



Avaya Solution & Interoperability Test Lab

Application Notes for Broadsoft Jazz Edge ESB with Avaya Aura® Communication Manager – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Broadsoft Jazz Edge ESB to interoperate with Avaya Aura® Communication Manager. Broadsoft Jazz Edge ESB is a hospitality solution.

In the compliance testing, Broadsoft Jazz Edge ESB used the Property Management System interface from Avaya Aura® Communication Manager to support hospitality operations.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the configuration steps required for Broadsoft Jazz Edge ESB to interoperate with Avaya Aura® Communication Manager. Jazz Edge ESB is a hospitality solution.

In the compliance testing, Jazz Edge ESB used the Property Management System (PMS) interface from Communication Manager to support hospitality operations including check-in, check-out, housekeeper status, message waiting, controlled restrictions, room change, and guest information change.

Jazz Edge ESB is installed onsite at the customer hotel premise, and interfaces with a local PMS device on the one end that can initiate hospitality operations, and with Communication Manager on the other end using the Avaya PMS interface. In customer deployments, Jazz Edge ESB can also connect via HTTPS to the Jazz Hosting center on the cloud for hosted call accounting purposes.

The compliance testing focused on the PMS integration between Jazz Edge ESB and Communication Manager, and as such did not include a connection from the local Jazz Edge ESB to the Jazz Hosting center on the cloud. In addition, the User Portal tool from the Jazz Edge ESB web interface was used to initiate hospitality operations from Jazz Edge ESB. The User Portal can be used by hotel staff in the event that the actual PMS device is down.

2. General Test Approach and Test Results

The feature test cases were performed manually. The User Portal from the Jazz Edge ESB web interface was used to initiate hospitality operations from Jazz Edge ESB, such as check-in and check-out. The staff and guest telephones were used to initiate hospitality operations from Communication Manager, such as housekeeping status and controlled restriction change.

The serviceability test cases were performed manually, and included disruptions to the PMS connectivity such as disconnect/reconnect of Ethernet, both with and without hospitality activities during the outage.

The verification of tests included checking of guest station status on Communication Manager for activities initiated by Jazz Edge ESB, and checking the Jazz Edge ESB log for activities initiated by Communication Manager.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying proper handling of PMS operations by Jazz Edge ESB, including check-in, check-out, controlled restrictions, message waiting, housekeeper status, room change, guest information change, status inquiry and failure management.

The serviceability testing focused on verifying the ability of Jazz Edge ESB to recover from adverse conditions, such as disconnect/reconnect of Ethernet connection and busyout/release of PMS link.

2.2. Test Results

All test cases were executed. The following were observations on Jazz Edge ESB from the compliance testing.

- The User Portal does not support reflection of PMS activities initiated from Communication Manager such as housekeeping status, therefore the verification of such activities were verified by examining the Jazz Edge ESB log.
- The User Portal performs fixed bundling of requests for PMS activities initiated by Jazz Edge ESB, such as a guest name change from the User Portal interface resulted in guest information, controlled restrictions, and message waiting requests being sent to Communication Manager.
- Jazz Edge ESB does not auto initiate database swaps. Upon recovery from a PMS link outage and requested by Communication Manager to initiate database resync, Jazz Edge ESB logs the request. The hotel support personnel can be informed of the outage by the Jazz Hosting center and can check the Jazz Edge ESB log, or check the optional PMS Log printer and/or “list pms-down” command result on Communication Manager, to determine whether a manual database swap needs to be initiated.

2.3. Support

Technical support on Jazz Edge ESB can be obtained through the following:

- **Phone:** (319) 363-5554
- **Email:** software.support@jazz-fusion.net

3. Reference Configuration

Jazz Edge ESB can support the PMS interface to Communication Manager over a TCP connection or a RS232 serial connection via a Terminal Server. The compliance testing used the TCP connection method, as shown in **Figure 1**.

The table below shows the staff and guest station extensions used in the compliance testing.

Device Type	Extension
Staff Station	65000
Guest Station	65001, 65002, 65009, 66002

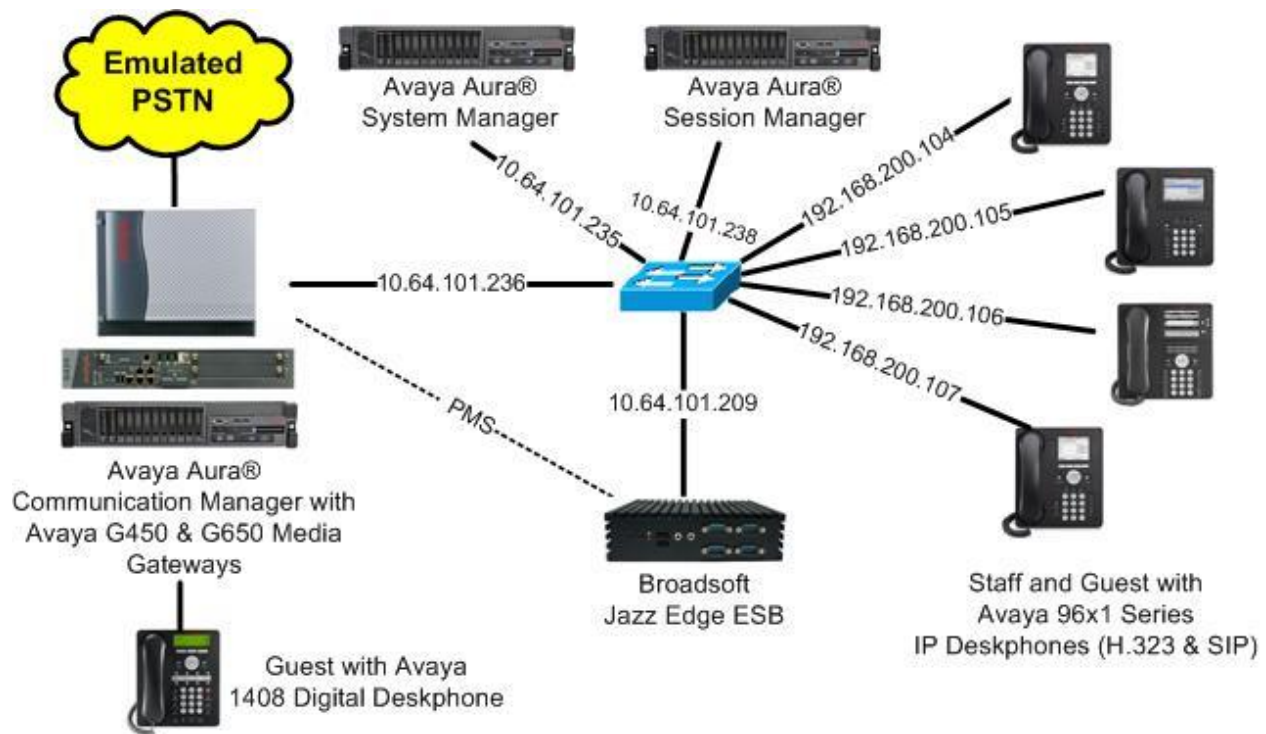


Figure 1: Compliance Testing Configuration

4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment/Software	Release/Version
Avaya Aura® Communication Manager in Virtual Environment	7.0.1.1 (7.0.1.1.0.441.23169)
Avaya G650 Media Gateway	NA
Avaya G430 Media Gateway	37.39.0
Avaya Aura® Media Server in Virtual Environment	7.7.0.359
Avaya Aura® Session Manager in Virtual Environment	7.0 .1.1 (7.0.1.1.701114)
Avaya Aura® System Manager in Virtual Environment	7.0 .1.1 (7.0.1.1.065378)
Avaya 9620C IP Deskphone (H.323)	3.270B
Avaya 9611G & 9641G IP Deskphone (H.323)	6.6302
Avaya 9621G IP Deskphone (SIP)	7.0.1.2.9
Broadsoft Jazz Edge ESB on Lubuntu <ul style="list-style-type: none">• webUI	14.3.2 14.05 9.5.1

