MITEL

SOLUTIONS SERIES

HOSPITALITY
MAY 2014

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Hospitality
Release 4.0
May 2014

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CHAPTER 1

INTRODUCTION

Introduction

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.

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

Mitel's Hospitality Solutions

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

- Simple. Guest services are at the heart of Mitel Communications Director. 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 move between "site by site" private and public cloud solutions without having to make a major reinvestment in your communications solution.

Types of Hospitality Designs

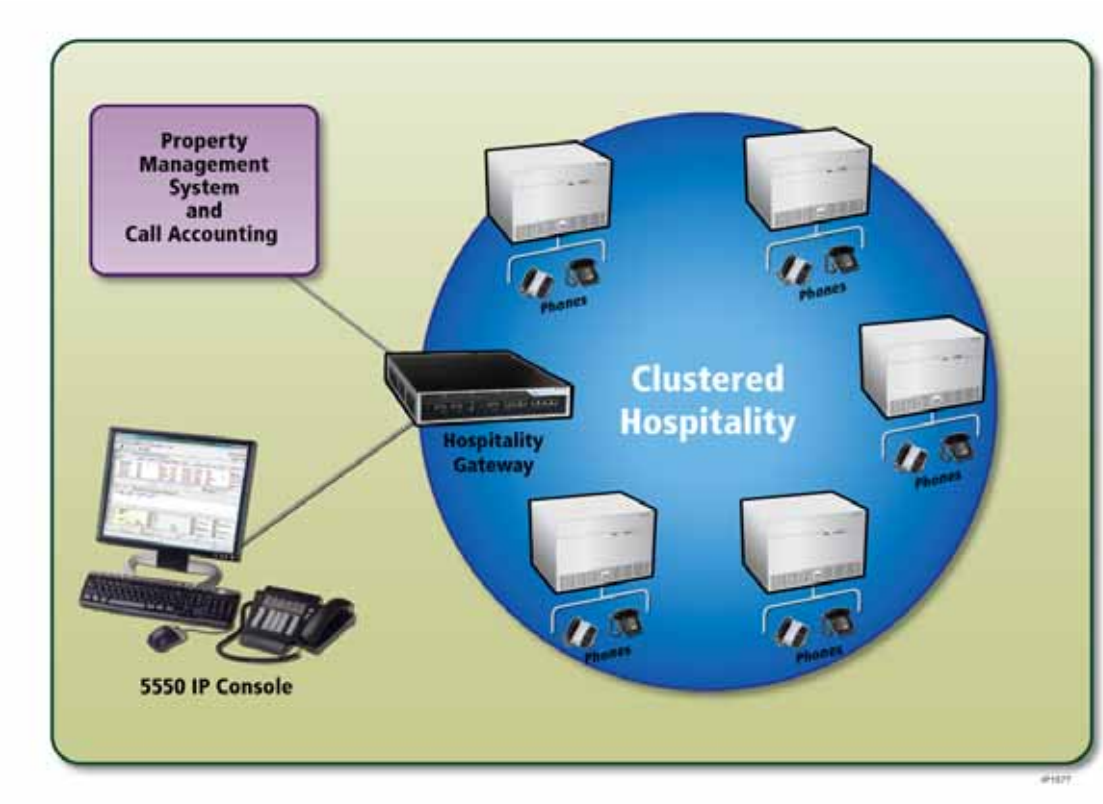
There are three main architectures you can use in setting up a hospitality solution for your business:

- Standalone

  In a Standalone hospitality solution, one Mitel 3300 ICP running MiVoice Business software 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.



- Centralized

  Calls come in through one MiVoice Business (running on ISS) or a Stratus Server, or occasionally, a 3300 ICP (MXe), and are sent to multiple AX controllers. The analog telephones are connected to the AX units. This provides support for large-scale analog operations, while consolidating management to one console. This configuration also provides support for IP phones.

Terms and Acronyms

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

Table 1: Terms and acronyms

Term	Definition
3300 ICP	The 3300 ICP is the proprietary Mitel hardware platform on which MiVoice Business controller software is run. Note that the MiVoice Business software also runs on industry standard servers, and on VMware virtual machines.
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. In MCD 6.0 and subsequent releases, the maximum digit string length for CESIDs is 12. Before MCD 6.0, the CESID contained a maximum of 10 digits
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
GRS (1)	Guest Reservation System: A PMS transaction indicating the system should be ready to receive input of all guest reservations. Also referred to as a General Reset. This document refers to the GRS as an entire cycle of operations to perform a General Reset.
GRS (2)	A General Reset cycle
GSA	Guest Services Application on the 5550 and 5540 IP Consoles (now called MiVoice Business Console)
HD audio	High Definition audio
HRENIS	Hotel Room Extension not in a Suite: A guest room with a single telephone and DN that matches the guest room number.
ICP	IP Communication Platform
ISS	Industry Standard Servers
MAS	Mitel Applications Suite - now called MiCollab
MCD	Mitel Communications Director - now called MiVoice Business
MICD	Multi-Instance Communications Director - now called MiVoice Business Multi-Instance
MCD-ISS	MCD for Industry Standard Servers - now called MiVoice Business for Industry Standard Servers
MiVB	MiVoice Business

Table 1: Terms and acronyms

Term	Definition
MWI	Message Waiting Indication
NP-UM	NuPoint Unified Messaging - now called MiCollab UM
ONS	Single line telephone set. See also POTS.
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 Suite of telephones all ring at the same time when the guest room is dialed. The call can be picked up from any of the extensions in the suite.
SWA	Mitel Software Assurance
UM	Unified Messaging
VIP	Very Important Person
vMCD	Virtual Mitel Communications Director - now called MiVoice Business Virtual

CHAPTER 2

HOSPITALITY SOLUTIONS

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
- MiVoice HTML template for phone customization
- Suite and group suite services
- Voice mail for staff and guests
- Property Management System (PMS)
  - track room changes
  - phone use by guests
  - restaurant charges
  - 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 operator queues and reservation departments.
- 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.

