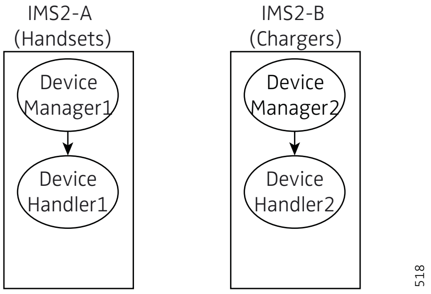
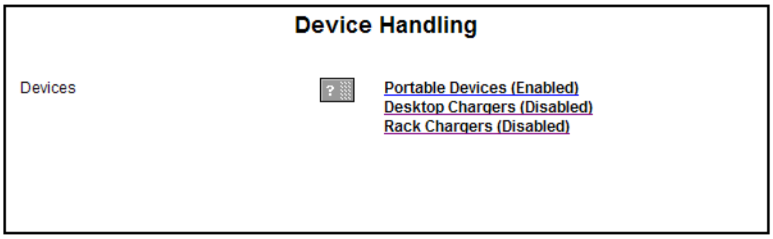


Figure 3. Example of a multiple IMS2 solution with handsets and chargers registered on two IMS2s.

Configuration for the setup

The basic configuration for this setup is described below. In this configuration, only the IMS2-A module has a DECT connection and the DECT interface in IMS2-B is disabled.

- IMS2-A
  - Set the Device Manager to handle only portable devices:
    Configuration > Other Settings > DECT Interface > Device Handling
    Portable Devices: Set "Device support" to Enabled
    Desktop Chargers: Set "Device support" to Disabled
    Rack Chargers: Set "Device support" to Disabled



Device Handling

Devices

Portable Devices (Enabled)
Desktop Chargers (Disabled)
Rack Chargers (Disabled)

Figure 4. Setting handsets on IMS2-A.

- IMS2-B
  - Disable the DECT interface
    In Configuration > Other Settings > Advanced Configuration > General Settings > View advanced parameters:
    Set "DECT Interface" to Disabled.
  - Set the Device Manager to handle only chargers:
    Configuration > Other Settings > DECT Interface > Device Handling
    Portable Devices: Set "Device support" to Disabled
    Desktop Chargers: Set "Device support" to Enabled
    Rack Chargers: Set "Device support" to Enabled

Example: Migration to a double IMS2 solution

This example assumes that the original system has all device management on one IMS2. The reason for a migration to a double IMS2 solution is that the number of registered devices will increase to more than 1 000, but the number of handsets is expected to remain under 1 000. The device management of the chargers will be moved to the new IMS2. In this example, the DECT interface in IMS2-B is disabled.

Change the following settings in the original IMS2:

- IMS2-A
  - Set the Device Manager to handle only portable devices:
    Configuration > Other Settings > DECT Interface > Device Handling
    Portable Devices: Set "Device support" to Enabled
    Desktop Chargers: Set "Device support" to Disabled
    Rack Chargers: Set "Device support" to Disabled

Do the following settings in the added IMS2:

- IMS2-B
  - Disable the DECT interface
    In Configuration > Other Settings > Advanced Configuration > General Settings > View

advanced parameters:
Set "DECT Interface" to Disabled.

- Set the Device Manager to handle only chargers:
  Configuration > Other Settings > DECT Interface > Device Handling
  Portable Devices: Set "Device support" to Disabled
  Desktop Chargers: Set "Device support" to Enabled
  Rack Chargers: Set "Device support" to Enabled

To move the device management of the chargers from IMS2-A to IMS2-B:

- Move the templates for the chargers from IMS2-A to IMS2-B (or create new templates on IMS2-B). This can be done by using the Export Template and Import Template function in the Device Manager in IMS2-.
- IMS2-B:
  The chargers will automatically log in to the IMS2. It may take several hours.
- IMS2-A:
  Delete the chargers in the IMS2-A Device Manager.
- If any new devices (handsets or chargers) shall be added to the system at this point, it can be done as a normal installation using the Add device feature in the Device Manager.

2.7.2 High messaging load in DECT

This solution applies to:

- systems with high messaging load
- systems with high requirements on maximum message burst throughput

When the messaging load is too high, a single IMS2 cannot handle both messaging and device management effectively. Typically, this occurs when the messaging load is more than 4 000 messages per hour (or an equivalent amount of central phonebook enquires).

A solution to this situation can be achieved by running the messaging on one IMS2 and to handle Device Management on another IMS2, see Figure 5.

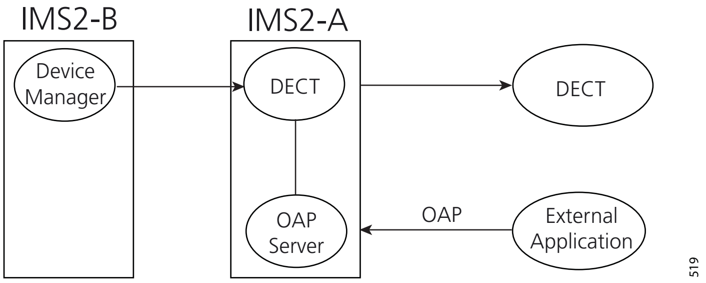


Figure 5. Example of paging in a multiple IMS2 solution with OAP and DECT.

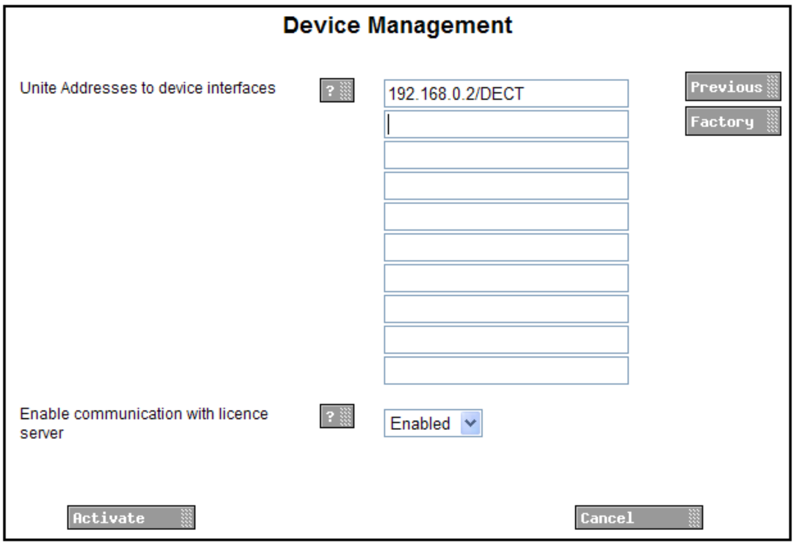
Configuration for the setup

The basic configuration for this setup is described below.

- IMS2-A
  - Disable Device Management
    In Configuration > Other Settings > Advanced Configuration > Device Management:
    Remove IP addresses.
    Click "Activate".

- IMS2-B
  - Disable the DECT interface
    In Configuration > Other Settings > Advanced Configuration > General Settings > View advanced parameters:
    Set "DECT Interface" to Disabled.
  - Enable Device Management for the DECT system:
    In Configuration > Other Settings > Advanced Configuration > Device Management:
    Replace the address "127.0.0.1/DECT" with the IP address of IMS2-A plus "/DECT", that is, if IMS2-A has the IP address 192.168.0.2, change to "192.168.0.2/DECT".
    Click "Activate".

See Figure 6.



Device Management

Unite Addresses to device interfaces: 192.168.0.2/DECT

Enable communication with licence server: Enabled

Figure 6. Setting the IP address.

Example: Migration to a double IMS2 solution

This example assumes that the original system uses one IMS2. Basically, the system setup is the same, but the original system with a single IMS2 has to be configured for a higher level of messaging traffic.

Change the following settings in the original IMS2:

- IMS2-A
  - Disable Device Management:
    In Configuration > Other Settings > Advanced Configuration > Device Management:
    Remove the address "127.0.0.1/DECT".
    Click "Activate".
  - Export all device management data from IMS2-A:
    In Device Manager > Numbers:
    Select all Numbers.
    In the menu, select Number > Export.
    In Device Manager > Templates:
    Select all templates.
    In the menu, select Template > Export

Do the following settings in the added IMS2:

- IMS2-B
  - Disable the DECT interface
    In Configuration > Other Settings > Advanced Configuration > General Settings > View advanced parameters:
    Set "DECT Interface" to Disabled.
  - Enable Device Management for the DECT system:
    In Configuration > Other Settings > Advanced Configuration > Device Management:
    Replace the address "127.0.0.1/DECT" with the IP address of IMS2-A plus "/DECT", that is, if IMS2-A has the IP address 192.168.0.2, change to "192.168.0.2/DECT".
    Click "Activate".
  - Import all device management data to IMS2-B:
    In Device Manager:
    In the menu, select File > Import > Numbers...
    In the menu, select File > Import > Templates...

2.7.3 High Messaging load in WiFi

This solution applies to:

- systems with high messaging load
- systems with high requirements on maximum message burst throughput
- when requiring maximum shared phone performance in a system

When the messaging load is too high, a single IMS2 cannot handle both messaging and device management effectively. Typically, this occurs when the messaging load is more than 4 000 messages per hour (or an equivalent amount of central phonebook enquires).

A solution to this situation can be achieved by running the messaging on one IMS2 and to handle Device Management on another IMS2, see Figure 7.

Note: WLAN and OAP server must be run on an IMS2 (in this case IMS2-A), not an IMS/IP.

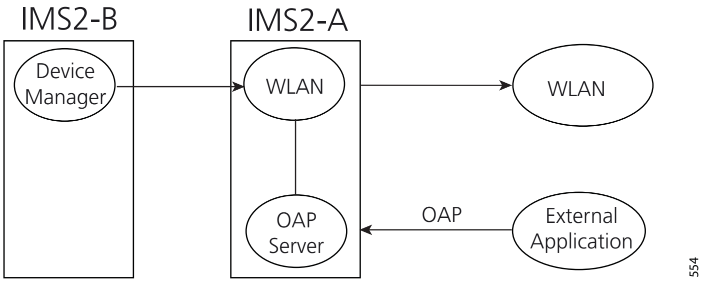


Figure 7. Example of paging in a multiple IMS2 solution with OAP and WLAN.

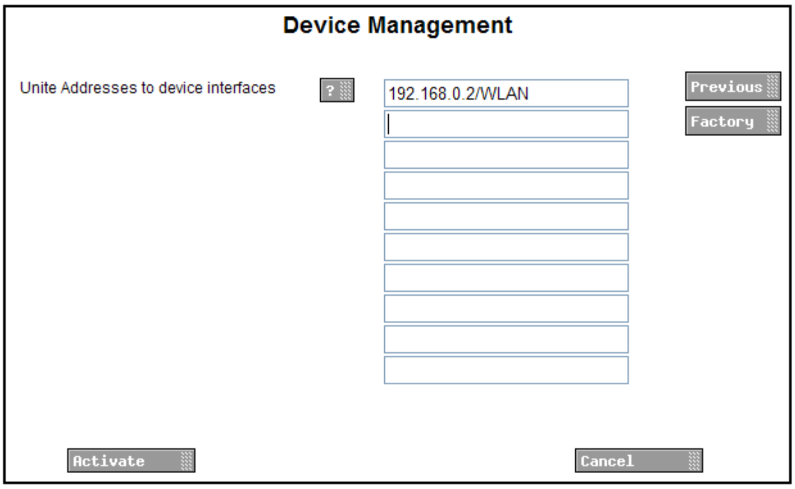
Configuration for the setup

The basic configuration for this setup is described below.

- IMS2-A
  - In Configuration > Other Settings > Advanced Configuration > Device Management:
    Remove IP addresses.
    Click "Activate".

- IMS2-B
  - Change IP address:
    In Configuration > Other Settings > Advanced Configuration > Device Management:
    Replace the address "127.0.0.1/WLAN" with the IP address of IMS2-A plus "/WLAN", that is, if IMS2-A has the IP address 192.168.0.2, change to "192.168.0.2/WLAN".
    Click "Activate".

See Figure 8 below.



Device Management

Unite Addresses to device interfaces: 192.168.0.2/WLAN

Figure 8. Setting the IP address.

Example: Migration to a double IMS2 solution

This example assumes that the original system uses one IMS2. Basically, the system setup is the same, but the original system with a single IMS2 has to be configured for a higher level of messaging traffic.

Change the following settings in the original IMS2:

- IMS2-A
  - Change IP address:
    In Configuration > Other Settings > Advanced Configuration > Device Management:
    Remove the address "127.0.0.1/WLAN".
    Click "Activate".
  - Export all device management data from IMS2-A:
    In Device Manager > Numbers:
    Select all Numbers.
    Number > Export.
    In Device Manager > Templates:
    Select all templates.
    Template > Export

For settings in the added IMS2:

See Configuration for the setup on page 16.

- IMS2-B
  - Import all device management data to IMS2-B:
    In Device Manager:

File > Import > Numbers...
File > Import > Templates...

2.7.4 Multi-master IP-DECT systems and Multiple DECT systems

This solution applies to multi-master IP-DECT systems and multiple DECT systems, in combination with a central number plan that is set up in an Ascom Enhanced System Services (ESS) module.

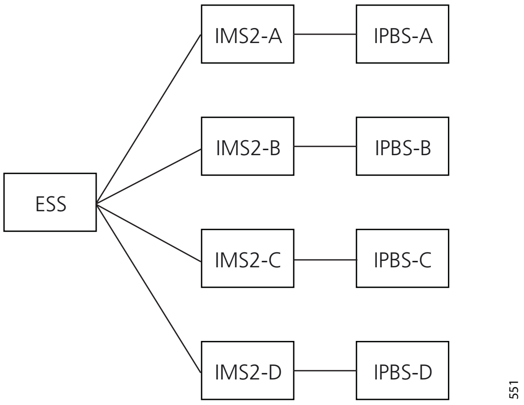


Figure 9. An example of a system configured with one ESS and several DECT or IP-DECT systems, using one IMS2 per DECT or IP-DECT system.

Configuration for the setup

The basic configuration for this setup is described below.

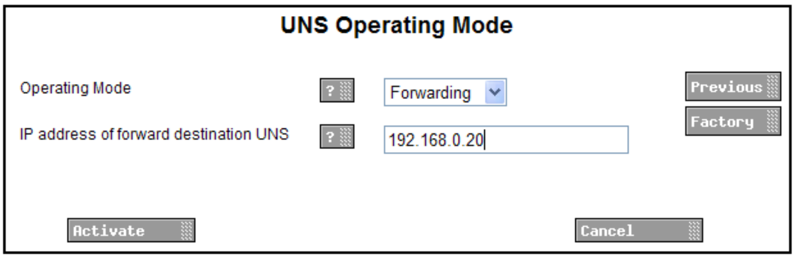
- ESS setup:
  See Installation and Operation Manual, Enhanced System Services (ESS), TD 92253GB for details.
  - For each DECT or IP-DECT system, configure a "category" for the DECT or IP-DECT system, for example:

Category description	IP address	Service
IPDECT-A	172.20.10.11	DECT
IPDECT-B	172.20.10.12	DECT
IPDECT-C	172.20.10.13	DECT
IPDECT-D	172.20.10.14	DECT

  - For each handset, set up a Call ID and add it to the number plan. It can be done for individual handsets or for ranges, for example:

Call ID	Number/Address -> Category
1000	1000 -> IPDECT-A
1001	1001 -> IPDECT-A
2000	2000 -> IPDECT-B
2001	2001 -> IPDECT-B
3001	3001 -> IPDECT-C
4001	4001 -> IPDECT-D

- Set all IMS2s to use the number plan in the ESS.
  - In Configuration > Other Settings > Advanced Configuration > Other > UNS > Operating mode:
    "Operating Mode" shall be set to Forwarding.
    "IP address of forward destination UNS" shall be set to the IP address of the ESS (here 192.168.0.20).
    Click "Activate". The IMS2 now uses the ESS number plan.


UNS Operating Mode

Operating Mode: Forwarding

IP address of forward destination UNS: 192.168.0.20

Example: Migration to a multimaster IP-DECT solution

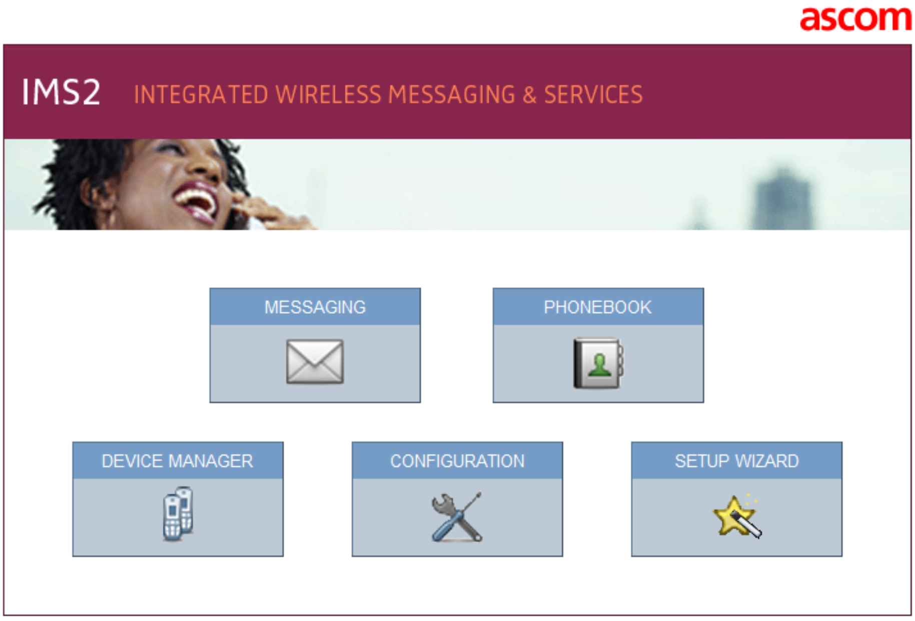
This example assumes that the original system is a single IP-DECT system with one IMS2 and no ESS.

- Configure the ESS. For the specific settings for multiple IMS2, see ESS setup in Configuration for the setup on page 18. See Installation and Operation Manual, Enhanced System Services (ESS), TD 92253GB for details.
- Configure the existing IMS2 to use the number plan in the ESS, see Configuration for the setup on page 18.
- Set up the added IP-DECT system.

3 Data Backup

All settings in IMS2 are stored as database files. It is strongly recommended to backup these files on a regular basis, see 13.5 Backup the Configuration on page 118.

4 IMS2 General



4.1 Authentication Levels and Default Passwords

IMS2 has five different authentication levels:

- The Messaging function, that is, creating and sending messages, can by default be done by any user in the system and requires no password. However, if password protection of NetPage shall be included, see 18.3 Password Protected Access to NetPage on page 150.
- User rights is required for the administration of the phonebook. Default user name and password are "user" and "password".
- Administrator rights is required for the setup, the configuration and administration of IMS2, simple troubleshooting and changing passwords (except for the sysadmin password). Default user name and password are "admin" and "changeme".
- System Administrator rights is used for advanced troubleshooting. It gives access to all administration pages and the permission to change all passwords. Default user name and password are "sysadmin" and "setmeup".
- Auditor rights gives basically the same access as Administrator rights, but without permission to alter values. There is no access to the setup wizard or the Device Manager. Default user name and password is "auditor" and "readonly".

Different levels of password policy can be set in IMS2, see 4.4 Password policy on page 23.

For information about password protection of NetPage, see 18.3 Password Protected Access to NetPage on page 150.

4.2 Functionality matrix

The following matrix shows which functionality that can be used by the different authentication levels.

	anonymous	**user**	**admin**	**sysadmin**	**auditor**
Messaging	Yes	Yes	Yes	Yes	Yes
Phonebook administration NetPage login	No	Yes	Yes	Yes	No
View configuration settings	No	No	Yes	Yes	Yes
IMS2 configuration Access to the setup wizard	No	No	Yes	Yes	No
Access to the Device Manager.	No	Yes	Yes	Yes	No
Change passwords	No	No	Yes[1]	Yes	No

[1] Admin cannot change password for sysadmin.

4.3 Set passwords

It is possible to set passwords for the different users via the Advanced Configuration page.

1 Click ‘’Configuration’’ on the start page. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under *Security*, click "Change Passwords".

4 Click the user to change password for.

5 Enter your user name and password. Enter the new password and confirm the password.

6 Click "Ch. Passwd".

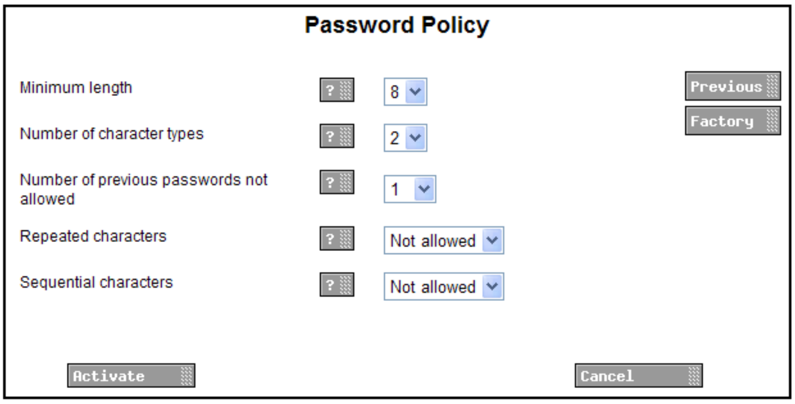
4.4 Password policy

The required password complexity can be set in IMS2, follow this instruction:

1 Click “Configuration” on the start page. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under *Security*, select "Password policy".



Password Policy

Minimum length: 8

Number of character types: 2

Number of previous passwords not allowed: 1

Repeated characters: Not allowed

Sequential characters: Not allowed

4 Set the password policy.

5 Click "Activate".

It is also possible to select previous or factory settings by clicking the corresponding button, respectively.

4.5 Web access security settings

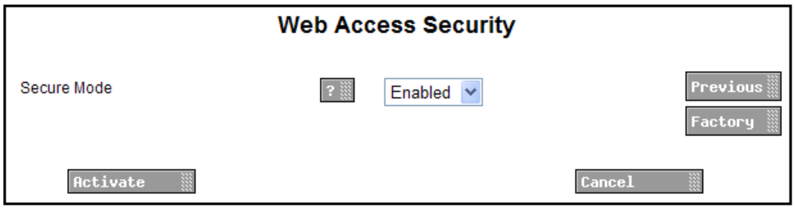
When secure mode is enabled, only secure access via HTTPS and FTPES is allowed. HTTP is automatically redirected to HTTPS and FTP access is not allowed.

The web access security level can be set as follows:

1 Click “Configuration” on the start page. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under *Security*, select "Web access".



Web Access Security

Secure Mode: Enabled

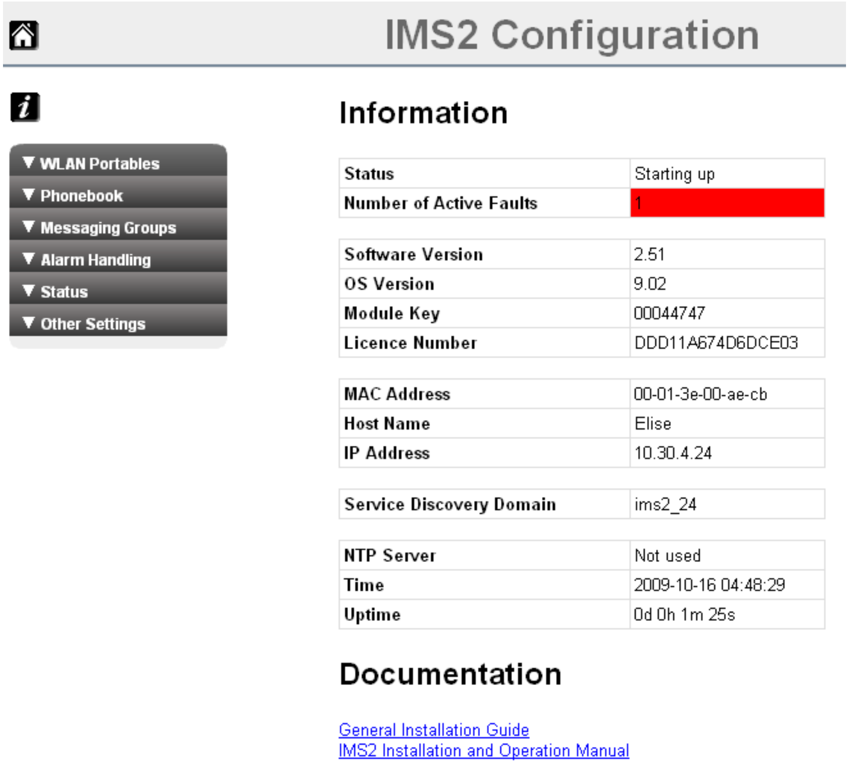
4 Select if Secure Mode shall be enabled or not.

5 Click "Activate"

It is also possible to select previous or factory settings by clicking the corresponding button, respectively..

4.6 Configuration Page

In order to reach the IMS2 Configuration page (see Figure 10), click CONFIGURATION in the IMS2 start page.



IMS2 Configuration

Information

Status	Starting up
Number of Active Faults	1
Software Version	2.51
OS Version	9.02
Module Key	00044747
Licence Number	DDD11A674D6DCE03
MAC Address	00-01-3e-00-ae-cb
Host Name	Elise
IP Address	10.30.4.24
Service Discovery Domain	ims2_24
NTP Server	Not used
Time	2009-10-16 04:48:29
Uptime	0d 0h 1m 25s

Documentation

General Installation Guide
IMS2 Installation and Operation Manual

Figure 10. The IMS2 Configuration page.

If you have system administrator or administrator rights, and clicking the Configuration button or the Phonebook button on the start page, you will be able to access the complete IMS2 configuration page

In the *Configuration* page, system information is shown, for example host name, IP address and MAC Address.

4.7 Icons

On the IMS2 pages the following icons may be shown:

🏠	Click this icon to return to the IMS2 start page.
ℹ	Click this icon to return to the IMS2 Configuration top page.
⭐	Click this icon to create a shortcut in the Internet browser.

4.8 Certificates

Certificates are used to increase security by encryption. A self-signed digital certificate is created during the first start-up of IMS2. This certificate is issued to the MAC address of the module. It is possible to import a certificate or to create one in the IMS2.

Note: It is also possible to use certificates to control if VoWiFi handsets are authorized to access a WLAN, see 8.5.3 Manage Certificate for a VoWiFi Handset on page 49.

4.8.1 Import certificates

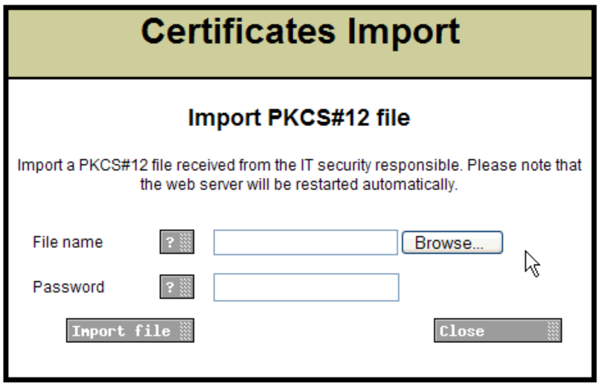
It is possible to import certificates to IMS2. These certificates may be created by a system administrator with IT security responsibility. IMS2 uses PKCS#12 files, which include keys and certificates.

For instructions on how to import a PKCS#12 file, follow this instruction:

1 On the IMS2 start page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other settings > Advanced configuration. The IMS2 Advanced Configuration page opens.

3 Under "Certificates", click "Import".



Certificates Import

Import PKCS#12 file

Import a PKCS#12 file received from the IT security responsible. Please note that the web server will be restarted automatically.

4 On the Certificates Import page, you can locate a certificate file. Enter file name and a valid password. The certificate is tied to a specific password which should be delivered with the file.

5 Click "Import file". The file is imported to IMS2.

6 Click "Close".

You may have to ask the network administrator for PKCS#12 files.

When starting, there may be a warning about the security certificate. This warning can be ignored.

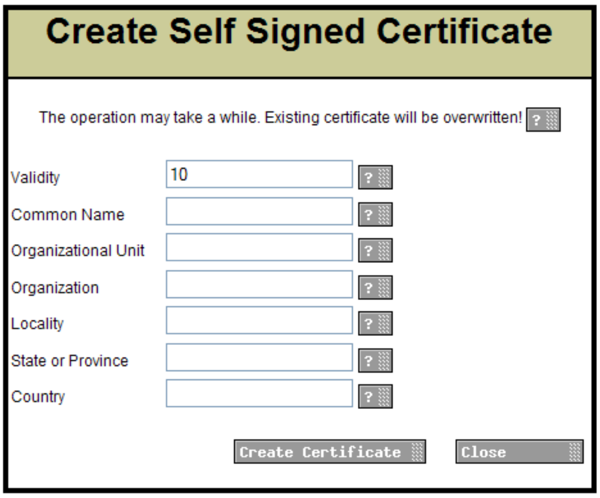
4.8.2 Create certificate

It is possible to create certificates in IMS2. For instructions on how to create a PKCS#12 file, follow this instruction:

1 On the IMS2 start page, click "Configuration". The IMS2 Configuration page opens.

2 Select Other settings > Advanced configuration. The IMS2 Advanced Configuration page opens.

3 Under *Certificates*, select "Create".



Create Self Signed Certificate

The operation may take a while. Existing certificate will be overwritten!

Validity	10
Common Name	
Organizational Unit	
Organization	
Locality	
State or Province	
Country	

4 On the Create Self Signed Certificate page, enter valid parameters for your certificate file. "Validity" and "Common name" are mandatory.

Due to security reasons, some characters in the ASCII-table are not allowed to use in the fields *Common Name*, *Organization Unit*, *Organization*, *Locality*, *State or Province*, and *Country* when creating a certificate.
Among these are:

```
[  ]  (  )  {  }  $  &  \  |  *
"  `  '  ?  ~  >  <  ^  \n \r
```

5 Click "Create Certificate". A certificate file is saved and the web server is restarted.

5 IMS2 Setup Wizard and Configuration

5.1 Basic Configuration Steps

Figure 11. The Setup Wizard in IMS2.

The first time and as long as the IMS2 is not configured, the setup wizard will start automatically when logging on from a web browser. Requires "admin" or "sysadmin" password, refer to 4.1 Authentication Levels and Default Passwords on page 21.

1 Log on to IMS2.

The setup wizard will open and help you with the basic configuration. The setup wizard includes the following settings:

- Network setup – can be set manually or via DHCP
- License number – the type of license determines the functionality
- Type of connected wireless phone system – the exchange used by the handsets in the system
- DECT IP address – IP address to the DECT exchange (if connected via IP)
- Serial Interface – Select which serial interface to use (using ESPA, Ascom Line protocol or TAP)
- Default messaging destination
- Date and time properties/settings – for time stamps on activities
- Central Phonebook properties – database to use when searching (local phonebook on IMS2, or LDAP server).
- LDAP properties – (only visible if LDAP is selected in the Central Phonebook Properties)
- Passwords – change from default to site specific passwords

2 Configure the Central phonebook (but only if an LDAP server is not used), see 7 Central Phonebook Administration on page 32.

3 Create a security backup.

It is recommended to create a security backup of all settings (to facilitate the configuration in case of a software upgrade). See 13.5 Backup the Configuration on page 118.

5.2 Optional Settings

Some of the optional settings in IMS2 are included in the basic license, other requires an additional license. See 1.4 How to Use this Document on page 6.

- Alarm Handling – alarm actions can be set (type of trigger and what action to take). Refer to chapter 13.2 Alarm Handling on page 106.
- Status – information about the site and information about supervised modules and equipment can be exported for troubleshooting purposes. Refer to chapter 13.3 Status on page 112.
- Change Language – it is possible to change user interface language, refer to chapter 18.1 Customize the Language for IMS2 Menus on page 138.
- Input/Output setup – makes it possible to define inputs (for example a switch or button) and outputs (for example to turn on a siren or to close a door). Inputs can be used as trigger conditions and outputs can be used as actions. Refer to chapter 13.4 Input/Output Setup on page 115.
- Customize the Start page and NetPage GUI – the Start page and the NetPage user interface can be customized to suit the individual customer requirements concerning functionality. Refer to chapter 18.2 Customize the User Interface (GUI) on page 142.
- Remote Connection – makes it possible to establish a remote connection to a customer site. This makes it possible to configure and maintain sites, independent of distance. Refer to chapter 14 Remote Management on page 128.
- Open Access Protocol (OAP) – makes it possible to communicate with other systems that are connected to the IMS2. Refer to chapter 20 Open Access Protocol (OAP) on page 159.
- Digit Manipulation – makes it possible to set the way telephone numbers are converted in telephone number lists. See 13.1.7 Digit Manipulation in Central Phonebook on page 101.

6 Operation - Messaging

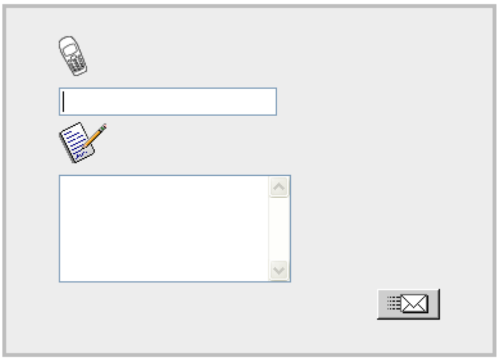
Creating and sending messages requires no password and can be done by any user in the system. Depending on license, different GUIs are displayed.

Figure 12. Messaging in IMS2.

For configuration of messaging, see 17 Messaging on page 133.

6.1 Messaging Tool

The Messaging Tool GUI is displayed on IMS2s without additional license.



In order to send a message, do as follows:

1 On the IMS2 start page, click "Messaging". The *Messaging Tool* page opens.

2 Enter telephone number in the top text field.

3 Enter message in the bottom text field.

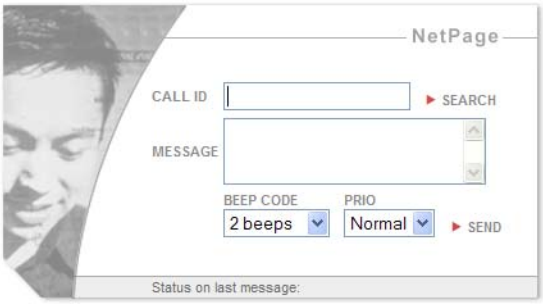
4 Click ✉ . The message is sent to the receiver.

6.2 NetPage

The NetPage messaging tool is shown for IMS2s with a license that includes NetPage.

To create and send messages:

1 On the IMS start page, click "Messaging".The *Netpage* window opens.



BEEP CODE: 2 beeps

PRIO: Normal

2 Click either the ''Search'' button to search a number from the number list, or enter a number in the Call ID field. It is possible to write several Call IDs separated by a semicolon.

3 Enter message text in the Message text field.

4 Select Beep Code and Priority.

5 Click ''Send''.

7 Central Phonebook Administration

The phonebook administration in this chapter requires authentication on user level. For further configuration, see 7 Central Phonebook Administration on page 32

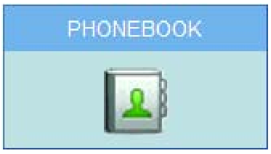


Figure 13. Phonebook in IMS2.

The phonebook makes it possible for users to search and find phonebook entries from a handset in the system.

If a local phonebook is used the entries must be added, either by creating them manually, refer to 7.1.1 Add Entries to the Central Phonebook on page 32, or importing them from a CSV file, see 7.2.1 Import Entries to the Central Phonebook from a CSV File on page 34.

7.1 Edit the Central Phonebook

7.1.1 Add Entries to the Central Phonebook

The entries in the phonebook can be filled in manually.

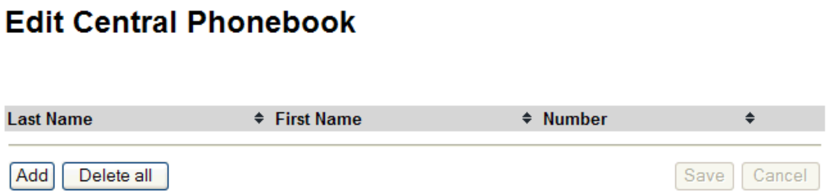
1 On the start page, click "Phonebook".

2 Enter User name and Password. Click "OK".

3 Select Phonebook > Edit.

4 Click "Add" button and enter the information needed in the text fields as described in Add Entry Manually below.

Add Entry Manually


Edit Central Phonebook

1 Enter the following settings in the text fields:

Setting	Description
Last Name:	The family name
First Name:	The first (given) name
Number:	The telephone number

2 To add several rows click "Add" again.

3 Click “Save”.

7.1.2 Sorting of Central Phonebook

The entries in the Central phonebook can be sorted on Last Name, First Name or Number.

1 On the start page, click “Phonebook”.

2 Enter User name and Password and click “OK”. The Edit Central Phonebook page opens.

3 To sort the entries, click the arrows in the list’s title bar.

The Edit Central Phonebook page can also be reached from the IMS2 Configuration page, via "Other settings" > "Advanced Configuration".

7.1.3 Delete a single entry

Entries in the Central phonebook can be deleted in the following way:

1 On the start page, click “Phonebook”.

2 Enter User name and Password. Click “OK”.

3 Select Phonebook > Edit. The Edit Central Phonebook page opens.

4 Locate the entry to be deleted. Click the ✕ button in the same row.

5 Click "Save". The entry is deleted.

7.1.4 Delete All

All entries in the phonebook can be deleted by clicking the "Delete All" button.

1 On the start page, click "Phonebook".

2 Enter User name and Password. Click "OK"

3 Select Phonebook > Edit. The Edit Central Phonebook page opens.

4 Click "Delete All". It is now possible to mark entries not to be deleted by clicking the icon ↶. If this icon is clicked, it disappears and the icon ✖ is displayed.

5 Click "Save". All entries marked with a blue arrow are deleted. The entries that are marked ✖ are kept.

7.2 Import and Export a Central Phonebook

7.2.1 Import Entries to the Central Phonebook from a CSV File

The CSV file to be imported to the Central phonebook shall have the following format:

```
First name;Last name;Telephone number
```

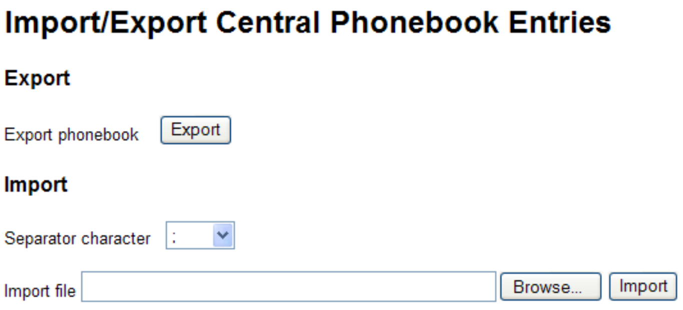
Different separators may be used, see below:

Warning: When importing a Central phonebook file in CSV format, existing entries are deleted.

1 Click "Phonebook" on the start page.

2 Enter User name and Password and click "OK".

3 Select Phonebook > Import/Export.



Import/Export Central Phonebook Entries

Export

Export phonebook [Export]

Import

Separator character ;

Import file [Browse...] [Import]

4 Select separator for the CSV file.

Different separators may be used in a delimiter-separated file. Currently, the IMS2 supports import of files with the separators semicolon, comma or TAB.

5 Click "Browse" to locate the CSV file in the system.

6 Click "Import".

7.2.2 Export the Central Phonebook to a CSV File

The complete Central phonebook can be exported to a CSV file for example for editing or backup reasons.

1 Click ''Phonebook'' on the start page.

2 Enter User name and Password. Click ''OK''.

3 Select Phonebook > Import/Export. Click ''Export''.

4 Click ''Save'' in the window that appears.

5 Enter a name of the file and select in which folder the file shall be saved.

6 Click ''Save''.

8 Device Manager

Figure 14. Device Manager in IMS2.

8.1 Description

This section gives a description of the Device Manager in IMS2 and how it is intended to be used.

The Device Manager can manage large sets of devices and contains a solution for:

- Centralized software upgrade on a set of devices and configuration of devices
- Central database storage for all device settings
- Upgrade of license for handset

In the Device Manager, much of the work is done with Devices, Numbers and Templates.

IMPORTANT: The IMS2 server must always be switched on.

8.1.1 Device Manager terminology

This section gives a brief description of the basic terminology in the Device Manager.

Device
Can be a charger or a handset that can be connected to IMS2.

Number
The complete settings for a single device. Also chargers have a Number.

Template
General settings for a specific device type. A template can be applied to several Numbers of the same device type.

License
Licensed functionality for a device.

Tabs
In the Device Manager there are different views, or tabs. In these tabs, the information for devices, Numbers, templates and licenses are shown.

Parameter definition file
a file including all possible settings for a certain device type. Templates are created from parameter definition files.

Software
The software used in devices. The device software can be updated via IMS2.

Version
Parameter definition files and device software are indicated by versions.

Package file
A file that can contain other files, such as parameter definition files, software files and template files.

Importing
Different types of files can be imported. Note that if a software file should be imported, it may have been delivered in a package file.

Associate
Before being able to synchronize parameters between IMS2 and devices, it is necessary to associate a Number with the device. Association includes all parameters. If it exists on that device type, it also includes Contacts.

Assign
It is possible to assign a Number to a device that has not yet been assigned a Number in the Device Manager. Assign includes only the parameters defining the Number.

8.1.2 Device Manager Usage

The following list is a short description to give a basic understanding on how to use the Device Manager with devices. It is not intended to be used as a work flow description.

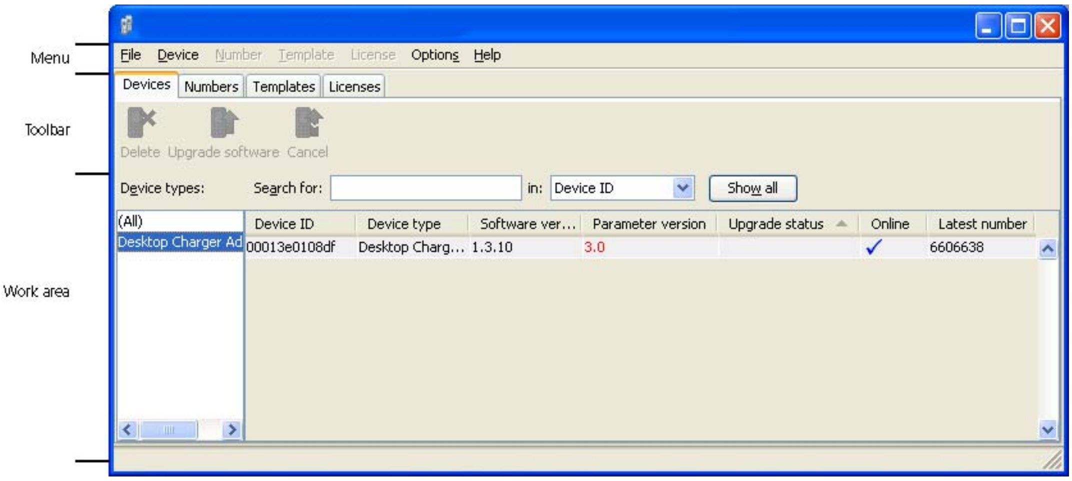
- Import a parameter definition file of the corresponding device type to IMS2.
- Create a template from the parameter definition file.
- Add a device to IMS2.
- Create a new Number for the corresponding device type.
- Associate the Number with the device.

Refer to applicable handset configuration manual for a description of the work flow.

8.1.3 The Device Manager GUI

The Device Manager window consists of three areas: Menu, Toolbar and Work Area.

The Toolbar has four tabs: Devices, Numbers, Templates and Licenses (Figure 15). When one of these tabs is selected the available device types will be shown in the left hand pane of the work area. The right pane shows the devices, numbers or templates which have already been configured.



Device types: Search for: in: Device ID

(All)
Desktop Charger Ad

Device ID	Device type	Software ver...	Parameter version	Upgrade status	Online	Latest number
00013e0108df	Desktop Charg...	1.3.10	3.0		✓	6606638

Figure 15. Device Manager Window Area.

In the upper part of the Work area, there are search fields where different search criteria can be selected depending on which tab that is displayed.

Sort and Filter the List

By default, the lists are sorted as follows:

Devices tab - sorted by Device ID

Numbers tab - sorted by Number

Templates tab - sorted by Name

Licenses tab - sorted by Device ID

To sort the list by any other column, click the appropriate column heading. To reverse the sort order, click the column heading again. The sorting order is indicated by an up or down arrow in the column heading.

Filter the List

By default, the list in each tab shows all available Devices, Numbers or Templates. It is possible to filter the list by selecting the desired device type in the Device types: column in the left pane.

8.1.4 General Colour Coding

This colour coding is valid for the lists under the tabs:

- If the version number is shown in red, the Device Manager has found no parameter definition files supporting that device type.
- If the version number is shown in dark red, the parameter definition file is compatible, but does not have exactly the same version as the device.

Colour coding for parameter and template editing

In the parameter and template editing windows, the following colour coding is used:

Colour	Context	Description
Black	General	Normal
Dark blue	For templates and parameter editing	Parameter has been edited during the current session
Purple	For templates	The parameter is included in the template (checked)
Red	For templates and parameter editing	Value not valid
Turqoise	For templates and parameter editing	The value differs from the default value

8.1.5 Navigation

For keyboard shortcuts, see Appendix E: Device Manager Keyboard Shortcuts on page 187.

8.1.6 Tabs

The information in IMS2 is shown in different tabs:

- Devices tab
- Numbers tab
- Templates tab
- Licenses tab

In each of these tabs, specific information is shown in lists about devices, Numbers, templates or licenses. Some of the information overlaps, for example Device ID, which is tied to both a specific device and to a specific Number.

