



## Avaya Solution & Interoperability Test Lab

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### **Application Notes for Configuring Avaya Communication Server 1000E IP Attendant with DATAPULSE Intuition Acclaim Connected to Avaya IP Media Services via an Avaya Network Routing Server – Issue 1.0**

#### **Abstract**

These Application Notes describe the configuration steps required for Avaya Communication Server 1000E R7.5 IP Attendant with DATAPULSE Intuition Acclaim using the Avaya Network Routing Server to connect to Avaya IP Media Services.

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

Intuition Acclaim is a suite of applications built around an operator console called Switchboard that runs on a desktop PC, providing operators with extended call-handling functionality. In addition, it offers directory, search, absence, person-specific announcements and other additional benefits. Switchboard and its underlying components are the only part of the suite that has direct integration with the Avaya Communication Server 1000E.

The Intuition Acclaim Switchboard application uses the Avaya IP Attendant SDK in order to connect to and communicate with the Avaya IP Attendant Gateway and Avaya Media Application Server. This SDK is responsible for the signalling and voice media path and the Intuition Acclaim console controls the interactions.

The IP Attendant 3260 is an IP-enabled Attendant Console that replaces the need for a Personal Computer Console Interface Unit (PCCIU) or Avaya 2250 Attendant Console for supported third party Attendant Console clients such as DATAPULSE Intuition Acclaim. The IP Attendant Console is included with the IP Media Services applications that are installed as part of the Signalling Server software.

**Note:**

- The IP Attendant 3260 is not supported for Avaya Communication Server 1000M (Avaya CS 1000M) systems; it is supported for Avaya Communication Server 1000E (CS1000E) systems only.
- The IP Attendant 3260 is not supported with Avaya Aura Session Manager.

The IP Attendant Gateway application on the CS1000E Signalling Server uses Session Initialization Protocol (SIP) to manage signalling between the IP Attendant Console and the Avaya Media Server (AMS). Communication with the Call Server is managed using the existing PC TCM messaging, which is now over TCP. In a Direct deployment, the IP Attendant client communicates directly with an IP Attendant Gateway and then on to the Local Media Server. In a Redirect deployment, the IP Attendant client communicates directly with an IP Attendant Gateway but then uses Avaya Network Routing Server (NRS) to determine the appropriate AMS.

**Note:** In this solution/configuration Intuition Acclaim will only operate using the NRS in Redirect mode to connect to the AMS. The Avaya Aura® Session Manager is not a supported configuration for IP Attendant interworking, although it may be used as a proxy server for other features such as SIP trunks and Endpoints, etc. There is an associated application note in which the Intuition Acclaim uses Local Media Server rather than NRS.

## **2. General Test Approach and Test Results**

The general test approach was to configure the Intuition Acclaim to communicate with the CS1000E as implemented on a customer's premises. Testing focused on verifying that Intuition Acclaim registered with the IP Attendant and all features of the Switchboard behaved as expected. Various call scenarios were performed to simulate real call types as would be observed on a customer premises. See **Figure 1** for a network diagram. The interoperability compliance test included both feature functionality and serviceability tests.

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 testing included:

- Verification of connectivity between:  
    CS1000E and the Intuition Acclaim PC
- Switchboard answers direct calls
- Supervised and unsupervised transfer with answer
- Directing calls to busy extensions
- Call queuing and retrieval
- Detection for busy and unanswered extensions
- person-specific announcements
- End to End signalling
- Break in to busy extensions
- Call Requeuing
- Conference calls

### **2.2. Test Results**

Tests were performed to insure full interoperability of Intuition Acclaim and CS1000E solution. The tests were all functional in nature and performance testing was not included. All the test cases passed successfully.

### **2.3. Support**

EMEA Technical support from DATAPULSE can be obtained through the following:

Phone:        Monday to Friday 08:30-17:30 use +44 118 972 8407  
                24/7 support outside above hours use +44 118 972 8422

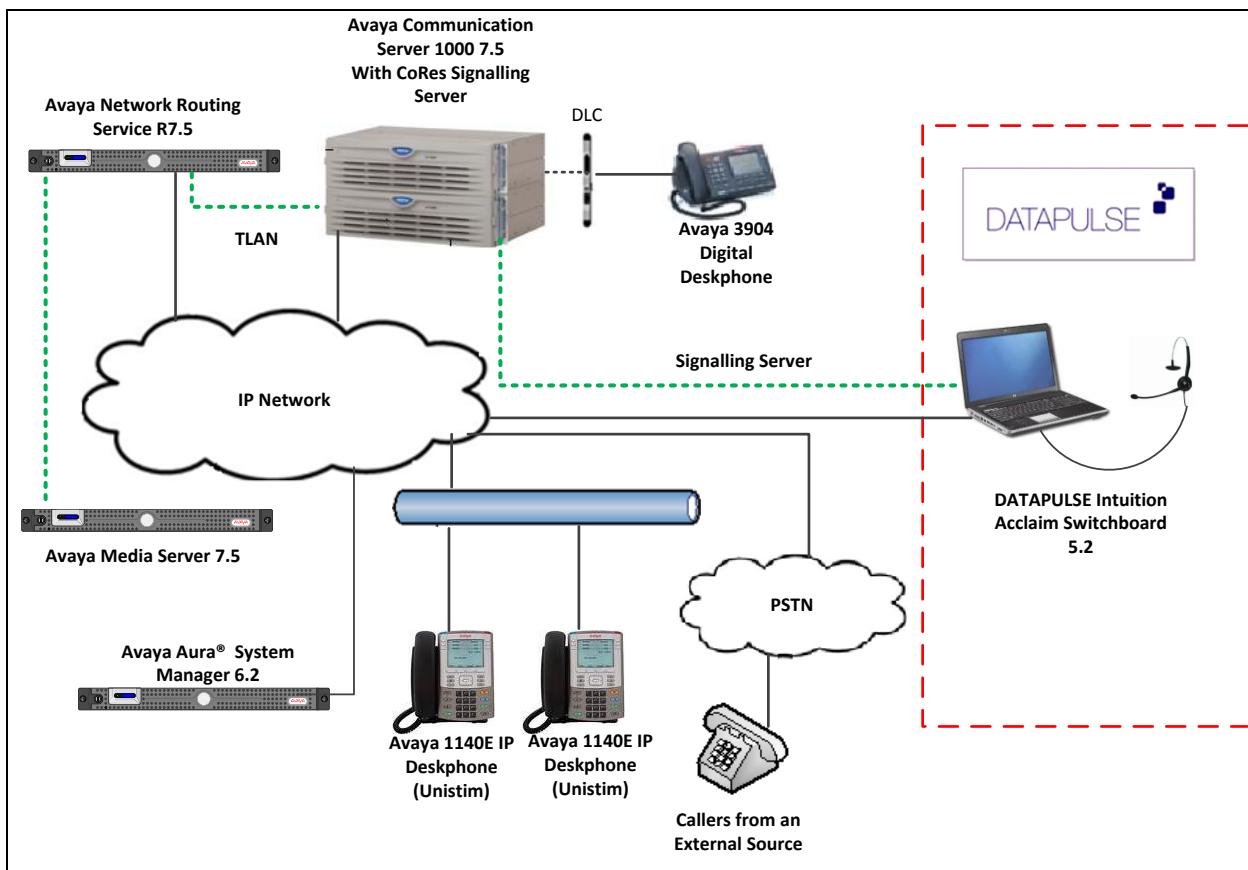
E-mail:        [support@datapulse.com](mailto:support@datapulse.com)

### 3. Reference Configuration

**Figure 1** illustrates the network topology used during compliance testing. The Avaya solution consists of a CS1000E CoRes, an AMS and an NRS in Redirect mode.

The Intuition Acclaim registered to the CS1000E as an IP Attendant 3260, for which an IP Attendant 3260 was configured on the Call Server. A Media Service Routing Number (MSRN) was configured for the Customer in which the IP Attendant was defined.

The signalling between the Intuition Acclaim and the CS1000E is via the IP Attendant Gateway on the Signalling Server Gateway. The Media Services Controller on the Signalling Server (Proxy/Redirect) pointed to the n via the NRS. The NRS was added as a Trusted Node on the AMS as also was a Route. The AMS was added as a Static SIP Endpoint on the NRS. A Routing Entry for the Media Services Routing Number (MSRN) is configured on the NRS to point to the AMS. Digital 3904 and UNIStim 1140E IP phones were configured on the CS1000E to generate intra-switch calls (calls between phones on the same system), and outbound calls to the PSTN. A SIP trunk was configured to connect the CS1000E to the PSTN.



**Figure 1:** Avaya CS1000E and DATAPULSE Intuition Acclaim Reference Configuration

## 4. Equipment and Software Validated

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

Avaya Equipment	Software / Firmware Version
Call Processor Pentium Mobile (CPPM) Avaya Media Gateway NTDW60	Avaya Communication Server 1000E R7.5 FPGA AA18
IBM System x3350 running Avaya Media Application Server	Avaya Media Application Server 7.50.17.00
IBM System x3350 running Avaya Network Routing Server	Avaya Network Routing Server 7.50.17.00
Avaya Digital Line Card	NT8D02
Avaya 1100 series IP Telephones • 1140E	0625C8A (UniStim 5.0) SIP FW 04.00.04.00.bin
Avaya 3904 Digital set	Core F/W 024 Flash F/W 094
Avaya IP Attendant SDK (runs on Intuition client PC)	Avaya IP Attendant SDK 1.4.1.39
DATAPULSE Equipment	Software / Firmware Version
Dell Latitude running Windows 7 Professional SP1	DATAPULSE Intuition Acclaim Version 5.2

## 5. Configure Avaya Communication Server 1000E

The configuration operations illustrated in this section were performed using terminal access to the CS1000E over a telnet session. It is implied a working system is already in place. For all other provisioning information such as Installation and Configuration, please refer to the product documentation in **Section 12. Appendix B** has a list of all CS1000E patches, deplist and service packs loaded on the system. The configuration operations described in this section can be summarized as follows: (The configuration details in this section relate to the configuration used during compliance testing)

- Configure IP Attendant Type 3260
- Configure ATT\_Data Block
- Configure FTR\_Data Block

**Note:** Ensure the CS1000E has sufficient licenses for **IP MEDIA SESSIONS** and **IP ATTENDANT CONSOLES** see **Appendix A**

## 5.1. Configure IP Attendant Type 3260

Intuition Acclaim connects to and uses an IP Attendant Console type 3260. In order to configure the attendant console type 3260 **LD 12** is used. Subsets of these commands are illustrated below. **Note:** The **TN** (Primary TN) and **SETN** (Secondary TN) are required when configuring Intuition Acclaim in **Section 9.1**.

### LD 12

Prompt	Response	Description
>	LD 12	Enter Overlay 12
REQ	New	New Data
TYPE	3260	Attendant type
TN	096 0 00 10	Terminal number
CTYP	XDLC	Card type
SETN	096 0 00 11	Secondary Terminal number
CUST	0	Customer number
ANUM	6	Attendant number
IADN	5114	Attendant Destination number
SSU		
ICDR ICDD		
ABAN ABDD		
CPND CNDA		
PRES 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19		
QTHM 00 NUL NUL NUL		
AADN		
DNDI DNDA		
ZONE 00002		
IPCR NO		
DAPC DAPA		
LANG 00		
KEY 00 BVR		
KEY 01 BIN		
KEY 02 BKI		
KEY 03 AWU		
KEY 04 PRK		
KEY 05 DPD		
KEY 06 DPS		
KEY 07 DCW		
KEY 10 MIK		
KEY 11 MCK		
KEY 12 SACP		
KEY 13 SECL		
KEY 14 SCC 0001		
KEY 15 EES		
KEY 16 DDL		
KEY 17 COS		

## 5.2. Configure ATT\_DATA Block

Attendant Data needs to be configured for the IP Attendant 3260 to function. In order to configure the ATT\_DATA **LD 15** is used. Subsets of these commands are illustrated below.

**Note:** The ICI settings in this section are required when configuring Intuition Acclaim

### LD 15

Prompt	Response	Description
>	LD 15	Enter Overlay 16
REQ	CHG	Change Data
TYPE	ATT	
CUST	0	Customer Number
OPT	ABDA AHA EBIN BIXA BLA BOHA DNCA DNX DRE FACD IC2 XTG IDP ILF XBL MCTD NCD CUI MWUD LOD PSA RECA REA SYA SLA SIAA ATDA	
ATDN	9	
NCOS	0	
CWUP	YES	
CWCL	2 4	
CWTM	10 20	
CWBZ	NO NO	
EFLL	0	
MATT	YES	
LFTN	096 0 00 11	
LFFD	2100	
RTIM	30 30 30	
ATIM	0	
AQTT	30	
AODN		
SPVC	00	
SBLF	NO	
RTSA	RSAD	
SACP	SNGL	
ABDN	NO	
IRFR	NO	
XRFR	NO	
ADHT	0	
AFNT	0	
AFBT	0	
IDBZ	NO	
PBUZ	02 10	
ICI 00	DL0	
ICI 01	LD0	
ICI 02	LD1	
ICI 03	LD2	
ICI 04	LD3 LD4	
ICI 05	CFB IADN	
ICI 06	CFN	
ICI 07	RLL	

ICI 08	IAT
ICI 09	INT
ICI 10	
ICI 11	
ICI 12	
ICI 13	
ICI 14	
ICI 15	
ICI 16	
ICI 17	
ICI 18	
ICI 19	
RICI	

### 5.3. Configure FTR\_Data Block

For the NRS to route calls to the CS1000E a Media Services Routing Number (MSRN) needs to be configured. During compliance testing the customer level MSRN used was 4800. Also, to test End to End Signaling ESST, DTMF and ESSD were set to yes.