5. Configure Avaya Aura® Communication Manager

This section provides the procedures for configuring Communication Manager. The procedures include the following areas:

- Verify license
- Administer IP node names
- Administer IP services
- Administer system parameters hospitality
- Administer feature access codes
- Administer class of service
- Administer guest stations

5.1. Verify License

Log in to the System Access Terminal to verify that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the “display system-parameters customer-options” command to verify that the **Hospitality (Basic)** and **Hospitality (G3V3 Enhancements)** customer option are set to “y” on **Page 5**. If the options are not set to “y”, then contact the Avaya sales team or business partner for a proper license file.

```
display system-parameters customer-options                                Page 5 of 12
                                OPTIONAL FEATURES

Emergency Access to Attendant? y                                IP Stations? y
  Enable 'dadmin' Login? y
  Enhanced Conferencing? y                                ISDN Feature Plus? n
    Enhanced EC500? y                                ISDN/SIP Network Call Redirection? y
Enterprise Survivable Server? n                                ISDN-BRI Trunks? y
  Enterprise Wide Licensing? n                                ISDN-PRI? y
    ESS Administration? y                                Local Survivable Processor? n
    Extended Cvg/Fwd Admin? y                                Malicious Call Trace? y
    External Device Alarm Admin? y                                Media Encryption Over IP? y
Five Port Networks Max Per MCC? n                                Mode Code for Centralized Voice Mail? n
  Flexible Billing? n
Forced Entry of Account Codes? y                                Multifrequency Signaling? y
  Global Call Classification? y                                Multimedia Call Handling (Basic)? y
    Hospitality (Basic)? y                                Multimedia Call Handling (Enhanced)? y
Hospitality (G3V3 Enhancements)? y                                Multimedia IP SIP Trunking? y
      IP Trunks? y

IP Attendant Consoles? y
(NOTE: You must logoff & login to effect the permission changes.)
```

5.2. Administer IP Node Names

Use the “change node-names ip” command, and add an entry for Jazz Edge ESB. In this case, “Edge” and “192.168.200.160” are entered as **Name** and **IP Address**. The actual node name and IP address may vary.

Note the **Name** of the processor or an existing C-LAN circuit pack that will be used for connectivity to Jazz Edge ESB, in this case “procr”.

change node-names ip		Page 1 of 2
IP NODE NAMES		
Name	IP Address	
G430	192.168.200.43	
aes7	10.64.101.239	
clan	10.64.125.32	
default	0.0.0.0	
gateway	10.64.125.1	
medpro	10.64.125.33	
ms7	10.64.101.233	
procr	10.64.101.236	
procr6	::	
sm7-sig	10.64.101.238	
Edge	192.168.200.160	

5.3. Administer IP Services

Use the “change ip-services” command to add an entry for PMS connectivity to Jazz Edge ESB. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Service Type:** “PMS”
- **Local Code:** Node name of the processor or C-LAN circuit pack from **Section 5.2**.
- **Local Port:** “0”
- **Remote Node:** Node name of Jazz Edge ESB from **Section 5.2**.
- **Remote Port:** An available port in the range of 5000-64500, in this case “5005”.

change ip-services					Page	1 of	3
IP SERVICES							
Service Type	Enabled	Local Node	Local Port	Remote Node	Remote Port		
AESVCS	y	procr	8765				
PMS		procr	0	Edge	5005		

5.4. Administer System Parameters Hospitality

Enter the “change system-parameters hospitality” command to modify hospitality related system parameters. Enter all values as shown below.

```
change system-parameters hospitality                               Page 1 of 3
                                HOSPITALITY

                                Message Waiting Configuration: act-pms
                                Controlled Restrictions Configuration: act-pms
                                Housekeeper Information Configuration: act-pms
                                    Number of Housekeeper ID Digits: 0
                                        PMS Log Endpoint:
                                        Journal/Schedule Endpoint:
                                Client Room Coverage Path Configuration: act-nopms
                                Default Coverage Path for Client Rooms:
                                Forward PMS Messages to Intuity Lodging? n

                                PMS LINK PARAMETERS
                                    PMS Endpoint: PMS
                                    PMS Protocol Mode: transparent ASCII mode? y
                                Seconds before PMS Link Idle Timeout: 20
                                Milliseconds before PMS Link Acknowledgement Timeout: 1500
                                    PMS Link Maximum Retransmissions: 5
                                PMS Link Maximum Retransmission Requests: 5
                                    Take Down Link for Lost Messages? n
```

Navigate to **Page 2**, make certain **Display Room Information in Call Display** is enabled, and retain the default values in the remaining fields.

```
change system-parameters hospitality                               Page 2 of 3
                                HOSPITALITY

                                Dual Wakeups? n    Daily Wakeup? n    VIP Wakeup? n

                                Room Activated Wakeup With Tones? n
                                Time of Scheduled Wakeup Activity Report:
                                Time of Scheduled Wakeup Summary Report:
                                Time of Scheduled Emergency Access Summary Report:
                                    Announcement Type: silence

                                Length of Time to Remain Connected to Announcement: 30
                                Extension to Receive Failed Wakeup LWC Messages:
                                Routing Extension on Unavailable Voice Synthesis:
                                    Display Room Information in Call Display? y
                                        Automatic Selection of DID Numbers? n
                                        Custom Selection of VIP DID Numbers? n
                                            Number of Digits from PMS:
                                                PMS Sends Prefix? n
                                Number of Digits in PMS Coverage Path: 3
                                    Digit to Insert/Delete:
```


5.5. Administer Feature Access Codes

Enter the “change feature-access-codes” command, and navigate to **Page 8**. Set the housekeeping status access codes for client room and station to available codes. These codes are dialed by the hotel personnel to update the housekeeping status of guest rooms.

change feature-access-codes	Page 8 of 10
FEATURE ACCESS CODE (FAC)	
Hospitality Features	
Automatic Wakeup Call Access Code:	
Housekeeping Status (Client Room) Access Code:	*81
Housekeeping Status (Client Room) Access Code:	*82
Housekeeping Status (Client Room) Access Code:	*83
Housekeeping Status (Client Room) Access Code:	*84
Housekeeping Status (Client Room) Access Code:	*85
Housekeeping Status (Client Room) Access Code:	*86
Housekeeping Status (Station) Access Code:	#91
Housekeeping Status (Station) Access Code:	#92
Housekeeping Status (Station) Access Code:	#93
Housekeeping Status (Station) Access Code:	#94
Verify Wakeup Announcement Access Code:	
Voice Do Not Disturb Access Code:	

5.6. Administer Class of Service

Enter the “change cos” command. Locate the desired class of service number to be used to integrate with Jazz Edge ESB, in this case “7”, and set the corresponding **Client Room** parameter to “y”, as shown below.