  Starting in MiVoice Business Release 7.0, all platforms offer at least one form of live MOH integration, including support for integrating a live MOH source using a SIP connection.
- General Reset/Get Reservation Status is a PMS function that synchronizes its check-in/check-out data with the MiVoice Business controllers to ensure the data on the two systems matches.

Recent Feature Introductions

As part of the full service strategy, these features are supported by the MiVoice Business Call Control Property Management System (PMS) interface to fully integrate with the hotel's business systems.

Note: The MiVoice Business Call Control PMS link is distinct from the voice mail PMS link.

Note: The Mitel PMS Protocol has been revised to support all the latest MiVoice Business enhancements. Correspondingly, PMS application vendors must support these changes as well.

VIP Status

High-end hotels are required to provide an enhanced level of service, starting with answering a call by greeting the guest by name. Delivering the Caller ID with the guest's VIP Status enables all hotel employees to properly answer the call, along with providing information about the purpose of the guest's stay.

Personalized Wake-up 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.

Language Selection

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 (5550 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.
- 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 language changes first introduced in MCD Release 5.0. One exception is the MiVoice 5505 SIP phone.

More Languages

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 Table 2. Any phones that do not support these languages default to English.

Table 2: Supported languages

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

Maid Identification

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.

The ID code is verified and, if found to be invalid, a reorder tone is returned and an invalid message is displayed. If the ID code is deemed to be valid, a confirmation tone is returned and the Maid ID information is transmitted to the PMS system as part of a new Room Status PMS update. A new Hospitality Option, **Room Status – Maid ID Required**, will force entry of the Maid ID code.

An attendant can also update the Room Status, and the PMS is notified of the new Occupancy/Condition using a PMS notification message. In this case, the Maid ID will be the Attendant DN.

Do Not Disturb (DND) Control over PMS

The MiVoice 5550 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.

Embedded Messaging

Embedded messaging is available on MiVoice Business running on Industry Standard Servers (ISS). 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.

For the benefit of hosted and centralized environments, embedded messaging now supports time zones, so if your set and controller are located in different time zones, your messages are stamped with the local time rather than the controller time. The time zone for the set is defined by the network zone the physical IP set resides in.

Add IP phones to older environments

Mitel StreamLine is now fully qualified for use with MiVoice Office (formerly Mitel 5000 CP) and SX-200 ICP solutions. You can now place IP phones in environments where it was not possible with earlier releases; for example, in older buildings with prohibitive cabling costs, buildings with long cable runs, and temporary locations. You can deploy the IP solution without the need to pull new cables or update the switches.

Wherever network cabling is a problem, StreamLine enables you to offer Mitel display phones to your customers. For more information on the benefits of StreamLine, please refer to Mitel Product Bulletin PA20120267.

StreamLine Power Supply Field Replacement Unit (FRU)

Also new in Mitel StreamLine, a field replacement power supply is now available. This helps to minimize service outages due to power supply failures, because spares can be stocked for quick and easy swap-out.

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.

Hospitality Platforms

Mitel communication 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 Mitel Communications Director software to run on the following platforms:

Mitel IP Communication Platforms (ICP)

The Mitel 3300 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.

The most common hardware platform used in hospitality applications is the 3300 ICP AX.

Mitel 3300 ICP AX

MiVoice Business on Industry Standard Servers (ISS)

The MiVoice Business software runs on industry standard servers (ISS) from HP®, IBM®, and Dell®. 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.

MiVoice Business can also be run on Stratus Servers, which offer complete CPU and I/O redundancy. For more information about installing Stratus Servers, refer to the *Installation and Administration Guide for Industry Standard Servers (ISS)*, available at edocs.mitel.com.

MiVoice Business Virtual

MiVoice Business is available as a Virtual Appliance that runs on VMware® vSphere™, 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 MiVoice Business instances on one hardware server.

To license your MiVoice Business Virtual solution for hospitality, see “MiVoice Business Virtual licensing for Hospitality” on page 34.

MiVoice Business Multi-Instance, Hosted

MiVoice Business Multi-Instance is ideal for the high-density call control required by large businesses and service providers. MiVoice Business Multi-Instance runs multiple MiVoice Business controllers on one industry standard server. Additional MiVoice Business controllers can be provisioned without purchasing additional hardware.