#### LD 15

Prompt	Response	Description
>	<b>LD 15</b>	Enter Overlay 15
<b>REQ</b>	<b>CHG</b>	<b>Change Data</b>
<b>TYPE</b>	<b>FTR</b>	
<b>CUST</b>	<b>0</b>	<b>Customer number</b>
OPT	ABDA AHA EBIN BIXA BLA BOHA CFO CFRA COX CPA CTA DBA DNCA DNX DSX DRE DSTD FACD HTU HVA XBL IC2 IDP ILF IHD XTG FKA LOD LRA MCI MCTD CUI MWUD NCD PCMD PSA PVCD RECA REA RNA RTR RTA ROX SDDE SIAA SLA SYA THPD TTAA VOBD CCBD CWRD HLPD HRLD CXOD BWTA GPAD MKRA	
DGRP	0	
IRNG	NO	
PKND	1	
DNDL	NO	
SPRE	71	
PREO	0	
BPSS	NO	
SRCD	0000	
<b>EEST</b>	<b>YES</b>	
<b>DTMF</b>	<b>YES</b>	
<b>EESD</b>	<b>YES</b>	
TTBL	0	
MUS	YES	
MUSR	10	
HCC	NO	

ALDN	
RECD	NO
PORT	0
STCB	YES
NSCP	YES
TFDR	NO
RPA	NO
MCDC	NO
NAUT	NO
IDEF	NO
MTAR	NO
LEND	NO
MSCD	NO
CPCI	NO
CONF_DSP	
CNFFIELD	NO
CNF_NAME	CONF
INTFIELD	NO
INT_NAME	I
EXTFIELD	NO
EXT_NAME	E
BSFE	NO
ASPCT	000
FXS	NO
DFLT_LANG	ENG
STS_MSG	
MSG01	Please leave message
MSG02	Back to work
MSG03	In a meeting
MSG04	On a conference call
MSG05	At lunch
MSG06	Busy call
MSG07	Out of the office today
MSG08	On a business trip
MSG09	Project deadline today
MSG10	Will reply after
VO_ALO	NO
PCA	ON
TPDN	
BFS_CFW	YES
VO_CUR_ZONE_ZDM	NO
VO_CUR_ZONE_TD	NO
ZBD	NO
DSAR_ALLOWED	NO
<b>MSRN</b>	<b>4800</b>
NPI	PRIV
TON	ECDP

## 6. Configure IP Media Services

The IP Attendant is configured as part of the IP Media Services feature on the Signalling Server. It is implied that the Signalling Server is already in place, a Node is configured and is part of the security framework. IP Media Services is configured using the CS1000 Element Manager WEB interface accessed via a link from System Manager → UCM → Elements (not shown) or UCM natively.

Once the CS 1000 Element Manager page opens navigate to **IP Network → Nodes: Services, Media Cards**.

**Note:** Ensure that patch **cs1000-mscTone-7.50.17.16-5.i386.000.ntl** or higher is installed on the Signalling Server. This resolves an issue where the calls connect as expected and speech path is ok, but the IP Attendant does not hear ringback / busy etc. See **Appendix C** for a full list of Signalling Server service packs and patches.

Element Manager

AVAYA CS1000 Element Manager

Managing: 172.18.20.14 Username: admin2  
System Overview

System Overview

IP Address: 172.18.20.14  
Type: Avaya Communication Server 1000E CPPM Linux  
Version: 4121  
Release: 750 Q +

- UCM Network Services  
- Home  
- Links  
- Virtual Terminals  
- System  
+ Alarms  
- Maintenance  
+ Core Equipment  
- Peripheral Equipment  
IP Network  
- Nodes: Servers, Media Cards  
- Maintenance and Reports  
- Media Gateways  
- Zones  
- Host and Route Tables

Once the **IP Telephony Nodes** page opens click on the appropriate node (During compliance testing node 3 was used).

Element Manager

AVAYA CS1000 Element Manager

Managing: 172.18.20.14 Username: admin2  
System » IP Network » IP Telephony Nodes

IP Telephony Nodes

Click the Node ID to view or edit its properties.

Add...	Import...	Export...	Delete	Print   Refresh		
Node ID	Components	Enabled Applications	ELAN IP	Node/TLAN IPv4	Node/TLAN IPv6	Status
<input type="checkbox"/> 3	1	LTPS, PD, IP Media Services, Gateway (SIPGw, H323Gw)	-	47.166.92.219		Synchronized

Show:  Nodes  Component servers and cards  IPv6 address

- UCM Network Services  
- Home  
- Links  
- Virtual Terminals  
- System  
+ Alarms  
- Maintenance  
+ Core Equipment  
- Peripheral Equipment  
- IP Network  
- Nodes: Servers, Media Cards  
- Maintenance and Reports  
- Media Gateways  
- Zones

Once the **Node Details** page opens scroll down using the vertical scroll bar on the right side of the page and click on **IP Media Services**.

Element Manager

AVAYA CS1000 Element Manager

Managing: 172.18.20.14 Username: admin2

System » IP Network » IP Telephony Nodes » Node Details

Node Details (ID: 3 - LTPS, PD, IP Media Services, Gateway ( SIPGw, H323Gw ))

Subnet mask: 255.255.255.128 \*

Subnet mask: 255.255.255.224 \*

Node IPv6 address:

IP Telephony Node Properties

- [Voice Gateway \(VGW\) and Codecs](#)
- [Quality of Service \(QoS\)](#)
- [LAN](#)
- [SNTP](#)
- [Numbering Zones](#)
- [MCDN Alternative Routing Treatment \(MALT\) Causes](#)

Applications (click to edit configuration)

- [SIP Line](#)
- [Terminal Proxy Server \(TPS\)](#)
- [Gateway \(SIPGw & H323GW\)](#)
- [Personal Directories \(PD\)](#)
- [Presence Publisher](#)
- [IP Media Services](#)

\* Required Value.

Save Cancel

Scroll down →

Once the **IP Media Services Configuration Details** page opens select the following **IP Media Services** from the **Services** window:

- Tones
- IP Attendant

Scroll down using the vertical scroll bar on the right side of the page to IP Media Services Settings.

**Note:** During compliance testing only IP Attendant and Tones were tested, other services may also be chosen.

The screenshot shows the AVAYA CS1000 Element Manager interface. The left sidebar contains a navigation tree with categories like UCM Network Services, System, and Nodes. The main content area is titled "Node ID: 3 - IP Media Services Configuration Details". At the top, it shows "Managing: 172.18.20.14 Username: admin2". Below this is a breadcrumb trail: System > IP Network > IP Telephony Nodes > Node Details > IP Media Services Configuration. The "Services" section has a list of media services: Adhoc conference, Music, Announcements, Tones (selected), and IP attendant (selected). A red box highlights the "Tones" and "IP attendant" checkboxes. A red arrow points downwards to the "IP Media Services Settings" section. This section includes fields for General (IP media services domain name: dpp.nortel, Application node ID: 3) and Proxy or Redirect Server (Primary IP address: 47.166.92.204, Port: 5060). A note at the bottom states: "Note: Changes made on this page will NOT be transmitted until the Node is also saved." At the bottom right are "Save" and "Cancel" buttons.

Ensure that the **Import SIP gateway settings** check box is unchecked. Enter the following:  
General:

- In the **IP media services domain name** box enter the domain (example dpp.nortel)
- In the **Application node ID** enter the node ID (3)

Proxy or Redirect Server:

- In the **Primary IP address** box enter the IP address of the NRS (i.e. 47.166.92.204)
- In the **Port** box enter 5060
- Select **TCP** from the **Transport protocol** dropdown box

Scroll down using the vertical scroll bar on the right side of the page to IP Attendant.

The screenshot shows the AVAYA CS1000 Element Manager interface. The left sidebar contains a navigation tree with categories like UCM Network Services, System, IP Network, and Dialing and Numbering Plans. The main content area is titled "Node ID: 3 - IP Media Services Configuration Details". It has tabs for Services, IP Media Services Settings, SIP URI Map, and Port Settings. Under "IP Media Services Settings", there is a "General" section and a "Proxy or Redirect Server" section. The "General" section includes fields for "IP media services domain name" (dpp.nortel) and "Application node ID" (3). The "Proxy or Redirect Server" section includes fields for "Primary IP address" (47.166.92.204), "Port" (5060), and "Transport protocol" (TCP). A note at the bottom states: "Note: Changes made on this page will NOT be transmitted until the Node is also saved." At the bottom right are "Save" and "Cancel" buttons. A red arrow points to the text "Scroll down" on the right side of the page.

In the **IP Attendant** window enter the following port information:

- Enter **3500** for **TCM TCP port**
- Enter **5090** for **SIP UDP port**
- Enter **5090** for **SIP TCP port**
- Enter **5091** for **SIP TLS port**

Click on the **Save** button to save the configuration

The screenshot shows the AVAYA CS1000 Element Manager interface. The left sidebar contains navigation links for UCM Network Services, Home, Links, System, and IP Network. The main content area is titled "Node ID: 3 - IP Media Services Configuration Details". It includes tabs for Services, IP Media Services Settings, SIP URI Map, and Port Settings. The "Port Settings" tab is active, showing a table for port assignments. The "IP Attendant" section is highlighted with a red box, showing the following port settings:

	TCP	UDP	TLS
Conference	6150	6150	6151
Music	6152	6152	6153
RAN	6154	6154	6155
Tones	6156	6156	6157

The "IP Attendant" section also displays the following port settings:

	TCM TCP port:	(1 - 65535)
	SIP UDP port:	5090 (1 - 65535)
	SIP TCP port:	5090 (1 - 65535)
	SIP TLS port:	5091 (1 - 65535)

At the bottom right of the form are "Save" and "Cancel" buttons.

Once the IP Media Services configuration is saved the Node must also be saved. On the **Node Details** page click on the **Save** button.

The screenshot shows the AVAYA CS1000 Element Manager interface. The left sidebar contains navigation links for UCM Network Services, Home, Links, System, and IP Network. The main content area is titled "Node Details (ID: 3 - LTPS, PD, IP Media Services, Gateway ( SIPGw, H323Gw ))". It includes fields for Node ID (3), Call server IP address (172.18.20.14), TLAN address type (IPv4 only selected), Embedded LAN (ELAN) fields (Gateway IP address: 172.18.20.1, Subnet mask: 255.255.255.128), Telephony LAN (TLAN) fields (Node IPv4 address: 47.166.92.219, Subnet mask: 255.255.255.224), and a Node IPv6 address field. At the bottom right are "Save" and "Cancel" buttons.

On the **Node Saved** page click on the **Transfer Now** button.

The screenshot shows the CS1000 Element Manager interface. The title bar says "AVAYA CS1000 Element Manager". The left sidebar has a tree view with nodes like UCM Network Services, Home, Links, System, IP Network, and IP Telephony Nodes. The main content area shows a message: "Node ID: 3 has been saved on the call server. The new configuration must also be transferred to associated servers and media cards." Below this are two buttons: "Transfer Now..." (highlighted with a red box) and "Show Nodes".

On the **Synchronize Configuration Files** page select the appropriate Signalling Server and click on the **Start Sync** button.

The screenshot shows the "Synchronize Configuration Files (Node ID <3>)" page. The left sidebar is the same as the previous screenshot. The main content area has a note: "Note: Select components to synchronize their configuration files with call server data. This process transfers server INI files to selected components, and requires a restart\* of applications on affected server(s) when complete." Below this is a table with a single row for "cores3". The "Start Sync" button is highlighted with a red box. The table columns are Hostname, Type, Applications, and Synchronization Status. The row for "cores3" shows Type: Signaling\_Server, Applications: SIP Line, LTPS, Gateway, PD, Presence Publisher, IP Media Services, and Synchronization Status: Sync required.

Once the synchronization is complete the applications must be restarted. Click on the **Restart Applications** button.

The screenshot shows the same "Synchronize Configuration Files (Node ID <3>)" page after synchronization. The "Restart Applications" button is highlighted with a red box. The table now shows the status for "cores3": Synchronization Status is now "Synchronized".

