



**Avaya Solution & Interoperability Test Lab**

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## **Application Notes for FCS Unicorn with Avaya Aura® Communication Manager - Issue 1.0**

### **Abstract**

These Application Notes describe the procedures for configuring the FCS Unicorn application to interoperate with Avaya Aura® Communication Manager. FCS Unicorn is a Windows-based integrated billing and interface solution that supports all major PMS and PABX systems. This system is unlike its predecessor FCS WinSuite, which is limited to a single property and PABX system.

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 procedures for configuring FCS Unicorn to interoperate with Avaya Aura® Communication Manager. FCS Unicorn is a Windows-based integrated billing and interface solution that supports all major PMS and PABX systems. This system is unlike its predecessor FCS WinSuite, which is limited to a single property and PABX system. FCS Unicorn provides a real-time multitasking interface between Avaya Aura® Communication Manager and a hotel's 3<sup>rd</sup> party Property Management System (PMS). In addition to functioning as a call charge and billing system that manages the costs of telephony and service usage, FCS Unicorn supports standard Hospitality feature requests to/from a PMS (guest room check-in/check-out/moves, Do Not Disturb (DND), Automatic Wake-Up (AWU), Message Waiting Lamp (MWL) control, Housekeeping/Room Status changes). The call charge and billing functionality is facilitated by a Call Detail Recording (CDR) interface to Avaya Aura® Communication Manager, while the Hospitality features are enabled by a PMS data link to Avaya Aura® Communication Manager.

When notified of a guest room check-in, FCS Unicorn removes outbound call restrictions on the guest room extension and changes that extension's Hospitality Status to "occupied." Conversely, when notified of a guest room check-out, FCS Unicorn restricts outbound calls on the guest room extension and sets its Hospitality Status to "non-guest room."

## 2. General Test Approach and Test Results

Feature functionality testing was performed manually. Inbound calls were made to the Avaya IP Telephones (i.e. the guest telephones) over BRI trunks, as well as from other local extensions (analog, digital, and IP Telephone). A simulated PMS application was used to launch changes to telephone message waiting lamps and phone privileges during room check in / check out / move requests, receive room status updates, and activate/deactivate DND.

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

Interoperability compliance testing focused on the ability of FCS Unicorn to work with Avaya Aura® Communication Manager. FCS Unicorn features and capabilities that were verified included the following: receipt and processing of Call Detail Records, check-in/check-out/room change for guest extensions, receipt of Housekeeping/Room Status changes initiated at guest telephones and forwarding to a simulated Property Management System, MWL activation for incoming voicemail, and DND activation/deactivation