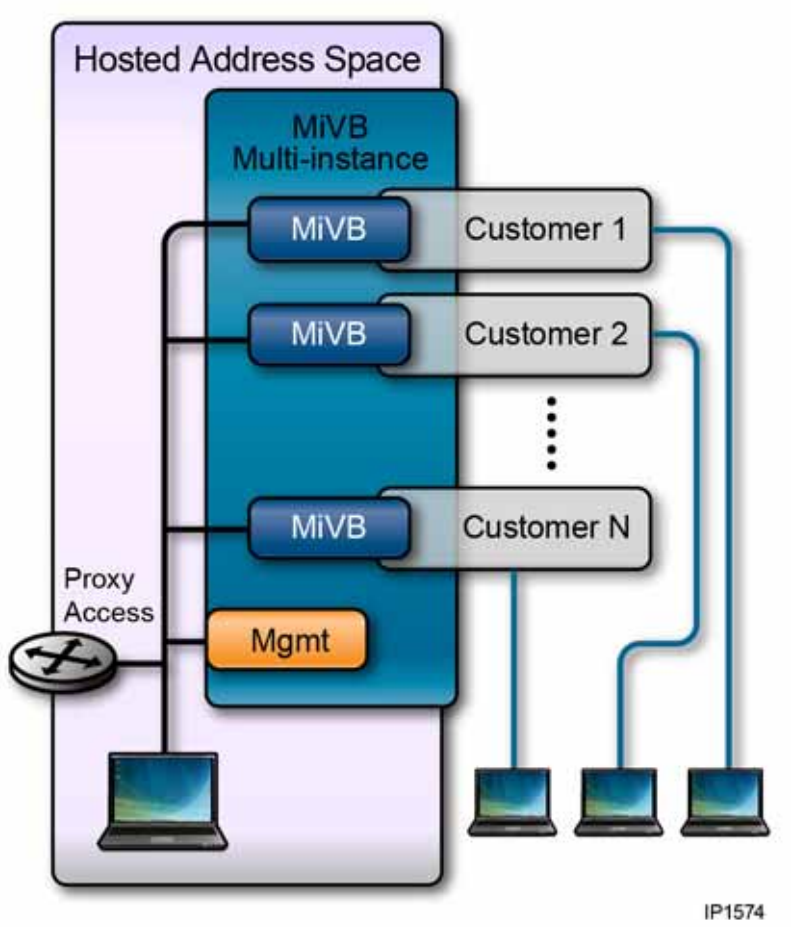


Figure 1: Hospitality on MiVoice Business Multi-Instance

Phones and Consoles

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

Supported Consoles

The following consoles are supported:

- MiVoice 5540 IP Business Console:
  - For use with a local controller. In the new Centralized Hospitality Solution architecture, remote ports are considered local, so the 5540 MiVoice Business Console Guest Services can now be used in large-scale deployments.
  - Small footprint, for an area too small for a PC

- MiVoice 5550 IP Business Console:
  - PC-based enterprise operator solution
  - For use with high volume call handling environments using MiVoice Business

  - Supports many languages:

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

Supported Phones

MiVoice 53xx IP phones

- Some models come with an HTML template so that hotels and motels can customize their phone displays with their logo and custom messages. (5320, 5330, 5340, 5360)
- 5360 IP Phone has a full-color display
- 5304 IP Phone is customized for Cruise Lines

- Supports many languages:

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

MiVoice 5505 Guest IP Phone

- Base: A high quality full-duplex speakerphone, programmable speed dial keys, a large area for custom branding and dialing instructions, a cordless handset locator, and a physical ringer volume switch.
- Cordless Handset: Provides a two line backlit display and a built-in alarm clock. With an operating range of up to 50 meters (150 feet) from the phone base, the 5505 Cordless Handset is ideal as a second phone for a guest room or a suite of rooms.
- The 5505 Guest IP Phone provides DECT to SIP gateway functionality.

5610 RTX

- Supports up to eight cordless handsets and 3 simultaneous calls on one IP DECT stand
- Color display with backlighting and auto-dimming

- Speakerphone-capable

Note: This set is currently recommended for non-guest rooms only because it does not yet have the ability to remove the call history from the set after the guest checks out.

MiVoice Conference Unit/MiVoice Video Unit

- Easy, spontaneous collaboration with four-party HD audio and point-to-point video conferencing
- Simplified meetings and presentations, with large touch screen controls
- Enhanced productivity and innovation
- Includes USB and Micro SD connectors for quickly accessing files and presentations (RDP or Picsel® SmartOffice™)
- Built-in HDMI interface for connection to HD LCD display or projector
- File access using USB Flash Drive, micro SD card, Dropbox™, and Google® Docs
- Built-in compatible Microsoft® Office readers and editors.

Hospitality Architectures

There are several ways to set up and configure hospitality using the 3300 ICP and MiVoice Business software. The best choice depends on the size and the requirements of the business.

Standalone Hospitality

In Standalone configuration, there is only one 3300 ICP controller in the network. This can be an MXe with ASUs or an AX controller, with a Property Management System (PMS), MiVoice Call Accounting, and a console (5540 MiVoice Business Console or 5550 MiVoice Business Console).

You can use the following phones in the standalone configuration with an MXe controller:

- Digital phones (TDM): 4025
- Analog phones: third-party
- MiVoice IP phones: 52xx and 53xx
- MiVoice SIP phones: 5505, 56xx, and Ascom sets
- Third-party SIP phones: refer to the SIP Interoperability list on Mitel OnLine.
- MiVoice Business Consoles: 5550 PC console and 5540 console

Note: Mitel recommends that you verify any large standalone configuration for performance and resource limits using the System Engineering Tool (SET) available on Mitel OnLine.

Networked Standalone Hospitality

A Networked Standalone configuration is created when two or more standalone installations are networked to allow communication between the MiVoice Business controllers. Each controller continues to operate with only its own console and its own PMS.

