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Avaya Solution & Interoperability Test Lab

Application Notes for FCS WinSuite with Avaya Communication Manager - Issue 1.0

Abstract

These Application Notes describe the procedures for configuring FCS WinSuite to interoperate with Avaya Communication Manager. FCS WinSuite is a Windows-based Hospitality system that provides a real-time multitasking interface between Avaya Communication Manager and a hotel's Property Management System.

Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab at the request of the Solutions Marketing Team.

PV; Reviewed:
SPOC 1/27/2009

Solution & Interoperability Test Lab Application Notes
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CM-FCSWS-R5

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1. Introduction

These Application Notes describe the procedures for configuring FCS WinSuite to interoperate with Avaya Communication Manager. FCS WinSuite is a Windows-based Hospitality system that provides a real-time multitasking interface between Avaya Communication Manager and a hotel's 3rd party Property Management System (PMS). FCS WinSuite 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 Hospitality features are enabled by a PMS data link to Avaya Communication Manager. When notified of a guest room check-in, FCS WinSuite 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 WinSuite restricts outbound calls on the guest room extension and sets its Hospitality Status to "vacant."

These Application Notes present a sample configuration for a hotel environment.

1.1. Interoperability Compliance Testing

Interoperability compliance testing focused on FCS WinSuite's ability to work with Avaya Communication Manager Release 5.0. FCS WinSuite features and capabilities that were verified included check-in/check-out, room change for guest extensions, 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. Call accounting functionality was not tested. In addition, FCS VoiceMail was used to exercise specific capabilities like AWU and MWL. Analog ports on the Intel Dialogic card in the FCS VoiceMail server connects to analog circuit pack (TN 746B) on one of the Avaya G650 Media Gateways.

1.2. Support

For technical support on FCS WinSuite, contact FCS Computer Systems at http://www.fcscs.com/support.htm.

1.3. Hospitality Solution Overview

Hospitality solution is designed for hotel/hospitality environment and is comprised of the following **core components**:

- ✣ **Avaya Communication Manager and Avaya SES** to provide the IP-PBX functionality.

- ✣ **Avaya 4626 IP** Telephones.

- ✣ **Avaya one-X Deskphone SIP** for 9600 Telephones Hospitality Release (2.2.0.7).

- ✣ **FCS WinSuite** is a Windows-based Hospitality system that provides real-time multitasking interface between Avaya Communication Manager and a hotel's Property Management System (PMS). FCS WinSuite 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. When notified of a guest room check-in, FCS WinSuite 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 WinSuite restricts outbound calls on the guest room extension and sets its Hospitality Status to "vacant."

- ✣ **FCS Voicemail** integration provides voicemail capabilities and other features applicable in a hospitality environment. FCS VoiceMail is a Windows based Voice Messaging System which is connected to Avaya Communication Manager via analog phone lines. FCS Voicemail utilizes DTMF signaling (specifically mode codes) to communicate Called Party Identification (CPI) and other information to Avaya Communication Manager, in addition to passing voice signaling and traffic. FCS VoiceMail with FCS WinSuite also provides PMS functionality such as check-in, check-out, room status, minibar and Automatic Wake-Up (AWU). Please refer to [3] for additional details.

- ✣ **Teledex iPhone™ SIP LD4200 and ND2200 Series phones** are SIP endpoints. They integrate into a SIP environment, providing the cost control benefits of managing one network for both voice and data services to guest rooms. The integrated offer for Hospitality Solution consists of two types of Teledex iPhone™ - ND2210S and LD4210S. The ND2210S and LD4210S SIP phones utilize the same firmware and provide the same functionality. However, the LD4210S SIP phone consists of a 5.6-inch color touch screen display, while the ND2210S SIP phone does not have a display. Please refer to [4] for additional details.

- ✣ **Teledex iPhone™ HD6100/6200 Series phones** are hybrid endpoints designed for hotel environment. Teledex iPhone™ HD6100/6200 series phones combine a standard analog phone with an interactive color touch screen display. It is designed for hotel properties which have not upgraded their infrastructure and still have analog wiring to the rooms. Please refer to [3] for additional details.