## 2.2. Test Results

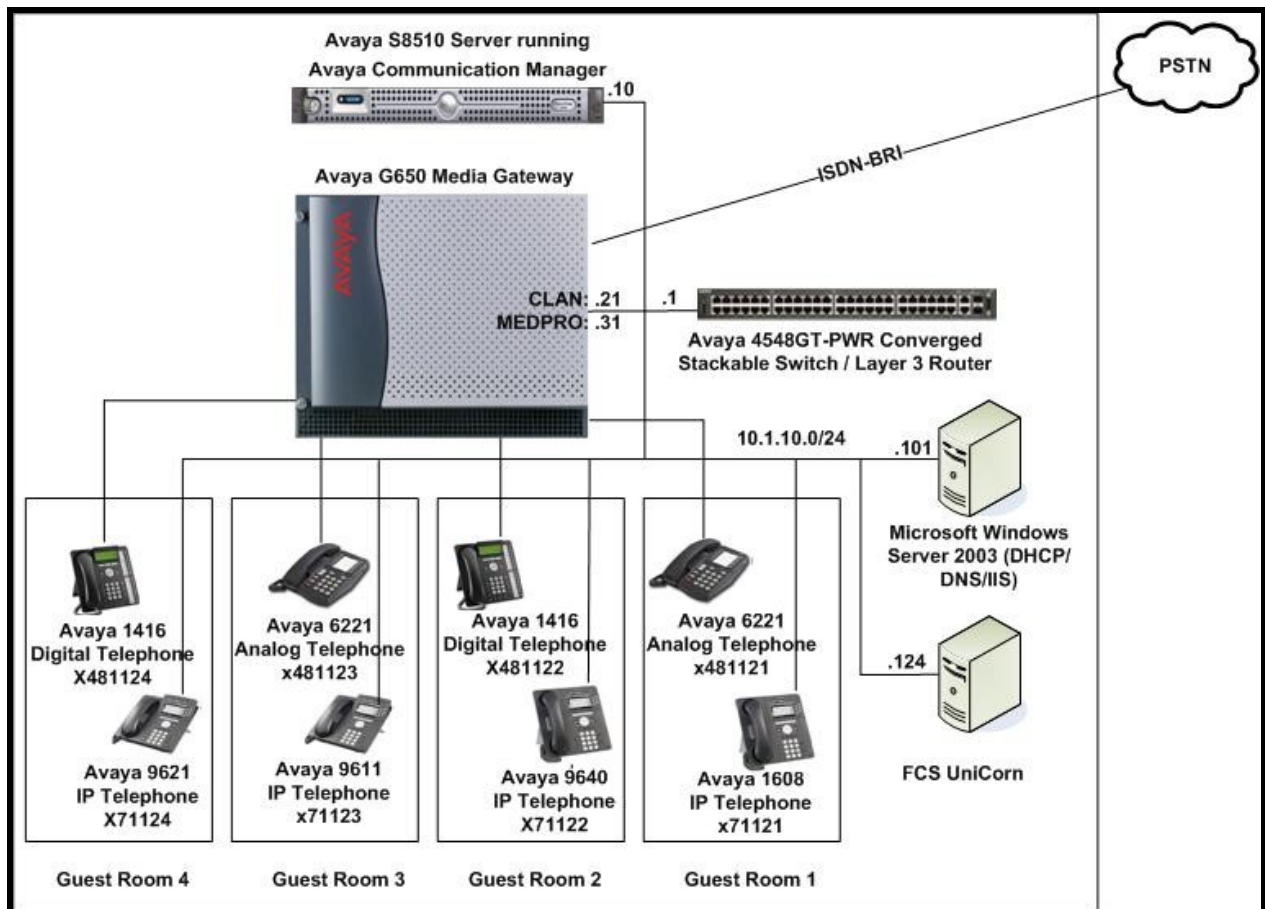
All executed test cases were completed successfully. One observation to note was that the FCS Unicorn application needed to be restarted on occasion if the server is rebooted. However, one work around would be to place FCS Unicorn in the Start menu for auto-restart.

## 2.3. Support

For technical support on FCS Unicorn, contact FCS Computer Systems at Support Hotline at [+632-857-4000](tel:+632-857-4000).

## 3. Reference Configuration

The configuration used in performing compliance testing of FCS Unicorn is shown in **Figure 1**. It shows a network consisting primarily of an Avaya S8510 Server running Avaya Aura® Communication Manager in Simplex mode with an Avaya G650 Media Gateway, an FCS Unicorn server, and a pair of phones for each guest room, which are either analog or digital with an Avaya IP Telephone. The CDR and PMS data links from FCS Unicorn are carried over the IP network and terminated in Avaya Aura® Communication Manager as IP services.



**Figure 1: Sample Test 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   | R6.0.1 SP7                                     |
| Avaya G650 Media Gateway <ul style="list-style-type: none"><li>TN2312BP IP Server Interface</li><li>TN799DP C-LAN Interface</li><li>TN2602AP IP Media Processor</li></ul> | -<br>HW07, FW054<br>HW01, FW040<br>HW02, FW059 |
| Avaya 4548GT-PWR Converged Stackable Switch   | V5.4.0.008                                     |
| Avaya 9621 IP Telephone   | 6.0 SP5  |
| Avaya 9611 IP Telephone   | 6.0 SP5  |
| Avaya 9640 IP Telephone   | 3.1 SP3  |
| Avaya 1608 IP Telephone   | 1.300B   |
| Avaya 6221 Analog Telephone   | -  |
| Avaya 1416 Digital Telephone  | -  |
| Avaya 1408 Digital Telephone  | -  |
| FCS Unicorn Server on Windows Server 2008 R2 SP1 <ul style="list-style-type: none"><li>AvayaASCII.PBX.exe</li><li>Generic.CDR.exe</li></ul>                               | 1.1.0.98<br>1.0.0.49<br>1.0.0.8                |

## 5. Configure Avaya Aura® Communication Manager

This section details the steps required to configure Avaya Aura® Communication Manager to interoperate with FCS Unicorn. These Application Notes assume the Avaya Media Gateway (including circuit packs) has already been administered. Please refer to [0] for additional details.