The Networked Standalone Hospitality configuration requires a Enterprise Base license package. See “Migration to Mitel Hospitality” on page 33.

Clustered Hospitality

Clustered Hospitality provides hotel/motel feature functionality across a MiVoice Business/3300 ICP cluster. A cluster uses a 3300 ICP 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 5550 MiVoice Business Console, and can also host guest room extensions. The graphic shows the Guest Services panel with the 5550 MiVoice Business Console in the background.

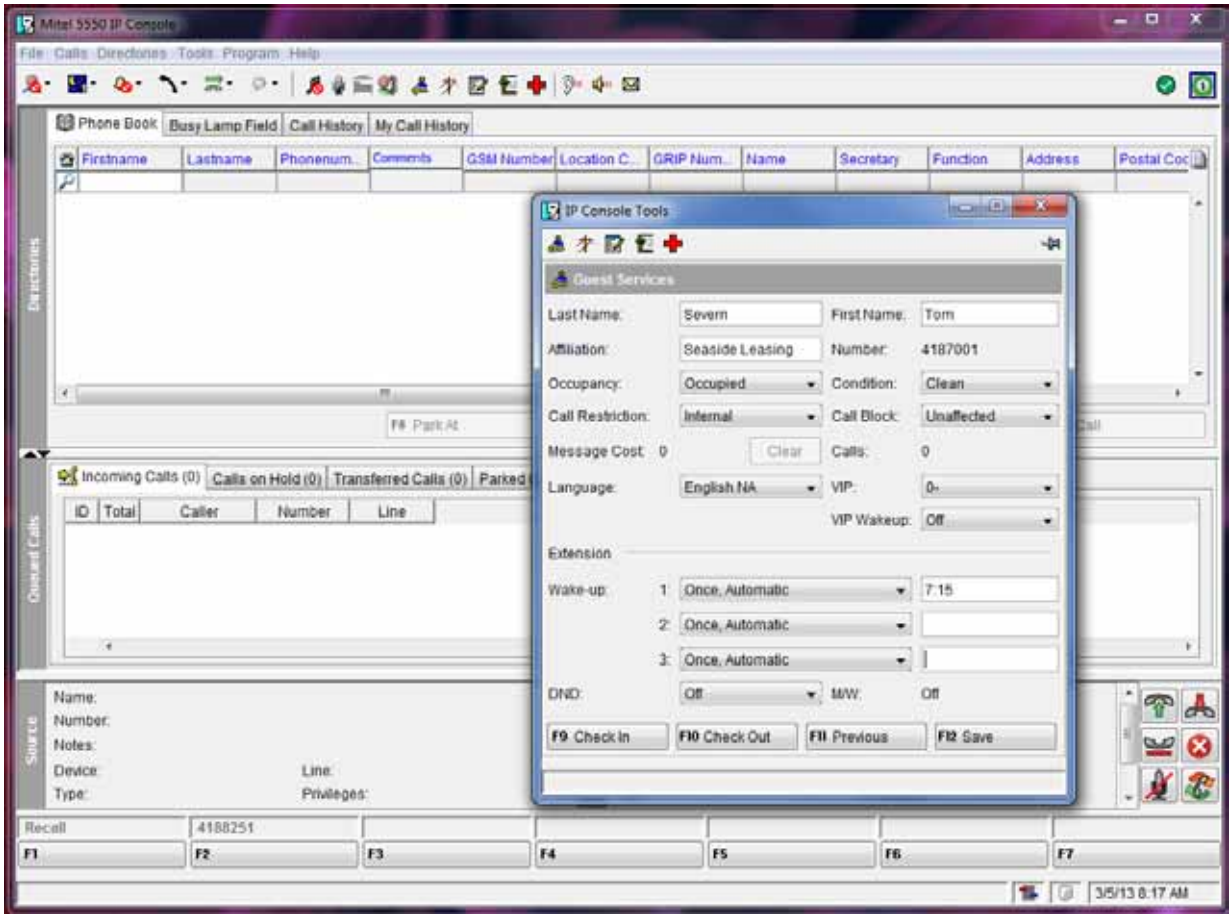


Figure 2: Guest Services panel with MiVoice 5550 Business Console

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 and attendant consoles. The gateway also manages communication with other elements using System Data Synchronization (SDS).
- One or more hospitality controllers are deployed to support guest room telephones. Where traditional analog telephones are used, the 3300 ICP AX would normally be deployed as a hospitality 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 33.
- Resilient hotel room extensions (for IP phones).

Note: The extension numbers in the suite are resilient, but the suite-wide phone number is not. In resilient mode, you cannot dial the suite number, but guests will still have dial tone.

Note: Wake-up calls do not work in resilient mode.

- The 5540 Console works only with one MiVoice Business controller, so it has traditionally been used only for standalone installations. The 5540 Console can also be used in a clustered configuration to keep staff connections separate from guest connections—all the staff phones can be run from one 5540 Console, while all the guest phones can be run from a different 5540 Console, for example. When used in a centralized Hospitality configuration, the 5540 becomes a fully functionality console for all the centralized users.

  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 or distribute across a number of sites.
- A single point of Web-based administration.
- A single Property Management System Interface.
- High availability through distributed processing, trunking, and redundant components.
- Room status and programming for every guest room, accessible from a MiVoice 5550 console.

