

# Intercom

OPERATIONAL DIRECTIONS



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# 1 GENERAL

## 1.1 OVERVIEW

Intercom means the ability for SIP extensions (primarily the Mitel 6700/6800/6900 models) to have an Intercom function, i.e. to push a single key to be connected to a pre-defined extension part, and to activate the loud-speaker on the called party immediately. See the description IP EXTENSION for details.

**Note:** A similar function can be configured with DTS/ADN, but without muting (see operational directions for DIGITAL KEY SYSTEM TELEPHONE), and it is possible to mix DTS and SIP extensions.

**Note:** A similar function can also be configured with Mitel 7400 H.323 terminals, using the MNS key and automatic-answer.

**Note:** Third party SIP terminals may also be possible to initiate with Intercom, possibly with limited functionality, if they support the Broadsoft specifications for automatic answer handling.

## 1.2 INTERCOM INITIATION

In general terms Intercom functionality is achieved using the services Hotline and automatic answer, combined with EDN line keys on the SIP terminals. It is assumed that own directory number, generic extension and IP extension data has been initiated before.

**Note:** Shared Call Appearance, Multiple representation, Parallel ringing or similar 'multiple terminal services' should NOT be initiated for a directory number that shall have Immediate/automatic answer or Intercom.

**Note:** It is not possible to use the Intercom feature together with the multiterminal/forking feature.

**Note:** The ODN of a phone holding the intercom key, is not allowed to use the multiterminal/forking feature.

## 1.3 INTERCOM KEY HANDLING

The configuration of keys, in this case EDN with hotline, only applies for those types of generic extensions and terminals which are capable of key handling.

By using an I/O command it is possible to specify a certain function for a specific key on an MX-ONE IP terminal if the key is not already tied to a function in the configuration file.

When the initiation command *extension\_key -i* is entered, the system administrator must be aware of that the keys are sequentially numbered excluding the keys tied by the configuration file. The value of the key to be entered in commands (logical key) does not correspond to a physical location in the terminal, and varies for different terminal models.

## 2 PREREQUISITES

The extension number series and involved generic extension must be initiated.

## 3 AIDS

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## 4 PROCEDURE

There are three command functions involved in the configuration of the Intercom function, namely for generic extensions, generic extension key handling and automatic/immediate answer configuration.

Mandatory:

- Define the extension number series for the EDN using the command *number\_initiate*.
- Initiate automatic answer (with muting) for the called party, as part of the service profile, using the *extension\_profile -i* command.
- Initiated the Extra Directory Numbers (EDNs) to be used for Intercom, using the *extension -i* and *extension\_key -i* commands, with the service profile defined above.
- Initiate the hotline to the wanted destination extension number, with the *extension -i* command.
- Assign the directory number to the terminal using the *ip\_extension -i* command.

## 5 EXECUTION

### 5.1 EXTRA DIRECTORY NUMBER WITH AUTOMATIC ANSWER

This section is only valid for Mitel 6700/6800/6900 SIP terminals.

#### 5.1.1 INITIATE AN EXTRA DIRECTORY NUMBER

If EDNs are not already initiated, initiate them, with a suitable service profile that includes Automatic answer. See the operational directions for GENERIC EXTENSION.

#### 5.1.2 REMOVE AN EXTRA DIRECTORY NUMBER

See the operational directions for GENERIC EXTENSION.

#### 5.1.3 ALTER EXTRA DIRECTORY NUMBER DATA

See the operational directions for GENERIC EXTENSION.

#### 5.1.4 PRINT THE DIRECTORY DATA

See the operational directions for GENERIC EXTENSION.

### 5.2 INTERCOM USING HOTLINE

This section is mainly valid for Mitel 6900/6800/6700 SIP terminals, but some of the functionality may be supported by other SIP terminals too.

#### 5.2.1 INITIATE INTERCOM

##### **General**

An Intercom configuration, is initiated by setting/utilizing hotline and automatic answer. There are several optional configurations. This document describes the basic configuration.