The commands listed in this section were issued at the Avaya System Access Terminal (SAT) screen. For all steps where data are modified, submit the completed administration form for the changes to take effect.

### 5.1. Turn On Special Applications

Special-applications feature is required for this compliance testing in order to expand the numbering and character names from PMS from 5-digit extensions and 15 character names from PMS to 7-digit extensions and 27 character names. **(SA8662) – Expanded PMS Name and Number** special-applications feature is changed to from **n→y**.

```
(SA8652) - No Hold Consult? n
(SA8654) - Crisis Alert Call Monitoring and Recording? n
(SA8661) - Increased Automatic Wakeup Calls? n
(SA8662) - Expanded PMS Name & Number? y
(SA8684) - PMS Wakeup Message? n
(SA8693) - Connectivity Check for Direct IP Shuffling? n

(SA8697) - 3rd Party H.323 Endpoint Support? n
(SA8701) - Net Region Support H.323 Endpoints Behind ALG? n
(SA8702) - CDR Enhancements for Network? y
(SA8731) - Block Outgoing Bridged Call Display? n
(SA8734) - Enhanced Extension Display? n
(SA8741) - CDR Identifier for IP Station Calls? n
(SA8744) - Block Name for Room to Room Calls? n
(SA8747) - Softphone Indication on DCP Terminals? n
```

## 5.2. Set Hospitality Parameters

Enter **change system-parameters hospitality**. On **Page 1**, set the following values:

- Message Waiting Configuration: **act-pms**.
- Controlled Restrictions Configuration: **act-pms**.
- Housekeeper Information Configuration: **act-pms**.
- Client Room Coverage Path Configuration: **act-pms**.
- Default Coverage Path for Client Rooms: Set to the number of a coverage path that provides the appropriate coverage treatment for an unoccupied guest room, e.g. coverage to the hotel operator (in this example, coverage path **100** is used).
- PMS Endpoint: **PMS**.
- Milliseconds before PMS Link Acknowledgement Timeout: **1000** (to allow for longer PMS response time)

```
Message Waiting Configuration: act-pms
Controlled Restrictions Configuration: act-pms
Housekeeper Information Configuration: act-pms
Number of Housekeeper ID Digits: 4
PMS Log Endpoint:
Journal/Schedule Endpoint:
Client Room Coverage Path Configuration: act-pms
Default Coverage Path for Client Rooms: 100
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: 10
Milliseconds before PMS Link Acknowledgement Timeout: 1000
PMS Link Maximum Retransmissions: 3
PMS Link Maximum Retransmission Requests: 3
Take Down Link for Lost Messages? y
```

### 5.3. Set Room Status Values

Advance to **Page 3** and enter the following values for the fields indicated:

- Definition for Rooms in State 1: **Housekeeper in Room**
- Definition for Rooms in State 2: **Room Clean - Vacant**
- Definition for Rooms in State 3: **Room Clean - Occupied**
- Definition for Rooms in State 4: **Room Not Clean - Vacant**
- Definition for Rooms in State 5: **Room Not Clean - Occupied**
- Definition for Rooms in State 6: **Room Clean - Needs Inspection**

```
change system-parameters hospitality                               Page 3 of 3
      ROOM STATES                HOSPITALITY

      Definition for Rooms in State 1: Housekeeper in Room
      Definition for Rooms in State 2: Room Clean - Vacant
      Definition for Rooms in State 3: Room Clean - Occupied
      Definition for Rooms in State 4: Room Not Clean - Vacant
      Definition for Rooms in State 5: Room Not Clean - Occupied
      Definition for Rooms in State 6: Room Clean - Needs Inspection

      HOSPITALITY FEATURES
                                     Suite Check-in? n
      Cancel Do-Not-Disturb for Wakeup Calls? y
```

### 5.4. Administer Feature Access Codes for Entering Housekeeping Status:

Enter **change feature-access-codes** (FACs) and advance to **Page 8**. Enter unique FACs for each of the six **Housekeeping Status (Client Room) Access Code** listed, each of which will correspond to the room status values administered in **Section 3.Error! Reference source not found.** (in this example, \*78, \*79, \*80, \*81, \*82 and \*83 were used, respectively). Also, enter unique FACs for each of the four **Housekeeping Status (Station) Access Code** listed, each of which will correspond to the first four room status values administered in **Section 3.Error! Reference source not found.** (in this example, \*84, \*85, \*86 and \*87 were used, respectively). This is for housekeeper or hotel staff using phones not in the guest rooms to update housekeeping status. The corresponding room number needs to be entered after the feature code.