Engineering basics:

- Mitel 3300 ICP CX, CXi, AX should not be used as the hospitality gateway. Use only the 3300 ICP MXe or MiVoice Business on Industry Standard Server (ISS). You can also use MiVoice Business on ISS if the guest rooms use IP phones.

Note: It is recommended that you use a maximum of two AX controllers in a pure AX cluster, when in a clustered Hospitality configuration. At a low line size, one of the two AX controllers can be used as the PMS Gateway, also called the Hospitality Gateway.

- The hospitality gateway must host the PMS link and attendant consoles.
- The MiVoice 5550 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 on an ISS platform, or 576 analog phones per node using an MXe + ASU II chassis; more in a cluster. See the *MiVoice Business Engineering Guidelines* for details.

Centralized Hospitality

In addition to standalone and clustered hospitality solutions, MiVoice Business accommodates large-scale analog centralized hospitality deployments. This architecture provides scalability and centralization. MiVoice Business can automatically extend calls across a cluster to analog ports on AX nodes.

- One hospitality controller and one or more 3300 ICP AX nodes
- Automatically extend calls across the cluster to analog ports
- Provide connectivity for analog devices

A single IP controller functions as the suite hospitality controller and one or more AX nodes provide connectivity for analog devices. The Suite Hospitality Controller performs processing and management tasks, hosting the Hotel and Motel Features and Reports, PMS and SMDR interfaces, Guest Services Applications (GSA), and attendant consoles.

Note: SMDR for non-centralized devices may need to be collected from the controller where the extension is programmed, or from the trunking gateway controller, if the trunks do not go through the Suite Controller.

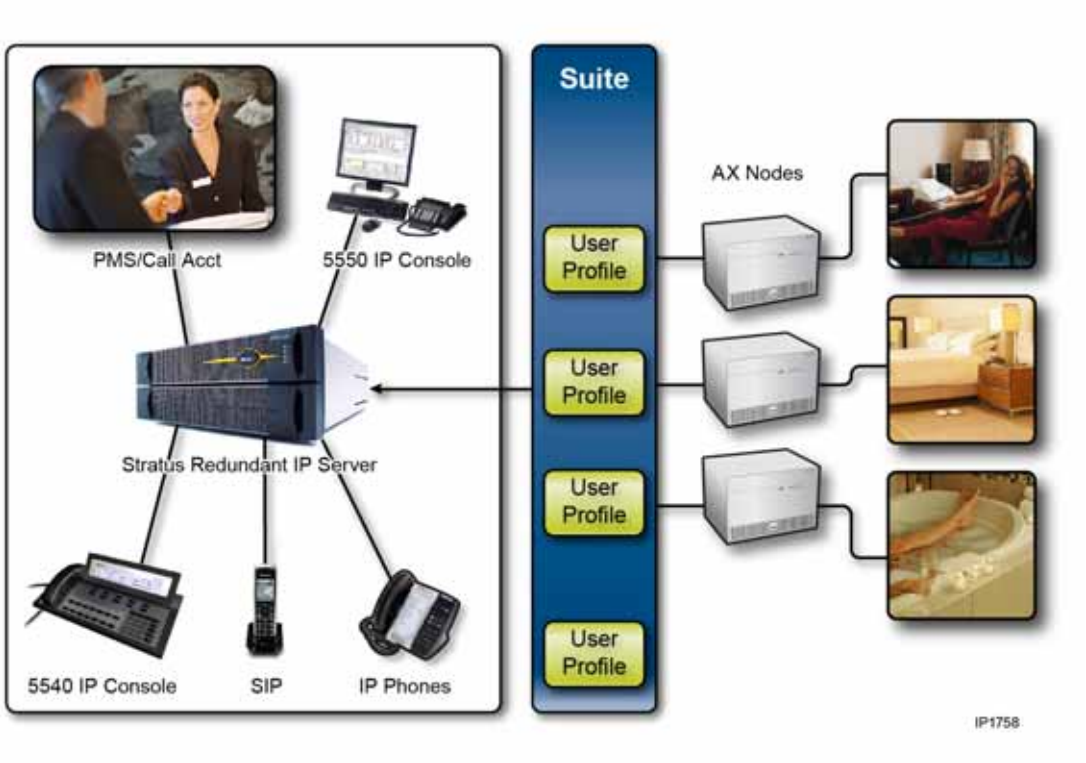


Figure 3: Single standalone hospitality system

All call processing is performed locally. Calls to the suite ring all members, which may be local, or across the cluster. Although the analog ports may be situated on other nodes in the cluster, call processing is managed locally within the suite hospitality controller as a single, standalone hospitality solution.

Suite Services are supported, including wake-up calls and Message Waiting Indicator (MWI) notification. The central Suite Hospitality Controller supports direct connections to Attendant Console Guest Services, PMS and MiVoice Call Accounting Packages, and to IP and SIP phones. The Suite extensions can be on any controller in the centralized cluster.

In this case, since all users are centralized, the 5540 Console can function fully as a hospitality console for all users.

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.