This setting enables stations with class of service “7” to support hospitality functions such as check-in and check-out.

change cos																Page	1 of	2
CLASS OF SERVICE																		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Auto Callback	n	n	y	n	y	n	y	n	y	n	y	n	y	n	y	n		
Call Fwd-All Calls	n	y	n	y	y	n	n	y	y	n	n	y	y	n	n	y		
Data Privacy	n	y	n	n	n	y	y	y	y	n	n	n	n	y	y	y		
Priority Calling	n	y	n	n	n	n	n	n	n	y	y	y	y	y	y	y		
Console Permissions	y	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
Off-hook Alert	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
Client Room	n	n	n	n	n	n	n	y	n	n	n	n	n	n	n	n		
Restrict Call Fwd-Off Net	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y		
Call Forwarding Busy/DA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
Personal Station Access (PSA)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
Extended Forwarding All	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
Extended Forwarding B/DA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
Trk-to-Trk Transfer Override	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
QSIG Call Offer Originations	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
Contact Closure Activation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		

5.7. Administer Guest Stations

Use the “change station n” command, where “n” is the first guest station extension from **Section 3**. For **COS**, enter the class of service number from **Section 5.6**.

```
change station 65001
```

Page 1 of 5

STATION		
Extension: 65001	Lock Messages? n	BCC: 0
Type: 9620	Security Code: *	TN: 1
Port: S00102	Coverage Path 1: 1	COR: 1
Name: CM7 Station 1	Coverage Path 2:	COS: 7
	Hunt-to Station:	Tests? y

STATION OPTIONS

Location: 1	Time of Day Lock Table:
Loss Group: 19	Personalized Ringing Pattern: 1
	Message Lamp Ext: 65001
Speakerphone: 2-way	Mute Button Enabled? y
Display Language: english	
Survivable GK Node Name:	
Survivable COR: internal	Media Complex Ext:
Survivable Trunk Dest? y	IP SoftPhone? n
	IP Video Softphone? n
	Short/Prefixed Registration Allowed: default
	Customizable Labels? y

Repeat this section to administer all guest stations from **Section 3**. In the compliance testing, four guest stations were administered as shown below.

list station 65001 count 4

STATIONS							
Ext/ Hunt-to	Port/ Type	Name/ Surv GK NN	Move	Room/ Data Ext	Cv1/ Cv2	COR/ COS	Cable/ Jack
65001	S00102 9620	CM7 Station 1	no		1	1	7
65002	S00118 9611	CM7 Station 2	no		1	1	7
65009	001V201 9611	CM7 Station 9	no		1	1	7
66002	S00004 9621SIP	Avaya, SIP 2	no		1	1	7

6. Configure Broadsoft Jazz Edge ESB

This section provides the procedures for configuring Jazz Edge ESB. The procedures include the following areas:

- Prepare database files
- Launch web interface
- Administer property
- Administer database
- Administer database swap

6.1. Prepare Database Files

As part of the planning phase prior to actual integration, Broadsoft will provide four generic database sample files shown below to be updated by the customer to map to values pertaining to Communication Manager and to the Avaya PMS interface.

- cos123CSV.txt
- lang123CSV.txt
- maid123CSV.txt
- room123CSV.txt

The file suffix can be changed to CSV for easier viewing, and change back to TXT prior to deployment. Actual file content and values used in the compliance testing are shown later in **Section 6.4**.

6.2. Launch Web Interface

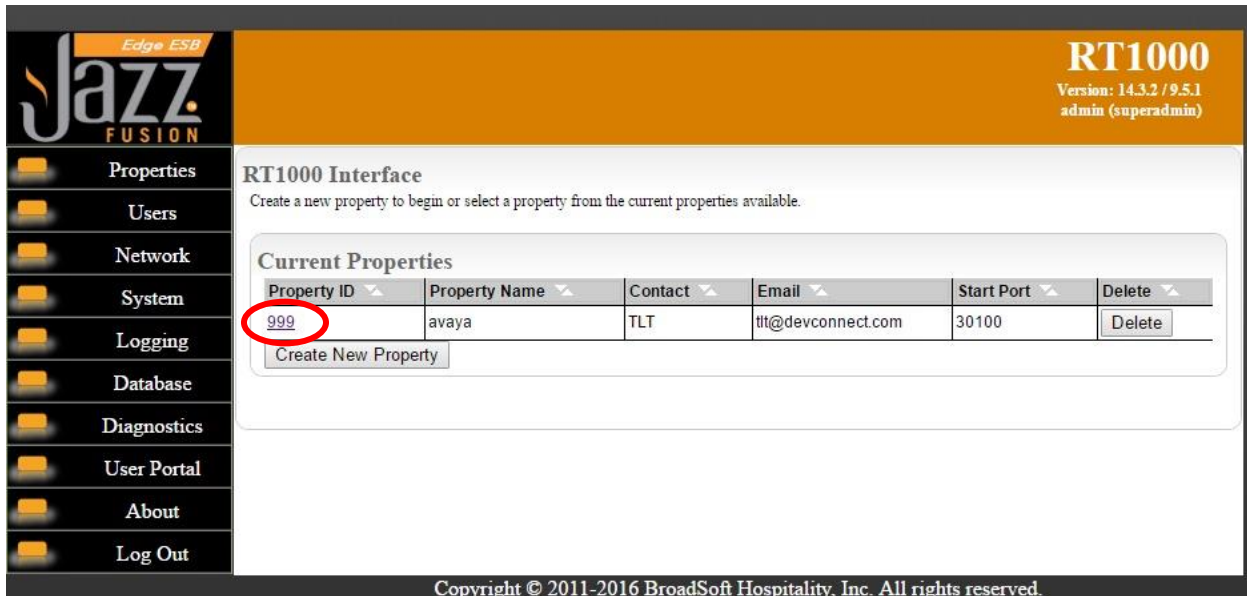
Launch the web interface by using the URL “http://ip-address” in an Internet browser window, where “ip-address” is the IP address of the Jazz Edge ESB server. The **Configuration and Diagnostics Portal** screen below is displayed. Log in using the appropriate credentials.



The screenshot shows the 'Configuration and Diagnostics Portal' for Jazz Edge ESB. The top header is orange with the 'Jazz FUSION' logo on the left and 'RT1000 Version: 14.3.2 / 9.5.1' on the right. Below the header, the page title 'Configuration and Diagnostics Portal' is displayed. A 'Please Login:' section contains a login form with a 'User Name:' field, a 'Password:' field, and a 'Login' button. A small icon of two people is positioned to the left of the 'User Name:' field. At the bottom of the page, a copyright notice reads: 'Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved.'

6.3. Administer Property

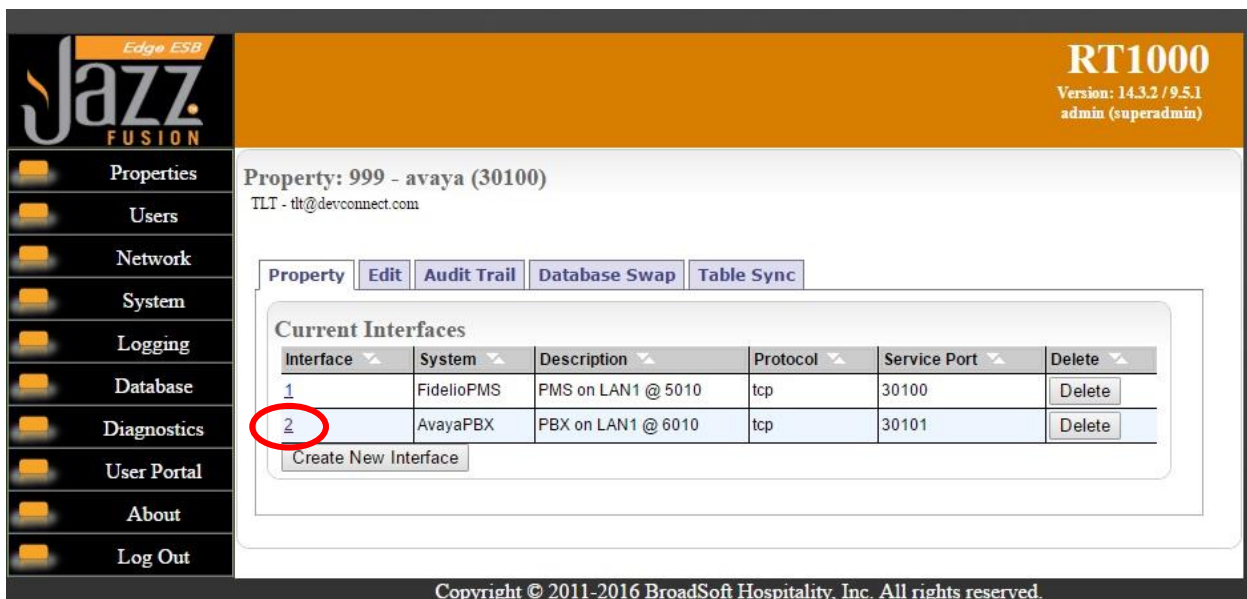
The **RT1000 Interface** screen is displayed, along with a list of existing properties. Follow reference [3] to create a new property with applicable interfaces. In the compliance testing, the property with **Property ID** of “999” was pre-configured with two interfaces. Select the applicable property ID.



