A MITEL
PRODUCT
GUIDE

MiVoice Business

Hospitality Solutions Guide

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Mitel
Powering connections

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Contents

Introduction 1

This chapter contains the following sections:

Mitel provides hospitality options for many different kinds of deployments, and the site conditions determine the best architecture to use for each deployment. This guide describes the various hospitality architectures, and the improvements introduced with MiVoice Business Release 7.0 and later versions.

This guide also discusses the different Mitel platforms available, the phones and consoles supported, and some licensing considerations.

1.1 MiVoice Business Hospitality Solutions

From small hotels to some of the world's most famous luxury establishments, MiVoice Business provides communications solutions that are:

- Simple. Guest services are at the heart of MiVoice Business. Hospitality features are presented as an integrated part of console and telephone user interfaces to minimize training and ensure staff are always aware of guest needs.
- Integrated. Benefit from integrated capabilities focused on improving guest services and increasing staff productivity, including auto attendant, recorded announcements, voice mail, and automatic call distribution.
- Flexible. Implement traditional or IP communications with one easy-to-manage platform that integrates with commonly used property management systems, hospitality applications, and guest room telephones.
- Cost effective. Reduce costs and simplify support with a solution you can use to move between "site by site" private and public cloud solutions without having to make a major reinvestment in your communications solution.

1.2 Types of Hospitality Designs

There are two main architectures you can use in setting up a hospitality solution for your business:

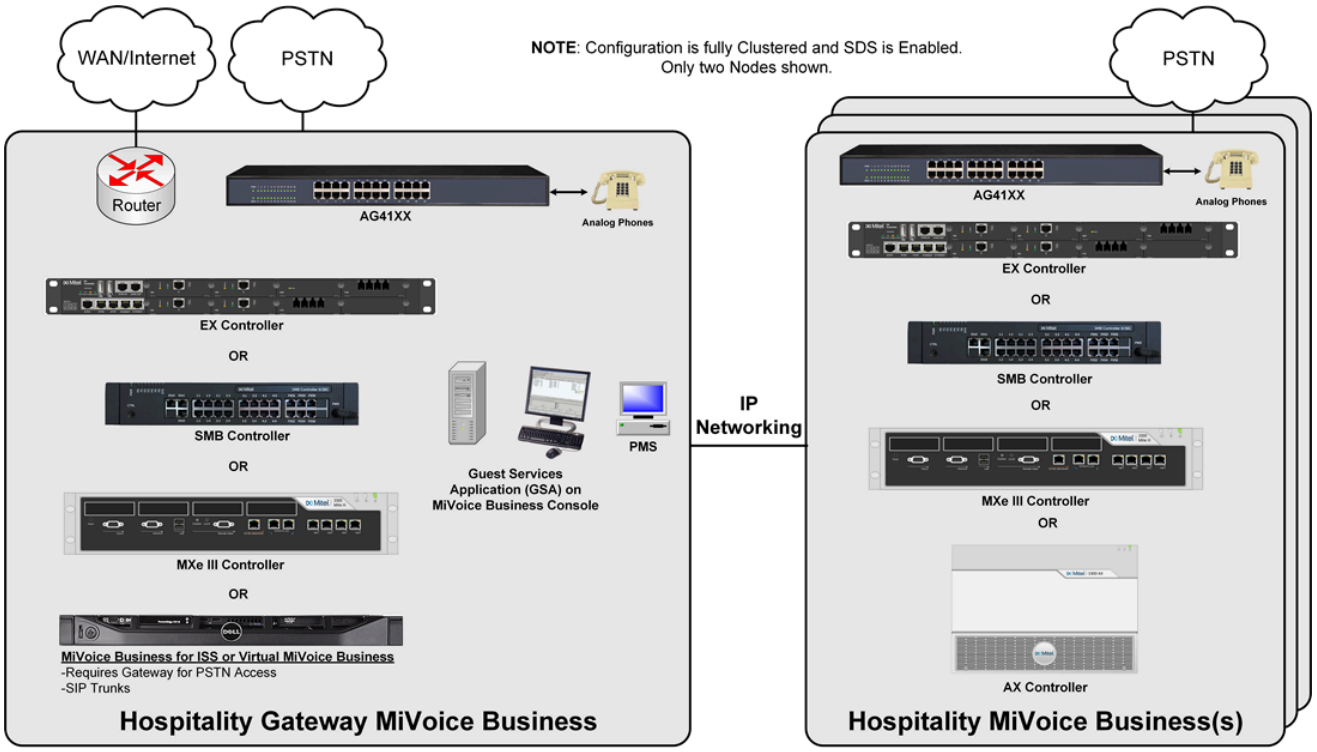
- Standalone

  In a Standalone hospitality solution, one MiVoice Business acts as the controller for the hotel or motel

  - Networked Standalone: Standalone hospitality controllers each manage their own guest and staff groups, but they can be networked to exchange information. In this configuration, each controller has its own Property Management System (PMS) and each database is kept separate from all the others; there is no sharing among them.

- Clustered

  In this configuration, the MiVoice Business controllers are clustered so that hospitality features can be offered to large hotels or hotel chains that require multiple controllers.



Note:

- MiVoice Business supports The AG4124/AG4172 Analog Gateway in Standalone and Clustered Hospitality. The AG4124/AG4172 Analog Gateways are cost-effective, fully managed FXS to SIP Gateways that support 24 FXS port for the AG4124 and 72 FXS port for the AG4172, providing customers with a solution for connecting analog phones, fax machines, and other analog devices to a SIP Call Server via their LAN. Analog Gateways can be attached to any hospitality configuration (for example, Standalone, Clustered Hospitality) to provide analog phone connectivity to guest rooms.
- FXS port supports analog phones.

1.3 Terms and Acronyms

The following table defines some of the terms and acronyms used in this guide.

Table 1: Table 1: Terms and Acronyms

Term	DefinitionExplanation
COS	Class of Service: Options normally assigned to groups of users on the switch.
CESID	Customer Emergency Services ID: Normally associated with the phone. Used by the PSAP to get information about the caller.
DND	Do Not Disturb
EHDU	External Hot Desk User: Part of the Embedded Twinning feature (Dynamic Extension) that allows external destinations to be seen on the system as a local DN.
ESM	Embedded System Management: Also called System Administration Tool.
FAC	Feature Access Code
FIAS PMS	A PMS Protocol developed by MICROS-Fidelio that is supported by MIVB Call Control and EMEM (voicemail) via a single connection.
FXS port	Foreign Exchange Station Port. FXS ports are used to connect analog devices like phones, fax machines, and modems to a digital or IP-based network by converting analog signals to digital.
GSA	Guest Services Application on the MiVoice Business Console and 5540 IP Console.
HD audio	High Definition audio
Hilton PEP	A PMS Protocol developed by Hilton Hotels that is supported by MiVoice Business Call Control and EMEM (voicemail) via a single connection.

HIS	A PMS protocol supported by EMEM (voicemail) on the MiVoice Business.
HRENIS	Hotel Room Extension not in a Suite: A guest room with a single telephone and DN that matches the guest room number.
Hyatt Encore	A PMS protocol supported by EMEM (voicemail) on the MiVoice Business.
ICP	IP Communication Platform
ISS	Industry Standard Servers
MCD	Mitel Communications Director - now called MiVoice Business
MiVB-ISS	MiVoice Business for Industry Standard Servers
MiVB	MiVoice Business
MiVoice Business PMS	A proprietary Mitel PMS protocol based on the Lodgistix PMS Protocol that the MiVoice Business Call Control supports.
MWI	Message Waiting Indication
ONS	Single line telephone set. Also refers to analog ports. See FXS ports.
PMS	Property Management System
POTS	Plain Old Telephone Set. Plain Old Telephone Service
PSAP	Public Safety Answering Point: Emergency services department responsible for answering emergency calls for police, fire, and ambulance.