The operations that can be done in the Device Manager are done from these tabs and from the menu. Different menues are accessible in the different tabs.

Devices Tab

Select the "Devices" tab. The view shows all devices configured at the site in a detailed list (see figure 16 on page 41). The following columns are displayed:

- Device ID – the unique identifier of the device.
- Device type – the device model.
- Software version – shows the version of the software in the device.
- Parameter version – shows the version of the parameters in the Number.
- Upgrade status – might show one of the following symbols:

  🔄 – software upgrade in progress.
  It is also possible to see a progress bar when the device is being upgraded.

  ⬆ – software upgrade Pending, Request sent, or Accepted (a green arrow).

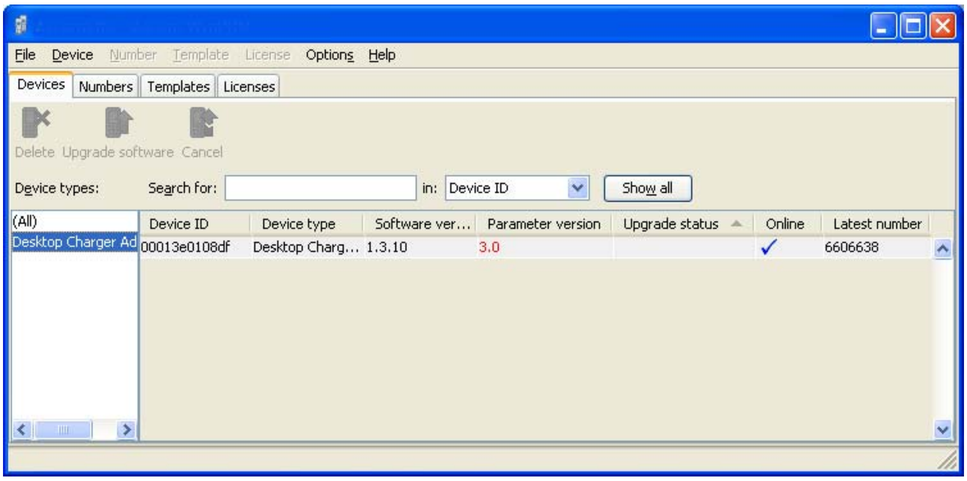
  🕒 – software upgrade Scheduled or Retrying.

  ⬆ – the last upgrade Failed or Aborted (a red broken arrow).

  – "Completed", no symbol is shown

Note: A software upgrade from IMS2 should be done on one device to start with. If successful, the remaining devices can be updated in one operation.

- Online – shows if the device is connected to the Device Manager. The symbol ✓ indicates a connected device.
- Latest Number - shows the latest known Number for a device.



Device types:
(All)
Desktop Charger Ad

Search for:
in: Device ID

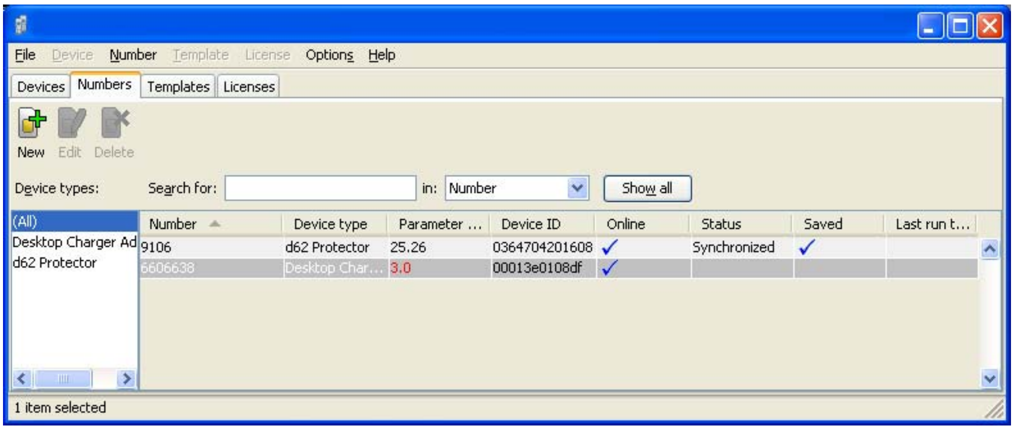
Device ID	Device type	Software ver…	Parameter version	Upgrade status	Online	Latest number
00013e0108df	Desktop Charg…	1.3.10	3.0		✓	6606638

Figure 16. The Devices tab showing a list of devices in a system.

Numbers Tab

Select the "Numbers" tab. The view shows all Numbers configured at the site in a detailed list (see Figure 17). The following columns are displayed:

- Number – the unique identifier of the Number. The identifier is unique for that device type.
- Device type – the device model the Number is intended for
- Parameter version – shows the version of the parameters in the Number
- Device ID – the unique identifier of the device that the Number is associated to
- Online – shows if the device the Number is associated to is online. The ✓ symbol indicates an online device
- Status – shows the parameter synchronization status. A Number can also be queued for synchronization. Several different indications are used, for example Synchronizing, Sync queued, Save queued, Synchronized, etc.
  When the Number is offline, the database status is shown; Synchronized or Not synched.
- Saved – shows if the Number's parameters have been stored in the database. The ✓ symbol indicates that the parameters have been stored
- Last run template - indicates which template that was last run for that Number



Device types: Search for: in: Number

(All)
Desktop Charger Ad
d62 Protector

Number	Device type	Parameter ...	Device ID	Online	Status	Saved	Last run t...
9106	d62 Protector	25.26	0364704201608	✓	Synchronized	✓	
6606638	Desktop Char...	3.0	00013e0108df	✓			

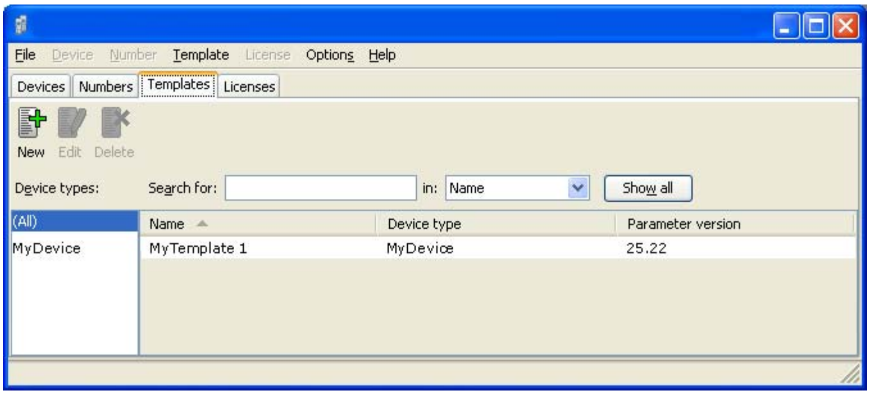
1 item selected

Figure 17. The Numbers tab showing a list of Numbers in a system.

Templates Tab

Select the ''Templates'' tab. The view shows all templates in a detailed list (see Figure 18). The following columns are displayed:

- Name – the name of the template
- Device type – the device model the template is intended for
- Parameter Version – shows the parameter version



in: Name

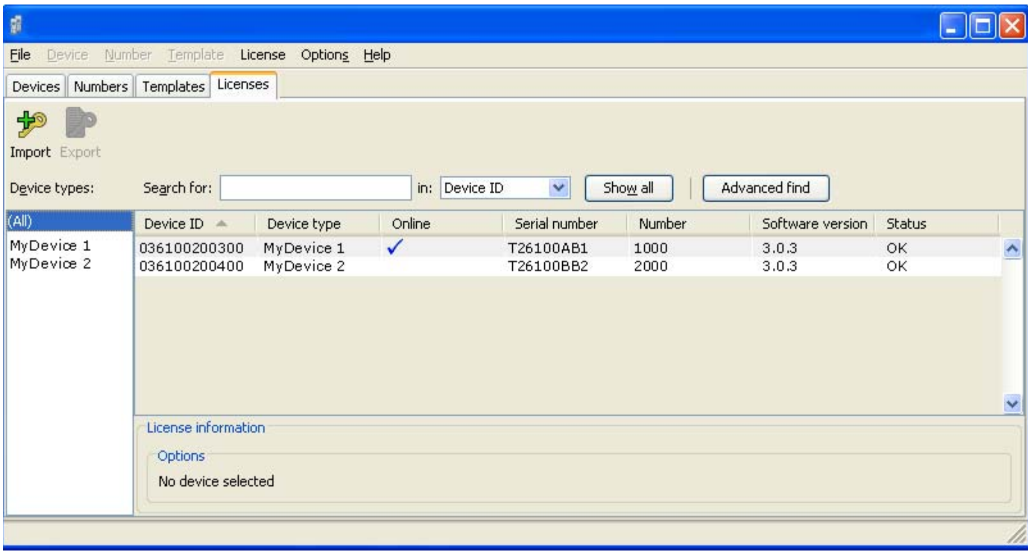
Name	Device type	Parameter version
MyTemplate 1	MyDevice	25.22

Figure 18. The Templates tab in the Device Manager.

Licenses Tab

Select the ''Licenses'' tab. The view shows all devices configured at the site in a detailed list (see Figure 19). The following columns are displayed:

- Device ID – the unique identifier of the device.
- Device type – the device model.
- Online – shows if the device is connected to the Device Manager. The ✓ symbol indicates that the device is online
- Serial number – the number identifying the device hardware
- Number – The Number associated with the device.
- Software version – shows the version of the software in the device
- Status – shows the license synchronization status for the devices.
  Examples of status that can be shown are:
  "Sending" means that the IMS2 is sending license information to the device.
  "Server failure" means that there is some kind of error with the communication between the IMS2 and the license server.
  "License too old" - The device has a newer license than the IMS2. A refresh has to be done.
  "Needs update" - An attempt to move a license from one handset to another has been made, but the latest license does not exist in the handset.



Device types: (All), MyDevice 1, MyDevice 2

Search for: in: Device ID

Device ID	Device type	Online	Serial number	Number	Software version	Status
036100200300	MyDevice 1	✓	T26100AB1	1000	3.0.3	OK
036100200400	MyDevice 2		T26100BB2	2000	3.0.3	OK

License information

Options

No device selected

Figure 19. The Licenses tab in the Device Manager.

8.2 Log In

Note: When an attempt is made to start IMS2 Device Manager, a dialogue window might be displayed with a warning that the program's digital signature cannot be verified. The text is displayed in the language used in the computer's operating system. Click "Run" (or the equivalent term in the operating system language).

Note: Three clients can be logged in at the same time, but to avoid conflicts make sure that only one at a time is updating Numbers.

1 Open the IMS2 by entering its IP address in a web browser.

2 Click the "Device Manager" button.

3 Select User ID and enter password, see 4.1 Authentication Levels and Default Passwords on page 21.

4 Click "OK". The Device Manager starts.

8.3 Close the Device Manager

In the *File* menu, click "Exit". The Device Manager shuts down.

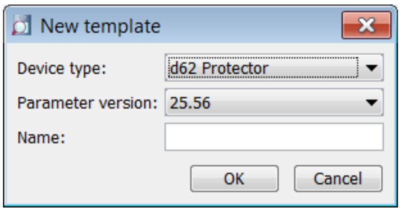
8.4 Templates in Device Manager

8.4.1 Create a Parameter Template

It is usually desirable to create a customized parameter template that can be applied to all devices of a certain device type.

1 Select the "Templates" tab.

2 In the Template menu, click "New". The New template dialogue opens.


New template

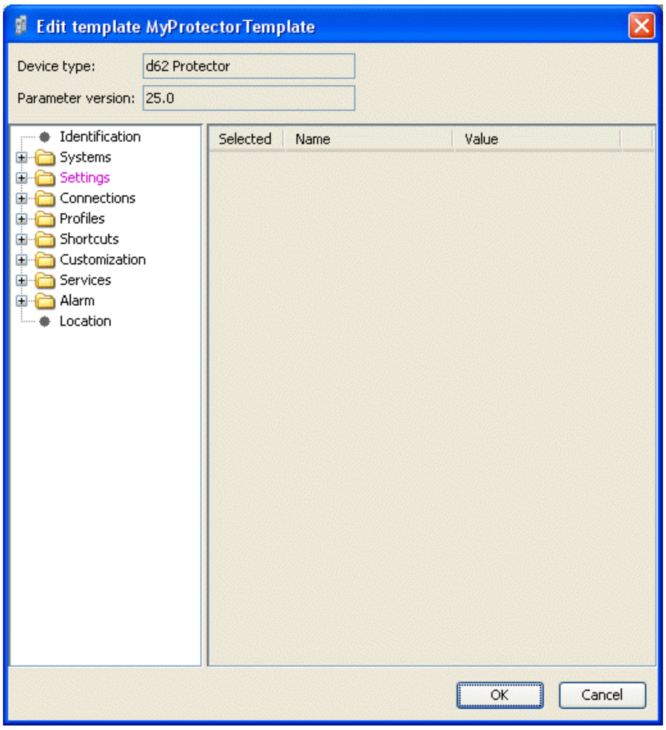
Device type: d62 Protector

Parameter version: 25.56

Name:

3 Select device type and parameter version, type in a name for the template, and click "OK". The view switches to the Edit Template parameter view.

Note: If you cannot find your device type and/or parameter version in the list, the Device Manager needs to be updated with new parameter definition files, see 8.9.3 Import Parameter Definition Files on page 70.


Edit template MyProtectorTemplate

Device type: d62 Protector

Parameter version: 25.0

4 Select the parameters you want to be saved in the template by selecting the checkbox to the left of each parameter.

5 Change the parameters to the desired values.

6 Click "OK".

8.4.2 Create a Parameter Template from a Number

It is also possible to create a template from a Number in the Device Manager.

1 Select the "Numbers" tab.

2 Mark the Number you want to use.

3 Right-click on the Number and select "Use as template..."
The Enter template name dialogue opens.

4 Enter a name for the template.

5 Click "OK".

6 The Edit template window opens. Continue with 4 to 6 in 8.4.1 Create a Parameter Template on page 45.

Note: When the Edit template window is opened from the "Use as template" command, an extra drop-down list is shown in the bottom left corner. This setting decides which parameters that shall be copied from the Number. If "All parameters" is selected, the synchronization time will be longer.

It is also possible to create a template from a portable that is online but not stored in the database. The template will contain all parameters for the device except for those that are Number specific.

8.4.3 Rename a template

1 Select the "Templates" tab.

2 Select the template you want to rename. The selected row is highlighted.

3 In the Template menu, select "Rename..." or right-click and select "Rename...". The Rename template dialogue opens.

4 Enter a new name in the "New name" text field.

5 Click "OK". The Rename template dialogue closes and the new name appears in the list in the Templates tab.

8.4.4 Copy a template

1 Select the "Templates" tab.

2 Select the template you want to copy. The selected row is highlighted.

3 In the Template menu, select "Copy...", or right-click and select "Copy...". The Copy template dialogue opens.

4 Enter a new name in the "New name" text field.

5 Click "OK". The Copy template dialogue closes and the new template appears in the list in the Templates tab.

8.4.5 Edit a template

1 Select the "Templates" tab.

2 Select the template you want to edit. The selected row is highlighted.

3 In the Template menu, select "Edit..." or right-click and select "Edit...". The Edit template window opens.

4 In the Edit template window, edit the parameters that shall be edited.

5 Click "OK". The Edit template window closes.

8.4.6 Delete a template

1 Select the "Templates" tab.

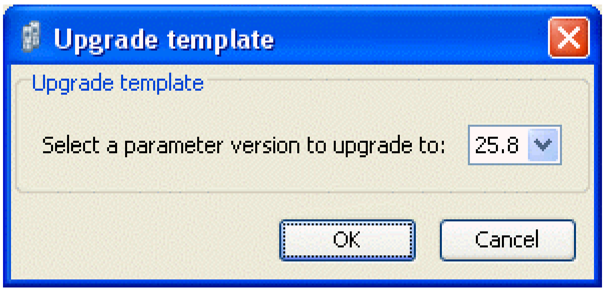
2 Select the template you want to delete. The selected row is highlighted.

3 In the Template menu, select "Delete", or right-click and select "Delete", or press the Delete button. The Delete template dialogue opens.

4 Click "Yes". The Delete template dialogue closes and the template is deleted.

8.4.7 Upgrade a template

1. Select the "Templates" tab.
2. Select the template you want to upgrade. The selected row is highlighted.
3. In the Template menu, select "Upgrade..." or right-click and select "Upgrade...". The *Upgrade template* dialogue opens.



Upgrade template

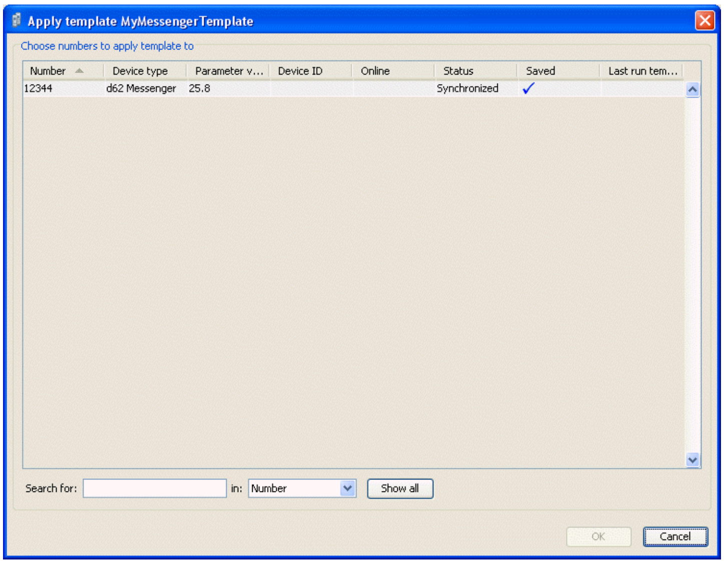
Upgrade template

Select a parameter version to upgrade to: 25.8

4. Select the parameter version to upgrade to.
5. Click "OK". The template is upgraded and the dialogue closes.

8.4.8 Apply a template

1. Select the "Templates" tab.
2. Select the template you want to use. The selected row is highlighted.
3. In the Template menu, select "Apply to...", or right-click and select "Apply to...". The *Apply template* window appears.



Apply template MyMessengerTemplate

Choose numbers to apply template to

Number	Device type	Parameter v...	Device ID	Online	Status	Saved	Last run tem...
12344	d62 Messenger	25.8			Synchronized	✓	

Search for: in: Number

4. If needed, select search parameters or click "Show all".
5. Select Number(s) to apply the template on.
6. Click "OK". The template is applied and the window closes.

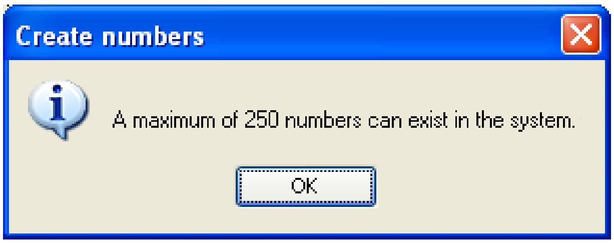
8.5 Numbers

8.5.1 Create New Numbers

1. Select the “Numbers” tab.
2. In the Number menu, select “New...”. Alternatively, right-click in the Numbers list and select “New...”.
3. In the Device type drop-down list, select device type.
4. In the Parameter version drop-down list, select the parameter version.
5. In the Template drop-down list, select which template to run on the Number. This is optional and therefore “None” can be selected.
6. In the Prefix field, enter the Number’s prefix (if needed).
7. Select one of the following options:
   - To create a single Number, select the Single option and enter the call number. Click “OK”.
   - To create a range of Numbers, select the Range option. Enter the start call number, end call number, and click “OK”.

   Note: The maximum range that can be added at a time is 100 Numbers.

Note: If a dialogue window "A maximum of...numbers can exist in the system" appears (see Figure 20), see 8.7 License Restrictions for Device Handling on page 62 for more information.



A maximum of 250 numbers can exist in the system.

Figure 20. Dialogue window, Maximum numbers allowed (example)

8.5.2 Save a Number to Database

An online device can be saved to the database.

1. Select the Numbers tab.
2. Select the Number.
3. In the Number menu, select "Save". Alternatively, right-click the Number and select “Save”

Tip: An online device can automatically be enabled and saved (default), see 8.11.1 Automatically enable new devices settings on page 80 for more information.

8.5.3 Manage Certificate for a VoWiFi Handset

Note: This function is applicable for VoWiFi handsets only. In addition, the handset must be online in the Device Manager.

Certificate(s) is used for authorizing a VoWiFi handset to access a WLAN system using Extensible Authentication Protocol (EAP) .

There are two types of certificates: Root certificate and client certificate.

The VoWiFi handset using the root certificate to control if the WLAN system is trusted. If the system is trusted, the handset send its client certificate to show that it is authorized to access and log on the system.

The root certificate contains a public key and can be downloaded to the handset via Device Manager or via WinPDM. The client certificate contains both a public key and a private key and can only be downloaded to the handset via the WinPDM.

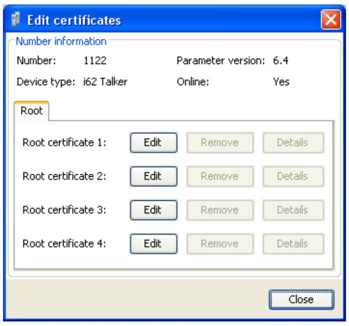
The following must be done to be able to use certificates:

- Import certificates to handset, see Edit Certificate.
- Select which client certificate to use by setting a EAP client certificate parameter, see the Configuration Manual for the VoWiFi handset.

Edit Certificate

1 Select the "Numbers" tab.

2 In the Number menu, select "Edit certificates". Alternatively, right-click in the Numbers list and select "Edit certificates".



Edit certificates

Number information

Number: 1122

Parameter version: 6.4

Device type: i62 Talker

Online: Yes

The following information is displayed:

- The number of the device
- The device type
- The parameter version
- The online status of the device
- Imported certificates (if any)

3 Click the corresponding "Edit" button to edit the certificate.

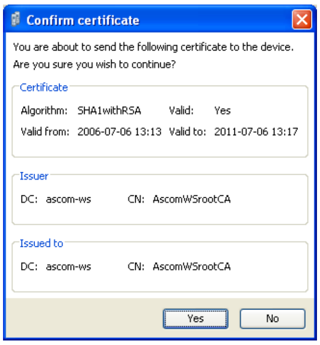
4 Locate the certificate file and click "Open".

5 If the certificate is passport protected, an Enter Password dialogue appears. Enter the password and then click "OK".

A Confirm Certificate windows appears, see Figure 21. The following information is displayed:

- The algorithm of the certificate
- The validity status of the certificate
- The validity period of the certificate
- The issuer of the certificate

- The authorized users of certificate (issued to).


Confirm certificate

You are about to send the following certificate to the device.
Are you sure you wish to continue?

Certificate
Algorithm: SHA1withRSA Valid: Yes
Valid from: 2006-07-06 13:13 Valid to: 2011-07-06 13:17

Issuer
DC: ascom-ws CN: AscomWSrootCA

Issued to
DC: ascom-ws CN: AscomWSrootCA

Figure 21. Confirm Certificate Window

6 Import the certificate to the device by clicking "Yes".

If needed, repeat step 3 - 5 for editing additional Root-certificates.

View Certificate Details

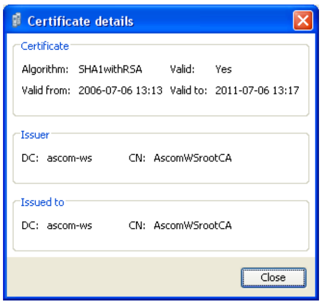
1 Select the "Numbers" tab.

2 In the Number menu, select "Edit certificates". Alternatively, right-click in the Numbers list and select "Edit certificates".

3 Select the certificate to view by clicking the corresponding "Details" button.

A Certificate details window appears, see Figure 22. The following information is displayed:

- The algorithm of the certificate
- The validity status of the certificate
- The validity period of the certificate
- The issuer of the certificate
- The authorized users of certificate (issued to)


Certificate details

Certificate
Algorithm: SHA1withRSA Valid: Yes
Valid from: 2006-07-06 13:13 Valid to: 2011-07-06 13:17

Issuer
DC: ascom-ws CN: AscomWSrootCA

Issued to
DC: ascom-ws CN: AscomWSrootCA

Figure 22. Certificate Details Window

Remove Certificate

1 Select the "Numbers" tab.

2 In the Number menu, select "Edit certificates". Alternatively, right-click in the Numbers list and select "Edit certificates".

3 Select the certificate to remove by clicking the corresponding "Remove" button.

4 A Remove certificate window opens. Click ‘‘Yes‘‘ to remove the selected certificate.

The certficate is now removed from the handset.

8.5.4 Parameter Transfer between a Device and the Device Manager

When a device is connected, it is synchronized with the associated Number in the Device Manager, see 8.6.2 Synchronize a Device on page 58.

Note: When parameters have been edited and the device is synchronized, only the edited parameters will be sent to the device.

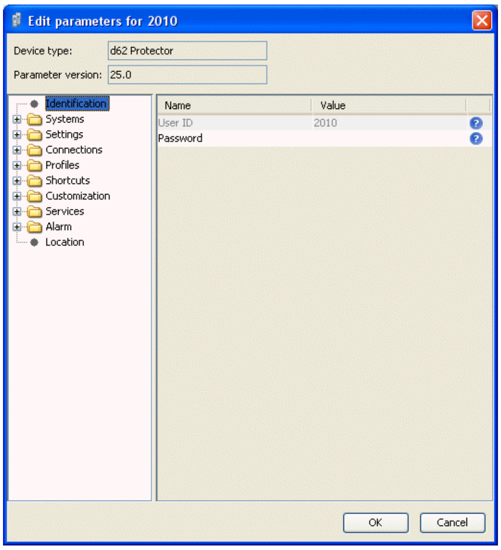
8.5.5 Edit Parameters

The *Edit parameters* window shows the set of parameters relevant to the Number that is being edited. The parameter groups are organized in a tree structure in the left pane, with the parameters in the current node in the right pane. The parameter list has one column with the parameter name, and another column shows the parameter value. This can be for example a numerical value, a boolean value, or text. Clicking the icon ? will give a short description of the selected parameter.

1 Select the "Numbers" tab.

2 Select the Number. The selected row is highlighted.

3 Click "Edit" in the Number menu. Alternatively, right-click and choose "Edit", or double-click the Number.



Device type: d62 Protector

Parameter version: 25.0

Name	Value
User ID	2010
Password	

4 In the left pane, select parameter.

5 In the Value column, make the changes.

When a parameter has been edited, the name of the node to which the parameter belongs changes to a blue colour.

(Click "Cancel" if you want to undo all parameters edited since your last save and return to the main window.)

6 Click "OK" to save the changes.

Note: When you save the parameters, they are automatically sent to the device if it is online.

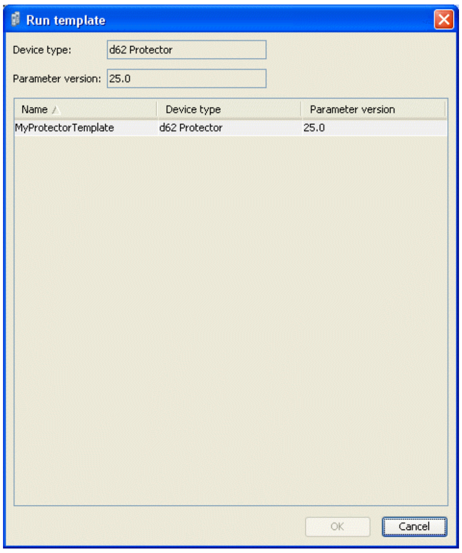
8.5.6 Run a Template to set Parameter Values

If a template has been created for a device type, it can be used to set the parameter values for a range of devices, or a single device. The command to use is Run template.

1 Select the "Numbers" tab.

2 Select the Number(s) you want to run the template on.

3 In the Number menu, click "Run template...". Alternatively, right-click the Number in the Number list and select "Run template..." from the menu that appears.



Device type: d62 Protector

Parameter version: 25.0

Name	Device type	Parameter version
MyProtectorTemplate	d62 Protector	25.0

4 Select a template from the Template list.

5 Click “OK”.

If the parameters in the database have been edited but not yet sent to the device it is indicated with “Not synched” or "Update queued".

If the Number has not been associated with a device, it is now possible to do so. Connect a device and associate it with a Number in the database. The parameters will automatically be sent from the Device Manager to the device. See 8.5.7 Associate a Number with a Device on page 55.

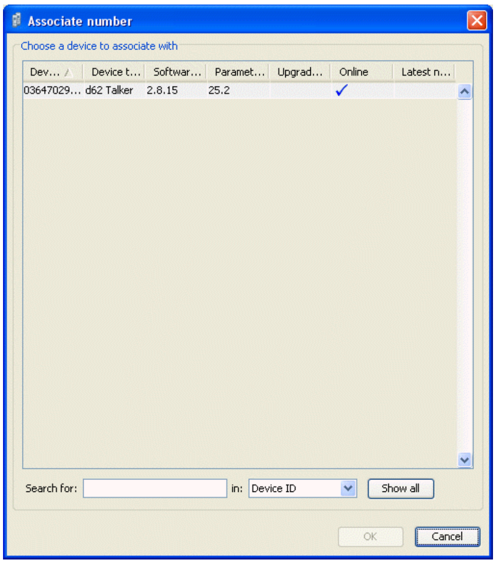
8.5.7 Associate a Number with a Device

Before being able to synchronize parameters between IMS2 and devices, it is necessary to associate a Number with the device. It is possible to enter several Device IDs in advance and to associate them with a Number at a later moment.

See also 8.6.6 Assign a Number to a device on page 61 and 8.6.5 Add new Device on page 59.

1 Select the ''Numbers'' tab.

2 In the Number menu, select ''Associate with device...''.



Dev...	Device t...	Softwar...	Paramet...	Upgrad...	Online	Latest n...
03647029...	d62 Talker	2.8.15	25.2		✓	

Search for: in: Device ID

3 Select the device you want to associate with in the list.

4 Click ''OK''.

If the selected device is online, it will immediately be updated with the selected Number. If the selected device is not online, it will be updated the next time it is online.

It is possible to associate several Numbers with several devices simultaneously.

8.5.8 Delete a Number in the Site Database

1 Select the ''Numbers'' tab.

2 Select the Number you want to delete. The selected row is highlighted.

3 In the Number menu, select ''Delete'', or right-click and select ''Delete''.

4 Click ''Yes'' in the Delete Number dialogue.

The dialogue closes and the Number is deleted from the list.

8.5.9 Rename a Number

1 Select the "Numbers" tab.

2 Select the Number you want to rename. The selected row is highlighted.

3 In the Number menu, select "Rename..." or right-click and select "Rename...". The Rename number dialogue opens.

4 In the "New prefix" field, enter a new prefix (if needed)

5 In the "New number" field, enter a new Number.

6 Click "OK". The Rename number dialogue closes and the new Number appears in the list in the Numbers tab.

8.5.10 Copy a Number

When a Number is copied, the parameter settings and device type for that Number will be copied to a new specified Number.

1 Select the "Numbers" tab.

2 Select the Number you want to copy. The selected row is highlighted.

3 In the Number menu, select "Copy...", or right-click and select "Copy...". The Copy Number dialogue opens.

4 In the "New prefix" field, enter a new prefix (if needed).

5 In the "New number" field, enter a new Number.

6 Click "OK". The Copy number dialogue closes and the new Number appears in the list in the Numbers tab.

8.5.11 Import Contacts

Note: The number for the handset must be saved, see 8.5.2 Save a Number to Database on page 49.

Import Contacts From File

A file containing contacts can be imported to IMS2 and synchronized with handsets. Contacts from 9d23/9d24 handsetscordless telephones must first be transferred to the file using a SIM card programmer.

Note: When importing a local phonebook file, the local phonebook entries (if any) in the handset will be replaced by the entries in the file.

1 In the Device Manager, select the Numbers tab.

2 Select a number.

3 In the Number menu, select “Import contacts” > “From file”. Alternatively, right-click the Number in the Number list and select “Import contacts”> “From file” from the menu that appears.

4 Find and select a file containing contacts. Click “Open”.

The contacts in the imported file are synchronized with the handset.

Import Contacts From Number

This feature enables transfer of contacts from one handset to another handset that has been saved in the Device Manager.

Note: When importing number, the local phonebook entries (if any) in the handset will be replaced by the imported numbers.

Note: Company phonebook contacts included in the Call contact list are not transferred to the other handset using this feature. To upload the Company phonebook, see 8.9.8 Upload Company Phonebook on page 75.

1 In Device Manager, select the Numbers tab.

2 Select a number.

3 In the Number menu, select ''Import contacts'' > ''From number''. Alternatively, right-click the Number in the Number list and select ''Import contacts''> ''From number'' from the menu that appears.

4 Select a number.

5 Click ''OK''. The contacts are now imported to the handset.

8.6 Devices

A device can be a handsetor charger developed to work together with the Device Manager. See the user manual for respective device.

All work with devices is performed from the ''Devices'' view.

- Devices can be added by connecting the device to the system, or use the "Add device" function.
- It is possible to transfer the information for a Number from one device to a new device.
- Devices can be reset to factory settings.
- Devices can be updated with new software.

8.6.1 Add Devices

Note: Before connecting a device to the Device Manager, make sure the connection is set up according to the instructions in the device´s User Manual.

If a range of new devices are to be added, the easiest way is to:

1 Create a template with all common parameter settings. See 8.4.1 Create a Parameter Template on page 45.

2 Add a range of Numbers and run the template. See 8.5.1 Create New Numbers on page 49 and 8.5.6 Run a Template to set Parameter Values.

3 Edit the parameters and change individual settings. See 8.5.5 Edit Parameters on page 53.

4 Connect the devices and associate them with the Numbers in the database. See 8.5.7 Associate a Number with a Device on page 55.

A single device can be added in the same way.

8.6.2 Synchronize a Device

When parameters have been changed in a device, the device is synchronized with the Number saved in the database. When a device is being synchronized, parameters that have been changed in the device are uploaded to the Device Manager, and parameters that have been changed in the Device Manager are sent to the device. If a parameter has been changed in both the device and the Device Manager, the setting made in the Device Manager will take precedence.

1 When a device is connected to the system running the Device Manager, and if the Number is saved, and it has a parameter definition, the device is automatically synchronized.

While synchronizing, a progress bar and a text is shown in the Numbers view.

8.6.3 Delete a Device

1 Select the "Devices" tab.

2 Select the device you want to delete. The selected row is highlighted.

3 In the Devices menu, select "Delete" or right-click and select "Delete".

4 Click "Yes" in the Delete Device dialogue.

The dialogue closes and the device is deleted from the list.

Note: A device that is online cannot be deleted.

8.6.4 Replace a Device

If a device shall be replaced with a new device, it is possible to transfer its associated Number including settings to a new device. The new device must be of the same device type as the old one.

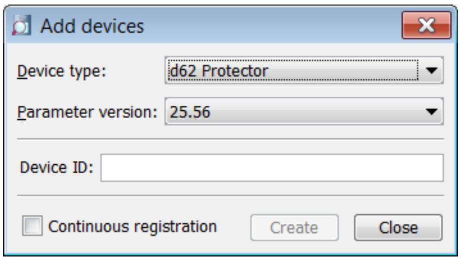
1. If the device to be replaced is still working, make sure that it is synchronized.
2. Shut off the old device or make a factory reset.
3. Connect the new device to the Device Manager.
4. Associate the new device to the Number associated to the old device according to the instructions in 8.5.7 Associate a Number with a Device on page 55. The Number will no longer be associated with the old device.

8.6.5 Add new Device

It is possible to enter several new Device IDs in advance into the Device Manager for later association.

In order to simplify input when handling many devices, it is possible to use a bar code reader. The bar code reader should send a carriage return after each item, but it is not necessary. If carriage return is not sent, it is necessary to click “Create” after each read item.

1. Select the “Devices” tab.
2. In the Device menu, select “Add device”.


Device type: d62 Protector

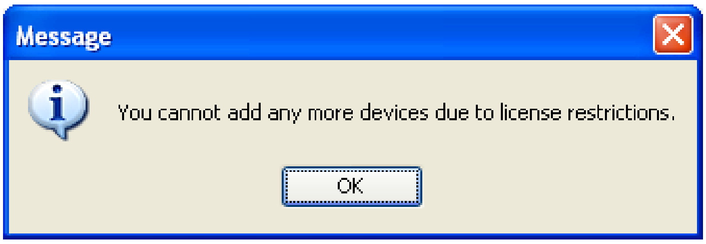
Parameter version: 25.56

Device ID:

☐ Continuous registration

3. Select Device type and Parameter Version.
4. Enter a Device ID for the device, manually or by using a bar code reader.
5. The “Continuous registration” box can be used to select whether the “Create devices” dialogue shall close after clicking “Create” or if it shall still be open.
6. If the bar code reader does not send carriage return, click “Create”.

Note: If a dialogue window "You cannot add any more devices due to license restrictions" appears (see Figure 23), see 8.7 License Restrictions for Device Handling on page 62 for information.



You cannot add any more devices due to license restrictions.

Figure 23. Dialogue window, license restrictions

7 Repeat 4 to 6 if more devices are to be created, otherwise click ''Close''.

8.6.6 Assign a Number to a device

It is possible to assign a Number to a device that has not yet been assigned a Number in IMS2. This feature can be used if parameters have been changed on the device prior to connection to IMS2.

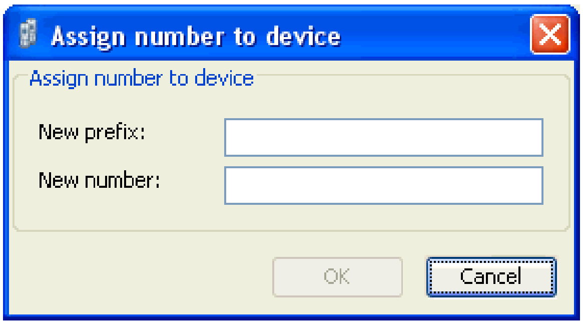
Note: Assign shall not be done on a device that already has a Number.

1 Select the "Devices" tab.

2 Select the device you want to assign a Number for.

3 In the Devices menu, select "Assign number". The Assign number to device dialogue appears.

4 Enter a new number in the New number field. New prefix is optional. Click "OK".


Assign number to device

Assign number to device

New prefix:

New number:

5 The new Number appears in the list in the Numbers tab.

Note: Some devices need to be restarted for the new numbers to be shown.

8.6.7 Factory Reset

Factory reset means that the device parameters will be reset to factory settings. The Number in the database that is associated with the device will not be affected.

Note: The device must be online.

1 Select the "Devices" tab.

2 Select the device(s) to be reset.

3 Click "Factory reset" in the Device menu. Alternatively, right-click on the device and select "Factory reset".

4 A message saying "Do you want to reset the selected device(s) to factory defaults?" will appear.

5 Click "Yes".

8.7 License Restrictions for Device Handling

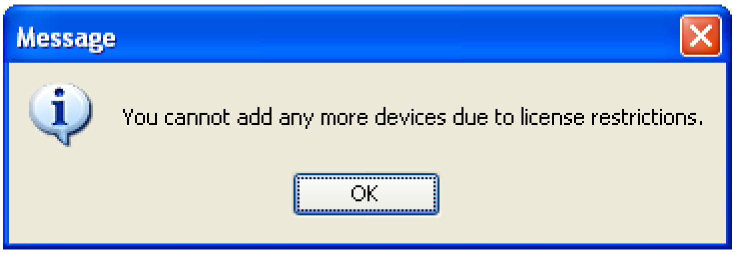
The license for IMS2 determines how many devices and numbers that can be added to the Device Manager. See the following scenarios for more information.

Scenario 1

The IMS2 has the license *WSM-LAM1* that allows to add 100 devices and 250 numbers.

Allowed Devices and Numbers	Added Devices and Numbers	Remaining Devices and Numbers
100 Devices	90 Devices	10 Devices
250 Numbers	200 Numbers	50 Numbers

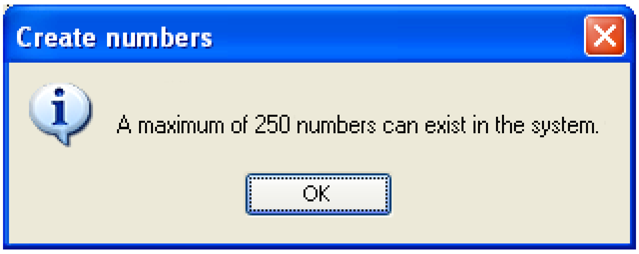
The administrator wants to add 20 devices according to 8.6.5 Add new Device on page 59. When trying to add more devices than allowed, the following dialogue window (see Figure 24) appears:



You cannot add any more devices due to license restrictions.

Figure 24. Additional devices cannot be added.

The administrator wants to add 60 numbers according to 8.5.1 Create New Numbers on page 49. When trying to add more numbers than allowed, the following dialogue window (see Figure 25) appears:



A maximum of 250 numbers can exist in the system.

Figure 25. Maximum numbers allowed

This issue can be resolved by do one of the following:

- Adding a license for IMS2 that supports additional devices/numbers, see 1.1 Licenses for IMS2 on page 2.
- Delete added devices/numbers

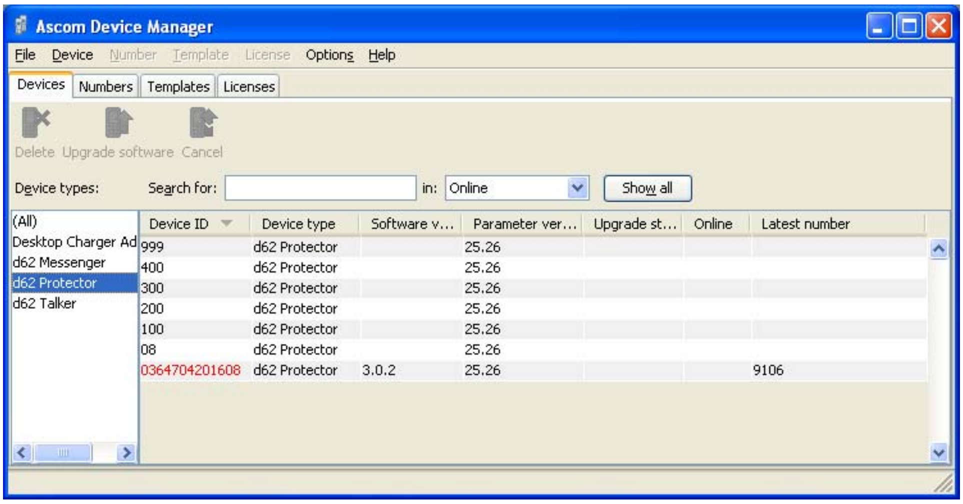
Scenario 2

The IMS2 has the license *WSM-LAM1* that allows to add 100 devices and 250 numbers.

Allowed Devices and Numbers	Added Devices and Numbers	Remaining Devices and Numbers
100 Devices	100 Devices	0 Devices
250 Numbers	250 Numbers	0 Numbers

The number of allowed devices/numbers have been added in the Device Manager. An additional device is registered in the Device Manager by placing it in an advanced charger or via Over-the-Air. This device will automatically be disabled.

In the Devices tab, the Device ID of the disabled device is highlighted with red colour, see Figure 26.


Ascom Device Manager
File Device Number Template License Options Help
Devices Numbers Templates Licenses
Delete Upgrade software Cancel
Show all

Device types: Search for: in: Online

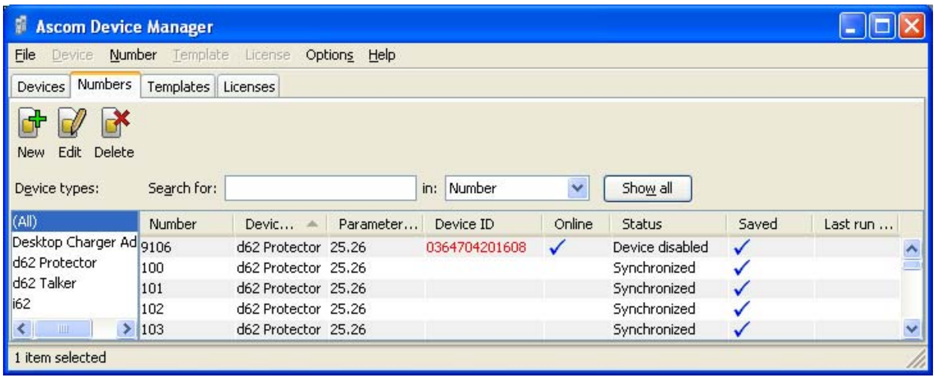
(All)
Desktop Charger Ad
d62 Messenger
d62 Protector
d62 Talker

Device ID	Device type	Software v...	Parameter ver...	Upgrade st...	Online	Latest number
999	d62 Protector		25.26			
400	d62 Protector		25.26			
300	d62 Protector		25.26			
200	d62 Protector		25.26			
100	d62 Protector		25.26			
08	d62 Protector		25.26			
0364704201608	d62 Protector	3.0.2	25.26			9106

Figure 26. Shows an example of a disabled device indicated by a red highlighted Device ID.

In the Numbers tab, the red highlighted Device ID of the disabled device is also displayed. In addition, the status of the device is indicated as Device disabled (see Figure 27).

Note: A device is only visible in the Numbers tab if it has a number.


