MiVoice MX-ONE

Hospitality, ConnectedGuest Applications - Description

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⋈ Mitel®

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General

This document describes the MX-ONE Hospitality, ConnectedGuest Application.

Scope

The Hospitality Application offers functions especially aimed for the Hospitality industry. The functions are provided within the following areas: guest check-in, guest rooms and Service quarters.

For guest check-in the following functions are provided:

- Information about the guest can be entered. The information can be language, VIP-status, credit card information, room number, and so on.
- The guest can choose if name presentation will be allowed or restricted for inter-room calls.

For guest rooms, the following functions are provided:

- The rooms can be either vacant or occupied.
- The rooms can be equipped with various types of terminals.

The following functions are provided for Service Quarters using Digital Extensions: (Service Quarters using SIP telephones will use standard Office extension functionality)

- The guest's name presentation restriction will never be taken into consideration when the Service quarter is in contact with a guest, that is, the name of the guest will always be displayed at the Service Quarter Terminal.
- The information that is entered when a guest checks in will be displayed at the Service Quarter Terminal.

Glossary and Acronyms

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

Facilities

The MX-ONE Hospitality Application consists of a number of functional modules. The main parts are as follows:

Common Modules

MX-ONE Basic Package	The basic package consists of standard MX-ONE with the Hospitality Application Software included.
Guest Room Phones	Any type of phones supported by MX-ONE can be used in the guest rooms. SIP is preferred, although many hotels still use analog telephones.
Service Quarter Terminal	The digital phone MiVoice 4223 or MiVoice 4225 with their large displays can be used as Service Quarter Terminals to utilize some additional functionality. SIP phones are however preferred.

Hospitality Communication Systems

The complete MX-ONE Solution is based on MX-ONE combined with either Mitel Connected Guests or an external Hospitality Middleware certified to work together with MX-ONE.

The main features of the Hospitality Middleware are:
• FOS/PMS connectivity
• Check-in and check-out of guests
• Voice-mail and Wake-up
• Call accounting

The only certified Hospitality Middleware, in addition to Mitel ConnectedGuest is:
• Diavox Hospitality Media Gateway Application.

Figure 1: Cooperating parts in the Hospitality application
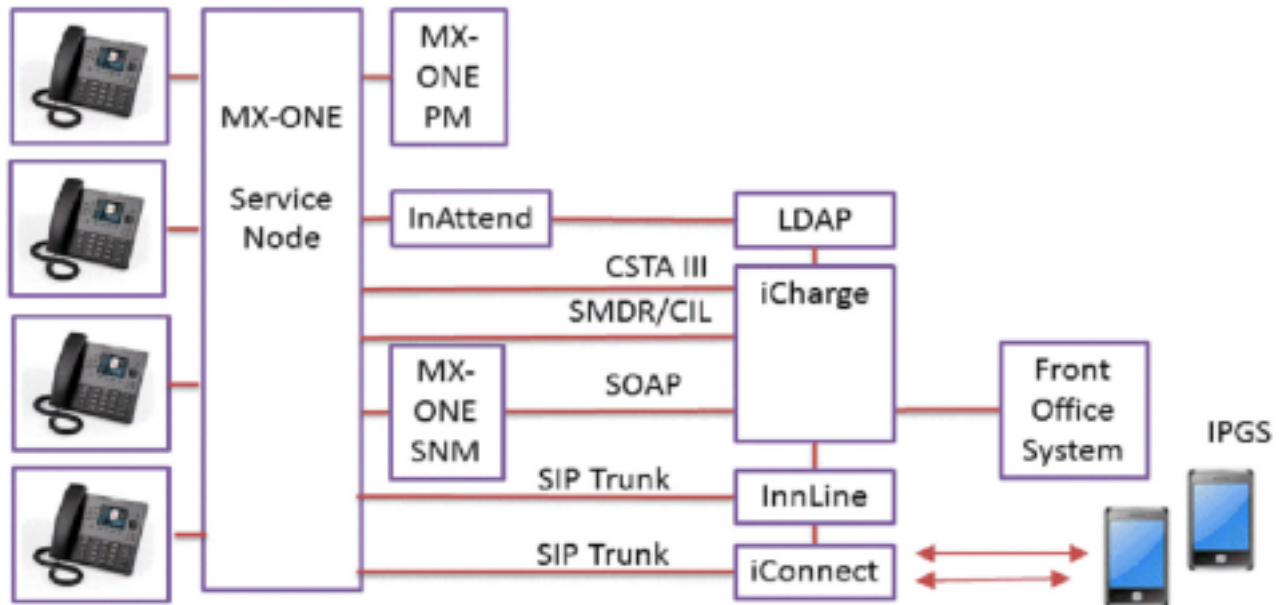
The MX-ONE together with the Hospitality Middleware gives the customer a complete Hospitality-enabled Communication system.