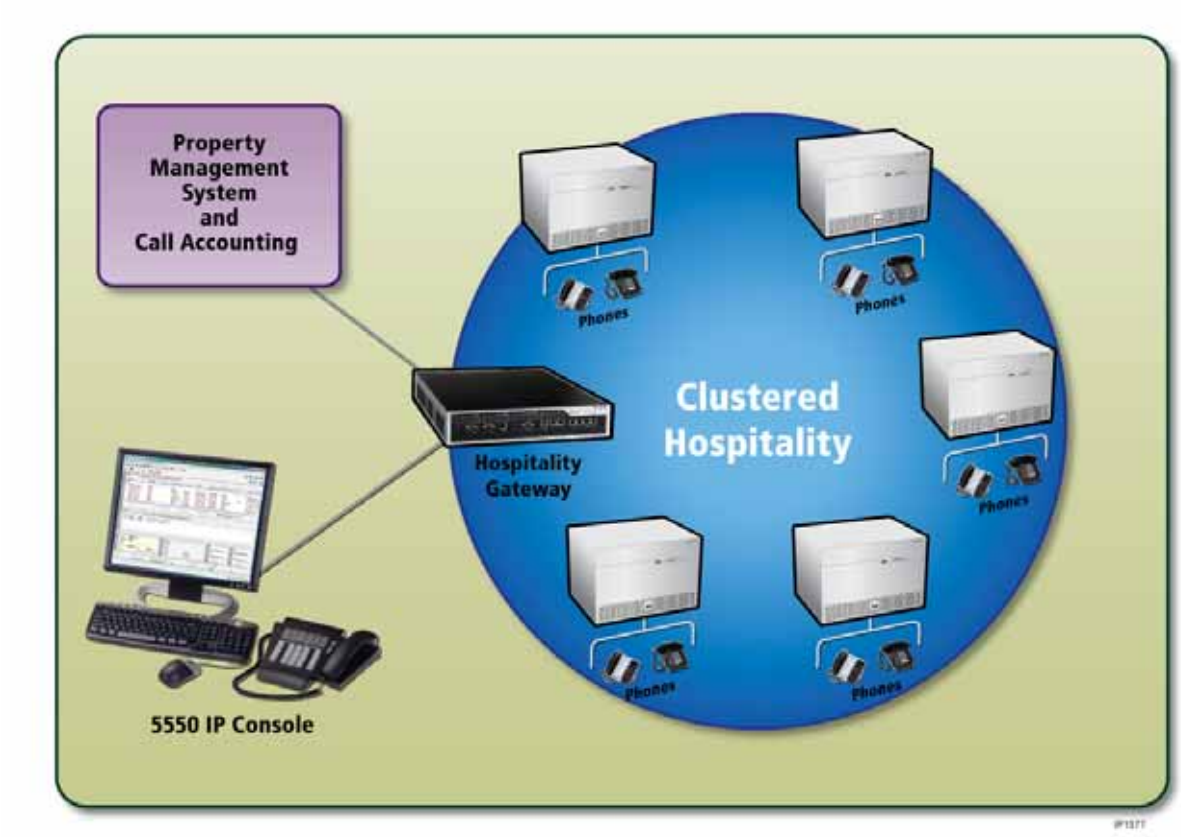


Figure 4: Clustered Hospitality solution

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 and the Stratus Server, which provides redundant CPUs.

In a large analog system using the 5550 console, the hospitality system should be configured in a clustered AX 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 3300 ICP AX phone server goes down, only the phones hosted on the problem ICP are lost. All of the other guests and staff are unaffected.

Redundancy is also an important part of hospitality solutions, and 3300 ICPs are generally purchased with redundant power supplies. Redundant hardware options are generally recommended for those controllers that support RAID 1 for dual hard drives (3300 ICP MXe, for example).

CPU Redundancy - Stratus

MiVoice Business supports the Stratus ftServer 2700 industry standard server from Stratus Technologies. The Stratus servers have a fully redundant hardware architecture in which both

CPUs function in lock-step, enabling MiVoice Business to operate on a CPU redundant hardware IP platform. All key hardware components, such as the CPU, memory, motherboards, I/O, hard discs, are duplicated: processing is uninterrupted in the event of a component malfunction.

Although it appears there are two systems, Stratus ftServer presents users with a single view. You use a single copy of the operating system and a single installation of the MiVoice Business instance.

MiVoice Business controllers on the Stratus server follow the same engineering rules as for MiVoice Business on industry standard servers. Refer to the *MiVoice Business Engineering Guidelines* for details.

Stratus 2700 is supplied directly by Stratus, using the Stratus part number specific to the Mitel configuration. This includes Red Hat Enterprise Linux software version 6.3 and Stratus ftServer, which is included (on CDs) and shipped with every order from the Stratus factory.

Custom Applications

Hotels and motels can provide custom menus and navigation, and unique guest services by creating custom HTML applications on their guest room phones. Custom applications can be created using the HTML Toolkit.

Hospitality HTML Toolkit Applications

The MiVoice 5320, 5330, 5340, and 5360 desktop application phones feature a large graphics display and a built-in HTML player. The Mitel HTML Toolkit provides Application Programming Interfaces (APIs) for developers to build graphical applications for these desktop phones using standard Web authoring tools. This allows hotels to integrate the phones into their business processes, and deliver custom graphical functionality for their guest rooms.

Figure 5: MiVoice HTML Application

The HTML Toolkit also provides notification applications for MiVoice 5304, 5312 and 5324 IP phones.