PSTN	Public Switched Telephone Network
RAC	Record-A-Call
RAD	Recorded Announcement Devices
SDS	System Data Synchronization
SIP	Session Initiation Protocol
SMDR	Station Message Detail Recording: Call log records generated by the switch, normally for call accounting purposes.
STS	Shared Telephone Service
Suite	A group of telephones can be configured to ring simultaneously when the guest room is dialed, allowing the call to be answered from any of the extensions in the room.
SWA	Mitel Software Assurance
UM	Unified Messaging
VIP	Very Important Person
vMCD	Virtual Mitel Communications Director - now called MiVoice Business Virtual

Hospitality Design 2

This chapter contains the following sections:

This section describes the Mitel platforms you can use to set up your hospitality deployment, how to choose the best architecture, and some licensing information for hospitality installations.

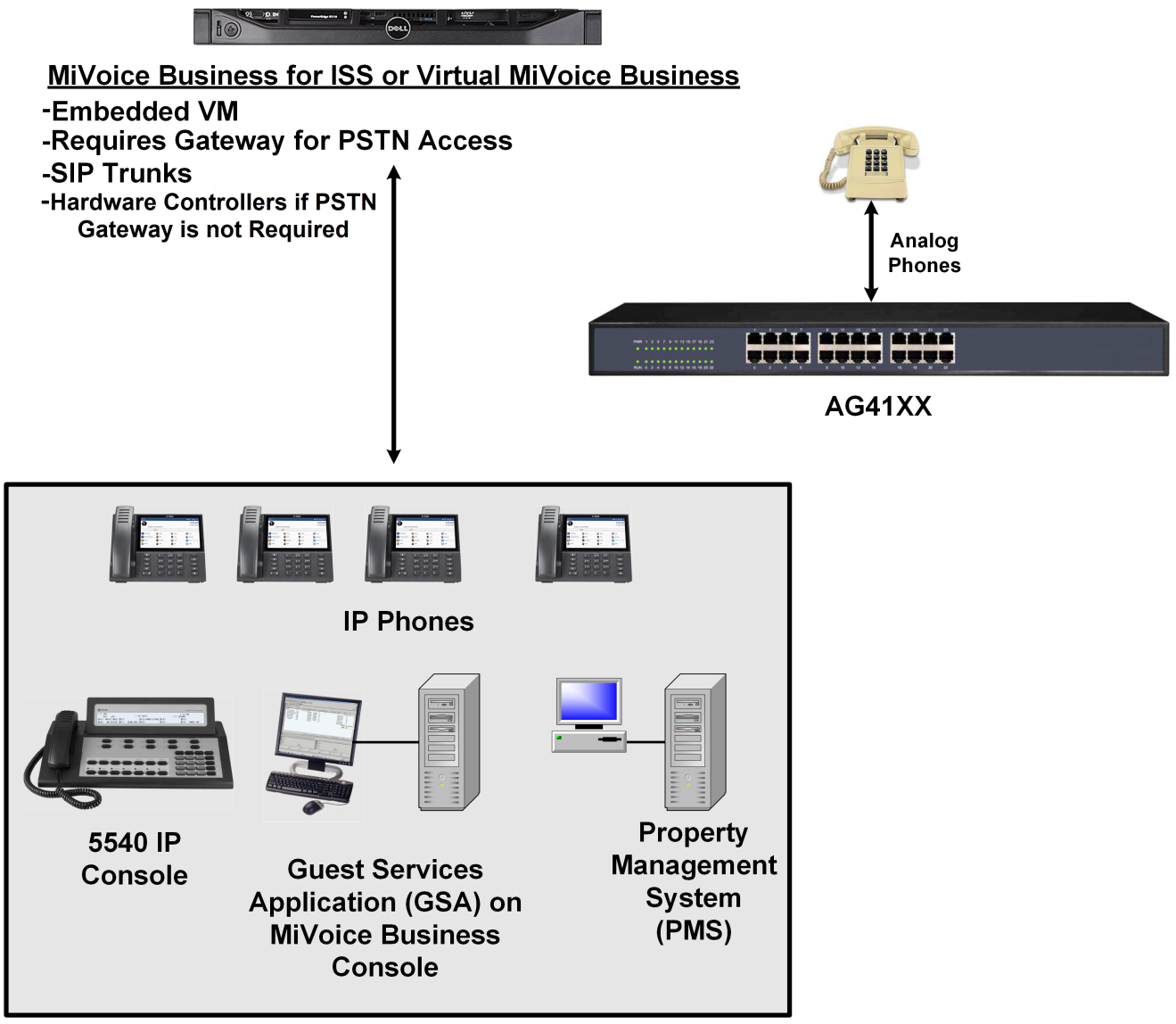


Figure 1: Hospitality Design

2.1 Hospitality Features and Benefits

Mitel Hospitality provides features for a hotel or motel environment, and can work independently, or with a Property Management System (PMS). Some of the features and benefits include:

- Room Status
- Billing and guest status
- Connection to an accounting package
- Wake-up calls with reporting
- Suite services
- Voice mail for staff and guests
- Intelligent auto-attendant

- Property Management System (PMS)
  - track room changes
  - phone use by guests
  - connection to billing
- Group Park enables staff to better handle calls among themselves
- Remote Call Pickup allows front desk staff to remotely answer calls coming in to the operator console.
- ACD call features are used for non-console answering positions, such as Mitel 69xx phones, to manage operator queues and reservation departments. ACD queuing is not available for consoles.
- MiVoice Business offers RAD message capabilities and advertisements embedded within the Music on Hold streaming. For those platforms that offer live MOH interfaces, hotels can host daily updated MOH messages as part of their corporate standard.

2.2 Recent Feature Introductions

2.2.1 MiVoice Business Release 10.3

No changes have been made to this document for the 10.3 release.

2.2.2 MiVoice Business Release 10.2

- Introduces support for the FIAS PMS Protocol, that provides a comprehensive solution designed to meet the unique needs of the hospitality industry targeting legacy MICROS-Fidelio compliant properties. The MiVoice Business system provides a single connection to the Hilton PEP and FIAS, whereby both the PBX and Voicemail (using EMEM) Hospitality operations are supported.

  It supports the following features:

  - Guest Check In/Out
  - Guest Change
  - Set/Clear Wakeups and Notifications
  - Database Synchronization
  - Call Billing Notifications
  - Room Status Notifications
  - MWI Notifications
  - Voicemail Notifications

  Data supported:

  - Guest Name (First and Last)
  - Room Status (occupancy/condition)
  - Guest Language

> **Note**:
> For more information, see Supported Languages in PMS Protocol.

  - Hotel Call Restriction
  - Wakeups
- Enhanced Guest Move support (FIAS and Hilton PEP only) to move both PBX data and EMEM data.

2.2.3 MiVoice Business Release 10.1 SP1

- Introduces support for the Hilton PEP PMS Protocol that provides a comprehensive designed to meet the unique needs of the hospitality industry targeting Hilton properties. The MiVoice Business system provides a single connection to the Hilton PMS Server, whereby both the PBX and Voicemail (when using EMEM only) hospitality operations are supported.

