



CCI Hosted Hospitality PBX Solution

CCI's Hosted Hospitality PBX provides the following value to its customers:

1. **Reduces Capital Expenses**
2. **No maintenance costs**
3. **Ease of use, no moves add change or deletes**
4. **24x7x365 Call quality monitoring, and equipment monitoring,**
5. **Dependable Service Provider with best in class Service Level Agreement**
6. **Front desk phones provided with 80 Features**
7. **Meets Brand Standards**
8. **Fully Redundant 99.999% uptime reliability (See attached Service Level Agreement)**
9. **Disaster Recovery, Failover to Verizon 4G**
10. **Carrier Grade Solution, (end to end)**
11. **Fully Managed Solution (Turn Key). 21 Days, start to finish**

CCI Hosted Hospitality PBX Overview

In the United States, there are over 51,000 properties with 15 guest rooms or more. Those properties house over 4.8 million guest rooms throughout the United States with an average occupancy rate of 60%. One of the major cost components associated with running and managing the hotel property is the hotel PBX. While a vast majority of guests utilize their personal wireless devices for their communications outside the hotel, the guest room phone continues to provide guests important services:

- (1) Guest phones remain an important service allowing guests access to services to include communication with hotel staff, other guests and parties outside the hotel property.
- (2) Life Safety Support. The phone continues to provide guests with reliable access to emergency services. (Including basic E911 alerting to hotel staff).
- (3) The phone services support the guest relationship. Guest voice service provisioning and personalization for all phones.
- (4) A Personalized Guest Experience. Hotels change the services and information available on the phone endpoints based on the presence and nature of the guest in the room. Some of these include providing VIP's Direct Inward Dialing telephone numbers during their stay, keeping their voice mails archived for up to 14 days if necessary, streaming the guest's name on the phone if a display phone is present, etc.
- (5) Personal Guest Messaging and Alerting – this includes scheduling, execution and monitoring of guest wake-up calls and visual notification of unheard voice messages (Message Lamp).
- (6) Hotel Staff Messaging and Alerting – through the use of control codes, keyed in at guest room endpoints, the hotel staff can automatically update the PMS regarding room status changes from maid activity, maintenance alerts and billing for consumables replenishments (the mini-bar).
- (7) Guest Voice Monetization – any guest traffic that is chargeable is captured in real-time, rated and posted guest room folio.

How JAZZ Fusion Works with Your PMS

SDD's JAZZ Fusion is an approved or required standard for many, if not most, of the global hospitality industry's leading brand names. JAZZ Fusion is today integrated with the hospitality industry's major commercial and proprietary hotel management systems. SDD maintains direct relationships with hotel

technology departments and industry technology providers to insure rapid ongoing adaptation to changes in systems and technology across the industry.

During the setup process, CCI works with your hotel management and IT staff to activate all of the required features and hotel pricing into the JAZZ Fusion portal to ensure charge accuracy to the guest folio.

A. CCI Hosted Hospitality PBX Features

- ✓ Restrict Guest Room Phone Service Based on Guest Arrival, Departure and Payment Methods
- ✓ Provide Wakeup Call Services to Guests
- ✓ Price and Post Guest Room Mini Bar Charges
- ✓ ANotify a Guest about Messages using Room Message Light
- ✓ Provision Private Telephone Numbers for Guests with direct inward dialing capabilities
- ✓ Set Do Not Disturb on Guest Room Extensions
- ✓ Notify the Front Desk of Guest Room Condition (Room Status)
- ✓ Set Guest Room Phone Name Display
- ✓ Voice Mail services
- ✓ Manage and Archive Guest Voice Mail Messages
- ✓ Set Services to Guest's Native Language
- ✓ Provide Estimated Call Charges to the Guest
- ✓ Post Phone Call Charges to the Guest Folio
- ✓ Transfer Guest Service Configurations to Support Guest Room Extensions

B. CCI Administrative User Voice Services

- ✓ BroadWorks User Licenses – Each telephone user will require a user license bundle that includes a group of calling features and, depending on the user license, a number of included features described in CCI Feature List.
- ✓ BroadWorks Group Features – these may include Auto Attendants, Music on Hold, Trunk Groups, Hunt Groups, Series Completion, and others defined in the CCI Feature List.
- ✓ International calls will be rated and billed to the customer on a monthly basis in arrears.
- ✓ International rates vary based on destination and type of phone line called and end user's of CUSTOMER may or may not be allowed to make such calls without contacting customer service prior to initiating such calls.