The screenshot shows the RT1000 Interface screen. On the left is a navigation menu with options: Properties, Users, Network, System, Logging, Database, Diagnostics, User Portal, About, and Log Out. The main content area is titled "RT1000 Interface" and includes the text "Create a new property to begin or select a property from the current properties available." Below this is a section titled "Current Properties" containing a table with columns: Property ID, Property Name, Contact, Email, Start Port, and Delete. The first row of the table has the value "999" in the Property ID column, which is circled in red. The other values in the first row are "avaya", "TLT", "tit@devconnect.com", and "30100". There is a "Delete" button in the last column of the first row. Below the table is a "Create New Property" button. The footer of the screen displays "Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved."

Property ID	Property Name	Contact	Email	Start Port	Delete
999	avaya	TLT	tit@devconnect.com	30100	Delete

The **Property: 999** screen is displayed next, where **999** is the property ID. Click on the applicable PBX interface that was pre-configured, in this case “2”.



The screenshot shows the "Property: 999 - avaya (30100)" screen. It includes the text "TLT - tit@devconnect.com" and a set of tabs: Property, Edit, Audit Trail, Database Swap, and Table Sync. Below the tabs is a section titled "Current Interfaces" containing a table with columns: Interface, System, Description, Protocol, Service Port, and Delete. The second row of the table has the value "2" in the Interface column, which is circled in red. The other values in the second row are "AvayaPBX", "PBX on LAN1 @ 6010", "tcp", and "30101". There is a "Delete" button in the last column of the second row. Below the table is a "Create New Interface" button. The footer of the screen displays "Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved."

Interface	System	Description	Protocol	Service Port	Delete
1	FidelioPMS	PMS on LAN1 @ 5010	tcp	30100	Delete
2	AvayaPBX	PBX on LAN1 @ 6010	tcp	30101	Delete

The screen below is displayed. Select the **Interface** tab. For **Server IP/Name**, enter the IP address of the Jazz Edge ESB server. For **Port**, enter the PMS remote port number from **Section 5.3**. Check **Send Text Message Light to PBX**, and retain the default values in the remaining fields.

Jazz FUSION **RT1000**
Version: 14.3.2 / 9.5.1
admin (superadmin)

Property: 999 - avaya (30100)
TLT - tlt@devconnect.com

Interface | Description | XML | Audit Trail

Edit Interface: 2 - AvayaPBX (30101)
Make changes in the form below!

Avaya TM TCP Configuration - 2

Property Id: 999 Property Name: avaya
Description: PBX on LAN1 @ 6010
* Server IP/Name: 192.168.200.160 * Port: 5005
PBX Number: 1
☒ Send Text Message Light to PBX

Frame Mode
☐ normal
☐ transparent Coverage Path:
☒ ascii Coverage Path: 9999

Name Display
 Reset to Default
 1: Guest Name
 2: Select

6.4. Administer Database

Select **Database** from the left pane, to display the **Database Utility** screen. Select the applicable property ID, in this case “999”.

Jazz FUSION **RT1000**
Version: 14.3.2 / 9.5.1
admin (superadmin)

Database Utility

Property Selection
Please select the property database you want to work on!

Property ID	Property Name	Contact	Email
999	avaya	TLT	tlt@devconnect.com

6.4.1. Class Of Service

In the updated **Database Utility** screen, select the **Update** tab. Select **Choose File** and navigate to the prepared class of service database file from **Section 6.1**, in this case “cos123CSV.txt”. For **Table Name**, select “classOfService”. Click **Submit** to import the file.

The screenshot shows the Jazz Fusion RT1000 interface. The left sidebar contains navigation links: Properties, Users, Network, System, Logging, Database, Diagnostics, User Portal, About, and Log Out. The main content area is titled 'Database Utility' and features a database icon. There are four tabs: Query, Update, Restore, and webUI Tables. The 'Update Database' form is active, showing a 'CSV File' field with a 'Choose File' button and the filename 'cos123CSV.txt'. The 'Table Name' dropdown is set to 'classOfService'. Below the form are 'Submit', 'Refresh', and 'Back' buttons. The top right corner displays 'RT1000 Version: 14.3.2 / 9.5.1 admin (superadmin)'. The footer contains the copyright notice: 'Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved.'

Select the **Query** tab followed by **classOfService** (not shown), to display a list of class of service entries that were imported above. Note that the **PBXClassofServiceID** values and **Description** must map to the fixed controlled restriction level codes defined in reference [2]. The screen below shows the values used in the compliance testing. Click the **Back** button when done.

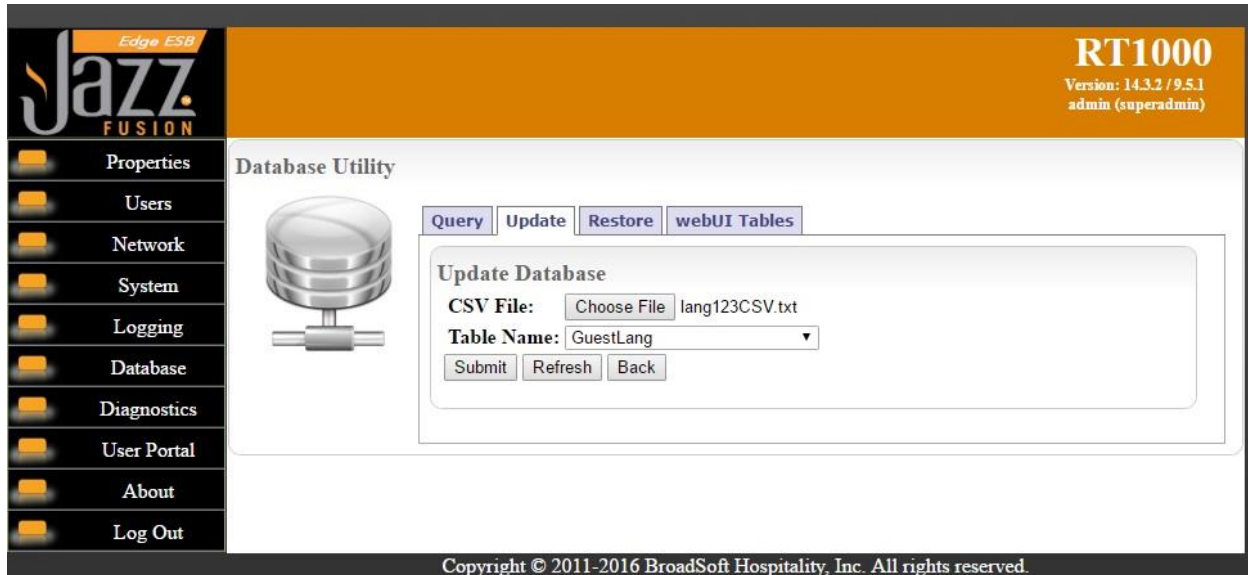
The screenshot shows the Jazz Fusion RT1000 interface with the 'Query' tab selected. The main content area displays the query results for the 'classOfService' table. The table has columns: classOfService, PBXClassofServiceID, VoiceClassofServiceID, propertyId, Description, and Active. The data is as follows:

classOfService	PBXClassofServiceID	VoiceClassofServiceID	propertyId	Description	Active
0	0	0	123	No Restrictions	Active
1	1	1	123	Outward	Active
2	2	2	123	Station-to-Station	Active
3	3	3	123	Outward & Station	Active
4	4	4	123	Total	Active
5	5	5	123	Termination	Active
6	6	6	123	Outward & Termination	Active
7	7	7	123	Station & Termination	Active

The interface also shows the query text: 'Table: classOfService(../database/db_999rt1000.db) select * from classOfService'. There are 'Bottom', 'Top', and 'Back' buttons. The top right corner displays 'RT1000 Version: 14.3.2 / 9.5.1 admin (superadmin)'. The footer contains the copyright notice: 'Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved.'

