OpenScape Business V2

Tutorial

Mobile Extension (MEX) Connectivity via ITSP

Version 1.0

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History of Change

Date	Version	Changes
2018-02-28	1.0	Create new document (taken from ITSP configuration guide) For comments on this document please contact ulrich.abel@atos.net

1. Mobile Extension (MEX) Connectivity via ITSP

1.1. Introduction

The main concept of the feature is that the MEX device can be used as an internal station over the GSM network. MEX device can make calls to other internal OSBiz stations and also dial out via the ITSP trunk. MEX terminated calls will be handled as standard mobility calls.

OSBiz supports this feature for ITSP trunks only. SIP MEX implementation is based on the existing Mobility feature. Therefore the conditions and relations to other features are identical to mobility, if not otherwise mentioned.
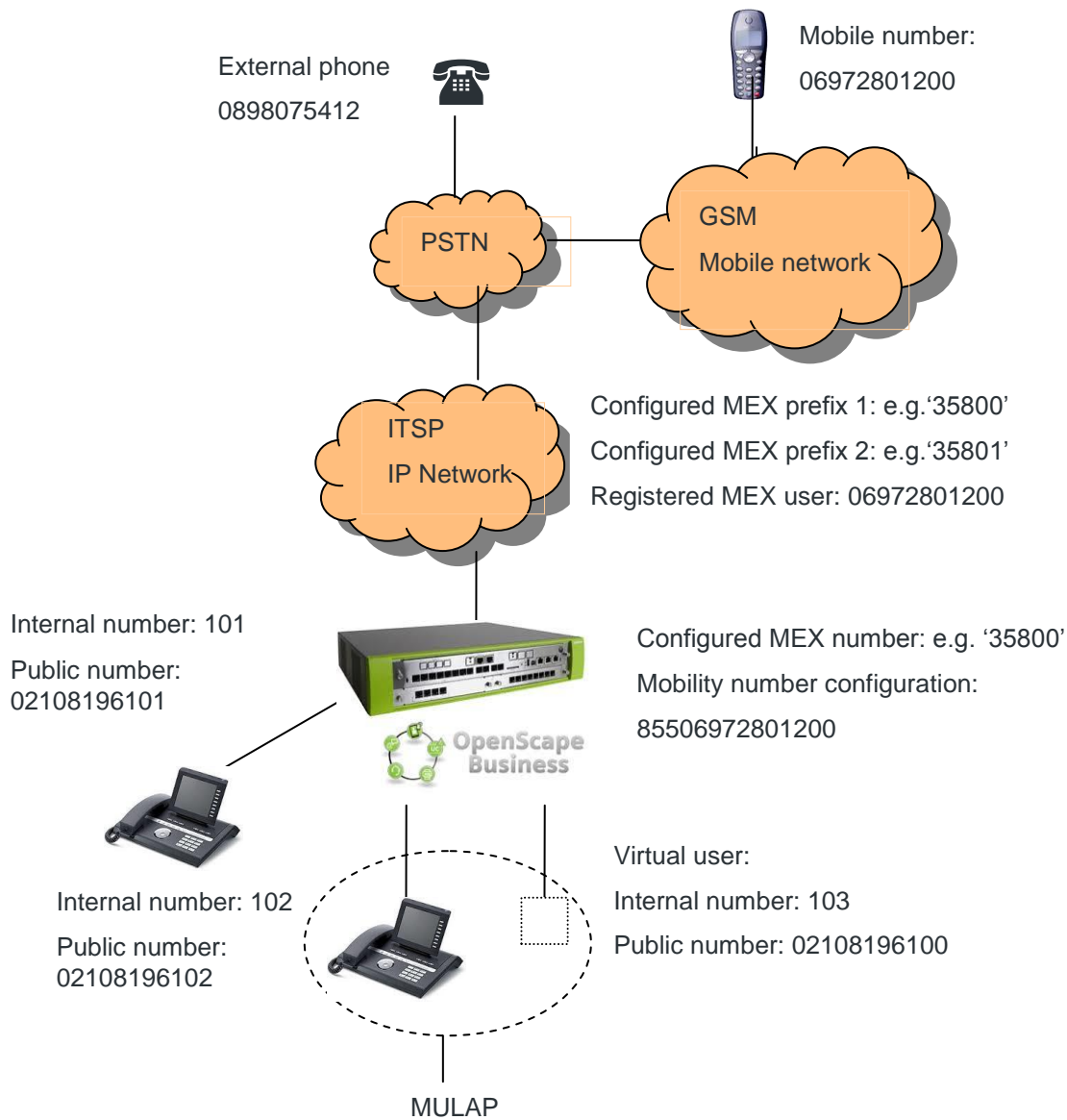
1.2. Preconditions