Proposed Network Configuration

The proposed configuration requires that CCI installs a new OneAccess 1540 router as the edge device on the current customer network to utilize for the newly installed IP phones. CCI will assign a gateway IP address to the inside interface of the edge router for all other public devices to access in bridge mode. The switch ports in which IP phones are connected to will be configured to allow voice VLAN 100. These switches will identify and pass the voice traffic with priority to the edge router and into the Layer 3 network cloud to be routed to the CCI Broadsoft instances.

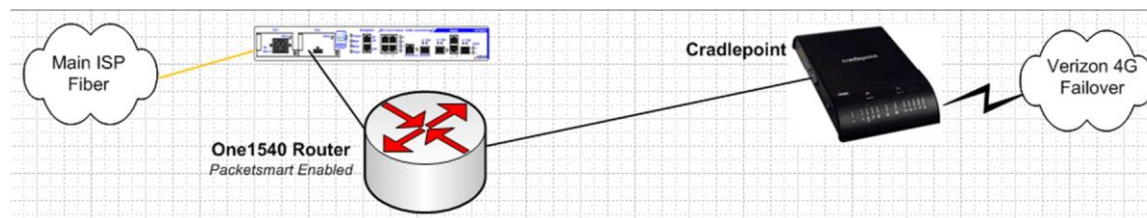
On the routers, we will be configuring a default route to the current ISP gateway device and creating a priority queue for voice traffic. Firewall rules will be put in place to allow CCI remote monitoring and maintenance capabilities. Any public IP's on existing devices will remain the same and will pass through CCI's edge 1540 router. The 1540 will act as a bridge between customer public devices and the ISP gateway.

New VLANs will be added to the customer switches for this new design. A Class of Service will be identified and configured on the switch to pass voice traffic through with the highest priority. These changes are further discussed in the sections below:

Wide Area Network Configuration

Using the existing ISP to provide internet and other services to guests at the location. This connection will be used for voice. A Verizon Wireless 4G connection will be added for backup if the main fiber connection were to fail. A graphical depiction of this WAN is below:

Wan Diagram

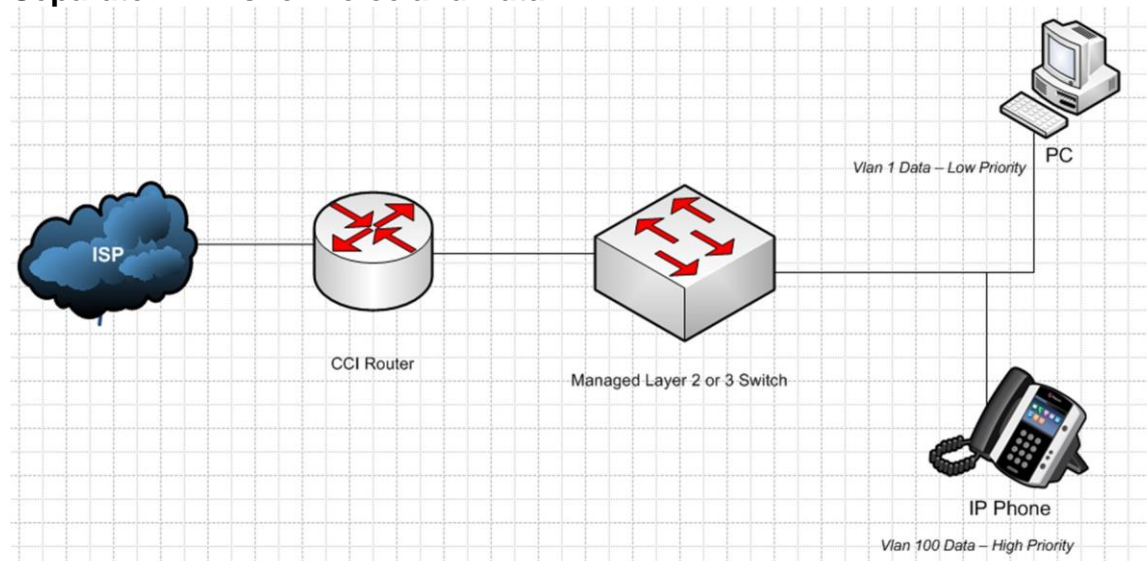


Local Area Network Configuration

In a hosted solution, the voice traffic will be traversing the local area network of the customer location. Thus, we will need to ensure that the Local Area Network (LAN) at each location is properly configured to provide QoS and prioritize the voice packets across the network to ensure high quality voice.