• 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, and so on. 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 enables guest to use the smart phone as a guest room extension. This is used together with:

IP Guest Services that is a smart phone application and a server application that gives the guest access to hotel services like hotel information, room service ordering, phone directory, and so on, which are all defined by the hotel.

IP Connect is handling High Speed Internet Access, Management and Billing.

HotelMGR is a Service ticket management system.

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

See *Mitel ConnectedGuests* documentation for the configuration of the applications.

Functionality Overview

This topic provides an overview of guest room extensions, service quarter function, and hospitality application - hospitality middleware.

Guest Room Extensions

The rooms can be equipped with various types of extensions:
- SIP
- Analog
- Digital
- Cordless (DECT)
- Mobile extension

Analog Extensions

The analog extensions may be connected in parallel, giving the room a single extension number and simultaneous ringing with several phone sets by using a single pair of wires. Number of phone sets depend on phone type and configuration of the MX-ONE. If Parallel ringing is used for simultaneous ringing, then Analog extensions can be part of a Parallel ringing list. The guest room extensions defined as room vacant or room occupied can be part of a Parallel ringing list. For example, DTS, ATS and DECT room extensions can be part of a Parallel ringing list for simultaneous ringing.

The phones can be any type of analog telephones verified together with MX-ONE.

The name identity function is restricted for security reasons. Name presentation restriction for guest room extensions can be selected for inter-room calls.

Digital Extensions

The name identity function is restricted for security reasons. Name presentation restriction for guest room extensions can be selected for inter-room calls.

SIP Extensions

The parallel ringing feature can be used for simultaneous ringing of room extensions. SIP extensions can be part of a Parallel ringing list and up to three extensions can be part of the list. A SIP extension cannot be configured as service quarter. SIP extensions can be part of a Parallel ringing list in conjugation with other room extensions. VoWiFi and IP-DECT extensions are connected like SIP extensions.

The name identity function is restricted for security reasons. Name presentation restriction for guest room extensions can be selected for inter-room calls.

The functionality depends on the brand and the type of SIP phone.

NOTE: IP (H.323) cannot have the hospitality class.

Cordless and Mobile Extensions

Cordless and mobile extensions are offered either as an alternative or as a complement to the analog or digital guest room extensions. This gives the guests access to the hospitality services independent of where in the facilities they are.

The cordless and the mobile phones are tied to the room number, identifying the guest, and giving correct billing information.

Cordless and mobile extensions can be part of a Parallel ringing list. By using parallel ringing extensions incoming calls are routed to the guest phones.

Service Quarter Function

For the Service Quarters (front desk, house-keeping, butler service, and so on) SIP phones or the digital phones MiVoice 4223 or MiVoice 4225 can be used. The Digital phones give the Service Quarter Staff some extra guest information entered at check-in like language, VIP-status, room number, credit card information, and so on.

To be able to display all guest information, the soft-keys below the display are disabled.

Hospitality Application - Hospitality Middleware

Here are the examples of functions provided by Connected Guests.

Call accounting

- A wide range of reports
- Guest credit limit function
- Charging based on guest category and destination

Voicemail and Wake-up

Connected Guests provides voicemail specially adapted for the hospitality customer.

It includes:

- Support of several simultaneous languages

The wake-up function includes:

- Wake-up greeting in the guest's own language
- Alerting if a wake-up call is unanswered
- Reporting
- Snooze function

Hospitality Management and Maintenance function

- Room Status

  The status of the room (ready for check-in, and so on) is, transferred to the Front Office System.

- Automatic Operator (attendant)

  The Automatic Attendant function is used to automatically forward the caller to the right destination and to advertise facilities.

- Front Office System connectivity

  Connected Guests support interfaces to a large number of Front Office Systems

Internal Functions

This topic describes the internal functions of hospitality applications:

Hospitality Classes

The extensions are divided into four Hospitality Classes: Normal extension, Room vacant, Room occupied, and Service Quarter, with different authorities and different display handling.