2. Reference Configuration

The network implemented for the reference configuration is shown in **Figure 1**. It shows a network consisting primarily of a pair of Avaya S8720 Servers running Avaya Communication Manager in a High Reliability configuration with two Avaya G650 Media Gateways, and FCS VoiceMail server. The terminals used in the testing which can be used for guest rooms or the hotel staff include Avaya 4626[1] IP Telephones, 96xx SIP Telephones and Teledex iPhones. In addition, FCS WinSuite was used to exercise specific capabilities in FCS VoiceMail. Analog ports on the Intel Dialogic card in the FCS VoiceMail server connects to ports on one of the Avaya G650 Media Gateways. Avaya SoftConsole is a console attendant which can answer calls, conference, hold and transfer guest calls. The Softconsole can view the guest room status. When the PMS system is down, Avaya SoftConsole can check-in/check-out guests.
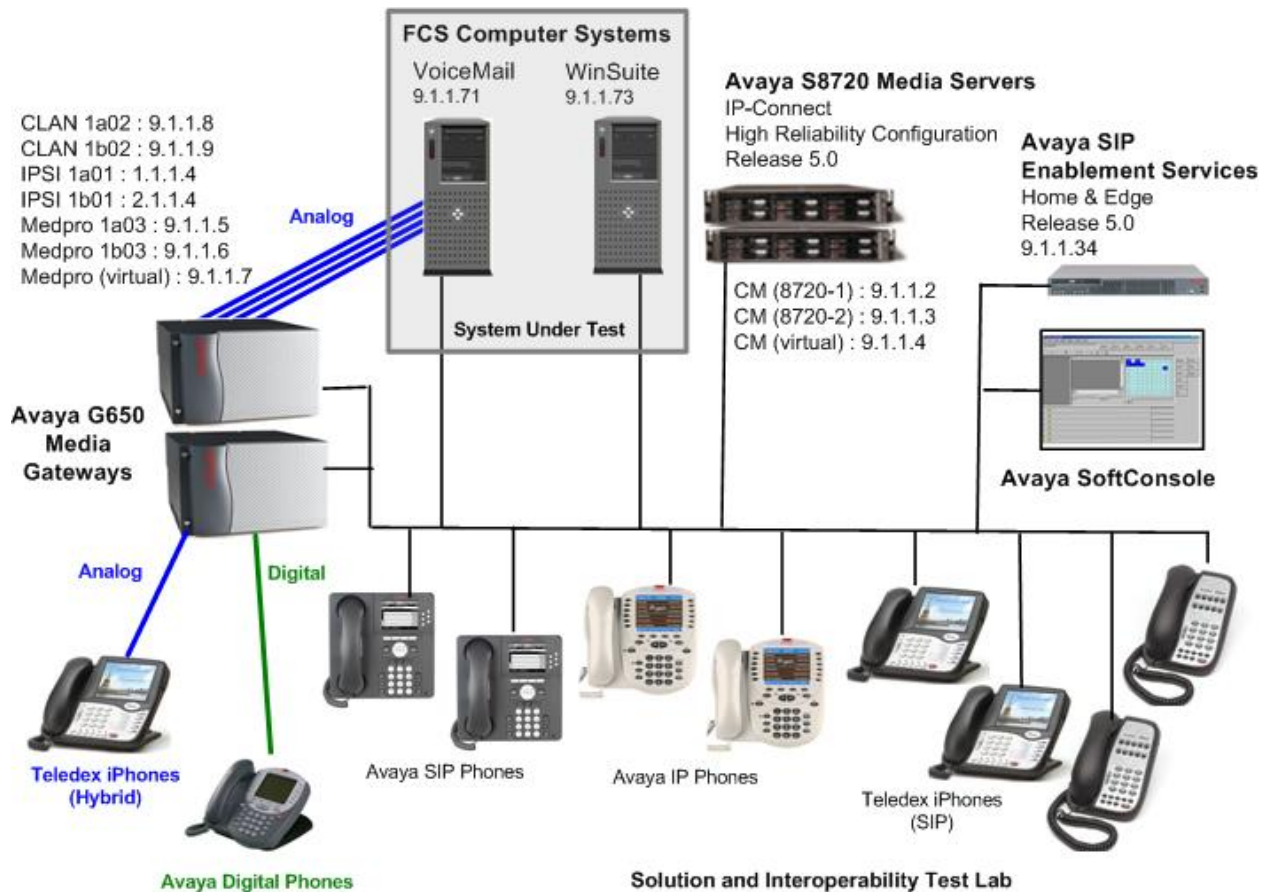

Figure 1: Test Configuration

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[1] This telephone was designed and developed specifically for Hospitality environments.

3. Equipment and Software Validated

The following equipment and software versions were used for the sample configuration.

Device Description	Versions Tested
Avaya Communication Manager - S8720 Servers	Release 5.0 (R015x.00.0.825.4)

Avaya G650 Media Gateway
  - IPSI (TN2312BP)
  - CLAN (TN799DP)
  - MedPro (TN2602AP)
  - Analog Line (TN746B)
	
	- HW15 FW044
	- HW01 FW26
	- HW02 FW044
	- 000019

Avaya SES (Combined Home-Edge)	Release 5.0 (825.31)
Avaya 4626 IP Telephones	R2.4
Avaya 9600 Series SIP Telephones	R2.2.0.7
Avaya 6211 Analog Telephones	N/A
Avaya 2420 Digital Telephones	N/A

Avaya SoftConsole
    iClarity
    Master Directory
    Scapi 32.dll
	1.58.02
	4,1,3,15
	4.4
	0.0.0.16

Teledex iPhone™
    SIP LD4100/4200 Series
    SIP ND2200 Series
	Boot Version 2.0.2 (Build Date 7/22/08)

Teledex iPhone™ SIP HD6200 Series	Boot Version 8.09.53.42 (Build Date 3/28/08)
FCS WinSuite Server	WinSuite 99 Version 3.0.14 Microsoft Windows Server 2003 Enterprise Edition, SP1
FCS Voicemail Server Dialogic 12-port Analog Line Card	3.1.2 Microsoft Windows Server 2003 Enterprise Edition, SP1

4. Configure Avaya Communication Manager

This section details the steps required to configure Avaya Communication Manager to interoperate with FCS WinSuite. These Application Notes assume the Avaya Media Gateways (including circuit packs) have already been administered. Please refer to [1] 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.