There are various acceptable methods of providing QoS on a LAN. The following diagram and explanations are recommended by CCI:

Separate VLANs for Voice and Data



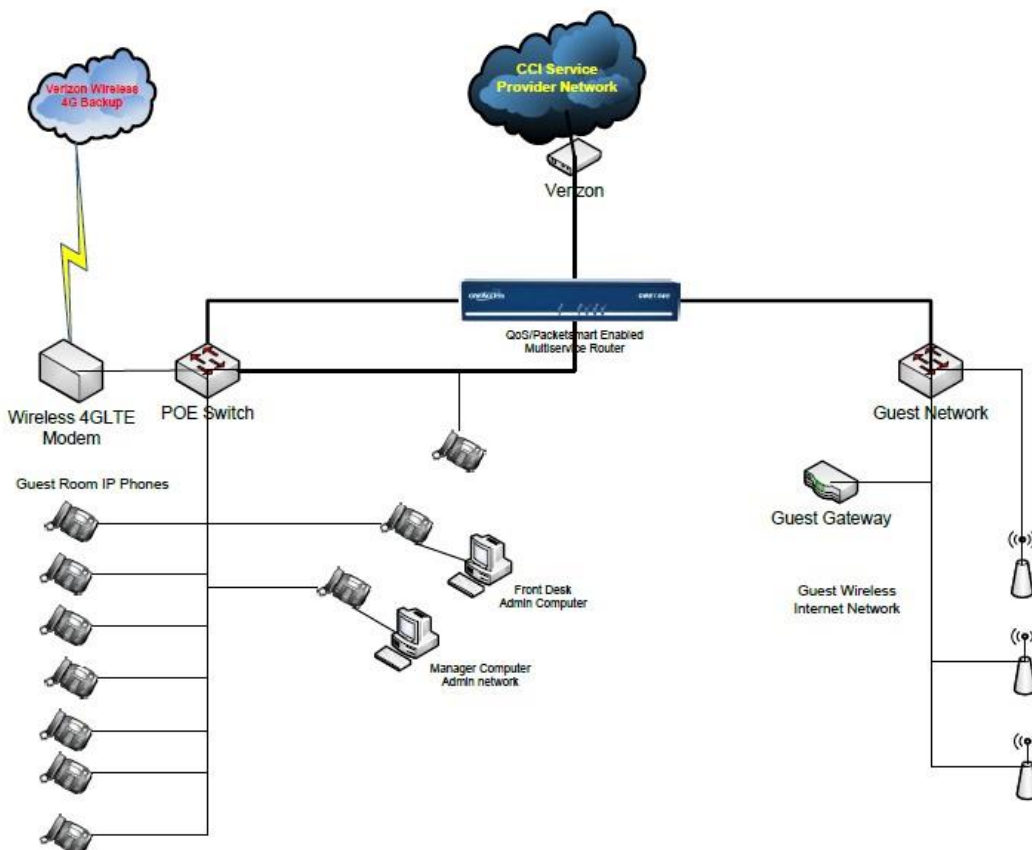
Customer understands that QoS must be implemented on the LAN for quality voice to be provided to the customer. CCI will configure QoS on any switch in line with voice and the edge router provided by CCI. A new VLAN will be created on the network (Vlan 100) in which voice traffic will use exclusively. All IP phones and any other voice device must have its own drop for direct connection to an access vlan 100 switchport.

Customer will provide CCI with fully managed Layer 2 switches with 802.1p and DiffServ Class of Service (CoS) capabilities. Customer will need to ensure that enough PoE ports are available before implementation to include all guest room and admin/front desk IP phones. Customer will provide CCI with login credentials to all switches in which voice will traverse.