Ascom Device Manager
File Device Number Template License Options Help
Devices Numbers Templates Licenses
New Edit Delete
Show all

Device types: Search for: in: Number

(All)
Desktop Charger Ad
d62 Protector
d62 Talker
i62

Number	Devic...	Parameter...	Device ID	Online	Status	Saved	Last run ...
9106	d62 Protector	25.26	0364704201608	✓	Device disabled	✓	
100	d62 Protector	25.26			Synchronized	✓	
101	d62 Protector	25.26			Synchronized	✓	
102	d62 Protector	25.26			Synchronized	✓	
103	d62 Protector	25.26			Synchronized	✓	

1 item selected

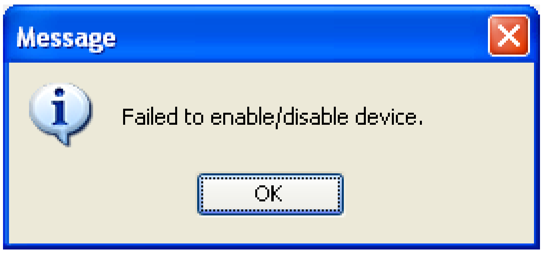
Figure 27. Shows an example of a disabled device in the Numbers tab indicated by a red highlighted Device ID

A device that is disabled cannot be configured such as edit parameters, associate with device, import contacts etc. To enable the device, another device must first be disabled or deleted. See Disable and Enable Devices on page 64 or Delete and Enable Devices on page 65 for more information.

Disable and Enable Devices

If the maximum number of allowed devices have been exceeded, a device needs to be disabled before it is possible to enable a new device.

It is only possible to disable one device every 60 seconds. If you are trying to disable one another within this time period, a dialogue window appears (see Figure 28). So you can disable a device and then immediately enable another device, but you have to wait until the 60 seconds have elapsed before disabling the next device.



Failed to enable/disable device.

Figure 28. Failed to enable/disable device

1 In the Devices tab, right-click the device to be disabled.

2 Select "Disable device".

The Device ID of the disabled device is now highlighted with red colour.

3 Right-click a device to be enabled.

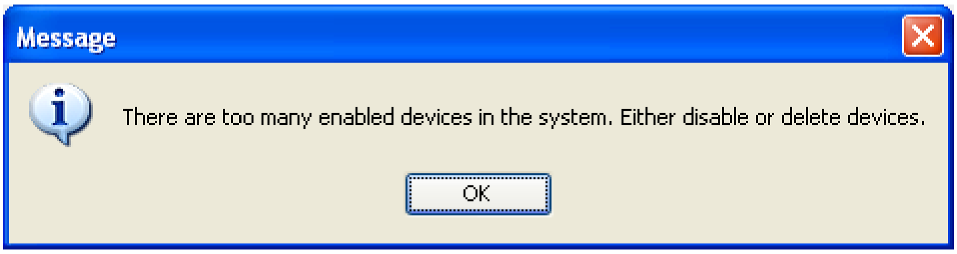
4 Select "Enable devices".

The Device ID of the enabled device is now highlighted with black colour.

Repeat step 2 - 4 to disable/enable additional devices.

Delete and Enable Devices

It is possible to delete devices that are not online, and then enable another devices until maximum allowed devices are reached. If you trying to enable several devices than allowed, the following dialouge window appears (see Figure 29).



There are too many enabled devices in the system. Either disable or delete devices.

Figure 29. Too many devices enabled.

1 In the Devices tab, select the device(s) to be deleted.

2 Right-click and select "Delete".

3 Select the device(s) to be enabled.

4 Right-click and select "Enable devices".

The Device ID(s) of the enabled device(s) is now highlighted with black colour.

8.8 Licenses

This section describes the device licensing features that can be done using the IMS2. An overview of the device licensing concept is described in Function Description, Product Licensing Overview, TD 92677GB.

In IMS2, device licensing offers a possibility to view, manage and upgrade licenses of devices. In the Licenses tab, devices are listed. If a device is selected in the list, the status of the license options for the selected device is displayed.

Note that some tasks include using the license web and the details of how to work with the license web are not described here.

The following features are described:

- Upgrade licenses, "Import" and "Export"
- Manual synchronization of licensing information, "Refresh"
- Move license from one device to another
- View license options

The following licensing features are not done with the IMS2 and are therefore not described is this document:

- How to work with the license web
- How to purchase licenses
- Manual license upgrade in the handset

The license of a handset can be upgraded to a license of a higher variant level, for example from a d62 Talker license to a d62 Messenger license. Depending on the variant used, additional license options may be available.

Note: A handset can be re-licensed 99 times.

8.8.1 License Upgrade alternatives

License upgrade includes using the license web which is described in Function Description, Product Licensing Overview, TD 92677GB.

These are the alternatives for upgrading licenses on devices:

- Automatic license upgrade
  Used when the IMS2 has an Internet connection to the license server, see 8.8.2 Automatic license upgrade.
- License upgrade using export/import
  Used when the IMS2 does not have an Internet connection, see 8.8.3 Export and Import Licensing information.
- Manual license upgrade
  Used to enter the license key manually in the handset, see the configuration manual for the corresponding handset. In this case, the IMS2 is not used.

8.8.2 Automatic license upgrade

Note: This feature requires an Internet connection. The communication is done via HTTPS and normally via port 443.

The first time a device logs in to the Device Manager, the IMS2 asks the license server for the latest license for the device. When the device logs in at a later time, there is no automatic check for licenses. If changes have been made, a manual upgrade must be done by selecting Refresh, see 8.8.7 Refresh on page 69.

In order to get a purchased license for a device, a connection with the license server is made. The IMS2 automatically receives the serial number from the device, sends it to the license server which returns a license key that the IMS2 sends to the device. The device upgrades and the correct license information is shown in the IMS2 and the device.

Note: If the Number for the upgraded handset is also used for another handset within the same family, there can be a conflict when upgrading licenses. For example, if a d62 Talker is upgraded to a d62 Messenger, and a d62 Messenger with that number already exists, there will be a conflict. In this case, the settings in the Device Manager will take precedence over the settings in the device, i.e. the d62 Messenger settings will be used for both handsets.

8.8.3 Export and Import Licensing information

In order to upgrade licenses on devices when the IMS2 does not have an internet connection to the license server, the following is done:

- The information needed for licensing of a device is exported from the Device Manager to a file, see Export Licensing information on page 67.
- The file is used to purchase license upgrades on the license web.
- From the license web, a license file containing the license keys for the device is generated
- The license file is imported to the Device Manager, see Import Licenses on page 67
- The Device Manager communicates the license key (included in the license file) to the device
- The device upgrades according to the license options

Export Licensing information

The information needed for licensing of a device can be exported to a file. This file can be used to generate licenses for the device.

1 Select the Licenses tab.

2 Select the device(s) that shall be licensed.

3 In the License menu, select "Export". The Export devices for licensing window appears. Select a proper name for the file and click "Save" to save the file.

See Function Description, Product Licensing Overview, TD 92677GB for a description of how to generate licenses.

Import Licenses

After a license has been purchased, a file containing the license information can be generated from the license web. This license file can be imported to the Device Manager.

See Function Description, Product Licensing Overview, TD 92677GB for a description of how license files are generated.

1 In the File menu, select Import > "Licenses...”. A File Browser window appears.

2 Select the license file(s) to be imported (*.xml).

3 Click “Open”.

4 The license file(s) are imported.

8.8.4 View license options

It is possible to view which license options that exist on a device.

1 Select the License tab.

2 Select a device.

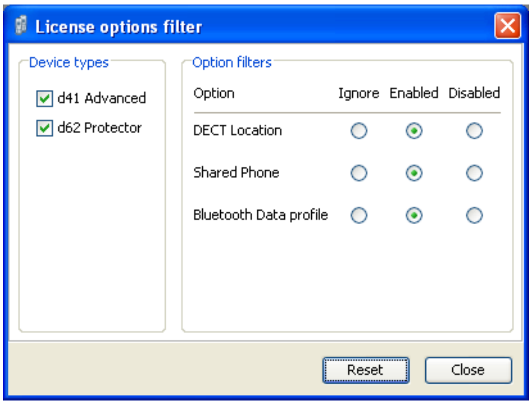
3 In the bottom of the work area, the available license options of the device are listed and whether the options are enabled or not.

8.8.5 Filter license options

It is possible to search and select devices which have same license options. The selected devices can be upgraded with additional licenses by exporting a product information file to the License Web (see Export Licensing information on page 67). The advantage to select devices with same license options is that additional licenses can be applied for the devices simultaneously.

1 Select the License tab.

2 Click "Advanced find". A dialogue window opens.



Device types

☑ d41 Advanced
☑ d62 Protector

Option filters

Option	Ignore	Enabled	Disabled
DECT Location	○	●	○
Shared Phone	○	●	○
Bluetooth Data profile	○	●	○

3 Under Device types, select device(s) .

4 Under Option filters, select the status of the license option(s) that shall be common for the selected devices.

- Ignore - show all devices independent of license options.
- Enabled - show devices with a certain license option enabled.
- Disabled - show devices with a certain license option disabled.

The search result is updated directly when selecting devices and license options. In addition, the icon ❗ is also displayed next to the Advanced find button to indicate that the search result is filtered.

5 When clicking Close, the filtered search result will still be displayed. When clicking Reset, the filter is removed and all devices are displayed.

8.8.6 Move License

This feature requires an IMS2 license that supports the move license feature.

It is possible to move a license from one device to another device of the same device type. A move license command can only be done to an unlicensed handset of a device type supporting licensing.

An example of when to use the Move license command is when there is an unused d62 Talker and a d62 Protector with a broken display. Use the Move license command to move the Protector license to the d62 Talker which becomes a d62 Protector. Then the broken handset (which is now a d62 Talker) can be sent for service.

Note: This feature requires a connection to the license server.

1 Select the “Licenses” tab.

2 Select the device whose license shall be moved. The selected row is highlighted.

3 In the License menu, select “Move license...” or right-click and select “Move license...”. The Move license window appears.

4 Select the device that shall receive the license. Click "OK".

If no devices are shown in the Move license window, there are no devices that are selectable to move the license to.

8.8.7 Refresh

If a device is already registered in the IMS2 and new license has been purchased from the license web, the information needs to be updated. By doing a Refresh, the device license information in IMS2 is synchronized with the information in the license server and transferred to the device.

Note: This feature requires a connection to the license server.

1 Select the License tab.

2 Select device(s).

3 In the License menu, select "Refresh". The correct license is fetched from the license server, sent to the device and displayed in the Device Manager.

8.8.8 Remove Devices from the License View

This command removes devices from the Licenses tab view.

1 Select the “Licenses” tab.

2 Select the device(s) that shall be removed from the list. The selected row(s) are highlighted.

3 In the License menu, select “Delete” or right-click and select “Delete”.

4 Click “Yes” in the Remove device dialogue. The dialogue closes and the device is removed from the list.

8.9 File management

This chapter covers file management for parameter definition files, software files, language files and company phonebook files.

Import and export of templates and Numbers is described in 8.10 Import and Export on page 78. Import of language file is described in 18.1.4 Import Language File for IMS2 on page 141.

The parameter definition file holds the definitions of all parameters for a specific version of a Number’s parameter set. Updated software and new parameter definition files for devices and Numbers can be added to the Device Manager, see 8.9.3 Import Parameter Definition Files on page 70 and 8.9.4 Import New Software for Devices on page 72.

If there is a naming conflict when importing, a warning message is displayed.

8.9.1 Definition File Version – Parameter Version

Both definition files and device software include parameters and are indicated by a version number.

Note: The version of the definition file matches the version of the device software.

If a device is updated with a new parameter version it does not always demand a new definition file. An old definition file can often be used but if new parameters have been added in the new parameter version, these parameters will not be editable. The release note will tell you if a new definition file is needed to match the new parameters.

Example

If a parameter version for a Number is 2.5, then a parameter definition file with a version between 2.0 and 2.5 is required.

8.9.2 Import a Package File

A package file may include different types of files, such as software files, parameter definition files and/or template files. If the package does not include a certain file, it can be imported separately. See 8.9.3 Import Parameter Definition Files on page 70, 8.9.4 Import New Software for Devices on page 72, and/or 8.10.2 Import Templates on page 79.

1 In the File menu, select "File management".

2 Select the Parameter definition tab or Software tab and click "Add".

3 Select the package file (.pkg) to be imported and click "Open".

The files included in the package are now imported. If needed, select the Parameter definition tab or Software tab to view the corresponding imported files (if any).

If template(s) has been imported, it can be viewed by clicking "Close" and then selecting the Template tab.

4 Click "Close".

8.9.3 Import Parameter Definition Files

Updated parameter definition files are distributed by your supplier.

Note: Parameter definition files (.def) are mainly included in package files (.pkg) distributed by your supplier, see 8.9.2 Import a Package File.

1 In the File menu, click "File management". The File management window opens.

2 Click the Parameter definition tab.

3 Click "Add". The Import files window opens.

4 Select the definition files to be imported.

Only files with a corresponding extension are shown, such as .def and .pkg.

5 Click "Open".

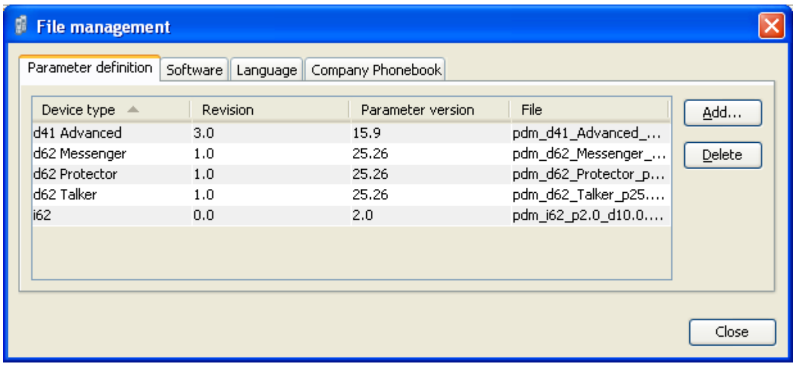
6 Check that the newly imported definition files appear in the list.

7 Click "Close".

If a definition file for a certain device type already exists in the database and an attempt is made to import a definition file with the same parameter version and with a lower revision, the file will not be imported.

If a definition file for a certain device type already exists in the database and a new definition file with the same parameter version and with a higher revision is imported, the old file will be replaced with the imported file.

For each update of a parameter definition file, the revision is increased. An update does not necessarily affect the parameter version.



Device type	Revision	Parameter version	File
d41 Advanced	3.0	15.9	pdm_d41_Advanced_...
d62 Messenger	1.0	25.26	pdm_d62_Messenger_...
d62 Protector	1.0	25.26	pdm_d62_Protector_p...
d62 Talker	1.0	25.26	pdm_d62_Talker_p25....
i62	0.0	2.0	pdm_i62_p2.0_d10.0....

Figure 30. File management window, Parameter definition tab.

In Figure 30, the following columns are displayed:

- Device type – the device model.
- Revision – the revision number of the definition file. Used to determine which definition file is the most recent.
- Parameter version – shows the version of the parameters in the definition file. Used to determine compatibility with device software.
- File – the name of the imported definition file.

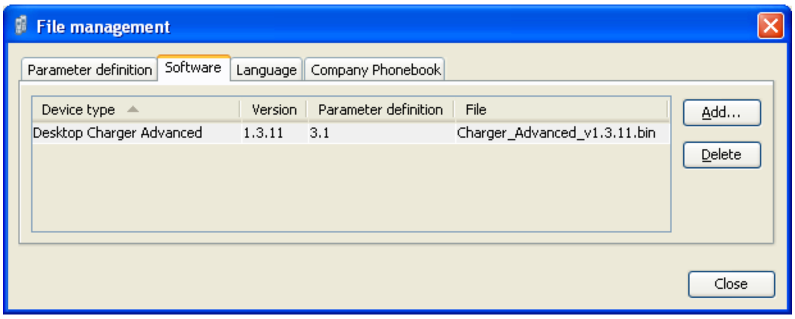
8.9.4 Import New Software for Devices

Updated software files are distributed by your supplier.

Note: Software files (.bin, .img, etc.) are mainly included in package files (.pkg) distributed by your supplier, see 8.9.2 Import a Package File on page 70.

1 In the File menu, click ''File management''. The File management window opens.

2 Click the "Software" tab.



Device type	Version	Parameter definition	File
Desktop Charger Advanced	1.3.11	3.1	Charger_Advanced_v1.3.11.bin

3 Click ''Add''. The Import files window opens.

4 Select the software files to be imported.

Only files with a corresponding extension are shown, such as .bin and .pkg.

5 Click ''Open''.

6 Check that the newly imported software files appear in the list.

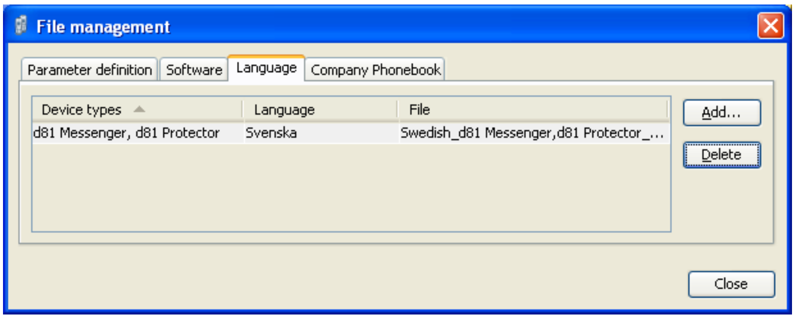
7 Click ''Close''.

8.9.5 Import Language files for Devices

For adding a new language to a device, a language file (.lng) distributed by your supplier must be imported to the Device Manager and then uploaded to the device.

1 In the File menu, click "File management". The File management window opens.

2 Click the "Language" tab.



Device types	Language	File
d81 Messenger, d81 Protector	Svenska	Swedish_d81 Messenger,d81 Protector_...

3 Click "Add". The Import files dialogue opens.

4 Select the language files to be imported.

5 Click "Open".

6 Check that the newly imported language files appear in the list.

7 Click "Close".

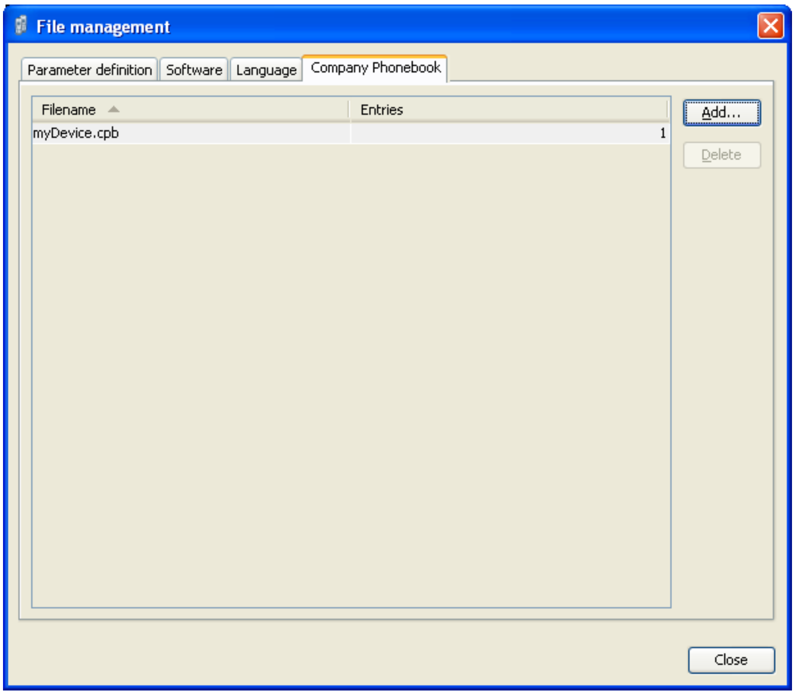
8 To apply the language for a device, see 8.9.7 Upload a Language to a Device on page 75.

8.9.6 Import Company Phonebook files

It is possible to import a phonebook file for later use.

1 In the File menu, click "File handling". The File management window opens.

2 Click the "Company Phonebook" tab.



Filename	Entries
myDevice.cpb	1

3 Click "Add". The Import files dialogue opens.

4 Select the company phonebook files to be imported.

5 Click "Open".

6 Check that the newly imported company phonebook files appear in the list.

7 Click "Close".

8.9.7 Upload a Language to a Device

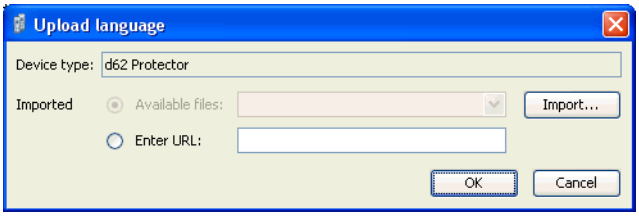
It is possible to upload a language to portable devices that support Language Upload.

Upload of languages is not available in unlicensed mode.

1 Select the "Devices" tab.

2 Select the device(s) to upload a language to. It is possible to select several devices, but only devices of the same Device Type can be selected.

3 In the Device Menu, select "Upload Language...". The Upload Language dialogue appears.



Upload language

Device type: d62 Protector

4 Do one of the following:

- If needed; import the language file (.lng) to be used by clicking "Import...", locate the file, and click "OK". In the Available files: drop-down list, select which language to upload.
- Enter the URL where the language file is located.

5 Click "OK". The language is uploaded to the device.

Tip: It is also possible to upload a language on several handsets of the same device type simultaneously using the Baseline function, see 8.11.2 Baseline settings on page 80.

8.9.8 Upload Company Phonebook

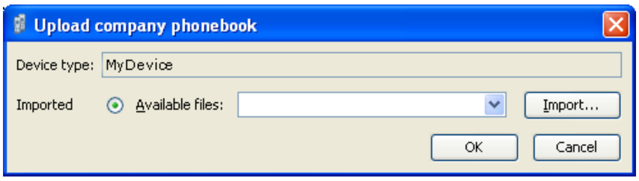
It is possible to upload a company phonebook to handsets that support Company Phonebook Upload.

Upload of Company Phonebook is not available in unlicensed mode.

1 Select the "Devices" tab.

2 Select the handset(s) to upload a company phonebook to. It is possible to select several devices, but only devices of the same Device Type can be selected.

3 In the Device Menu, select "Upload company phonebook...". The Upload company phonebook dialogue opens.



Upload company phonebook

Device type: MyDevice

4 Select which company phonebook to upload.

5 Click "OK". The company phonebook is uploaded to the device.

8.9.9 Upgrade a Device with New Software

It is possible to upgrade the software in a device.

Upgrade of device software is not available in unlicensed mode.

1 Connect a device to the system.

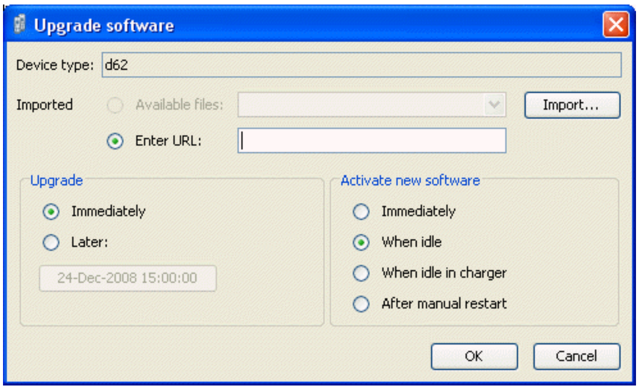
2 Select the "Devices" tab.

3 Select from the list the device(s) that are to be upgraded. The selected row is highlighted. It is possible to select several devices, but only devices of the same Device Type can be selected.

Note: A software upgrade from IMS2 should be done on one device to start with. If successful, the remaining devices can be updated in one operation.

Tip: By using Ctrl and/or Shift it is possible to select several devices simultaneously.

4 In the Device menu, click "Upgrade software". Alternatively, right-click and choose "Upgrade", double-click the desired device, or click the "Upgrade" button in the toolbar. The Upgrade software window opens.



Upgrade software

Device type: d62

Imported ○ Available files:

● Enter URL:

Upgrade
● Immediately
○ Later:
24-Dec-2008 15:00:00

Activate new software
○ Immediately
● When idle
○ When idle in charger
○ After manual restart

5 In the Upgrade software window the following fields/options are shown:

- Device type – shows the model of your device.
- Imported
  – The Available files: box contains previously imported software files (see 8.9.4 Import New Software for Devices on page 72); the latest used software file is selected by default.
  – The Enter URL: box gives a possibility to enter a path to a URL.
  – Import...: is used to import new software.
- Upgrade
  – Immediately: is used to start upgrade immediately
  – Later: enter a date and time for a scheduled upgrade.
- Activate new software – mark Immediately, When idle, When idle in charger or After manual restart depending on when new software shall be activated.

6 If the software to be used for software upgrade is not available, it needs to be imported. If so, click "Import...". The Import software dialogue opens. Locate the file and click "Open". The file is imported to the Device Manager.

It is recommended to use Enter URL:[1] if the software is stored on an external server and should not be imported to the Device Manager.

7 Select software to be used in the upgrade in the Available files: text box.

[1] It is recommended to open a web browser and enter the URL (for example http://myserver/kathy_v1.5.7.bin). Make sure that the web browser asks you to save or open the correct file. Copy the URL and paste it in the Upgrade software dialogue.

8 Click ‘‘OK’’. The Upgrade software window closes.

9 The software will be downloaded to the device. For some device types, a progress bar in the Status column for the device shows the progress of the download.

To cancel the upgrade, click ‘‘Cancel upgrade’’ in the Device menu. Alternatively, right-click the device in the device list and select ‘‘Cancel upgrade’’.

The device will restart automatically after a successful download.

Note: A switched off device is upgraded when restarted.

Tip: It is also possible to upgrade the software on several handsets of the same device type simultaneously using the Baseline function, see 8.11.2 Baseline settings on page 80

8.9.10 Delete Parameter Definition Files

1 In the File menu, click ‘‘File management’’. The File management window opens.

2 Click the Parameter definition tab.

3 Select the definition files to be deleted.

4 Click ‘‘Delete’’.

5 In the Delete files dialogue, click "Yes".

6 Click ‘‘Close’’.

8.9.11 Delete Software

1 In the File menu, click ‘‘File management’’. The File management window opens.

2 Click the Software tab.

3 Select the software to be deleted.

4 Click ‘‘Delete’’.

5 In the Delete files dialogue, click "Yes".

6 Click ‘‘Close’’.

8.9.12 Delete Language File for Devices

1 In the File menu, click “File management”. The File management window opens.

2 Click the Language tab.

3 Select the language to be deleted.

4 Click “Delete”.

5 In the Delete files dialogue, click "Yes".

6 Click “Close”.

8.9.13 Delete Company Phonebook File

1 In the File menu, click “File management”. The File management window opens.

2 Click the Company Phonebook tab.

3 Select the company phonebook to be deleted.

4 Click “Delete”.

5 In the Delete files dialogue, click "Yes".

6 Click “Close”.

8.10 Import and Export

This section describes import and export of Numbers and templates.

- Import and export of licensing information is described in 8.8 Licenses on page 66.
- Import and additional file handling of parameter definition files, software files, language files and company phonebook files is described in 8.9 File management on page 69.
- Import of language file (.xml) for the menues in IMS2 is described in 18.1.4 Import Language File for IMS2 on page 141.

The purpose of importing and exporting Numbers and Templates is to be able to move Numbers and Templates to another site or to use at a later time. It is also possible to move between PDM Windows Version and IMS2.

The parameter configuration in Numbers can be exported to a file. This file can be used by the supplier to pre-program devices before delivery to the customer.

If there is a naming conflict when importing a template, the new template is imported and the old template is deleted. If there is a Number conflict when importing Numbers, an error message is displayed.

8.10.1 Import Numbers

1 In the File menu, click “Import > Numbers...”. An Import numbers window opens.

2 Select the Number files (*.xcp) to be imported.

3 Click “Open”.

4 The number(s) will be imported.

8.10.2 Import Templates

A template may be imported from another system. Updated Template files may be distributed by your supplier.

1 In the File menu, click ‘’Import > Templates...’’. An Import templates window opens.

2 Select the Template files (*.tpl) to be imported.

3 Click ‘’Open’’.

4 The template(s) will be imported.

8.10.3 Export Numbers to a File

It is possible to configure Numbers for a site and export the settings to a file. One or several Numbers can be selected.

The exported file can then be used when producing new devices for the customer.

1 Select the ‘’Numbers’’ tab. The Numbers view appears.

2 Select the Number(s) to be exported.

3 In the Number menu, click ‘’Export’’.

The ‘’Export Numbers’’ window opens. By default the file will be saved in the My documents folder with the name EliseSite.xcp. You can select another name and folder.

4 Click ‘’Save’’.

8.10.4 Export Templates to a File

It is possible to export templates to a file. One or several templates can be selected.

1 Select the ‘’Templates’’ tab. The Templates view appears.

2 Select the template(s) to be exported.

3 In the Template menu, click ‘’Export’’.

The Export templates window opens. By default the file will be saved in the My documents folder with the name Templates.tpl. You can select another name and folder.

4 Click ‘’Save’’.

8.11 Other Settings

8.11.1 Automatically enable new devices settings

By default, when a new device logs in, it is automatically enabled and saved in the IMS2 database.

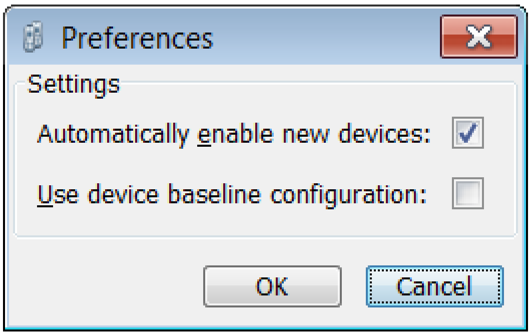
Note: The IMS2 license detemines the number of devices that can be enabled simultaneously in the Device Manager. If logging in more devices than allowed, they will be disabled in the Device Manager. The devices must be enabled in order to configure them. See 8.7 License Restrictions for Device Handling on page 62 for more information.

When a single IMS2 is used, the *Automatically enable new devices* function should normally be enabled. When Device Management is distributed over multiple IMS2s in a system, the function shall be disabled. If the function is enabled, devices will be enabled and saved on all IMS2s running device management. This will cause synchronization problems and the logged in devices will consume license positions on each IMS2. See also 2.7 Multiple IMS2 Configuration on page 12.

To disable automatic enabling of new devices, do as follows:

1 In the *Options* menu, select "Preferences". The Preferences dialogue opens.

.



Preferences

Settings

Automatically enable new devices: ☑

Use device baseline configuration: ☐

2 Clear the "Automatically enable new devices" checkbox.

3 Click "OK".

8.11.2 Baseline settings

This feature requires a valid license.

It is possible to select which version of software, language and/or template that shall be applied for all devices of a selected device type. This is done by setting a baseline.

Two settings need to be made:

- Set whether device baseline configuration shall be enabled or not.
- Do the specific settings for the baseline.

To enable device baseline configuration:

1 In the Options menu, click "Preferences". The Preferences window opens.

2 Enable "Use device baseline configuration".

3 Click "OK".

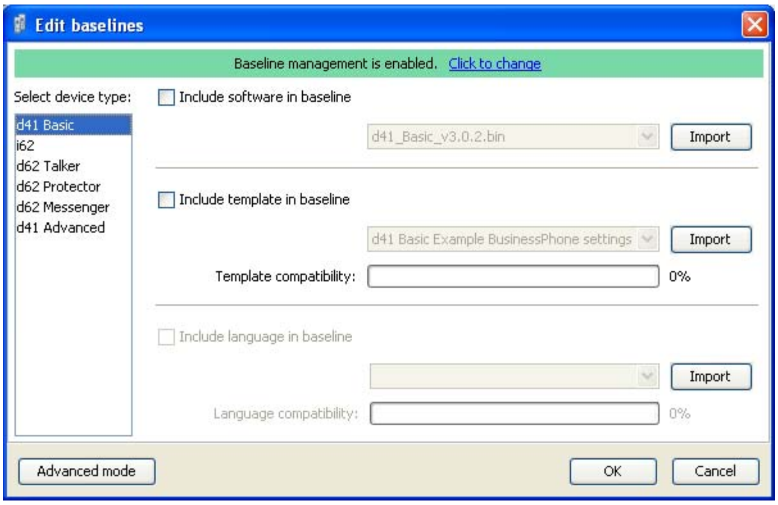
The baseline management can be displayed in two modes;

- Basic mode - This mode is recommended for configuring and viewing one device type at the time.
- Advanced mode - This mode is recommended for configuring and viewing several device types simultaneously.

Basic mode

To configure a baseline for a device type:

1 In the File menu, click ''Baseline...''. The Edit baselines window opens.



Edit baselines

Baseline management is enabled. Click to change

Select device type:

d41 Basic
i62
d62 Talker
d62 Protector
d62 Messenger
d41 Advanced

☐ Include software in baseline

d41_Basic_v3.0.2.bin

☐ Include template in baseline

d41 Basic Example BusinessPhone settings

Template compatibility: 0%

☐ Include language in baseline

Language compatibility: 0%

2 If baseline management is disabled (indicated by a red bar in the top of the window), enable the baseline management by clicking "Click to change". When the baseline management is enabled, the bar becomes green.

3 In the left pane, select device type.

4 Select whether to include software, language and/or template in the baseline. The percentage of compatible devices is shown as a bar.

5 If necessary, do an import of a software file, language file and/or template file.

- Click Import. The Import window opens.
- Locate and select the file(s) to be imported.
- Click "Open". The file(s) are imported.

6 In the corresponding dropdown list, select software, language and/or template.

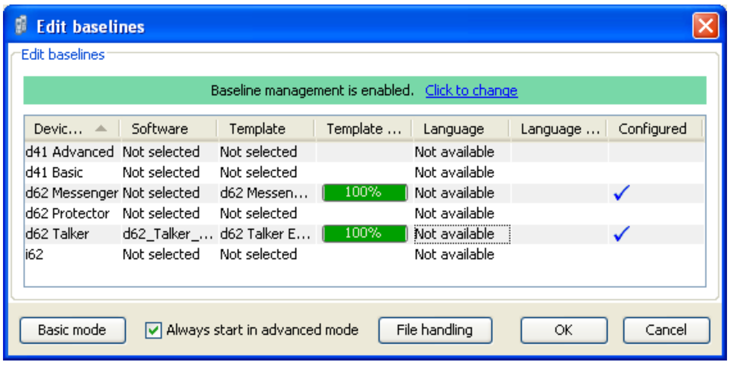
7 Click "OK". The baseline is saved and applied.

Advcanced mode

To configure a baseline for a device type:

1 In the File menu, click ''Baseline...''. The *Edit baselines* window in *basic mode* opens.

2 Click "Advanced mode". The *Edit baselines* window in *advanced mode* opens.



Baseline management is enabled. Click to change

Devic...	Software	Template	Template ...	Language	Language ...	Configured
d41 Advanced	Not selected	Not selected		Not available		
d41 Basic	Not selected	Not selected		Not available		
d62 Messenger	Not selected	d62 Messen...	100%	Not available		✓
d62 Protector	Not selected	Not selected		Not available		
d62 Talker	d62_Talker_...	d62 Talker E...	100%	Not available		✓
i62	Not selected	Not selected		Not available		

☑ Always start in advanced mode

3 If baseline management is disabled (indicated by a red bar in the top of the window), enable it by clicking "Click to change". When the baseline management is enabled, the bar becomes green.

4 If necessary, import software file, language file and/or template file by clicking "File handling". The File management windows appears, see 8.9 File management on page 69 for more information.

5 For a device type; click corresponding column and select software, template, and/or language to be included in the baseline. The percentage of compatible devices is shown as a bar. In addition, a icon ✓ indicates that a baseline for the device is configured.

6 Click "OK". The baseline is saved and applied.

9 DECT Interface

9.1 Cordless Telephone System

9.1.1 Ascotel I6

The IMS2 communicates with the Ascotel I6 over the LAN. For configuration of the Ascotel I6, see separate documentation from the vendor.

9.1.2 Alcatel OmniPCX Enterprise

The IMS2 communicates with the Alcatel OmniPCX Enterprise over the LAN. To be able to receive alarms and user data from the Portable Devices in the Cordless Telephone System, a CMP board has to be installed in the OmniPCX Enterprise. For configuration of the Alcatel OmniPCX Enterprise and installation and configuration of the CMP board, see separate documentation from the vendor.

9.1.3 Ericsson BusinessPhone

For configuration of the BusinessPhone, see separate documentation from the vendor.

1 Connect the delivered cable to J11 on the IMS2.

2 Connect the cable to the I/O port on the IC-CU2 board on the BusinessPhone.

See Appendix B, for a description of the cable.

9.1.4 Ericsson MX-ONE/MD110

IMS2 can communicate with the MX-ONE/MD110 over a LAN. For configuration of the MX-ONE/MD110, see separate documentation from the vendor.

9.1.5 IP-DECT

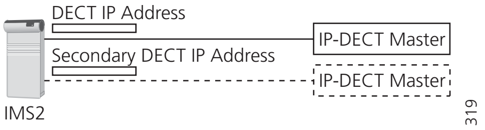


Figure 31. Redundancy achieved by connecting IMS2 to two IP-DECT base stations and setting primary and secondary IP addresses.

IMS2 can communicate with the IP-DECT system over a LAN. For configuration of the IP-DECT system, see Installation and Operation Manual, IP-DECT Base Station, TD 92372GB

It is possible to set an address to a secondary IP-DECT master which is used as a redundancy backup. The secondary IP Address is used if the connection to the primary IP Address is lost. If the secondary IP Address is lost, IMS2 will try to use the primary IP Address.

To do IP-DECT IP address settings, do as follows:

1 On the IMS2 Start page, click "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Under *DECT Interface*, select "IP-DECT".

4 Enter settings in the fields for DECT IP Address and Secondary DECT IP Address.

9.2 DECT Interface Settings

The DECT Interface controls the messaging flow between the Cordless Telephone System and other system modules, for example UNITE compliant modules and System 900 modules.

9.2.1 General Settings

To find DECT General Settings, do as follows:

1 On the IMS2 Start page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Select "General Settings" under DECT Interface.

- Call Diversion Display Text
  When this parameter is enabled, the text specified is added to the display message when a call diversion takes place. The original Call ID can be included in the parameter text by writing a % character where the Call ID shall be inserted.

Advanced parameters include:

- Extended Activity Log
  In addition to when a Unite block is delivered to a handset, activity log information is also sent to the Enhanced System Services (ESS) Log Viewer when the block is received by the DECT interface. The extra information can only be displayed in Log Viewers that are updated continuously, and if activity logs are configured in the ESS. This function should be used with care as it generates heavier network load. For more information about extended activity logs, see Function Description, Activity logging in Unite, TD 92341GB and Installation and Operation Manual, Enhanced System Services (ESS), TD 92253GB.
- Broadcast
  Specifies whether broadcast messaging is allowed or not. Only DCT1800-GAP systems with CPU2 software and IP-DECT systems can handle broadcast, all other systems will ignore the parameter. There are some limitations for the interfaces, see System Planning, Unite, TD 92258GB for information about required software versions.
- Set time in DECT?
  It is possible to set the time in DECT when the parameter is set to ''Yes''. It is only possible when DCT1800-GAP systems with CPU2 software is used. If the parameter is set to "Yes", IMS2 sets the time in DECT on startup and on each day at the time set by the Time push time parameter.
- Priority Conversion
  Used to convert messaging priorities; Alarm, High, Normal and Low. This conversion is normally only used for compatibility with some PWT handsets and should never be enabled unless you are absolutely sure.
- DECT Interface
  This parameter makes it possible to disable the DECT Interface on IMS2. When the DECT interface is disabled, messaging is not supported and lost link to DECT system will not be indicated.
- IM update status handling

  This parameter determines what the DECT interface shall do with IM update statuses received from a portable. 'Forward to application': The status is sent back to the application that originally sent the IM update. 'Status log': Failed updates will result in a status log is sent. 'None': The status will be ignored. This is primary intended for backward compatibility.

- No of included 9dLD locations
  This parameter defines the maximum number of included 9dLD locations in personal alarms and special locations sent from handsets. Only valid in combination with Ascom messaging system.

9.2.2 System Dependent Settings

Which parameters that can be changed is dependent on the Cordless Telephone System that IMS2 is connected to.

To find IP-DECT settings, see 9.2.1 General Settings on page 84.

Ericsson BusinessPhone

There are no system dependent features for this system.

Ericsson MX-ONE/MD110

- IP address

  Since the MX-ONE/MD110 is connected over the LAN, the IP address of the MX-ONE/MD110 has to be entered.
- Port Numbers

  IMS2 always uses port 1814 for communication with the MX-ONE/MD110. This port has to be defined in the MX-ONE/MD110 as well. The MX-ONE/MD110 must be configured to use port 1815 when communicating with IMS2.

Note: If IMS2 replaces a 9dMMS, check that other port numbers than the ones above are not used for the communication between the 9dMMS and the MX-ONE/MD110.

IP-DECT

- DECT IP address

  Since the IP-DECT Master is connected over the LAN, the IP address of the IP-DECT Master has to be entered.
- Secondary DECT IP address

  If two DECT systems are used for redundancy purposes, the IP address of the secondary DECT system needs to be entered.

Ascotel I6

- Ascotel IP address

  Since the Ascotel is connected over the LAN, the IP address of the Ascotel has to be entered.
- Ascotel Port Number

  This is the port that the IMS uses for communication with the Ascotel. The default port (2775) will be used if the port is not defined.
- IMS2 Port Number

  The Ascotel must be configured to use port 10089 when communicating with the IMS2.
- Password

  The Ascotel requires a password when connecting the IMS2.

Alcatel OmniPCX Enterprise

- OmniPCX Enterprise IP address

  Since the Alcatel OmniPCX Enterprise (OXE) is connected over the LAN, the IP address of the Alcatel OXE has to be entered.
- Port Numbers

  The ports that are used in the communication between the IMS2 and the OXE are fixed.

9.2.3 DECT Message Distribution

The DECT Interface has distribution lists that define where incoming data from handsets, for example alarms and user data, should be sent.

To find settings for DECT Message Distribution, do as follows:

1 On the IMS2 start page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Select "Messaging Distribution" under DECT Interface.

The following information is supported:

- Alarm
  - Personal alarms with location information from handsets in the Cordless Telephone System.
- Mobile Data
  - User data sent from handsets in the Cordless Telephone System.
- Location
  - Special Location[1] information from handsets in the Cordless Telephone System. This information can be used to track the route of a handset in a building.
- Availability info
  - Includes absence information, that is, if a handset is placed in Charging/Storage Rack.

The addressing of the receivers is described in Installation Guide, ELISE2, TD 92232GB.

[1] A Special Location can be sent every time a handset gets a new location code from a location device in the system. This feature can only be used in combination with Ascom messaging system and also require configuration both in the handset and in the location device. Also called "Immediate Alarm Transmission".

10 WLAN Interface

10.1 Handset Registration

To be able to register to IMS2, each VoWiFi handset must be programmed with the IP address of the IMS2 used, refer to the Configuration Manual for respective VoWiFi handset.

10.2 Shared Phones

When using shared phones all VoWiFi handsets authenticates with passwords. The password can be a common password for all users or the call number. Individual passwords are supported by the User Server in ESS. ESS is available from Ascom.

In order to work, all shared phones in a system need to have the same "major" version in the software version, see 8.9.1 Definition File Version – Parameter Version on page 69.

If a User Server is used the operating mode for the UNS must be set to ‘’forwarding’’ and the User Server must be specified as the forwarding destination.

See also Installation and Operation Manual, Enhanced System Services (ESS), TD 92253GB.

10.3 WLAN Message Distribution

The WLAN Interface has distribution lists that define where incoming data from handsets, for example alarms and user data, should be sent.

To find settings for WLAN Message Distribution, do as follows:

1 On the IMS2 start page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Select "Message Distribution" under WLAN Interface.

The following information is supported:

- Alarm

- Personal alarm from VoWiFi handsets.

• Mobile Data
- User data sent from VoWiFi handsets.

• Availability Info
- Change of status of the VoWiFi handsets.
(The status can be changed from the IMS2 GUI or from the VoWiFi handset).

The addressing of the receivers is described in Installation Guide, ELISE2, TD 92232GB.

10.4 WLAN System

WLAN system handles the VoWiFi handset relogin time and authentication. A handset is considered to be logged out if it has not made a relogin within a certain time. Call diversion display text, Extended activity logging, and External location server are also enabled in this view.

To find settings for WLAN System, do as follows:

1 On the IMS2 start page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Select "WLAN System" under WLAN Interface.

Handset relogin time

The time before a handset must relogin to IMS2 is set in minutes and when this time is exceeded the handset will be considered unreachable. This is the maximum time it takes for a handset to reconnect after installing a new IMS2, or updating a IMS2.
Note that a short relogin time implies a higher service/security but it also loads the system.

Call Diversion Display Text

Text specified in the “Call Diversion Display Text” text field is, if enabled, added to the display text when a call diversion takes place. By entering the character “%”, the original call ID will be included in the display text on the place where the character is entered. Note that some characters are special characters that are not visible.

Enable Extended Activity Log

Enable Extended Activity Log for intermediate logs, for more information refer to the Function Description, Activity Logging in Unite, TD 92341GB.

Authentication Method

The very first time a VoWiFi handset logs in to IMS2, it must authenticate itself to IMS2 with a password. The password is then stored in the handset for future authentication. IMS2 has three authentication alternatives; “Common password”, “User server” and “Number as password”.

Common Password

A common password can be specified in IMS2, and this password is then used for all VoWiFi handsets in the system. If the common password field is left empty, the handset must send an empty password for authentication.

If individual passwords are needed, for example for shared phones, passwords can either be specified in a User Server or the individual call numbers can be used, refer to chapter 10.2 Shared Phones on page 87.

Allow Force Login

Note: The function is only valid when the authentication method is set to ”Common password” or to ”Number as password”. See Authentication Method on page 88.

Forced login allows a user to login with a call number that already is in use. The handset that already is logged in will then be unregistered.

External Location Server

An external location server (for example, a Real Time Location System - RTLS) can be used to give an more exact location of an alarming handset. If the location of the alarming handset is more exact, the time to find the user of the handset can be reduced significantly.