## 7. Configure Avaya Media Server

This section provides the procedures to configure the AMS. It is implied that the AMS is already in place, the Media Server application is deployed and is part of the security framework. Ensure that the License contains RFC4240. (See Appendix E)

The Avaya Media Server is configured using a WEB interface accessed via a link from System Manager → UCM → Elements (not shown) or UCM natively. The configuration operations described in this section can be summarized as follows:

- Adding the SIP Domain
- Adding SIP Nodes and Routes
- Restart Element

**Note:** See **Appendix D** for a list of Avaya Media Server patches.

### 7.1. Adding the SIP Domain

On the Avaya Media Server Web page select **System Configuration** followed by **Signaling Protocols** → **SIP Domains and Accounts** and click on the **Add** button.

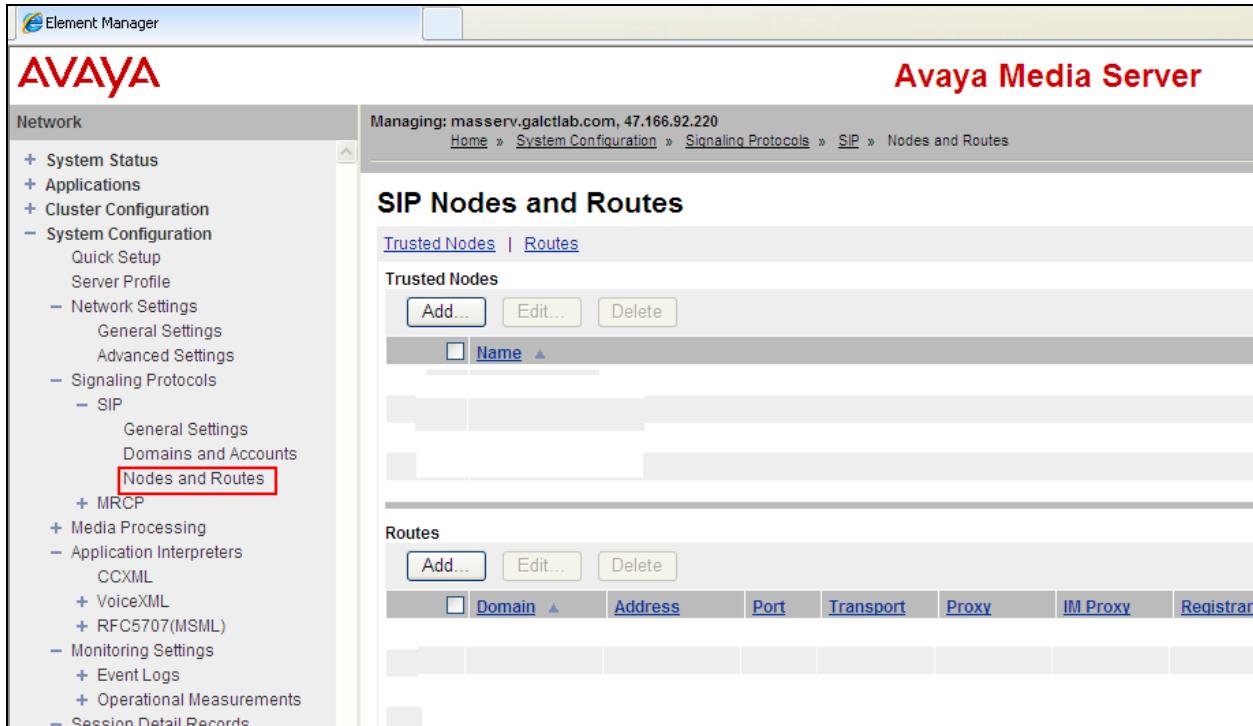
The screenshot shows the Avaya Media Server Element Manager interface. The left sidebar has a tree view with nodes like Network, System Status, Applications, Cluster Configuration, System Configuration (which is selected and highlighted with a red box), Signaling Protocols (also highlighted with a red box), and SIP (also highlighted with a red box). Under SIP, there are sub-nodes: General Settings, Domains and Accounts (which is selected and highlighted with a red box), and Nodes and Routes. The main content area is titled "SIP Domains and Accounts". It has two sections: "Domains" and "Accounts". The "Domains" section has buttons for "Add...", "Edit...", and "Delete...". A table header for "Domains" includes columns for "Domain Name" and "Cluster Node". The "Accounts" section has similar buttons and a table header with columns for "Account Name", "Domain Name", and "Cluster Node". The top right of the interface says "Avaya Media Server". The URL in the browser bar is "Managing: masserv.galctlab.com, 47.166.92.220 Home > System Configuration > Signaling Protocols > SIP > Domains and Accounts".

Once the **Add SIP Domain** page opens enter in the **Name** box the name of the domain the AMS belongs and then click on the **Save** button. During compliance testing the Domain was **dpp.nortel**.



## 7.2. Adding SIP Nodes and Routes

A SIP Node and Account needs to be configured so as to allow the AMS to communicate with the NRS. To add the SIP Node and Route select **Nodes and Routes**.



## 7.2.1. Adding a Trusted Node for the Network Routing Server

Once the SIP Nodes and Routes page opens click on the **Trusted Nodes Add** button.

The screenshot shows the Avaya Media Server interface. The left sidebar has a tree view under 'Network' with sections like System Status, Applications, Cluster Configuration, System Configuration (expanded), Signaling Protocols (expanded), and SIP (expanded). Under SIP, 'Nodes and Routes' is selected. The main area is titled 'SIP Nodes and Routes' and shows two sections: 'Trusted Nodes' and 'Routes'. The 'Trusted Nodes' section has buttons for 'Add...', 'Edit...', and 'Delete'. A table header for 'Name' is visible. The 'Routes' section has similar buttons and a table header for 'Domain'. The top right corner displays 'Avaya Media Server'.

Once the **Add SIP Trusted Node** page opens enter the IP address of the NRS in the **Host or Server Address** box and click on the **Save** button.

The screenshot shows the 'Add SIP Trusted Node' configuration page. The left sidebar is identical to the previous screenshot. The main area has a title 'Add SIP Trusted Node' and a form with a single input field labeled 'Host or Server Address:' containing the value '47.166.92.204'. To the right of the input field is a red-bordered 'Save' button. The top right corner displays 'Avaya Media Server'.

## 7.2.2. Adding a Route for the Network Routing Server

A Route must be added for the Trusted Node. Click on the **Routes Add** button.

The screenshot shows the Avaya Media Server Element Manager interface. The left sidebar has a tree view under 'Network' with sections like System Status, Applications, Cluster Configuration, System Configuration (Quick Setup, Server Profile, Network Settings, General and Advanced Settings), Signaling Protocols (SIP, General Settings, Domains and Accounts, Nodes and Routes), Media Processing (Media Processors, Application Interpreters, CCXML, VoiceXML, RFC5707(MSML)), and Monitoring Settings. The main area is titled 'SIP Nodes and Routes'. Under 'Trusted Nodes', there is a table with one row for '47.166.92.204'. Under 'Routes', there is a table with columns: Domain, Address, Port, Transport, Proxy, IM Proxy, and Registrar. The 'Add...' button in the 'Routes' section is highlighted with a red box.

Once the Add SIP Route page opens enter the following:

In the **General** section:

- Check the **Enabled** Check box
- Select the Domain from the **Domain** drop down box. (example **dpp.nortel**)
- Select the Trusted Node from the **Trusted Node** drop down box. (IP address of the NRS)
- Select **UDP** from the **Transport** drop down box.

In the **Roles** section:

- Check the **Proxy** check box

Click on the **Save** button to save the configuration.

The screenshot shows the 'Add SIP Route' configuration page in the Avaya Element Manager. The 'General' tab is active. In the 'General' section, the 'Enabled' checkbox is checked, and the 'Domain' dropdown is set to 'dpp.nortel'. The 'Trusted Node' dropdown is set to '47.166.92.204', and the 'Transport' dropdown is set to 'UDP'. The 'Remote Port' field is set to '5060'. In the 'Roles' section, the 'Proxy' checkbox is checked. At the bottom right, the 'Save' button is highlighted with a red box.

### 7.3. Restart Element

Once the Avaya Media Server configuration is complete the Element must be restarted. To restart the Element select **System Status** → **Element Status** and click on the **Restart** button

The screenshot shows the 'Element Status' page in the Avaya Element Manager. The 'Element Status' tab is active. On the left, the 'System Status' section is expanded, showing 'Element Status' (which is highlighted with a red box). At the top, there are 'Start', 'Stop', and 'Restart' buttons, with 'Restart' highlighted with a red box. On the right, detailed information about the element is displayed:  
Element Name: masserv.galctlab.com  
UUID: 0f66c16c-7445-11e2-ba7f-001a64203fea  
Server Address: 47.166.92.220  
Operating System: Linux  
Service Status: Started  
Operational State: Unlocked  
Element Status: Normal  
Alarm Description: No Alarm

After selecting Restart click on the **Confirm** button.



## 8. Configure Avaya Network Routing Server

This section provides the procedures to configure the NRS. For Intuition Acclaim to communicate with the AMS a number of configurations must be carried out on the NRS. It is implied that the NRS is already in place please and a Domain has been added. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 12**. The NRS is configured using the Network Routing Service Manager WEB interface accessed via a link from **UCM → Elements** (not shown). The configuration operations described in this section can be summarized as follows:

- Configure a Static SIP Endpoint for the Avaya Media Server
- Configure a Routing Entry for the Media Services Routing Number
- Update the Database

**Note:** Appendix F: Avaya Network Routing Server patches.

### 8.1. Configure a Static SIP Endpoint for the Avaya Media Server

From the NRS Manager Page navigate to **Numbering Plans → Endpoints** and click on the **Standby database** radio button. In the **Endpoint ID** box enter a descriptive name. For the **Limit results to Domain** select the **domain** (example dpp.nortel) / **udp** / **cdp** and click on the **Add** button.

The screenshot shows the Avaya Network Routing Service Manager (NRS) interface. The left sidebar menu is expanded to show 'Numbering Plans' under 'UCM Network Services'. The 'Endpoints' option is selected and highlighted with a red box. The main content area shows the 'Managing' section with 'Standby database' selected (also highlighted with a red box). Below this is a search bar with 'Enter an endpoint ID (use \* for all) and click Search. You may narrow the search by specifying a particular protocol'. The 'Endpoint ID' field contains 'masserv'. Underneath is a 'Limit results to Domain' dropdown set to 'dpp.nortel / udp / cdp', also highlighted with a red box. At the bottom, there are tabs for 'Gateway Endpoints (0)' and 'User Endpoints (0)', and buttons for 'Add...', 'Delete', and 'SIP phone context...'. A toolbar at the very bottom includes icons for 'ID ↑', 'Supported Protocols', 'SIP mode:', and 'Call Sign'.

Once the **Add Gateway Endpoint** page opens enter the following:

- Enter a descriptive name in the **End point name** box (example. masserv)
- Enter a description of the endpoint in the **Description** box
- Click the **Trust Node** check box
- Select **Not Applicable** from the **Tandem gateway endpoint name** dropdown box
- Select **Authentication off** from the **Endpoint authentication enabled** dropdown box

Scroll down using the vertical scroll bar on the right side of the page to **Static endpoint address type**.

The screenshot shows the Avaya NRS Manager interface. The left sidebar contains navigation links for UCM Network Services, System, Numbering Plans, Tools, and more. The main content area is titled "Add Gateway Endpoint dpp.nortel / udp / cdp". The form fields include:

- End point name: masserv
- Description: MAS for IP Media / Attn
- Trust Node:
- Tandem gateway endpoint name: Not Applicable
- Endpoint authentication enabled: Authentication off
- Authentication password: (empty)
- E.164 country code: (empty)
- E.164 area code: (empty)
- E.164 international dialing access code: (empty)
- E.164 international dialing code length: (empty) (0-99)
- E.164 national dialing access code: (empty)
- E.164 national dialing code length: (empty) (0-99)
- E.164 local (subscriber) dialing access code: (empty)

At the bottom of the form, there are "Save" and "Cancel" buttons. A red arrow points to the scroll bar on the right side of the form. The status bar at the bottom shows copyright information and system icons.

- Select **IP version 4** from the **Static endpoint address type** dropdown box
- Enter the IP address of the AMS in the **Static endpoint address**
- Select **Static SIP endpoint** from the **SIP support** dropdown box
- Click on the **Redirect Mode** radio button
- Click the **SIP TCP transport** enabled check box
- Enter **5060** in the **SIP TCP Port** box

All other values may be left at default. Click on the **Save** button.

**Note:** Ensure that the **SIP UDP** and **SIP TLS transport enabled** check boxes are left unchecked.

The screenshot shows the Avaya Network Routing Service Manager interface. On the left, there is a navigation tree with the following structure:

- > UCM Network Services
  - System
    - NRS Server
    - Database
    - System Wide Settings
  - Numbering Plans
    - Domains
    - Endpoints
    - Routes
    - Network Post-Translation
    - Collaborative Servers
  - Tools
    - SIP Phone Context
    - Routing Tests
      - H.323
      - SIP
    - Backup
    - Restore
    - GK/NRS Data upgrade

The main window title is "Add Gateway Endpoint dpp.nortel / udp / cdp)". It contains the following configuration fields:

- Private Special number 2 dialing code length: (0..31)
- Managing: Active database (radio button selected) / Standby database (radio button selected) / 172.18.20.19
- Numbering Plans > Endpoints > Gateway Endpoint
- Static endpoint address type: IP version 4 (selected)
- Static endpoint address: 47.166.92.220
- H.323 support: H.323 not supported (dropdown menu)
- SIP support: Static SIP endpoint (dropdown menu)
- SIP mode: Redirect Mode (radio button selected) / Proxy Mode (radio button unselected)
- SIP TCP transport enabled: checked
- SIP TCP port: 5060
- SIP UDP transport enabled: unchecked
- SIP UDP port: 5060
- SIP TLS transport enabled: unchecked
- SIP TLS port: 5061
- Persistent TCP support enabled: checked
- End to end security support: unchecked
- Network Connection Server enabled: unchecked

At the bottom left is a note: "★ Required value". At the bottom right is a "Save" button.