  The following operations are supported:

  - Guest Check In/Out
  - Guest Change
  - Database Synchronization
  - Room Status Notifications
  - MWI Notifications
  - Voicemail Notifications

  Data Supported:

  - Guest Name (First and Last)
  - Room Status (occupancy/condition)
  - Guest Language (English, French, German, Italian ,Spanish - Latin America)
  - Hotel Call Restriction
- Introduces Guest Move support (Hilton PEP only) of move PBX guest data (not EMEM data).
- Supports Guest Room Wake-up and DND activity.

2.2.4 MiVoice Business Release 10.1

With MiVoice Business 10.1, embedded voicemail (EMEM) has been enhanced to address some longstanding concerns from the Hospitality sector:

- Wakeup calls can now be entered using 12 hour time with AM and PM where it previously required the use of 24-hour time.
- Up to 3 wakeups per room per day can now be set from the TUI where previously only a single one could be supported.
- Direct access has now been provided to the TUI for setting wakeup calls, to be used with the wakeup call button on the room phone.
- Improvements in the PMS-related logging file have been made, and the size of the file has been increased from 1MB to 2MB to store more historical logs. This will help with debugging when setting up the system.

2.2.5 MiVoice Business Release 6.0

- Embedded Messaging (EMEM) Enhancements:
  - Embedded Voice Mail Hebrew prompts
  - Embedded Voice Mail Remote Time Zones
  - Embedded Voice Mail available to MCD for ISS (including RAD and RAC ports)
- Direct Transfer to Voice Mail

2.2.6 MiVoice Business Release 5.0

- Introduces VIP Status against guest rooms to provide an enhanced level of service to important guests. The VIP Status can be managed via Guest Services and the MiVoice Business PBX's PMS interface.
- Introduces Personal Wakeup Calls. The Wake-up call is applied to the Wake-up Expiration Routing directory number in the **Hotel Options** form, normally an attendant or supervised extension. The attendant or hotel employee will then personally make the wake-up call.
- Introduces Language Selection. Language selection for a specific guest room can be managed from the attendant consoles MiVoice Business Console, 5540 MiVoice Business Console), as well as through the PMS interface. When a guest checks in, their language is noted and the phones in the room are changed accordingly. The phone's display prompts and applications can also be changed to display the required language. This is a common requirement for boutique and luxury hotels.
- Introduces Maid ID. To deliver enhanced quality in hotels and enforce accountability, maids can be required to identify themselves whenever there are changes to a guest room status. For example, once a room is cleaned, the maid can call in the change, but the change will be accepted only if a valid identification code is entered.
- Introduces DND. The MiVoice Business Console manages the guest room DND setting and the 5540 MiVoice Business Console. Hotels require the ability to set and cancel the guest's DND setting through the PMS interface as well. In addition to providing a tighter PMS integration for high-end hospitality customers, this enhancement overcomes the MiVoice 5540 Business Console Restriction of only managing sets on the same local switch.
- Introduces Embedded Messaging. Embedded messaging can be used for regular voice mail services or for Recorded Announcement Devices (RAD) and/or Record-a-Call features. Normal licensing rules apply.
- StreamLine Power Supply Field Replacement Unit (FRU). A field replacement power supply is available. This helps to minimize service outages due to power supply failures, because spares can be stocked for quick and easy swap-out.

2.3 Hospitality Design

This section describes the Mitel platforms you can use to set up your hospitality deployment, how to choose the best architecture, and some licensing information for hospitality installations.x`x

2.4 Hospitality Platforms

The MiVoice Business solutions allow hoteliers to focus on managing guest experience and hotel operations. Our technology has the flexibility to adapt to guest and staff requirements with a minimum of management overhead. MiVoice Business has a unique architecture to enable support of traditional and

IP communications, fixed and wireless. This approach allows hoteliers to benefit from IP communications while protecting investment in traditional telephony. There are many ways to set up your hospitality deployment, starting with the communications platform to use. You can purchase the MiVoice Business software to run on the following platforms:

2.4.1 Mitel MiVoice Business Platforms (ICP)

The Mitel MiVoice Business Controllers are a family of IP-PBXs with all services, trunks, and legacy connections integrated, for use as:

- media gateway for larger networks
- to provide connection to legacy services when running the MiVoice Business software on Industry Standard Servers
- the enterprise edge for centralized networks that require survivable solutions for their remote sites.

2.4.2 MiVoice Business on Industry Standard Servers (ISS)

The MiVoice Business software runs on industry standard servers (ISS).Running MiVoice Business on ISS allows you to support up to 5000 users. This provides a lot of flexibility. As your network grows, you may not need additional ICP hardware.

2.4.3 MiVoice Business Virtual

MiVoice Business is available as a Virtual Appliance that runs on VMware® vSphere™, Nutanix Cluster Running AHV Hypervisor, Nutanix Cluster Running ESXi Hypervisor, and Microsoft Hyper-V Infrastructure for businesses that want to manage communications like any other application in their data center. The additional benefit of running MiVoice Business Virtual is that you can run multiple Mitel applications on one hardware server.

For more information, see the Virtual Appliance Deployment Solutions Guide.

2.4.4 MiVoice Business EX Controller

The EX Controller is a hardware platform that supports the MiVoice Business call processing software. The EX Controller supports up to 1400 IP users and provides native analog capabilities of up to 28 Foreign Exchange Subscriber (FXS) or Foreign Exchange office (FXO) ports or 8 T1/E1 ports.

The EX Controller is shipped from the factory with the Deployment Tool installed as a virtual machine on a Kernel-based Virtual Machine (KVM) hypervisor.

For more information, see the *MiVoice Business EX Controller Installation and Administration Guide*.

2.4.5 MiVoice Business SMB Controller

The Mitel SMB Controller is a multi-service controller capable of running the MiVoice Business solution. It has been developed to meet the needs of Select Service hotels, supporting up to 300 rooms, while delivering simplified deployments for small to medium-sized hospitality environments. A single SMB

Controller embeds CloudLink Gateway, MiVoice Border Gateway, MiVoice Business, Mitel Performance Analytics Probe, Initial Configuration Wizard and as such provides an all-in-one solution for the hospitality market. The SMB Controller is designed to integrate with a wide variety of legacy and IP systems, Mitel call control platforms, and management tools such as Mitel Performance Analytics and Mitel Administration. The SMB Controller provides native analog capabilities of up to 22 Foreign Exchange Subscriber (FXS) or 16 Foreign Exchange Office (FXO) ports.

For more information, see the *MiVoice Business System Manual for Mitel SMB Controller* document.

2.5 Phones and Consoles

The following sections describe Mitel phones and consoles that are supported and recommended for use in hospitality deployments.