FEATURE ACCESS CODE (FAC)  
Hospitality Features

```

Automatic Wakeup Call Access Code: *77
Housekeeping Status (Client Room) Access Code: *78
Housekeeping Status (Client Room) Access Code: *79
Housekeeping Status (Client Room) Access Code: *80
Housekeeping Status (Client Room) Access Code: *81
Housekeeping Status (Client Room) Access Code: *82
Housekeeping Status (Client Room) Access Code: *83
Housekeeping Status (Station) Access Code: *84
Housekeeping Status (Station) Access Code: *85
Housekeeping Status (Station) Access Code: *86
Housekeeping Status (Station) Access Code: *87
Verify Wakeup Announcement Access Code: *88
Voice Do Not Disturb Access Code: *89

```

## 5.5. Define the FCS Unicorn Server as an IP Node Name

Enter **change node-names ip** and add an entry for the FCS Unicorn server using an appropriately descriptive value for the **Name** (in this case, **FCSUni**) and the corresponding **IP Address** (in this example, **10.1.10.124**).

IP NODE NAMES

| Name          | IP Address         |
|---------------|--------------------|
| <b>FCSUni</b> | <b>10.1.10.124</b> |
| Gateway001    | 10.1.10.1          |
| aes1          | 10.1.10.71         |
| cms1          | 10.1.10.85         |
| default       | 0.0.0.0            |
| lsp-g250      | 10.1.10.17         |
| msgserver     | 10.1.10.10         |
| procr         | 10.1.10.10         |
| procr6        | ::                 |
| s8300-siteB   | 10.1.20.10         |
| s8500-clan1   | 10.1.10.21         |
| s8500-clan2   | 10.1.10.22         |

( 16 of 26 administered node-names were displayed )  
 Use 'list node-names' command to see all the administered node-names  
 Use 'change node-names ip xxx' to change a node-name 'xxx' or add a node-name

## 5.6. Define IP services in support of the PMS and CDR data links:

Enter **change ip-services** and add entries with a Service Type of **PMS** and **CDR1** (or, if a CDR1 service is already defined, **CDR2**), respectively. In each case, enter the following values in the remaining fields:

- Local Node: The IP Node Name of a C-LAN board or PROCR (in this example, **procr** is used for IP service definition).
- Remote Node: The IP Node Name of the FCS Unicorn server, as defined in **Section 3.4**.
- Remote Port: A valid unused port (in this example, the value needs to tally with the Unicorn setup where **5053** is used for **PMS**, while **5052** is used for **CDR1**).

```
change ip-services Page 1 of 4
```

| IP SERVICES  |         |              |            |               |             |
|--------------|---------|--------------|------------|---------------|-------------|
| Service Type | Enabled | Local Node   | Local Port | Remote Node   | Remote Port |
| AESVCS       | y       | procr        | 8765       |               |             |
| <b>PMS</b>   |         | <b>procr</b> | <b>0</b>   | <b>FCSUni</b> | <b>5053</b> |
| <b>CDR1</b>  |         | <b>procr</b> | <b>0</b>   | <b>FCSUni</b> | <b>5052</b> |

## 5.7. Administer CDR Output Format

Enter **change system-parameters cdr** and choose one of the standard output formats for the **Primary Output Format** field (in this example, **customized** was entered). This selection will determine the expected call detail record format that will be administered in FCS Unicorn. For more information on CDR output formats in Avaya Aura® Communication Manager, please refer to [0].

```
change system-parameters cdr Page 1 of 2
```