Step	Description

1.	*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 **70** is used).
	 • PMS Endpoint: **PMS**.
	
	 <pre>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-pms
	             Default Coverage Path for Client Rooms: 70
	            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: 200
	                PMS Link Maximum Retransmissions: 3
	          PMS Link Maximum Retransmission Requests: 3
	                 Take Down Link for Lost Messages? y</pre>

Step	Description

2.	*Set room status values:*
	
	Advance to **Page 3** and enter the following values for the fields indicated:
	
	   - Definition for Rooms in State 1: **Occupied Clean** - Definition for Rooms in State 2: **Occupied Dirty** - Definition for Rooms in State 3: **Vacant Clean** - Definition for Rooms in State 4: **Vacant Dirty** - Definition for Rooms in State 5: **Out of order** - Definition for Rooms in State 6: **Cleaning in Progress**
	<pre>change system-parameters hospitality Page 3 of 3
	        ROOM STATES HOSPITALITY
	
	        Definition for Rooms in State 1: Occupied Clean
	        Definition for Rooms in State 2: Occupied Dirty
	        Definition for Rooms in State 3: Vacant Clean
	        Definition for Rooms in State 4: Vacant Dirty
	        Definition for Rooms in State 5: Out of order
	        Definition for Rooms in State 6: Cleaning in Progress
	
	      HOSPITALITY FEATURES
	                             Suite Check-in? n
	         Cancel Do-Not-Disturb for Wakeup Calls? y</pre>

Step	Description

3.	*Administer feature access codes (FACs) for entering Housekeeping Status:*
	
	Enter **change feature-access-codes** and advance to **Page 7**.
	
	• **Housekeeping Status (Client Room) Access Codes**: Enter unique FACs for each. These codes will be used by the hotel staff to update the room status from the guest room and will corresponds to the room status values administered in **Step 2**.
	
	• **Housekeeping Status (Station) Access Codes:** Enter unique FACs for each. These codes will be used by the hotel staff to update the room status from the designated station and will correspond to the first four room status values administered in **Step 2**.
	
	<pre>change feature-access-codes Page 7 of 9
	                          FEATURE ACCESS CODE (FAC)
	                            Hospitality Features
	
	             Automatic Wakeup Call Access Code: *87
	  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: *71
	      Housekeeping Status (Station) Access Code: *72
	      Housekeeping Status (Station) Access Code: *73
	      Housekeeping Status (Station) Access Code: *74
	      Verify Wakeup Announcement Access Code:
	             Voice Do Not Disturb Access Code: *88</pre>

Step	Description

4.	*Define the FCS WinSuite server as an IP Node Name:*
	
	 Enter **change node-names ip**, and add an entry for the FCS WinSuite server, using an appropriately descriptive value for the **Name** (in this case, **FCS3**) and the corresponding **IP Address** (in this example, **9.1.1.73**).
	
	 <pre>change node-names ip Page 1 of 2
	                           IP NODE NAMES
	     Name IP Address
	CLAN-01A02 9.1.1.8
	CLAN-01B02 9.1.1.9
	GVT-S8300-LSP 9.1.4.2
	MedPro-01A03 9.1.1.5
	MedPro-01B03 9.1.1.6
	S8500-ESS 9.0.1.4
	SES1 9.1.1.34
	default 0.0.0.0
	procr 9.1.1.3
	FCS3 9.1.1.73
	