Network Diagram

The following diagram is a representation of what the end network should look like:

Proposed Network Diagram:



Implementation Process

Phase 1: Dial Tone Implementation

CCI will have the OneAccess 1540 router configured in Iron Mountain and then installed onsite by a CCI technician. The PoE switches which are currently in production at the site will be configured onsite by CCI. CCI will also configure the IP phones ahead of time after the Broadsoft account has been fully configured by CCI. CCI will deploy all admin Polycom IP phones while onsite. CCI will provide customer with labeled guest room phone boxes that are preconfigured for deployment by the customer. Customer will also be responsible for installing faceplates in guest room phones. CCI will add speed dials as needed to Admin/Front Desk phones while onsite. If any hotlines or other special dialing needs are needed, these will also be configured onsite by a CCI technician. Once the site is up and both phone service and guest internet access is in operation and tested, this phase of the project will be considered complete.

Phase 2: JAZZ Implementation

Planning

CCI will interface with the hotel Property Management System (PMS) to allow the guest room phones to be restricted and unrestricted based on guest arrival, departure, and payment method. Furthermore, CCI will

provide wakeup call services to guests, price and post guest room mini bar charges, notify a guest about messages using room message light, provide and manage guest voice mail messages, set services to guest native languages, provide estimated call charges to the guest, post phone call charges to the guest folio, and transfer guest service configurations to support a guest room changes. The customer will be required to provide PMS and guest network support contact information, PMS model, version number, IP address and remote port type, Call type (local, long distance, international) PMS code, and general bill plan options for call types for guests. CCI will provide an install spreadsheet that is required to be filled out and returned by the customer 3 weeks prior to scheduled implementation. CCI will assist the customer with filling out the required information.

Testing

Once implementation is complete the customer will be required to complete the provided test plan document that will walk the customer through verifying that all features are correctly communicating with the PMS. The customer will document their results and provide the completed document back to CCI. It is the customer's responsibility to be available for maintenance testing going forward.

Phase 3: Training

Admin / Front Desk Phone Training

A CCI technician will train customer staff on basic phone usage in onsite sessions to be scheduled with customer before implementation. These training sessions will take place during the installation phase while CCI technicians are onsite. This training session will include how to use Admin / Front Desk phones with calling features such as, Transfer, Hold, Voicemail, etc. An additional training session will be available to any customer staff that wish to use the Broadworks Receptionist Console software. This training will also be done by CCI onsite during installation. CCI will provide user guides to all phones ahead of the actual installation for customer to review.

JAZZ Training

Prior to the installation, CCI will provide prerecorded video training and provide a JAZZ Guest Broadsoft Portal Quick Reference manual.

After the property's JAZZ installation, CCI will provide remote training, via web and telephone to the hotel staff. This training will cover the following:

- Accessing the Portal
- JAZZ URL
- Username and Password
- Selecting a Property
- Reservation Mode
- Current Status
- Emergency Features (Only use if PMS is down)
- Check In
- Check Out
- Share Room (Not Applicable)
- Room Status
- Room Move
- Discuss Choice Advantage Group Check In Issue
- Locating a Guest or Room (Filtering, Sorting, Searching)
- History
- Locating a Guest or Room (Filtering, Sorting, Searching)
- Searching through wakeup history of a guest that has checked out
- Archival and Retrieval of voicemails for a guest that has checked out
- Guest Details
- Changing Current Service Settings for a Guest

- Room Status
- Do Not Disturb
- Phone Restriction (Class of Service)
- Creating a Text Message
- Estimating a Call Charge
- Creating/Canceling a Wakeup Call
- Setting Wakeup Calls at the Guest Level
- Wakeup Status Descriptions
- Scheduled
- Cancelled
- Failed
- Snoozed
- Answered
- Auto Cancelled
- Viewing Wakeup History
- Viewing Charge Details
- Wakeup Mode
- Viewing Latest Wakeup Information
- Setting /Canceling Wakeups for Multiple Rooms Simultaneously
- Wakeup Parameters (Admin)
- Number of Times to Attempt Calling a Guest that Does Not Answer
- Number of Minutes Between Call Attempts
- Number of Minutes for a Snooze
- Email Addresses to Receive Alerts
- Number of Minutes Before an Auto Cancellation
- Wakeup Report
- Date Selection
- Locating a Guest or Room (Filtering, Sorting, Searching)
- Exporting the Wakeup Report
- Wakeup Alert Emails
- Failed Wakeup Call Alert
- No Web Response for Wakeup Call Alert
- Auto Cancelled Wakeup Call Alert

Contact Information

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[Read more about the PBX solution](#)