| CDR SYSTEM PARAMETERS   |   |
|---|---|
| Node Number (Local PBX ID): 1                                       | CDR Date Format: day/month                  |
| Primary Output Format: <b>customized</b>                            | Primary Output Endpoint: <b>CDR1</b>        |
| Secondary Output Format:  |   |
| Use ISDN Layouts? n   | Enable CDR Storage on Disk? y               |
| Use Enhanced Formats? n   | Condition Code 'T' For Redirected Calls? n  |
| Use Legacy CDR Formats? n   | Remove # From Called Number? n              |
| Modified Circuit ID Display? n                                      | Intra-switch CDR? y                         |
| Record Outgoing Calls Only? n                                       | Outg Trk Call Splitting? y                  |
| Suppress CDR for Ineffective Call Attempts? y                       | Outg Attd Call Record? y                    |
| Disconnect Information in Place of FRL? n                           | Interworking Feat-flag? n                   |
| Force Entry of Acct Code for Calls Marked on Toll Analysis Form? n  |   |
|   | Calls to Hunt Group - Record: member-ext    |
| Record Called Vector Directory Number Instead of Group or Member? n |   |
| Record Agent ID on Incoming? n                                      | Record Agent ID on Outgoing? y              |
| Inc Trk Call Splitting? y   | Inc Attd Call Record? n                     |
| Record Non-Call-Assoc TSC? n  | Call Record Handling Option: warning        |
| Record Call-Assoc TSC? n  | Digits to Record for Outgoing Calls: dialed |
| Privacy - Digits to Hide: 0   | CDR Account Code Length: 15                 |



change system-parameters cdr Page 2 of 2

CDR SYSTEM PARAMETERS

| Data Item - Length   | Data Item - Length  | Data Item - Length |
|----------------------|---------------------|--------------------|
| 1: date - 6          | 17: in-trk-code - 4 | 33: -              |
| 2: time - 4          | 18: node-num - 2    | 34: -              |
| 3: sec-dur - 5       | 19: ins - 5         | 35: -              |
| 4: cond-code - 1     | 20: ixc-code - 3    | 36: -              |
| 5: code-dial - 4     | 21: bcc - 1         | 37: -              |
| 6: code-used - 4     | 22: ma-uui - 1      | 38: -              |
| 7: dialed-num - 23   | 23: res_flag - 1    | 39: -              |
| 8: calling-num - 10  | 24: tsc_ct - 4      | 40: -              |
| 9: acct-code - 15    | 25: tsc_flag - 1    | 41: -              |
| 10: auth-code - 7    | 26: space - 1       | 42: -              |
| 11: space - 1        | 27: return - 1      | 43: -              |
| 12: frl - 1          | 28: line-feed - 1   | 44: -              |
| 13: in-crt-id - 3    | 29: null - 1        | 45: -              |
| 14: out-crt-id - 3   | 30: null - 1        | 46: -              |
| 15: feat-flag - 1    | 31: null - 1        | 47: -              |
| 16: attd-console - 4 | 32: -               | 48: -              |

Record length = 120

## 5.8. Add Client Room Properties to a Class of Service

Enter **change cos**, and for the Class of Service to be assigned to guest telephones, set the **Client Room** field to **y** (as shown below for Class of Service 5).

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 | y | y | n | y | n        | y | n | y | n | y  | n  | y  | n  | y  | n  |
| Call Fwd-All Calls            | n | y | y | y | y | n        | n | y | y | n | n  | y  | y  | n  | n  | y  |
| Data Privacy                  | n | y | y | n | n | y        | y | y | y | n | n  | n  | n  | y  | y  | y  |
| Priority Calling              | n | y | y | n | n | n        | n | n | n | y | y  | y  | y  | y  | y  | y  |
| Console Permissions           | n | n | y | 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  |
| <b>Client Room</b>            | n | n | n | n | n | <b>y</b> | n | n | 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 | y | 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  |
| Automatic Exclusion           | n | y | y | n | n | y        | n | n | n | n | n  | n  | n  | n  | n  | n  |

## 5.9. Set Guest Room Calling Party Restrictions in a Class of Restriction (COR)

Enter **change cor *n***, where *n* is the number of the Class of Restriction to be assigned to guest telephones (in this example, COR 5 is used). In the **Calling Party Restriction** field, enter **all-toll**.

```

change cor 5                                     Page 1 of 23
                                     CLASS OF RESTRICTION

COR Number: 5
COR Description: Guest Room

FRL: 0                                           APLT? y
Can Be Service Observed? n                       Calling Party Restriction: all-toll
Can Be A Service Observer? n                     Called Party Restriction: none
Time of Day Chart: 1                             Forced Entry of Account Codes? n
Priority Queuing? n                               Direct Agent Calling? n
Restriction Override: none                       Facility Access Trunk Test? n
Restricted Call List? n                          Can Change Coverage? N

Access to MCT? y                                 Fully Restricted Service? n
Group II Category For MFC: 7                     Hear VDN of Origin Annc.? n
Send ANI for MFE? n                              Add/Remove Agent Skills? n
MF ANI Prefix:                                  Automatic Charge Display? n
Hear System Music on Hold? y PASTE (Display PBX Data on Phone)? n
Can Be Picked Up By Directed Call Pickup? n     Can Use Directed Call Pickup? n
Group Controlled Restriction: inactive
  