	(9 of 9 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</pre>

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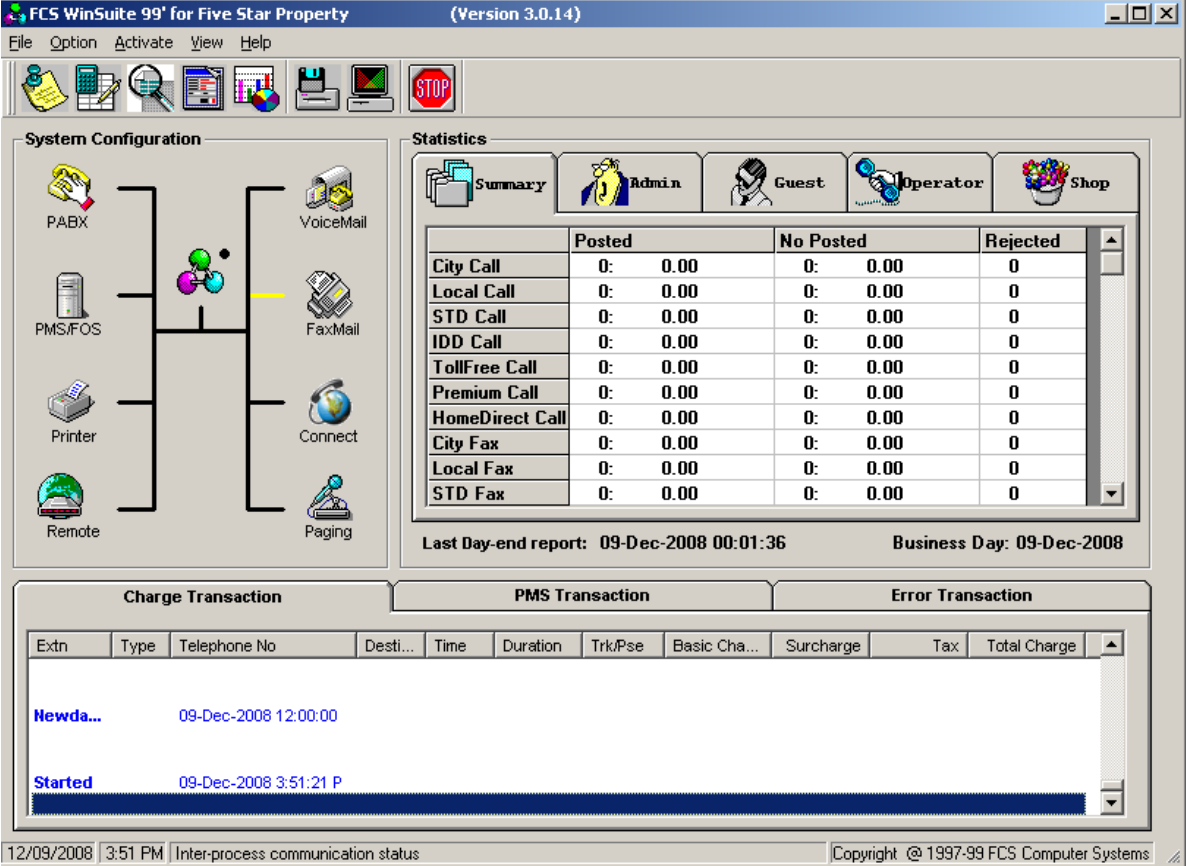
Step	Description
5.	*Define IP services in support of the PMS link:* Enter **change ip-services** and add entries with a Service Type for **PMS.** In each case, enter the following values in the remaining fields: • Local Node: The IP Node Name of a C-LAN board (in this example, **CLAN-01A02** is used for each IP service definition). • Remote Node: The IP Node Name of the FCS WinSuite server, as defined in **Step 4**. • Remote Port: A valid unused port (in this example, the recommended value of **5103** is used for **PMS**, while **5050** is used for **CDR1**).

```
change ip-services                                          Page   1 of   4

                               IP SERVICES
 Service     Enabled     Local        Local       Remote        Remote
  Type                   Node         Port        Node          Port
 PMS                     CLAN-01A02   0           FCS3          5103
 CDR1                    CLAN-01A02   0           FCS3          5050
```