The default Hospitality Class is Normal extension.

Normal Extension

The class Normal extension can be initiated on any type of extension supported by MX-ONE.

The extensions initiated as Normal extension are handled as standard MX-ONE extensions.

The class Normal extension is the default class for extensions.

Room Vacant and Room Occupied

There are two different classes for guest room extensions: Room vacant for empty rooms and Room occupied for rooms assigned to guests.

The hospitality classes Room vacant and Room occupied can be initiated for ODN on digital extensions, on primary for analog extensions, on cordless extensions, on RXN extensions, and on IP (SIP) extensions.

The characteristics and limitations for both Room vacant and Room occupied extensions are described in the following sections. For the functions or features which are not mentioned in this document the extensions are handled as standard MX-ONE extensions.

Service Quarter

Service Quarter staff, e.g. Front desk, Bell Service, House Keeping or Room Service can use any type of telephones, e.g. SIP Phones. To get some extra display functionality the class Service Quarter extensions is used.

The class Service Quarter can only be initiated for ODN on DTS extensions. It is not possible to initiate ATS, Cordless, RXN, IP (SIP) as Service Quarter.

The characteristics and limitations for Service Quarter extensions are described in the following sections. For the functions or features which are not mentioned in this document the extensions are handled as standard MX-ONE extensions.

Additional Information String

The additional information string is an optional text string that can be initiated/removed on any kind of extensions. This text string is used to store some information related to a directory number (for example, room number, language, date of arrival, date of departure, and so on).

There is no restriction on the kind of extensions or directory numbers that can have an additional information string initiated.

The additional information string is never displayed on Normal extension, Room vacant or Room occupied extensions.

In Service Quarter class DTS extensions, the additional information is displayed only if the other party (dialed, calling or connected) is a Room vacant or Room occupied extension. In the rest of the cases the information is never displayed.

Multiple Phones in a Room

Multiple extensions in a room using Parallel ringing

Up to three extensions can be configured in each guest room with the function of Parallel ringing, all three ringing simultaneously and the possibility of answering from any of the extensions defined in a Parallel ringing list.

All extensions that are part of Hospitality class Room vacant or Room occupied can be part of a Parallel ringing list.

In idle state, secondary extensions show the identity of the main extension. For the rest of the cases, the function is the same as in standard MX-ONE.

If SIP extensions are used, Forking can be used instead of Parallel Ringing with up to 4 terminals on the same number.

Restriction of Name Presentation

If the number presentation is restricted, then the name presentation is restricted as well.

If the number presentation is not restricted, then the Hospitality Restriction of name presentation applies.

If an extension of any type has selected the name presentation restriction, the name strings will not be shown on the displays of Room occupied and Room vacant extensions for inter-room calls.

When the A-party has selected the name presentation restriction but the class of the B-party is Normal extension or Service Quarter, the restriction is not executed.

If the name presentation restriction has not been selected, the name presentation has the standard MX-ONE function.

Programming Mode

DTS extensions with Room vacant or Room occupied class are not able to use the prog-key to program the phone.

For DTS extensions with Normal extension or Service Quarter class there is no restriction in the use of the prog-key.

Soft-Keys

The soft-keys are disabled for the Service Quarter DTS extensions. For the rest of classes, there is no restriction in the use of the soft-keys.

This third row is used to show the name and additional information strings of the other party (dialed, calling or connected) when the class is Room occupied or Room vacant.

For the rest of the classes, the DTS displays are able to show soft-key information as in MX-ONE standard function.

Individual Abbreviated Numbers

The Room vacant and Room occupied extensions are not able to program individual abbreviated numbers (abbreviated dialing) by procedure.

For extensions with Normal extension or Service Quarter class there is no restriction in the programming of individual abbreviated numbers.

Services Deactivation

When a Guest Checks Out, all active diversions, DND, follow-me, LNR and ICS information on Room occupied extensions are automatically erased when the class is changed to Room vacant.

Name and Number Log

The central Name and Number Log function cannot be enabled for SQT extensions.

The central Name and Number Log function shall not be activated for Room phones (since the log is not erased at check-out time), unless you use Mitel 6900/6800 SIP phones, which do support the central Name and Number Log function.

Required Common Interfaces and Functions

SNM and PM Connection through SOAP XML

The configuration of the Hospitality functionality should preferably be done through SNM and PM, so those interfaces shall be configured.