```

## 5.10. Assign Class of Service and Class of Restriction Values to Guest Telephones

For each guest telephone extension *x*, enter **change station *x*** and enter in the **COR** and **COS** fields the values corresponding to the Class of Service and Class of Restriction administered in **Section 3.8 and 3.9**, respectively.

```

change station 481121                           Page 1 of 4
                                     STATION

Extension: 481121                                Lock Messages? n           BCC: 0
Type: 2500                                       Security Code:             TN: 1
Port: 01A0601                                    Coverage Path 1:          COR: 5
Name:                                             Coverage Path 2:          COS: 5
Hunt-to Station:                                Tests? y

STATION OPTIONS
  XOIP Endpoint type: auto                       Time of Day Lock Table:
  Loss Group: 1                                  Message Waiting Indicator: none
Off Premises Station? n

Survivable COR: internal
Survivable Trunk Dest? y

Remote Office Phone? n

Passive Signalling Station? n
  
```

## 6. Configure FCS Unicorn

This section details the essential portion of the FCS Unicorn configuration to interoperate with Avaya Aura® Communication Manager. These Application Notes assume that the FCS Unicorn application has already been properly installed by FCS services personnel. Further details of the FCS Unicorn setup can be found in the Unicorn (Standard) v1.1 - Installation Manual v1.0 [3].

1. The Unicorn Avaya PMSi interface module port and data configuration is defined in the AvayaAscii-PBX.xml located in the “C:\Program Files (x86)\FCS\Unicorn\Control\” directory. The host is set as **tcp.ip** type listening to port **5053**. This corresponds with the setup of Communication Manager at **Section 5.6** for the **PMS** service type.

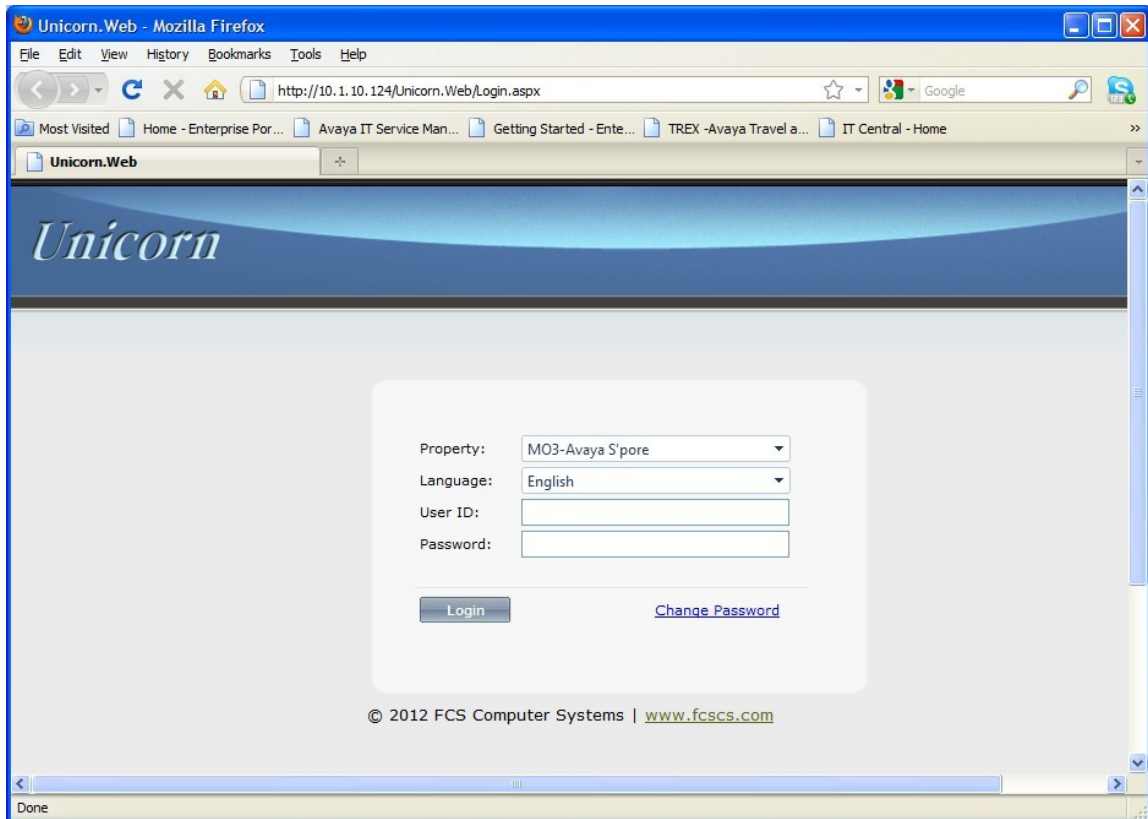
```
- <PBX ID="AvayaAscii">
- <!--
  need to match with the XML filename
  -->
- <CommunicationSetting>
  <Name>Avaya Ascii</Name>

  :
  :
  -->
<InterfaceType>2</InterfaceType>
<InterfaceSetting>H,10.1.10.124:5053</InterfaceSetting>
<UDPSvrInterfaceSetting />
- <!--
  if tcp.ip, interfaceSetting could be
  "X,192.168.1.12:5600",
  where X = H = host, C=client
```