- ➢ SIP MEX feature must be supported by the relevant ITSP/GSM Carrier.
- ➢ ITSP must be configured in public number / DID mode (see chapters 3 and 4.5)
- ➢ LCR must be activated
- ➢ ITSP must use dialable number format. In other words including international/national prefixes (e.g. 0049xxx / 089xxx). E.164, implicit international/national formats are not supported (e.g. +49xxx, 49xxx, 89xxx are not supported).
- ➢ Since the feature is based on Mobility, a mobility license is required for every SIP MEX user.
- ➢ A DISA number must be configured
- ➢ ITSP access and configured mobility extension must be located at the same node.

In the following pages a detailed configuration example is available.

1.3. Configuration example

Scenario Example:

External phone
0898075412

Mobile number:
06972801200

PSTN

GSM
Mobile network

ITSP
IP Network

Configured MEX prefix 1: e.g.'35800'
Configured MEX prefix 2: e.g.'35801'
Registered MEX user: 06972801200

Internal number: 101

Public number:
02108196101

Configured MEX number: e.g. '35800'
Mobility number configuration:
85506972801200

Internal number: 102

Public number:
02108196102

Virtual user:
Internal number: 103
Public number: 02108196100

MULAP

OpenScape Business Configuration:

Based on above example image:

ITSP is using national dialable format

0 is the national prefix

855 is the ITSP LCR prefix (by default)

35800 is the MEX prefix

The following use cases will be supported:

1.3.1. Example scenario 1: MEX originated call:

a) MEX user (mobile phone) calls internal station 102 by dialling 102. ITSP will route the call to OSBiz with the following info:

Incoming INVITE:
FROM: 06972801200
TO: 35800102

OSBiz will recognize that this is a MEX call from the number that is configured as mobility user. The destination number 102 will be extracted from TO and then handling will be mapped to feature 'Call Through' so that a call to the internal station 102 is initiated.

b) MEX user (mobile phone) calls external phone by dialling 8550898075412. ITSP will route the call to OSBiz with the following info:

Incoming INVITE:
FROM: 06972801200
TO: 358008550898075412

OSBiz will recognize that this is a MEX call from the number that is configured as mobility user. The destination number 8550898075412 will be extracted from the TO and then handling will be mapped to feature 'Call Through' so that a call to 0898075412 is initiated over the ITSP trunk. In the outgoing INVITE the originator will be the public number of the MULAP (or the virtual station's that is binded with Mobility-if no MULAP is set).

This example described operating mode "Dialling external numbers with seizure code". In other words the mobile user will dial also the ITSP seizure code 855 (or the ITSP will send it in TO field). Therefore the system flag "Add Seizure code for MEX" must be deactivated. If the incoming INVITE will not include 855 in the TO header (user will not dial 855 or the ITSP will not send it) then OSBiz can add it automatically. In that case system flag "Add Seizure code for MEX" must be activated.

The algorithm to differentiate between internal and external destinations when flag 'Add seizure code for MEX' is activated is the number of digits. If destination is >7 digits then number is assumed as external, thus seizure code is added. If destination is <=7 digits then it is considered as internal destination.

As the only indication for the algorithm to differentiate between internal and external destinations in the operating mode 'add seizure code for MEX' (= dialing external numbers without seizure code) is the number of digits, the functionality depends on the numbering scheme of the node /network and this mechanism can activated / deactivated by WBM configuration. It is only suitable in networks with internal numbers with a maximum length of 7 digits and must be deactivated, when this condition is not met.

1.3.2. Example scenario 2: MEX terminated call (to fixed network number):

External phone calls MEX user by dialling the public number of the virtual user of the OSBiz. The incoming INVITE from ITSP will contain:

FROM: 0892108075412
TO: 02108196100

The further handling is the processing of a call to a mobility user as it is already implemented so that a call to mobile 06972801200 is initiated (via ITSP trunk). In the outgoing INVITE the originator will be the public number of the virtual station (02108196100). * Please note that if the ITSP is configured to display the original caller in transit scenarios, then the FROM field will have 0892108075412

1.3.3. Example scenario 3: MEX terminated call (to mobile number):

This is not a typical scenario. Some ITSP's require that the MEX mobile number is accessible with second MEX prefix. This second MEX prefix can be configured only in Expert Mode and is not available in wizards.