The following Mitel phone applications are currently available:

- Mitel Intelligent Directory Application: provides access to Active Directory and Outlook contacts on the MiVoice 5320, 5330, 5340 and 5360 IP Phones. It also provides presence information on 5320, 5330, 5340 and 5360 IP Phones for contacts through the Microsoft Office Live Communications Server.
- Mitel Live Content Suite: enables customers to create and publish dynamic and personalized information to users, transforming MiVoice 5320, 5330, 5340 and 5360 IP Phones into media information appliances.

- The HTML Web Application Builder kit provides templates that you can customize by changing the logo and key labels. These templates also allow functions like supporting two lines in a room, and a screen saver to turn off the screen back-light.

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

Property Management System (PMS) Integration

Property Management Systems can interface with the 3300 ICP 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 includes the following:

- The Mitel PMS specification governs call control features that allow hospitality businesses to connect their hotel PMS systems to the call control system through an IP interface or serial interface. This connection allows the PMS to notify call control when a user checks in or checks out.
- The Hyatt Encore Protocol defines how PMS communicates with the voice mail application through an IP interface. It works with both embedded and standalone voice mail. This IP connection allows the PMS to notify voice mail when a user checks in or checks out. Based on this status change, the voice mail system either creates or deletes a mailbox for the guest. A description of the Hyatt Encore Protocol and how it connects with the Mitel 3300 ICP is available here.

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

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.

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 messages 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.

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.

Centralized architecture

The centralized architecture simplifies support of call accounting and call billing applications, as there is just one SMDR stream to collect from. Since all call control is processed on the central Suite Controller, SMDR consolidation is not needed.

Non-centralized architecture

In a non-centralized deployment, if the trunks are not on the suite controller, SMDR may need to be collected from multiple controllers, and the more nodes there are in the cluster, the more SMDR streams there are to be consolidated.

Hospitality Licensing

MiVoice Business Theme Bundles licensing is designed to help you make the most of your Mitel Hospitality Solutions.

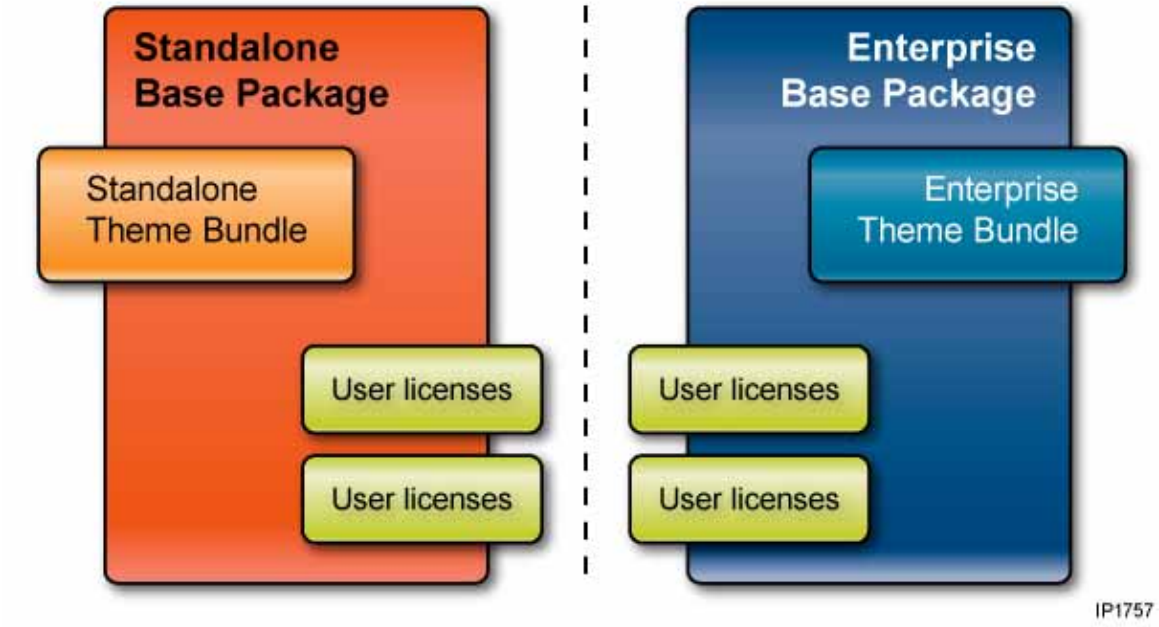


Figure 6: Hospitality licensing

Standalone Base Package vs. Enterprise Base Package:

Use the Standalone Base Package when you are using just one MiVoice Business.

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

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.

An 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 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 AMC. 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” on page 34.

The new Multi-device Suite License can be allocated onto the new Hospitality base packages.

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	New Enterprise Hospitality Base Package for ISS Platform. An AMC Application Record is created on purchase.

Part Number	Description	Notes
54005777	3300 ICP Enterprise Hospitality Base	New Enterprise Hospitality Base Package for ICP Platform. An AMC Application Record is created on purchase.
54005780	3300 ICP Standalone Hospitality Base	New Standalone Hospitality Base Package for ICP Platform. An AMC Application Record is created on purchase.

Table 5: Small Hospitality Base Packages

Part Number	Description	Notes
54006033	MiVoice Small Hospitality SW Bundle	Contains software licenses needed for a 100 room property (analog). It is simple to order and comes with licenses already included. With a single part number, you get all the software licenses you need to provision a MiVoice Business hardware platform

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.
54005781	MiVoice Business Standalone Analog Theme Bundle	Bundle of (100x) 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.