Step	Description
6.	*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  y  y  n  y  n  y  n  y  n  y  n  y  n
 Call Fwd-All Calls            n  y  y  y  y  y  n  y  y  n  y  y  y  n  n  y
 Data Privacy                  n  n  n  n  n  y  y  y  y  n  n  n  n  y  y  y
 Priority Calling              n  y  y  y  n  y  n  n  n  y  y  y  y  y  y  y
 Console Permissions           n  y  y  y  n  n  n  n  n  n  y  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  y  y  n  n  n  n  n  n  n  n  n
 Restrict Call Fwd-Off Net     y  y  y  y  y  y  y  y  y  y  n  y  y  y  y  y
 Call Forwarding Busy/DA       n  y  y  y  n  n  n  n  n  n  y  n  n  n  n  n
 Personal Station Access (PSA) y  y  n  n  y  n  y  y  y  y  n  y  y  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  y  y  n  n  y  n  y  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
```

Step	Description

7.	*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**.
	
	<pre>change cor 5 Page 1 of 23
	                            CLASS OF RESTRICTION
	
	                  COR Number: 5
	           COR Description: Hotel Guest Rooms
	
	                       FRL: 0 APLT? y
	   Can Be Service Observed? n Calling Party Restriction: all-toll
	 Can Be A Service Observer? n Called Party Restriction: none
	  Partitioned Group Number: 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
	    Unrestricted Call List:
	             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</pre>
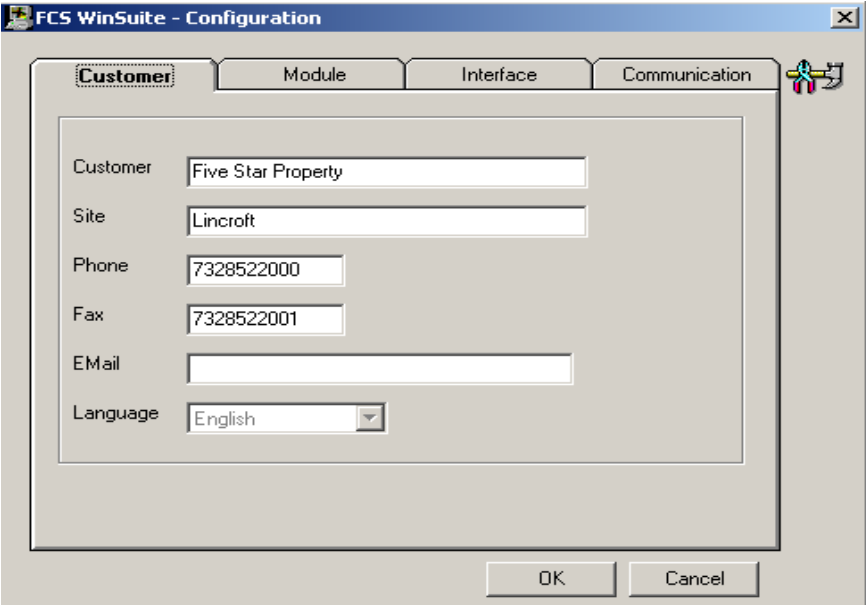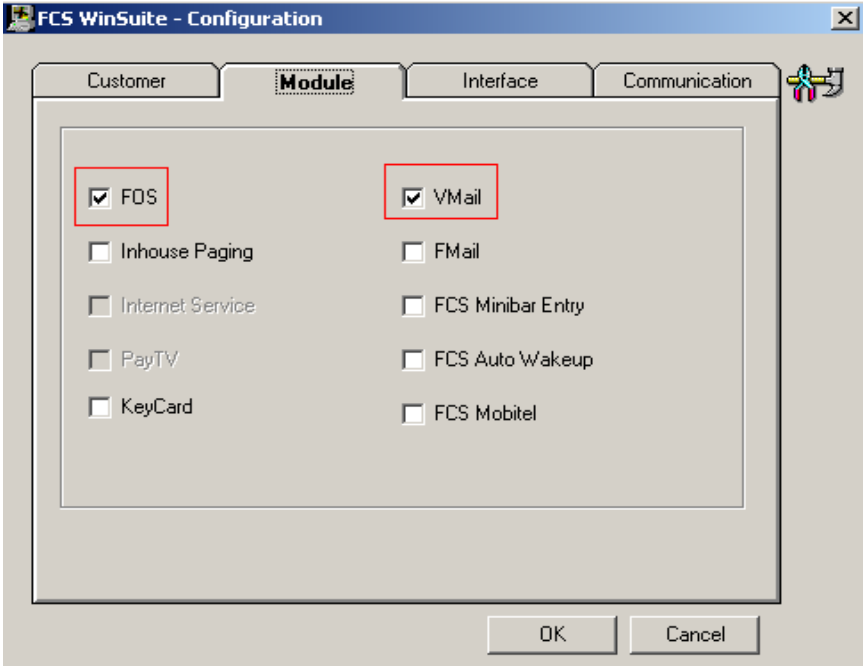
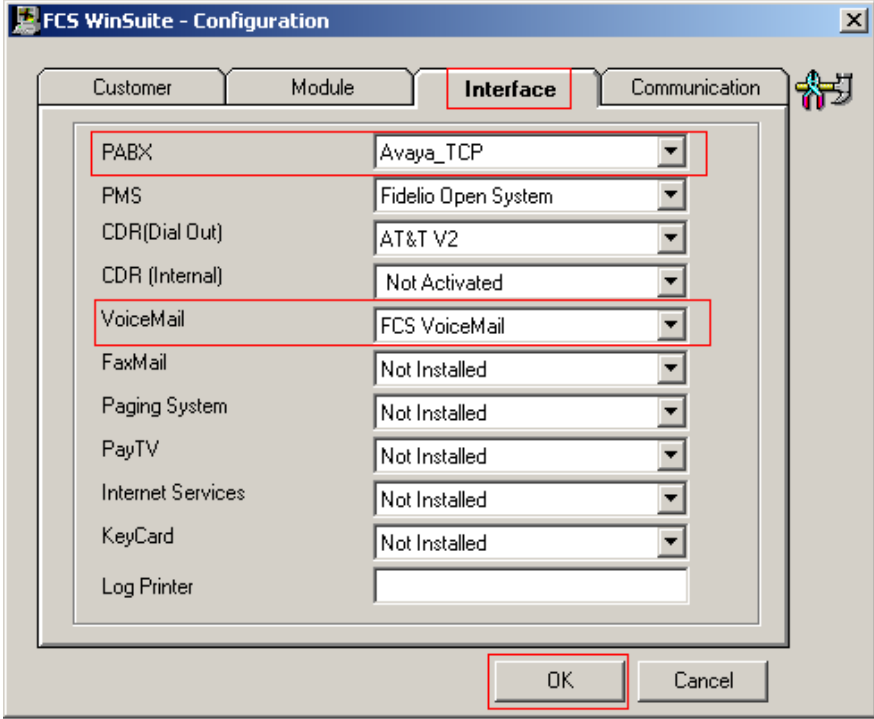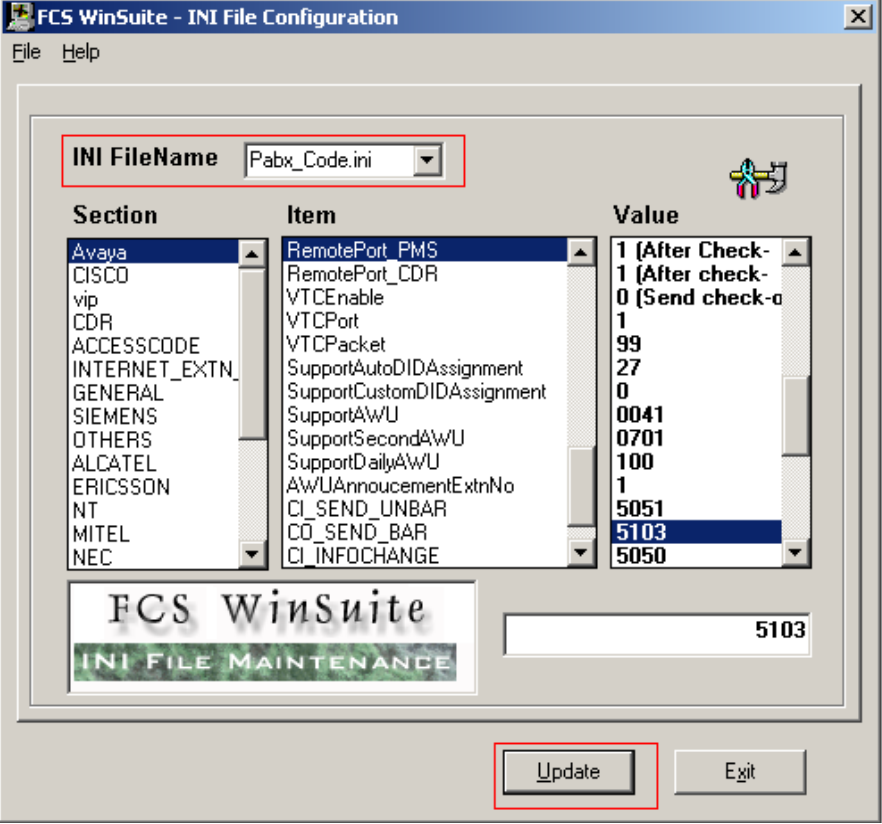| Step	Description

8.	*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 **Steps 6 and 7**, respectively.
	
	<pre>change station 44000 Page 1 of 5
	                              STATION
	
	Extension: 44000 Lock Messages? n BCC: 0
	     Type: 4625 Security Code: 123456 TN: 1
	     Port: S00062 Coverage Path 1: COR: 5
	     Name: Coverage Path 2: COS: 5
	                                 Hunt-to Station:
	STATION OPTIONS
	                                    Time of Day Lock Table:
	              Loss Group: 19 Personalized Ringing Pattern: 1
	                                       Message Lamp Ext: 44000
	          Speakerphone: 2-way Mute Button Enabled? y
	      Display Language: english Expansion Module? n
	  Survivable GK Node Name:
	          Survivable COR: internal Media Complex Ext:
	     Survivable Trunk Dest? y IP SoftPhone? n
	
	                                           IP Video? n
	
	                                 Customizable Labels? Y</pre>