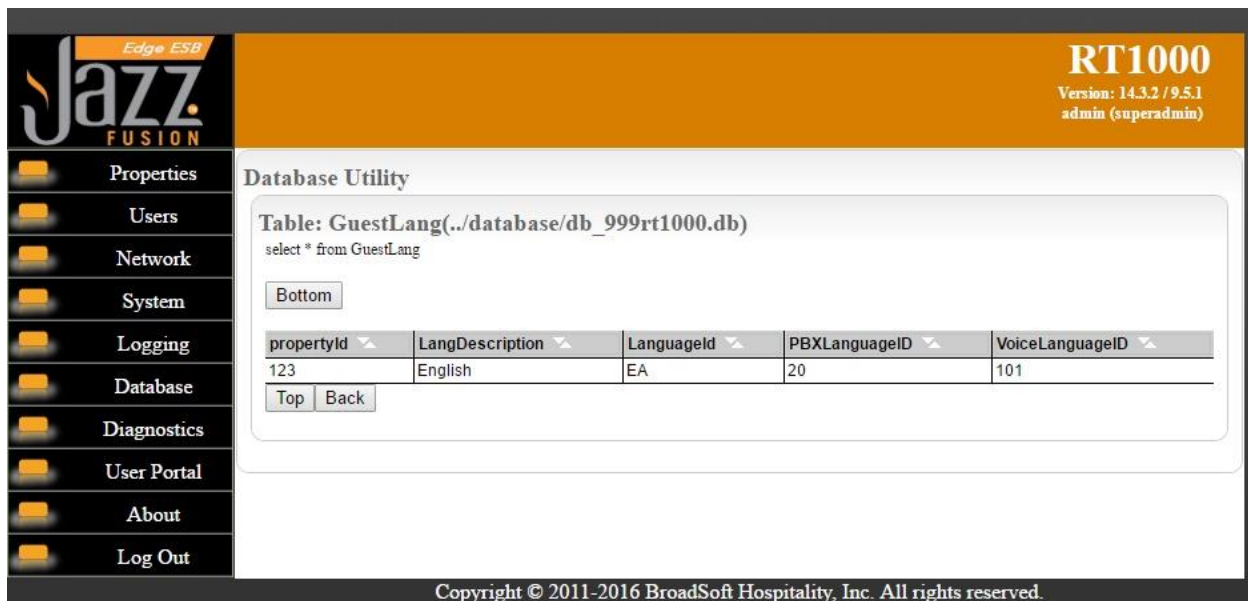
6.4.2. Language

From the updated **Database Utility** screen, select the **Update** tab. Select **Choose File** and navigate to the prepared language database file from **Section 6.1**, in this case “lang123CSV.txt”. For **Table Name**, select “GuestLang”. Click **Submit** to import the file.



The screenshot shows the Jazz Fusion RT1000 interface. The left sidebar contains a menu with items: Properties, Users, Network, System, Logging, Database, Diagnostics, User Portal, About, and Log Out. The main content area is titled "Database Utility" and features a database icon. Below the icon are tabs for Query, Update, Restore, and webUI Tables. The "Update Database" form is active, showing a "CSV File" field with a "Choose File" button and the filename "lang123CSV.txt". The "Table Name" is set to "GuestLang" in a dropdown menu. At the bottom of the form are "Submit", "Refresh", and "Back" buttons. The top right corner displays "RT1000 Version: 14.3.2 / 9.5.1 admin (superadmin)". The footer contains the copyright notice: "Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved."

Select the **Query** tab followed by **GuestLang** (not shown), to display a list of language entries that were imported in the compliance testing. Note that language is not used in the integration, but is required to be set for the PMS interface. The screen below shows the default value used in the compliance testing. Click the **Back** button when done.



The screenshot shows the Jazz Fusion RT1000 interface with the "Query" tab selected. The main content area displays the results for the "Table: GuestLang(..../database/db_999rt1000.db)". The query is "select * from GuestLang". Below the query is a "Bottom" button. A table displays the results with columns: propertyId, LangDescription, LanguageId, PBXLanguageID, and VoiceLanguageID. The first row shows values: 123, English, EA, 20, and 101. At the bottom of the table are "Top" and "Back" buttons. The top right corner displays "RT1000 Version: 14.3.2 / 9.5.1 admin (superadmin)". The footer contains the copyright notice: "Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved."

propertyId	LangDescription	LanguageId	PBXLanguageID	VoiceLanguageID
123	English	EA	20	101

6.4.3. Maid Status

In the updated **Database Utility** screen, select the **Update** tab. Select **Choose File** and navigate to the prepared maid status database file from **Section 6.1**, in this case “maid123CSV.txt”. For **Table Name**, select “MaidStatus”. Click **Submit** to import the file.

The screenshot shows the Jazz Fusion RT1000 interface. The left sidebar contains navigation links: Properties, Users, Network, System, Logging, Database, Diagnostics, User Portal, About, and Log Out. The main content area is titled 'Database Utility' and features a database icon. Below the icon are four tabs: Query, Update (selected), Restore, and webUI Tables. The 'Update Database' section contains a 'CSV File' field with a 'Choose File' button and the filename 'maid123CSV.txt'. Below this is a 'Table Name' dropdown menu set to 'MaidStatus'. At the bottom of this section are 'Submit', 'Refresh', and 'Back' buttons. The footer displays the copyright notice: 'Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved.'

Select the **Query** tab followed by **MaidStatus** (not shown), to display a list of maid status entries that were imported in the compliance testing. Note that the number of entries needs to match the number of configured housekeeping status access code for client room from **Section 5.5**. The screen below shows the values used in the compliance testing. Click the **Back** button when done.