Part Number	Description	Notes
54005782	MiVoice Business Standalone Suite Theme Bundle	Bundle of (50x) 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 7: Hospitality User Licenses

Part Number	Description	
54005764	MiVoice Business Standard Hospitality User License	Used to license an IP extension for Hospitality Standalone configurations. It can be applied only to new Standalone Hospitality Base Packages, and cannot be applied to the new Hospitality Application Group.
54005765	MiVoice Business 3300 Hospitality Enterprise User License - Suite	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 ISS Centralized Hospitality User License - Suite	Used to license a remote analog extension in Centralized Hospitality configurations. It can be applied only to new Enterprise Hospitality Base Packages, or to the new Hospitality Application Group.

Phone Licenses

Analog phones that are connected to the ASU II or the AX 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, 24 port ASU, or Universal ASU do not require an ONS license.

Voice Mail License

The Hospitality Voice Mail license enables the embedded voice mail to connect to a hotel's Property Management System (PMS). MiCollab UM (formerly NuPoint UM) is licensed per-port.

Note: Embedded voice mail is not supported in the Clustered Hospitality architecture.

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. The 3300 ICP with ASUs uses MiVoice Business to support up to 576 analog telephones in a hospitality environment. 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.

Existing Mitel customers can progressively migrate to MiVoice Business. For example, a customer can replace their SX-2000 main control cabinet with a Mitel 3300 ICP running MiVoice Business. All peripheral cabinets, line cards, and telephones can be retained.

MiVoice Business Virtual licensing for Hospitality

To license MiVoice Business Virtual (formerly vMCD) for Hospitality, you purchase the standard MiVoice Business Virtual licenses, and then apply the MiVoice Base to MiVoice Hospitality Base Uplift license (free to qualified Hospitality customers). See Table 3, "Uplift to Hospitality Base Packages," on page 31 for more information.

Table 8: 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 AMC. This part can be ordered, under Mitel order approval, at no charge (see 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.

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

For the AX controller, you cannot include voice mail messages in a system backup.

Note: Embedded voice mail is supported for an AX Controller that is configured with a 4 GB flash. It is not supported for an AX controller that is configured with a 512 MB flash. If you use embedded voice mail on an AX controller that only has 512 MB flash and then initiate a back up of the system database, the backup may fail because there is not enough space available.

Note: The AX media kit ships with 2 GB main flash memory, and 4 GB of voice mail flash memory, as standard.
Messages must be deleted to reduce the voice mail file size to 4 GB or less before attempting a backup.

Software Assurance (SWA) and Support

The Mitel Software Assurance and Support program provides access to software updates and releases, new functionality, and technical support resources. This helps customers maintain operation and availability of their Mitel Communications solution, implement new services and functionality as it comes available, and manage the life-cycle of their communications investment. Partners can strengthen their service excellence and support provided to their customers, and increase their service revenues. As a best practice, vendor support programs are generally included within the partner's maintenance and support agreements offered to their customers.

With the consolidation of all the MiVoice Business systems into a single Application Group for Enterprise Licensing solutions, starting in MCD Release 5.0, Software Assurance is purchased or renewed for the entire group rather than on a per-node basis. This ensures that customers who choose distributed networks are not penalized with the per-user graduated pricing of SWA, and solutions with many distributed users can take advantage of the per-user pricing advantages of larger solutions.

The SWA expiry date on the Application Group will initially be set to 90 days after the Application Group is created in the AMC.

As the Application Group is created and the individual systems are added to the Application Group, ALL of the Software Assurance expiry dates MUST be consolidated before the Group is created, OR the individual Application Record must have ZERO extra licenses added to the record. If the individual Application Record does not have any additional licenses on it, then it can be added to the Application group and the SWA expiry date automatically changes to match that of the Application group.

If the SWA expiry dates are within 30 days of each other, the Solution Provider AMC Administrator will be asked if they wish to complete the move of the Application record into the Application Group. By agreeing to this change, the SWA expiry date of the individual system will change to match that of the Application group.

For new solutions using Enterprise Licensing, it is recommended that all additional licenses be added to the Application Group, and not to individual Application Records. When individual Application Records are moved into the Group, all the licenses are moved anyway, but leaving those Application records empty simplifies the creation of the Application Group, as you do not need to change the SWA expiry dates.

Both Standard (8X5 business hours access to technical support) and Premium (24x7 technical support access) levels of the program are available.

Both new solution sales with Software Assurance, as well as Software Assurance renewals, are supported.

Ninety (90) days of Software Assurance is included along with the ninety (90) day warranty on new purchases of MiVoice Business Hospitality packages. If Premium Software Assurance is ordered with the new product sale, Premium service is also enabled for the warranty period.

Software Assurance subscription terms of up to five (5) years are available, and a fifteen percent (15%) multi-year discount applies to subscriptions of three (3) years or more, applied on AMC-generated quotes or orders.

Enrollment of existing base systems/customers that have previously expired or never subscribed into the Mitel Software Assurance and Support program is available and encouraged. Please contact the Mitel Software Assurance Renewals Team for assistance.

Resources

For more information about Hospitality solutions, and MiVoice Business details, refer to the resources on Mitel OnLine. Note that you must log in to Mitel OnLine to search the documentation and training, and to register for training.

Resource	Location/link
MiVoice Business documentation	Mitel Edocs: http://edocs.mitel.com/default.htm 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

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