External phone 0892108075412 calls MEX mobile phone 06972801200. ITSP will route the call to OSBiz. The TO field will/may be equipped with an additional prefix2 (e.g. 35801). The incoming INVITE will contain:

FROM: 0892108075412
TO: 3580106972801200

The destination will be mapped to the MEX mobile number using the resp. ITSP tables (see Voice Gateway configuration). In other words even if the ITSP is set to operate in public number / DID mode, only for this case a manual MSN entry must be created in ITSP profile in Voice Gateway with following info: MSN: 3580106972801200 mapped to internal virtual station 103. The further handling is the processing of a call to a mobility user as it is already implemented; a call to MEX mobile 06972801200 is initiated.

Remark: Some providers may use a leading prefix 3. This is not supported in OSBiz.

Additional info:

➢ In OSBiz Embedded features in call state (e.g. consultation) can be activated with DTMF dialling (standard use of feature 'Mobility'). Here '*' and '#' can be used or the substitution codes for '*' and '#'. The configuration as for standard use of feature 'Mobility' is necessary i.e. station orientated bit 'DTMF based feature activation' has to be set in WBM.

➢ For the virtual user a MULAP or a single configuration can be used (as standard use of feature 'Mobility')

➢ For emergency numbers (e.g. 110 and 112) respective LCR rules have to be defined (e.g. '11' -> …). Here collisions with the call numbers of the systems have to be avoided (no call numbers should begin with 11).

1.4. How to Configure SIP MEX

Since MEX feature is based on Mobility feature, then a Mobility user must be configured over the ITSP trunk. The same applies also for DISA number (please refer to official documentation for Mobility for further information and configuration hints).

MEX prefix is configured in ITSP wizards in Internet Telephony Station (see image below). As already mentioned, ITSP must be configured in "Public Number (DID)" mode. Please note that the ITSP must be have been activated in order to add the MEX prefix or activate the enable ITSP checkbox when creating the profile for the first time. If the ITSP is not activated, then the MEX number field will not be editable. MEX prefix can be up to 8 digits.

Please keep in mind that the ITSP must be configured to use dialable international/national format. Therefore flag "Call No. with international / national prefix" must be activated in ITSP Route > Routing Parameters (for more info please refer to the "use Public Number DID" Mode chapter).