The time set here must correspond to the time set in the external location server. This is the maximum time an alarm will wait for location data from the location server, before the alarm is distributed to the alarm recipients, that is, what delay is acceptable in your specific system.

External location server address

The address of the external location server. The address format is IP address/service. If only IP address is specified, EventHandler will be used as a default service.

10.5 User Server

IMS2 can set a user server for authentication of handsets, see 10.4 WLAN System on page 88.

1. On the IMS2 start page, select "Configuration". The IMS2 Configuration page opens.
2. Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.
3. Under "Other", select "User Server".
4. Enter the IP address of the User Server and click ”Activate”.

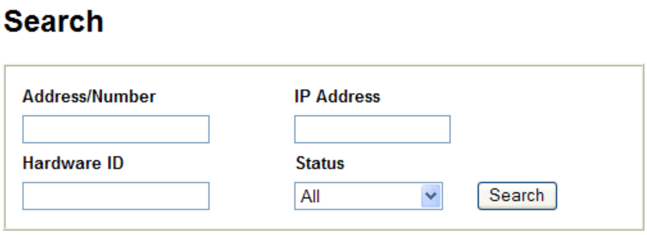
10.6 Handset Administration

Handset Administration gives the possibility to list all handsets that are registered in the system, search for a specific handset, or a range of handsets.This is intended to facilitate troubleshooting.

It is possible to customize the pages by changing the number of handsets shown on the search result list.

10.6.1 Search for Registered VoWiFi Handsets

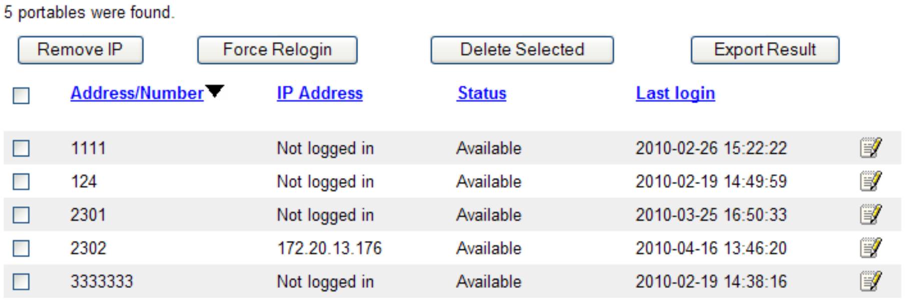
1. On the IMS2 start page, select "Configuration". The IMS2 Configuration page opens.
2. Click ”WLAN Portables”.
3. Do one of the following:
   - Click "Search" to search for registered VoWiF handsets based on different search criterias. For example Address/Number, IP address, Hardware ID (often the MAC address) or the Status of the handset. The Search page opens.



Status: All

- Click "List all" to show all registered VoWiFi handsets.

4 The search result can be sorted by address/number, IP address, status or last login. Click the name of the column to be sorted.



5 portables were found.

□	Address/Number▼	IP Address	Status	Last login
□	1111	Not logged in	Available	2010-02-26 15:22:22
□	124	Not logged in	Available	2010-02-19 14:49:59
□	2301	Not logged in	Available	2010-03-25 16:50:33
□	2302	172.20.13.176	Available	2010-04-16 13:46:20
□	3333333	Not logged in	Available	2010-02-19 14:38:16

Save the Search Result list

The search result list can be exported to a comma separated file.

1 Click the ''Export Result'' button.

2 Select ''Save''. Enter a file name and the location where the file shall be stored, and click ''Save''.

Remove IP Address, Force a Relogin, or Delete a VoWiFi Handset

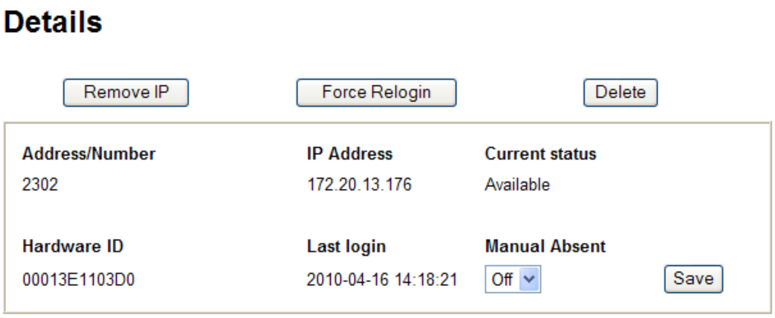
1 Check the handset(s) checkbox in the search result list.

2 Do one of the following:

- Click "Remove IP Address" button - Used to reset the address of an handset.
- Click "Force Relogin" button - Used to check the connection with a handset.
- Click "Delete Selected" button - Used to remove numbers not in use.

Show Handset Details

Click the icon 📝 in the search result list. All details of the chosen handset are viewed.



Details

Address/Number	IP Address	Current status
2302	172.20.13.176	Available
Hardware ID	Last login	Manual Absent
00013E1103D0	2010-04-16 14:18:21	Off

10.6.2 Change the Handset Absent Status

It is possible to change the Manual Absent status of the VoWiFi handsets.

1 Search for the handset(s), see 10.6.1 Search for Registered VoWiFi Handsets on page 89.

2 Click the icon to view handset details.

3 In the Manual Absent drop-down list, select "On" or "Off".

11 System 900

This chapter handles settings for the connection to the System 900 A-bus. If the A-bus is not connected, the bus operating mode should be set to 'No A-bus'. All other parameters only needs to be set when the IMS2 is connected to a Central Unit in the System 900, or controlling the communication on the A-bus in systems without a Central Unit. See 11.1 System 900 Interface for more information about the parameters.

11.1 System 900 Interface

1 On the IMS2 start page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Select 900 Interface > System 900. The System 900 Interface page opens. The following parameters can be set:

Bus operating mode

- A-bus with Central Unit: The IMS2 is connected to a system with a Central Unit
- A-bus without Central Unit: The IMS2 controls the communication on the A-bus.
- According to DIP switch: If the IMS2 address DIP switch is set to 00, it is controlling the communication on the A-bus. If the address is set to 01-FF the Central Unit is controlling the communication on the A-bus
- No A-bus connected: The A-bus connection is not used. If the IMS2 expects an A-bus with Central Unit, the IMS2 will indicate ''starting up''.

Module priority

This is the IMS2 priority on the A-bus. This parameter is only used when the IMS2 is connected to an A-bus with Central Unit. Permitted values: 1-9.

- 1 = Highest priority (Alarm Modules)
- 3 = Normal priority (Other modules), Default: Normal priority
- 9 = Lowest priority (Data Modem)

Default number of message transmissions

This is how many times a paging is transmitted in the System 900. This parameter is only used when the IMS2 is connected to an A-bus with Central Unit.

Automatic or Manual configuration of prefix and call number

When the IMS2 is connected to an A-bus with Central Unit, the parameters in the Central Unit can be used and this parameter Configuration of parameters below can be set to ''Automatic''. If the IMS2 is controlling the communication on the A-bus, the parameters have to be configured manually.

Number of digits in call number

This is the number of digits in the Portable Device addresses in the system. If the IMS2 is controlling the communication on the A-bus, this parameter has to be set manually. See System Planning, On-site Paging System, TD 90202GB for more information.

Prefix and call number range

This is the prefix that is used in the system. The prefix has to be the same as for the other modules in the system. If the IMS2 is controlling the communication on the A-bus, this parameter has to be set manually. See System Planning, On-site Paging System, TD 90202GB for more information.

Send module status from A-bus to Unite

When this parameter is enabled, the IMS2 sends module status to Unite as a status log.

Call Diversion Display Text

When this parameter is enabled, the text specified is added to the display message when a call diversion takes place. The original Call ID can be included in the parameter text by writing a % character where the Call ID shall be inserted.

11.2 System 900 Message Distribution

The 900 Interface has distribution lists that define where incoming data from the handsets in the System 900 and the System 900 modules should be sent. The receivers are addressed in the same way as for the DECT Interface that is described in Installation Guide, ELISE2, TD 92232GB.

1 On the IMS2 start page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Select 900 Interface > System 900. The System 900 Interface page opens. The following parameters can be set:

Alarm

Personal alarms with location information from handsets.

Mobile Data

Data sent from handsets.

Input activity

An input on an Alarm Module has been activated.

Location

Special Location[1] information from handsets.

Availability Info

Includes absence information, that is, if a handset is placed in Charging/Storage Rack.

Pagings that are received from the A-bus will be transmitted to the destination that corresponds to the address in the UNS.

[1] The Special Location can be sent every time a cordless phone gets a new location from a locator in the system. This requires configuration both in the handset and in the locator. Also called ''Immediate Alarm Transmission''.

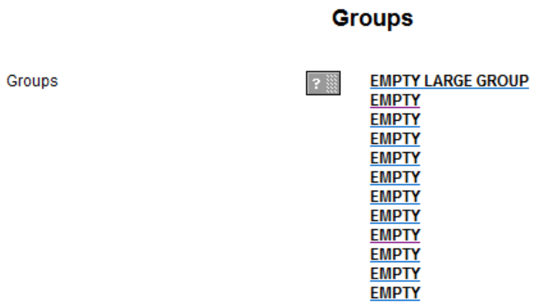
12 Messaging Groups

Messaging Groups is used when one message should be sent to several handsets. There are 30 groups with 15 handset addresses and one group with 50. The first group in the list is the large group.

The groups are defined in the administration pages. Each group is given an address, either a name or a number, and a description. Then the addresses of the handsets that should be included in the group are added. To find Messaging Groups, do as follows:

1 On the IMS2 start page, select "Configuration". The Configuration page opens.

2 Click "Messaging Groups" > "Edit".



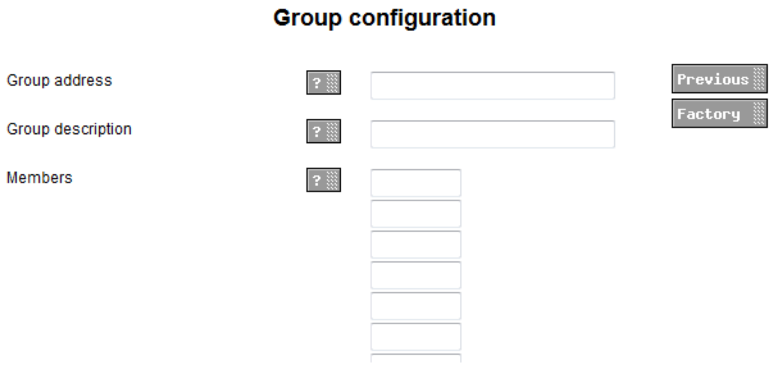
Groups

Groups

EMPTY LARGE GROUP
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY

3 Open the group to be configured by clicking on its name (default EMPTY).

4 Enter group address, description and members of the group.



Group configuration

Group address

Group description

Members

The Messaging Groups can be set up to be used for one Messaging Category at a time, or both, depending on the settings made in the setup wizard, Default Messaging Category. Possible interface choices are DECT System Interface and WLAN Messaging Interface as default destination for all messages. If "WLAN and DECT" is selected, a message is first sent to WLAN and if there is no reply, it is sent to DECT.

To set interface for Messaging Groups, do as follows:

1 On the IMS2 start page, select "Setup Wizard". The IMS2 Setup Wizard opens.

2 Click "Next" until you reach the Default Messaging Destination page.

3 Select which interface to use as Default Messaging Destination.

Note: If it should be possible to send messages from a handset in the Cordless Telephone System or from the System 900 A-bus to the group address, the address has to be a number.

Tip: An alternative way to use groups is to use wildcard groups. Wildcard *E* is supported in last digit in call number. For example when entering 11E, a message will be sent to call number 110 to 119.

13 Basic Configuration

The basic configuration requires system administrator or administrator rights. With user rights you will only be able to access and configure the Central Phonebook. Refer to 4.1 Authentication Levels and Default Passwords on page 21.

13.1 Central Phonebook Configuration

This chapter describes the configuration of theCentral Phonebook.

TheCentral Phonebook gives the possibility to search for telephone numbers in a local database or in an LDAP server.

If the search is to be forwarded to an LDAP server, the LDAP parameters need to be configured as described in 13.1.5 LDAP Parameter Setup on page 99.

For information about entering phonebook entries, see 7 Central Phonebook Administration on page 32.

Note: If an LDAP connection to a central phonebook is used, all settings needed are done in the setup wizard.

13.1.1 Technical Specification

The local database has defined limitations while most of the limitations for the LDAP server depends on the LDAP server used, see table below.

	Local Database	**LDAP Server**
Max. No. of phonebook entries:	500/2000	Server dependent
Max. No. of characters in family name:	20	Server dependent
Max. No. of characters in first name:	20	Server dependent
Max. No. of digits in telephone number:	20	Server dependent
Max. No. of returned entries / request:	25	25
Handsets that can access the phonebook:[1]	Depends on handset type.	

13.1.2 Phonebook address

The default Call ID in the UNS is 999999 for Central phonebook access.

When the UNS in the IMS2 is set to forwarding mode, the phonebook Call ID must exist in the module that the requests are sent to. Any change of the Call ID and/or IP address must be made in that module. If the default address is used, no changes are needed.

When the UNS in the IMS2 is set to stand-alone mode, do as follows to change the address:

1 On the IMS2 start page, click "Configuration". The IMS2 Configuration page opens.

2 Select Other settings > Advanced configuration. The IMS2 Advanced Configuration page opens.

3 Under Other, select "UNS".

4 Click "Alias / Call ID".

5 Click “999999” in the list.

[1] See also documentation for the handset.

6 Enter the new Call ID for the phonebook,that is, the Call ID the handsets are using to access the Central phonebook. Check that the Call ID does not conflict with any of the handsets in the system.

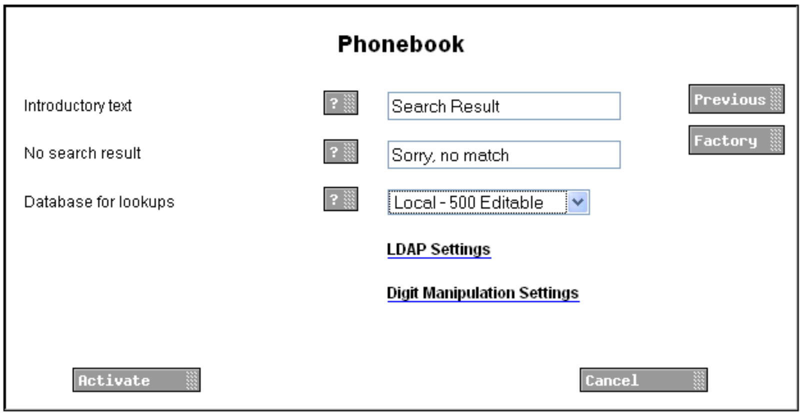
13.1.3 Search result texts

When a request is sent to the Central phonebook, a text is included in the response that is sent to the handset. These texts can be customized, for example translated.

1 On the IMS2 start page, click "Configuration". The IMS2 Configuration page opens.

2 Select Other settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Select “Phonebook”. The Phonebook page appears.



Phonebook

Introductory text: Search Result

No search result: Sorry, no match

Database for lookups: Local - 500 Editable

4 Enter the texts that should be included in the search result, see table below for more information about the different texts and when they are used.

Note: This setting does not affect all handset types.

Default text	Description
Search result	Included in a successful request before the entries that matched the request
Sorry, no match	Sent when there were no match for the sent request.

13.1.4 Select Central Phonebook Database

Select which database to use for telephone numbers; “Local - 500 Editable”, "Local - 2000 View only", or “LDAP”.

- If the default local database is selected, continue in chapter 7.2.1 Import Entries to the Central Phonebook from a CSV File on page 34, 7.2.2 Export the Central Phonebook to a CSV File and 7.1.1 Add Entries to the Central Phonebook.
- If LDAP server is selected, continue in chapter 13.1.5 LDAP Parameter Setup on page 99.

To set database to use for the Central phonebook, do as follows:

1 On the IMS2 start page, click "Configuration". The IMS2 Configuration page opens.

2 Select Other settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Select "Phonebook".

4 In the "Database for lookups" field, choose between "Local - 500 Editable", "Local - 2000 View only", or "LDAP".

If "Local - 2000 View only" is chosen, the "Add" and "Delete all" buttons are not visible in the Edit Phonebook pages.

13.1.5 LDAP Parameter Setup

The Lightweight Directory Access Protocol (LDAP) is an application protocol for querying and modifying directory services running over TCP/IP. The IMS2 starts an LDAP session by connecting to an LDAP server. The IMS2 then sends operation requests to the server, and the server sends responses in return.

An LDAP directory is a tree of directory entries and follows the structure below:

- An entry consists of a set of attributes.
- An attribute has a name and one or more values.

Each entry has a unique name; the distinguished name (DN). DN consists of its relative distinguished name (RDN) constructed from some attribute(s) in the entry, followed by the parent entry's DN. Think of the DN as a full filename and the RDN as a relative filename in a folder.

An entry can look like this:

dn: cn=John Ericson,dc=company,dc=com
cn: John Ericson
givenName: John
sn: Ericson
telephoneNumber: +1 888 555 6789
mail: john@company.com

dn is the name of the entry; it is not an attribute nor part of the entry. ‘’cn=John Ericson’’ is the entry's RDN, and ‘’dc=company, dc=com’’ is the DN of the parent entry. The other lines show the attributes in the entry. Attribute names are typically mnemonic strings, like ‘’cn’’ for common name, ‘’dc’’ for domain component, ‘’mail’’ for e-mail address and ‘’sn’’ for surname. See 13.1.6 Examples of Settings on page 100.

1 Click the LDAP settings link.

2 In the LDAP Server or Proxy Address field, enter the IP address or DNS address to the LDAP server.

3 In the Port Number field, enter the port number used by the LDAP server.

4 In the Authentication Method drop down list, select how to authenticate to the LDAP server.

Note: If the authentication method SASL/DIGEST-MD5 is selected, the IP address for primary DNS server must be entered in the DNS server field on the Network setup page. Otherwise it is not possible to authenticate with the LDAP directory Microsoft Active Directory 2003.

5 In the User name field, enter the user name used for logging on to the LDAP server. It is a good idea to create a new user in the domain with access for the LDAP server.

6 In the Password field, enter the password used for logging on to the LDAP server.

7 In the Search Base DN field, enter the user entries' parent DN.
(The distinguished name for all users common entry.)

8 In the Number attribute field, enter the name of the attribute that holds the telephone numbers.

9 In the Type of Name Attribute(s) drop down list, select the appropriate option.

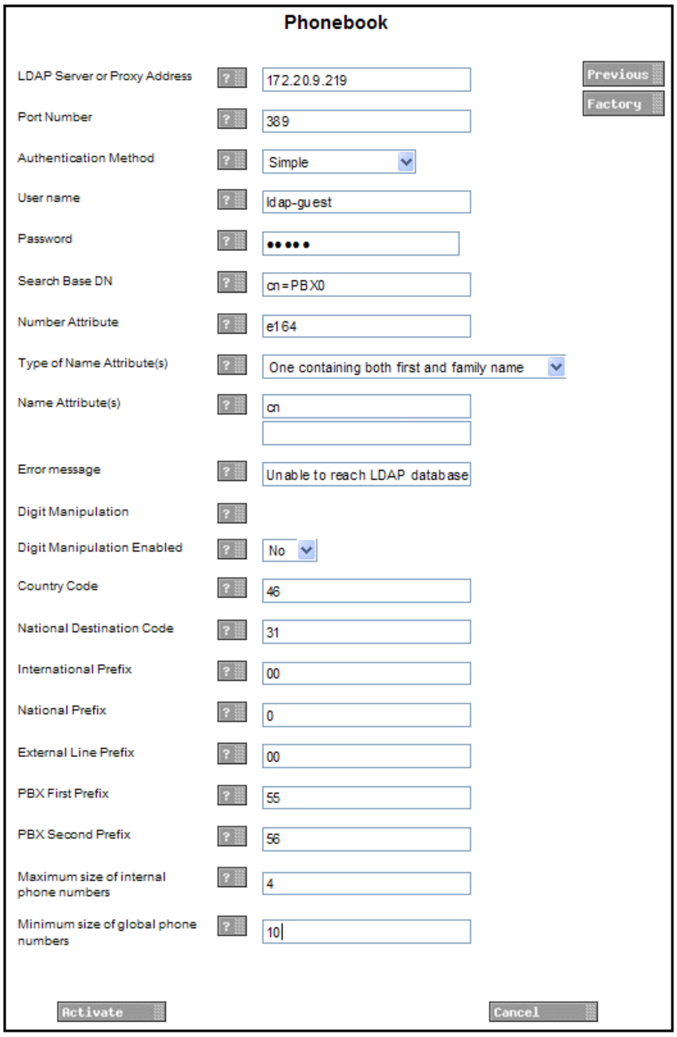
The option depends on if the name is stored in a single attribute or if it is split into two different attributes.

10 In the Name Attribute(s) field, enter name(s) of the attribute(s) containing first name and family name. If two attributes are used, enter the first name on the first line and the family name on the second line.

11 In the Error message field, enter an error message to be sent as an answer to a phonebook query that was unsuccessful, due to no answer from the server.

13.1.6 Examples of Settings

- LDAP directory in VoIP Gateway

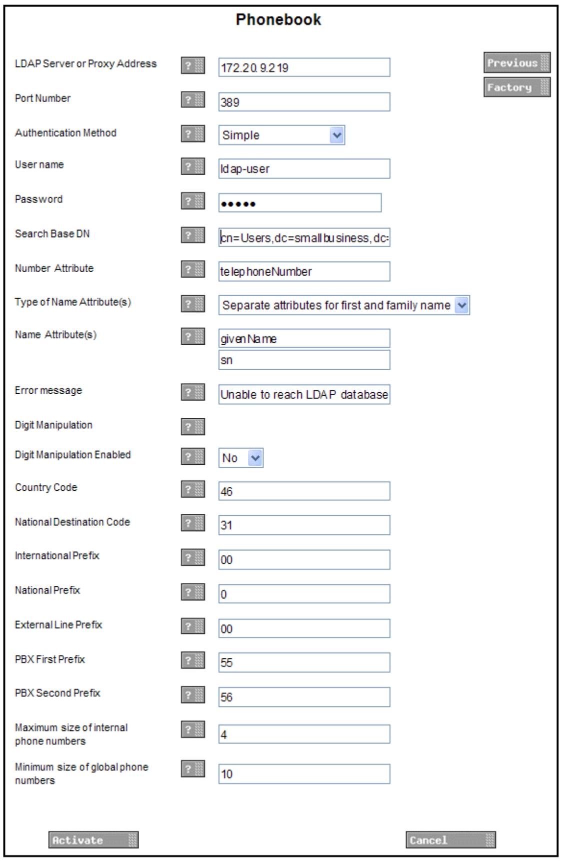


Phonebook

LDAP Server or Proxy Address	172.20.9.219
Port Number	389
Authentication Method	Simple
User name	ldap-guest
Password	•••••
Search Base DN	cn=PBX0
Number Attribute	e164
Type of Name Attribute(s)	One containing both first and family name
Name Attribute(s)	cn
Error message	Unable to reach LDAP database
Digit Manipulation	
Digit Manipulation Enabled	No
Country Code	46
National Destination Code	31
International Prefix	00
National Prefix	0
External Line Prefix	00
PBX First Prefix	55
PBX Second Prefix	56
Maximum size of internal phone numbers	4
Minimum size of global phone numbers	10

Figure 32. Settings for LDAP Directory in the VoIP Gateway

- Active directory 2003



Phonebook

LDAP Server or Proxy Address	172.20.9.219
Port Number	389
Authentication Method	Simple
User name	ldap-user
Password	●●●●●
Search Base DN	cn=Users,dc=smallbusiness,dc=
Number Attribute	telephoneNumber
Type of Name Attribute(s)	Separate attributes for first and family name
Name Attribute(s)	givenName sn
Error message	Unable to reach LDAP database
Digit Manipulation	
Digit Manipulation Enabled	No
Country Code	46
National Destination Code	31
International Prefix	00
National Prefix	0
External Line Prefix	00
PBX First Prefix	55
PBX Second Prefix	56
Maximum size of internal phone numbers	4
Minimum size of global phone numbers	10

Figure 33. Settings for Active directory 2003

13.1.7 Digit Manipulation in Central Phonebook

When importing telephone numbers it is sometimes necessary to automatically change the way a number is written according to preset conditions.

Depending on where a number is situated, the IMS2 can alter the number that is returned in a phonebook query. If, for example, the queried number is situated within the same local exchange, the telephone number is considered to be an internal number and the number is stripped from superfluous international prefixes, etc.

Telephone number standards

There are several standardlized ways of writing telephone numbers.

The following formats are currently supported:

Format	Comment
+4631559300	E.164 international standard, and E.123
(031)-559300	E.123 local number
+46(031)559300	National prefix + national destination code in parentheses
+46(0)31559300	National prefix in parentheses
+46(31)559300	Canonical address format

4631551234	Digits only. Conversion is controlled by setting maximum lengths of internal and national numbers.

Examples

Figure 34 shows the elements of a telephone number, +46(31)551234 (in canonical format), used in the parameter descriptions below.

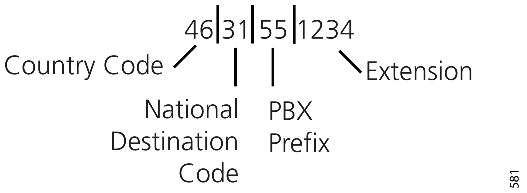
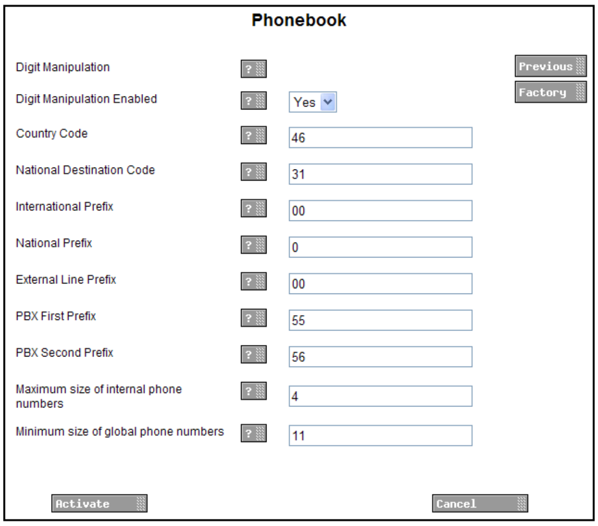


Figure 34. Example of how a telephone number is built up from different prefixes and extensions.



Digit Manipulation	
Digit Manipulation Enabled	Yes
Country Code	46
National Destination Code	31
International Prefix	00
National Prefix	0
External Line Prefix	00
PBX First Prefix	55
PBX Second Prefix	56
Maximum size of internal phone numbers	4
Minimum size of global phone numbers	11

Figure 35. Example of Digit Manipulation Settings.

The following examples illustrate how digit manipulation works in different queries. The queries are considered to be done from within +463155xxxx (local exchange), see also figure 35 on page 102.

- Example 1: The query is within the same local exchange.

  Queried number: 551234

  Digit manipulation identifies 55 as the local exchange prefix and strips 55 from the number.

  Resulting number: 1234
- Example 2: The query is within the same city (area code), but outside the local exchange.

  Queried number: 031612500

  Digit manipulation identifies 0 as National Prefix and 31 as National Destination Code, strips 031 from the number and adds 00 for external line.

  Resulting number: 00612500

- Example 3: The query is within the same country, but not in the same city.

  Queried number: 035158115

  Digit manipulation identifies 0 as National Prefix and 35 as National Destination Code and adds 00 for external line.

  Resulting number: 00035158115
- Example 4: The query is within another country.

  Queried number: +4781530555

  Digit manipulation identifies "+47" as an international call, skips the "+", and adds 00 for external line prefix and 00 for international prefix.

  Resulting number: 00004781530555
- Example 5: Size of internal number.

  Queried number: 1234

  Digit manipulation identifies that the number of digits in the telephone number is equal to the number of digits entered as "maximum size of internal phone numbers".

  Resulting number: 1234
- Example 6: Size of global number.

  Queried number: 47815305555

  Digit manipulation identifies that the number of digits in the telephone number is equal to the number of digits entered as "minimum size of global phone numbers", then adds 00 for external line prefix and 00 for international prefix.

  Resulting number: 000047815305555

Digit Manipulation Settings

The parameters for digit manipulation can be set via the IMS2 Configuration page.

1. In the IMS2 Start Page, click "Configuration".
2. Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page appears.
3. Click "Phonebook".
4. Click "Digit Manipulation settings".

The following parameters can be configured for digit manipulation:

- Digit Manipulation Enabled

  The digit manipulation function can be enabled and disabled. If the function is enabled, the parameters below apply, otherwise they do not apply.
- Country Code

  The Country Code is the prefix to be used when dialling to a particular country from another country. The country code is what follows after the + in a telephone number.

  The value is used to identify the country code in the number and remove it when it is not needed.
- National Destination Code

  The National Destination Code (NDC) is what follows after the country code in a telephone number.

  The value is used to identify the NDC in the telephone number and remove it when it is not needed.
- International Prefix

  The International Prefix is used to dial a call from a particular country to another country. This is followed by the country code for the destination country.

  This value is used to replace the *plus (+)* character when an international call is made.

- National Prefix

  National Prefix is used to make a call within a country from one city to another. The national prefix is followed by the national destination code for the destination of the call.

  This value is used for two purposes:

  - To identify the national prefix in the number and remove it when it is not needed.
  - To change a number when the destination is another city.
- External Line Prefix

  External Line Prefix is what needs to be dialled before the number to reach the public network.

  The value is used to change the telephone number if it is identified as an external number.
- PBX First Prefix

  PBX First Prefix is what precedes an internal number to create an external number.

  This value is used to compare with the phonebook number to decide whether the number is internal or external.
- PBX Second Prefix

  Points out an additional prefix to be handled in the same way as "PBX First prefix".
- Maximum size of internal telephone numbers

  Used for numbers that starts with a digit instead of "+" or "(". If the number is longer than this value, it is considered to be an external number.
- Minimum size of global telephone numbers

  Used for numbers that starts with a digit instead of "+" or "(". If the number is equal to or longer than this value, it is considered to be a global number.

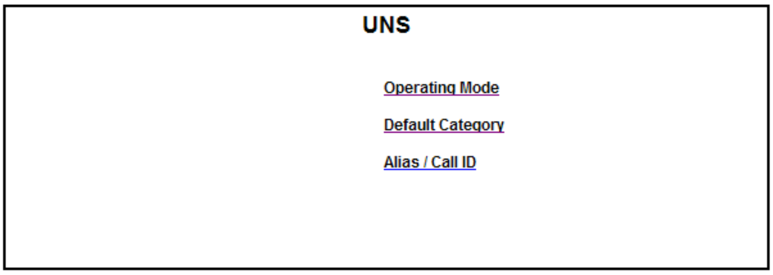
13.1.8 UNS Default Category

It is possible to set UNS default category.

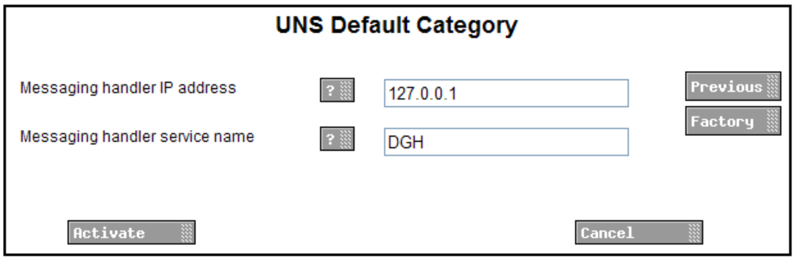
1 On IMS2 Start Page, select "Configuration".

2 Select "Other Settings" > "Advanced Configuration". The IMS2 Advanced Configuration page appears.

3 Under Other, select "UNS".



4 Select "Default Category". The UNS Default Category page opens.



Messaging handler IP address 127.0.0.1

Messaging handler service name DGH

5 Enter values for Messaging handler IP address and Messaging handler service name. Default value for Messaging handler service name is DGH which is the internal message group handler in IMS2.

6 Click "Activate".

13.2 Alarm Handling

This functionality requires an additional license.

The alarm handling included in IMS2 makes it possible to trigger on alarms and data from handsets in the Cordless Telephone System. Activated inputs on IMS2, or a module connected to the System 900 A-bus, can also be used as a trigger. As a reaction to the incoming information, messages can be sent to handsets and it is also possible to activate outputs on the IMS2 or modules connected to the System 900 A-bus.

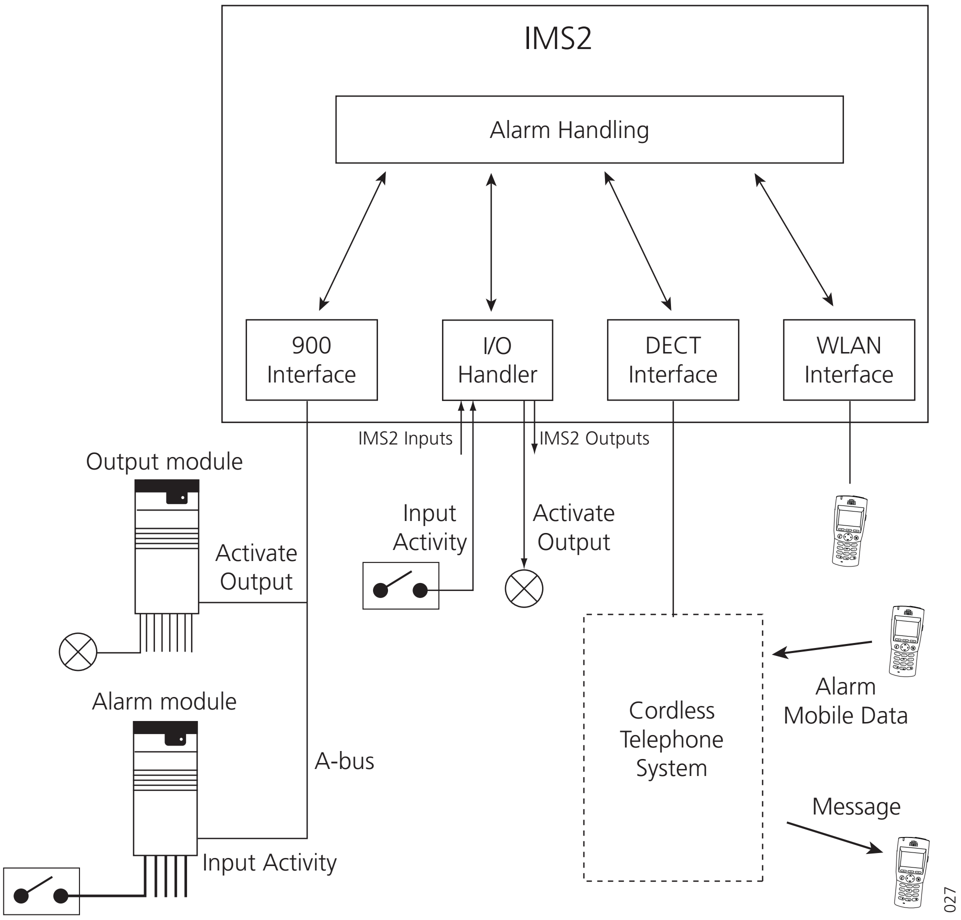


Figure 36. Communication flow for the Alarm Handling and external systems.

For instructions on how to set up Alarm Actions, see 13.2.3 Add Alarm Actions.

For examples of how to set up Alarm Actions, see Appendix C.

13.2.1 Nomenclature

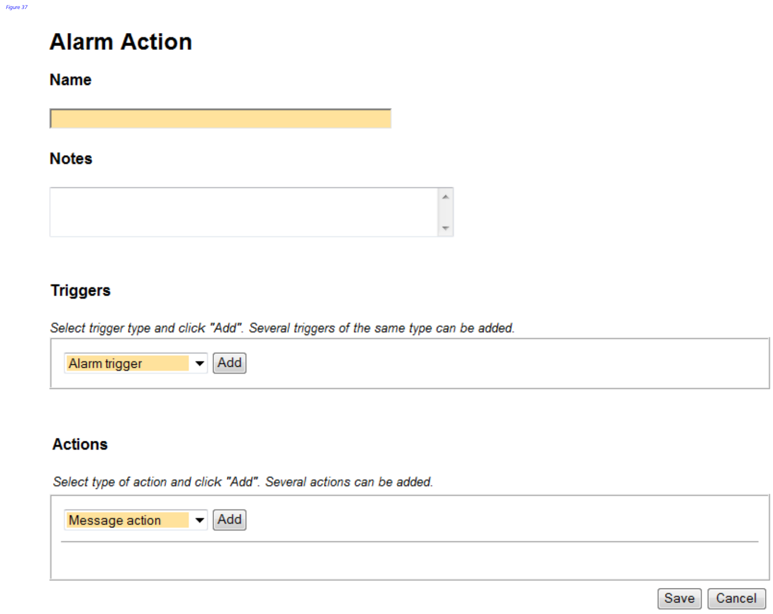
Alarm action An alarm action consists of trigger conditions that leads to an action i.e. sending a message to a handset in the system and/or activating an output. One alarm action can consist of several triggers and lead to several actions. The actions can be repeated at a regular time interval as long as an input is active.

Input — An input on the IMS2 or an input on an Alarm Module connected to the System 900 A-bus.

Output — An output on the IMS2 or an output on an Output Module connected to the A-bus.

Trigger — A trigger is a set of conditions that have to be fulfilled, for example that an input has to be open for a certain time period or that an alarm has been sent from a handset.
Several triggers of the same type can be defined for each alarm action. The actions will be carried out when any of the triggers is fulfilled.

Action — Sending a message to a handset or activating an output.



Alarm Action

Name

Notes

Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

Alarm trigger ▾ Add

Actions

Select type of action and click "Add". Several actions can be added.

Message action ▾ Add

Figure 37. Alarm Action view.

13.2.2 Alarm Handling Icons

On the Alarm Handling pages the following icons can be shown:

Reply to sender (Message symbol)

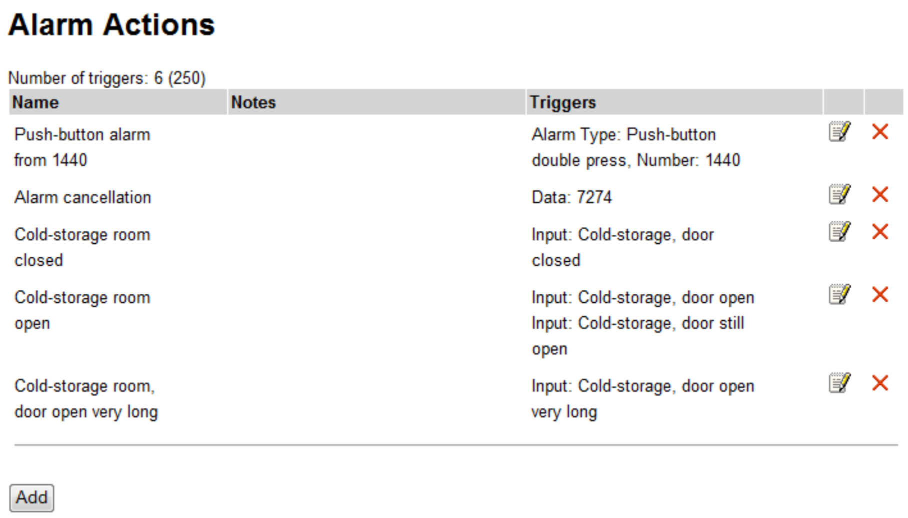
Add Call ID

Add Alarm Type

Add Input Description

Delete

13.2.3 Add Alarm Actions



Alarm Actions

Number of triggers: 6 (250)

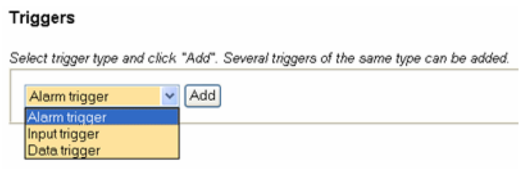
Name	Notes	Triggers		
Push-button alarm from 1440		Alarm Type: Push-button double press, Number: 1440	✎	✕
Alarm cancellation		Data: 7274	✎	✕
Cold-storage room closed		Input: Cold-storage, door closed	✎	✕
Cold-storage room open		Input: Cold-storage, door open Input: Cold-storage, door still open	✎	✕
Cold-storage room, door open very long		Input: Cold-storage, door open very long	✎	✕

Define Trigger

1 In the Triggers drop-down list, select type of trigger.

2 Click “Add”.

Several triggers of the same type can be added to the same action.

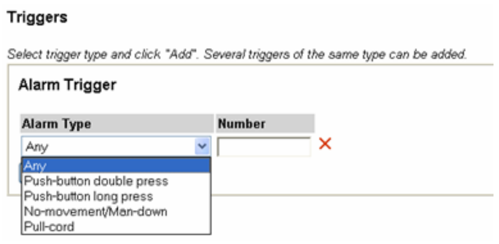


Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

- Alarm Trigger

1 In the Alarm Type drop-down list, select alarm type.



Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

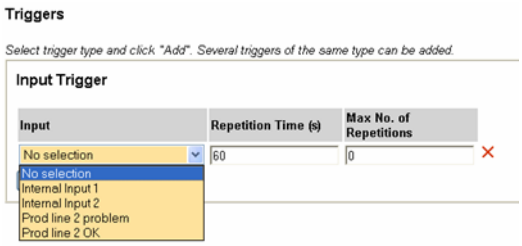
Alarm Trigger

2 In the Number text field, enter the handset number if the alarm is to be sent from a specific handset. Leave empty if any handset shall be able to trigger the alarm.

3 Click “Add”.

- Input Trigger

1 In the Input drop-down list, select input trigger . Only inputs defined in the I/O Setup are available. Refer to 13.4 Input/Output Setup on page 115.



Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

Input Trigger

Input	Repetition Time (s)	Max No. of Repetitions
No selection	60	0

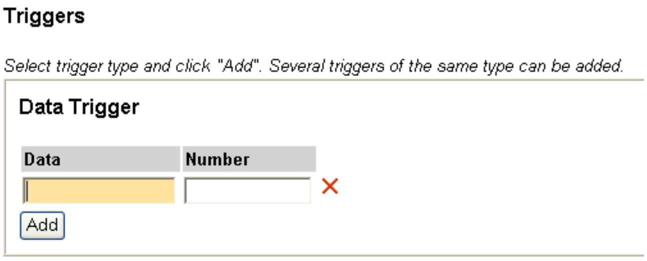
2 In the Repetition Time text field, enter the interval (in seconds) between repetitions Note that this field must be set to min.10 seconds even if no repetitions shall be made.

3 In the Max. No. of Repetitions text field, enter how many times the trigger shall be repeated. For no repetitions, enter '0'.

4 Click “Add”.

- Data Trigger

1 In the Data text field, enter the data value that shall be used as a trigger. Only exact match is valid, wildcard is not supported.



Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

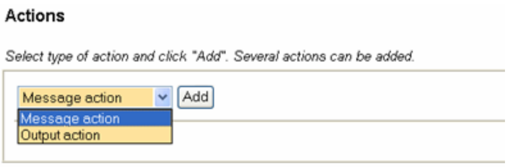
Data Trigger

Data	Number

2 In the Number text field, enter handset number if the data is to be sent from a specific handset. Leave empty if any handset shall be able to send the data.

Select Type of Action

1 In the Actions drop-down list, select type of action.



Actions

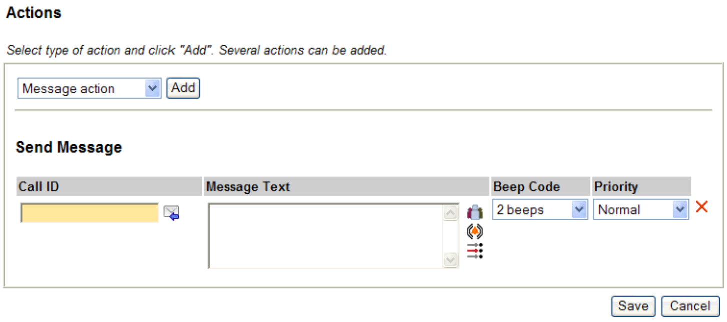
Select type of action and click "Add". Several actions can be added.

2 Click “Add”.

Several actions can be added.

- Message Action

The following figure is an example.



Actions

Select type of action and click "Add". Several actions can be added.

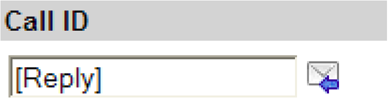
Message action

Send Message

Call ID	Message Text	Beep Code	Priority
		2 beeps	Normal

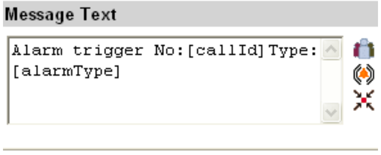
1 In the Call ID text field, enter the Call ID that shall receive the message.

- Click ✉ if the message is to be sent as a reply to the sender of the alarm or data.



Call ID: [Reply]

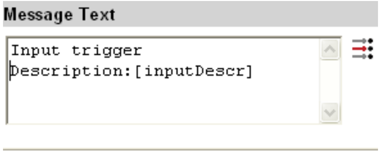
2 In the Message Text field, enter the message. By clicking the icons to the right of the text field you can add valuable information to the message, such as call ID of the sender, type of alarm. If an input is activated the description of the input can be added.