##### **Prerequisites**

SIP extensions (Mitel 6900/6800/6700) must have been initiated and appropriately configured.

##### **Execution**

Use the command *extension -i -d* with *--hotline-number* and *--hotline-option* to initiate the Intercom/hotline function on the EDN (with automatic answer configured).

Use the command *extension -p* to verify the hotline data.

Repeat the initiation execution for other Intercom destinations, if several are wanted.

## 5.2.2

## REMOVE INTERCOM

**General**

It is not possible to remove a generic extension directory number when it has an extension type assigned (e.g. ip\_extension entered).

**Prerequisites**

A hotline key (for Intercom) must be initiated.

**Execution**

Use the command *extension -p* to check that the hotline configuration and EDN line exists.

Use the command *extension -e -d* to remove the hotline setting.

Use the command *extension -p* to verify that the hotline setting has been removed.

## 5.2.3

## ALTER INTERCOM CONFIGURATION

**General**

The Intercom/hotline data cannot be altered: it has to be removed and initiated again, with wanted changes, for example to move the function to another key/line.

**Prerequisites**

An EDN line key with hotline must be initiated.

**Execution**

Use the command *extension -p* to check the hotline data.

Use the command *extension -e -d* to remove the hotline data.

Use the command *extension -i -d --hotline-number --hotline-option --csp* etc. to initiate the Intercom/hotline data again, with the wanted changes.

Use the command *extension -p* to verify that the Intercom/hotline data are correctly changed.

## 5.2.4

## PRINT THE INTERCOM/HOTLINE DATA

Use the command *extension -p* to obtain a printout.

## 5.2.5

## PRINT KEY DATA

Use the command *extension\_key -p* to obtain a printout of the involved EDN key(s).

## 5.3

## USING MNS AND AUTO-ANSWER ON H.323 TERMINALS

This section is only valid for Mitel 7400 IP terminals using H.323 signaling. It is possible to configure an Intercom feature also with these H.323 terminals, using MNS keys, automatic answer configuration and a 'virtual SIP extension'. As an alternative to the virtual SIP extension, an analog extension (without a physical telephone) or a DTS (with IYPE=0, i.e. without a physical telephone) can be used as an Intercom number.

### 5.3.1 INITIATE A 'VIRTUAL SIP EXTENSION' AND MNS

An appropriately configured generic extension number and service profile must be initiated. See the operational directions for GENERIC EXTENSION.

If a virtual SIP extension (i.e. a SIP terminal with IP address 0.0.0.0) is not already initiated, initiate one using the generic extension number, with a suitable service profile. This virtual SIP extension will be MNS-monitored by two H.323 terminals that shall have an 'Intercom'-connection between each other. Automatic answer shall be configured on the MNS keys of the H.323 terminals.

```
ip_extension -i -d --terminal-identity "sip:50099@0.0.0.0" --uri "sip:50099@0.0.0.0"
```

See the operational directions for IP EXTENSION.

Then initiate Intercom (MNS key) on one of the H.323 terminals towards the virtual SIP extension:

```
extension_key -i -d 50011 --key 4 --monitored-dir 50099 --function MNS
```

Finally initiate an MNS key on the other H.323 extension, using:

```
extension_key -i -d 50012 --key 4 --monitored-dir 50099 --function MNS.
```

### 5.3.2 REMOVE INTERCOM KEY

Do the reverse of the initiate procedure, i.e. enter *extension\_key -e* for both H.323 extensions, to remove the MNS keys, and *ip\_extension -e* to remove the virtual SIP extension.

### 5.3.3 PRINT INTERCOM KEY DATA

Enter *ip\_extension -p -d* and *extension\_key -p -d* to verify/print the set Intercom (MNS) data.

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## TERMINATION

If directory numbers have been added or removed, inform the department (person) responsible for directory information.

A dump to backup media should be performed if any configuration data have been altered.