Call Information Logging Output

The **iCharge**application requires Call Information Logging output to be initiated and active in the MX-ONE.

SIP Route/Trunk Interface

The Voice Mail and Message Waiting Indication functions (in the **InnLine**application) require SIP routes for the media. The MWI services (for the extensions) must also be configured in the MX-ONE.

CSTA Phase 3 Interface (Optionally)

Not directly used by the Hospitality applications, but if Contact Center functionality is used, the CSTA Phase 3 events and services will be needed, so CSTA must be configured and active.

Display Handling

This section provides information on the phone display handlings.

Normal Extension

For the Normal extensions, the display never shows additional information strings.

The restriction of name presentation, selected by the guest at the check-in process, does not have any effect in the Normal extensions displays.

Room Vacant and Room Occupied

For Room vacant and Room occupied extensions, the display never shows additional information strings.

Name strings of other party are displayed depending on the selection made by the other party at the check-in process.

In all other cases, the display handling is as in standard MX-ONE.

Service Quarter

Mitel SIP phones are preferred in the Service Quarter, but if some additional guest information is wanted, digital phones shall be used.

MiVoice 4223 and MiVoice 4225 are the only recommended phones to show the full display function used for Service Quarter class. The extensions of this class are prepared for showing the name and additional information strings on the display.

The soft-key information for MiVoice 4223 and 4225 shown in the bottom row, in the normal mode, is not displayed. The bottom row of the display is used to show own, connected, dialed, and calling name, and additional information string. The first 20 characters are used for name strings and the last 20 characters are used to show the additional information string.

The restriction of name presentation, selected by guest at the check-in process, does not apply to SQT displays.

The additional information string is only displayed on SQT extensions, and only if the other party is a Room vacant or Room occupied extension.

In all other cases, the display handling works as in a standard MX-ONE.

The display handling for Service Quarter extensions is described graphically in the following tables:

Display Handling for Service Quarter class DTS in idle state

Table 1: Service Quarter DTS in idle state

	Column 1	Column 2	Column 3	Column 4
Row 1		TIME	DATE	
Row 2				OD NUMBER
Row 3	OD NAME			

OD NUMBER	Own Directory Number
OD NAME	Own Directory Name. If no name exists, the OD NAME is replaced by blanks.

Display Handling for Service Quarter DTS calling in a room extension

Table 2: Service Quarter DTS calling a room extension

	Column 1	Column 2	Column 3	Column 4
Row 1		TIME	DATE	
Row 2				DIALED NO
Row 3	DIALED NAME		DIALED INFO	

DIALED NO	Dialed Directory Number
DIALED NAME	Name of dialed party . If no name exists, the DIALED NAME is replaced by blanks.
DIALED INFO	Additional information string of dialed party . If no additional information string exists, the DIALED INFO is replaced by blanks.

Display handling for Service Quarter DTS being called by a room extension

Table 3: Service Quarter DTS being called by a room extension

	Column 1	Column 2	Column 3	Column 4
Row 1		TIME	DATE	
Row 2	CALLING NO			
Row 3	CALLING NAME		CALLING INFO	

CALLING NO	Calling directory number
CALLING NAME	Name of calling party . If no name exists, the CALLING NAME is replaced by blanks.
NCALLING INFO	Additional information string of calling party . If no additional information string exists, the CALLING INFO is replaced by blanks.

Display Handling for Service Quarter DTS connected to a room extension

Table 4: Service Quarter DTS connected to a room extension (Sheet 1 of 2)

	Column 1	column 2	Column 3	Column 4

Table 4: Service Quarter DTS connected to a room extension (Continued) (Sheet 2 of 2)

Row 1		TIME	DATE	
Row 2				CON NUMBER
Row 3	CON NAME		CON INFO	

CON NUMBER	Directory number of connected party
CON NAME	Name of the connected party . If no name exists, the CON NAME is replaced by blanks.
CON INFO	Additional information string of connected party . If no additional information string exists, the CON INFO is replaced by blanks.