Message Text

```
Alarm trigger No:[callId]Type:
[alarmType]
```

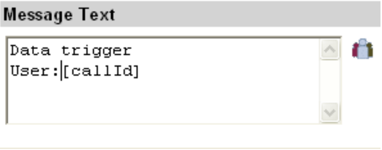
Figure 38. Available information for the alarm trigger



Message Text

```
Input trigger
Description:[inputDescr]
```

Figure 39. Available information for the input trigger



Message Text

```
Data trigger
User:[callId]
```

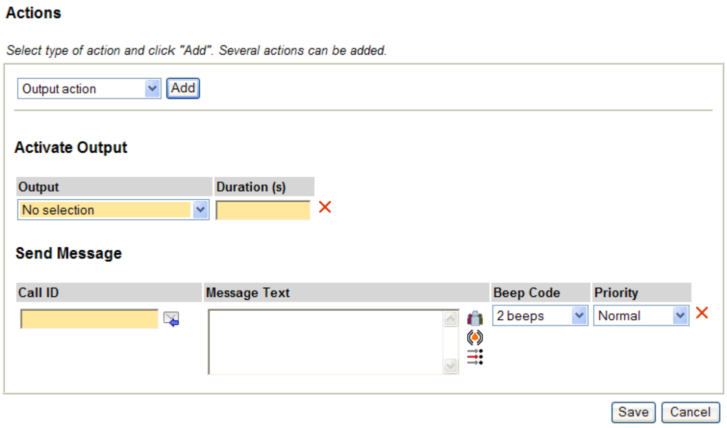
Figure 40. Available information for the data trigger

3 In the Beep Code drop-down list, select number of beeps

4 In the Priority drop-down list, select message priority.

- Output Action

1 In the Output drop-down list, select which output to activate. Only outputs defined in the I/O Setup are available. Refer to 13.4 Input/Output Setup on page 115.



Actions

Select type of action and click "Add". Several actions can be added.

Output action

Activate Output

Output	Duration (s)
No selection	

Send Message

Call ID	Message Text	Beep Code	Priority
		2 beeps	Normal

2 In the Duration text field, enter (in seconds) how long the output shall be activated Allowed value is 1 - 3600 seconds.

13.3 Status

On these pages, information on active faults or stored faults can be shown.

13.3.1 Active Faults

Active Faults page is where all persistent fault logs are listed. For more information about the fault log, refer to 13.3.2 Fault Log on page 113.

1 On IMS2 Start Page, select "Configuration". The IMS2 Configuration page to opens.

2 Select Status > Active Faults.

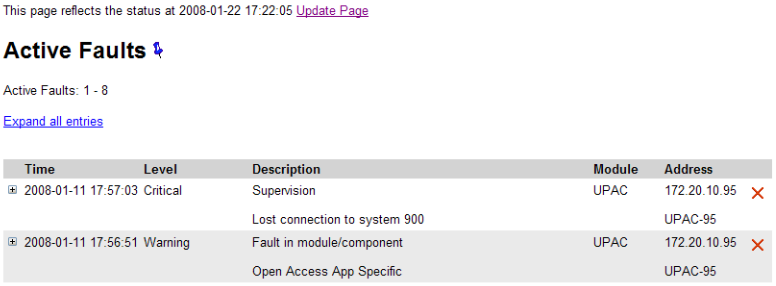
The following information is shown for each fault:

- Time when the fault occurred
- Level of the fault:
  - Critical error
  - Error
  - Warning
- Description of the fault, as defined in the module
- Type of module
- IP address and host name of the module that generated the fault

By expanding the fault in the list, additional information about the fault is shown containing:

- Fault ID

  This is used to reference a persistent fault when it later is reset
- Fault code
- Description of the fault code
- Extended address information showing the system, bus type and module address



This page reflects the status at 2008-01-22 17:22:05 Update Page

Active Faults

Active Faults: 1 - 8

Expand all entries

Time	Level	Description	Module	Address	
⊞ 2008-01-11 17:57:03	Critical	Supervision Lost connection to system 900	UPAC	172.20.10.95 UPAC-95	✕
⊞ 2008-01-11 17:56:51	Warning	Fault in module/component Open Access App Specific	UPAC	172.20.10.95 UPAC-95	✕

Persistent faults will remain in the list until the module sends a status message confirming that the module is working properly again. It is also possible to delete the fault in the list by clicking the icon ✕.

Note: If the IP address or license is changed in IMS2, the faults reported for the previous IP address/license will remain since no confirmation can be received. These faults must be manually deleted.

The active faults list page has to be manually updated by clicking the "Update Page" link uppermost on the page.

On this page, the error relay can be reset. See also Appendix F: Function Indicator and Error Relay Output on page 189 and Installation Guide, ELISE2, TD 92232GB.

Module Fault List

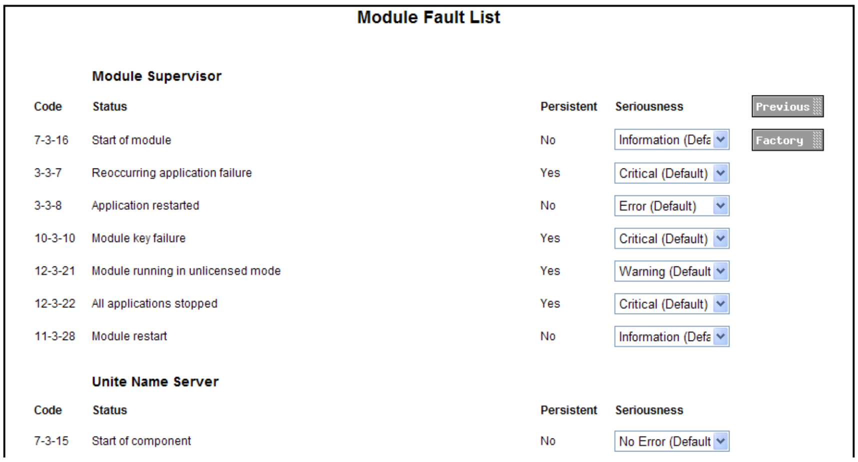
There is a list of all possible module faults, which shows codes and statuses etc. for IMS2.

1 On IMS2 Start Page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Click the "Troubleshoot" button and select "Module Fault List".

In the Module Fault list page it is possible to change settings on which level to use.



Module Fault List

Module Supervisor

Code	Status	Persistent	Seriousness
7-3-16	Start of module	No	Information (Defa
3-3-7	Reoccurring application failure	Yes	Critical (Default)
3-3-8	Application restarted	No	Error (Default)
10-3-10	Module key failure	Yes	Critical (Default)
12-3-21	Module running in unlicensed mode	Yes	Warning (Default
12-3-22	All applications stopped	Yes	Critical (Default)
11-3-28	Module restart	No	Information (Defa

Unite Name Server

Code	Status	Persistent	Seriousness
7-3-15	Start of component	No	No Error (Default

13.3.2 Fault Log

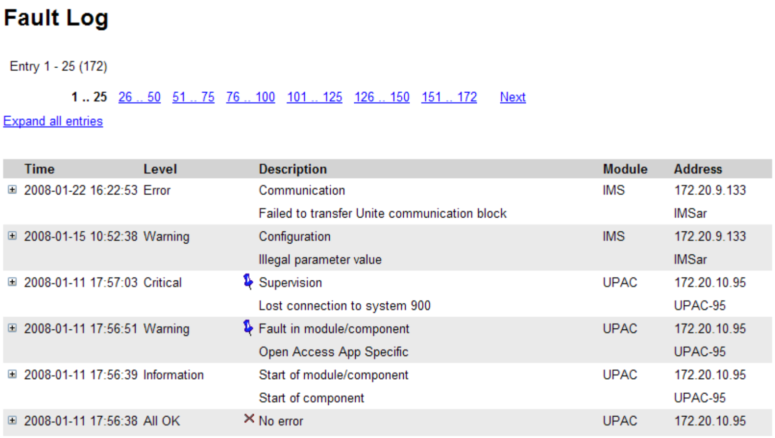
The IMS2 fault log is a centralised log file and shows a complete log of the faults in the system. Every time a fault message is generated in the system, information about the fault is written to the log file. The maximum number of entries in the log file is 1050. When the log file is full, the 50 oldest entries are removed.

1 On IMS2 Start Page, select "Configuration". The IMS2 Configuration page opens.

2 Select Status > Fault Log.

The first 25 log entries are shown. To get the following 25 log entries, click the ''Next'' link.

.



Fault Log

Entry 1 - 25 (172)

1 .. 25 26 .. 50 51 .. 75 76 .. 100 101 .. 125 126 .. 150 151 .. 172 Next

Expand all entries

Time	Level		Description	Module	Address
⊞ 2008-01-22 16:22:53	Error		Communication	IMS	172.20.9.133
			Failed to transfer Unite communication block		IMSar
⊞ 2008-01-15 10:52:38	Warning		Configuration	IMS	172.20.9.133
			Illegal parameter value		IMSar
⊞ 2008-01-11 17:57:03	Critical	📌	Supervision	UPAC	172.20.10.95
			Lost connection to system 900		UPAC-95
⊞ 2008-01-11 17:56:51	Warning	📌	Fault in module/component	UPAC	172.20.10.95
			Open Access App Specific		UPAC-95
⊞ 2008-01-11 17:56:39	Information		Start of module/component	UPAC	172.20.10.95
			Start of component		UPAC-95
⊞ 2008-01-11 17:56:38	All OK	✕	No error	UPAC	172.20.10.95

The following fault levels exist in the fault log:

- Information
- Individual reset
- All OK
- Critical error
- Error
- Warning

Symbols used in the Fault Log

Symbol	Description
📌	Active persistent fault
📌✕	Persistent fault that has been handled
✕	Reset message, no fault exists

To get more detailed information about the events, it is possible to expand the log entries by clicking the ''Expand all entries'' link. Single log entries can be expanded by clicking the individual "+" icon.

13.3.3 Administer Fault Log

In the Administer Fault Log page, it is possible to export the log file to CSV (Comma Separated Values) file format, and to clear the status log file from non-active faults. A timeout can be set to block repeated Status Logs, that is, the fault will be discarded and no actions will be executed.

1 On IMS2 Start Page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Administer Fault Log.

Export Fault Log

The log will be exported in csv format.

1 Click ''Export''.

2 Click ''Save'' in the dialogue window and enter the file name (default name statuslog.csv) and the file path.

Clear Fault Log

This functionality removes all non-active faults from the fault log.

1 Click ''Clear''.

2 Click ''Yes'' in the dialogue window to remove all non-active faults from the status log file.

Timeout

Repeated faults can be blocked, i.e. the fault will be discarded and no actions will be taken. The incoming fault will be handled when first received and blocked during the set timeout.

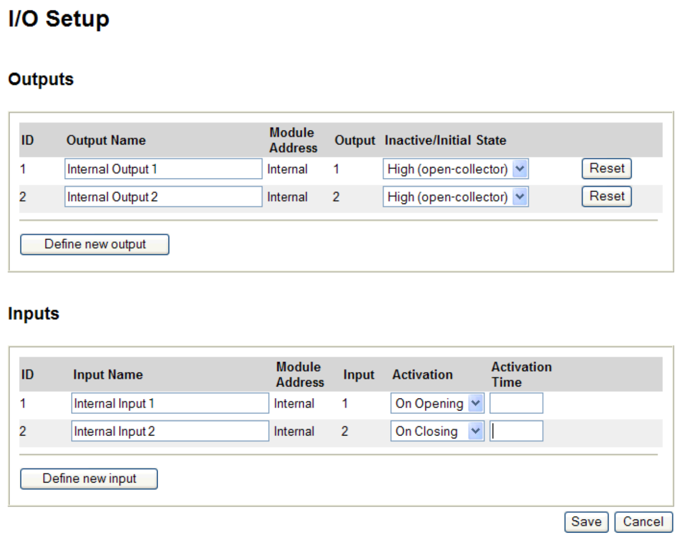
1 Enter the timeout in minutes (0-1000 minutes), the default value is 10 minutes.

If no Status Logs should be blocked, set the timeout to 0.

2 Click ''Set timeout'' to save the setting.

13.4 Input/Output Setup

Inputs and outputs are defined in the I/O Setup page (see Figure 41) located under Other Settings > Input/Output. The activation of an input can be set to ''on opening'' or ''on closing'' and the initial state for the output can be set to ''low'' or ''high''.



I/O Setup

Outputs

ID	Output Name	Module Address	Output	Inactive/Initial State	
1	Internal Output 1	Internal	1	High (open-collector)	Reset
2	Internal Output 2	Internal	2	High (open-collector)	Reset

Inputs

ID	Input Name	Module Address	Input	Activation	Activation Time
1	Internal Input 1	Internal	1	On Opening	
2	Internal Input 2	Internal	2	On Closing	

Figure 41. The I/O Setup Page

For the outputs, the state is set to the opposite of the initial state when activated. For example, if output 2 is set to low in initial state, the output will automatically be set to high when activated.

Every time a new output or input is defined an automatic ID is created. The ID is a running number which can manually be changed into another number or a text if wanted. When an output or input has been deleted, the IMS2 will not remember that the previous ID number is free to be used again. The numbering will just continue on the number after the last created one.

13.4.1 Defining Inputs and Outputs

Before an input or output can be used in the configuration, it has to be defined with a name and address.

IMS2 inputs

The IMS2 has two inputs that can be used. These inputs are predefined at delivery. The states that can be detected are open and close.

IMS2 outputs

The IMS2 has two outputs of open-collector type that can be used in the Alarm Handling. These outputs are predefined at delivery. The initial state can be set to high or low.

For more information refer to the hardware Installation Guide, ELISE2, TD 92232GB.

Alarm Module inputs

The number of inputs that can be used can be extended by using an Alarm Module connected to the System 900 A-bus. The input on the Alarm Module is defined by a name, the module address[1] on the System 900 A-bus, and the input number. The states that can be detected are open and close.

[1] Every module that is connected to the System 900 A-bus has a two digit hexadecimal address.

See also Installation Guide for T941AM32 Alarm Module, TD 90854GB, and Installation Guide for T941AM8 Alarm Module, TD 90858GB.

Output Module outputs

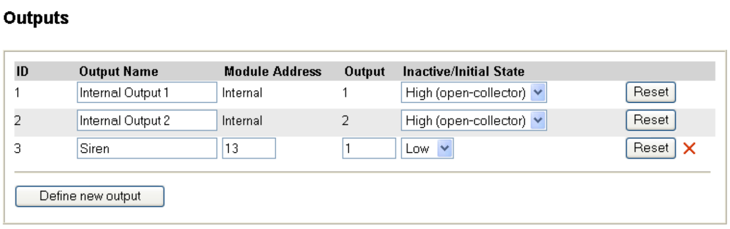
The number of outputs that can be used in IMS2 can be extended by using an Output Module connected to the System 900 A-bus. The output on the Output Module is defined by a name, the module address[1] on the System 900 A-bus, and the output number. The initial state can be set to high or low.

See also Installation Guide for T941OM Output Module, TD 90859GB.

13.4.2 Define Output

1 On IMS2 Start Page, select "Configuration". The IMS2 Configuration page opens.

2 Select Other Settings > Input/Output.



Outputs

ID	Output Name	Module Address	Output	Inactive/Initial State		
1	Internal Output 1	Internal	1	High (open-collector)	Reset	
2	Internal Output 2	Internal	2	High (open-collector)	Reset	
3	Siren	13	1	Low	Reset	✕

Define new output

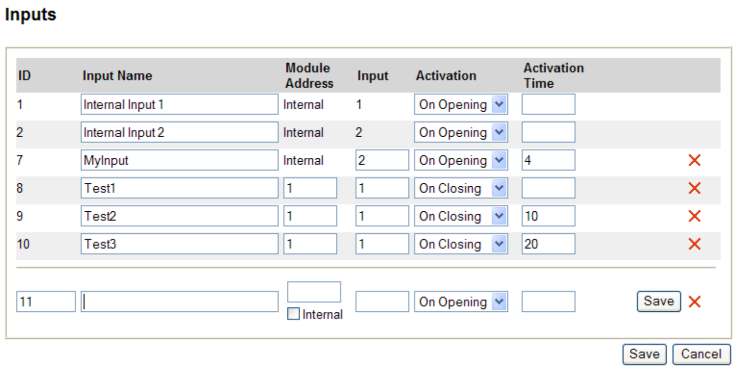
3 Click "Define new output".

4 Enter Name, A-bus Module Address and Output number.

5 Select Initial State.

6 Click "Save".

13.4.3 Define Inputs



Inputs

ID	Input Name	Module Address	Input	Activation	Activation Time		
1	Internal Input 1	Internal	1	On Opening			
2	Internal Input 2	Internal	2	On Opening			
7	MyInput	Internal	2	On Opening	4		✕
8	Test1	1	1	On Closing			✕
9	Test2	1	1	On Closing	10		✕
10	Test3	1	1	On Closing	20		✕
11		□ Internal		On Opening		Save	✕

Save Cancel

1 Click "Define new input".

2 Enter a unique Input Name.

3 Enter "Module Address"or select "Internal" depending on if the input is connected via System 900 A-bus module or to the IMS2 hardware directly. If you want to trigger on both opening and closing or using different "Activation time" you can define multiple inputs for the same physical input. This can for example be used if you at a door (by using a microswitch) want an activation on both opening and closing the door. Please

see Appendix C: Alarm Action Configuration Examples on page 176 for other examples.

4 Enter "Input number".

Note: If you have selected the internal checkbox in the previous step, enter the number of the internal input (1 or 2).

5 Select Activation condition.

6 Enter Activation Time. By default a notification will be sent immediately. If you enter activation time, the input has to be active for the set time before a notification is sent.

7 Click "Save".

13.5 Backup the Configuration

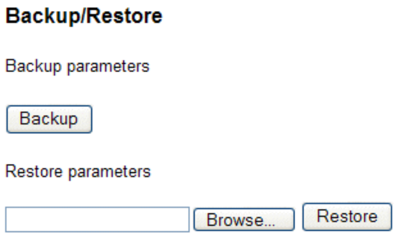
This instruction is used to backup the Device Manager database and ELISE2 configuration. The backup file is saved in a proprietary file format and cannot be edited. Save it in a place where you can easily find it for a restore.

Note: The backup does not include certificates.

Note: If a baseline is activated when doing a backup, the baseline will automatically be run when doing a restore. To avoid this, deactivate the baseline before doing the backup.

1 On the IMS2 Start page, click "Configuration" and log in.

2 Select Other Settings > Backup/Restore.



3 To make a backup file of the current configuration, click "Backup" in the Backup/Restore window. The *File Download* window appears.

4 Click "Save". The *Save As* window opens.

5 Select a location and enter a file name, then save the file.

13.6 Restore the Configuration

Note: When the IMS2 is restored, all changes that have been made since the last backup will be discarded.

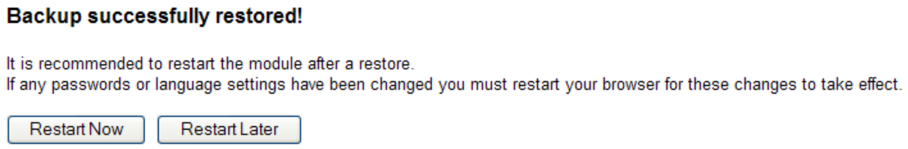
1 On the IMS2 Start page, click "Configuration" and log in.

2 Select Other Settings > Backup/Restore.

3 Click "Browse..." and select the backup file.

4 Click the "Restore" button. An information window will open and inform you when the restore is ready.

5 Click "Restart Now" to reboot, else click "Restart Later".



Backup successfully restored!

It is recommended to restart the module after a restore.
If any passwords or language settings have been changed you must restart your browser for these changes to take effect.

13.7 Device Configuration

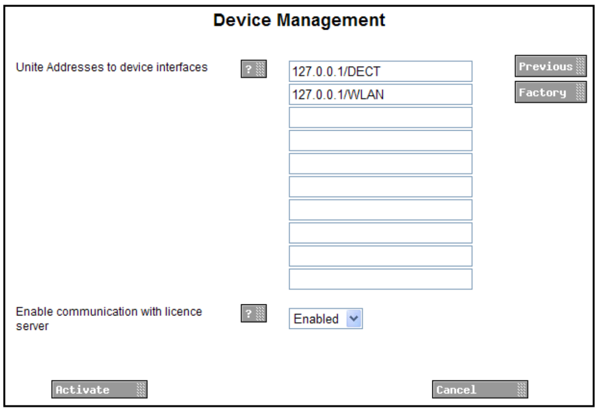
13.7.1 Device Management Setup

This setup page is used to set addresses to the interfaces that the devices are connected to.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *IMS2 Advanced Configuration* page opens.

3 Click "Device Management".



Device Management

Unite Addresses to device interfaces: 127.0.0.1/DECT, 127.0.0.1/WLAN

Enable communication with licence server: Enabled

4 Enter Unite address to the interfaces that the devices are connected to.

5 Set whether communication with the license server shall be enabled or not.

6 Click "Activate".

13.7.2 Device Handling Configuration

It is possible to set which device types that can login to the IMS2. This enables a possibility to for example enable portable devices log in to one device manager and to enable chargers to log in to another device manager.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *IMS2 Advanced Configuration* page opens.

3 Under *DECT Interface*, select "Device Handling".

4 Select the device type to enable/disable login from.

5 Change On-line Status to desired value

6 Click "Activate"

13.7.3 On-line Status Report Time for Chargers

It is possible to set how often a device type must "log in" in order to be considered on-line. This is called "On-line Status Report Time". To enable moving a charger without being logged out, it is possible to set a "Status Log Delay Time".

If the device has not logged in again within the On-line Status Report Time, the Status Log Delay Time starts ticking. If the device does not log in again within that time a Status Report is sent to the Fault Log.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *IMS2 Advanced Configuration* page opens.

3 Under *DECT Interface*, select "Device Handling".

4 Click the device type (that is, destop charger or rack charger) to change settings for.

5 Enter On-line Status Report Time in minutes.

6 To set the margin, enter Status Log Delay Time in minutes.

7 Click "Activate".

13.7.4 On-line Status Report Time for portable devices in a charging unit

It is possible to set how often a portable device type placed in a charging unit must "log in" in order to be considered online. This is called "On-line Status Report Time".

If the device has not logged in again within the On-line Status Report Time, it will be considered offline.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *IMS2 Advanced Configuration* page opens.

3 Under *DECT Interface*, select "Device Handling".

4 Click the device type to change settings for.

5 Enter On-line Status Report Time in minutes.

6 Click "Activate".

13.7.5 Service Discovery

Service Discovery allows automatic detection of devices and services on a network without prior configuration. IMS2 and the devices that shall belong to that IMS2 have to be set to the same Domain ID.

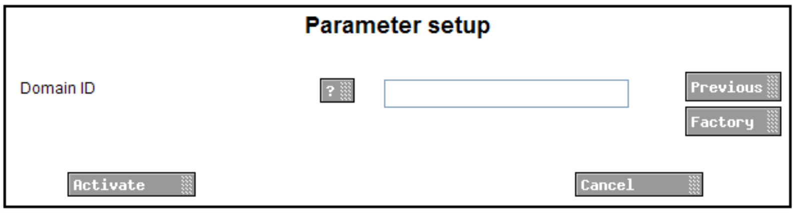
1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *IMS2 Advanced Configuration* page opens.

3 Select Other > Service Discovery.

4 In the *Domain ID* field, enter the Service Discovery Domain ID.

5 Click "Activate".



13.8 Coloured messaging

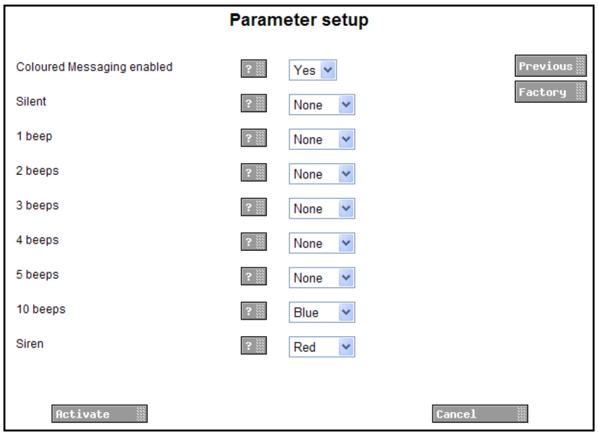
It is possible to add colour information in messages sent to handsets. The beep code in a message is mapped to a colour. When this feature is enabled, colour information will be added to all transmitted messages.

Note: All handset types do not support coloured messaging.

1 In the IMS2 start page, click "Configuration".

2 In the left menu, select Other Settings > Advanced Configuration. The IMS2 Advanced Configuration page opens.

3 Select "Coloured Messaging".



Parameter setup

Coloured Messaging enabled	Yes
Silent	None
1 beep	None
2 beeps	None
3 beeps	None
4 beeps	None
5 beeps	None
10 beeps	Blue
Siren	Red

4 In the *Coloured Messaging enabled* drop-down list, select to "Yes" if colour information shall be added to messages according to the settings in step 5.

5 Map which colours that shall correspond to the different beep codes. These colours are displayed with messages in the handsets.

6 Click "Activate".

13.9 Additional System Settings

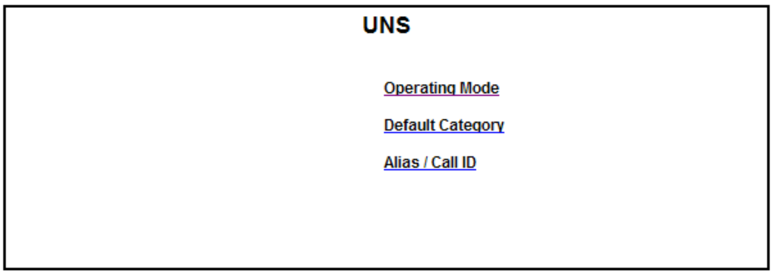
13.9.1 Unite Name Server (UNS)

The UNS is used to resolve addresses into complete destinations. The IMS2 can be configured to send all requests to the local UNS (stand-alone mode) or to forward all requests to a centralised UNS (forwarding mode). In forwarding mode, the local UNS will only be used if the centralized UNS cannot resolve the address.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page appears.

3 Select Other > UNS. The UNS page opens.

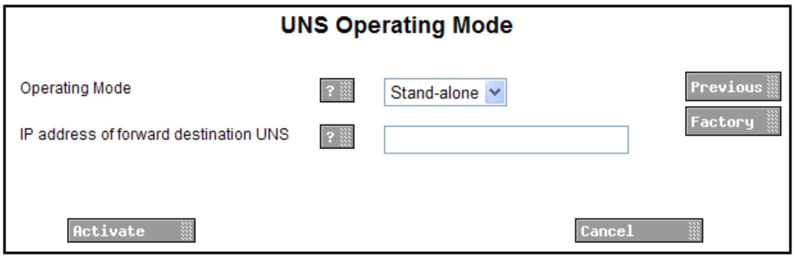


UNS

Operating Mode

Operating mode is changed in systems with an ESS only.

1 To set Operating mode, click "Operating mode".


UNS Operating Mode

Operating Mode: Stand-alone

IP address of forward destination UNS:

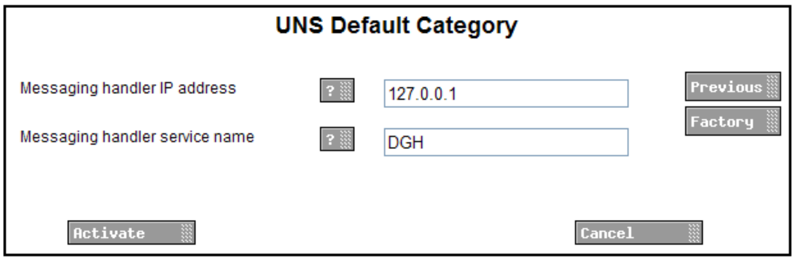
2 In a system with an ESS, set operating mode to Forwarding and enter the ESS IP address.

3 Click "Activate".

Default Category

The UNS Default Category is used to decide where messages from the IMS2 shall be sent. This parameter is changed when the DECT system is connected to another module.

1 To set Default Category, click "Default Category".


UNS Default Category

Messaging handler IP address: 127.0.0.1

Messaging handler service name: DGH

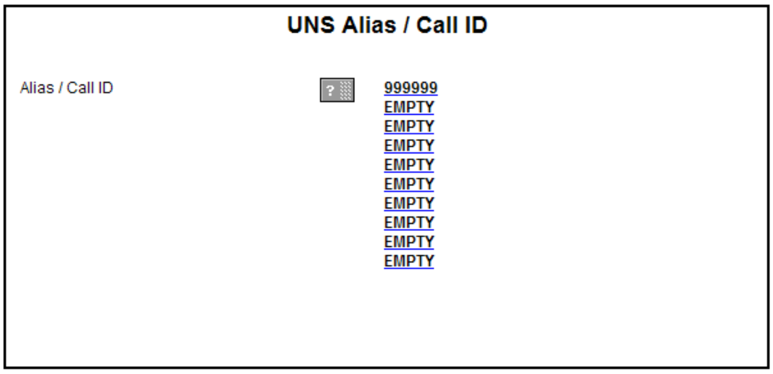
2 Enter the IP address of the module with the DECT system connected. Set messaging handler to DECT.

3 Click "Activate".

Alias / Call ID

Alias can be used when there are numbers that do not belong to the default category.

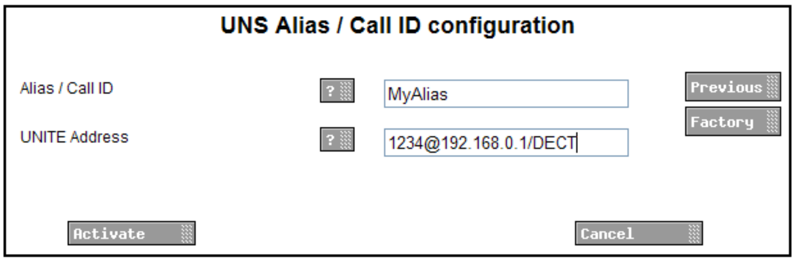
1 To set Alias / Call ID, click "Alias / Call ID".



UNS Alias / Call ID

"999999" is a preset alias used for phonebook queries. It shall normally not be changed.

2 Click one of the links to edit an certain alias/call id.



UNS Alias / Call ID configuration

Alias / Call ID: MyAlias

UNITE Address: 1234@192.168.0.1/DECT

3 Enter settings for UNS Alias / Call ID.

In this example, a message that is addressed to "MyAlias" will be sent to the handset with telephone number 1234 in the DECT system that is connected to the IMS2 with the address 192.168.0.1.

4 Click "Activate".

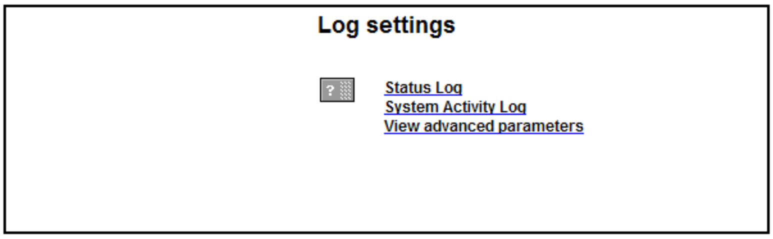
13.9.2 Logging

Status information can be stored locally, but can also be sent to a central log. The System Activity Log can store "activities" such as messages, alarms, faults, input/output activities, etc. Activity logging is useful for troubleshooting. An ESS is needed for Activity Logging.

1 On the IMS2 start page, click “Configuration”. The Configuration page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under Other, select "Logging".



Log settings

4 Click "Status Log", "System Activity Log" or "View advanced parameters".

5 In the selected log page, enter settings.

6 Click "Activate".

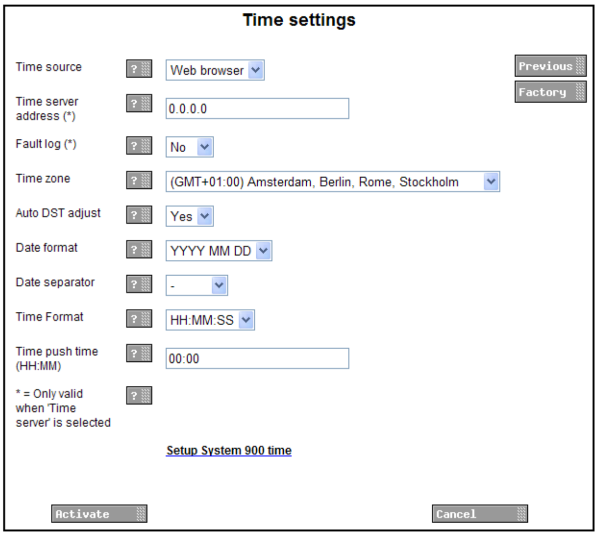
13.9.3 Time Settings

It is possible to select where to fetch the time from, such as a web browser or a time server.

1 On the IMS2 start page, click ‘‘Configuration’’. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under Time, select "Settings".



Time settings

Time source	Web browser
Time server address (*)	0.0.0.0
Fault log (*)	No
Time zone	(GMT+01:00) Amsterdam, Berlin, Rome, Stockholm
Auto DST adjust	Yes
Date format	YYYY MM DD
Date separator	-
Time Format	HH:MM:SS
Time push time (HH:MM)	00:00

* = Only valid when 'Time server' is selected

Setup System 900 time

4 The following parameters can be set (some of these parameters can also be set in the setup wizard):

- Time source
- Time server address
- Fault log
- Time zone
- Auto DST adjust
- Date format
- Date separator
- Time Format
- Time push time
- Setup System 900 time

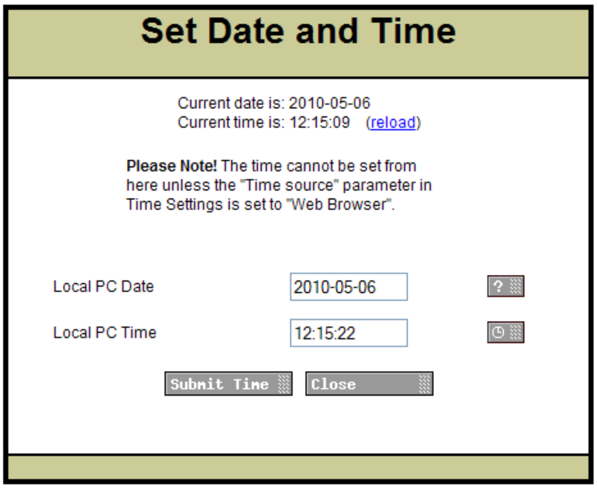
For additional information, see also Installation Guide, ELISE2, TD 92232GB.

5 Click "Activate".

Set time

If Web browser has been selected as time source, the time must be set manually. Otherwise this setting shall not be done.

1 Under Time, select "Set time" The *Set Date and Time* page opens.



Set Date and Time

Current date is: 2010-05-06
Current time is: 12:15:09 (reload)

Please Note! The time cannot be set from here unless the "Time source" parameter in Time Settings is set to "Web Browser".

Local PC Date: 2010-05-06

Local PC Time: 12:15:22

2 Enter date and time.

3 Click "Submit time".

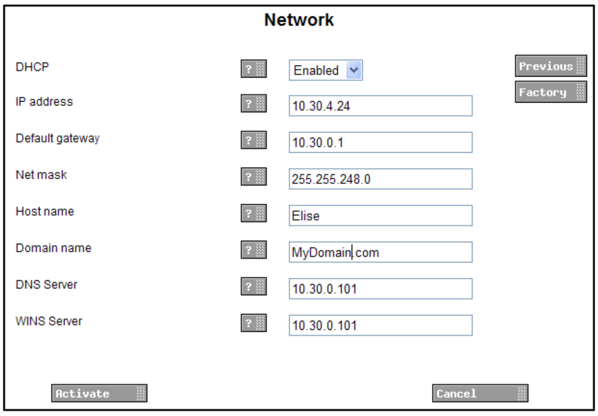
Date and time can also be set in the setup wizard.

13.9.4 Network Settings

1 On the IMS2 start page, click “Configuration”. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under *Common*, select "Network".



Network

DHCP: Enabled

IP address: 10.30.4.24

Default gateway: 10.30.0.1

Net mask: 255.255.248.0

Host name: Elise

Domain name: MyDomain.com

DNS Server: 10.30.0.101

WINS Server: 10.30.0.101

4 The following parameters can be set (some of these parameters can also be set in the setup wizard):

- DHCP
- IP address
- Default gateway
- Net mask
- Host name
- Domain name
- DNS Server
- WINS Server

For additional information, see also Installation Guide, ELISE2, TD 92232GB.

5 Click "Activate".

13.9.5 Setting License Number for IMS2

It is possible to enter the license number via the Advanced Configuration page and the setup wizard. To set via the Advanced Configuration page

1 On the IMS2 start page, click ‘’Configuration’’. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under *Common*, select "License".

4 Enter License number.

5 Click "Activate".

13.9.6 Reboot

It is possible to reboot the IMS2.

1 On the IMS2 start page, click ‘’Configuration’’. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under *Common*, select "Reboot".

4 Click the "Reboot" button.

Note: If the Reboot page is reloaded, this will trigger another reboot.

14 Remote Management

Through the IMS2, it is possible to establish a remote connection to a customer site. This makes it possible to configure and maintain sites, independent of distance.

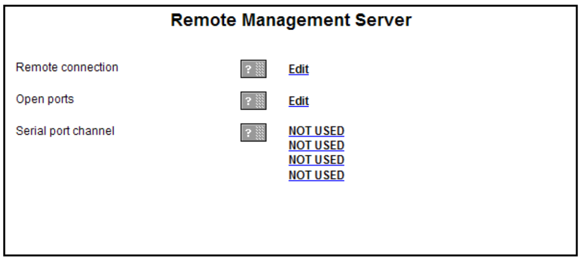
The remote management connection is established via the Remote Management Client (RMC), which is a Windows based tool. For installation and configuration of the RMC, refer to Installation and Operation Manual, Remote Management Client, TD 92256GB.

To be able to connect remotely, the remote management server in the IMS2 has to be configured. The helptext buttons in the GUI will give more information about each parameter settings.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The*Advanced Configuration* page opens.

3 Select "Remote Management".



Remote Management Server

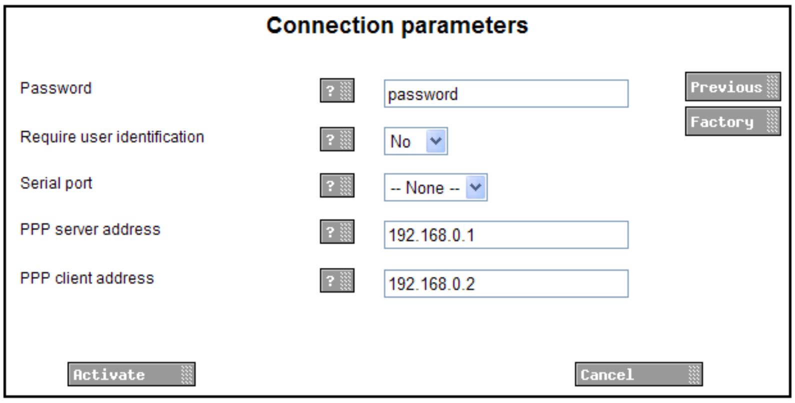
Remote connection Edit

Open ports Edit

Serial port channel NOT USED
NOT USED
NOT USED
NOT USED

- Remote connection

1 Click "Edit" for Remote Connection, to set up the connection parameters.



Connection parameters

Password: password

Require user identification: No

Serial port: -- None --

PPP server address: 192.168.0.1

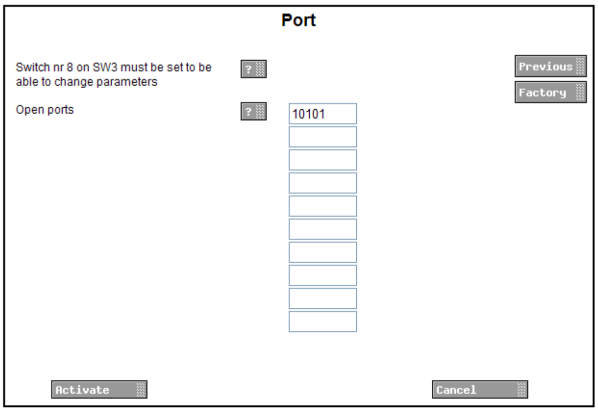
PPP client address: 192.168.0.2

2 Set up the connection parameters.

3 Click "Activate".

- Open ports

1 Click ‘‘Edit’’ for Open Ports to open any additional ports that are needed for configuration tools. To be able to configure ports, switch number 8 on SW3 has to be set to ON.



Port

Switch nr 8 on SW3 must be set to be able to change parameters

Open ports: 10101

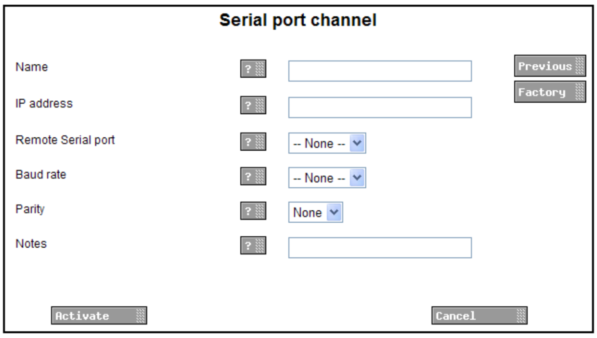
For TCP and RS232, port 10101 has to be open.

2 Set up the port parameters.

3 Click ‘‘Activate’’.

- Serial port channel

1 Click one of the ‘‘NOT USED’’ links for Serial port channel to set up a new channel.



Serial port channel

Name

IP address

Remote Serial port: -- None --

Baud rate: -- None --

Parity: None

Notes

One serial port channel for each tool, for example WinBK for System 900 configuration, has to be set up. Web based configuration tools do not require serial port channels.

2 Set up the channel and click ‘‘Activate’’.

The configuration of the remote management server is described in detail in Function Description, Remote Management, TD 92257GB.

15 Absence Handling

Absence handling is handled differently for DECT and VoWiFi in IMS2.

15.1 Absence Handling in DECT

The IMS2 keeps track of handsets that have reported absence status. When a message is sent to an absent handset, the sending module can get information from the IMS2 that the handset is absent.

15.1.1 Absence List

A list in the IMS2 indicates which handsets that have reported absence status.

1 On the IMS2start page, click ''Configuration''. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Select ''View Absence List".

The handset identity and absence type, for example ''Manual absent'' or ''In storage rack'', are reported in the list.

It is possible to manually remove a handset from the absent list by clicking on the corresponding ''Remove'' link.

15.1.2 Clear Absence List

The absence list in the IMS2 can be cleared. This has to be done, for example, when an IMS2 is reinstalled in a system since the absence list then will be out of date. This should only be used as a last resort if there is a permanent mismatch in the system.

1 On the IMS2start page, click ''Configuration''. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Select ''Clear Absence List''.

4 Click ''Clear''.

Note: When the absence list is cleared, the IMS2 will consider handsets that currently are placed in a charger or manually set to absent as present.

15.2 Absence Handling in VoWiFi System

These features requires a valid license.

See also 10.6 Handset Administration on page 89.

15.2.1 List status

It is possible to create a list of all handsets

1 On the IMS2 start page, click ‘‘Configuration’’. The *Configuration* page opens.

2 Select WLAN Portables > List All.

3 Select "Status" to sort the list on handset status.

15.2.2 Search status

It is possible to search for handsets with selected status.

1 On the IMS2 start page, click ‘‘Configuration’’. The *Configuration* page opens.

2 Select WLAN Portables > Search.

3 Enter the optional search parameters Address/Number, IP Address, Hardware ID and Status. To view absent handsets, select "All absent" or "Manual Absent".

16 Base Station Conversion

The base station IDs that are received together with personal alarms can be converted to another ID before it is sent to the system.

16.1 Background

In some systems, the base station IDs might alter when the Cordless Telephone System is upgraded. In the alarm handling the base station IDs are used for location determination of an alarming handset. Normally the ID is converted to a text string that describes the location. The ID can also be used in trigger conditions, for example to decide which guards that should be informed about an alarm. To avoid having to update the base station IDs in many different places in the configuration of the alarm handling, the IMS2 can convert the base station IDs before it is sent to the alarm system.

This can be convenient regardless of how the Cordless Telephone System handles an upgrade as the base station IDs normally consists of about ten characters. The base station conversion can then be used to shorten the IDs before it is sent to the alarm system. It is also possible to convert the ID to a descriptive text.

16.2 Configuration

The Base Station Conversion can be reached from the left menu in the IMS2 administration pages. Requires "admin" or "sysadmin" password, refer to 4.1 Authentication Levels and Default Passwords on page 21.

1 On the IMS2start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under *DECT Interface*, select "Base Station Conversion".

4 Enter the file name or click "Browse" and select the file.

5 Click "Import file".

The conversion table is imported as a CSV file, with the base station ID in the first column and the new ID in the second. The new ID is a string of maximum 50 characters. IDs that are not included in the table will be sent to the alarm system without any conversion.

17 Messaging

Depending on IMS2 license, different tools for messaging are displayed:

- Messaging Tool - for IMS2s without additional license for NetPage
- NetPage - for IMS2s with additional license for NetPage

The operation of the messaging tools is described in 6 Operation - Messaging on page 30.

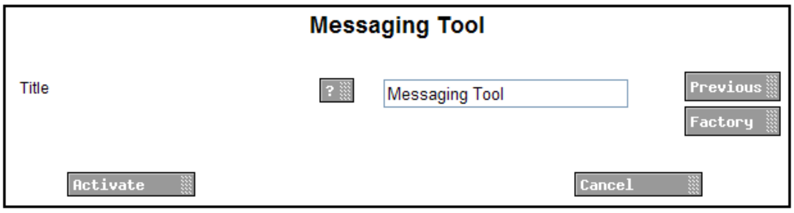
17.1 Messaging Tool Configuration

It is possible to change the title of the Messaging Tool webpage.

1 On the IMS2start page, click “Configuration”. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 In the menu, click "Messaging Tool".