## 8.2. Configure a Routing Entry for the Media Services Routing Number

A routing entry needs to be configured so as to point the Media Services Routing Number (MSRN) which was configured in **Section 5.3** to point to the AMS. From the NRS Manager Page navigate to **Numbering Plans** → **Routes** and click on the **Standby database** radio button. In the **DN Prefix** box enter the MSRN. Select **All DN Types** from the **DN Type** dropdown box. Select the **domain (dpp.nortel) / udp / cdp** for **Limit results to Domain**. Select **masserv** (Gateway Endpoint configured in **Section 8.1**) from the **Endpoint Name** dropdown box and click on the **Add** button.

The screenshot shows the AVAYA Network Routing Service Manager interface. The left sidebar has a tree view with 'Numbering Plans' selected. The main area is titled 'Search for Routing Entries' and contains fields for 'DN Prefix' (4800), 'DN Type' (All DN Types), 'Limit results to Domain' (dpp.nortel / udp / cdp), and 'Endpoint Name' (masserv). At the bottom, there are buttons for 'Add...', 'Copy...', 'Move...', 'Import...', 'Export...', 'Routing test...', and 'Delete'. The 'Add...' button is highlighted with a red box.

Once the **Add Routing Entry** page opens select **Private level 0 regional (CDP steering code)**. In the **DN prefix** box enter the MSRN number (i.e. 4800) as configured in **Section 5.3**. In the **Route cost** box enter **1** and click on the **Save** button.

The screenshot shows the 'Add Routing Entry' page. The 'DN type' dropdown is set to 'Private level 0 regional (CDP steering code)'. The 'DN prefix' field contains '4800'. The 'Route cost' field contains '1'. At the bottom right, there is a 'Save' button highlighted with a red box.

## 8.3. Update the Database

Once the configuration changes have been made the Database needs to be updated.  
Select **Database**.

The screenshot shows the Network Routing Service Manager interface. On the left, there is a navigation tree with the following structure:

- «UCM Network Services
- System
  - NRS Server
  - Database** (highlighted with a red box)
  - System Wide Settings
- Numbering Plans
  - Domains
  - Endpoints
  - Routes
  - Network Post-Translation
  - Collaborative Servers
- Tools
  - SIP Phone Context
  - Routing Tests
    - H.323
    - SIP
  - Backup
  - Restore
  - GK/NRS Data upgrade

On the right, the main panel displays the "Managing" status as "Standby database" (radio button selected) and the IP address "172.18.20.19". Below this, there is a search section titled "Search for Routing Entries" with fields for "DN Prefix" (set to "4800") and "DN Type" (set to "All DN Types"). There are also dropdowns for "Limit results to Domain" (set to "All service domains", "All L1 domains", and "All L0 domains") and "Endpoint Name" (set to "All gateway endpoints").

Below the search section, there are three tabs: "Routing Entries (1)", "Default Routes (0)", and "Emergency Fallback Routes (0)". The "Routing Entries (1)" tab is active, showing a table with one entry:

	DN Prefix	DN Type	Route Cost	SIP URI
1	<a href="#">4800</a>	Private level 0 regional (CDP steering code)	1	cdp.udp

At the bottom of the main panel, there are buttons for "Add...", "Copy...", "Move...", "Import...", "Export...", "Routing test...", "Delete", and "Cut over".

Once the **Database** page opens click on the **Cut over** button.

The screenshot shows the Network Routing Service Manager interface. The navigation tree is identical to the previous screenshot. In the main panel, under the "Database" section, it says "NRS uses a redundant database with Active and Standby copies. Normally changes are made to the standby database, tested, then cut over". Below this, the "Database status" is shown as "Changed" and there is a red box around the "Cut over" button.

Click on the **Commit** button.

The screenshot shows the Network Routing Service Manager interface. The navigation tree is identical to the previous screenshots. In the main panel, under the "Database" section, it says "NRS uses a redundant database with Active and Standby copies. Normally changes are made to the standby database, tested, then cut over into active status". Below this, the "Database status" is shown as "Switched over" and there are three buttons at the bottom: "Cut over", "Revert", and a red box around the "Commit" button.

Once the Commit takes place the **Database status** will update to **Committed**.

The screenshot shows the Avaya Network Routing Service Manager (NRS) interface. The top navigation bar includes the Avaya logo and the title "Network Routing Service Manager". On the left, there is a sidebar menu under "«UCM Network Services" with the following items:

- System
  - NRS Server
  - Database
  - System Wide Settings
- Numbering Plans
  - Domains
  - Endpoints
  - Routes

The main content area displays system information: "Managing: 172.18.20.19" and "System » Database". Below this, a section titled "Database" contains the text: "NRS uses a redundant database with Active and Standby c". A red box highlights the status message "Database status: Committed".

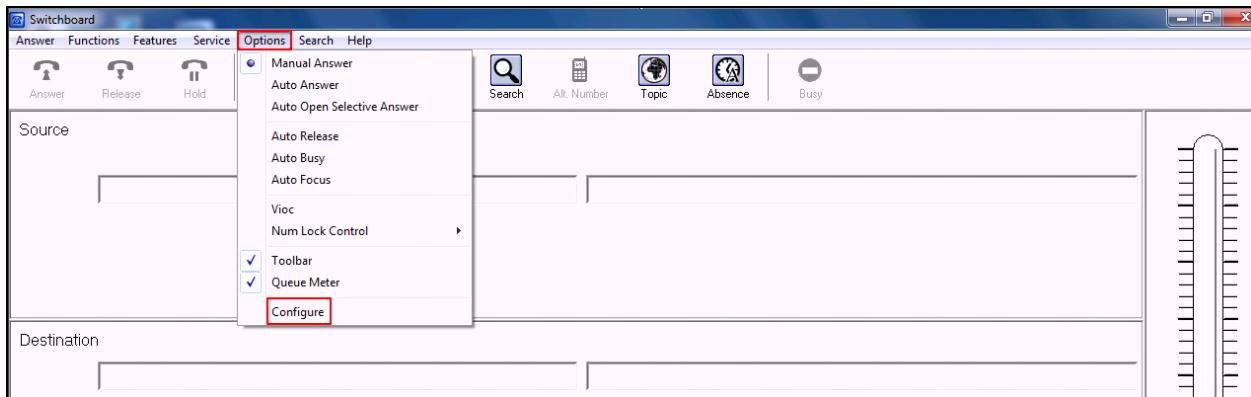
## 9. Configure Intuition Acclaim

This section provides the procedures to configure Intuition Acclaim. Intuition Acclaim during compliance testing was installed on a Windows 7 PC with SP1 (also supported on Windows XP Professional SP3). It is implied that Intuition Acclaim is already installed including the License and that the SQL database and Firewall setting are configured. The Attendant Keys and Incoming Call Indicators (ICI) that were configured in **Section 5.1** and **Section 5.2** are required for the configuration of the Switchboard but the actual configuration is beyond the scope of this Application Note. The configuration operations described in this section can be summarized as follows:

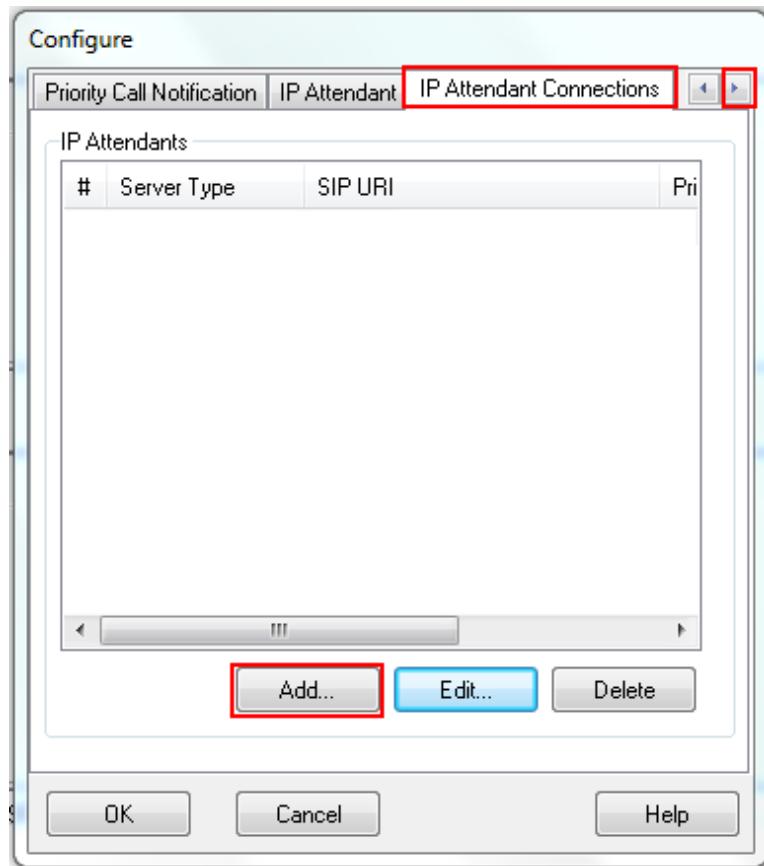
- Configure IP Attendant Connections
- Configure Voice Settings
- Restart the Switchboard application

### 9.1. Configure IP Attendant Connections

To configure the IP Attendant Connections open the **Switchboard** application using the Switchboard shortcut found on the Desktop after installation (Not shown) and log in using the appropriate administrator/supervisor credentials. Once the Switchboard application is opened select **Options** followed by **Configure**.



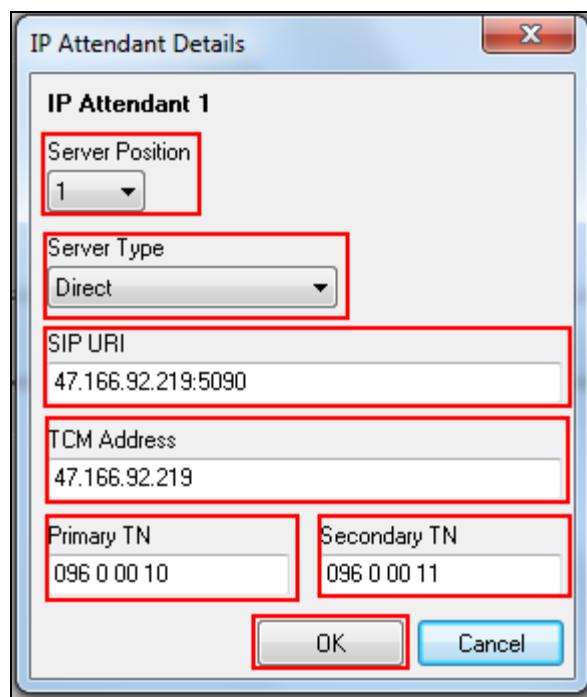
Once the Configure window opens click on the right arrow until the **IP Attendant Connections** tab appears. Click on the **IP Attendant Connections** tab followed by the **Add** button.