9.	*Save Translations:* Enter **save translation** to save configuration on the Avaya Communication Manager.

5. Configure FCS WinSuite

This section details the steps required to configure FCS WinSuite to interoperate with Avaya Communication Manager. These Application Notes assume that the FCS WinSuite application has already been properly installed by FCS services personnel. FCS VoiceMail was used to exercise specific capabilities like AWU and MWL. Some of the configuration steps in the following section are required in the FCS WinSuite and also in the FCS VoiceMail application. Please refer to [3] for additional information on FCS VoiceMail.
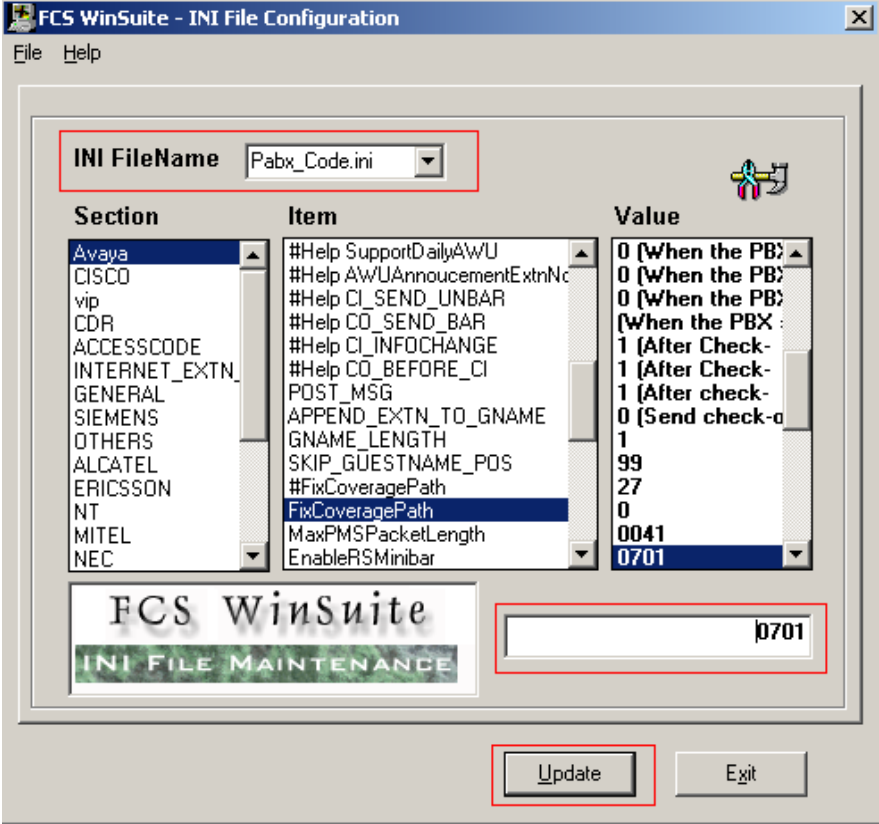
Step	Description
1.	Open the FCS WinSuite administration client by clicking on the FCS Winsuite icon. The **FCS WinSuite 99** screen is presented, as shown below.

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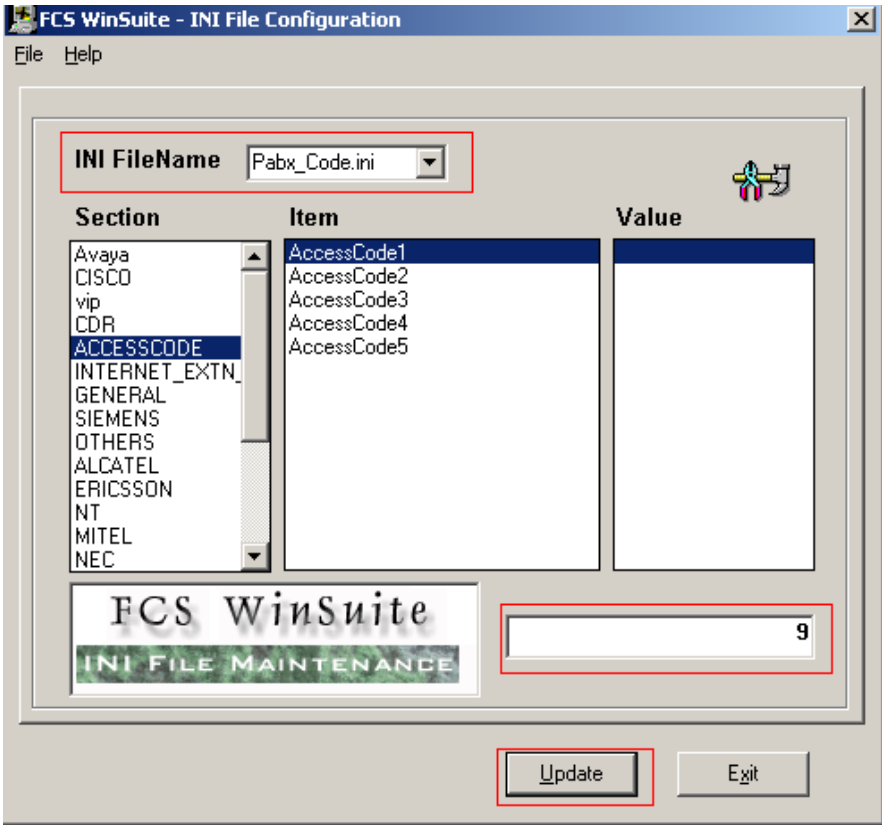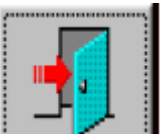
Step	Description
2.	Select **Activate -> WinSuite Configuration.** In the subsequent **Password** window, enter the appropriate password to open the **FCS WinSuite Configuration** main screen, shown below.
3.	Click the **System** icon from the FCS Winsuite Configuration main menu. In the System dialog box, select **Configuration**.

Step	Description
	The **FCS WinSuite – Configuration** screen is presented.

The **FCS WinSuite – Configuration** screen is presented.

- Under the **Customer** tab, enter the general information relevant to the hotel. The name specified in the "Customer" text box will appear on the FCS WinSuite start-up screen and in the title bar of the FCS WinSuite program main screen.

- Under the **Module** tab, check the appropriate box to enable **FOS** for Front Office Simulator and **VMail** for FCS VoiceMail.

Step	Description
	• Under the **Interface** tab, select "Avaya_TCP" and "FCS VoiceMail" from the drop-down menus for the **PABX** and **VoiceMail** fields, then click **OK**.

Step	Description
4.	*Configure the PMS and CDR data links to Avaya Communication Manager:* From the **System** window (as described in **Step 3**), select **INI Config**. • In the **FCS WinSuite – INI File Configuration** window that is presented, select **Pabx_Code.ini** from the **INI FileName** drop-down field. • Select **Avaya** in the **Section** column. • Select **RemotePort_PMS** in the **Item** column and enter the **Remote Port** value used for the corresponding service as administered in **Section 4, Step 5**. Click **Update**.