Messaging Tool

Title: Messaging Tool

4 Enter text to be shown as title. Click "Activate".

17.2 NetPage Configuration

17.2.1 Configure NetPage messaging

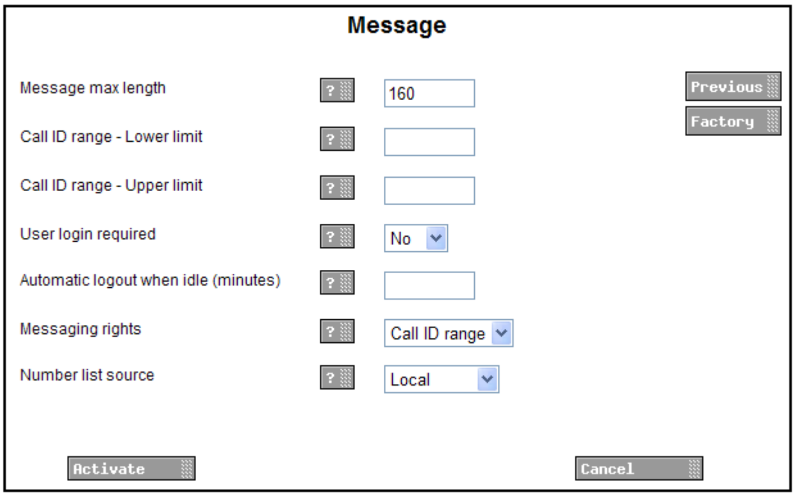
The following settings are applicable for NetPage web messaging.

To set messaging properties:

1 On the IMS2start page, click “Configuration”. The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Select “Web Messaging”.



Message

Message max length	160
Call ID range - Lower limit	
Call ID range - Upper limit	
User login required	No
Automatic logout when idle (minutes)	
Messaging rights	Call ID range
Number list source	Local

4 Enter values for messaging.

5 Click "Activate".

The following parameter can be set:

- Message max length.
  Sets the maximum number of characters that can be forwarded to a unit. Messages longer than the set value are truncated.
- Call ID range - Lower limit
  Sets the lower limit of a Call ID range. Messages sent to Call IDs out of this range are cancelled. An empty field means no lower limit.
- Call ID range - Upper limit
  Sets the upper limit of a Call ID range. Messages sent to Call IDs out of this range are cancelled. An empty field means no upper limit.
- User login required
  Sets whether a login is required for NetPage. If an ESS module is used as "User Server", users configured in the ESS can also log in. This parameter shall be set to No for the default GUI (index3). If index4 is used, the Message History section must be included. Refer to 18.2 Customize the User Interface (GUI) on page 142.
- Automatic logout when idle (minutes)
  Sets how long a user can be idle before being logged out. To prevent automatic logout, leave this field empty. If the parameter "User login required" is set to "No", leave this field empty.
- Messaging rights. Choose between Call ID range and User rights to determine how NetPage shall verify Call IDs.
  "Call ID range" means that Call IDs are verified according to the Call ID range limit settings. This setting shall always be used for systems without an ESS.
  "User rights" means that Call IDs are verified according to the settings in the ESS. This requires that the parameter "User login required" is set to "Yes".
- Number list source. Choose between Local and ESS users.
  This is the Number list that is used in NetPage. In systems without an ESS, this parameter shall always be set to "Local".

17.2.2 Creating or Updating the Number list

In the NetPage default GUI (index.html), a number list can be accessed by clicking the "Search" button. Before the number list can be used, the entries have to be added.

The number list entries can be created from any CSV file, using Microsoft Excel or any leading spreadsheet or relational database application. It is possible to import maximum 3000 entries via the CSV file.

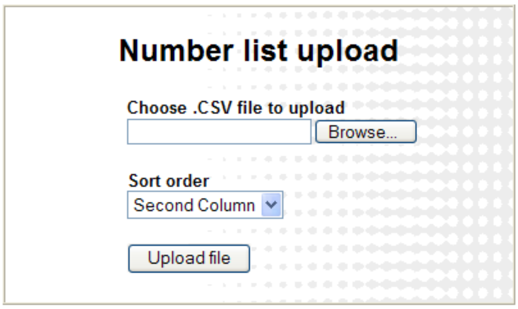
The CSV file is uploaded/pasted with the "Number list upload" program (included in NetPage) as described below.

1 Create a CSV file with the following format:

First name 1;Surname 1;Telephone number 1

First name 2;Surname 2;Telephone number 2

2 Open the page: http://xxx.xxx.xxx.xxx/admin/user/uploadnrlist.html. Log on with "user". The default password is "password".


Number list upload

Choose .CSV file to upload

Sort order: Second Column

3 Browse to find the CSV file. Choose the sort order. Click "Upload file".

When the CSV file is uploaded, it will be converted and saved as "uploadednrlist.js". The file is a text file with the following format:

```
nr_array=[[“First name 1”,”Surname 1”,”Telephone number
1”],[“First name 2”,”Surname 2”,”Telephone number 2”]];
```

If you later want to edit the number list, the "uploadednrlist.js" file is accessible with the FTP client and can also be modified manually.

4 Test that the number list works as desired.

Note: When the phonebook has been updated, be sure to clear the cache memory on the web browser.

17.3 Predefined Groups

Note: My Groups are created from the NetPage and are not to be mistaken for the Messaging Groups created from the Configuration page in IMS2. This functionality is only accessible from index4, see figure 46 on page 147.

Common Groups

"Common Groups" can be used by all NetPage users. It is possible to create up to 30 predefined "Common Groups" with up to 50 Call IDs in each. These groups are stored on the FTP area.

My Groups

"My Groups" are stored locally and can only be accessed or changed from the PC where they are stored.

There is a limited storage area. This means that, for groups with approximately 20 characters (name and Call ID), the following applies:

Amount of Groups	Group Members
10	19
15	7
20	2

17.3.1 Create a Group

1 Click the "Common Groups" or "My Groups" button in NetPage. For ‘’Common Groups’’ enter the user name ‘’user’’ and the password ‘’password’’.

2 Click "Add group".

3 Enter a name for the group in the Name text field.

4 Click the "To" button and select users (from the phonebook) to be members of this group or enter number in the Call ID text field and click "Add".

5 Click "Save".

6 Click "Close" to exit the administration.

17.3.2 Edit a Group

1 Click the "Common Groups" or "My Groups" button in NetPage. For ‘’Common Groups’’ enter the user name ‘’user’’ and the password ‘’password’’.

2 Select the group that should be changed and the administration field will open.

3 Make changes and click "Save".

4 Click "Close" to exit the administration.

17.4 Predefined Messages

Note: This feature can only be reached from index4.

The predefined messages feature includes message text, beep characteristics, priority and message type. There are two types of messages: ‘’Common Messages’’ and ‘’My Messages’’.

Note: The maximum message length differs depending on which system or handset the message is sent to and the amount of special characters included in the message.

Common Messages

Common Messages can be used by all NetPage users. Up to 30 ‘’Common Messages’’ can be created. These messages are stored on IMS2 and can only be changed by authorized persons.

My Messages

Up to 30 predefined ‘’My Messages’’ with 120 characters per message can be created. It is also possible to have fewer ‘’My Messages’’ containing more characters. These messages are stored locally and can only be accessed or changed from that PC.

17.4.1 Create a Predefined Message

1. Click the "Common Messages" or "My Messages" button in NetPage. For "Common Messages" enter the user name "user" and the password "password".
2. Click "Add message".
3. Enter the name of the message and add a message text of maximum 250 characters.
4. Set the message type, beep code and priority.
5. Click "Save".
6. Click "Close" to exit the administration.

17.4.2 Edit a Predefined Message

1. Click the "Common Messages" or "My Messages" button in NetPage. For "Common Messages" enter the user name "user" and the password "password".
2. Select the message that shall be changed and the administration field will open.
3. Make the changes and click "Save".
4. Click "Close" to exit the administration.

17.5 Message History Status

Status on the last sent message:

Status	Description
Message accepted	The message is accepted by NetPage and will be transmitted.
Message completed	The Messaging System has completed the transmission of the message.

In the user interface (index4), other "message history statuses" can appear such as:

- Absence
- Call Diversion
- Manual Acknowledge
- Delivery Receipt

18 Language and User Interface

All text shown in the user interface is default in English, but a copy of the language can be translated and imported to IMS2. Several languages can be added. The default English language is not possible to edit or remove. The supplied user interface can also be modified to suit the individual customer requirements concerning functionality.

Basic changes that can be made are:

- Translate or adapt text (refer to 18.1.2 Translate/Edit the Language on page 139)
- Hide unused functionality (refer to 18.2.4 Change the NetPage User Interface Functionality on page 145)
- Modify the user interface to suit the customer's image (refer to 18.2 Customize the User Interface (GUI) on page 142)
  - Limit the number of characters included in the message text.
  - Add company logo and/or modify the GUI to suit the customer's image

Note: The IMS2 user interface only supports the Latin-1 character set.

For the best screen appearance

Windows standard screen settings, using normal font size, are recommended. The recommended screen resolution is 1024 x 768.

How to edit

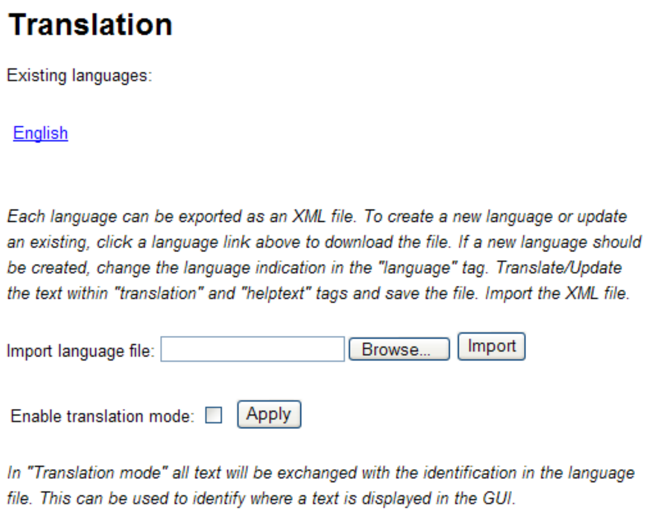
The code is thoroughly commented to make it easy to understand, and can be edited with a simple text or HTML editor. Basic HTML, Java Script, and CSS knowledge is recommended.

Note: Do not use an intelligent html editor like Frontpage or Dreamweaver, as it might corrupt the html code.

18.1 Customize the Language for IMS2 Menus

18.1.1 Export a Language for Translation/Editing

1. On the IMS2 start page, click "Configuration". The *Configuration* page opens.
2. Select Other Settings > Set language.
3. Click the "Import/Export Language" button.



Translation

Existing languages:

English

Each language can be exported as an XML file. To create a new language or update an existing, click a language link above to download the file. If a new language should be created, change the language indication in the "language" tag. Translate/Update the text within "translation" and "helptext" tags and save the file. Import the XML file.

Import language file: [ ] Browse... Import

Enable translation mode: □ Apply

In "Translation mode" all text will be exchanged with the identification in the language file. This can be used to identify where a text is displayed in the GUI.

4 Click an existing language link to create or update languages. An XML file is generated from the IMS2 and the File Download window opens.

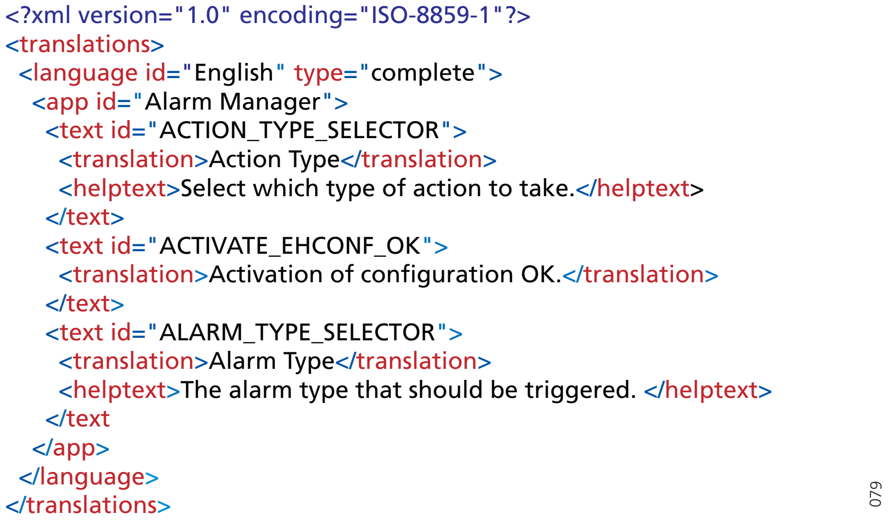
5 Save the file for translation or editing purposes. The file can be saved in any name during the translation.

18.1.2 Translate/Edit the Language

In the downloaded language file there are numerous tags, changes should only be made in one tag attribute and two tags:

- <language id="English">
  The "id" attribute is the text that appears in the drop-down list. Change "English" to the name of your translated language here.
- <translation>
  Text displayed in menus, on buttons, tabs etc. Translated text can be added inside the tags.
- <helptext>
  On-line help text. Translated text can be added inside the tags.

Below is an example of a language file (just showing two buttons with helptext, for simplicity).

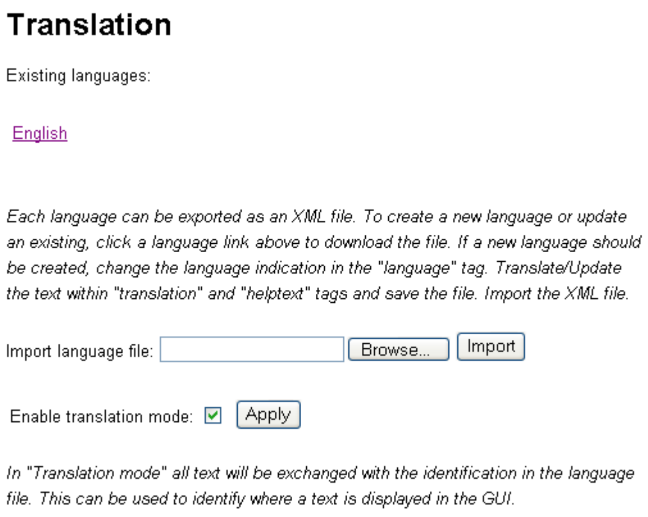


```
<?xml version="1.0" encoding="ISO-8859-1"?>
<translations>
 <language id="English" type="complete">
  <app id="Alarm Manager">
   <text id="ACTION_TYPE_SELECTOR">
    <translation>Action Type</translation>
    <helptext>Select which type of action to take.</helptext>
   </text>
   <text id="ACTIVATE_EHCONF_OK">
    <translation>Activation of configuration OK.</translation>
   </text>
   <text id="ALARM_TYPE_SELECTOR">
    <translation>Alarm Type</translation>
    <helptext>The alarm type that should be triggered. </helptext>
   </text
  </app>
 </language>
</translations>
```

18.1.3 Show Pages in Translation Mode

All texts, buttons, menus etc. are identified with labels (for example TEXT_TRANSLATION_TITLE). With the translation mode function it is possible to view the label for each button, menu etc. This can be helpful when translating the language file. For not losing one´s bearings during the translation it is a help to open two windows and view one of them in translation mode and the other in normal mode.

1 Select the Enable translation mode check box in the Import/Export Language page, and click ''Apply''.



Translation

Existing languages:

English

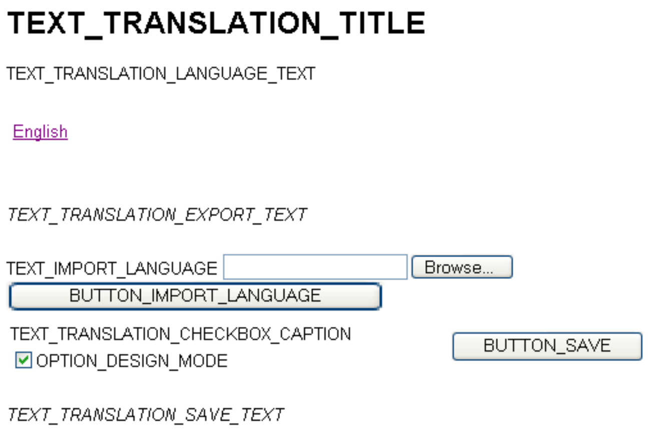
Each language can be exported as an XML file. To create a new language or update an existing, click a language link above to download the file. If a new language should be created, change the language indication in the "language" tag. Translate/Update the text within "translation" and "helptext" tags and save the file. Import the XML file.

Import language file: [ ] Browse... Import

Enable translation mode: ☑ Apply

In "Translation mode" all text will be exchanged with the identification in the language file. This can be used to identify where a text is displayed in the GUI.

All the labels on the pages are shown, see Figure 42.



TEXT_TRANSLATION_TITLE

TEXT_TRANSLATION_LANGUAGE_TEXT

English

TEXT_TRANSLATION_EXPORT_TEXT

TEXT_IMPORT_LANGUAGE [ ] Browse...

BUTTON_IMPORT_LANGUAGE

TEXT_TRANSLATION_CHECKBOX_CAPTION

☑ OPTION_DESIGN_MODE

BUTTON_SAVE

TEXT_TRANSLATION_SAVE_TEXT

Figure 42. Translation page in translation mode

To return to standard view:

1 Clear the OPTION_DESIGN_MODE box.

2 Click “BUTTON_SAVE”.

18.1.4 Import Language File for IMS2

When the file is translated, it must be imported to the IMS2.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select "Other settings" > "Set language".

3 Select "Import/Export Language".

4 Click “Browse” to locate the translated file, and then click "Open.

5 Click “Import”.

The name of the translated language (the language “id” attribute) will appear as a link in the Existing Language list and can be downloaded for editing purposes.

18.1.5 Delete Language

On the Translation page, click the icon ❌ to the right of the language you want to remove. Note that it is not possible to remove the default language.

Swedish ❌

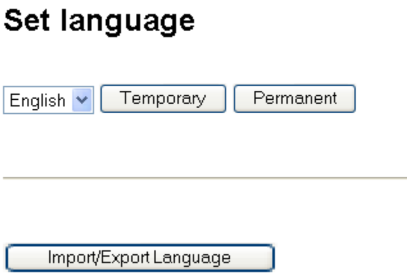
English

18.1.6 Select Language

Translated languages (the language ''id'' attribute) are shown together with the default language ''English'' in the language drop-down list in the Language page.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Set language.



3 Select language in the drop-down list and click ''Permanent''.

To change language for this session only, that is, for this browser window until closed, click ''Temporary''.

18.2 Customize the User Interface (GUI)

IMS2 has 5 Mb disk space on the FTP area and about 1.6 Mb is dedicated for the user interfaces. The free space can be used for storing files and folders, for example, a customized user interface for sending messages.

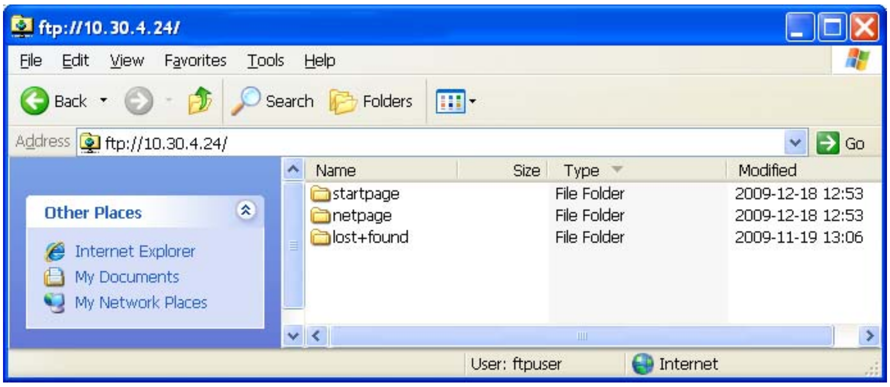
18.2.1 Files for Translation/Editing

1 Log on to IMS2 with an FTP client. Fill in the IMS2 host name in the address field "ftp://xxx.xxx.xxx.xxx".

Note: When secure mode is enabled, only secure access via HTTPS and FTPES are allowed. HTTP is automatically redirected to HTTPS, and FTP access is not allowed. The FileZilla Client freeware (not included) supports FTPES. See 4.5 Web access security settings on page 23.

2 Log on with "ftpuser". The default password is "changemetoo".

The files located in the Start page and NetPage folders, including GIFs and CSS, can be downloaded/copied to a folder on your hard disc.



Address ftp://10.30.4.24/

Name	Size	Type	Modified
startpage		File Folder	2009-12-18 12:53
netpage		File Folder	2009-12-18 12:53
lost+found		File Folder	2009-11-19 13:06

User: ftpuser

When restoring NetPage files, the files shall be placed in the same folder.

18.2.2 Default Start Page GUI

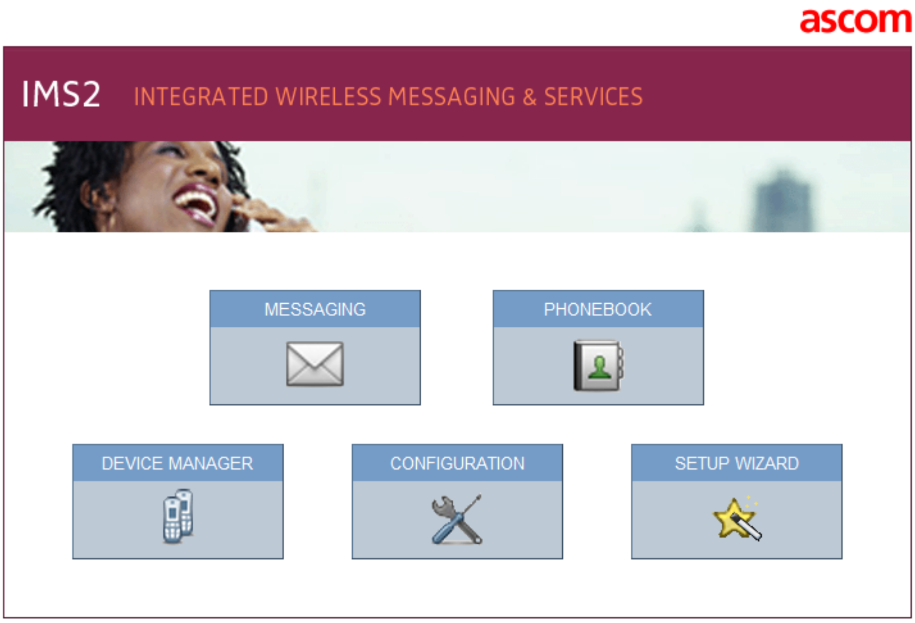
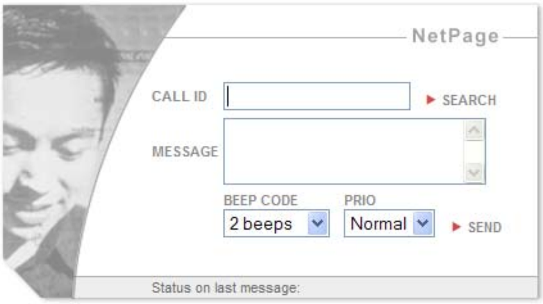


Figure 43. Start page default user interface (index_template)

A copy of the default IMS2 Start page is stored in the start page folder on the IMS2 FTP area. The start page copy index_template, is an html file that can be copied and edited. It is also possible to replace the start page with a completely new user interface.

When the edited or new html file is saved as index.html and placed in the Start page folder on the IMS2FTP area, it will replace the default start page.

18.2.3 Default Send Message GUI



BEEP CODE: 2 beeps
PRIO: Normal

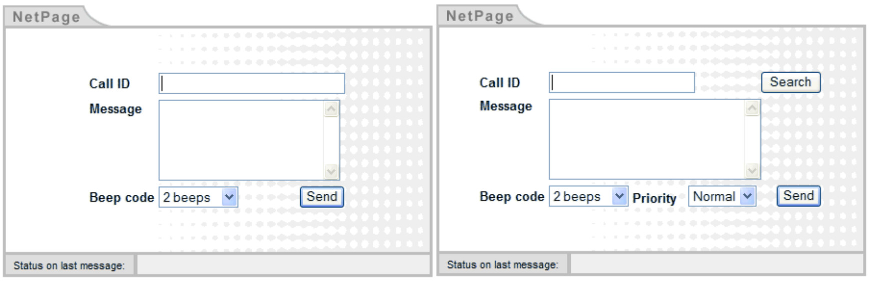
Figure 44. NetPage default user interface (index3).

By clicking "Messaging" on the IMS2 start page, the default NetPage user interface index3.html is opened.

In the NetPage folder on the IMS2 FTP area, there are four examples of the NetPage user interface; *index1*, *index2*, *index3* and *index4*. *index3* is a copy of the default NetPage user interface.

All NetPage functionality is included in the default user interface, but all parameters that can be configured in the example user interfaces *index1*, *index2* and *index3* are not shown. The necessary code for viewing and configuring the hidden parameters is included, but they are marked as comments to prevent the browser from interpreting them, 18.2.4 Change the NetPage User Interface Functionality on page 145.

The default user interface can be exchanged with one of the example user interfaces, shown in figure 45 on page 144, by saving the html file as index.html and replacing the existing index.html file. index4 is shown in figure 46 on page 147 .



Beep code: 2 beeps

Beep code: 2 beeps
Priority: Normal

Figure 45. NetPage user interface examples; index1 and index2

Note: The JavaScript code in the HTML files is used for interpreting and displaying responses from the messaging system. It is recommended that this code is used unmodified, otherwise, the Message history functionality may be lost. Also, the Java Applets must be left unchanged to preserve the functionality.

Note: No server side scripts are allowed in the FTP area.

Priority and Beep Codes in the default NetPage User Interface

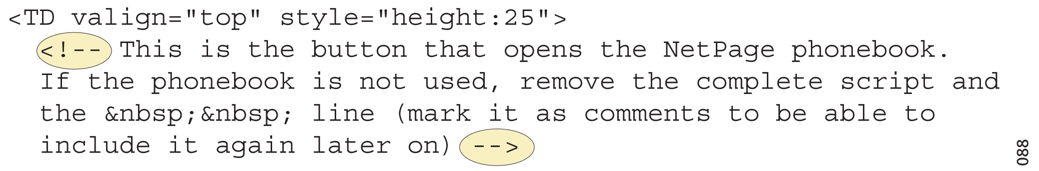
GUI Description	Priority Code
Low	9
Normal	7
High	3
Alarm[1]	1

[1] Marked as hidden in the html page.

GUI Description	Beep Code
Silent	0
1 beep	1
2 beeps	2
3 beeps	3
4 beeps	4
5 beeps	5
10 beeps	6
Siren	7

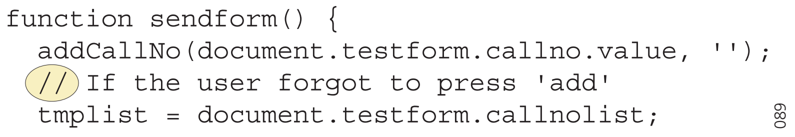
18.2.4 Change the NetPage User Interface Functionality

As a help for locating comments/hidden text in the html code, the comment marks `<!--` and `-->` are used. The comment marks are also used to hide functionality in the user interface. Text written, or functionality, framed by the comment marks is not interpreted by the web browser.



```
<TD valign="top" style="height:25">
  <!-- This is the button that opens the NetPage phonebook.
  If the phonebook is not used, remove the complete script and
  the &nbsp;&nbsp; line (mark it as comments to be able to
  include it again later on) -->
```

For comments included in the JavaScript code, the comment mark "//" is used. Text written after the comment mark (in the same line) is not interpreted by the web browser.



```
function sendform() {
  addCallNo(document.testform.callno.value, '');
  // If the user forgot to press 'add'
  tmplist = document.testform.callnolist;
```

Buttons, for example the "To" button that opens the phonebook, can also be hidden directly in the code. To do this, insert "hidden" (double quotation marks both before and after "hidden") as input type as follows:

```
document.write('<input type="button" value="...
```

will become

```
document.write('<input type="hidden" value="...
```

Note: To change the user interface (index4) it is necessary to open and change one or more of the files: "send.html", "receive.html" and "admin.html".

Note: If changes to the phonebook access ("To" button), beep codes or priority settings are made, it is also necessary to change the files "editpagtext.html" and "leditpagtext.html", to get a consistent user interface.

In order to be able to restore the default GUI, make a backup before changes. See 18 Language and User Interface on page 138.

18.2.5 Translation of the User Interfaces

The texts presented in the user interfaces can be translated. The translation is entered differently depending on the example user interface that is used. The HTML files index_template and index1, index2 and index3 are translated in the HTML code. The NetPage user interface (index4) on the other hand is translated in the "language.js" and "receive.html" file, where receive.html includes the NetPage message history applet.

Start Page

1. Download/copy the file and included image from the FTP area, refer to 18.2.1 Files for Translation/Editing on page 143.
2. Open the file in a text or HTML editor and translate all words.
3. Save the file.
4. Upload/paste the file to the FTP area, refer to 18.2.6 Upload the Files to the IMS2 FTP Area on page 147.
5. Check that the user interface looks all right.

Example User Interfaces index1, index2 or index3

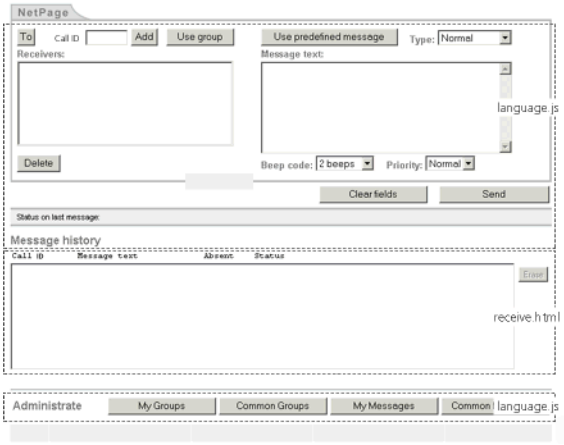
1. Download/copy the file and included images from the FTP area, refer to 18.2.1 Files for Translation/Editing on page 143.
2. Open the file in a text or HTML editor and translate all words and "immediate status" texts. For existing "immediate status" texts, see table below.
3. Save the file.
4. Upload/paste the file to the FTP area, refer to 18.2.6 Upload the Files to the IMS2 FTP Area on page 147.
5. Check that the user interface looks all right.

The following "immediate status" texts must be translated. Exchange the English text with your translation. Keep the code (20, 30 etc.) unchanged.

20	Message accepted
30	Memory full in message service
31	Message deleted due to time-out
40	Message not sent, invalid Call ID
nst	Message not sent
nlc	Message cancelled, no license
sto	Status time-out from message service

sns	Can’t receive status
nan	Message cancelled, no Call ID
oor	Call ID(s) out of number range
	Unknown returncode, confused!

Example GUI index4



Type: Normal
Beep code: 2 beeps
Priority: Normal

Figure 46. Files used for translation of the user interface (index4).

Text which needs to be translated, is found in two different files. Translation of texts in the user interface (including text in Administrate pages, but excluding text in the Java Applet) are found in the ”language.js” file. Translation of the Java Applet (Message history field) is found in the ”receive.html” file.

1 Download/copy the files ”language.js” and ”receive.html” from the FTP area, refer to 18.2.1 Files for Translation/Editing on page 143.

2 Open the ”language.js” file in a text editor, for example Wordpad. Add the translation inside the quotation marks after the English text, see example below:

”Add Group”, ” ” will become ”Add Group”, ”Your translation”.

Save the file.

3 Open the ”receive.html” file in a text editor, for example Wordpad. Add the translation inside the quotation marks after the English text, see example below:

PARAM NAME=”English text” VALUE=”Your translation”.

Save the file.

4 Upload/paste the files to the FTP area, refer to 18.2.6 Upload the Files to the IMS2 FTP Area on page 147.

5 Refresh the page and check the result. All buttons except the Administration buttons will expand/decrease when the text is translated. The width of the Administration buttons is fixed but can be altered in the HTML file ”admin.html”.

18.2.6 Upload the Files to the IMS2 FTP Area

Upload/paste all updated IMS2 files (including GIFs and CSS) to the IMS2 FTP area.

1 In an FTP client, enter the address to the IMS2, ”ftp://xxx.xxx.xxx.xxx”. Log on with ”ftpuser”. The default password is ”changemetoo”.

2 Copy the files and paste them into the FTP area.

When secure mode is enabled, see 4.5 Web access security settings on page 23, only secure access via HTTPS and FTPES are allowed. HTTP is automatically redirected to HTTPS, and FTP access is not allowed. The FileZilla Client freeware (not included) supports FTPES.

18.2.7 Inserting a Company Logotype

In the default GUI, a company logotype can be inserted, for example, in a separate table above the NetPage application.

In the examples index1, index2 and index3, the company logotype can be inserted in any of the empty table cells of the NetPage application.

18.2.8 Creating a URL Call

It is also possible to send messages with hypertext links. This is useful in two ways. It makes it possible to open NetPage with some fields already filled in and to create buttons on another web page. For example, a hotel guest can then use a button on a PC screen to send a message to room service. In this case, NetPage is never shown to the user since the URL string contains all relevant data such as Call ID and message.

A CGI script on the NetPage web server is called with a set of parameters which are separated by the character "&". The "immediate status" (shown after the text "Status on last message:") can be presented on a separate web page by enclosing the URL to that web page. If no URL parameter is specified, the "immediate status" is always sent to the same web page as the message was generated from, and then that page has to handle the status. It is possible to use Common Groups when creating URL calls, Common Messages, My Groups and My Messages can not be used.

Note: The "immediate status" texts are shown in 18.2.5 Translation of the User Interfaces on page 146.

Note: It is not possible to remote erase or receive "message history status" when using the URL call function.

Parameters

The following parameters can be set for a URL message:

Description	Name	Value range	Default value
Call ID	no	-	-
Message text	msg	-	-
Message type	ack	0 no delivery receipt	0
		1 delivery receipt	
		2 manual acknowledge	
Beep code	bp	0-7	3
Priority	pri	1-9	7
Return page	url	-	Page you sent from
Message ID	id	see below	Set by NetPage
Erase message	del	see below	-
UTF8 encoded	utf8	see below	-

The wildcard "*" is allowed in the Call ID, for example Call IDs 9370-9379 can be written as 937*

Note: Wildcards are not supported by all systems.

Message ID

The Message ID is used to refer to previously sent messages, for example, to make the cordless phone beep at each transmission of the message or to erase a previously sent message. The same Message ID as when the message originally was sent has to be used.

The Message ID can be set manually by the user or automatically by NetPage. NetPage sets the Message ID automatically if the parameter "id" is set to 0 or not specified. If the number is generated manually, it should be kept in the range 1 to 2147483647.

Note: NetPage does not check for conflicting manually set message IDs, therefore manually set message IDs must be kept unique. Conflicting message IDs will result in erroneous status reports among other problems.

Erase message

A previously sent message can be erased with a new URL call. Call ID, Message ID and the parameter "del" should be included in the URL call. This brings that the Message ID has to be set manually if a message should be able to erase later on. The parameter "del" has to be given a value but the value has no meaning, i.e. it can have any value. The URL will look as follows, "http://xxx.xxx.xxx.xxx/cgi-bin/npcgi?no=1234&id=23&del=1".

UTF8 encoded

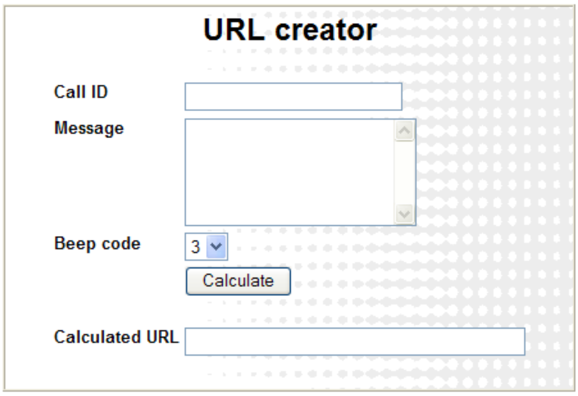
When NetPage is accessed from a cordless unit that uses WAP version earlier than 2.0, the message that is sent will be UTF8 encoded. The parameter "utf8" then has to be included to indicate this for the CGI script in NetPage. The parameter "utf8" has to be given a value but the value has no meaning, i.e. it can be any value.

Note: This parameter should not be used for HTML based NetPage applications.

Creating the URL

When creating the URL message, special characters, for example space and question mark, have to be converted to hex code. For this purpose, a special conversion program called "URL Creator" is included in NetPage as described below.

1 Open "URL Creator": http://xxx.xxx.xxx.xxx/netpage/urlcreator.html.



URL creator

Call ID

Message

Beep code 3

Calculated URL

2 Enter the Call ID and the message. Press "Calculate". The URL string with special characters in hex is shown in the "Calculated URL" field.

Creating a Quick Button with a URL Call

Example:

The link "http://xxx.xxx.xxx.xxx/cgi-bin/npcgi?no=1234&bp=3&pri=7&msg=Hi%21" will send a message to a cordless phone with number 1234 with the message Hi!, the priority 7, and the beep code 3.

Note: Priority can't be set in the URL creator, but this part of the URL message can be written manually in the web browser address field, see the example above "&pri=7".

1 Create a button. When the button is pressed, the following link should be opened: http://xxx.xxx.xxx.xxx/cgi-bin/npcgi?<parameters>.
For information about parameters see Parameters on page 148.

2 If the "immediate status" should be shown on the page, it has to be handled. It is also possible to state a URL for the return page in order to show the "immediate status" on another web page.

3 Store the web page either locally or in the NetPage ftp area, see 18.2.1 Files for Translation/Editing on page 143.

Opening NetPage with Fields Automatically filled in

Example:

The link "http://xxx.xxx.xxx.xxx/netpage/?no=1234&msg=Hi%21" will open NetPage with the Call ID 1234 entered in the number field and the message Hi! in the message field.

1 Create a link or button that opens the following link when the button is pressed: http://xxx.xxx.xxx.xxx/netpage/?<parameters>.
For information about parameters see Parameters on page 148.

2 If the "immediate status" should be shown on the page, it has to be handled. It is also possible to state a URL for the return page in order to show the "immediate status" on another web page. If index1, index2 or index3 is used, this is handled automatically.

3 Store the web page either locally or on the NetPage ftp area, see 18.2.1 Files for Translation/Editing on page 143.

Note: This is not applicable when index4 example is used as default GUI.

18.3 Password Protected Access to NetPage

If access to NetPage has to be password protected, do as follows:

1 In an FTP client, enter the IMS2address, "ftp://xxx.xxx.xxx.xxx". Log on with "ftpuser". The default password is "changemetoo".

2 Select www > netpage. Change the name of the file "htaccess" to ".htaccess" (a point is added in front of the name).

With this modification, one has to log on with the user name "user" to get access to NetPage. The default password is "password".

18.4 Accessing NetPage from a Cordless Unit with WAP

NetPage can be accessed from a cordless unit that supports WAP. Two WML pages for this purpose are included in NetPage. The page that is accessed is called "send.wml" and the response is shown on "receive.wml". The same parameters that are used for URL calls can also be used in the WAP application, see Parameters on page 148 for more information.

The included WAP application enables specifying a Call ID and a message text. When the message has been sent the receive page is opened and the send status is shown. The send application is accessible from the receive page in case another message should be sent.

Note: If the cordless unit uses WAP version earlier than 2.0 it has to be stated that the message is UTF8 encoded. See UTF8 encoded on page 149 for more information.

18.5 Test the New User Interface

It is recommended to test the customized user interface as follows, for example:

- If a company logotype is added, check that it looks all right and that IMS2 opens quickly. If IMS2 opens slowly, minimize the picture file size and save it as ''interlaced'' to decrease wait time for the image.
- Check that all text is correctly translated.
- Check that the phonebook opens and that the entries are correct.
- Send a message.
- Check that the ''message history status'' is received and displayed.

18.6 Update the User Interface after a new IMS2 Release

When a new version of the IMS2 is released, there might be changes in the user interface that need to be translated.

1 Import your old translated file to the new IMS2 software version. New text and buttons in the user interface are shown in English.

2 Click the language file link and save it.

3 Open the file. All tags that are not translated are marked with the comment:

```
<!-- The text identifier below couldn't be translated -->
```

4 Translate the new text and import the translated file again.

19 Serial Interface

This feature requires an additional license, see 1.1 Licenses for IMS2 on page 2.

The serial interface included in IMS2 makes it possible to receive pagings from external equipment and send them to handsets in the system.

The serial interface supports the ESPA 4.4.4 protocol and two ESPA dialects; the Ascom dialect (teleCOURIER) and Ericsson paging dialect with some limitations, see Appendix D: Protocol Limitations on page 184. The serial interface also supports the TAP 1.8 protocol and a simplified protocol called the Ascom Line protocol.

A detailed description of the two ESPA dialects and the Ascom Line protocol can be found in the document; Protocol, Serial Data Interface S942SI, TD 92088GB.

TAP (Telocator Alphanumeric Protocol) is a paging protocol used to transmit up to a thousand 7-bit characters to an alphanumeric pager. Developed in the early 1980s by the Telocator Paging Association, which later became the Personal Communications Industry Association (PCIA), TAP was also known as IXO and PET. TAP is widely used in the U.S. and throughout Europe.

For limitations in these protocols, see Appendix D: Protocol Limitations on page 184

A description of cables for the connections are found in Appendix B: RJ45 connections on page 175.

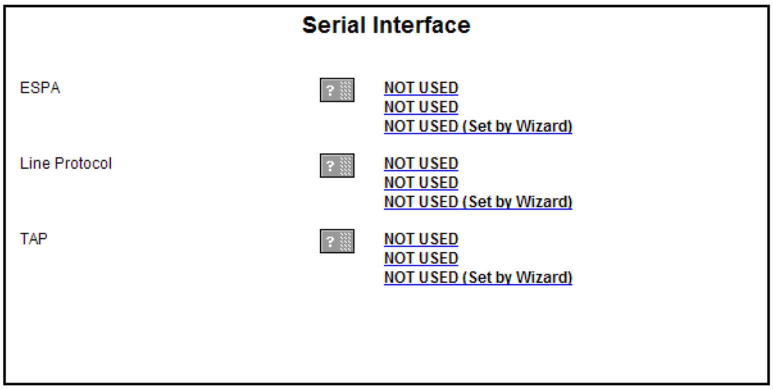
19.1 Serial Protocol Settings

Basic protocol settings are configured in the setup wizard. Detailed and more advanced settings can be configured from the Advanced Configuration page.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens.

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Select "Serial Interface"



Serial Interface

ESPA	?	NOT USED NOT USED NOT USED (Set by Wizard)
Line Protocol	?	NOT USED NOT USED NOT USED (Set by Wizard)
TAP	?	NOT USED NOT USED NOT USED (Set by Wizard)

4 Click a link for the protocol you want to use (ESPA, Line protocol or TAP). Note that all nine configurations can be prepared but only one configuration at a time can be enabled.

5 Continue in 19.1.1 ESPA Protocol, 19.1.2 Line Protocol or 19.1.3 TAP Protocol.

19.1.1 ESPA Protocol

1 The following settings can be selected/changed:

Settings	Description
Enabled:	Yes/No selection. Default: No
Name:	Description of the channel
Serial port:	Port selection (1,2,3) Default: None Port 3 will be selected when set from the setup wizard, but all three ports can be configured here. Note that only one at the time can be used.
Bit rate:	Select bit rate. Default: 9600 bits/s.
Mode:	Select mode. Default: 8 Data bits, Even parity
Flow control:	Used for handshaking control. Default: None
ESPA dialect:	Select dialect, with or without an extra Carriage Return (CR). Default: TeleCourier extensions (i.e. Ascom dialect)
Control station selection:	Determines which module shall act as control station. Default: External equipment.
Address of external equipment:	Enter address (0 - 9). Default: 1
Address of this module:	Enter address (0 - 9). Default: 2
Default Call ID:	Number to call if not specified in the external equipment. Default:000
Default display message:	Message to display if not specified in the external equipment. Default: BLANK
Default message priority:	Priority if not specified in the external equipment. Default: 7 (Normal)
Default beep code:	Beep code if not specified in the external equipment. Default: 2 beeps.
Default method for ack.:	Select how the paging shall be acknowledged if not specified by the external equipment. Default: No Ack.
Default urgency:	Urgency if not specified in the external equipment. Default: Normal.
Transmission delay (x10 ms):	How long to wait before transmission to external equipment. Default: 30 milliseconds
Identical pagings treatment:	How to handle identical pagings. Default: Not accepted.
Running number to external equipment:	If running number shall be sent or not. Default: No
Timeout mode:	Determines when to start timeout mode i.e. remove paging from queue. Default: after "Call Terminated" call status.
Timeout mode TTL (seconds):	Determines the time for timeout mode i.e. during this time the paging remains in the queue after the "Timeout mode" has started. Default: 5 seconds.

Manual Ack type: Dependent on if the external equipment supports negative acknowledge. Default: Positive and Negative manual acknowledge.

Manual Ack TTL (minutes): How long a paging with manual acknowledge remains in the queue after transmission of Call Terminated call status. Default: 5 minutes.

Message Ref. ID TTL (minutes): How long a Message Reference ID remains in queue. Only valid for Ascom dialect. Default: 5 minutes.

Return Status Information: Defines if status information for ongoing pagings shall be sent back to external equipment.
Set to "No" if external equipment have problems in handling status information.
Default: Yes.

Supervision time for communication (seconds): Defines the time before lost communication with external equipment will be considered as a fault and sent as a Status log. If set to “0” no supervision is done.
Max 3600 seconds
Default: 0

ASCII conversion table: Makes it possible to convert display message characters.