2.5.1 Supported Consoles

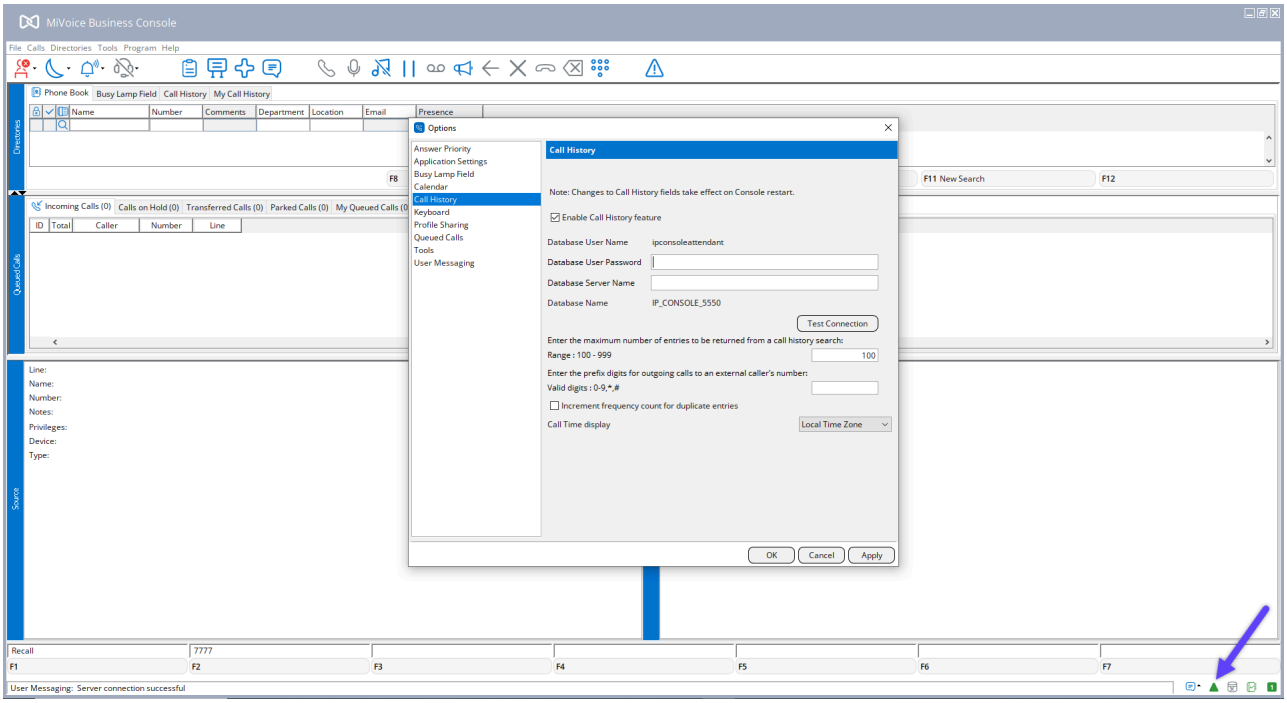
The following consoles support call control and Guest Services features:

- MiVoice 5540 IP Business Console:

> **Note**:
> Guest Services on the MiVoice 5540 console is available for guest rooms deployed on a single MiVoice Business instance..

  - For use in a standalone Hospitality deployment (or networked Standalone).
  - Small footprint, for an area too small for a PC

- MiVoice Business Console:
  - PC-based enterprise operator solution
  - For use with high volume call handling environments using MiVoice Business



- Supports the following languages:

English	French (Canadian)	French (European)	German (European)
Italian (European)	Spanish (European)	Spanish (NA)	Dutch
Portuguese (Brazil)	Swedish	Simplified Chinese	

2.5.2 Supported Phones

For a list of the features provided by MiVoice IP Phones, see the *Feature Support Matrix* section in the *MiVoice Business General Information Guide* located at https://www.mitel.com/document-center/business-phone-systems/mivoice-business/mivoice-business.

Note:
All phones supported by MiVoice Business are also supported by Hospitality.

2.6 Hospitality Architectures

There are several ways to set up and configure hospitality solutions when using the MiVoice Business and MiVoice Business software. The best choice depends on the size and the requirements of the business.

2.6.1 Standalone Hospitality

In a Standalone configuration, there is only one MiVoice Business controller in the network that provides call control features for Staff and Guest. The same controller manages the Property Management System (PMS), guest services applications, and voicemail, with deployment options available for properties of all sizes.

2.6.1.1 Standalone Hospitality in a Network

A Networked Standalone configuration is created when multiple MiVoice Business (MIVB) controllers are clustered together, with each acting as an independent hospitality site, providing its own PMS, guest services access, and voicemail. In this model, each MIVB operates as a separate 'hotel,' and due to the Clustered Dialing Plan, guest room DNs must be unique across controllers, meaning a room number like '100' cannot be used in more than one hotel.

A Standalone Hospitality configuration in a network is created when multiple MiVoice Business systems are clustered together with each acting as individual hospitality sites (dual branded property) providing their own PMS connection. In this case, there could be one group of Hotel Staff that services the multi-branded hotels.

A Standalone Hospitality configuration in a network can also be created when multiple MiVoice Business systems are clustered together to create functional controllers. For example, there could be a single controller for guest rooms only that has the PMS connection, and a controller for staff and PSTN trunks.

Note:
Hospitality data is not resilient, but devices may be.

2.6.2 Clustered Hospitality

Clustered Hospitality provides hotel/motel feature functionality across a MiVoice Business cluster, supporting a single hospitality property or a resort with multiple buildings.. A cluster uses a MiVoice Business operating as a hospitality gateway, along with one or more hospitality controllers. The hospitality gateway is the interface to the PMS and the Guest Services Application (GSA) on the MiVoice Business Console, and can also host guest room extensions. The graphic shows the Guest Services panel with the MiVoice Business Console in the background.

Note:
The hospitality gateway hosts mailboxes for ALL guest rooms, if they are using EMEM.

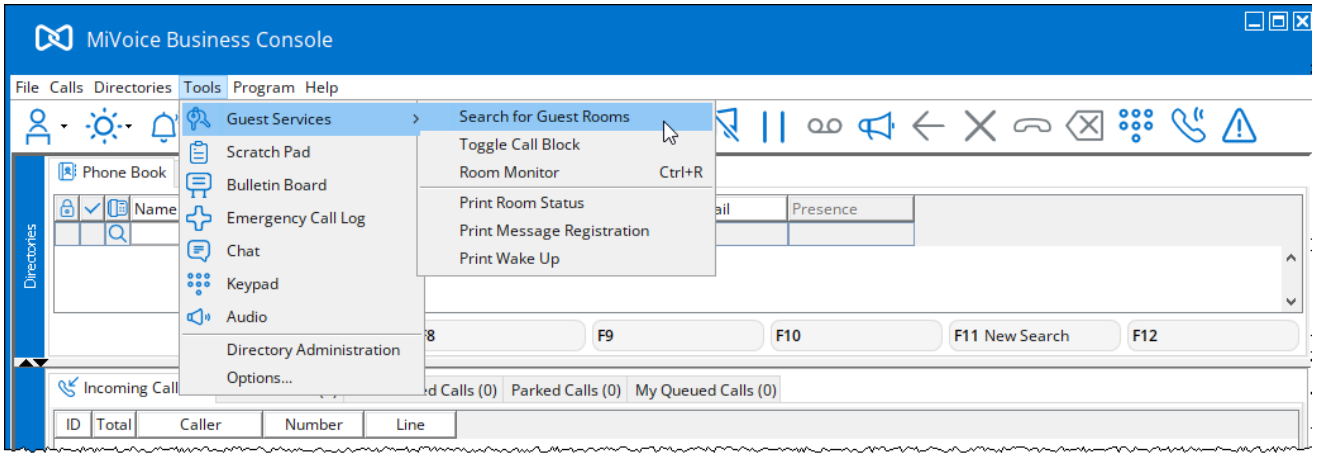


Figure 2: Guest Services panel with MiVoice Business Console

Hospitality clusters are suited to larger hotels, campus environments, and cruise ships, in which distributed processing is needed to limit the scope of any failure. The key elements in a hospitality cluster are:

- The Hospitality Gateway hosts the PMS link, Guest Services (via attendant consoles), and embedded voicemail (if required). The gateway also manages communication with other elements using System Data Synchronization (SDS).
- One or more Hospitality MiVoice Business Controller(s) deployed to support Guest Room Phones. Where traditional Analog Phones are used, the AX Controller or other applicable platforms in conjunction with the AG41XX would normally be deployed as a Hospitality MiVoice Business Controller..

