

# MiVoice MX-ONE

## Hospitality ConnectedGuests Application - Interworking Description

Release 7.1

March 5, 2019



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# General

The MX-ONE Hospitality Application is an application based on the standard MX-ONE together with Hospitality Middleware, integrated or stand-alone.

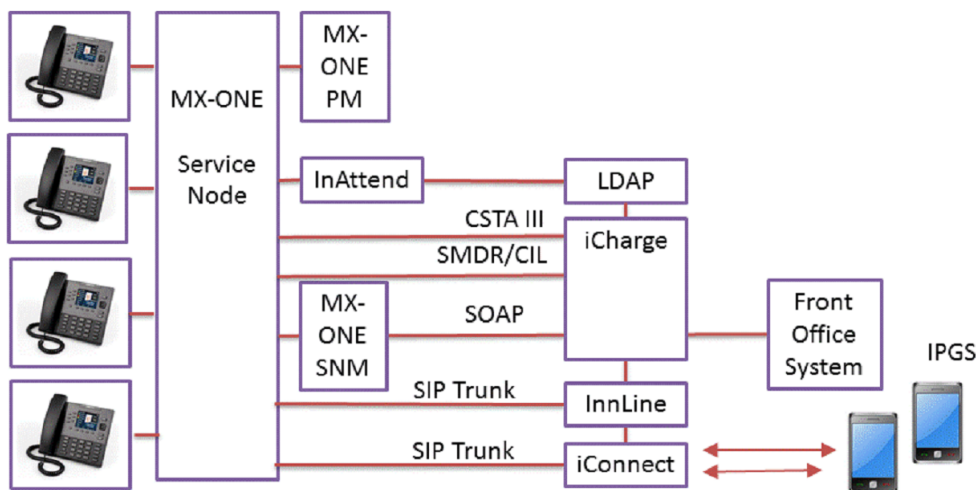
## Scope

The main products to be used as Middleware are the suite of products from Mitel Connected Guests, but 3rd party products can also be used. The only 3rd party company being Mitel Solutions Alliance, MSA, certified is Diavox.

The function is realized in a combination of the following products, MX-ONE and Mitel Connected Guests in the example:

**Figure 1:** Interworking Components in the Hospitality application

### Logical Setup



- Standard MX-ONE PBX
- Hospitality Application System license
- SIP-, Analog-, or other types of telephones for Guest Rooms
- SIP- or Digital telephones for Service Quarters
- MX-ONE Service Node Manager
- InAttend

The Integrated application consists of the products above plus the following Connected Guests products:

**iCharge** is the application that connects the other parts and external applications and products like the PBX, the hotel's front office system, smart TV etc. It also handles the call charging.

**InnLine** is a voice mail system specially designed for hospitality. In addition to hospitality voice mail it also handles wake-up and service- and housekeeping codes.

**iConnect** makes it possible for the guest to use the smart phone as a guest room extension. This is used together with:

**IP Guest Services** that is a smart phone app and a server application that give the guest access to hotel services like hotel information, room service ordering, phone directory etc., all defined by the hotel.

**IP Connect** is handling High Speed Internet Access, mgmt. & billing

**HotelMGR** is a Service ticket management system.

**iCharge** is mandatory and InnLine is used in virtually all hotels. IP Connect and HotelMGR are not involved in the MX-ONE integration.

See Mitel ConnectedGuests documentation for the configuration of the applications.

## Glossary and Acronyms

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

The communication between the Hospitality Middleware (iCharge) and the MX-ONE Service Node Manager is carried over Ethernet using SOAP (web services) over HTTP or HTTPS.

To access MX-ONE Service Node Manager, its IP address, a user id and password, is required.

# Interfaces - MX-ONE SNM

This topic provides information on the interfaces between MX-ONE SERVICE NODE MANAGER and the hospitality middleware.

## SOAP XML Interface (FOR PM AND SNM)

The Hospitality functions need the MX-ONE SNM and PM manager applications, and user account(s) and passwords need to be created for these.

The communication between the Hospitality Middleware and the MX-ONE Service Node Manager and Provisioning Manager is carried over Ethernet using SOAP (XML) over HTTP or HTTPS.

To access MX-ONE Service Node Manager, and ditto for PM, their IP address, a user id and password, are required.

Use the mxone\_maintenance script to configure. See Manager Applications documentation.

## Hospitality Operation

When the guest checks-in, the FOS usually gets the guest information like name, language, and so on, with the corresponding room number and extension. These data are being sent to the Hospitality Middleware. The Middleware then sends the data to MX-ONE Service Node Manager via SOAP XML over HTTP or HTTPS. This will enable the guest to make an outbound call on the phone and display the guest name on the phone display.

If the guest calls the service quarter operator from the room phone, hotel staff will know who the caller is and the language preferred if given in the FOS as it will be displayed on the service quarter phone. The same data will be passed from the FOS to MX-ONE for the other hotel transaction like check-out (bar the phone from making an outside call), room swap and name swap.

It is important that the CoS values defined in the FOS are the same as the values stored in MX-ONE. The following values are normally used:

- Unbarred telephone (Cat 61) (for example, world wide open)
- Barred telephone (Cat 60)
- Line local (Cat 62)
- Line national (Cat 63)

## Voice Mail, Wake Up, FOS Connectivity

The Hospitality Middleware (InnLine), is connected to the MX-ONE Service Node over SIP.