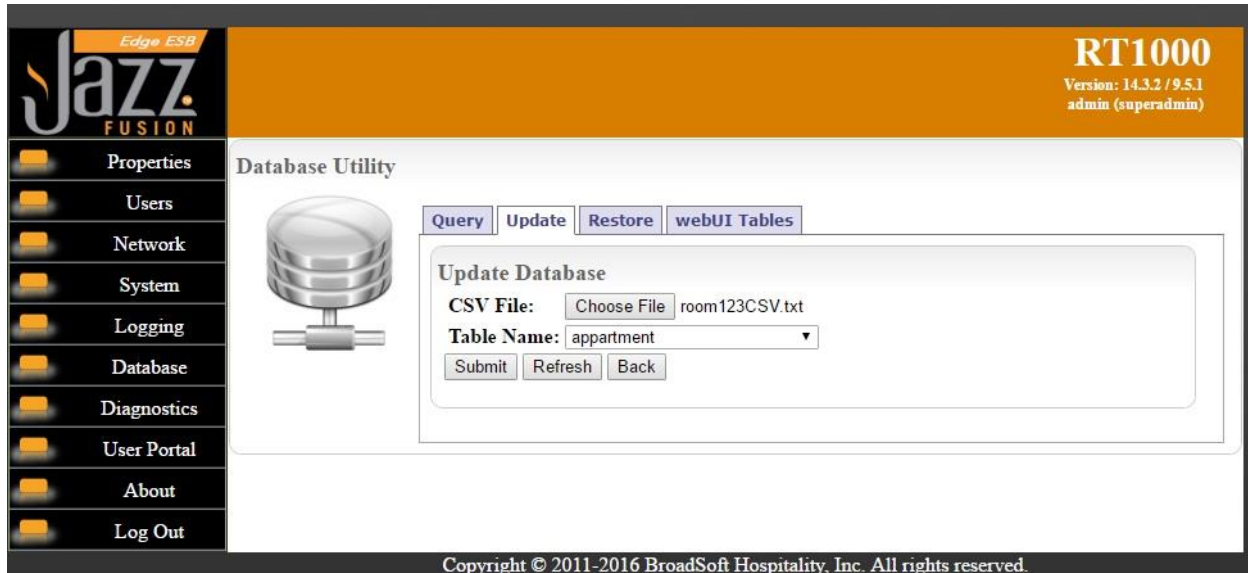
The screenshot shows the Jazz Fusion RT1000 interface with the 'Query' tab selected. The main content area displays the table 'MaidStatus' from the database 'db_999rt1000.db'. The table has five columns: propertyId, MaidStatusId, MaidStatus, Active, and Description. The data is as follows:

propertyId	MaidStatusId	MaidStatus	Active	Description
123	1	1	Y	Dirty/Vacant
123	2	2	Y	Dirty/Occupied
123	3	3	Y	Clean/Vacant
123	4	4	Y	Clean/Occupied
123	5	5	Y	Inspected/Vacant
123	6	6	Y	Inspected/Occupied

Below the table are 'Top' and 'Back' buttons. The footer displays the copyright notice: 'Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved.'

6.4.4. Guest Room

In the updated **Database Utility** screen, select the **Update** tab. Select **Choose File** and navigate to the prepared guest room database file from **Section 6.1**, in this case “room123CSV.txt”. For **Table Name**, select “apartment”. Click **Submit** to import the file.



Select the **Query** tab followed by **apartment** (not shown), to display a list of guest room entries that were imported in the compliance testing. Note that the **Extension_Num** values must map to the guest station extensions in **Section 3**. The screen below shows the values used in the compliance testing.

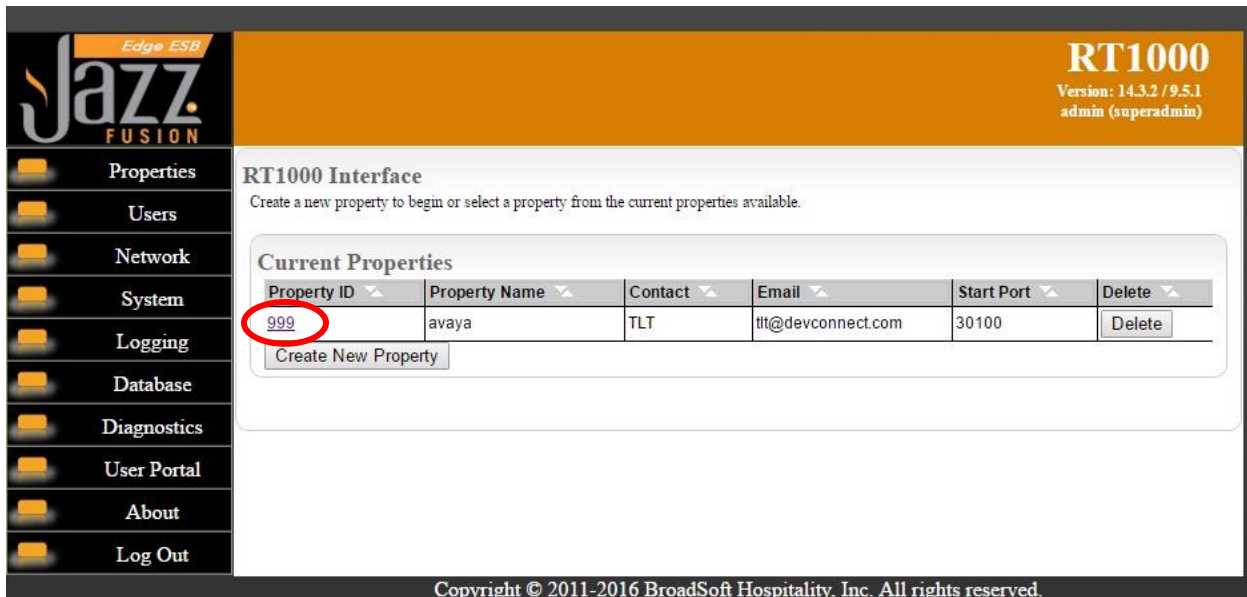
The screenshot shows the Jazz Fusion RT1000 interface with the 'Query' tab selected. The main content area displays the results for the 'apartment' table. The table has columns: apartment_no, Company_Num, resv_num, RoomStatus, primary_resv, share_resv, num_shares, Extension_Num, and classOfSvc. The data rows are as follows:

apartment_no	Company_Num	resv_num	RoomStatus	primary_resv	share_resv	num_shares	Extension_Num	classOfSvc
65001	123	resv102	OUT	G#102	SG#4	SHR_102	65001	0
65002	123	resv103	OUT	G#103	SG#4	SHR_103	65002	0
65009	123	resv104	OUT	G#104	SG#4	SHR_104	65009	0
66002	123	resv105	OUT	G#105	SG#4	SHR_105	66002	0

Navigation buttons 'Bottom', 'Top', and 'Back' are visible below the table.

6.5. Administer Database Swap

Select **Properties** from the left pane, to display a list of properties. Select the applicable property ID.



Edge ESB
Jazz FUSION

RT1000
Version: 14.3.2 / 9.5.1
admin (superadmin)

Properties
Users
Network
System
Logging
Database
Diagnostics
User Portal
About
Log Out

RT1000 Interface
Create a new property to begin or select a property from the current properties available.