Once the **IP Attendant Details** window opens enter the following:

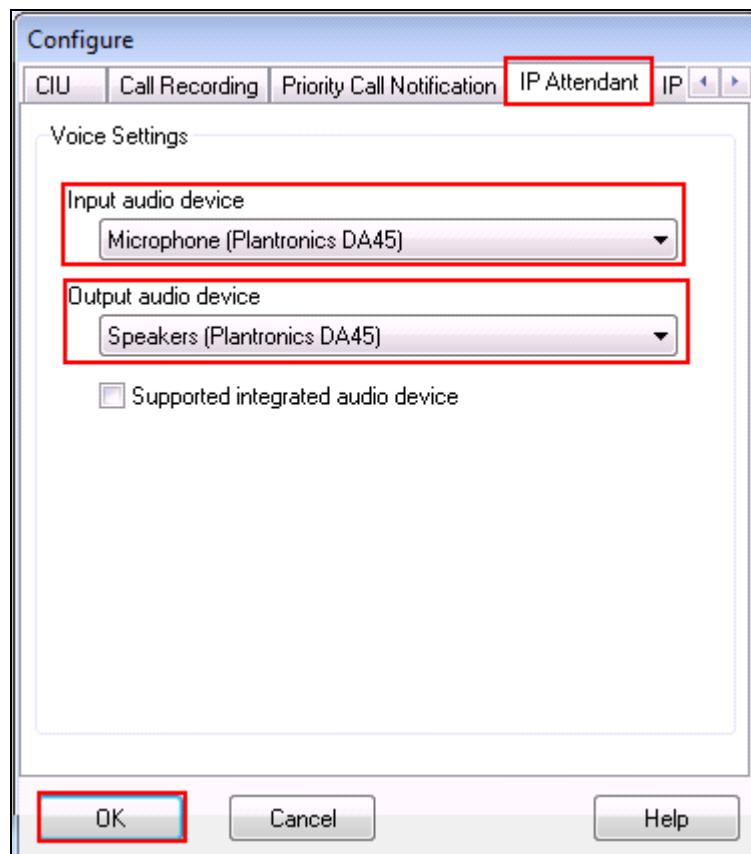
- Select the Server Position from the **Server Position** dropdown box. If this is the only IP attendant on the PC **Server Position 1** will be the default.
- Select **Direct** from the **Server Type** dropdown box.
- Enter the Telephony (TLan) IP address of CS1000E Node (See **Appendix G**) followed by :**5090** in the **SIP URI** field. (i.e. **47.166.92.219:5090**)
- Enter the Telephony (TLan) IP address of CS1000E Node (See **Appendix G**) in the **TCM Address** field (i.e. **47.166.92.219**)
- Enter the Primary TN as configured in **Section 5.1** in the **Primary TN** field.  
**Note:** Enter the TN format exactly as shown in the screen shot below (LLL S CC UU)
- Enter the Secondary TN as configured in **Section 5.1** in the **Secondary TN** field.  
**Note:** Enter the TN format exactly as shown in the screen shot below (LLL S CC UU)

Click on the **OK** button to save.



## 9.2. Configure Voice Settings

Click on the **IP Attendant** tab and select the **Input** and **Output audio device** that is to be used for voice with Intuition Acclaim from the appropriate dropdown boxes. Click on the **OK** button to save.



## 9.3. Restart the Switchboard Application

After any configurations changes are made a restart is required. To restart click on the exit button on the top right of the window (not shown) and use the Switchboard shortcut on the desktop (not shown) to start the application again.

## 10. Verification Steps

This section provides the tests that can be performed to verify correct configuration of Avaya and DATAPULSE solution.

### 10.1. Verify Intuition Acclaim is registered with CS1000E.

Use the **STAT SS** command in LD 117 to verify that Intuition Acclaim is registered with the CS1000E. In the screen shot below one IP Attendant is registered.

```
ld 117
OAM000

=> stat ss

NODE ELANIP          LDR   SRV          PBXLINK  HOSTNAME
ID                         STATE
3    172.18.20.14    YES   Avaya CPPMv1    LINK UP   cores3.galctlab.com
APPS:    LTPS      VTRK     IPCONF    IPTONE    IPMUS     IPANN     IPATTN
PBXLINK DATE: 19/02/2013
PBXLINK TIME: 09:16:41
CONNECTID: 36f85540
APPLICATION NODE ID: 3
Sets: [reg - 00007] [busy - 00000] [dvla - 00000]
VTRK: [reg - 00040] [busy - 00000]
SIPL VTRK: [reg - 00000] [busy - 00000]
SIGNALLING SERVER CAPACITY (SSRC): 4096
IP Conference: [reg - 00000] [busy - 00000]
IP Tones: [reg - 00000] [busy - 00000]
IP Music: [reg - 00000] [busy - 00000]
IP Announce: [reg - 00000] [busy - 00000]
IP Attendant: [reg - 00001] [busy - 00000]
Type: Avaya CPPMv1
Location: 0 0 1
Product Eng.Code: NTDW61BA0008
Serial Number: NNTMG19XYWA0CPPM
Memory Size: 2048 MB
Disk Size 37 GB
```

## 10.2. Verify Avaya Media Server

In order to verify that the Avaya Media Server Service is started access the WEB interface select **System Status → Element Status** and ensure that the **Service Status** is **Started**.

The screenshot shows the Avaya Element Manager interface. The title bar says "Element Manager" and "AVAYA". The main title is "Avaya Media Server". The left sidebar has a tree view with categories like System Status, Applications, Cluster Configuration, and System Configuration. Under System Status, "Element Status" is selected. The main pane is titled "Element Status" with the sub-section "Element Status". It contains a message: "Click the element name to display the alarm viewer for this element." Below this are buttons for "Start", "Stop", "Restart", and "More Actions". To the right, there is a table with the following data:

Element Name:	<a href="#">masserv.galctlab.com</a>
UUID:	0f66c16c-7445-11e2-ba7f-001a64203fea
Server Address:	47.166.92.220
Operating System:	Linux
Service Status:	<b>Started</b>
Operational State:	Unlocked
Element Status:	Normal
Alarm Description:	No Alarm

## 10.3. Verify Intuition Acclaim Switchboard is registered

Verify that the status LED in the bottom left hand corner of the Switchboard is green to signify that Intuition Acclaim is registered.

The screenshot shows the Intuition Acclaim Switchboard application window. The menu bar includes Answer, Functions, Features, Service, Options, Search, and Help. The toolbar contains icons for Answer, Release, Hold, Logoff, # List, Speed Search, Search, Alt. Number, Topic, Absence, and Busy. The main interface is divided into Source and Destination sections with input fields. On the right, there is a vertical status bar with two vertical bars and a circular icon. At the bottom, there is a footer with buttons for Hold..., Src..., Src. Name, Dest..., Dest. Name, and a status bar showing IP Attendant, Headset, Idle, Intuition / admin, 100, 19/02/2013 08:58, and a battery icon.

## 11. Conclusion

A full and comprehensive set of feature functional test cases were preformed during Compliance testing. Datapulse Intuition Acclaim 5.2 is considered compliant with Avaya Communication Server 1000E R7.5 IP Attendant Gateway connected to Avaya IP Media Services via an Avaya Network Routing Server in Redirect mode. All test cases have passed and met the objectives outlined in **Section 2.2**.

**Note:** DTMF tones are not audible when the Intuition Acclaim IP Attendant calls an IP set as the DTMF tones are out of band. They are, however, audible when calling a digital set. This is expected behaviour.

## 12. Additional References

These documents form part of the Avaya official technical reference documentation suite. Further information may be had from <http://support.avaya.com> or from your Avaya representative.

- [1] *Software Input Output Reference — Administration Avaya Communication Server 1000 7.5, NN43001-611, 05.09 September 2011*
- [2] *System Management Reference, Avaya Communication Server 1000 7.5, NN43001-600, 05.07 August 2011*
- [3] *Implementing and Administering Avaya Media Server 7.5 August 2012*
- [4] *Network Routing Service Fundamentals Avaya Communication Server 1000, NN43001-130, 03.10, 05.03 September 2011*

Product Documentation for Intuition Acclaim can be obtained from Enghouse Interactive at:<http://www.enghouseinteractive.com/products/avaya-cs1000-console.php>

## Appendix A: CS1000 System Limits (SLT)

To check if there are sufficient licenses for **IP MEDIA SESSIONS** and **IP ATTENDANT CONSOLES** enter **SLT** at the **REQ** prompt in LD 22.

LD 22

<b>REQ: SLT</b>					
System type is - Communication Server 1000E/CPHM Linux					
CPHM - Pentium M 1.4 GHz					
IPMGs Registered:	1				
IPMGs Unregistered:	0				
IPMGs Configured/unregistered:	0				
TRADITIONAL TELEPHONES	2000	LEFT	1992	USED	8
DECT USERS	2000	LEFT	2000	USED	0
IP USERS	4000	LEFT	3978	USED	22
BASIC IP USERS	2000	LEFT	1998	USED	2
TEMPORARY IP USERS	2000	LEFT	2000	USED	0
DECT VISITOR USER	2000	LEFT	2000	USED	0
ACD AGENTS	2000	LEFT	1995	USED	5
MOBILE EXTENSIONS	2000	LEFT	2000	USED	0
TELEPHONY SERVICES	2000	LEFT	2000	USED	0
CONVERGED MOBILE USERS	2000	LEFT	2000	USED	0
AVAYA SIP LINES	2000	LEFT	1997	USED	3
THIRD PARTY SIP LINES	2000	LEFT	1998	USED	2
PCA	2000	LEFT	2000	USED	0
ITG ISDN TRUNKS	2000	LEFT	2000	USED	0
H.323 ACCESS PORTS	2000	LEFT	1990	USED	10
AST	2000	LEFT	1981	USED	19
SIP CONVERGED DESKTOPS	2000	LEFT	2000	USED	0
SIP CTI TR87	2000	LEFT	1992	USED	8
SIP ACCESS PORTS	2000	LEFT	1970	USED	30
RAN CON	2000	LEFT	2000	USED	0
MUS CON	2000	LEFT	2000	USED	0
IP RAN CON	2000	LEFT	2000	USED	0
IP MUS CON	2000	LEFT	2000	USED	0
<b>IP MEDIA SESSIONS</b>	<b>2000</b>	<b>LEFT</b>	<b>1997</b>	<b>USED</b>	<b>3</b>
TNS	10000	LEFT	9805	USED	195
ACDN	24000	LEFT	23979	USED	21
AML	16	LEFT	12	USED	4
IDLE_SET_DISPLAY Cores3 Rls 7.5					
LTID	2000	LEFT	2000	USED	0
RAN RTE	512	LEFT	510	USED	2
ATTENDANT CONSOLES	100	LEFT	99	USED	1
<b>IP ATTENDANT CONSOLES</b>	<b>2000</b>	<b>LEFT</b>	<b>1999</b>	<b>USED</b>	<b>1</b>
BRI DSL	10000	LEFT	10000	USED	0
MPH DSL	100	LEFT	100	USED	0
DATA PORTS	2000	LEFT	2000	USED	0
PHANTOM PORTS	2000	LEFT	1995	USED	5
TRADITIONAL TRUNKS	2000	LEFT	1962	USED	38
ELC ACCESS PORTS	2000	LEFT	2000	USED	0

## Appendix B: Avaya Communication Server 1000E Software

### Avaya Communication Server 1000E call server deplists and patches

IN-SERVICE PEPS						
PAT#	CR #	PATCH REF #	NAME	DATE	FILENAME	
SPECINS						
000	wi00969890	ISS1:1OF1	p31664_1	13/02/2013	p31664_1.cpl	YES
001	wi01037975	ISS1:1OF1	p32227_1	13/02/2013	p32227_1.cpl	YES
002	wi00978892	ISS1:1OF1	p31894_1	13/02/2013	p31894_1.cpl	NO
003	wi00925218	ISS1:1OF1	p30675_1	13/02/2013	p30675_1.cpl	NO
004	wi00881777	ISS1:1OF1	p25747_1	13/02/2013	p25747_1.cpl	NO
005	wi00862574	iss1:1of1	p30870_1	13/02/2013	p30870_1.cpl	NO
006	wi00879322	ISS1:1OF1	p30954_1	13/02/2013	p30954_1.cpl	NO
007	wi00976209	ISS1:1OF1	p31717_1	13/02/2013	p31717_1.cpl	YES
008	wi00984178	ISS1:1OF1	p31786_1	13/02/2013	p31786_1.cpl	NO
009	wi00959284	ISS1:1OF1	p31531_1	13/02/2013	p31531_1.cpl	NO
010	wi00905660	ISS1:1OF1	p27968_1	13/02/2013	p27968_1.cpl	NO
011	wi00897082	ISS1:1OF1	p31124_1	13/02/2013	p31124_1.cpl	NO
012	wi00897096	ISS1:1OF1	p30676_1	13/02/2013	p30676_1.cpl	NO
013	wi01038128	ISS1:1OF1	p32208_1	13/02/2013	p32208_1.cpl	NO
014	wi00896680	ISS1:1OF1	p30357_1	13/02/2013	p30357_1.cpl	NO
015	wi00937672	ISS1:1OF1	p31276_1	13/02/2013	p31276_1.cpl	NO
016	wi00859123	ISS1:1OF1	p30648_1	13/02/2013	p30648_1.cpl	NO
017	wi00949273	ISS1:1OF1	p31411_1	13/02/2013	p31411_1.cpl	NO
018	wi00840590	ISS1:1OF1	p30767_1	13/02/2013	p30767_1.cpl	NO
019	wi00967505	ISS1:1OF1	p31491_1	13/02/2013	p31491_1.cpl	NO
020	wi01040096	ISS1:1OF1	p32214_1	13/02/2013	p32214_1.cpl	NO
021	wi01020587	ISS1:1OF1	p32097_1	13/02/2013	p32097_1.cpl	NO
022	wi00906163	ISS1:1OF1	p31205_1	13/02/2013	p31205_1.cpl	NO
023	wi00949627	ISS1:1OF1	p31462_1	13/02/2013	p31462_1.cpl	NO
024	wi00875701	ISS1:1OF1	p30942_1	13/02/2013	p30942_1.cpl	NO
025	wi00937114	ISS1:1OF1	p31310_1	13/02/2013	p31310_1.cpl	NO
026	wi00858335	ISS1:1OF1	p30819_1	13/02/2013	p30819_1.cpl	NO
027	wi00869243	ISS1:1OF1	p30848_1	13/02/2013	p30848_1.cpl	NO
028	wi00896394	ISS1:1OF1	p30807_1	13/02/2013	p30807_1.cpl	NO
029	wi00925208	ISS1:1OF1	p30986_1	13/02/2013	p30986_1.cpl	NO
030	wi00835294	ISS1:1OF1	p30565_1	13/02/2013	p30565_1.cpl	NO
031	wi00962211	ISS1:1OF1	p31580_1	13/02/2013	p31580_1.cpl	NO
032	wi00945997	ISS1:1OF1	p31641_1	13/02/2013	p31641_1.cpl	NO
033	wi00907697	ISS1:1OF1	p31227_1	13/02/2013	p31227_1.cpl	NO
034	wi00886321	ISS1:1OF1	p31009_1	13/02/2013	p31009_1.cpl	NO
035	wi00854130	ISS1:1OF1	p30443_1	13/02/2013	p30443_1.cpl	NO
036	wi01044845	ISS1:1OF1	p31739_1	13/02/2013	p31739_1.cpl	NO
037	WI00927300	ISS1:1OF1	p30999_1	13/02/2013	p30999_1.cpl	NO
038	wi01008106	ISS1:1OF1	p31861_1	13/02/2013	p31861_1.cpl	NO
039	wi00898327	ISS1:1OF1	p31136_1	13/02/2013	p31136_1.cpl	NO