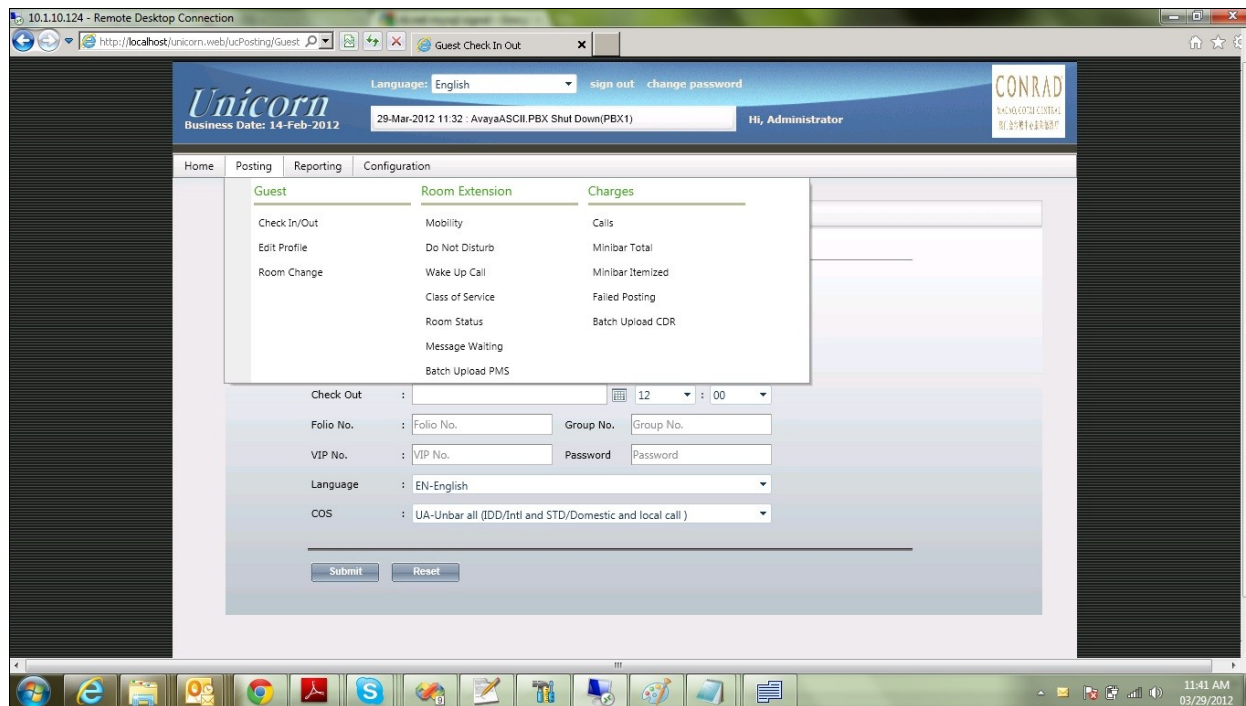
2. The Unicorn Avaya CDR interface module port & data configuration is defined in the Generic-CDR.xml located in the “C:\Program Files (x86)\FCS\Unicorn\Control\” directory. The host is set as **tcp.ip** type listening to port **5052**. This corresponds with the setup of Communication Manager at **Section 5.6** for the **CDR1** service type.

```
- <PBX ID="CDR1">
- <!--
  need to match with the XML filename
  -->
- <CommunicationSetting>
  <Name>Avaya</Name>
  <ProtocolFormat>2</ProtocolFormat>
- <!--
  1 =[STX]xxxxxx[ETX], 2=xxxxxxx[13][10] 3=[13][10]xxxxxxx, 4=Fixed Length
  -->
  <InterfaceType>2</InterfaceType>
- <!--
  1 = RS232, 2=tcp.ip 3=udp, 4=telnet,5=bisync 6=file sharing
  -->
  <InterfaceSetting>H,127.0.0.1:5052</InterfaceSetting>
- <!--
  if tcp.ip, interfaceSetting could be "X,192.168.1.12:5600" , where X = H = host, C=client
  -->
- <!--
  3,9600,n,8,1 - com. port 3, baud rate 9600,n,8,1
  -->
  <UDPSvrInterfaceSetting />
```