Clustered Hospitality supports:

- Reports, including Wake-up and Occupancy reports, through a networked printer.
- Shared Telephone Service (STS), available if all members reside on the same MiVoice Business as the linked suite.
- Configuration of room extensions and suites from any MiVoice Business in the cluster. Suite extensions must be programmed on the same controller as the suite room number. For more information about Suite Licenses, see "Migration to Mitel Hospitality" on page 32.
- Resilient hotel room extensions (for IP phones).

Note:

- The extension numbers in the suite are resilient, but the suite pilot is not. In resilient mode, you cannot dial the suite number, but guests will still have dial tone.
- Wake-up calls do not work in resilient mode.

- The 5540 IP Console's hospitality integration is only available in a Standalone Hospitality deployment. In a clustered Hospitality Deployment, it can still be used as a regular console but will NOT have access to hospitality functions like checking-out a room.
- The 5540 Console can also be used to route calls to all non-guest and other phones across network.

Hospitality clusters provide:

- Ability to co-locate in a single site or distribute across multiple sites for increased redundancy and resilience.
- A single Property Management System Interface.
- Scalability through distributed processing, trunking, and redundant components.
- Room status and programming for every guest room, accessible from a MiVoice Business Console.
- The CX-II, CXi-II, AX controllers should not be as a Hospitality Gateway, if another higher performing platform is available it should be made the Hospitality Gateway. In small clusters (i.e. resilient pair) of MIVBs, it is ok to use the CX-II, CXi-II, AX as the Hospitality Gateway.
- The hospitality Gateway must host the PMS Link, Guest Services (from the Attendant Consoles), and Voicemail mailboxes for all Guest Rooms (if using EMEM).
- The MiVoice Business Console must be used for attendant console positions in a clustered configuration.
- The call accounting application should be capable of collecting records from all nodes or through the trunking gateway.

Engineering basics:

- The CX-II, CXi-II, AX controllers should not be as a Hospitality Gateway, if another higher performing platform is available it should be made the Hospitality Gateway. In small clusters (i.e. resilient pair) of MIVBs, it is ok to use the CX-II, CXi-II, AX as the Hospitality Gateway.
- The hospitality Gateway must host the PMS Link, Guest Services (from the Attendant Consoles), and Voicemail mailboxes for all Guest Rooms (if using EMEM).
- The MiVoice Business Console must be used for attendant console positions in a clustered configuration.
- The call accounting application should be capable of collecting records from all nodes or through the trunking gateway.
- Support for up to 5000 IP phones for various MiVoice Business platforms. See the *MiVoice Business Engineering Guidelines* document for information bout each platform.

2.6.3 AG4124/AG4172 Analog Gateway

The AG4124/4172 are multi-functional Analog Gateways that offer seamless connectivity between IP based telephony networks and legacy analog telephones, fax machines, and other analog devices. For Hospitality, they can be used to program Analog AG devices as Guest Rooms or Suite Members to provide Analog Guest Room support to IP based platforms (that is,. virtual MiVB, ISS) or platforms where embedded analog connectivity is limited (SMBC, EX).

For information about Mitel Authorized Solutions Providers for configuring the MiVoice Businessto host the Mitel AG4124/AG4172 Gateway, see the Configuring MiVoice Business for use with *Mitel AG4124/AG4172 Gateway (Single Line)* section in the AG4124/AG4172 Analog Gateway Administration Guide located at https://www.mitel.com/document-center/business-phone-systems/mivoice-business/mivoice-business/all-releases/en/ag4124-ag4172-analog-gateway-administration-guide.

For information about adding the AG4124/AG4172 Analog Gateway device from the System Administration Tool, see the *Adding an Analog Gateway Device* section in the *System Administration Tool Online Help*.

For information about the Analog Gateway Server, see the *Analog Gateway Server* form in the *System Administration Tool Online Help*.

2.7 High Availability in the Hospitality environment

High Availability (HA) is critical for hospitality. The Mitel hospitality solution provides high availability by combining MiVoice Business resiliency features, CPU redundancy, and distributed processing.

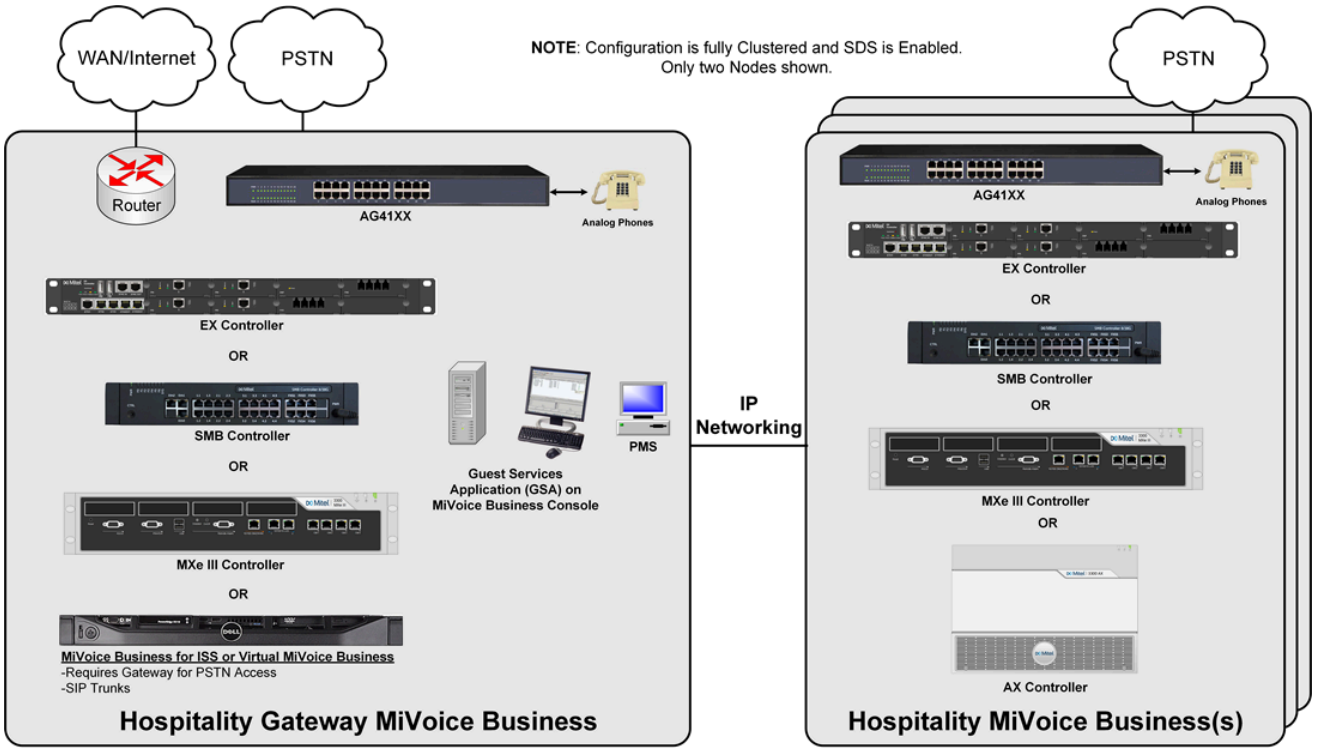


Figure 3: Figure 4: Clustered Hospitality solution

Resiliency and HA within the context of Hospitality is unique. Using the MiVoice Business resiliency features means that guest and staff continue to get dial tone at the phones, but hospitality services may not be operational, including suite services, wake-up calls, and console GSA features. To provide high availability of suite services, use the Mitel Centralized topology.