040	wi00832106	ISS1:1OF1	p30550_1	13/02/2013	p30550_1.cpl	NO
041	wi00900096	ISS1:1OF1	p31006_1	13/02/2013	p31006_1.cpl	NO
042	wi00959820	ISS1:1OF1	p31562_1	13/02/2013	p31562_1.cpl	NO
043	wi00895090	ISS1:1OF1	p31105_1	13/02/2013	p31105_1.cpl	NO
044	wi00967509	ISS1:1OF1	p31294_1	13/02/2013	p31294_1.cpl	NO
045	wi00890475	p30952	p31048_1	13/02/2013	p31048_1.cpl	NO
046	wi00852365	ISS1:1OF1	p30707_1	13/02/2013	p30707_1.cpl	NO
047	wi00957252	ISS1:1OF1	p31530_1	13/02/2013	p31530_1.cpl	NO
048	wi00887744	ISS2:1OF1	p31026_2	13/02/2013	p31026_2.cpl	NO
049	WI00853473	ISS1:1OF1	p30625_1	13/02/2013	p30625_1.cpl	NO
050	wi00905600	ISS1:1OF1	p31201_1	13/02/2013	p31201_1.cpl	NO
051	WI00889786	ISS1:1OF1	p30750_1	13/02/2013	p30750_1.cpl	NO
052	wi01037583	ISS1:1OF1	p32201_1	13/02/2013	p32201_1.cpl	NO
053	wi00843623	ISS1:1OF1	p30731_1	13/02/2013	p30731_1.cpl	YES
054	wi00960809	ISS1:1OF1	p31564_1	13/02/2013	p31564_1.cpl	NO
055	wi00854469	ISS1:1OF1	p30701_1	13/02/2013	p30701_1.cpl	NO
056	wi00978818	ISS1:1OF1	p31919_1	13/02/2013	p31919_1.cpl	NO
057	wi00964006	ISS1:1OF1	p31595_1	13/02/2013	p31595_1.cpl	YES
058	wi00865477	ISS1:1OF1	p30898_1	13/02/2013	p30898_1.cpl	YES
059	wi00905297	ISS1:1OF1	p31195_1	13/02/2013	p31195_1.cpl	NO
060	wi00839255	ISS1:1OF1	p30591_1	13/02/2013	p30591_1.cpl	NO
061	wi00960133	ISS2:1OF1	p31557_2	13/02/2013	p31557_2.cpl	NO
062	wi01008943	ISS1:1OF1	p31382_1	13/02/2013	p31382_1.cpl	NO
063	wi00943172	ISS1:1OF1	p31402_1	13/02/2013	p31402_1.cpl	NO
064	wi00877367	ISS1:1OF1	p30534_1	13/02/2013	p30534_1.cpl	NO
065	wi00857566	ISS1:1OF1	p30766_1	13/02/2013	p30766_1.cpl	NO
066	wi00948274	ISS1:1OF1	p31365_1	13/02/2013	p31365_1.cpl	NO
067	wi00841980	ISS1:1OF1	p30618_1	13/02/2013	p30618_1.cpl	NO
068	wi00897176	ISS1:1OF1	p30418_1	13/02/2013	p30418_1.cpl	NO
069	wi00865477	ISS1:1OF1	p30892_1	13/02/2013	p30892_1.cpl	YES
070	wi00931028	ISS1:1OF1	p31354_1	13/02/2013	p31354_1.cpl	YES
071	wi00875425	ISS1:1OF1	p30943_1	13/02/2013	p30943_1.cpl	NO
072	wi00968531	ISS1:1OF1	p31645_1	13/02/2013	p31645_1.cpl	NO
073	wi00895181	ISS1:1OF1	p31106_1	13/02/2013	p31106_1.cpl	NO
074	wi00973241	ISS1:1OF1	p31715_1	13/02/2013	p31715_1.cpl	NO
075	wi00948931	ISS1:1OF1	p31407_1	13/02/2013	p31407_1.cpl	NO
076	wi00968157	ISS1:1OF1	p31637_1	13/02/2013	p31637_1.cpl	NO
077	wi00871969	ISS1:1OF1	p30768_1	13/02/2013	p30768_1.cpl	NO
078	wi00967510	ISS1:1OF1	p31147_1	13/02/2013	p31147_1.cpl	NO
079	wi00891626	ISS1:1OF1	p31051_1	13/02/2013	p31051_1.cpl	YES
080	wi01031512	ISS1:1OF1	p32154_1	13/02/2013	p32154_1.cpl	YES
081	wi00839821	ISS1:1OF1	p30619_1	13/02/2013	p30619_1.cpl	NO
082	WI00839794	ISS1:1OF1	p28647_1	13/02/2013	p28647_1.cpl	NO
083	wi01033550	ISS1:1OF1	p31565_1	13/02/2013	p31565_1.cpl	NO
084	wi00856991	ISS1:1OF1	p17588_1	13/02/2013	p17588_1.cpl	NO
085	wi00842409	ISS1:1OF1	p30621_1	13/02/2013	p30621_1.cpl	NO
086	wi00927321	ISS1:1OF1	p31286_1	13/02/2013	p31286_1.cpl	YES
087	wi01027702	ISS1:1OF1	p32140_1	13/02/2013	p32140_1.cpl	NO
088	wi00880386	ISS1:1OF1	p30977_1	13/02/2013	p30977_1.cpl	NO
089	wi01006811	ISS1:1OF1	p31967_1	13/02/2013	p31967_1.cpl	YES
090	wi00838073	ISS1:1OF1	p30588_1	13/02/2013	p30588_1.cpl	NO
091	wi00965838	ISS1:1OF1	p31623_1	13/02/2013	p31623_1.cpl	NO
092	wi00879526	ISS1:1OF1	p31007_1	13/02/2013	p31007_1.cpl	NO
093	wi01039079	ISS1:1OF1	p32210_1	13/02/2013	p32210_1.cpl	NO
094	wi00969581	ISS1:1OF1	p31661_1	13/02/2013	p31661_1.cpl	YES

095	wi01007960	ISS1:1OF1	p31965_1	13/02/2013	p31965_1.cpl	NO
096	wi01003861	ISS1:1OF1	p32113_1	13/02/2013	p32113_1.cpl	YES
097	wi00863876	ISS1:1OF1	p30787_1	13/02/2013	p30787_1.cpl	NO
098	wi01016398	ISS1:1OF1	p32019_1	13/02/2013	p32019_1.cpl	NO
099	wi00856702	ISS1:1OF1	p30573_1	13/02/2013	p30573_1.cpl	NO
100	wi01030651	ISS1:1OF1	p32159_1	13/02/2013	p32159_1.cpl	NO
101	wi00932948	ISS1:1OF1	p31077_1	13/02/2013	p31077_1.cpl	NO
102	wi00969208	ISS1:1OF1	p31656_1	13/02/2013	p31656_1.cpl	NO
103	WI00836292	ISS1:1OF1	p30554_1	13/02/2013	p30554_1.cpl	NO
104	wi00908598	ISS1:1OF1	p31235_1	13/02/2013	p31235_1.cpl	NO
105	wi00880836	ISS1:1OF1	p30976_1	13/02/2013	p30976_1.cpl	NO
106	WI00854150	ISS1:1OF1	p30468_1	13/02/2013	p30468_1.cpl	NO
107	wi00894243	ISS1:1OF1	p31087_1	13/02/2013	p31087_1.cpl	NO
108	wi00877592	ISS1:1OF1	p30880_1	13/02/2013	p30880_1.cpl	NO
109	wi00871739	ISS1:1OF1	p30856_1	13/02/2013	p30856_1.cpl	NO
110	wi00688381	ISS1:1OF1	p30104_1	13/02/2013	p30104_1.cpl	NO
111	wi00955753	ISS1:1OF1	p31733_1	13/02/2013	p31733_1.cpl	NO
112	wi00850521	ISS1:1OF1	p30709_1	13/02/2013	p30709_1.cpl	YES
113	wi00932204	ISS2:1OF1	p31305_2	13/02/2013	p31305_2.cpl	NO
114	wi00906022	ISS1:1OF1	p31202_1	13/02/2013	p31202_1.cpl	NO
115	wi00860279	ISS1:1OF1	p30789_1	13/02/2013	p30789_1.cpl	NO
116	wi00959457	ISS1:1OF1	p31551_1	13/02/2013	p31551_1.cpl	NO
117	wi00852389	ISS1:1OF1	p30641_1	13/02/2013	p30641_1.cpl	NO
118	wi01007604	ISS1:1OF1	p31983_1	13/02/2013	p31983_1.cpl	NO
119	wi00834382	ISS1:1OF1	p30548_1	13/02/2013	p30548_1.cpl	NO
120	wi00883604	ISS1:1OF1	p30973_1	13/02/2013	p30973_1.cpl	NO
121	wi00921295	ISS1:1OF1	p31265_1	13/02/2013	p31265_1.cpl	NO
122	wi01001911	ISS1:1OF1	p31920_1	13/02/2013	p31920_1.cpl	NO
123	wi00909476	ISS1:1OF1	p31340_1	13/02/2013	p31340_1.cpl	NO
124	wi00923899	ISS1:1OF1	p31270_1	13/02/2013	p31270_1.cpl	NO
125	wi00856410	ISS1:1OF1	p30749_1	13/02/2013	p30749_1.cpl	NO
126	wi00859499	ISS1:1OF1	p30694_1	13/02/2013	p30694_1.cpl	NO
127	wi00951837	ISS1:1OF1	p31485_1	13/02/2013	p31485_1.cpl	NO
128	wi01012638	ISS1:1OF1	p32008_1	13/02/2013	p32008_1.cpl	NO
129	wi00950575	ISS1:1OF1	p31724_1	13/02/2013	p31724_1.cpl	NO
130	wi01037848	ISS1:1OF1	p32202_1	13/02/2013	p32202_1.cpl	NO
131	wi00899584	ISS1:1OF1	p30809_1	13/02/2013	p30809_1.cpl	NO
132	wi01037234	ISS1:1OF1	p32220_1	13/02/2013	p32220_1.cpl	NO
133	wi01014478	ISS1:1OF1	p32301_1	13/02/2013	p32301_1.cpl	NO
134	wi00942734	ISS1:1OF1	p31409_1	13/02/2013	p31409_1.cpl	NO
135	wi00865477	ISS1:1OF1	p30893_1	13/02/2013	p30893_1.cpl	YES
136	wi00930649	ISS1:1OF1	p31570_1	13/02/2013	p31570_1.cpl	NO
137	wi01034409	ISS1:1OF1	p29708_1	13/02/2013	p29708_1.cpl	NO
138	wi00826075	ISS1:1OF1	p30452_1	13/02/2013	p30452_1.cpl	NO
139	wi00959463	ISS1:1OF1	p31528_1	13/02/2013	p31528_1.cpl	NO
140	wi00929140	ISS1:1OF1	p31284_1	13/02/2013	p31284_1.cpl	NO
141	wi00824257	ISS1:1OF1	p30447_1	13/02/2013	p30447_1.cpl	NO
142	WI00836334	ISS1:1OF1	p30481_1	13/02/2013	p30481_1.cpl	NO
143	wi00936714	ISS1:1OF1	p31379_1	13/02/2013	p31379_1.cpl	NO
144	wi00903381	ISS1:1OF1	p30421_1	13/02/2013	p30421_1.cpl	NO
145	wi00839134	ISS1:1OF1	p30698_1	13/02/2013	p30698_1.cpl	YES
146	wi00967507	ISS1:1OF1	p31416_1	13/02/2013	p31416_1.cpl	NO
147	wi00853178	ISS1:1OF1	p30719_1	13/02/2013	p30719_1.cpl	NO
148	WI00928455	ISS1:1OF1	p31297_1	13/02/2013	p31297_1.cpl	NO
149	wi00903437	ISS1:1OF1	p31167_1	13/02/2013	p31167_1.cpl	NO