Display Handling for Service Quarter DTS when the connected number is different from the called number and it is a room extension

Table 5: Service Quarter DTS connected, when the connected number is different from the called number, and it is a room extension

	Column 1	Column 2	Column 3	Column 4
Row 1		TIME	DATE	
Row 2	CALLED NO	TRAFFIC CASE		CON NUMBER
Row 3	CON NAME		CON INFO	

CALLED NO	Called directory number
TRAFFIC CASE	The same text string used in standard MX-ONE for each traffic case
CON NUMBER	Directory number of connected party
CON NAME	Name of connected party. If no name exists, the CON NAME is replaced by blanks.
CON INFO	Additional information string of connected party

Display Handling for Service Quarter DTS calling a Normal extension or a Service Quarter extension

Table 6: Service Quarter DTS calling a Normal extension or a Service Quarter extension

	Column 1	Column 2	Column 3	Column 4
Row 1		TIME	DATE	
Row 2				DIALED NO
Row 3	DIALED NAME			

DIALED NO

Dialed directory number

DIALED NAME

Name of dialed party

If no name exists, the DIALED NAME is replaced by blanks.

Display Handling for Service Quarter DTS being called by a Normal extension or a Service Quarter extension

Table 7: Service Quarter DTS being called by a Normal extension or a Service Quarter extension

	Column 1	Column 2	Column 3	Column 4
Row 1		TIME	DATE	
Row 2	CALLING NO			
Row 3	CALLING NAME			

CALLING NO	Calling directory number
CALLING NAME	Name of calling party . If no name exists, the CALLING NAME is replaced by blanks.

Display Handling for Service Quarter DTS connected to a Normal extension or a Service Quarter extension

Table 8: Service Quarter DTS connected to a Normal extension or a Service quarter extension

	Column 1	Column 2	Column 3	Column 4
Row 1		TIME	DATE	
Row 2				CON NUMBER
Row 3	CON NAME			

CON NUMBER	Directory number of connected party
CON NAME	Name of connected party. If no name exists, the CON NAME is replaced by blanks.

Display Handling for Service Quarter DTS, when the connected number is different from the called number, and it is a Normal extension or a Service Quarter extension

Table 9:   Service Quarter DTS connected, when the connected number is different from the called number, and it is a Normal extension or a Service Quarter extension

	Column 1	Column 2	Column 3	Column 4
Row 1		TIME	DATE	
Row 2	CALLED NO	TRAFFIC CASE		CON NUMBER
Row 3	CON NAME			

CALLED NO	Called directory number
TRAFFIC CASE	The same text string used in standard MX-ONE for each traffic case
CON NUMBER	Directory number of connected party
CON NAME	Name of connected party. If no name exists, the CON NAME is replaced by blanks.

Display Handling for Service Quarter MiVoice 4225 DTS in idle state

Figure 2:   Service Quarter MiVoice 4225 DTS in idle state
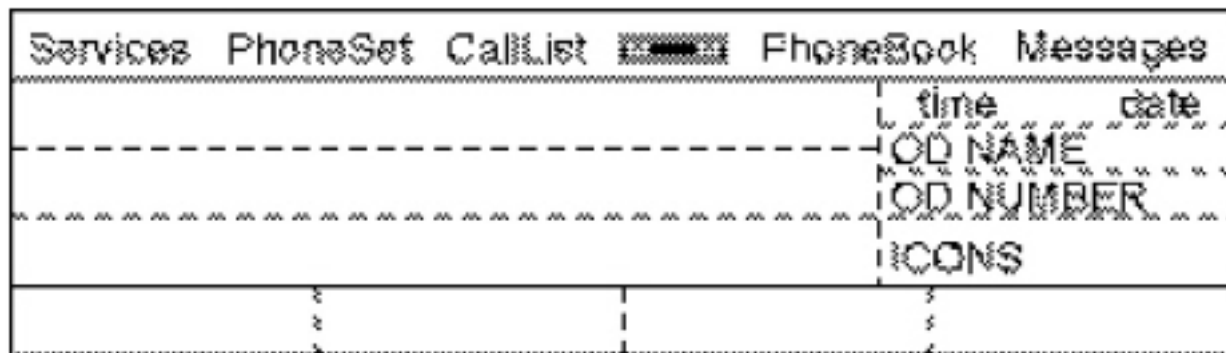
OD NUMBER

Own Directory Number

OD NAME

Own directory name (if no name exists, the OD NAME is replaced by blanks)

Display Handling for Service Quarter MiVoice 4225 DTS calling a room extension

Figure 3:   Service Quarter MiVoice 4225 DTS calling a room extension

text	Initial value for the text string
CALLED NO	Number of called party - dialed number
CALLED NAM	Name of called party. If no name exists, the CALLED NAM is replaced by blanks.
CALLED INFO	Additional information string of calling party . If no additional information string exists, the CALLED INFO is replaced by blanks.