Step	Description
5.	*Configure the Coverage path:* From the **System** window (as described in **Step 3**), select **INI Config**. • In the **FCS WinSuite – INI File Configuration** window that is presented select **Pabx_Code.ini** from the **INI FileName** drop-down field. • Select **Avaya** in the **Section** column. • Select **FixCoveragePath** in the **Item** column and enter the value that is configured in Avaya Communication Manager to direct coverage calls for guest extensions to FCS Voicemail. <u>Note:</u> This field requires a 4-digit value 0xx1 where xx is the coverage path on Avaya Communication Manager. For example, for a coverage path 70, the value to be configured in this field will be 0701. This coverage path information will be sent over the PMS interface, when a guest is checked-in. When the guest is checked-out, the coverage path for unoccupied room will revert to the Default Coverage Path for Client Rooms in **Section 4, Step 1**. • Click **Update**.

Step	Description
6.	*Identify the ARS access code used by Avaya Communication Manager in CDR records:* From the **System** window (as described in **Step 3**), select **INI Config**. • In the **FCS WinSuite – INI File Configuration** window that is presented select **Pabx_Code.ini** from the **INI FileName** drop-down field. • Select **ACESSCODE** in the **Section** column. • Select **AccessCode1** in the **Item** column and enter the ARS access code in the lower-right text field (in this case, **9**) and click **Update**.
7.	Exit the **FCS WinSuite – Configuration** main screen by clicking the **Exit** icon.

6. General Test Approach and Test Results

Feature functionality testing was performed manually. Inbound calls were made to the Avaya 4626 IP Telephones and 96xx SIP Telephones (i.e. the guest telephones). 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.

Few observations were made during testing which are noted below:

1. Errors were seen when the LAN connection was removed from the WinSuite server.
2. FCS WinSuite application needed to be restarted on occasion if the PMS data link went down. This, however, was not the general case, and the restart of FCS WinSuite is a sufficiently fast process such that service interruption is minimal.

7. Verification Steps

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

Step	Description
1.	To verify that the PMS data link between Avaya Communication Manager and FCS WinSuite 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? No ```

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

Before check-in:

```
status station 44000                                       Page   1 of   7
                            GENERAL STATUS
        Administered Type: 4625                 Service State: in-service/on-hook
          Connected Type: 4626            TCP Signal Status: connected
              Extension: 44000
                    Port: S00062         Parameter Download: complete
             Call Parked? no                     SAC Activated? no
       Ring Cut Off Act? no
Active Coverage Option: 1

            EC500 Status: N/A        Off-PBX Service State: N/A
      Message Waiting:
      Connected Ports:


   Limit Incoming Calls? no

 User Cntrl Restr: outward                          HOSPITALITY STATUS
Group Cntrl Restr: none                       Awaken at:
                                               User DND: not activated
                                              Group DND: not activated
                                            Room Status: vacant
```

After check-in a guest:

```
status station 44000                                       Page   1 of   7
                            GENERAL STATUS
        Administered Type: 4625                 Service State: in-service/on-hook
          Connected Type: 4626            TCP Signal Status: connected
              Extension: 44000
                    Port: S00062         Parameter Download: complete
             Call Parked? no                     SAC Activated? no
       Ring Cut Off Act? no
Active Coverage Option: 1

            EC500 Status: N/A        Off-PBX Service State: N/A
      Message Waiting:
      Connected Ports:


   Limit Incoming Calls? no

 User Cntrl Restr: none                             HOSPITALITY STATUS
Group Cntrl Restr: none                       Awaken at:
                                               User DND: not activated
                                              Group DND: not activated
                                            Room Status: occupied
```

8. Conclusion

These Application Notes describe the procedures for configuring FCS WinSuite to interoperate with Avaya Communication Manager.   All interoperability compliance test cases executed against such a configuration were completed successfully.

9. Additional References

1. "Administration for Network Connectivity for Avaya Communication Manager," Document ID 555-233-504.
2. "Administrator Guide for Avaya Communication Manager," Document ID 03-300509.
3. "Application Notes for FCS VoiceMail with Avaya Communication Manager."
4. "Application Notes for Teledex iPhone and Avaya Communication Manager and Avaya SIP Enablement Services"
5. "Application Notes for Teledex iPhone Hybrid HD6200 and Avaya Communication Manager"

Additional product documentation may be found at the following sites:

- Avaya: http://support.avaya.com
- FCS: http://www.fcscs.com