150	wi00884699	ISS1:1OF1	p31000_1	13/02/2013	p31000_1.cpl	YES
151	wi00932958	ISS1:1OF1	p31115_1	13/02/2013	p31115_1.cpl	NO
152	wi00896420	ISS1:1OF1	p30867_1	13/02/2013	p30867_1.cpl	NO
153	wi00865477	ISS1:1OF1	p30894_1	13/02/2013	p30894_1.cpl	YES
154	wi00925141	ISS1:1OF1	p30802_1	13/02/2013	p30802_1.cpl	NO
155	wi00857362	ISS1:1OF1	p30782_1	13/02/2013	p30782_1.cpl	NO
156	wi00956788	ISS1:1OF1	p31638_1	13/02/2013	p31638_1.cpl	NO
157	wi00924886	ISS1:1OF1	p31062_1	13/02/2013	p31062_1.cpl	YES
158	wi00854415	ISS1:1OF1	p30593_1	13/02/2013	p30593_1.cpl	NO
159	wi00930864	ISS1:1OF1	p31325_1	13/02/2013	p31325_1.cpl	NO
160	wi00968448	ISS1:1OF1	p31648_1	13/02/2013	p31648_1.cpl	YES
161	wi00962955	ISS1:1OF1	p31585_1	13/02/2013	p31585_1.cpl	NO
162	wi00977393	ISS1:1OF1	p31744_1	13/02/2013	p31744_1.cpl	YES
163	wi00868729	ISS1:1OF1	p31163_1	13/02/2013	p31163_1.cpl	NO
164	wi00951427	ISS1:1OF1	p31478_1	13/02/2013	p31478_1.cpl	NO
165	wi00894443	ISS1:1OF1	p31093_1	13/02/2013	p31093_1.cpl	NO
166	wi00956885	ISS1:1OF1	p31489_1	13/02/2013	p31489_1.cpl	NO
167	wi00968353	ISS1:1OF1	p31412_1	13/02/2013	p31412_1.cpl	NO
168	wi00836182	ISS1:1OF1	p30450_1	13/02/2013	p30450_1.cpl	NO
169	wi00961267	ISS1:1OF1	p30288_1	13/02/2013	p30288_1.cpl	NO
170	wi01037773	ISS1:1OF1	p31544_1	13/02/2013	p31544_1.cpl	NO
171	wi01039170	ISS1:1OF1	p32207_1	13/02/2013	p32207_1.cpl	YES
172	wi00903369	ISS1:1OF1	p31165_1	13/02/2013	p31165_1.cpl	NO
173	wi00936935	ISS1:1OF1	p31362_1	13/02/2013	p31362_1.cpl	NO
174	wi00900766	ISS1:1OF1	p31159_1	13/02/2013	p31159_1.cpl	NO
175	wi00943748	ISS1:1OF1	p31516_1	13/02/2013	p31516_1.cpl	NO
176	wi00882293	ISS1:1OF1	p31010_1	13/02/2013	p31010_1.cpl	NO
177	wi00953900	ISS1:1OF1	p31494_1	13/02/2013	p31494_1.cpl	NO
178	wi00949410	ISS1:1OF1	p31248_1	13/02/2013	p31248_1.cpl	NO
179	wi00975659	ISS1:1OF1	p31707_1	13/02/2013	p31707_1.cpl	NO
180	wi00946477	ISS1:1OF1	p31426_1	13/02/2013	p31426_1.cpl	NO
181	wi01033893	ISS1:1OF1	p32167_1	13/02/2013	p32167_1.cpl	NO
182	wi01044873	ISS1:1OF1	p31749_1	13/02/2013	p31749_1.cpl	NO
183	wi01043458	ISS1:1OF1	p31712_1	13/02/2013	p31712_1.cpl	NO
184	wi01022466	ISS1:1OF1	p32205_1	13/02/2013	p32205_1.cpl	NO
185	wi00977002	ISS2:1OF1	p30786_2	13/02/2013	p30786_2.cpl	NO
186	wi01045924	ISS1:1OF1	p32259_1	13/02/2013	p32259_1.cpl	NO
187	wi01013144	ISS1:1OF1	p31929_1	13/02/2013	p31929_1.cpl	NO
188	wi01010472	ISS1:1OF1	p31975_1	13/02/2013	p31975_1.cpl	NO
189	wi01043713	ISS1:1OF1	p32245_1	13/02/2013	p32245_1.cpl	YES
190	wi01031640	ISS1:1OF1	p31607_1	13/02/2013	p31607_1.cpl	YES
191	wi01006063	ISS1:1OF1	p31957_1	13/02/2013	p31957_1.cpl	NO
192	wi01041007	ISS1:1OF1	p32059_1	13/02/2013	p32059_1.cpl	NO
193	wi01020043	ISS1:1OF1	p32055_1	13/02/2013	p32055_1.cpl	NO
194	wi01029486	ISS1:1OF1	p32144_1	13/02/2013	p32144_1.cpl	NO
195	wi01008505	ISS1:1OF1	p31968_1	13/02/2013	p31968_1.cpl	NO
196	wi01039718	ISS1:1OF1	p32279_1	13/02/2013	p32279_1.cpl	YES
197	wi01044828	ISS1:1OF1	p31510_1	13/02/2013	p31510_1.cpl	NO
198	wi01003896	ISS1:1OF1	p31631_1	13/02/2013	p31631_1.cpl	NO
199	wi01015780	ISS1:1OF1	p32083_1	13/02/2013	p32083_1.cpl	NO
200	wi01051786	ISS1:1OF1	p32296_1	13/02/2013	p32296_1.cpl	YES
201	wi01042755	ISS1:1OF1	p31667_1	13/02/2013	p31667_1.cpl	NO
202	wi00976951	ISS1:1OF1	p30112_1	13/02/2013	p30112_1.cpl	NO
203	wi01011078	ISS1:1OF1	p31996_1	13/02/2013	p31996_1.cpl	NO
204	wi01018064	ISS1:1OF1	p32044_1	13/02/2013	p32044_1.cpl	NO

205	wi01039486	ISS1:1OF1	p32209_1	13/02/2013	p32209_1.cpl	YES
206	wi01012229	ISS1:1OF1	p31993_1	13/02/2013	p31993_1.cpl	NO
207	wi00949136	ISS1:1OF1	p31441_1	13/02/2013	p31441_1.cpl	NO
208	wi00897279	ISS1:1OF1	p31129_1	13/02/2013	p31129_1.cpl	NO
209	wi01001938	ISS1:1OF1	p31921_1	13/02/2013	p31921_1.cpl	YES
210	wi01044868	ISS1:1OF1	p32261_1	13/02/2013	p32261_1.cpl	NO
211	wi01041545	ISS1:1OF1	p32236_1	13/02/2013	p32236_1.cpl	YES
212	wi01020959	ISS1:1OF1	p32062_1	13/02/2013	p32062_1.cpl	NO
213	wi01050993	ISS1:1OF1	p32289_1	13/02/2013	p32289_1.cpl	NO
214	wi01034420	ISS1:1OF1	p31584_1	13/02/2013	p31584_1.cpl	NO
215	wi01012423	ISS1:1OF1	p26155_1	13/02/2013	p26155_1.cpl	NO
216	wi01023570	ISS1:1OF1	p32096_1	13/02/2013	p32096_1.cpl	NO
217	wi00965009	ISS1:1OF1	p31600_1	13/02/2013	p31600_1.cpl	NO
218	wi01036339	ISS1:1OF1	p32204_1	13/02/2013	p32204_1.cpl	NO
219	wi01005927	ISS1:1OF1	p31905_1	13/02/2013	p31905_1.cpl	NO
220	wi00971980	ISS1:1OF1	p31863_1	13/02/2013	p31863_1.cpl	NO
221	wi01027609	ISS1:1OF1	p31850_1	13/02/2013	p31850_1.cpl	NO
222	wi01050057	ISS1:1OF1	p32286_1	13/02/2013	p32286_1.cpl	NO
223	wi01003814	ISS1:1OF1	p31940_1	13/02/2013	p31940_1.cpl	NO
224	wi01011113	ISS1:1OF1	p32054_1	13/02/2013	p32054_1.cpl	NO
225	wi01034779	ISS1:1OF1	p32174_1	13/02/2013	p32174_1.cpl	NO
226	wi01020752	ISS1:1OF1	p32108_1	13/02/2013	p32108_1.cpl	NO
227	wi01008316	ISS1:1OF1	p32026_1	13/02/2013	p32026_1.cpl	YES
228	wi01003384	ISS1:1OF1	p31479_1	13/02/2013	p31479_1.cpl	NO
229	wi01028950	ISS1:1OF1	p31782_1	13/02/2013	p31782_1.cpl	NO
230	wi01040531	ISS1:1OF1	p32218_1	13/02/2013	p32218_1.cpl	NO
231	wi00896319	ISS1:1OF1	p31070_1	13/02/2013	p31070_1.cpl	NO
232	wi00897250	ISS1:1OF1	p31127_1	13/02/2013	p31127_1.cpl	NO
233	wi01044293	ISS1:1OF1	p32250_1	13/02/2013	p32250_1.cpl	NO
234	wi01034452	ISS1:1OF1	p31672_1	13/02/2013	p31672_1.cpl	NO
235	wi01046101	ISS1:1OF1	p32263_1	13/02/2013	p32263_1.cpl	NO
236	wi01043882	ISS1:1OF1	p32248_1	13/02/2013	p32248_1.cpl	YES
237	wi00998328	ISS1:1OF1	p31899_1	13/02/2013	p31899_1.cpl	NO
238	wi00965603	ISS1:1OF1	p31618_1	13/02/2013	p31618_1.cpl	NO
239	wi01001588	ISS1:1OF1	p31976_1	13/02/2013	p31976_1.cpl	NO
240	wi01021598	ISS1:1OF1	p32066_1	13/02/2013	p32066_1.cpl	NO
241	wi01032447	ISS1:1OF1	p32160_1	13/02/2013	p32160_1.cpl	NO
242	wi00991907	iss1:1of1	p31907_1	13/02/2013	p31907_1.cpl	NO
243	wi01032794	ISS1:1OF1	p31480_1	13/02/2013	p31480_1.cpl	NO
244	wi01042791	ISS1:1OF1	p32234_1	13/02/2013	p32234_1.cpl	NO
245	wi01034774	ISS1:1OF1	p32173_1	13/02/2013	p32173_1.cpl	NO
246	wi01042118	ISS1:1OF1	p32231_1	13/02/2013	p32231_1.cpl	NO
247	wi01008188	ISS1:1OF1	p32020_1	13/02/2013	p32020_1.cpl	NO
248	wi01020230	ISS2:1OF1	p32057_2	13/02/2013	p32057_2.cpl	YES
249	wi01051024	ISS1:1OF1	p32290_1	13/02/2013	p32290_1.cpl	NO
250	wi01039099	ISS1:1OF1	p32269_1	13/02/2013	p32269_1.cpl	NO
251	WI01018404	ISS1:1OF1	p31568_1	13/02/2013	p31568_1.cpl	NO
252	wi01016303	ISS1:1OF1	p32031_1	13/02/2013	p32031_1.cpl	NO
253	wi01005653	ISS1:1OF1	p31952_1	13/02/2013	p31952_1.cpl	NO
254	wi01044600	ISS1:1OF1	p32255_1	13/02/2013	p32255_1.cpl	YES
255	wi01057299	ISS1:1OF1	p32367_1	13/02/2013	p32367_1.cpl	NO
256	wi00837538	ISS1:1OF1	p30568_1	13/02/2013	p30568_1.cpl	NO
257	wi01014835	ISS1:1OF1	p32015_1	13/02/2013	p32015_1.cpl	NO
258	wi00999802	ISS1:1OF1	p31577_1	13/02/2013	p31577_1.cpl	NO
259	wi01031887	ISS1:1OF1	p31814_1	13/02/2013	p31814_1.cpl	NO

260	wi01030088	ISS1:1OF1	p32148_1	13/02/2013	p32148_1.cpl	YES
261	wi00996889	ISS1:1OF1	p31933_1	13/02/2013	p31933_1.cpl	NO
262	wi01000796	ISS1:1OF1	p31800_1	13/02/2013	p31800_1.cpl	NO
263	wi01031825	ISS1:1OF1	p31882_1	13/02/2013	p31882_1.cpl	NO
264	wi01042285	ISS1:1OF1	p32230_1	13/02/2013	p32230_1.cpl	YES
265	wi01044026	ISS1:1OF1	p32249_1	13/02/2013	p32249_1.cpl	NO
266	wi00993743	ISS1:1OF1	p31865_1	13/02/2013	p31865_1.cpl	NO
267	wi01046277	ISS1:1OF1	p32265_1	13/02/2013	p32265_1.cpl	NO
268	wi01042797	ISS1:1OF1	p32089_1	13/02/2013	p32089_1.cpl	NO
269	wi01037022	ISS1:1OF1	p32192_1	13/02/2013	p32192_1.cpl	YES
270	wi01028650	ISS1:1OF1	p32188_1	13/02/2013	p32188_1.cpl	NO
271	wi01042548	ISS1:1OF1	p32232_1	13/02/2013	p32232_1.cpl	NO
272	wi00967514	ISS1:1OF1	p31351_1	13/02/2013	p31351_1.cpl	NO
273	wi01033197	ISS1:1OF1	p29818_1	13/02/2013	p29818_1.cpl	NO
274	wi01031571	ISS1:1OF1	p32158_1	13/02/2013	p32158_1.cpl	NO
MDP>LAST SUCCESSFUL MDP REFRESH :2013-02-07 18:05:16(Local Time)						
MDP>USING DEPLIST ZIP FILE DOWNLOADED :2013-01-11 11:29:20(est)						

