

# External directory with Blacklisting

OPERATIONAL DIRECTIONS



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## GENERAL

### 1.1

### INTRODUCTION

These operational directions give a summarized overview description of the administration of the External Directory function which also includes a Blacklisting function.

This functionality allows external numbers (public subscriber numbers) to be blacklisted, but also optionally to be associated with a name. Directories can be initiated as single numbers or ranges. Each number or range is accompanied by a number type. The customer affiliation, number and number type make an entry unique.

An external directory consists of the following attributes:

- **Customer number**  
If this attribute is omitted, the customer becomes 0, which signifies the entire system. If a number is entered both for a customer and without customer. The one with customer takes priority.
- **Number (Directory number)**  
If this is a range, the start and stop must be of the same number length.
- **Number type**  
This type is derived from the ITU-T rec. E.164 ISDN types.  
0 - unknown public number  
1 - international number  
2 - national number  
3 - network specific number  
4 - local public number  
5 - unknown private number (not used/allowed in this context)  
6 - local private number (not used/allowed in this context)  
7 - level 1 regional number (not used/allowed in this context)  
  
and in addition also these proprietary types:  
10 - internal number to public network (not used/allowed in this context)  
11 - internal number from public network (not used/allowed in this context)  
12 - internal number (not used/allowed in this context)  
  
Note that the list above shows all number types, but only the public number types 0-4 are valid in this context.
- **Name**  
This attribute consists of several parts.  
Name1, Name2, presentation priority and presentation restriction. The exact meaning of this can be found in the operation guide for the unix command *name*.
- **Blacklisted**  
This attribute determines whether an entry is blacklisted and not allowed to call freely to the system.
- **Blacklist redirection destination**  
This attribute is used to program a re-direction destination number when a blacklisted caller is detected.
- **Blacklist expiration date**  
This attribute is used to put a time limitation on a blacklist. When this date is passed the call will be accepted.

**Note:** The blacklist expiration date does not remove the entry from the list. This needs to be done manually.

- **Additional information**

This attribute can be used to store specific text to explain why this call was black-listed.

It is also possible to export and import external directory data using CSV (comma separated) files.

The format for the CSV file is: Customer, Number type, Number, Name1, Name2, Presentation priority, Presentation-restriction, Blacklisted, Blacklist Destination, Blacklist expiration date, Additional information<;...;><lf>.

When imported, if the entry contains additional information which consists of several lines, each line shall be terminated with <;>.

*It should be noted that this directory is intended to store a few of the most important names and not a complete public directory. If a complete public directory service is needed, the function "external database" shall be used.*

For detailed information on parameters, see: "external\_directory --help".

## 1.2

## GLOSSARY

For a complete list of abbreviations and glossary, see the description for *ACRONYMS, ABBREVIATIONS AND GLOSSARY*.

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## DEFINITIONS AND TERMINOLOGY

### **Blacklisting**

Blacklisting means the blocking of calls from specific calling party numbers, i.e. a filtering on the Calling Line Identity. The function described here is on either per system or per customer level, i.e. the blocking will be valid for all calls to the system or customer, regardless of called extension or other type of party.

### **External Directory**

An external database of directory numbers (and names and other data), i.e. separate from the internal LDAP database.

### **3 PREREQUISITES**

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### **4 TOOLS, AIDS**

O&M terminal with access to the MX-ONE Service Node.

### **5 REFERENCES**

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### **6 PROCEDURE**

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## 7 EXECUTION

### 7.1 INITIATION OF EXTERNAL DIRECTORY AND BLACKLIST

#### 7.1.1 INITIATION OF AN EXTERNAL DIRECTORY ENTRY

The subscribers with numbers (+)46856867000 up to (+)46856867996 shall be assigned a name, in this case the common company name "Mitel Sweden". The number type shall be international format.

**Example:** external\_directory -i --number 46856867000..46856867996 --number-type 1 --name1 'Mitel Sweden'

#### 7.1.2 INITIATION OF A BLACKLISTED EXTERNAL DIRECTORY ENTRY

The subscriber with number (+)4681234567 shall be blacklisted, with a comment that he/she "has verbally threatened sales personnel". No backup destination shall be set, i.e. calls from that subscriber will be immediately disconnected.

**Example:** external\_directory -i --number 4681234567 --number-type 1 --black-listed --add-info 'Has verbally threatened sales personnel'

### 7.2 REMOVAL OF EXTERNAL DIRECTORY AND BLACKLIST

**Example:** external\_directory -e --number +4681234567

### 7.3 PRINTOUT OF EXTERNAL DIRECTORY AND BLACKLIST

The entire external directory shall be printed.

**Example:** external\_directory -p

### 7.4 EXPORT OF EXTERNAL DIRECTORY ENTRIES

The external directory (including blacklist data, if any) shall be exported to the file /tmp/external\_directory\_data.

**Example:** external\_directory --export /tmp/external\_directory\_data

### 7.5 IMPORT OF EXTERNAL DIRECTORY ENTRIES

Data in file /tmp/external\_directory\_data (including blacklist data, if any) shall be imported to the external directory.

**Example:** external\_directory --import /tmp/external\_directory\_data

## 7.6

### SET UP NUMBER CONVERSION

If the received public A-number is not in the correct format it can be converted to a international format (without + character) with number conversion using conversiontype 7. Using conversiontype 7 will not change the number displayed on terminals. The converted number is only used in database search.

**Example:** *number\_conversion\_initiate --conversiontype 7 -entry 8 -pre 46 -number-type 2 -newtype 1 -route 10*

In the example above, any number received from route 10, starting with an 8, and of the type National number, will be prefixed with the country code of Sweden, making the number into international format (except for the + character).



## **8** **TERMINATION**

After the external directory data is initiated or removed, a data backup (dump) must be performed in the system.