3. FCS Unicorn provides a web interface for posting and reporting. Administrator can login with the appropriate credentials from <http://<server name or ip address>/Unicorn.Web/Login.aspx> as shown below by substituting the appropriate server ip address where the FCS Unicorn is installed.



- The **Posting** tab below shows the various PMS features such as DND, Check In/Out, Guest Profile, etc that can administered from the web interface. Further details can be referred from the “Unicorn (Standard) v1.1 - User Manual v1.0” [4].



## 7. Verification Steps

This section describes steps that may be used to verify the configuration.

To verify that the PMS data link between Avaya Aura® Communication Manager and FCS Unicorn is operational, enter **status pms-link** at the SAT and look for a status of **up** in the **Physical Link State** and **Protocol State** fields.

```
status pms-link
                                PMS LINK STATUS

Physical Link State: up
Protocol State: up

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

To verify that the CDR data link between Avaya Aura® Communication Manager and FCS Unicorn is operational, enter **status cdr-link** at the SAT and look for a status of **up** in the **Link State** field of the CDR link to FCS Unicorn (in this example, the **Primary** link).

```

status cdr-link
                                CDR LINK STATUS
                                Primary                Secondary
                                Link State: up          CDR not administered
                                Date & Time: 2012/03/28 09:35:03    0000/00/00 00:00:00
                                Forward Seq. No: 0                    0
                                Backward Seq. No: 0                    0
                                CDR Buffer % Full: 0.00                0.00
                                Reason Code: OK

```

To verify the ability to check in guest extension *x*, initiate such a request from the associated Property Management System. At the Avaya Aura® Communication Manager SAT, enter **status station x** and verify that **Room Status** is **occupied** and **User Cntrl Restr** is **none**.

```

status station 481123
                                GENERAL STATUS
                                Administered Type: 2500             Service State: in-srv/on-hook or disc
                                Connected Type: N/A
                                Extension: 481123
                                Port: 01A0605                     Parameter Download: not-applicable
                                Call Parked? no                     SAC Activated? no
                                Ring Cut Off Act? no
                                Active Coverage Option: 1           one-X Server Status: N/A
                                EC500 Status: N/A                   Off-PBX Service State: N/A
                                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 procedures for configuring FCS Unicorn to interoperate with Avaya Aura® Communication Manager. All interoperability compliance test cases executed against such a configuration were completed successfully with observations noted in **Section 2.2**.

## 9. Additional References

- [1] *Administration for Network Connectivity for Avaya Communication Manager*, Sep 2010, Document ID 555-233-504 Issue 15.0, available at <http://support.avaya.com>.
- [2] *Administering Avaya Aura™ Communication Manager Release 6.0*, Jun 2010, Document ID 03-300509 Issue 6.0, available at <http://support.avaya.com>.
- [3] *Unicorn (Standard) v1.1 - Installation Manual v1.0*, available at <http://www.fcscs.com>
- [4] *Unicorn (Standard) v1.1 - User Manual v1.0*, available at <http://www.fcscs.com>

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