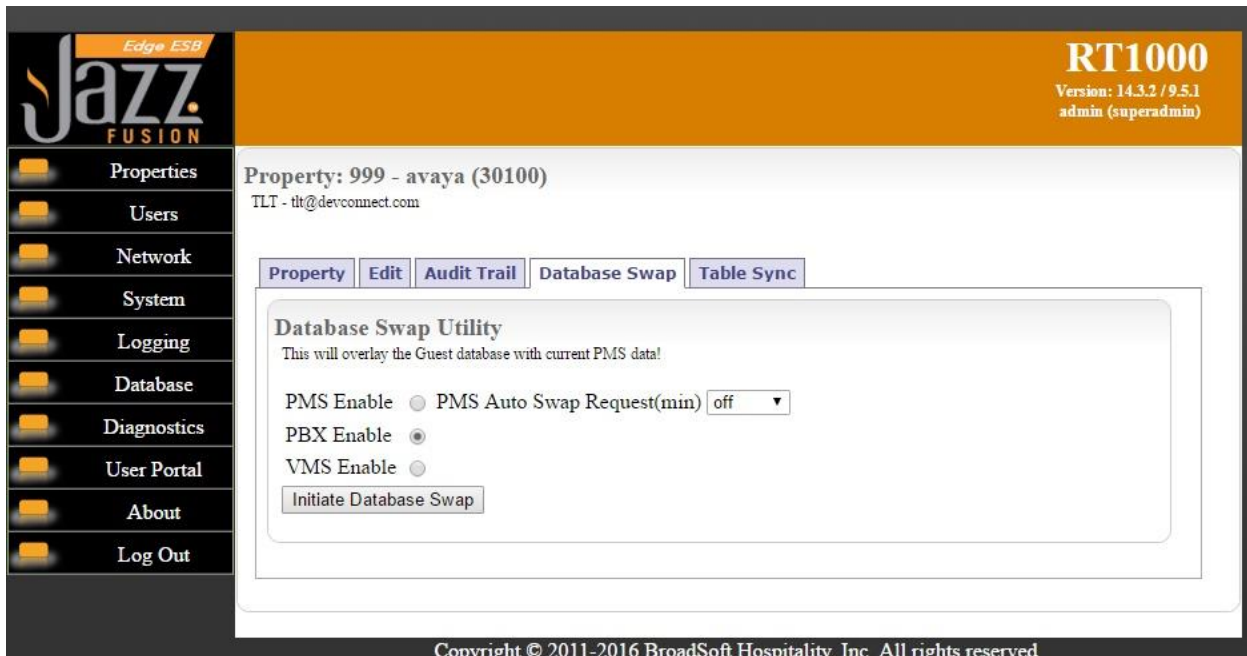
Current Properties

Property ID	Property Name	Contact	Email	Start Port	Delete
999	avaya	TLT	tit@devconnect.com	30100	Delete

Create New Property

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The **Property: 999** screen is displayed next, where **999** is the property ID. Select the **Database Swap** tab. Retain all default values, and click **Initiate Database Swap**. This action will resync all guest room status with Communication Manager by sending check-out for all vacant rooms on Jazz Edge ESB and check-in for all occupied rooms.



Edge ESB
Jazz FUSION

RT1000
Version: 14.3.2 / 9.5.1
admin (superadmin)

Properties
Users
Network
System
Logging
Database
Diagnostics
User Portal
About
Log Out

Property: 999 - avaya (30100)
TLT - tit@devconnect.com

Property Edit Audit Trail Database Swap Table Sync

Database Swap Utility
This will overlay the Guest database with current PMS data!

PMS Enable ☐ PMS Auto Swap Request(min) off ▼

PBX Enable ☒

VMS Enable ☐

Initiate Database Swap

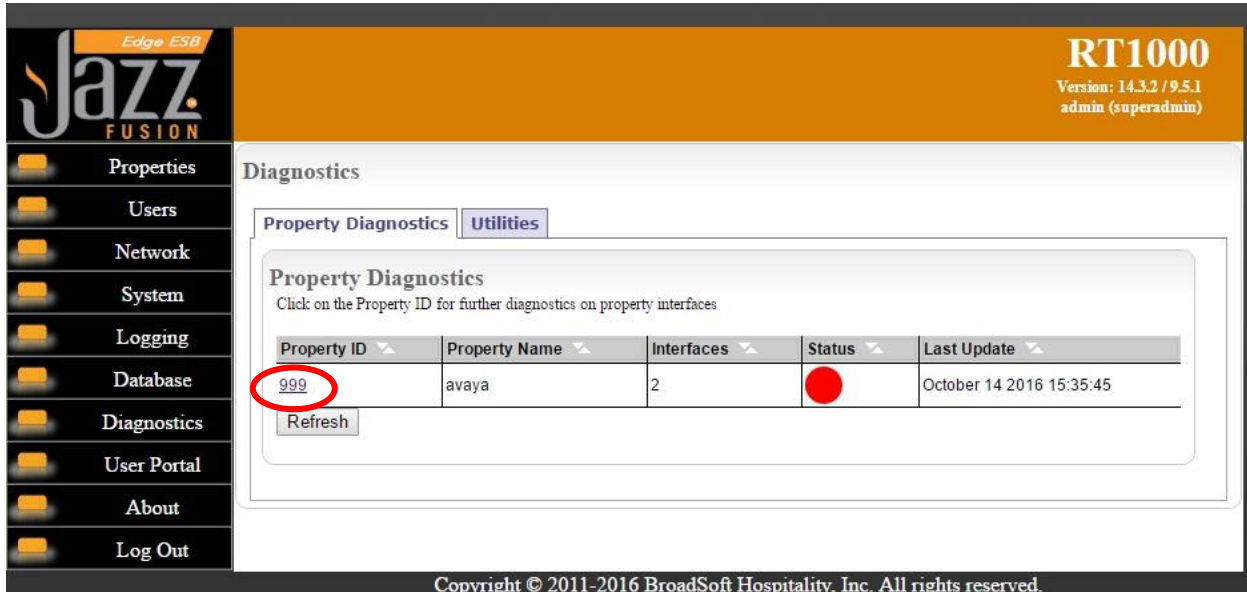
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7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Jazz Edge ESB and Communication Manager.

7.1. Verify Broadsoft Jazz Edge ESB

Follow the procedures in **Section 6.2** to launch the web interface, and log in using appropriate credentials. Select **Diagnostics** from the left pane, to display the **Diagnostics** screen. Select the applicable property ID, in this case “999”.



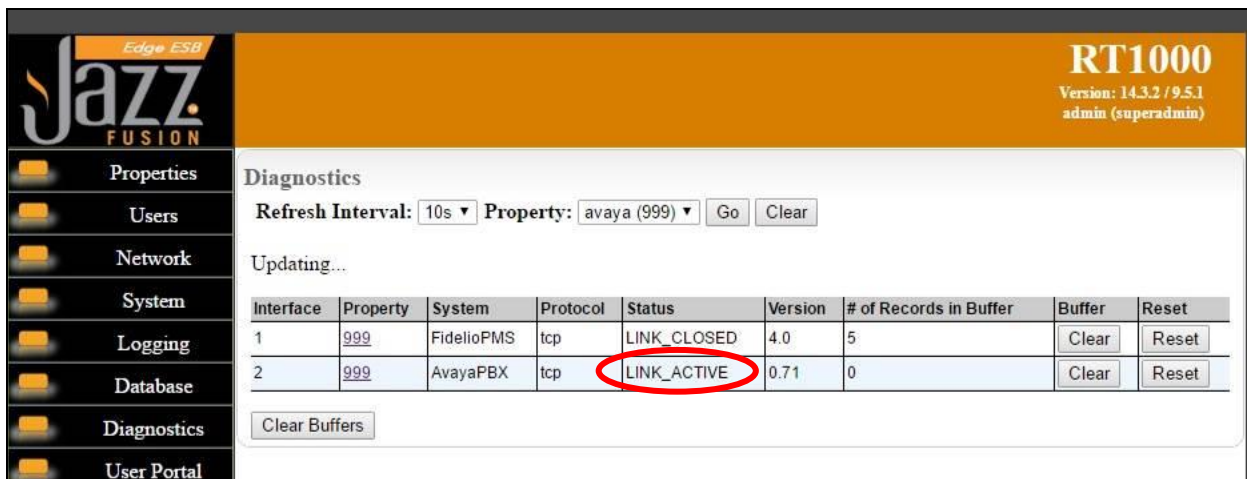
The screenshot shows the Jazz Edge ESB web interface. The left navigation pane includes: Properties, Users, Network, System, Logging, Database, Diagnostics, User Portal, About, and Log Out. The main content area is titled "Diagnostics" and contains a "Property Diagnostics" section. A table lists property details for ID 999:

Property ID	Property Name	Interfaces	Status	Last Update
999	avaya	2		October 14 2016 15:35:45

A "Refresh" button is located below the table. The top right of the interface displays "RT1000 Version: 14.3.2 / 9.5.1 admin (superadmin)". The footer contains the copyright notice: "Copyright © 2011-2016 BroadSoft Hospitality, Inc. All rights reserved."

In the updated screen shown below, verify that the **Status** associated with the applicable PBX interface is **LINK_ACTIVE**.