Avaya Communication Server 1000E Peripheral Software Version (PSWV) data  
 PSWV VERSION: PSWV 100  
 LCRI: VERSION NUMBER: AA02  
 XNET: VERSION NUMBER: AC23  
 XPEC: VERSION NUMBER: AC43  
 FNET: VERSION NUMBER: AA07  
 FPEC: VERSION NUMBER: AA08  
 MSDL: VERSION NUMBER: AJ73  
 SDI: VERSION NUMBER: AH51  
 DCH: VERSION NUMBER: AA72  
 AML: VERSION NUMBER: AK81  
 BRIL: VERSION NUMBER: AK83  
 BRIT: VERSION NUMBER: AK82  
 MISP: VERSION NUMBER: AJ71  
 MPH: VERSION NUMBER: AH51  
 BRSC: VERSION NUMBER: AJ71  
 BBRI: VERSION NUMBER: AH54  
 PRIE: VERSION NUMBER: AA87  
 BRIE: VERSION NUMBER: AK89  
 ISIG: VERSION NUMBER: AA33  
 SWE1: VERSION NUMBER: BA53  
 UKG1: VERSION NUMBER: BA51  
 AUS1: VERSION NUMBER: BA49  
 DEN1: VERSION NUMBER: BA48  
 FIN1: VERSION NUMBER: BA49  
 GER1: VERSION NUMBER: BA54  
 ITA1: VERSION NUMBER: AA54  
 NOR1: VERSION NUMBER: BA49  
 POR1: VERSION NUMBER: BA49  
 DUT1: VERSION NUMBER: BA50  
 EIR1: VERSION NUMBER: BA49  
 SWI1: VERSION NUMBER: BA53  
 BEL1: VERSION NUMBER: BA49  
 SPA1: VERSION NUMBER: BA51  
 NET1: VERSION NUMBER: BA48  
 FRA1: VERSION NUMBER: BA52  
 CIS1: VERSION NUMBER: BA48

```
ETSI: VERSION NUMBER: BA48
E403: VERSION NUMBER: BA07
N403: VERSION NUMBER: BA05
JTTC: VERSION NUMBER: AC08
TCNZ: VERSION NUMBER: AA13
AUBR: VERSION NUMBER: AA14
AUPR: VERSION NUMBER: AA04
HKBR: VERSION NUMBER: AA06
HKPR: VERSION NUMBER: AA08
SING: VERSION NUMBER: AA15
THAI: VERSION NUMBER: AA07
NI02: VERSION NUMBER: AA26
T1IS: VERSION NUMBER: AA10
T1ES: VERSION NUMBER: AA09
ESGF: VERSION NUMBER: AC30
ISGF: VERSION NUMBER: AC31
ESGFTI:      VERSION NUMBER: AC29
ISGFTI:      VERSION NUMBER: AC31
INDO: VERSION NUMBER: AA06
JAPN: VERSION NUMBER: AA16
MSIA: VERSION NUMBER: AA04
CHNA: VERSION NUMBER: AA04
INDI: VERSION NUMBER: AA03
PHLP: VERSION NUMBER: AA02
TAIW: VERSION NUMBER: AA03
EAUS: VERSION NUMBER: AA02
EGF4: VERSION NUMBER: AC14
DCH3: VERSION NUMBER: AA10
PUP3: VERSION NUMBER: AA14
T1E1: VERSION NUMBER: AA19
DITI: VERSION NUMBER: AA40
CLKC: VERSION NUMBER: AA20
3902: VERSION NUMBER: AA84
3903: VERSION NUMBER: AA91
3904: VERSION NUMBER: AA94
3905: VERSION NUMBER: AA94
MGC, MGX and MGS:
    CSP  VERSION: MGCC CD01
    MSP  VERSION: MGCM AB01
    APP  VERSION: MGCA BA07
    FPGA VERSION: MGCF AA18
    BOOT VERSION: MGCB BA07
    DSP1 VERSION: DSP1 AB03
    DSP2 VERSION: DSP2 AB03
    DSP3 VERSION: DSP3 AB03
    DSP4 VERSION: DSP4 AB01
    DSP5 VERSION: DSP5 AA01
UDT VERSION NUMBER: AA42
```

## Appendix C: Signaling Server Service Packs and patches

```

Product Release: 7.50.17.00
In system patches: 2
PATCH# NAME IN_SERVICE DATE SPECINS TYPE RPM
14 p32547_1 Yes 13/02/13 NO FRU cs1000-pi-control-1.00.00.00-00.noarch
32 p31484_1 Yes 13/02/13 NO FRU cs1000-shared-general-7.50.17-00.i386

In System service updates: 31
PATCH# IN_SERVICE DATE SPECINS REMOVABLE NAME
0 Yes 07/02/13 NO YES cs1000-patchWeb-7.50.17.16-8.i386.000
1 Yes 13/02/13 NO YES cs1000-mscTone-7.50.17.16-5.i386.000
2 Yes 12/02/13 NO YES cs1000-Jboss-Quantum-7.50.17.16-30.i386.000
3 Yes 01/05/12 NO YES cs1000-kcv-7.50.17.16-1.i386.000
4 Yes 12/02/13 NO YES cs1000-vtrk-7.50.17.16-131.i386.001
5 Yes 02/05/12 NO YES ipsec-tools-0.6.5-14.e15.3_avaya_1.i386.000
6 Yes 07/02/13 NO YES cs1000-linuxbase-7.50.17.16-13.i386.000
7 Yes 01/05/12 NO YES cs1000-shared-pbx-7.50.17.16-1.i386.000
8 Yes 12/02/13 NO YES cs1000-dbcom-7.50.17.16-1.i386.000
9 Yes 12/02/13 NO YES cs1000-bcc-7.50.17.16-69.i386.000
10 Yes 07/02/13 YES YES cs1000-baseWeb-7.50.17.16-2.i386.000
11 Yes 12/02/13 NO YES cs1000-ftrpkg-7.50.17.16-11.i386.000
12 Yes 12/02/13 NO YES cs1000-sps-7.50.17.16-10.i386.000
13 Yes 12/02/13 NO YES cs1000-tps-7.50.17.16-24.i386.000
15 Yes 12/02/13 NO YES cs1000-csmWeb-7.50.17.16-6.i386.000
16 Yes 12/02/13 NO YES cs1000-mscMusc-7.50.17.16-11.i386.000
17 Yes 01/05/12 NO YES cs1000-ipsec-7.50.17.16-1.i386.000
18 Yes 12/02/13 NO YES cs1000-mscAttn-7.50.17.16-6.i386.000
19 Yes 12/02/13 NO YES cs1000-dmWeb-7.50.17.04-00.i386.001
20 Yes 02/05/12 NO YES spiritAgent-6.1-1.0.0.108.208.i386.000
21 Yes 12/02/13 NO YES cs1000-emWeb_6-0-7.50.17.16-34.i386.000
22 Yes 12/02/13 NO YES cs1000-EmCentralLogic-7.50.17.16-2.i386.000
23 Yes 12/02/13 NO yes avaya-cs1000-cnd-4.0.20-00.i386.000
24 Yes 12/02/13 NO yes tzdata-2011h-2.e15.i386.000
25 Yes 12/02/13 NO YES cs1000-pd-7.50.17.16-1.i386.000
26 Yes 12/02/13 NO YES cs1000-ncs-7.50.17.16-1.i386.000
27 Yes 12/02/13 NO YES cs1000-cs1000WebService_6-0-7.50.17.16-
1.i386.000
28 Yes 12/02/13 NO YES cs1000-mscConf-7.50.17.16-1.i386.000
29 Yes 12/02/13 NO YES cs1000-emWebLocal_6-0-7.50.17.16-3.i386.000
30 Yes 12/02/13 NO YES cs1000-mscAnnc-7.50.17.16-10.i386.000
31 Yes 12/02/13 NO YES cs1000-csoneksvrmgr-7.50.17.16-1.i386.000

```

## Appendix D: Avaya Media Server Patches

```
Product Release: 7.50.17.00
In system patches: 0

In System service updates: 13
PATCH# IN_SERVICE DATE SPECINS REMOVABLE NAME
0 Yes 07/02/13 NO YES cs1000-linuxbase-7.50.17.16-13.i386.000
1 Yes 07/02/13 YES YES cs1000-baseWeb-7.50.17.16-2.i386.000
2 Yes 07/02/13 NO YES cs1000-patchWeb-7.50.17.16-8.i386.000
3 Yes 07/02/13 NO YES cs1000-kcv-7.50.17.16-1.i386.000
4 Yes 07/02/13 NO yes avaya-cs1000-cnd-4.0.20-00.i386.000
5 Yes 07/02/13 NO YES cs1000-ipsec-7.50.17.16-1.i386.000
6 Yes 07/02/13 NO YES ipsec-tools-0.6.5-14.el5.3_avaya_1.i386.000
7 Yes 07/02/13 NO YES spiritAgent-6.1-1.0.0.108.208.i386.000
8 Yes 07/02/13 NO yes tzdata-2011h-2.el5.i386.000
9 Yes 07/02/13 NO YES cs1000-EmCentralLogic-7.50.17.16-2.i386.000
10 Yes 07/02/13 NO YES cs1000-csoneksrvmgr-7.50.17.16-1.i386.000
11 Yes 07/02/13 NO YES cs1000-Jboss-Quantum-7.50.17.16-30.i386.000
12 Yes 07/02/13 NO YES cs1000-dmWeb-7.50.17.16-6.i386.000
```

## Appendix E: Avaya Media Server License Details

The screenshot shows the Avaya Element Manager interface. The left sidebar has a tree view with nodes like Network, System Status, Applications, Cluster Configuration, System Configuration, and a red-highlighted Licensing node which is expanded to show General Settings, Monitoring, Server Status, Utilization Threshold, and Advanced Settings. The main content area is titled "General Settings" and shows a "Licensing" dropdown set to "License Server". Below it is a text input field containing a license key: "rebLLbZnEw5W+L/8fB4JBQEDAs6iurK2tWS gYn/ydNdGhvJr8zXj8HASAgcMDg+Pjw== # inst::auth 1.0 00:1a:64:20:3f:eb (1) 360 secs". There is a "Replace License Keys:" button and a "Validate" button. A note below says "Changing this field will require the system to be restarted to take effect." At the bottom, there is a "License Details" table:

Feature	Release	MAC Address	Available	Expiration Date(BST)
Media Server Instances	1.0	0:1a:64:20:3feb	0	
cs1krfc4240:sess	1.0	0:1a:64:20:3feb	30	

## Appendix F: Avaya Network Routing Server patches

```
Product Release: 7.50.17.00
In system patches: 0

In System service updates: 4
PATCH# IN_SERVICE DATE SPECINS REMOVABLE NAME
0 Yes 12/04/11 NO YES cs1000-baseWeb-7.50.17.01-1.i386.000
1 Yes 12/04/11 NO YES cs1000-linuxbase-7.50.17.04-00.i386.000
2 Yes 12/04/11 NO YES cs1000-Jboss-Quantum-7.50.17.01-1.i386.000
3 Yes 12/04/11 NO YES cs1000-dmWeb-7.50.17.04-00.i386.001
```

## Appendix G: IP address of the Telephony (TLan) of the CS1000E Node

The screenshot shows the Avaya CS1000 Element Manager interface. The left sidebar contains a navigation tree with categories like UCM Network Services, Home, Links, Virtual Terminals, System, Alarms, Maintenance, Core Equipment, Peripheral Equipment, IP Network, and specific sub-options like Nodes, Servers, Media Cards, Maintenance and Reports, Media Gateways, Zones, Host and Route Tables, Network Address Translation (N), QoS Thresholds, Personal Directories, Unicode Name Directory, Interfaces, and Engineered Values. The main content area is titled "Node Details (ID: 3 - LTPS, PD, IP Media Services, Gateway ( SIPGw, H323Gw ))". It displays various configuration parameters for the node, including Call server IP address (172.18.20.14), Embedded LAN (ELAN) settings (Gateway IP address 172.18.20.1, Subnet mask 255.255.255.128), and Telephony LAN (TLAN) settings (Node IPv4 address 47.166.92.219, Subnet mask 255.255.255.224). A red box highlights the TLAN configuration section.

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