2 Click “Activate”.

19.1.2 Line Protocol

1 The following settings can be selected/changed:

Settings	Description
Enabled:	Yes/No selection. Default: No
Name:	Description of the channel
Serial port:	Port selection (1,2,3) Default: None Port 3 will be selected when set from the setup wizard, but all three ports can be configured here. Note that only one at the time can be used.
Bit rate:	Select bit rate. Default: 9600 bits/s
Mode:	Select mode. Default: 8 Data bits, Even parity
Flow control:	Used for handshaking control. Default: None
Default Call ID:	Number to call if not specified in the external equipment. Default: 000
Default display message:	Message to display if not specified in the external equipment. Default BLANK
Default message priority:	Priority if not specified in the external equipment. Default: 7 (Normal)
Default beep code:	Beep code if not specified in the external equipment. Default: 2 beeps
Transmission delay (x10 ms):	How long to wait before transmission to external equipment. Default: 30 milliseconds
Status to ext equipment:	If status characters ACK/NAK shall be sent on protocol level to external equipment. Default: Yes
Start character :	Start character for the message. Default: < (3C Hex)
End character:	End character for the message. Default: > (3E Hex)
Record separator character:	Record separator character for the message. Default: / (2F Hex)
ACK character:	Character for positive acknowledge of the message. Default: A (41 Hex)
NAK character:	Character for negative acknowledge of the message. Default: N (4E Hex)
ASCII conversion table:	Makes it possible to convert display message characters.

2 Click ‘’Activate’’.

19.1.3 TAP Protocol

1 The following settings can be selected/changed:

Settings	Description
Enabled:	Yes/No selection. Default: No
Name:	Description of the channel
Serial port:	Port selection (1,2,3) Default: None Port 3 will be selected when set from the setup wizard, but all three ports can be configured here. Note that only one at the time can be used.
Bit rate:	Select bit rate. Default: 9600 bits/s
Mode:	Select mode. Default: 8 Data bits, Even parity
Flow control:	Used for handshaking control. Default: None
Default Call ID:	Number to call if not specified in the external equipment. Default: 000
Default display message:	Message to display if not specified in the external equipment. Default: BLANK
Default message priority:	Priority if not specified in the external equipment. Default: 7 (Normal)
Default beep code:	Beep code if not specified in the external equipment. Default: 2 beeps
Default urgency:	If set to High "Stand-by" mode in receiver is broken through. Default: Normal.
Transmission delay (x10 ms): (Advanced)	How long to wait before transmission to receiver. Default: 30 milliseconds
Enable checksum validation: (Advanced)	Set to "No" if, for example, external equipment. uses an algorithm that differ from the 7-bit value used in TAP. Default: Yes
Delay time before log on timeout occurs: (Advanced)	How long to wait before disconnecting the external equipment. Valid values: 0-127 where 0 means 'Not enabled'. Default 8 seconds
Delay time before block timeout occurs: (Advanced)	How long this module shall wait before hanging up. Valid values: 0-127 where 0 means 'Not enabled'. Default 4 seconds.
Numbers of allowed times to log on: (Advanced)	How many logon attempt from external equipment shall be permitted. Valid values: 1-127. Default 3 tries.
Numbers of allowed checksum failures: (Advanced)	How many checksum failures from external equipment shall be permitted. Valid values: 1-127. Default 3 tries.

Numbers of allowed timeouts:	How many timeouts shall be permitted. Valid values: 1-127. Default 3 timeouts.
ASCII conversion table:	Makes it possible to convert display message characters.

2 Click ''Activate''.

20 Open Access Protocol (OAP)

This feature requires an additional license, see 1.1 Licenses for IMS2 on page 2.

This function makes it possible for customer applications to communicate with other connected systems, for example the Cordless Telephone System. The protocol that is used for communication is called Open Access Protocol (OAP).

Refer to Function Description, Open Access Protocol (OAP), TD 92215GB for more information about the protocol and when it can be used.

20.1 Configuration

The Message Distribution lists for the different interfaces have to be configured to send the information to the OAP Server, in order to give the client access to the information. The address of the OAP Server is xxx.xxx.xxx.xxx/OAP.

DECT Configuration Example

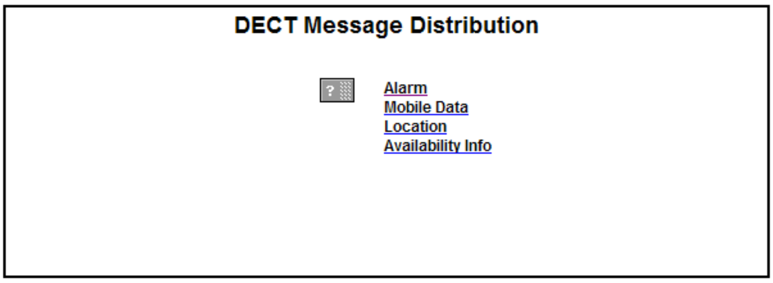
The DECT Interface should be configured to send User Data to the OAP Server.

1 On the IMS2 start page, click "Configuration". The *Configuration* page opens

2 Select Other Settings > Advanced Configuration. The *Advanced Configuration* page opens.

3 Under *DECT Interface*, select "Message Distribution".

4 Select "Alarm".



DECT Message Distribution

5 Enter the address xxx.xxx.xxx.xxx/OAP in one of the address fields.

6 Click "Activate".

WLAN Configuration Example

For WLAN, the configuration is done in the same way as in DECT Configuration Example on page 159 .

21 Troubleshooting

21.1 General Troubleshooting

Log files

When troubleshooting IMS2, it is always a good idea to examine the log files, since they provide additional information that may prove useful. When reporting an error to your supplier, always include the appropriate log file.

To find logs, do as follow:

1. On the IMS2 start page, click "Configuration". The *Configuration* page opens.
2. Select "Other settings" > "Advanced Configuration". The *Advanced Configuration* page opens.
3. Click "Troubleshoot".
4. Click "View Info Log" or "View Error Log".

IMS2 Does Not Start

To use the IMS2 GUI, the computer must confirm to the requirements listed in 1.7 Requirements on page 9. If you do not have the correct software versions installed, contact your system administrator.

Firewall Issues, or No Indication of Connected Device

If there is a firewall between IMS2 and any devices, the firewall may need some configuration to allow communication. See Appendix A for a description of used ports.

Unable to Access FTP Area

Make sure the client is set in active mode.

Example for Internet Explorer:
In the menu, select Tools -> Internet Options... -> Advanced. Under ‘‘Browsing’’, uncheck the ‘‘Use Passive FTP (for firewall and DSL modem compatibility)’’ checkbox.

When secure mode is enabled, see 4.5 Web access security settings on page 23, only secure access via HTTPS and FTPES is allowed. HTTP is automatically redirected to HTTPS and FTP access is not allowed. The FileZilla Client freeware (not included) supports FTPES.

21.2 Device Manager Troubleshooting

Device Does Not Show Up in IMS2

If a connected device does not show up as connected in the Devices view, check the status of the interface. Starting up mode is indicated during start of applications or if an application has lost connection to a required resource.

1. On the IMS2 start page, click "Configuration". The *Configuration* page opens.
2. Select "Other settings" > "Advanced Configuration". The *Advanced Configuration* page opens.
3. Click "Troubleshoot" button.
4. Select "System information".

Software in Device Not Recognised/Synchronization Fails

1. In the Devices view, check the parameter version for the device.
2. If the parameter version is highlighted with red, a package file (.pkg) including the software file and definition file with that parameter version must be imported to IMS2. See 8.9.2 Import a Package File on page 70.

Software Download Fails

Possible causes:

- Device is out of range, turned off or is not connected to the system.
- The LAN is badly configured and looses packages.
- The LAN is overloaded and looses packages.
- The web server containing the image file is overloaded.
- Erroneous image file.
- Erroneous path to the image file.
- The web server containing the image file is incompatible with the portable.

21.3 NetPage Troubleshooting

My Groups and My Messages do not work

Check that cookies are enabled in your web browser.

Number list, Common Groups, or Common Messages are unsatisfactorily updated

Refresh the cache memory on the web browser.
If they still are unsatisfactory, refresh the caching proxy server (if any).

Entire Message history including column headings doesn’t appear

The Java Virtual Machine may be missing on your PC. Contact your IT department for assistance.

Message history is not running, although messages are sent and column headings are visible.

There might be a firewall preventing you from receiving data from the NetPage server. Contact your IT department to open port number 5891 in the firewall, in the direction from the web client to the NetPage server.

21.4 Troubleshooting Guide

This section lists a number of possible faults, probable causes and suggested actions.

21.4.1 Troubleshooting Guide for the Device Manager

Fault	Probable cause	Action or comment
• It is not possible to edit any parameters after log on to the system.	The user is logged on as auditor.	Close the browser session and re-log on as admin or sysadmin.
• The system does not have the correct time.	– Configuration error, no time server configured.	Configure the system to connect to a time server.
	– The time server is configured but is offline.	Restore connection to time server.
	– The web browser is selected as time source but the time has not been set by the user.	Set the time via the advanced configuration.
• An advanced charger does not come online in the Device Manager in a system with "Service discovery" enabled.	– The charger parameters for Service Discovery are not set.	Use WinPDM to set the parameter in the charger and in the Device Manager so that they match.
	– The service discovery parameter "Domain Name" is not unique in the IP network domain.	Use WinPDM to reconfigure the advanced charger. Make sure that there is only one Device Manager with the used "Domain Name".
	– The advanced charger and the Device Manager are located in two separate IP networks that prevents the service discovery request.	Use WinPDM to disable service discovery in the advanced charger and to set the IP Address to the Device Manager.
• An advanced charger does not come online in Device Manager in a system with "Service discovery" disabled.	The charger is configured to connect to a Device Manager with a "Domain ID" that is not used.	Use WinPDM to disable service discovery in the advanced charger and to set the IP Address to the Device Manager.
• The charger logs out immediately after login and does not come online again. The charger is configured in another Device Manager or in WinPDM.	The charger is already saved in the Device Manager that the administrator wants it to use. The Advanced Charger parameter in the desired Device Manager is pointing to another Device Manager (service discovery or IP address) which causes the charger to logout and connect to another Device Manager after completed synchronisation.	– Before connecting the advanced charger to the LAN, make sure that if the advanced charger is saved in the desired Device Manager it has parameters that points to the correct Device Manager. – Delete the saved charger from the Device Manager before connecting the charger to the LAN.

Fault	Probable cause	Action or comment
• The charger logs out immediately after login and comes online again after a while just to logout again.	The charger exists in two Device Managers and is saved in both. The parameters for the charger in Device Manager 1 causes the charger to login to Device Manager 2. The parameter for the charger in Device Manager 2 causes the charger to login to Device Manager 1. The charger jumps back and forth between the Device Managers.	Delete the charger from the Device Manager where the charger should be. The charger now logs in after a short while. Save the charger again. Delete the charger from the other Device Manager.
• Some devices report device busy in the Device Manager when the user is trying to change device parameters.	The device is occupied with some action that the device cannot combine with parameter synchronisation.	No action needed. The Device Manager will synchronise the changes when possible.
• Not possible to start a software download for some specific device types.	The device type is included in a baseline and manual software download is therefore disabled.	– Disable the baseline feature. – Exclude the device type from the baseline.
• Software download is stuck in pending.	– The device is not online. Software download will start when device gets online.	Connect the handset to the Device Manager either via a advanced charger or via a DECT system supporting OTA.
	– Multiple devices are currently being updated.	There is a limitation in the Device Manager on the number of simultaneous software downloads. All devices are placed in a queue and will be upgraded in time. No action needed. Download will start in time.
• File downloads retrying.	The device is currently unavailable (device out of range, network problem)	No action needed. The download will start when the device comes in range again.
• Software downloads rejected.	The device is already updated with a new software but not yet restarted on the new software. This is due to selected activation time in previous software update i.e. ‘‘When idle in charger’’ or ‘‘After manual restart’’ .	Restart the device manually and restart the download.

Fault	Probable cause	Action or comment
• Software downloads are aborted.	Wrong file selected for download to devices (External web server).	– Make sure that the URL to the desired software is correct and retry. – Make sure that the file is intended for that device.
• Low software download performance to handset inserted in charger.	The charger is not connected to the Device Manager (not online in the Device Manager). The handset is online only via OTA.	Configure the advanced charger so that it connects and logs on to the correct Device Manager.
• Communication failure to device.	The device did not respond in an expected way. The reason could be temporary communication problems caused by coverage problems or network problems.	Repeat the action after a while to see if it is possible to communicate with the device.
• No connection available for the Device Manager GUI.	– Max number of Device Manager GUIs has been reached.	Close the other Device Manager GUI to open new. A maximum of three Device Manager GUIs can be connected.
	– The Device Manager server side is restarted due to reconfiguration.	No Action, the server will be up within a few minutes.
	– The Device Manager is temporarily unavailable due to restore of database.	No Action, the server will be up soon.
	– The network is preventing the GUI from connecting to the server.	No action.
• All devices log out after restore of a backup.	The backup is older than the device ''online status report timeout.''	No action. All devices will re-login within ''online status report timeout.'' (See device handling).
• Software files cannot be deleted.	The files are included in a baseline.	Remove the files from the baseline configuration. Delete the files.
• The parameter version is displayed in bright red in the Device Manager GUI.	There are no compatible .pkg files imported to the system.	Import a .pkg file suitable for the device. The .pkg file is provided by the supplier.

Fault	Probable cause	Action or comment
• The parameter version is displayed in dark red in the Device Manager GUI.	The version of the imported .pkg files are not 100% compatible with the device.	Import a .pkg file suitable for the device. The .pkg file is provided by the supplier.
• The parameter version of the Number in the Numbers tab is higher than in the parameter version of the device in the Devices tab.	The device has been downgraded to a previous software version with lower parameter version.	No action needed. This is not an error. The parameter version will be the same after a software upgrade has been performed on device.
• No numbers are visible of the selected device type in the Number tab.	The search field is red. Current search returns no hit.	Alter search or use "show all" to reset search to default.
• "Go to device" is dimmed out for a device in the device view.	The selected device has no number associated to it.	– Assign a new number to the device. – Associate a new or existing number to the current device.
• The handset is not visible in the Number tab.	– The handset has no number associated.	Assign or associate a number to the device.
	– The device is offline and not saved as number.	Bring the device online. Save the number in order to make it possible to edit the number when it is offline.
• Number creation of desired device type is not possible.	The .pkg file for the desired device type is not imported to the PDM.	Import the .pkg file for the desired device type. The file is provided by the supplier.
• It is not possible to apply a template at creation of new number.	No compatible template for the desired device exists.	Create a new template or upgrade an existing template and retry.
• A handset logs out when placed in an advanced charger	The device manager configurations in the IPBS and the advanced charger are not the same.	Delete the saved instance of the advanced charger in the Device Manager. Use WinPDM to reconfigure the advanced charger so that it will log on to the correct device manager. Connect the advanced charger to the LAN.

Fault	Probable cause	Action or comment
• The handset does not log on to the device manager OTA.	– The Domain ID is not set correctly in the IPBS.	Reconfigure it to match the device manager Service Discovery parameter Domain ID.
	– The system does not support service discovery.	Erase the Domain ID in the IPBS and set the IP address to the Device Manager under Advanced Settings > Device Management.
• The VoWiFi handset does not log on to the device manager OTA.	– Both IMS/IP and IMS2 are used. An i62 VoWiFi handset logs on to the IMS/IP. The IMS/IP does not support i62 which mean that it cannot forward the correct handset login information to the IMS2.	Upgrade the IMS/IP to IMS2, see Appendix H.
• When trying to manage the license for a device, the status is changed to "server failure".	The firewall has closed port number 443 for https communication.	Reconfigure the firewall to allow https communications via port 443.

21.4.2 Troubleshooting Guide for IMS2

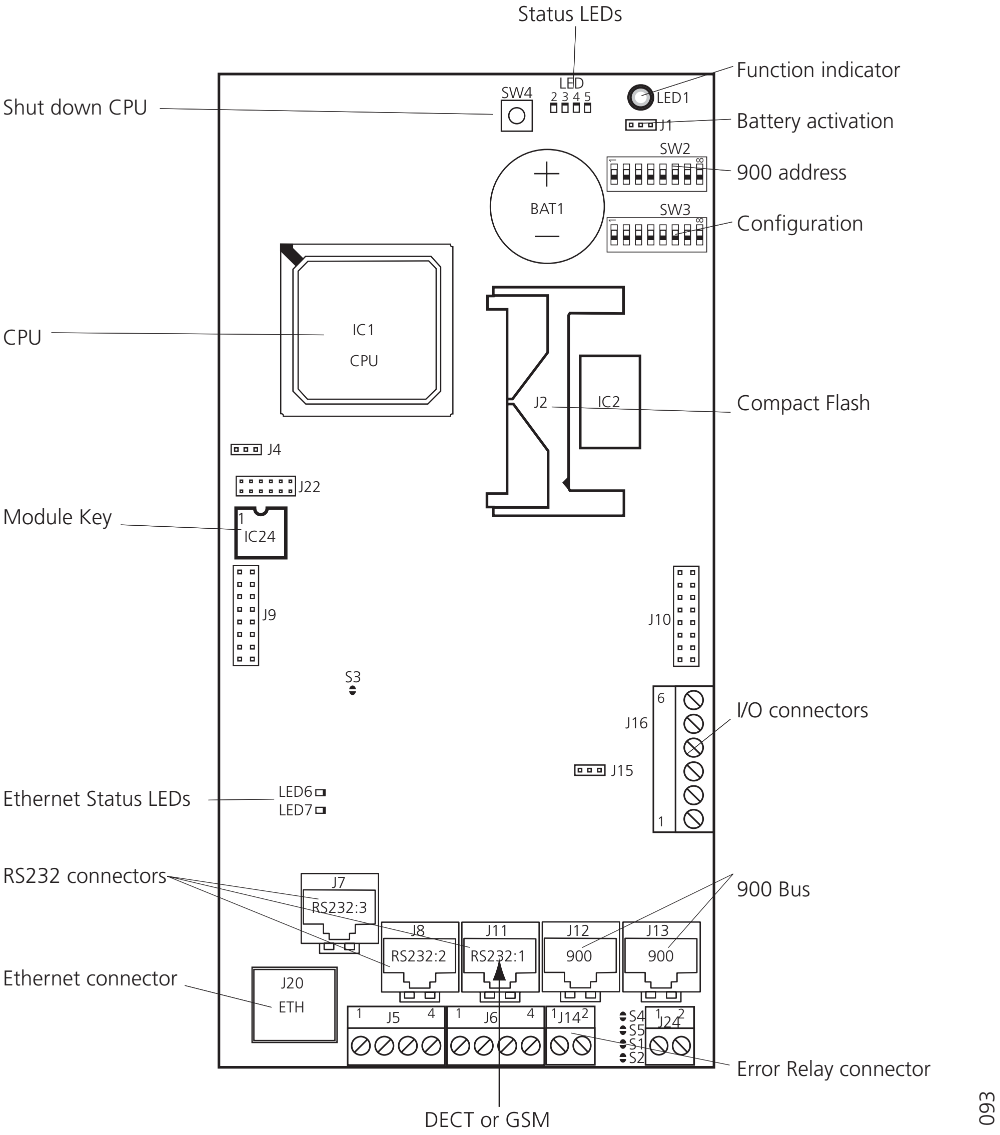
This part of the Troubleshooting Guide lists possible faults that are not connected to the Device Manager

Fault	Probable cause	Action or comment
• It is not possible to send SMS to a specific device.	– The device does not support SMS.	---
	– The IMS2 license does not support SMS.	Upgrade the license to support SMS.
	– The IPBS UNITE SMS parameter is misconfigured.	Set the parameter so that it points out the IMS2 containing the DECT Interface.
• It is not possible to edit the Central Phonebook.	– The phonebook is configured to be read-only.	Edit the external phonebook file and re-import it to the Central Phonebook.
	– The phonebook is configured to use a LDAP server	Access the LDAP server and alter the desired entry. After "commit", the new data will be available for the Central Phonebook.

Fault	Probable cause	Action or comment
• Import of language to the configuration GUI fails.	The language file has the wrong format.	Export the default language to set the format and edit the language file.
• Set language fails in IMS2.	– The language file might be faulty.	Export the language files and compare them. Make sure that the <language id= tag is unique for each file
• The log files are flooded with log entries.	The log settings are set to a detailed level.	Change the log settings in Advanced configuration > Troubleshoot > System information.
• Several functions of the system does not start.	– There is not a valid license.	Enter a valid license and restart the module.
	– The module has been running for more than two hours in unlicensed mode.	Change the dip switch setting and restart the module in normal mode.

21.5 Built-in tools in IMS2

The IMS2 hardware has different LEDs to indicate the status and besides that the possibility to show active faults and logging the faults.



Tools	Description
Function Indicator	Refer to the table in chapter Function LED indicators in Installation Guide, ELISE2, TD 92232GB.
LED6	ON: Communication on Ethernet
LED7	ON: 100MBit/s OFF: 10MBit/s
Unlicensed mode	Unlicensed mode is activated by SW3, section 5, and a restart. IMS2 will run with full functionality for 2 hours, then it stops! If it works in unlicensed mode and not in normal mode you probably have a license problem. Note: Do not forget to switch back to normal mode and restart the module.
Fault logging	Refer to 13.3.2 Fault Log on page 113 and 13.3.3 Administer Fault Log on page 115.

21.6 Advanced Troubleshooting

IMS2 Advanced Configuration page (requires administrator or system administrator rights) includes pages for advanced troubleshooting.

1. On the IMS2 start page, click "Configuration". The *Configuration* page appears
2. Select Other Settings > Advanced Configuration in the left menu. The *Advanced Configuration* page appears.
3. Click the "Troubleshoot" button.
4. In the menu, there are links to pages where it is possible to view logs and find detailed information about the system.

- View Info Log
  Information saved in a volatile memory.
- View Error Log
  Errors and notifications saved in a permanent memory.
- View Complete Log
  (requires sysadmin rights)
  The Complete Log includes Info Log, Error Log and additional debug information.
  Note: This page shall only be used when information is requested by Technical Support.
- System Information
  - Information about module status.
  - Debug settings can be made. Standard debug is set by default but it can be extended to show more details.
- Send Test Message
  Possibility to send a test message to an entered Call ID.
- IP Statistics
  Information about the number of sent Unite messages and retransmissions for entered IP destinations can be viewed.
  The syntax of the listed IP addresses in the IP Statistics page is:
  <IP address> (<No. of sent messages>)[- !] where " - !" indicates that retransmissions have been made.
- Disk Status
  Status of the partitioned Compact Flash used by IMS2.
- Module Fault List
  Level of seriousness for different kinds of log events can be set. These events can appear in the Status Log (further described in chapter 13.3 Status on page 112).

21.7 What to consider when replacing a module

- Address
- Jumpers
- Switches
- Compact Flash
- Configuration
- License
- Module key
- Remember where cables were connected

21.8 Technical Support

For technical support please contact your local representative.

22 Related Documents

Data Sheet, IMS2	TD 92585GB
Data Sheet, ELISE2	TD 92524GB
Installation Guide, ELISE2	TD 92232GB
Installation and operation manual, Portable Device Manager (PDM), Windows Version	TD 92325GB
Installation and Operation Manual, Enterprise Mobility Node (EMN)	TD 92236GB
Installation and Operation Manual, Remote Management Client	TD 92256GB
System Planning, Unite	TD 92258GB
Function Description, Activity logging in Unite	TD 92341GB
Installation and Operation Manual, Enhanced System Services (ESS)	TD 92253GB
Function Description, Open Access Protocol (OAP)	TD 92215GB
Function Description, Remote Management	TD 92257GB
System Planning, On-site Paging System	TD 90202GB
Installation Guide for T941AM8 Alarm Module	TD 90858GB
Installation Guide for T941AM32 Alarm Module	TD 90854GB
Installation Guide for T941OM Output Module	TD 90859GB
Protocol, Serial Data Interface S942SI	TD 92088GB
Installation and Operation Manual, IP-DECT Base Station	TD 92372GB
Installation and Operation Manual, IP-DECT Base Station and IP-DECT Gateway	TD 92579GB
Installation and Operation Manual, Portable Device Manager (PDM) System Version	TD 92378GB
Installation and Operation Manual, NetPage	TD 92198GB
Installation and Operation Manual, Integrated Message Server (IMS)	TD 92161GB
Installation and Operation Manual, Integrated Message Server, IMS/IP-WiFi	TD 92322GB
Function Description, Product Licensing Overview	TD 92677GB

23 Document History

For details in the latest version, see change bars in the document.

Version	Date	Description
A	08 April 2009	First released version.
B	08 June 2009	Added new chapters: - Appendix H: Migration Guide - 13.1.8 UNS Default Category - 13.7.1 Device Management Setup - 19.1.3 TAP Protocol - Appendix D.3 TAP Protocol Updates in: - 19 Serial Interface, TAP protocol Additional minor changes according to change bars.
C	21 October 2009	Added new chapters: - 4.3 Set passwords - 8.4.7 Upgrade a template - 8.4.8 Apply a template - 8.5.11 Import Contacts - 8.8 Licenses - 8.11 Other Settings - 13.8 Coloured messaging - 13.9 Additional System Settings - 17.1 Messaging Tool Configuration - 17.2.1 Configure NetPage messaging - 21.4 Troubleshooting Guide Updated information in: - 2.7 Multiple IMS2 Configuration, improved - 4.2 Functionality matrix, added information - 4.6 Configuration Page, new information - 7.2.1 Import Entries to the Central Phonebook from a CSV File - 8.1.6 Tabs, Licenses tab - 12 Messaging Groups - 13.1.6 Examples of Settings, new parameters - 13.1.7 Digit Manipulation in Central Phonebook - 14 Remote Management, improved GUI - 17.2.2 Creating or Updating the Number list, renamed - 17.3 Predefined Groups, improved - 21.6 Advanced Troubleshooting, improved - Appendix E: Device Manager Keyboard Shortcuts Removed: - The "Getting Started" appendix has been removed and the information has been added to Installation Guide, ELISE2, TD 92232GB. Additional minor changes according to change bars.
D	10 March 2010	Chapter "Backup and Restore of NetPage files" removed. See change bars for additional changes in the document.

Version	Date	Description
E	10 January 2011	Chapter Handset Installation removed. In Appendix H: chapter Migration from PDM System Version to IMS2 removed. Minor editorial changes.

Appendix A: Used IP Ports for IMS2

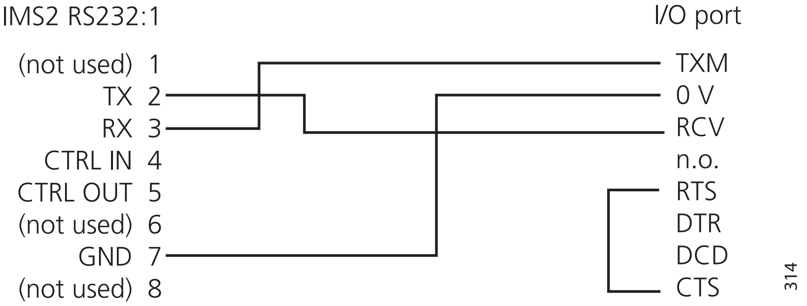
Note: If additional euqipment (for example firewall) is used between the IMS2 and the application/unit, the corresponding ports might also be opened in the euqipment.

Port	Application or unit	Transport protocol
20	FTP	TCP
21	FTP	TCP
53	Domain Name Server (DNS) License Web Server communication	UDP
68	DHCP	UDP
80	HTTP License Web Server communication	TCP
113	Authentication	TCP
123	Network Time Protocol (NTP)	UDP
443	HTTPS License Web Server communication	TCP
1321	OAP Server	TCP
1322	OAP Server	TCP
1814	MX-ONE/MD110/IP-DECT/EMN	TCP
1815	MX-ONE/MD110/IP-DECT/EMN	TCP
3217	Unite traffic	UDP
5891	NetPage Applet communication	TCP
8080	HTTP	TCP
10089	Ascotel I6	UDP
10101	Remote connection - TCP and RS232 conversion	TCP
10103	Remote connection - Communication between Remote Access Client and Remote Access Server	TCP
10141	VoWiFi handset Communication	TCP
10147	DECT Charger Communication	TCP
10153	Device Manager GUI Communication	TCP
33000	VoWiFi handset Communication	TCP
33001	VoWiFi handset Communication	TCP

Appendix B: RJ45 connections

B.1 Cables for BusinessPhone

IMS2 and the BusinessPhone have to be connected in order to be able to transmit messages to Portable Devices and to receive messages, user data, and alarms from the Portable Devices. The cable should be connected to the RS232:1 port on IMS2 and to the I/0 port on the IC-CU2 board in the BusinessPhone. The cable should be wired as shown below.



To be able to configure BusinessPhone remotely via a IMS2, a second cable is required. It should be wired as described above, and connected between the RS232:2 or RS232:3 port on IMS2 and the Maintenance port on the IC-CU2 board in the BusinessPhone.

B.2 Cables for ESPA Protocol, the Ascom Line protocol and the TAP Protocol

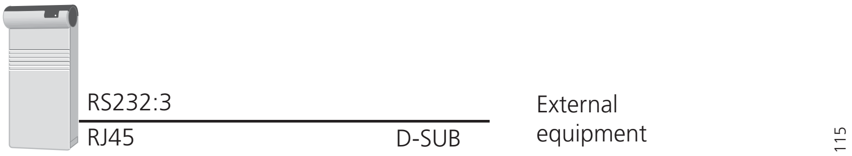


Figure 47. Connection to external equipment.

A cable with RJ45 and D-SUB connectors is required to be able to receive pagings from external equipment. Default the cable should be connected to the RS232:3 port on the IMS2.

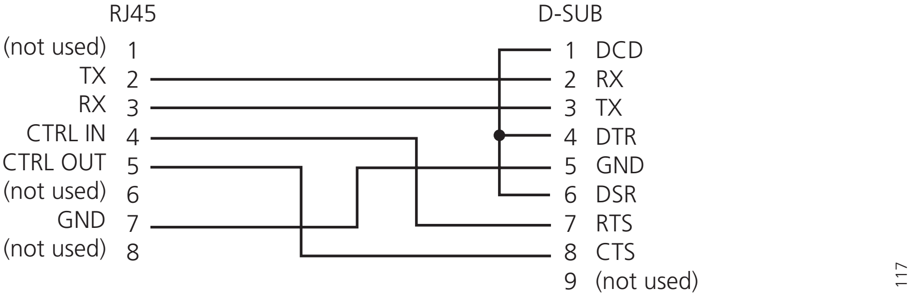


Figure 48. Cable wiring for the Ascom Line protocol and the ESPA protocol.

Appendix C: Alarm Action Configuration Examples

This appendix presents examples on how alarm actions can be configured.

System setup for examples

In this section, first the included system components are presented, then which inputs and outputs that need to be setup.

System Components

One Alarm Module.
4 inputs has been defined in the Input/Output Setup.

Input names:
Cold-storage, door open
Cold-storage, door still open
Cold-storage, door open very long
Cold-storage, door closed

One Output Module.
2 outputs have been defined in the Input/Output Setup.

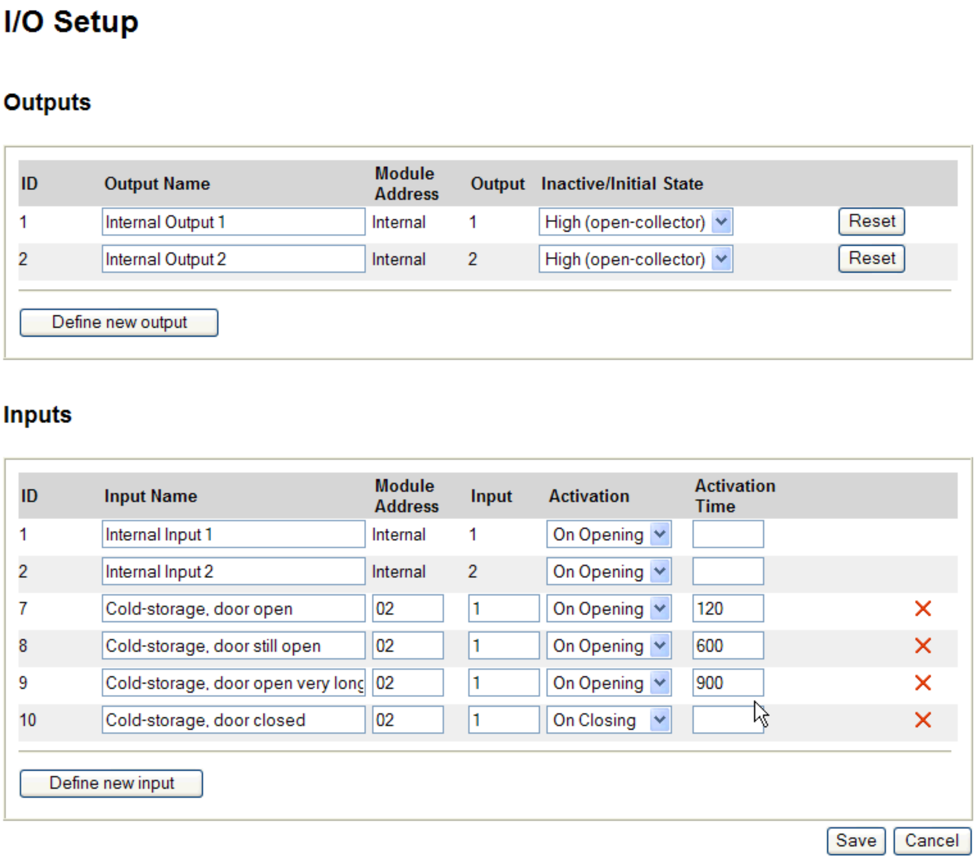
Output names:
Cold-storage lamp
Siren

4 handsets with push-button alarms.

Portable Device addresses:
1440, 1441, 1442, and 1443.

Input/Output Setup

In these examples, the outputs and inputs are set according to the following figure.



I/O Setup

Outputs

ID	Output Name	Module Address	Output	Inactive/Initial State	
1	Internal Output 1	Internal	1	High (open-collector)	Reset
2	Internal Output 2	Internal	2	High (open-collector)	Reset

Inputs

ID	Input Name	Module Address	Input	Activation	Activation Time	
1	Internal Input 1	Internal	1	On Opening		
2	Internal Input 2	Internal	2	On Opening		
7	Cold-storage, door open	02	1	On Opening	120	✕
8	Cold-storage, door still open	02	1	On Opening	600	✕
9	Cold-storage, door open very long	02	1	On Opening	900	✕
10	Cold-storage, door closed	02	1	On Closing		✕

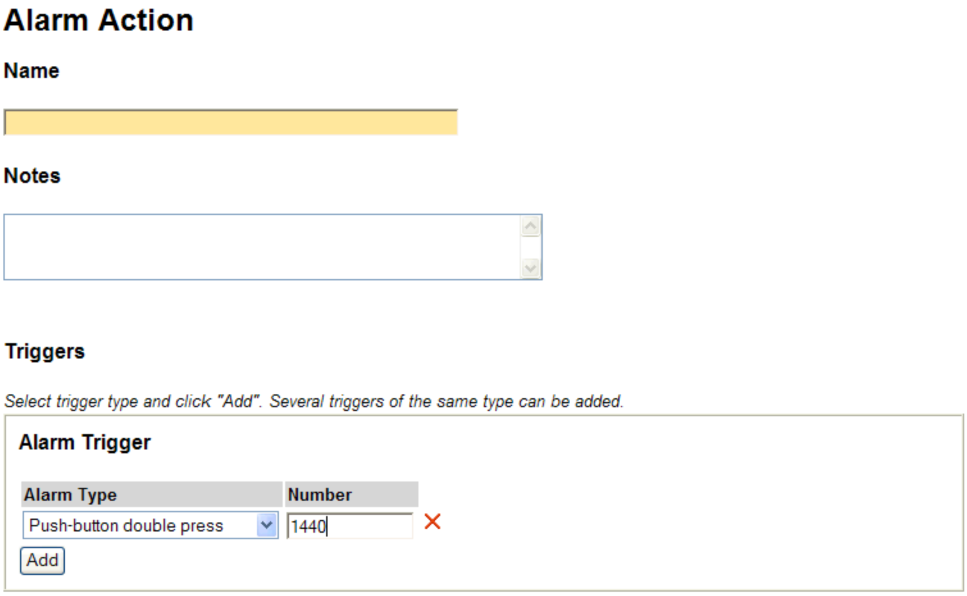
Example 1

A push-button alarm (double press) is received from 1440. A message is sent to the other Portable Devices and a siren starts to sound. The alarm is cancelled by sending the data 1440 and then the siren stops.

Two alarm actions are created. One that handles the push-button alarm called ''Push-button alarm from 1440'' and one that handles the cancellation called ''Alarm cancellation''.

Push-button alarm from 1440

Select Alarm handling, Alarm Actions and set Alarm Trigger ''Push-button double press''



Alarm Action

Name

Notes

Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

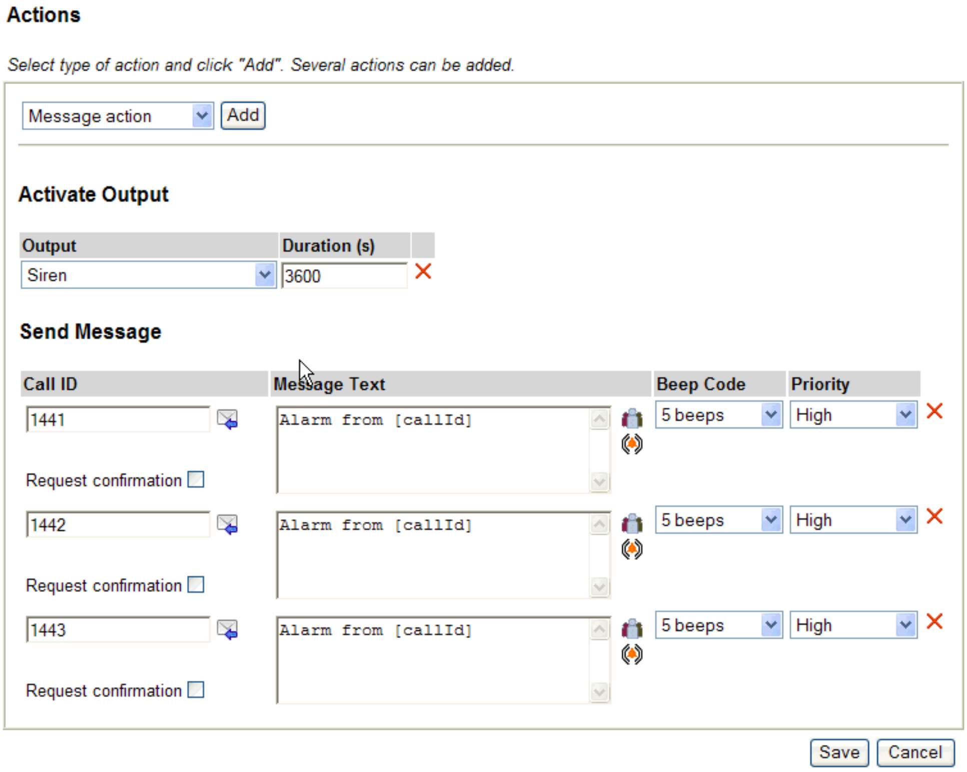
Alarm Trigger

Alarm Type	Number
Push-button double press	1440

Activate Actions

Activate which actions to be activated when an alarm is received. Two different actions are setup, a siren and messages sent to other handsets.

Activate Output Action and Send Message Actions



Actions

Select type of action and click "Add". Several actions can be added.

Activate Output

Output	Duration (s)
Siren	3600

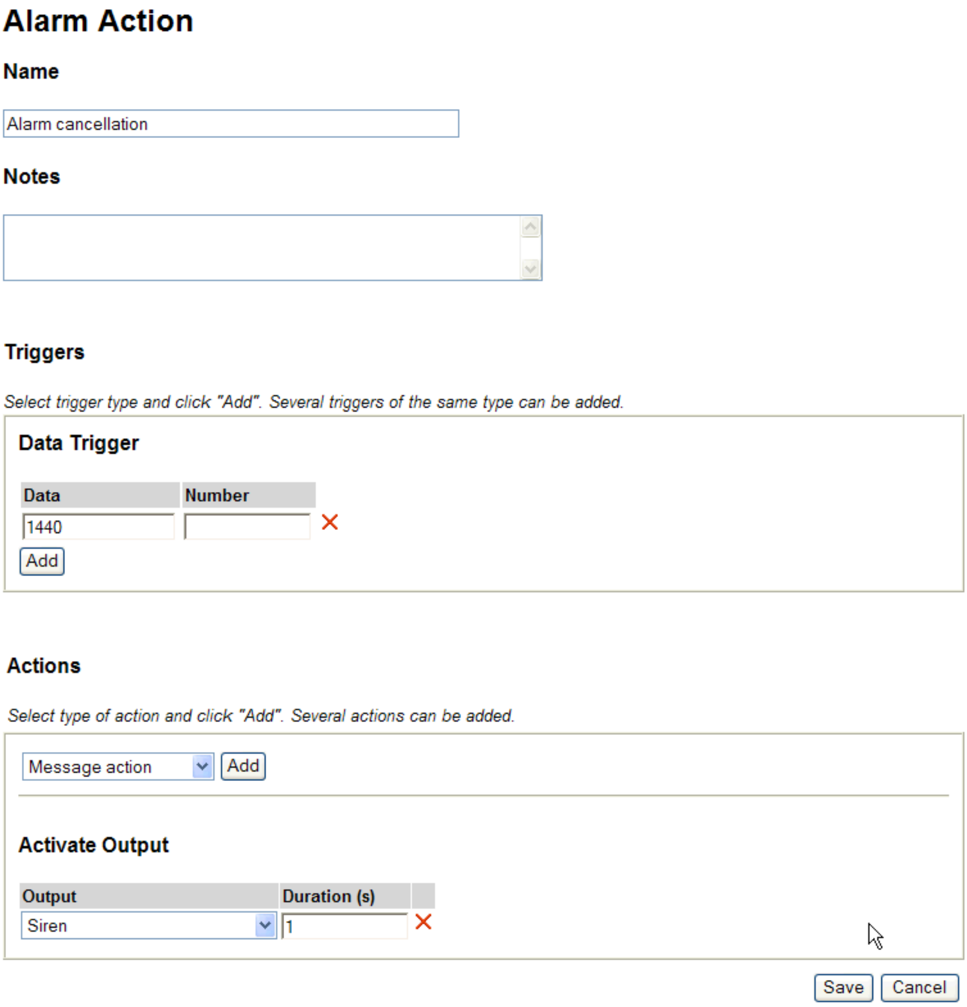
Send Message

Call ID	Message Text	Beep Code	Priority
1441 Request confirmation □	Alarm from [callId]	5 beeps	High
1442 Request confirmation □	Alarm from [callId]	5 beeps	High
1443 Request confirmation □	Alarm from [callId]	5 beeps	High

For Output Action Siren, the value is set to max value 3600.

Alarm cancellation

For portable 1440, Alarm cancellation is setup with a Data Trigger with an Alarm with duration of 1 second.



Alarm Action

Name: Alarm cancellation

Notes:

Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

Data Trigger

Data	Number
1440	

Add

Actions

Select type of action and click "Add". Several actions can be added.

Message action Add

Activate Output

Output	Duration (s)
Siren	1

It does not matter which Portable Device that sends the data so the trigger is general when it comes to Portable Device number.

The output is set to the initial state again (after 1 second).

Example 2

When the door to one of the cold-storage rooms is opened, the input from Cold-storage room is activated. If the door is open longer than 2 minutes a message is sent and a lamp above the door is lit. If the door still is open after 10 minutes another message is sent. After 15 minutes another message is sent and the siren starts to sound. When the door is closed the siren and lamp are turned off.

Three alarm actions are created. One that handles the alarm called "Cold-storage room open", one called "Cold-storage room open very long" and one called "Cold-storage room closed".

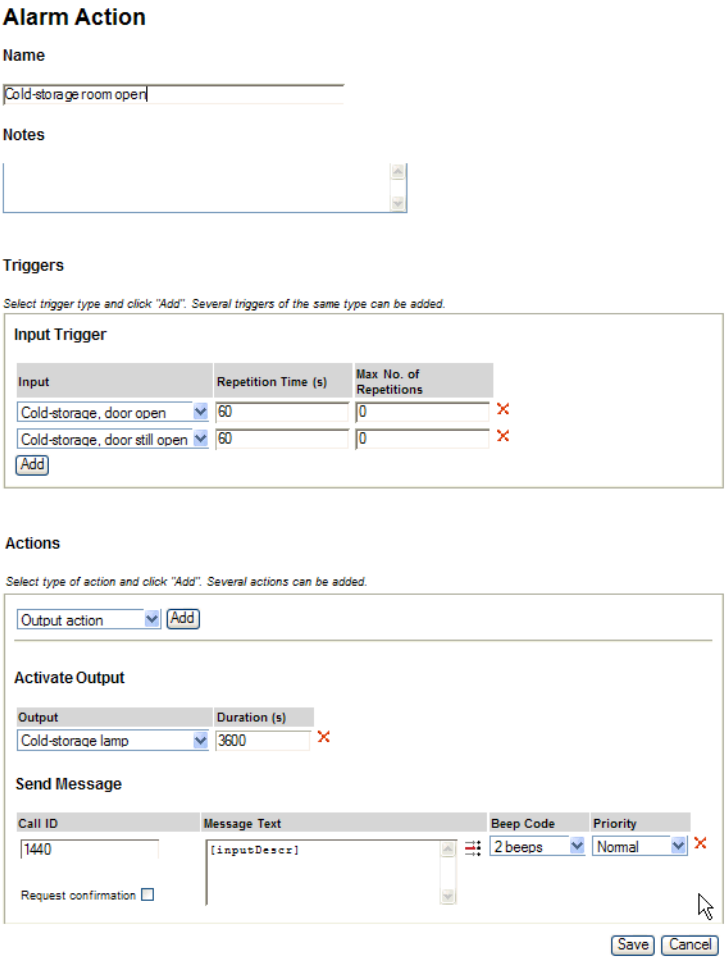
Cold-storage room 1, door open

Input Triggers: "Cold-storage door open" and "Cold-storage door still open"

When the door has been open for 2 minutes (120 seconds), the action is started. The action shall not be repeated so the "Repetition time" is not stated, and the value in the "Max. No. of Repetitions" field has no meaning.