Display Handling for Service Quarter MiVoice 4225 DTS being called by a room extension

Figure 4:   Service Quarter MiVoice 4225 DTS being called by a room extension

CALLING NAM

Name of calling party

If no name exists, the CALLING NAM is replaced by blanks.

CALLING NO

Number of calling party

CALLING INFO

Additional information string of calling party

If no additional information string exists, the CALLING INFO is replaced by blanks.

Display Handling for Service Quarter MiVoice 4225 DTS connected to a room extension

Figure 5: Service Quarter MiVoice 4225 DTS connected to a room extension

CONNEC NAM	Name of connected party. If no name exists, the CONNEC NAM is replaced by blanks.
CONNEC NO	Number of connected party - dialed number
CONNEC INFO	Additional information string of connected party. If no additional information string exists, the CONNEC INFO is replaced by blanks.

Display Handling for Service Quarter MiVoice 4225 DTS when the connected number is different from the called number, and it is a room extension

Figure 6: Service Quarter MiVoice 4225 DTS when the connected number is different from the called number, and it is a room extension

CALLED NUMBER	Called directory number
TRAFFIC CASE	The same text string used in standard MX-ONE for each traffic case

CONNECT NO	Directory number of connected party
CONNECT NAM	Name of connected party. If no name exists, the CONNEC NAM is replaced by blanks.
CONNEC INFO	Additional information string of connected party. If no additional string exists, the CONNEC INFO is replaced by blanks.

Display Handling for Service Quarter class MiVoice 4225 DTS calling a Normal extension or Service Quarter extension

Figure 7: Service Quarter class MiVoice 4225 DTS calling a Normal extension or Service Quarter extension

text	Initial value for the text string
CALLED NO	Number of called party - dialed number
CALLED NAM	Name of called party. If no name exists, the CALLED NAM is replaced by blanks

Display Handling for Service Quarter MiVoice 4225 DTS being called by a Normal extension or a Service Quarter extension

Figure 8: Service Quarter MiVoice 4225 DTS being called by a Normal extension or a Service Quarter extension

CALLING NAM	Name of calling party. If no name exists, the CALLING NAM is replaced by blanks.
CALLING NO	Number of calling party

Display Handling for Service Quarter MiVoice 4225 DTS connected to a Normal extension or a Service Quarter extension

Figure 9:   Service Quarter MiVoice 4225 DTS connected to a Normal extension or a Service Quarter extension

CONNEC NAM	Name of connected party. If no name exists, the CONNEC NAM is replaced by blanks.
CONNEC NO	Number of connected party - dialed number

Display Handling for Service Quarter MiVoice 4225 DTS when the connected number is different from the called number, and it is a Normal extension or a Service Quarter extension

Figure 10:   Service Quarter MiVoice 4225 DTS when the connected number is different from the called number, and it is a Normal extension or a Service Quarter extension

CALLED NO	Called directory number
TRAFFIC CASE	The same text string used in standard MX-ONE for each traffic case
CONNEC NO	Directory number of connected party

CONNEC NAM	Name of connected party . If no name exists, the CONNEC NAM is replaced by blanks.

Numbering and Configuration

This topic provides information on numbering plan and abbreviated numbers.

Numbering and Plan

In MX-ONE extension numbers can be up to ten digits. It allows a flexible numbering plan to use the room numbers as extension numbers.

Abbreviated Numbers

Abbreviated numbers are used for numbers that are pre-programmed in the guest room phones. By doing this, the analog phones do not have to be reprogrammed in case of a numbering plan change.

Administration from I/O terminal

The classes can be initiated/removed/changed/printed with I/O-commands (see the operational directions for HOSPITALITY APPLICATION).

The additional information string can be initiated/removed/printed with I/O-commands (see the operational directions for NAME IDENTITY).

The restriction of name presentation can be initiated/removed/printed with I/O-commands (see the operational descriptions for NAME IDENTITY).

Capacity

The maximum number of ATS extensions with a single extension number and simultaneous ringing in a room depends on the phone type.

Maximum number of characters for Service Quarter information string is 40 (20+20).

If parallel ringing is used, maximum extensions (with hospitality class Room vacant or Room occupied) that can simultaneously ring are three.

If parallel ringing is combined with Forking of SIP phones, then a maximum of 6 phones per room/suite can be configured.

Hardware

No specific hardware is needed for this facility, except for the guest room phones.

Summary

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