Depending on the dialling behaviour the flag "Add seizure code for MEX" must be configured accordingly (see example 1b). Default value is "false", so the user has to dial external destinations with leading seizure code (e.g. "0" or "9"). If it shall be possible to dial external destinations without seizure code then this flag must be activated. This flag is located in System Flags:
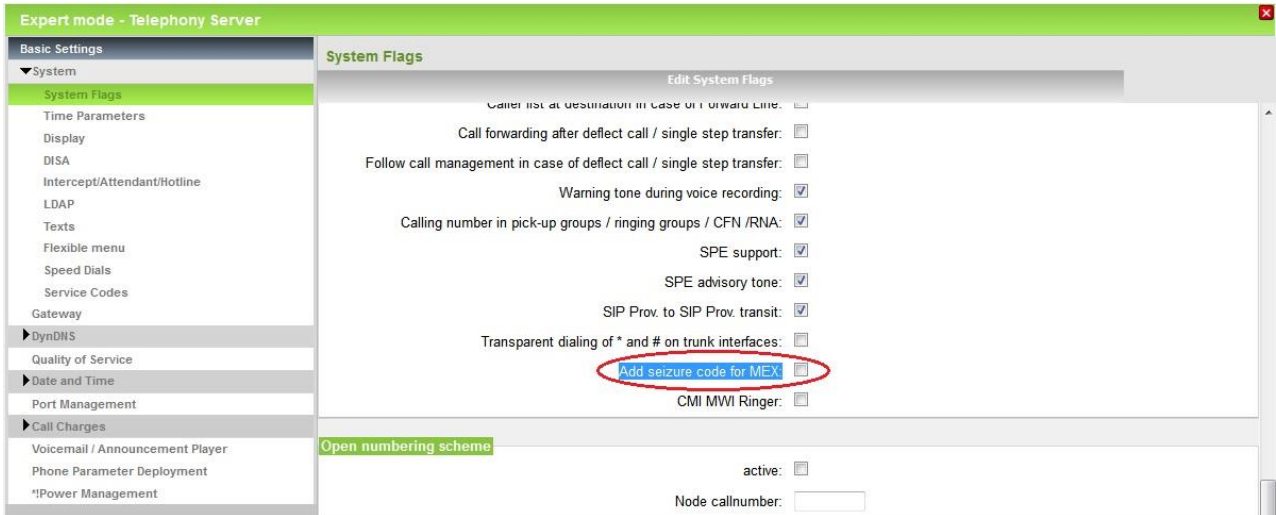
MEX number that was set in the wizard is stored under the ITSP Route. You may find/edit it in Expert Mode > Trunks Routing:
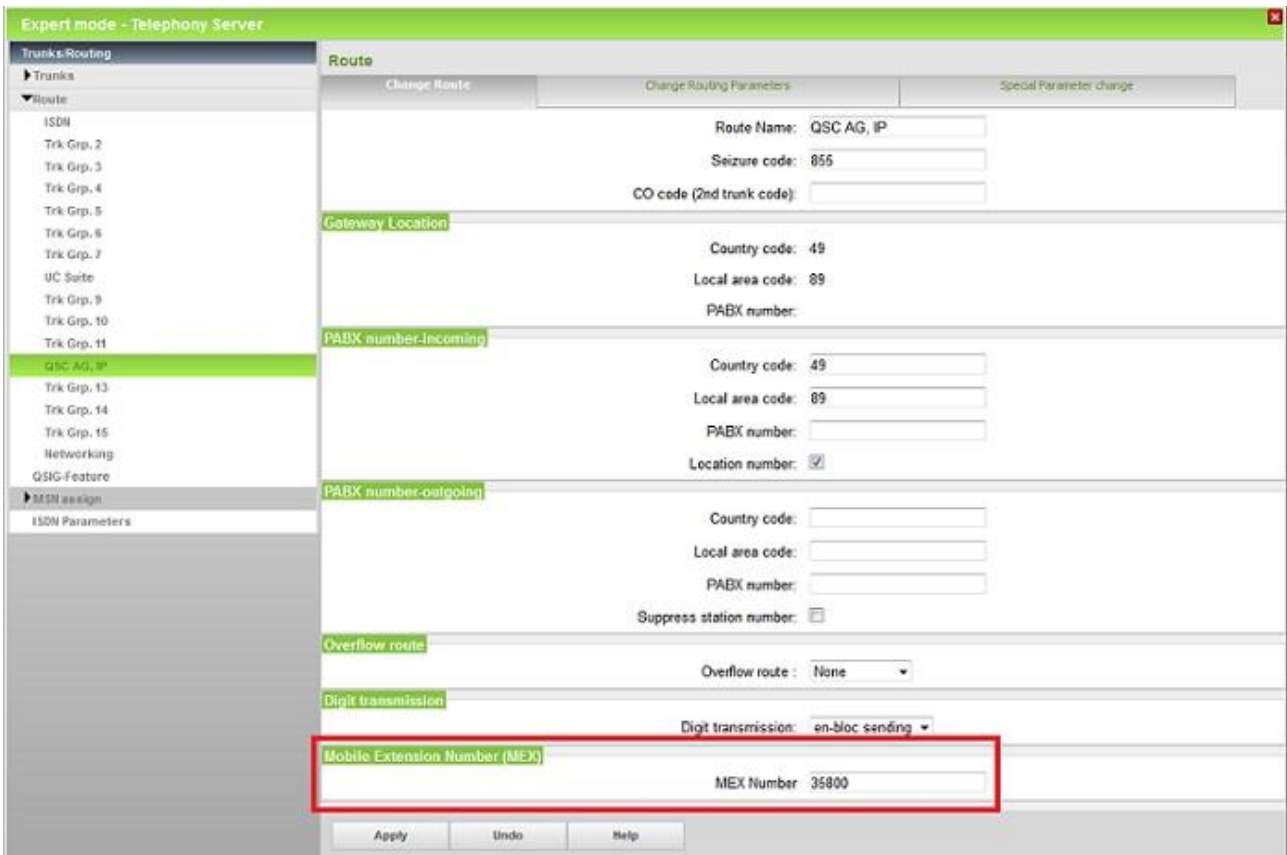
Now the system is ready to work with MEX prefix as described in configuration examples.

OpenScape Business V2 – Internet Telephony Configuration Guide

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