Select **User Portal** from the left pane.



The screenshot shows the updated "Diagnostics" screen. The left navigation pane now includes "User Portal" at the bottom. The main content area shows "Updating..." and a table with detailed interface status for Property ID 999:

Interface	Property	System	Protocol	Status	Version	# of Records in Buffer	Buffer	Reset
1	999	FidelioPMS	tcp	LINK_CLOSED	4.0	5	Clear	Reset
2	999	AvayaPBX	tcp	LINK_ACTIVE	0.71	0	Clear	Reset

A "Clear Buffers" button is located below the table. The top right of the interface displays "RT1000 Version: 14.3.2 / 9.5.1 admin (superadmin)".

The **Available Properties** screen is displayed. Select the pertinent property ID, in this case “999”.

Available Properties
You must select one of the properties below!

Property ID	Property Name	Contact	Email
999	avaya	TLT	tit@devconnect.com

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The **Property Set** screen is displayed next. Select on a room entry, in this case “65001”, followed by **Checkin**.

Property Set
Identifier: Property: 999 - avaya (30100)

Rooms **Audit Trail**

Rooms Filter

Room #	Guest Name	DID	GPIN	Class Of Service	Language	Do Not Disturb	Maid Status	Status	Message Light
				Select	Select	Select	Select	Select	Select

Filter All

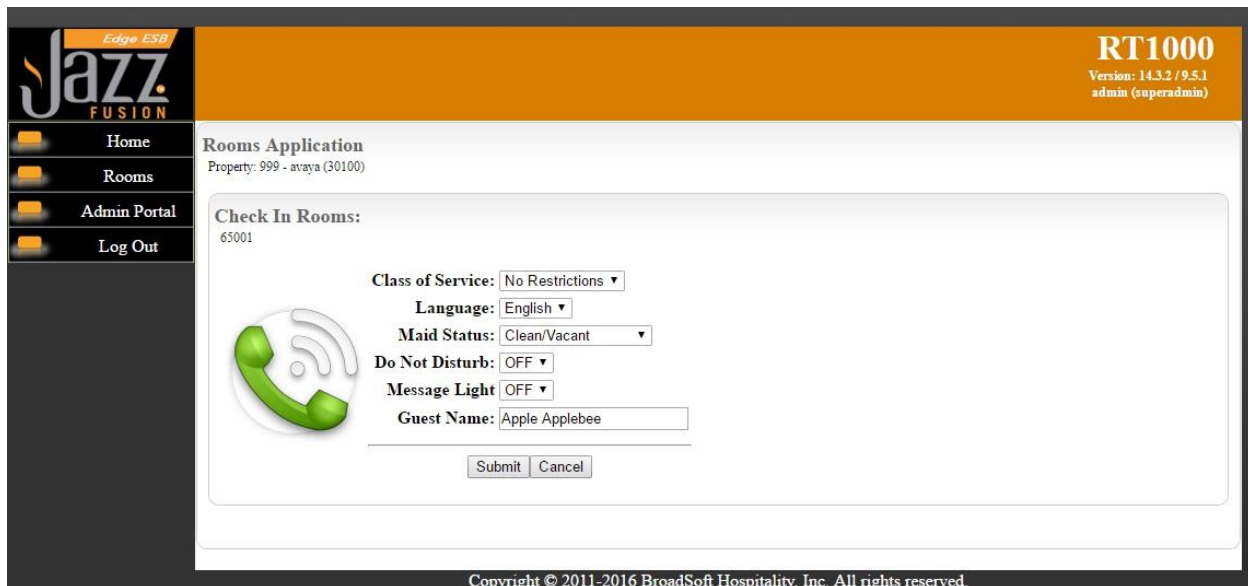
Property Rooms

Room	Guest Name	DID	GPIN	Class Of Service	Language	Do Not Disturb	Maid Status	Status	Message Light
<input checked="" type="checkbox"/> 65001		DID_13	GPIN_12	Outward	English	OFF	Clean/Vacant	OUT	OFF
<input type="checkbox"/> 65002		DID_13	GPIN_12	Outward	English	OFF	Clean/Vacant	OUT	OFF
<input type="checkbox"/> 65009		DID_13	GPIN_12	Outward	English	OFF	Clean/Vacant	OUT	OFF
<input type="checkbox"/> 66002		DID_13	GPIN_12	Outward	English	OFF	Clean/Vacant	OUT	OFF

Checkin Checkout Modify Wakeups

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The **Rooms Application** screen is displayed. Enter a desired **Guest Name**, and retain the default values in the remaining fields. Click **Submit**.



7.2. Verify Avaya Aura® Communication Manager

On Communication Manager, verify status of the administered PMS link by using the “status pms-link” command. Verify that the **Physical Link State** and **Protocol State** are “up”, as shown below.

```
status pms-link

PMS LINK STATUS

Physical Link State: up
Protocol State: up

Maintenance Busy? no
Data Base Swapping? no
```

Use the “change station n” command, where “n” is the guest station extension from **Section 7.1**. Verify that the station **Name** reflects the name from **Section 7.1**.

```
display station 65001                                     Page 1 of 5

                                STATION

Extension: 65001                Lock Messages? n          BCC: 0
Type: 9620                     Security Code: *           TN: 1
Port: S00102                   Coverage Path 1: 1         COR: 1
Name: Apple Applebee        Coverage Path 2:         COS: 7
                                Hunt-to Station:          Tests? y

STATION OPTIONS
    Location: 1                Time of Day Lock Table:
    Loss Group: 19             Personalized Ringing Pattern: 1
                                Message Lamp Ext: 65001
                                Mute Button Enabled? y
    Speakerphone: 2-way
    Display Language: english
    Survivable GK Node Name:
    Survivable COR: internal    Media Complex Ext:
    Survivable Trunk Dest? y    IP SoftPhone? n

                                IP Video Softphone? n
                                Short/Prefixed Registration Allowed: default

                                Customizable Labels? y
```

Use the “status station n” command, where “n” is the guest station extension from **Section 7.1**. Verify that **Room Status** is “occupied”, and that the **User Cntrl Restr** field corresponds to the class of service value from **Section 7.1**.

```
status station 65001                                     Page 1 of 7

                                GENERAL STATUS

Administered Type: 9620        Service State: in-service/on-hook
Connected Type: 9620           TCP Signal Status: connected
Extension: 65001               Network Region: 1
    Port: S00102               Parameter Download: complete
    Call Parked? no           SAC Activated? no
    Ring Cut Off Act? no
Active Coverage Option: 1      one-X Server Status: N/A

    EC500 Status: disabled     Off-PBX Service State: in-service/idle
Message Waiting:
    Connected Ports:

    Limit Incoming Calls? no

User Cntrl Restr: none
Group Cntrl Restr: none

                                HOSPITALITY STATUS
                                Awaken at:
                                User DND: not activated
                                Group DND: not activated
Room Status: occupied
```

8. Conclusion

These Application Notes describe the configuration steps required for Broadsoft Jazz Edge ESB to successfully interoperate with Avaya Aura® Communication Manager. All feature and serviceability test cases were completed with observations noted in **Section 2.2**.

9. Additional References

This section references the product documentation relevant to these Application Notes.

1. *Administering Avaya Aura® Communication Manager*, Release 7.0.1, Issue 2.1, August 2016, available at <http://support.avaya.com>.
2. *GuestWorks® and DEFINITY® Enterprise Communications Server Property Management System Interface Specifications*, 555-231-601, Issue 4, December 2001, available at <http://support.avaya.com>.
3. *BroadSoft Hospitality – Jazz Edge ESB RT1000 Configuration Guide*, Version 1.3, February 23, 2015, available upon request to Broadsoft Support.

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