In a large analog system using the MiVoice Business Controllers, the hospitality system should be configured in a clustered MiVoice Business Controllers Hospitality topology. In addition to the resiliency and redundancy features, problems can be isolated to small groups of guest phones by distributing them across multiple AX controllers. If one MiVoice Business AX phone server goes down, only the phones hosted on the problem ICP are lost. All of the other guests and staff are unaffected.

2.8 Third-party Integration

Mitel Networks supports the integration of third-party applications through the Mitel Solutions Alliance (MSA). The program helps businesses to develop custom applications or features to achieve higher productivity. There are two APIs available for custom integration:

- General business API: higher productivity
- Hospitality API: more guest services

2.8.1 Property Management System (PMS) Integration

A Property Management System (PMS) is third-party software running on a PC connected to MiVoice Business. The PMS provides a center for managing a Hotel business. It's also referred to as a Front of House (FOH) system and can interface with a Front Desk system to provide Reservation Control, Centralized Accounting and Billing, and Call Logging.

Property Management Systems can interface with the MiVoice Business to enable guest room telephone services based on the status of the room.

When information about a guest is changed at the front desk, messages are sent to MiVoice Business through the PMS. Similarly, when information about any guest is changed on the MiVoice Business, messages are sent to the front desk system via the PMS.

PMS Integration for Mitel MiVoice Business and EMEM systems includes the following:

- The MiVoice Business PBX supports an IP interface connection to the Hotel's PMS, using a configured PMS Protocol (MIVB PMS, Hilton PEP, or FIAS). This connection allows the PMS to notify the PBX when a user checks-in or out, and affect the calling features available to those users.
- The MiVoice Business Voicemail (EMEM) supports an IP interface connection to the hotel's PMS using a configured PMS Protocol (HIS or Hyatt Encore) or via the PBX PMS Connection (Hilton PEP or FIAS). This connection enables the PMS to notify voicemail when a guest checks in or out, affecting the behavior of the voicemail system..

Note:

Refer to the *MiVoice Business System Administration Tool Help* for information about the PMS Message Format Specification.

2.8.2 Hilton PEP Property Management System (PMS) Integration

The Mitel Hospitality Management System is a comprehensive solution designed to meet the unique needs of the hospitality industry. The MiVoice Business (MiVB) system now includes a feature that interfaces with the Hilton Property Management System. which provides a single connection for both PBX and Voicemail. This development reduces licensing costs and is the first of its kind to support a Single Port connection.

This Single Port connection allows EMEM to respond to hospitality-related changes in real-time as they occur in Call Control. The integration with Hilton's proprietary PMS enables MiVB to manage guest rooms, services, and billing with increased efficiency.

MiVoice Business supports the following:

- Check-in
- Checkout
- Room Status notification
- Database synchronization
- MWI Indication
- Room Equipment Status

2.8.3 FIAS Integration

The Mitel Hospitality Management System is a comprehensive solution designed to meet the unique needs of the hospitality industry. The MiVoice Business (MiVB) system now includes a feature that interfaces with the Fidelio Interface Application Specification (FIAS) Property Management System protocol, which provides a single connection for both PBX and Voicemail. This development reduces licensing costs and is the first of its kind to support a Single Port connection.

This Single Port connection allows EMEM to respond to hospitality-related changes in real-time as they occur in Call Control. The integration with Hilton's proprietary PMS enables MiVB to manage guest rooms, services, and billing with increased efficiency.

MiVoice Business supports the following:

- Database Synchronization
- Guest Check-In
- Guest Check-out
- Guest Change
- Guest Move Support
- Wakeup Request
- Wakeup Cancel
- Wakeup Answer
- Room Equipment Status
- Posting Simple
- Posting Answer

2.8.4 Mitel Open Integration Gateway

The Mitel Open Integration Gateway (OIG) is an open, standards-based Web Services applications programming interface (API) development platform. Together with MiVoice Business, the OIG helps deliver seamless integration of unified communications and third-party business applications, enabling faster, more effective communications for your customers.

Note:
OIG is supported only for MiVoice Business.

Application developers can rapidly construct, test, and deploy feature-rich integrated voice and data applications for Mitel business communications platforms. Through an intuitive user interface, developers are provided a single, centralized point of access to MiVoice Business API Web Services, administrative capabilities, and networked software licensing. Application developers are free to choose a programming language, a software development environment, an operating system, and a hardware platform as their applications do not need to integrate or compile in any Mitel code. The Web Service model de-couples the OIG software from the applications—only the standards-based Web Services Definition Language (WSDL) files are needed.

2.8.5 MSA Universal SDK Development Kit

Mitel provides the MSA Universal SDK Development Kit to application developers wishing to develop applications for use with MiVoice Business.

The MSA Universal Software Development Kit (SDK) is a set of software, testing tools, and documentation that provides developers what they need to develop applications for MiVoice Business.

The SDK application contains the following software options and troubleshooting tools:

- MiTAI: enables switch-to-application server communication for multiple switches
- MiAUDIO: enables an application to process voice on multiple Mitel phones
- MiTAI Browser Tool: ensures the connection is operating correctly to make function calls and to view events from the API
- MiTAI Server Logger Tool: connects to the MiVoice Business host platform to download log files; captures all MiTAI server incoming and outgoing messages for debugging purposes
- MiTAI Client Logger Tool: enables you to access MiTAI application information, collect MiTAI API information in a log file, and capture MiTAI client data on incoming and outgoing mes- sages for debugging
- MiAUDIO Test Tool: enables you to verify that MiAUDIO has been correctly installed and that all connections allow proper communication between the MiAUDIO application and the MiVoice Business host platform

For information about the Mitel developer partner program, Mitel Solutions Alliance, refer to the Mitel Solutions Alliance portal.

2.8.6 MiVoice Business Station Message Detail Recording (SMDR) Integration

MiVoice Call Accounting is a comprehensive call costing solution that is available either as a single-site or multi-site solution, and can be integrated with MiContact Center Management, if desired. MiVoice Call Accounting enables organizations to monitor and control telecommunication costs and clearly show how much money is being spent and who is spending it. With MiVoice Call Accounting, you can:

- Monitor usage and establish call patterns for departments and work groups.
- Track, report, and control telecommunication costs.

- Track account codes in SMDR reports.
- Perform cost recovery and carrier bill reconciliation.
- Find out if costs are excessive because, for example, employees are sharing toll free lines, calling restricted numbers, or calling their friends long distance.
- Mitel Subscriber Services (optional module): Charge back departments, employees, and customers using mark-up or discount pricing.
- Mitel Traffic Analysis (optional module): Determine if the organization is using its incoming, outgoing, and bi-directional trunks efficiently.

2.9 Hospitality Licensing

MiVoice Business Theme Bundles licensing is designed to help you make the most of your Mitel Hospitality SolutionsMiVoice Business Packages and Bundles are intended to address the special needs of the Hospitality Vertical and are not available to other Business Segments. As a result, they are only available to Hospitality Resellers who are currently part of the Mitel Hospitality Specialist Partner Program.

The Hospitality configuration is performed using the Mitel's Configure/Price/Quote (CPQ) system.