The interface is configured as SIP trunk in the MX-ONE Service Node.

## CIL Interface

The call accounting system is used for several purposes. One purpose is to collect information about external calls from the MX-ONE Service Node. This allows, for example, the hotel, conference center, and so on, to charge guests according to their telephone bills, and also to transmit data about extension status to the FOS/PMS. This is used by the reception staff at room check-out.

The CIL data can be sent through the network port of a local Network Interface Card (NIC) to a remote application with an established TCP/IP connection.

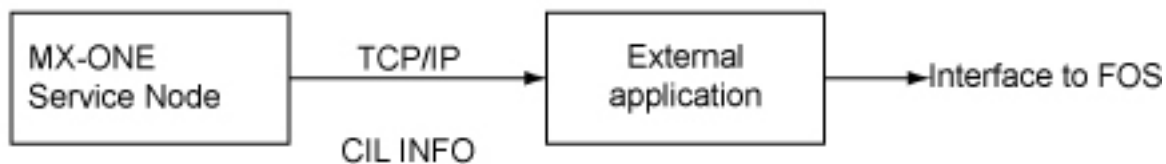
Using TCP/IP the CIL data can be logged to either an SQL database or to a file on a server. It can then be handled by some post-processing application.

The CIL interface is shown below

The CIL format used with Connected Guests (iCharge) is CIL format ASB 501 standard (format 2) according to the following example:

```
callinfo_output_set -output 0 -lim 1 -type tcp -subtype asb501 -server 192.168.104.13-port 12000 -  
format "" -eol NL -record
```

**Figure 1:** Hospitality Application CIL interface



# Interfaces - MX-ONE SN

This topic provides information on the interface between interfaces between MX-ONE Service Node and the hospitality middleware.

## Voice Mail, MW-Indication, Wake Up, FOS Connectivity

The Hospitality Middleware (InnLine), which provides the Voice Mail, Wake up functionality, and the Front Office System connectivity, is connected to the MX-ONE Service Node over SIP trunk.

The Voice Mail interface is configured as SIP route/trunk, with a specific service profile (called InnLineIP), in the MX-ONE Service Node. The optional iConnect application also needs SIP route/trunk, with a specific profile for the mobile client.

For the extensions with Voice Mail and Message Waiting Indication, also the Application System parameters PARNUM 88 and PARNUM 190 must be set, for the MWI feature. For digital phones and SIP phones also MWI keys must be configured. See applicable documentation.

## CIL Interface

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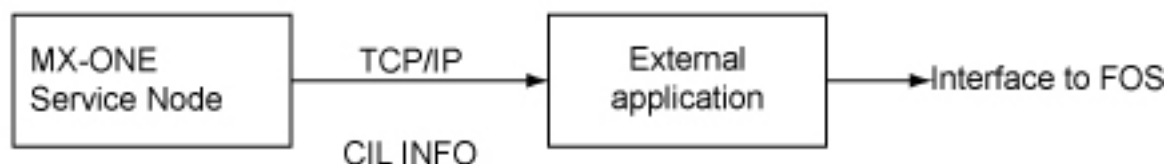
Using TCP/IP the CIL data can be logged to either an SQL database or to a file on a server. It can then be handled by some post-processing application. The CIL interface is shown in the figure below.

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format "" -eol NL -record
```

Also enter the `callinfo_status_set` command to activate the CIL function. See CALL INFORMATION LOGGING AND QOS LOGGING documentation.

**Figure 1:** Hospitality Application CIL interface



## CSTA Interface

Optional. The Hospitality Middleware does not need CSTA directly, but if for example Contact Center functionality is used, CSTA will also be required.

The interface must be configured in the MX-ONE Service Node, see CSTA (Computer Supported Telecommunications Applications) Phase 3 documentation.

# Command Interface Functions

Names and Hospitality class of service must in certain cases be (automatically) changed or erased for extensions with room classes.

**NOTE:** *These commands are issued from the Front Office System through MX-ONE Service Node Manager and need not be entered explicitly/manually.*

The following commands are used:

`name -e --dir`

To remove the name associated with an extension.

`name -i --dir --name1 --name2 --number-type dir --info --presentation-priority`

To add the name and information strings to an extension.

`KSCAC:DIR=,CAT=;`

To change the extension category of a DTS from room vacant to room occupied or the other way round.

`EXCAC:DIR=,CAT=;`

To change the extension category of an ATS from room vacant to room occupied or the other way round.

`extension -c -d --csp`

To change the extension category of a SIP extension from room vacant to room occupied or the other way round.

For a description of these commands, please refer to the Operation and Maintenance documents.

**NOTE:** *These commands are issued from the Front Office System through MX-ONE Service Node Manager and need not be entered explicitly.*

# Guest Room With Multiple Terminals

The ways to have several phones in one guest room is by using standard MX-ONE functionality e.g. Multiple Terminal Service, Shared Call Appearance and Personal Number.

The Parallel Ringing and (for IP phones) Forking services can also be used to provide multiple terminals for the same extension number (room).

Several analogue phones can also be connected over the same pair of wires, depending on the power consumption of the phones and the power available in the system.

The connection between extension numbers and room numbers is done in the Middleware (iCharge). MX-ONE only handles extension numbers, not room numbers.