When the door has been open for 10 minutes (600 seconds), another message is sent as a reminder. A separate Alarm Action is required if a different beep-code is desired.

Actions Activate Output Action and Send Message Actions



Alarm Action

Name

Cold-storage room open

Notes

Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

Input Trigger

Input	Repetition Time (s)	Max No. of Repetitions
Cold-storage, door open	60	0
Cold-storage, door still open	60	0

Actions

Select type of action and click "Add". Several actions can be added.

Output action

Activate Output

Output	Duration (s)
Cold-storage lamp	3600

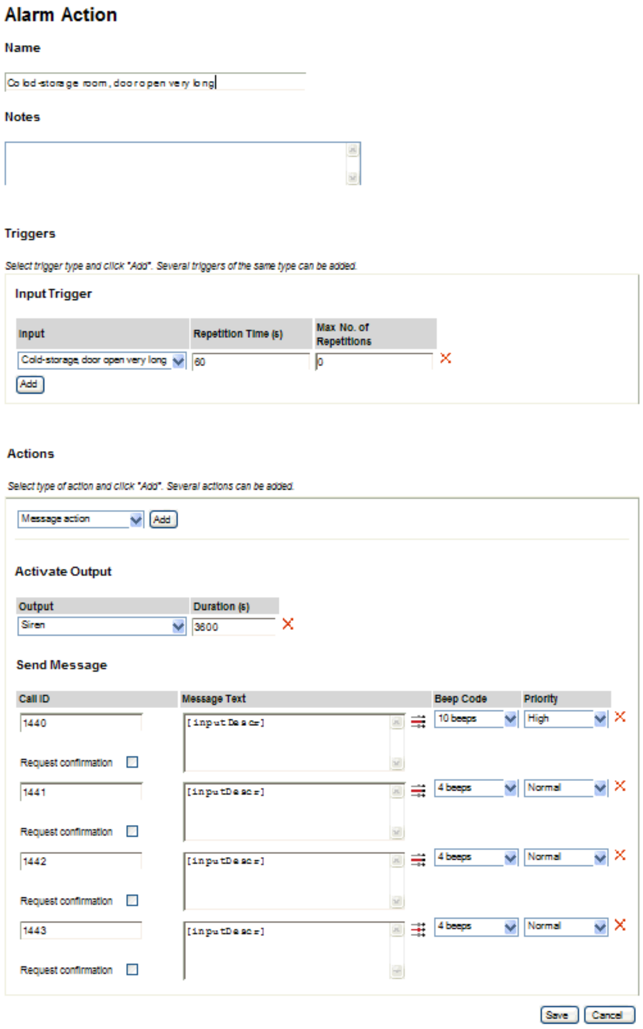
Send Message

Call ID	Message Text	Beep Code	Priority
1440 Request confirmation □	[inputDescr]	2 beeps	Normal

For Activate Output Action, the duration is here set to max value 3600.

Cold-storage room 1, door open very long

The Input Trigger "Cold-storage room, door open very long" is used.



Alarm Action

Name: Cold-storage room, door open very long

Notes:

Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

Input Trigger

Input	Repetition Time (s)	Max No. of Repetitions
Cold-storage, door open very long	60	0

Actions

Select type of action and click "Add". Several actions can be added.

Message action

Activate Output

Output	Duration (s)
Siren	3600

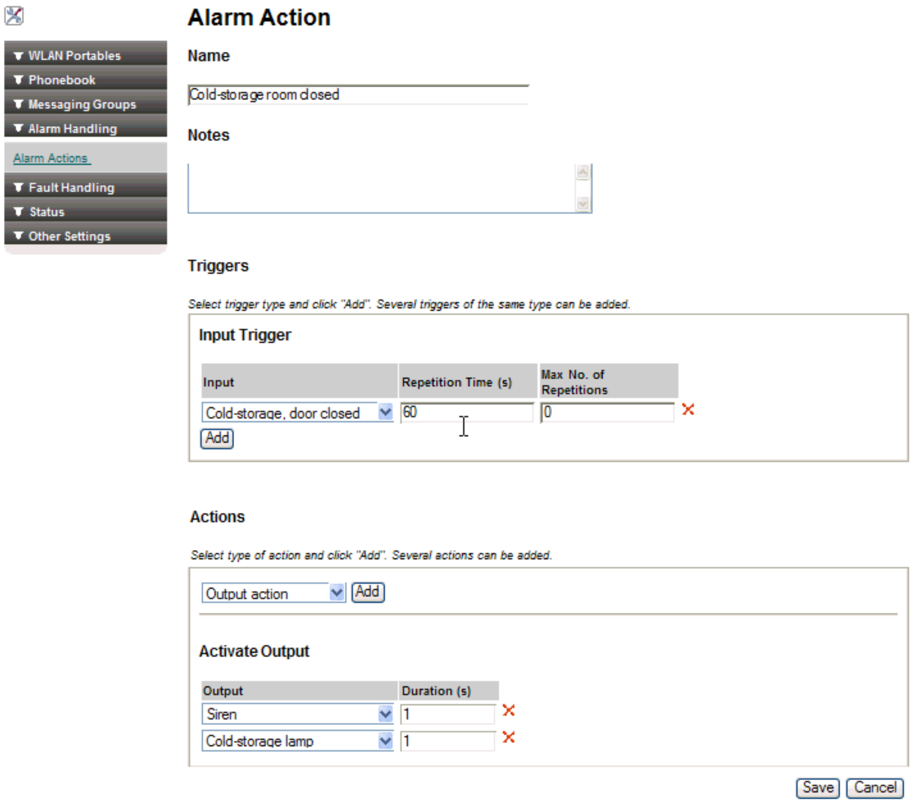
Send Message

Call ID	Message Text	Beep Code	Priority
1440 Request confirmation □	[inputDescr]	10 beeps	High
1441 Request confirmation □	[inputDescr]	4 beeps	Normal
1442 Request confirmation □	[inputDescr]	4 beeps	Normal
1443 Request confirmation □	[inputDescr]	4 beeps	Normal

When the door has been open for 15 minutes (900 seconds), the message is sent to all Portable Devices and the siren starts to sound.

The duration is set to max value 3600 and will sound until expired or another action is started with shorter expire time, for example "Cold-storage room closed".

Cold-storage room door closed



Alarm Action

Name

Cold-storage room closed

Notes

Triggers

Select trigger type and click "Add". Several triggers of the same type can be added.

Input Trigger

Input	Repetition Time (s)	Max No. of Repetitions
Cold-storage, door closed	60	0

Actions

Select type of action and click "Add". Several actions can be added.

Output action

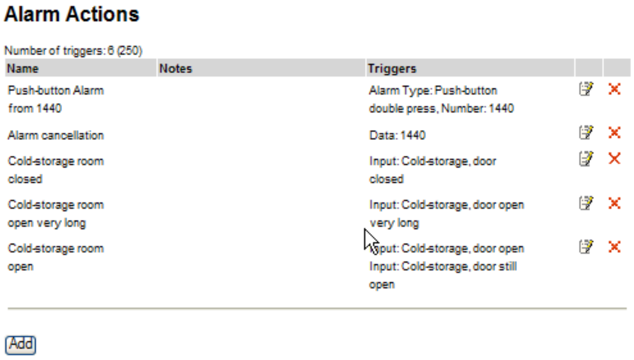
Activate Output

Output	Duration (s)
Siren	1
Cold-storage lamp	1

For Input Trigger "Cold-storage, door closed": When the door closes the actions are started. The output is set to the initial state again (after 1 second).

Summary of alarm actions

This figure shows a list of the Alarm Action setup in the examples.



Alarm Actions

Number of triggers: 6 (250)

Name	Notes	Triggers		
Push-button Alarm from 1440		Alarm Type: Push-button double press, Number: 1440	✎	✕
Alarm cancellation		Data: 1440	✎	✕
Cold-storage room closed		Input: Cold-storage, door closed	✎	✕
Cold-storage room open very long		Input: Cold-storage, door open very long	✎	✕
Cold-storage room open		Input: Cold-storage, door open Input: Cold-storage, door still open	✎	✕

Appendix D: Protocol Limitations

This appendix describes a number of protocol specific limitations. The serial interface included in IMS2 is a successor to the system 900 module S942SI Serial Interface and the supported protocols are described in the document Protocol, Serial Data Interface S942SI, TD 92088GB. To be able to fully understand the limitations it is recommended to have this document available.

D.1 ESPA 4.4.4

The implementation only supports point-to-point connection. Dial-up connection or multiprop connection are not supported.

D.1.1 Functionality

The protocol consists of **blocks** which consist of **records** which consist of **data**.

D.1.2 Limitations

Protocol Blocks

The original ESPA 4.4.4 specification has 4 different blocks and an additional 5'th block for equipment manufacturer specified functionality. The 5'th block is not used by Ascom and Ericsson paging dialect, instead two additional blocks 7 and 9 are specified for the dialects.

Request for license
(Block 7, Ascom and Ericsson paging dialect): This block is not supported. The block is NAK:ed if received.

Request for module key number
(Block 9, Ascom and Ericsson dialect): This block is not supported. The block is NAK:ed if received.

D.1.3 Protocol Records

Call type: Speech call (Record 4.2): Speech paging is not supported. This record is handled as a standard paging (Record 4.3)

Call type: Remote ack of old paging in mobile unit (Record 4.5, Ascom dialect): This record not supported and is NAK:ed.

Call type: Erase of old paging
(Record 4.6, Ascom dialect): If neither ''ID'' (Record 9) or ''Running Number'' (Record D) is included in the message, the message is NAK:ed.

Call type: Cordless phone, undefined type
(Record 4.7, Ascom dialect): Sent as standard paging (Record 4.3).

Call type: Cordless phone, internal type
(Record 4.8, Ascom dialect): Sent as standard paging (Record 4.3).

Call type: Cordless phone, external type
(Record 4.9, Ascom dialect): Sent as standard paging (Record 4.3).

Number of transmissions
(Record 5, standard ESPA): This record is accepted but ignored since it is not applicable in DECT or WiFi systems.

Mailbox number (Record A, Ericsson paging dialect):	This record is accepted but ignored.
Infopage (Record C, Ascom dialect):	This record is accepted but ignored.

D.1.4 Advanced parameters

Bleep each transmission: Not applicable.

Flow control XON/XOFF: Not supported since there are some issues with the control characters. If the block check character becomes any of the two control characters XON or XOFF, the flow control fails, therefore we decided to not support this.

D.2 Ascom Line Protocol

D.2.1 Functionality

A line protocol message consists of the following records and separators:

<Addr/Message/Beepcode/PagFunc/NoOfTransm/Prio/Infopage>

All characters are writeable by hand using an ordinary terminal program such as hyper terminal etc. Not all records need to be given, for instance <> is a valid message that delivers default message to default paging address.

D.2.2 Limitations

The following limitations apply:

PagFunc: The Line protocol only supports call type 3 (plain paging) and 4 (alarm). All others are handled as plain paging.

NoOfTransm: Not applicable.

InfoPage: Not applicable.

D.3 TAP Protocol

D.3.1 Functionality

- <ESC>PG1<CR> Default logon string
- First field of the data block is assumed to contain the paging address. The address is treated as a decimal address, valid digits is 0-9. Any leading spaces will be ignored.
- Field(s) after the first field is assumed to contain the paging text. If the datablock is containing more than 2 fields, fields 3,4,5.. will be concatenated to the paging text to be sent. (the separating <CR>:s will be treated as a part of the paging text. The paging text is set as 'Body' in the Unite paging. The 'Subject' will be empty.
- There is no restriction on how many blocks that can be sent during one logon session.

D.3.2 Limitations

The following limitations apply:

Using <US> or <ETB> as block terminators: Not supported.

Sending <SUB> as control character: Not supported.

Maximum session timeout: Not implemented, however an inactivity timeout will occur after 8 seconds when waiting for logon string and 4 seconds when waiting for block data after a <STX> has been received. After 3 successive timeouts, an automatic disconnect sequence will be initiated. These values can be changed through parameters.

Timeout between blocks: There will be no timeout between blocks.
After a logon has been received and after each paging block, the Serial Interface is put into sleep mode. Three actions can wake it up: A logoff request, a new logon request or a new paging block.

Messages longer than 128 characters: Will be accepted but truncated.

Message sequences: Not used by the Serial Interface.

Software flow control of the serial port: Not supported.

Characters in the paging text below 0x20 (except for carriage return): Will be converted to something above 0x7F (by adding the 8'th bit).

Appendix E: Device Manager Keyboard Shortcuts

The following table shows the shortcuts that can be used in the Device Manager.

E.1 General

Shortcut	Description
Ctrl + H	Open the File management window
Ctrl + B	Open the Edit Baselines window
Ctrl + Tab	Switch tab
Alt + F4	Close the application

E.2 Devices

Shortcut	Description
Ctrl + N	Add a new device
Enter	Upgrade the selected device(s)
Delete	Delete the selected device(s)
Ctrl + F	Find a device
Ctrl + Enter	Open the Properties window for the selected device

E.3 Numbers

Shortcut	Description
Ctrl + N	Add a new Number
Enter	Edit the selected Number
Ctrl + C	Copy the selected Number
F2	Rename the selected Number
Ctrl + S	Save the selected Number to the database
Delete	Delete the selected Number from the database
Ctrl + F	Find a Number

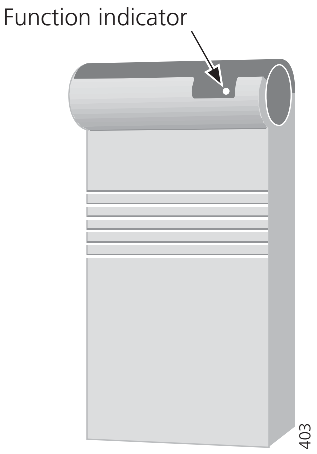
E.4 Templates

Shortcut	Description
Ctrl + N	Add a new template
Enter	Edit the selected template
Ctrl + C	Copy the selected template
F2	Rename the selected template
Delete	Delete the selected template
Ctrl + F	Find a template

E.5 Licenses

Shortcut	Description
Delete	Remove the selected device(s) from the license view
Ctrl + F	Find a device

Appendix F: Function Indicator and Error Relay Output



The function indicator and the error relay indicate the status of the IMS2. The indication is dependent of whether the IMS2 is connected to the A-bus or not and also whether there is a Central Unit connected to the A-bus. Which mode the IMS2 uses is set on the IMS2 administration pages, see 11 System 900 on page 92 for more information. The function indicator and error relay indications are described below.

IMS2 connected to A-bus with Central Unit

Status	Function Indicator	Error Relay
Communication with the Cordless Telephone System and the Central Unit.	Green	Operates
Communication with the Cordless Telephone System but not with the Central Unit. or Communication with the Central Unit but not with the Cordless Telephone System.	Flashing orange (100ms ON/100 ms OFF)	Released
Shut down	Flashing red (1000ms ON/3000 ms OFF)	Released
Restart or reboot	Flashing orange (100ms ON/800 ms OFF)	Released

IMS2 connected to A-bus without Central Unit or A-bus not connected

Status	Function Indicator	Error Relay
Communication with the Cordless Telephone System. A-bus connection does not change the indication.	Green	Operates
No communication with the Cordless Telephone System.	Flashing orange (100ms ON/100 ms OFF)	Released
Shut down	Flashing red (1000ms ON/3000 ms OFF)	Released
Restart or reboot	Flashing orange (100ms ON/800 ms OFF)	Released

For information about other LED indications, see Installation Guide, ELISE2, TD 92232GB.

Appendix G: File types

In this appendix, the different file extensions that are used in IMS2 are explained. System files are not described.

File type	Extension	Description
Software file (handsets)	bin	Software for handsets
Company Phonebook file	cpb	Company Phonebook file for handsets.
Parameter Definition file	def	Including all possible settings for a certain handsettype for a certain version.
Software file (IMS2)	eas	Used for a package upgrade of IMS2.
Image file	img	Used for a complete (image) upgrade of IMS2.
Language file	lng, or xml	Language file for handsets or IMS2. Language file for IMS2 uses XML (eXtensible Markup Language.).
Package file	pkg	Archive that can include different file types such as parameter definition files (.def), software files (.bin) and template files (.tpl).
Template file	tpl	Contains one or more exported templates.
Number file	xcp	Exported Numbers.
Product Information file	xml	A file containing information needed for licensing and upgrade of a handsets.
License file	xml	A file containing license keys for handsets.

Appendix H: Migration Guide

This appendix describes how an existing system with IMS (Integrated Message Server), IMS/IP, NetPage or PDM System Version modules can be migrated to an IMS2 based system.

The following cases are covered:

- IMS/IP to IMS2
- IMS/IP and PDM System Version to IMS2
- NetPage to IMS2
- Add Device Management to an existing DECT system
- IMS to IMS2

For detailed instructions on how to do these migrations, refer to the corresponding chapters in this manual.

H.1 Migration of IMS/IP and PDM System Version to a Double IMS2 System

If there is only a small amount of alarm handling configured on the existing IMS/IP, or if there is a need to start using alarm handling, it is recommended to migrate the IMS/IP to IMS2. By doing a migration, the system is ready for new alarm handling functionality.

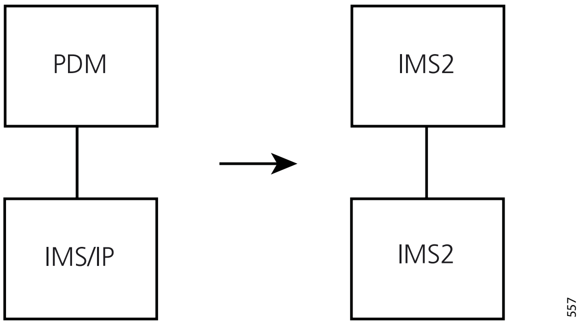


Figure 49. Migration of a PDM and IMS/IP system to a double IMS2 system.

H.1.1 Description of system

System constellation before migration:

- PDM with IP address 192.168.0.2
- IMS/IP with IP address 192.168.0.3

System constellation after migration:

- IMS2 with IP address 192.168.0.2
- IMS2 with IP address 192.168.0.3

H.1.2 Preparations

It is not possible to do a complete migration from an IMS/IP to an IMS2 by using backup files. The Basic Alarm Manager configuration in an IMS/IP cannot be installed on an IMS2 and must therefore be transferred manually.

Note: Licenses for IMS/IP and IMS2 are not compatible, that is, before start of migration an IMS2 license has to be acquired.

The license for PDM is compatible with IMS2, that is, no extra license for Device Management is needed.

Licenses

- Basic license for IMS/IP (IMS-L801) corresponds with the following licenses for IMS2:
  - IMS2 Basic License (WSM-LAS)
  - Basic Alarm Manager (WSM-LAA)
- OAP licenses for IMS/IP corresponds to the following licenses for IMS2:

Description	IMS/IP license	IMS2 license
Basic messaging	IMSOAP-LM	WSM-LAP2
Basic messaging, interactive messaging and user data	IMSOAP-LI	WSM-LAP3
Basic messaging and alarm	IMSOAP-LA	WSM-LAP2
Basic messaging, interactive messaging, user data and alarm	IMSOAP-LC	WSM-LAP3

Flash memory

If the existing license is valid for up to 100 devices (WSM-LAS, WSM-LAM1 or PDM-LC) a 256MB flash can be used.

If the existing license is valid for more than 100 devices (WSM-LAM2, WSM-LAM3, WSM-LAM4, PDM-LD or PDM-LM) a 1GB flash must be used.

H.1.3 Description of migration

Migration of PDM to IMS2

1 Fetch software and definition files stored on the FTP area on PDM, see Installation and Operation Manual, Portable Device Manager (PDM) System Version, TD 92378GB.

2 Go to 192.168.0.2/system. Click Software > Install image.

3 Do a parameter backup of the PDM by clicking "Backup parameters" on the *Install Image* page.

4 Click "Start Installation" and install an IMS2 image file on the PDM module. The ELISE2 module now runs as an IMS2 module.

5 Install the backup file on the IMS2 by clicking "Restore" on the *Install Image* page.

6 In the IMS2 *Install Image* page, click ”Admin” and select ”Device Management”. Check that only the address ”192.168.0.3/WLAN” is configured as Device Handler. Remove other addresses.

7 On IMS2 Start Page, select Configuration.The *IMS2 Configuration* page opens.

8 Select "Other Settings" > "Advanced Configuration". The *IMS2 Advanced Configuration* page opens.

9 Select UNS > Default Category. Click ”Factory” and then ”Activate”.

10 Go to 192.168.0.2/config. Run the setup wizard.

11 In the setup wizard, set the following parameters:

- Set ”DECT Phone System” to ”None”.
- Change the passwords to the passwords to be used for this system.

12 Click "Restart Now".

13 Import parameter definition files and device software to the Device Manager, 8.9.3 Import Parameter Definition Files on page 70 and 8.9.4 Import New Software for Devices on page 72.

Migration of IMS/IP to IMS2

1 Create a description of the Basic Alarm Manager configuration in IMS/IP.

2 On the IMS/IP, in the Basic Alarm Manager, do a ”Clear configuration” , see Installation and Operation Manual, Integrated Message Server, IMS/IP-WiFi, TD 92322GB.

3 Go to 192.168.0.3/system. Click Software > Install image.

4 Do a parameter backup of the IMS/IP by clicking "Backup parameters" on the Install Image page.

5 Click "Start installation" and install an IMS2 image on the IMS/IP module. The ELISE2 module now runs as an IMS2 module.

6 Install the backup file from the IMS/IP on the IMS2 by clicking "Restore" on the Install Image page.

7 On the IMS2 Install Image page, click ”Admin” and select ”Device Management”. Remove other addresses.

8 Go to UNS > Default Category, click ”Factory” and then ”Activate”, see 13.1.8 UNS Default Category on page 105.

9 Go to 192.168.0.3/config. Run the setup wizard.

10 In the setup wizard, set the following parameters:

- Enter a new license.
- Set ”DECT Phone System” to ”None”.
- Set ”Default Messaging Destination” to ”WLAN Messaging Interface”.
- Change passwords to the passwords to be used for this system.

11 Click "Restart now".

12 Go to Configuration > Other Settings > Advanced configuration > WLAN Interface > Message Distribution. For both ”Alarm” and ”Mobile Data”, change 127.0.0.1/BAM to 127.0.0.1/EventHandler, see 9.2.3 DECT Message Distribution on page 86.

13 In Configuration > Other Settings > Input/Output, configure inputs and outputs according to the IMS/IP Basic Alarm Manager configuration description, see 13.4 Input/Output Setup on page 115.

14 In Configuration > Alarm Handling > Alarm Actions, configure Alarm Handling according to the IMS/IP Basic Alarm Manager configuration description, see 13.2.3 Add Alarm Actions on page 108.

Parameter	IMS/IP	IMS2
Basic Alarm Manager inputs and outputs	/bam/Define inputs /bam/Define outputs	Configuration > Other Settings > Input/Output
Basic Alarm Manager events	/bam/Events*	Configuration > Alarm handling > Alarm Actions

* ”Activation" and ”Activation time” for inputs are defined at Configuration > Other Settings > Input/Output” on IMS2, see 13.4 Input/Output Setup on page 115. When an input is activated, it will be set to the opposite of ”Inactive/Initial State”.

The system now runs with the same functionality as before the migration.

H.2 Migration of IMS/IP and PDM System Version to a Single IMS2 System

In the case of a small system with low messaging load (< 4 000 messages per hour), and no or a small amount of shared phones, it is possible to do a migration from a two module system with one PDM and one IMS/IP to a single module system with one IMS2.

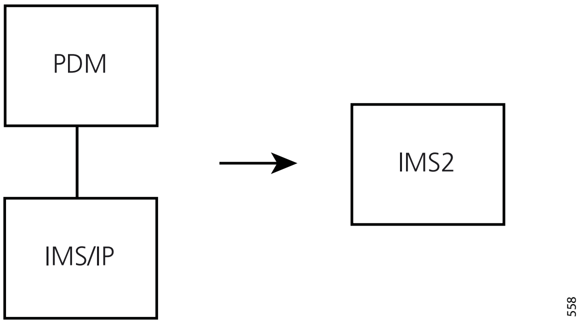


Figure 50. Migration of a PDM and IMS/IP system to a single IMS2 system.

H.2.1 Description of system

System constellation before migration:

- PDM with IP address 192.168.0.2
- IMS/IP with IP address 192.168.0.3

System constellation after migration:

- IMS2 with IP address 192.168.0.3

H.2.2 Preparations

When migrating from a two module system to a one module system there is no way to transfer the parameters of both modules by using backups. The migration is done either by:

- migrating the PDM to IMS2 and transferring the IMS/IP settings manually, or
- migrating the IMS/IP to IMS2 and let the handsets in the system be saved automatically

If there are shared phones in the system, it is necessary to migrate the PDM with a backup, otherwise all portable configurations that are not used at the time of migration will be lost.

Considerations when migrating from a PDM to an IMS2:

Since the IP address of the IMS/IP is stored on the VoWiFi handsets, the recommendation is to use the same IP address on the IMS2 that was used on the IMS/IP. If DHCP is used in the system, the IMS2 will automatically receive the same IP address as the PDM. A recommendation is to use the same hardware for the IMS2 as was used for the IMS/IP. If the hardware of the PDM is used, it is necessary to change the MAC address settings in the DHCP server.

Considerations when migrating from an IMS/IP to an IMS2:

- There is a risk of losing device configurations.
- Templates stored in the PDM will be lost since they cannot be exported.

Licenses

Prior to migration, a license for IMS2 has to be acquired. If DHCP is used, the recommendation is to use the hardware of IMS/IP.

- A Basic license for IMS/IP (IMS-L801) corresponds to the following licenses for IMS2:
  - IMS2 Basic License (WSM-LAS)
  - Basic Alarm Manager (WSM-LAA)
- A Device Management license for PDM corresponds to the following licenses for IMS2:

Description	PDM license	IMS2 license
Up to 100 devices	PDM-LC	WSM-LAM1
Up to 500 devices	PDM-LD	WSM-LAM2
Up to 1 000 devices	PDM-LM	WSM-LAM3
Up to 2 500 devices	N/A	WSM-LAM4

- OAP licenses for IMS/IP corresponds to the following licenses for IMS2:

Description	IMS/IP license	IMS2 license
Basic messaging	IMSOAP-LM	WSM-LAP2
Basic messaging, interactive messaging and user data	IMSOAP-LI	WSM-LAP3
Basic messaging and alarm	IMSOAP-LA	WSM-LAP2
Basic messaging, interactive messaging, user data and alarm	IMSOAP-LC	WSM-LAP3

Flash memory

If a license for up to 100 devices (WSM-LAM1) is acquired, it is possible to use a 256MB Flash memory.

If a license for more than 100 devices (WSM-LAM2, WSM-LAM3, or WSM-LAM4) is acquired, a 1GB Flash memory must be used.

Parameters

The following parameters shall be transferred from IMS/IP to IMS2:

- IP address; since the IP address of IMS/IP is stored in the VoWiFi handsets, the recommendation is to use the same address on IMS2 as on IMS/IP.
- Password; change passwords to the passwords to be used for this system.

The following parameters need to be transferred if there has been changes compared to the default setting:

- WLAN system parameters; settings made for WLAN, such as ”Authentication Method” and password must be transferred from IMS/IP to IMS2.
- Shared phones with individual login:
  - User server address; if shared phones use individual login, set User server address to the same IP address for ESS in IMS2 as was set in IMS/IP.
  - UNS; must be set to forwarding and to the IP address of the ESS.
- Logging settings; if the ESS is used to store status logs and activity logs, the IP address of the ESS shall be entered in the same way in the IMS2 as in the IMS/IP.

- A-bus connection; if, for example, an Alarm Module or an Output Module has been connected for usage together with the Basic Alarm Manager (BAM).
- Basic Alarm Manager configuration.
  - Inputs and outputs
  - Events (Triggers and actions)
- Message distribution; the default setting in the IMS2 is to distribute the information from the VoWiFi handset to OAP and the Alarm Handler. If there are other modules in the system, such as Alarm Management Server (AMS), for handling of this type of data, the settings for Message distribution have to be transferred from IMS/IP to IMS2.
- Central Phonebook
  - Address; if the default setting (999999) is not used, the same address that is used in IMS/IP has to be configured in IMS2.
  - Search result texts; if they have been changed, for example translated in IMS/IP, they have to be changed in the same way in the IMS2
  - Database settings
    - Local database; export the database
    - LDAP; LDAP settings in the IMS/IP must be done in the same way in IMS2
- Groups; groups that have been configured in IMS/IP must be configured in the same way in IMS2
- Messaging Tool; if the title of the Messaging Tool has been changed in IMS/IP, it needs to be changed in IMS2 as well.

H.2.3 Description of migration

Migration of PDM to IMS2:

1. Fetch software and definition files stored on the FTP area on the PDM, see Installation and Operation Manual, Portable Device Manager (PDM) System Version, TD 92378GB.
2. Go to 192.168.0.2/system > Software > Install image, see Installation Guide, ELISE2, TD 92232GB.
3. Do a parameter backup of the PDM.
4. Install an IMS2 image on the PDM module, see Installation Guide, ELISE2, TD 92232GB. The ELISE2 module is now an IMS2 module.
5. Install the backup file on the IMS2 by clicking "Restore" on the Install Image page.

Configure the IMS2 with IMS/IP parameters

1. Open the Configuration page for IMS/IP.
2. Start IMS2 in unlicensed mode, see 21.5 Built-in tools in IMS2 on page 167 and Installation Guide, ELISE2, TD 92232GB.
3. Transfer all parameters except for the network parameters.
4. Go to UNS > Default Category. Click ”Factory” and then ”Activate”, see 13.1.8 UNS Default Category on page 105.
5. Go to Advanced Configuration > ”Device Management”. Click ”Factory” and then ”Activate”, see 13.7.1 Device Management Setup on page 120.
6. Set network parameters:
   - If the IMS/IP is configured to use DHCP, shut down both modules and move the Flash memory from IMS2 to the IMS/IP hardware. Start the IMS2.
   - If DHCP is not used, change the networks settings manually on the IMS2 to the same settings as on the IMS/IP, see Installation Guide, ELISE2, TD 92232GB. Shut

down both modules, and start the IMS2. (If there is a license for the IMS/IP module key, move the IMS2 Flash memory to the IMS/IP hardware).

Start the module

1 Go to 192.168.0.2/config. Run the setup wizard.

2 Set the following parameters in the setup wizard:

- Enter the license for IMS2
- Set ″DECT Phone System″ to ″None″.
- Change passwords to the passwords to be used for this system.

3 Click "Restart Now".

4 Import parameter definition files and device software to the Device Manager, see 8.9.3 Import Parameter Definition Files on page 70 and 8.9.4 Import New Software for Devices on page 72.

The following parameter overview shows where to find the parameter settings that shall be done on the IMS/IP and the IMS2, respectively:

Parameter	IMS/IP	IMS2
Network parameters	/admin>Network	Setup Wizard
License	/admin>License	Setup Wizard
Passwords	/admin>Passwords	Setup Wizard
WLAN	/admin>WLAN System	Configuration>Other Settings>Advanced Configuration>WLAN System
User Server	/admin>User Server	Configuration>Other Settings>Advanced Configuration>User Server
UNS Operating mode	/admin>UNS>Operating Mode	Configuration>Other Settings>Advanced Configuration>UNS>Operating mode
Logging	/admin>Logging	Configuration>Other Settings>Advanced Configuration>Logging
A-bus connection	/admin>System 900	Configuration>Other Settings>Advanced Configuration>System 900
Basic Alarm Manager inputs and outputs	/bam/Define inputs /bam/Define outputs	Configuration>Other Settings>Input/output
Basic Alarm Manager events	/bam/Events	Configuration>Alarm handling<Alarm actions
Message distribution	/admin>Message distribution	Configuration>Other Settings>Advanced Configuration>
Central Phonebook address	/admin>UNS/Alias/CallID	Configuration>Other Settings>Advanced Configuration>UNS/Alias/CallID
Central Phonebook search results texts	/admin>Phonebook	Setup Wizard
Central Phonebook database	/admin>Phonebook	Setup Wizard

Parameter	IMS/IP	IMS2
Central Phonebook administration of local database (edit, import and export)	/mpb	Configuration>Phonebook
Central Phonebook, LDAP administration	/admin>Phonebook>View LDAP parameters	Setup Wizard
Groups	/admin>Interface groups	Configuration>Messaging Groups>Edit
Messaging Tool header	/admin>Messaging tool	Configuration>Other Settings>Advanced Configuration>Messaging Tool
Handset administration	/config	Configuration>WLAN portables

Migration from IMS/IP to IMS2:

1. Make a description of the IMS/IP Basic Alarm Manager configuration.
2. On the IMS/IP, in the Basic Alarm Manager, do a ”Clear configuration”, see Installation and Operation Manual, Integrated Message Server, IMS/IP-WiFi, TD 92322GB.
3. Go to 192.168.0.3/system. Click Software > Install image.
4. Do a parameter backup of the IMS/IP by clicking "Backup parameters" on the Install Image page.
5. Click "Start installation" and install an IMS2 image on the IMS/IP module. The ELISE2 module now runs as an IMS2 module.
6. Install the backup file from the IMS/IP on the IMS2 by clicking "Restore" on the Install Image page.
7. On the IMS2, go to 192.168.0.3/config. Run the setup wizard.
8. In the setup wizard, set the following parameters:
   - Enter a new license
   - Set ”DECT Phone System” to ”None”.
   - Set ”Default Messaging Destination” to ”WLAN Messaging Interface”.
   - Change passwords to the passwords to be used for this system.
9. Click "Restart Now".
10. Shut down the PDM module, see Installation Guide, ELISE2, TD 92232GB.
11. Go to Configuration > Other Settings > Advanced configuration > ”WLAN Message Distribution”. For ”Alarm” and ”Mobile Data”, change 127.0.0.1/BAM to 127.0.0.1/EventHandler, see 9.2.3 DECT Message Distribution on page 86.
12. Select UNS > Default Category. Click ”Factory” and then ”Activate”, see 13.1.8 UNS Default Category on page 105.
13. In Configuration > Other Settings > Input/Output, configure inputs and outputs according to the description of the IMS/IP Basic Alarm Manager configuration, see 13.4 Input/Output Setup on page 115.

14 In Configuration > Alarm Handling, configure Alarm Handling according to the description of the IMS/IP Basic Alarm Manager configuration, see 13.2.3 Add Alarm Actions on page 108.

Parameter	IMS/IP	IMS2
Basic Alarm Manager inputs and outputs	/bam/Define inputs /bam/Define outputs	Configuration>Other Settings>Input/Output
Basic Alarm Manager events	/bam/Events[1]	Configuration>Other Settings>Alarm Actions

[1] "Activation" and "Activation time" for inputs are defined on Configuration > Other Settings > Input Output on IMS2, see 13.4 Input/Output Setup on page 115. When an output is activated it will be set to the opposite of "Inactive/Initial State".

15 Select Configuration > WLAN Portables > List All. Mark all and click "Force Relogin", see 10.6.1 Search for Registered VoWiFi Handsets on page 89. The handsets will now log on to the IMS2 and will be saved automatically.

H.3 Migration of NetPage to IMS2

The functionality included in a NetPage module is also included in the IMS2. It is therefore possible to migrate from two modules to one.

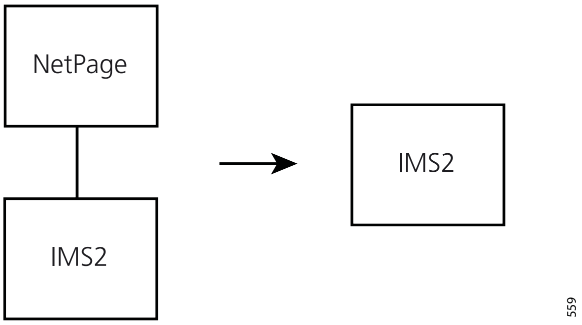


Figure 51. Migration of a two module NetPage and IMS2 system to a single IMS2 system.

H.3.1 Description of system

System constellation before migration

- NetPage with IP address 192.168.0.4
- IMS2 with IP address 192.168.0.3

System constellation after migration

- IMS2 with IP address 192.168.0.3

H.3.2 Preparations

Licenses

The Basic license for IMS2 needs an additional license for NetPage functionality.

Description	NetPage license	IMS2 license
2 users, no URL calls	NETPAGE-LB	WSM-LAN[1]
10 users, no URL calls	NETPAGE-LD	WSM-LAN[1]
Unl users, URL calls	NETPAGE-LU	WSM-LAN[1] WSM-LAP1

[1] IMS2 has no limitation for number of users per day as NetPage has.

H.3.3 Description of migration

1 Fetch files that are stored on the NetPage FTP area, see Installation and Operation Manual, NetPage, TD 92198GB.

2 Install the files on the IMS2 FTP area, 18.2.1 Files for Translation/Editing on page 143.

3 ”My Groups” and ”My Messages” are stored on each user’s computer. Since the IP address of the NetPage functionality is changed, users of the system need to be notified that the NetPage functionality has been moved and how to move own groups and predefined messages. See Installation and Operation Manual, NetPage, TD 92198GB.

H.4 Add Device Management to an existing DECT System

It is possible to add device management to an existing DECT system by installing an IMS2 in the system. This can be the case when, for example, handsets are introduced in an existing system. The following description is valid for systems with Device Management for up to 1 000 devices. If there are more devices, see 2.7.1 More than 1 000 devices, all handsets registered on one IMS2 on page 12.

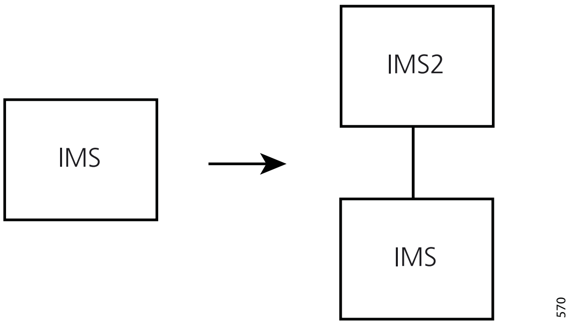


Figure 52. Adding Device Management to an IMS based system.

This configuration is recommended for the following systems:

- If there is a large Basic Alarm Manager configuration in the IMS.
- If there is an IMS with an MDGW license.

- If there is a high messaging load in the system (typically more than 4 000 messages per hour). In this case, the IMS can be migrated to an IMS2, see H.5 Migration of IMS to IMS2 on page 203 for a description.

H.4.1 Description of system

System constellation before migration

- IMS with IP address 192.168.0.3

System constellation after migration

- IMS2 with IP address 192.168.0.2
- IMS with IP address 192.168.0.3

H.4.2 Preparations

Licenses

Prior to migration, an IMS2 license needs to be acquired.

- IMS2 Basic License (WSM-LAS)
- Device Management license for IMS2:

Description	PDM license	IMS2 license
Up to 100 devices	PDM-LC	WSM-LAM1
Up to 500 devices	PDM-LD	WSM-LAM2
Up to 1 000 devices	PDM-LM	WSM-LAM3
Up to 2 500 devices	N/A	WSM-LAM4

Equipment

Only IP-DECT systems can handle device management over-the-air (OTA). In all other systems, IP connected chargers (desktop chargers or charging racks) are needed for device management. For the IP-DECT system, the base station software needs to be updated in order for device management over-the-air to work.

H.4.3 Description of migration

Updates for OTA

1. Install the IMS2 according to chapter 2 Installation and Configuration on page 10.
2. Upgrade the IP-DECT base stations, see Installation and Operation Manual, IP-DECT Base Station and IP-DECT Gateway, TD 92579GB.
3. If the IMS2 and the IP-DECT master are on the same subnet on the LAN, OTA device management will work automatically. If not, the IP address of the IMS2 must be configured in the master Base Station. See Installation and Operation Manual, IP-DECT Base Station and IP-DECT Gateway, TD 92579GB.

Updates for Device Management over IP

1. Install IMS2 according to chapter 2 Installation and Configuration on page 10.
2. Install chargers, see 8.6.1 Add Devices on page 58.

H.5 Migration of IMS to IMS2

In small systems with limited traffic (typically less than 4 000 messages per hour), it is possible to migrate an IMS to an IMS2 and then get Device Management of new handsets included in the system.

If there are more than 4 000 messages per hour in the system, the existing IMS can be migrated to an IMS2, but a separate IMS2 shall be installed for device management, see chapter H.4 Add Device Management to an existing DECT System on page 201. In the case of a large Basic Alarm Manager configuration in the IMS, it is not recommended to migrate the IMS to an IMS2.

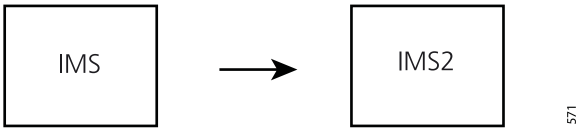


Figure 53. Migration of an IMS system to an IMS2 system.

H.5.1 Description of system

System constellation before migration:

- IMS with IP address 192.168.0.3

System constellation after migration:

- IMS2 with IP address 192.168.0.3

H.5.2 Preparations

It is not possible to do a complete migration from IMS to IMS2 using backup files. The backup of the Basic Alarm Manager configuration in the IMS cannot be installed on an IMS2, and must instead be transferred manually.

The licenses of IMS and IMS2 are not compatible, so before start of migration, a new IMS2 license has to be acquired.

Licenses

- Basic license for IMS (IMS-L901, IMS-L902, IMS-L903, IMS-L905, IMS-L906, IMS-L907, IMS-L909 and IMS-L910) corresponds to the following IMS2 licenses:
  - IMS2 Basic License (WSM-LAS)
  - Basic Alarm Manager (WSM-LAA)

- OAP licenses for IMS corresponds to the following IMS2 licenses:

Description	IMS license	IMS2 license
Basic messaging	IMSOAP-LM	WSM-LAP2
Basic messaging, interactive messaging and user data	IMSOAP-LI	WSM-LAP3
Basic messaging and alarm	IMSOAP-LA	WSM-LAP2
Basic messaging, interactive messaging, user data and alarm	IMSOAP-LC	WSM-LAP3

- Device Management license for IMS2:

Description	PDM license	IMS2 license
Up to 100 devices	PDM-LC	WSM-LAM1
Up to 500 devices	PDM-LD	WSM-LAM2
Up to 1 000 devices	PDM-LM	WSM-LAM3
Up to 2 500 devices	N/A	WSM-LAM4

Flash memory

Since the Flash memory that is used for IMS does not have enough capacity (<256MB), the Flash memory must be changed when starting the migration. The recommendation for IMS2 is 1GB Flash memory.

Hardware

The ELISE2 must be equipped with 64MB RAM.

H.5.3 Description of migration

1 Make a description of the IMS Basic Alarm Manager configuration.

2 In the IMS, in the Basic Alarm Manager, do a ”Clear configuration”, see Installation and Operation Manual, Integrated Message Server (IMS), TD 92161GB.

3 Do a backup of the IMS parameters.

4 Install an IMS2 image file on a new Flash memory, see Installation Guide, ELISE2, TD 92232GB.

5 Change the Flash memory of the IMS module to the Flash memory with an IMS2 image installed, see Installation Guide, ELISE2, TD 92232GB. The ELISE2 module now runs as an IMS2 module.

6 Start the IMS2 module. The setup wizard opens automatically.

7 Close the setup wizard.

8 On the IMS2, go to Configuration > Other Settings > Backup/Restore. Install the IMS backup file on the IMS2, see 13.6 Restore the Configuration on page 118.

9 On the IMS2, go to 192.168.0.3/config. Run the setup wizard.

10 In the setup wizard, set the following parameters:

- Enter a new license.
- For DECT Phone System, choose ”DECT Interface”.
- Set ”Default Messaging Destination” to ”DECT System Interface”.

11 Click "Restart Now".

12 Go to Configuration > Other Settings > Advanced Configuration.

13 If this IMS2 shall not be used for Device Mangement, enter the "Device Management" page and remove all IP addresses, see 13.7.1 Device Management Setup on page 120.

14 Go to DECT Interface > Message Distribution. For "Alarm" and for "Mobile Data", change 127.0.0.1/BAM to 127.0.0.1/EventHandler, see 9.2.3 DECT Message Distribution on page 86.

15 Go to UNS > Default Category, click "Factory" and then "Activate", see 13.1.8 UNS Default Category on page 105.

16 In Configuration > Other Settings > Input/Output, configure inputs and outputs according to the description of the IMS Basic Alarm Manager configuration, see 13.4 Input/Output Setup on page 115.

17 In Configuration > Alarm Handling, configure Alarm Handling according to the description of the IMS Basic Alarm Manager configuration, see 13.2.3 Add Alarm Actions on page 108.

Parameter	**IMS**	**IMS2**
Basic Alarm Manager inputs and outputs	/bam/Define inputs /bam/Define Outputs	Configuration>Other Settings>Input/Output
Basic Alarm Manager events	/bam/Events[1]	Configuration>Other Settings>Alarm Actions

[1] "Activation and "Activation time" for inputs are defined on "Configuration > Other Settings > Input/Output" on the IMS2, see 13.4 Input/Output Setup on page 115.
When an ouput is activated, it will be set to the opposite of "Inactive/Initial State".

H.6 Unite System considerations

Other parts of the Unite system is affected according to the following overview.

- AMS
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
- DURASuite
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
- ESS
  - Messaging is not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
  - System supervision is not affected if the same IP address is used.
  - Fault Handling actions are affected if the triggering is done on module type (for example IMS). These actions must be updated to trigger on the IMS2 instead.
- ISC
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
- MailGate
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
- NISM
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
- NetPage
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
- NSS
  Not affected.
- OAS
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.

- OJS
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
- UPAC
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
- USI
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.
- XGate
  Not affected as long as the IMS2 has the same IP address as the IMS or the IMS/IP.

Index