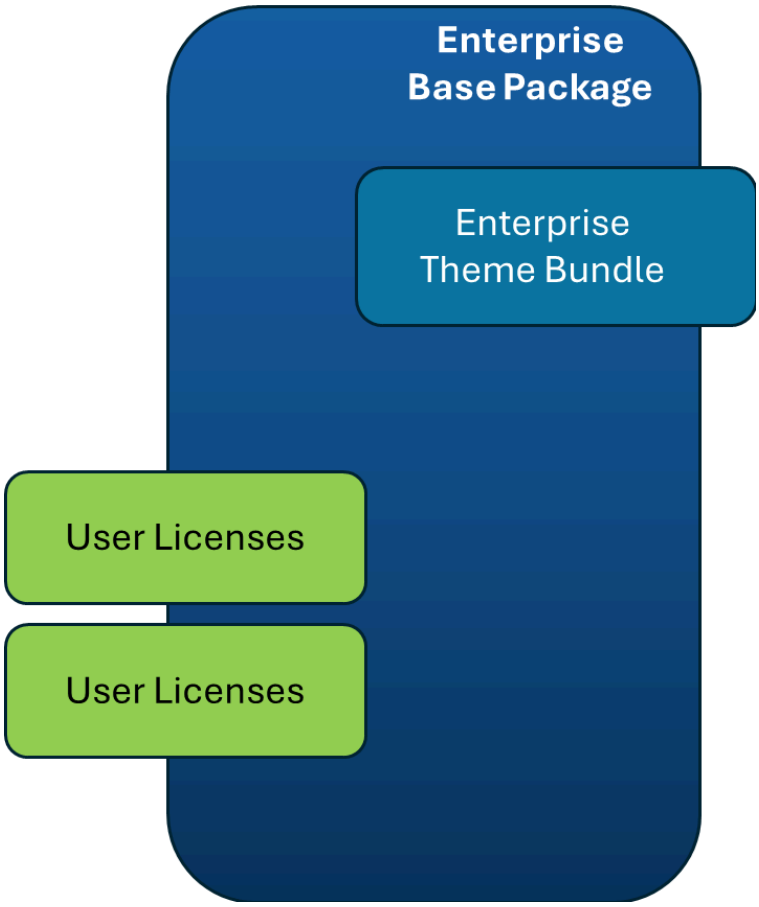


Figure 4: Hospitality licensing

2.9.1 Enterprise Base Package

When you have a cluster of MiVoice Business controllers, often called a Hospitality cluster, start with an Enterprise Base Package.

- Add the Enterprise Theme Bundle of user licenses.
- Add any other individual user licenses required.

Always take advantage of Hospitality Group Licensing, which allows you to pool all available licenses.

A MiVoice Business to MiVoice Business Hospitality uplift part number is available, at no cost, to designate existing MiVoice Business records in the Mitel Application Management Center (AMC) as Hospitality. This allows hospitality-specific licenses or options to be added to existing records, and facilitates Software Assurance enlistment or renewals under the Hospitality pricing. Mitel approval is required to order the MiVoice Business to MiVoice Business Hospitality Uplift.

Table 2: Table 3: Uplift to Hospitality Base Packages

PART NUMBER	DESCRIPTION	NOTES
54005901	MiVoice Base to MiVoice Hospitality Base Uplift	• Enables an existing MiVoice Business base application record to be designated as MiVoice Business Hospitality in the Mitel Licenses & Services sever. This part can be ordered, under Mitel order approval, at no charge. (Contact your Mitel Engineer for more information.) • The MiVoice Business Hospitality designation against an MiVoice Business application record in the Mitel AMC enables MiVoice Business hospitality licenses or options to be attached and allows MiVoice Business hospitality software assurance to be applied. • The uplift is not dependent on MiVoice Business software revision, however adding new licenses to the record may require the MiVoice Business software to be upgraded to the appropriate release.

With the Multi-device Suite License, there can be several phones in the guest suite, all operating on the same number, and with only one phone active at a time. If you need all phones to operate independently,

you must purchase separate licenses for all the phones in the suite. Note that Hospitality Theme Bundles are not eligible to use the uplift part number, because the Hospitality pricing has already been applied.

All Enterprise MiVoice Business instances within a Hospitality Application Group in the AMC must contain the same designation, whether designated as a hospitality package or not.

Note:
There are no specific Hospitality licenses for Hospitality deployed on MiVoice Business Virtual (formerly vMCD). For instructions for licensing installations of MiVoice Business Virtual, see MiVoice Business Virtual licensing for Hospitality.

There are no specific Hospitality licenses for Hospitality deployed on MiVoice Business Virtual (formerly vMCD). For instructions for licensing installations of MiVoice Business Virtual, see MiVoice Business Virtual licensing for Hospitality.

Table 3: Table 4: Hospitality Base Packages

PART NUMBER	DESCRIPTION	NOTES
54005768	Hospitality License Group	Establishes a Hospitality Application Group, and an AMC Application Record is created on purchase. Hospitality Base Packages can be added to it.
54005776	ISS Enterprise Hospitality Base	Enterprise Hospitality Base Package for ISS Platform. An AMC Application Record is created on purchase.
54005777	MiVoice Business Enterprise Hospitality Base	Enterprise Hospitality Base Package for ICP Platform. An AMC Application Record is created on purchase.
54010352	MiVoice Business Enterprise Virtual Hospitality Base	Enterprise Hospitality Base Package for MiVoice Business. An AMC Application Record is created on purchase.

Table 4: Table 5: Small Hospitality Base Packages

PART NUMBER	DESCRIPTION	NOTES

52003783	MiVoice Enterprise Small Hospitality SW Bundle	Contains the following • Hospitality Base • Digital Link License (1) • Hospitality User Licenses (108) • Embedded Voicemail Boxes (100) • SIP Trunks (30) Also available is 52003878 MiVoice Business Enterprise Virtual Hospitality Bundle which includes: • Base pack • SIP Trunk (30) • Hospitality User Licenses (108) • Embedded Voicemail Boxes (100)

Table 5: Table 6: Hospitality Theme Bundles

PART NUMBER	DESCRIPTION	NOTES
54005767	MiVoice Business Centralized Hospitality Theme Bundle	Bundle of (144x) Centralized Hospitality Extension licenses. Can be applied only once to an Enterprise Hospitality Base Package, and cannot be combined with another bundle (themed or otherwise), and cannot be applied directly to the new Hospitality Application Group.
54005778	MiVoice Business Enterprise Analog Theme Bundle	Bundle of (150x) analog line licenses, can be applied only once to an Enterprise Hospitality Base Package, and cannot be combined with another bundle (themed or otherwise), and cannot be applied directly to the new Hospitality Application Group.

54005779	MiVoice Business Enterprise Suite Theme Bundle	Bundle of (100x) Suite licenses, can be applied only once to an Enterprise Hospitality Base Package, and cannot be combined with another bundle (themed or otherwise), and cannot be applied directly to the new Hospitality Application Group.

Table 6: Table 7: Hospitality User Licenses

PART NUMBER	DESCRIPTION	NOTES
54011648	MiVB Hospitality Voice Mailbox	Used to license embedded mailbox specifically for hospitality.
54005765	MiVoice Business Hospitality Enterprise User License	Used to license an IP extension for Hospitality Enterprise configurations. It can be applied only to new Enterprise Hospitality Base Packages, or to the new Hospitality Application Group.
54005766	MiVoice Business Centralized Hospitality User License	Used to license a remote analog extension in Centralized Hospitality configurations. This license is used when a 5540 IP Console is used with multiple MiVoice Business controllers. It can be applied only to new Enterprise Hospitality Base Packages, or to the new Hospitality Application Group.

2.9.2 Phone Licenses

Analog phones that are connected to the AG4100 gateways or EX Controller, as is often the case for guest room phones, require a single ONS license. Analog devices that are connected to the Analog Main Board, Analog Option Board, or SMB Controller do not require an ONS license. Embedded SMB Controller does not require licenses. EX Controllerand Analog Gateway device requires a Single Line license for each device.

MiVoice Business provides the following licenses:

- **Single Line Licenses:** This license is designed for individual users, providing basic call handling and voicemail features.
- **Hospitality User Licenses:** This license is tailored for hospitality staff, offering essential features like call control, guest services, and voicemail, optimized for hotel operations.
- **Multi-device Licenses:** This license allows a single user to access their account from multiple devices, such as desk phones and mobile devices, providing flexibility in communication.
- **Multi-device Suite Licenses:** This license is a comprehensive licensing that supports multiple devices for a user, including access to advanced features across all platforms.
- **Active ACD Licenses:** This license enables Automatic Call Distribution (ACD) capabilities, ideal for managing incoming calls in a hospitality setting, enhancing customer service efficiency.
- **External Hotdesking Licenses:** This license supports temporary desk assignments for staff, allowing them to log in and use any available desk phone, suitable for dynamic work environments.
- **Dynamic Extension Licenses:** This license provides users with the ability to access their extensions from any compatible device, promoting mobility and flexibility.
- **Centralized Hospitality Licenses:** This license is designed for managing multiple properties or locations from a centralized system, facilitating consistent service and administration across the hotel chain.

2.9.3 Voice Mail License

The Hospitality Voice Mail PMS license enables the embedded voice mail to connect to a hotel's Property Management System (PMS).

Note:
Embedded Voice Mail PMS is required when using embedded voicemail with hospitality systems that connect to the PMS, regardless of whether Hilton or FIAS is in use..It is also applicable to standard MiVoice Business PMS.

2.10 Migration to Mitel Hospitality

Hoteliers can combine best in class products from a variety of vendors to meet their brand standards. Mitel supports a wide range of property management systems, hotel management applications and in-room devices, both traditional and IP. Customers are not limited to a 100% Mitel solution, so they can add Mitel components and migrate in steps.

Mitel supports many third-party guest room telephones, so the telephones do not have to be replaced when moving to a Mitel solution. Hotels can keep their traditional analog guest room telephones, while benefiting from IP telephony for operations, common area, and meeting rooms. MiVoice Business can support up to 5000 users. It provides call control, embedded voice mail, auto attendant, recorded announcements, music on hold, automatic call distribution, and a property management system interface. Where additional capacity is required, MiVoice Business controllers can be clustered to create a reliable multi-node network with a single point of administration.

MiVoice Business works with any data network, so hotels can deploy MiVoice Business over any vendor's fixed or wireless data infrastructure. Customers can choose analog, digital, or SIP public network access. In many locations, SIP offers a more flexible, cost effective way of connecting to a public network. Hotels can often save money by consolidating public network access.

Hoteliers can move among proprietary hardware, industry standard servers, and virtualized environments. Centralization reduces complexity and simplifies support. MiVoice Business allows hotels to centralize or decentralize without purchasing new licenses or changing system behavior.

2.11 Maintenance and Troubleshooting

As with any MiVoice Business system, you should perform regular backups. For hospitality systems, a backup includes the following additional data:

- Wake-up data
- Room status data (occupancy and condition)
- Call Restriction data (internal, local, long distance, for example)
- Number of calls
- Message Registration data
- Credit Limit
- Message Waiting status

2.11.1 Software Assurance (SWA) and Support

Software Assurance is Mitel's support program for lifecycle management of Mitel Software solutions. It enables organizations to maintain operational excellence of their Mitel software by keeping these assets current, delivers and maintains operation of cloud applications, and enables entitlement to Mitel Technical Support resources to address incidents or technical issues not resolvable by themselves or their authorized Mitel Partner.

For information about the Software Assurance program and policies, please consult the latest Software Assurance Program Guide on https://powerup.mitel.com/concierge/ucm/#/ucm/1675/2370/List/0?Id=4865D805-A8DF-4E67-AB7C-39F6E987C4DA.

2.11.2 Embedded Voice Mail Logs

The Embedded Voice Mail logging functionality has been enhanced and is now included in the system diagnostics file (diag.dat), providing easily readable PMS logs. Additionally, the log file size has been increased from 1MB to 2MB, allowing a greater history of system logs to be stored.

Note:
To get more information about the instructions for downloading the system diagnostics file (diag.dat) to your computer, see the *System Diagnostics Reporting form* in *MiVoice Business System Administration online help*.

The new logs include detailed information about the packets received by Embedded Voice Mail (Rx), the hex dump of the packet, whether the packet validation was successful or failed, and the reply sent by Embedded Voice Mail (Tx).

The following is an example of a "Check-in" operation PMS log captured in Embedded Voice Mail.

```
PMS: Processing Incoming Packet: Msgid=2 : Check In : Mailbox=6666
PMS: Rx {[02][33][36][36][36][36][20][20][20][20][20][20][20][20][03][30]}
PMS: Incoming packet validation successful, sending ACK
PMS: Tx {[06]}
PMS: ACK sent
```

Note:
Use the tail command (tail -f diag.dat) to monitor the system diagnostic file logs for real-time diagnostics.

Appendix A - Resources 3

RESOURCE	LOCATION/LINK
MiVoice Business documentation	https://www.mitel.com/document-center/business-phone-systems/mivoice-business/mivoice-business Available docs include installation, maintenance, troubleshooting, and administration information. Also available here is the MiVoice Business System Administration Tool online help.
Mitel University	For information about Leader-led, Self-study, and Virtual training, refer to http://mitel.ca/services-support/professional-services/training For information about searching for the specific courses you need. log in to Mitel OnLine, and access the Student Guide: http://training.mitel.com/cw/WebSite/Upgrade/Docs/Student%20Quick%20Reference%20Card.pdf

Appendix B - Language Selection 4

The MiVoice Business PMS protocol, the FIAS protocol and Hilton PMS support different languages. One of 15 available languages can be assigned to each guest room phone.

Language selection for a specific guest room can be managed from the attendant consoles (MiVoice Business Console, 5540 MiVoice Business Console), as well as through the PMS interface. When a guest checks in, their language is noted and the phones in the room are changed accordingly. The phone's display prompts and applications can also be changed to display the required language. This is a common requirement for boutique and luxury hotels.

More information about language choices in hospitality applications:

- The guest can configure the phones locally, but these changes will be overridden by the PMS and console interfaces when a new language is selected.
- (For MiVoice Business PMS protocol when EMEM is connected via HIS or Hyatt Encore) Voice mail systems will continue to have their own PMS connection that applies a selected language for a guest.
- Language selection is supported resiliently. When the language of a device is changed, the language selection on the secondary will also be updated.
- SIP devices have their own language settings, and unless otherwise specified, they are not affected by general language changes. One exception is the MiVoice 5505 SIP phone.".

Cruise lines, high-end hotels, and international hotels require more than three active languages. MiVoice Business supports 15 simultaneous languages, depending on set type. The languages are listed in following table. Any phones that do not support these languages default to English.

Table 7: Supported Languages in PMS Protocol

PMS Protocol	Supported Languages
MiVoice Business PMS Protocol	• English • Italian (European) • Portuguese (Brazil) • Swedish • French (Canadian) • French (European) • German (European) • Spanish (European) • Spanish (NA) • Dutch • Portuguese (European) • Romanian • Russian • Polish • Simplified Chinese
Hilton PMS Protocol	• English North America • French • German • Italian • Spanish - Latin America
FIAS PMS Protocol	• English • French • EU Spanish (Europe) • Dutch • Italian • German • Portuguese (Europe) • Portuguese (Brazil) • Russian • Swedish • Polish • Simplified Chinese