



Avaya Solution & Interoperability Test Lab

Application Notes for Bristol Capital SourceBook Service with Avaya Aura™ Communication Manager – Issue 1.0

Abstract

These Application Notes describe the steps required for the Bristol Capital SourceBook service to successfully interoperate with Avaya Aura™ Communication Manager. The Bristol Capital SourceBook is a PBX management service that uses the Avaya System Administrator Terminal interface to obtain configuration related data and provide report on the detailed configurations of Avaya Aura™ Communication Manager.

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

1. Introduction

These Application Notes describe the steps required for the Bristol Capital SourceBook service to successfully interoperate with Avaya Aura™ Communication Manager. The Bristol Capital SourceBook is a PBX management service that uses the Avaya System Administrator Terminal (SAT) interface to obtain configuration related data and provide report on the detailed configurations of Avaya Aura™ Communication Manager.

1.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the proper collection and reporting of inventory data by the Bristol Capital Site Survey service. The collected inventory data included extension types, configurations, data modules, attendants, announcements, trunk groups, DS1, system, cabinets, capacities, customer options, offer options, alias stations, media gateways, remote offices, survivable processors, system parameters, enterprise survivable servers, audio groups, signaling groups, abbreviated dialing lists, class of services, class of restrictions, tenants, coverage answer groups, cover paths, coverage remote groups, hunt groups, intercom groups, pickup groups, paging, route patterns, tolls, partitioned groups and tables, agent login IDs, ARS analysis, AAR analysis, signaling groups, software versions and serial numbers.

The serviceability testing focused on verifying the ability of the Bristol Capital SourceBook service to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable and restarting the SAT session with Avaya Aura™ Communication Manager.

1.2. Support

Technical support on the Bristol Capital SourceBook service can be obtained through the following:

- **Phone:** (201) 476-0600
- **Email:** support@infoplusonline.com

2. Reference Configuration

As shown in **Figure 1**, the Bristol Capital SourceBook service consists of a server that connects remotely to Avaya Aura™ Communication Manager via the SAT interface, and uses a subset of the SAT commands to collect configuration related data. The collected configuration data are passed on to the Bristol Capital Central Database for analysis and reporting.

The remote connectivity between the Bristol Capital SourceBook service and Avaya Aura™ Communication Manager can be accomplished using either modem dialup to the Avaya Server Availability Management Processor (SAMP) interface, VPN tunneling, or direct access from the public network. In the compliance testing, the direct access method from the public network was used.

In the direct access method via the public network, a spare and existing C-LAN circuit pack from Avaya Aura™ Communication Manager was connected to the public network, with the corporate firewall configured to allow traffic from the public IP address of the Bristol Capital SourceBook server. The public IP address of the C-LAN circuit pack and the SAT login credentials were passed on to Bristol Capital.

Note that the corporate firewall configuration is outside the scope of these Application Notes, and will not be described.

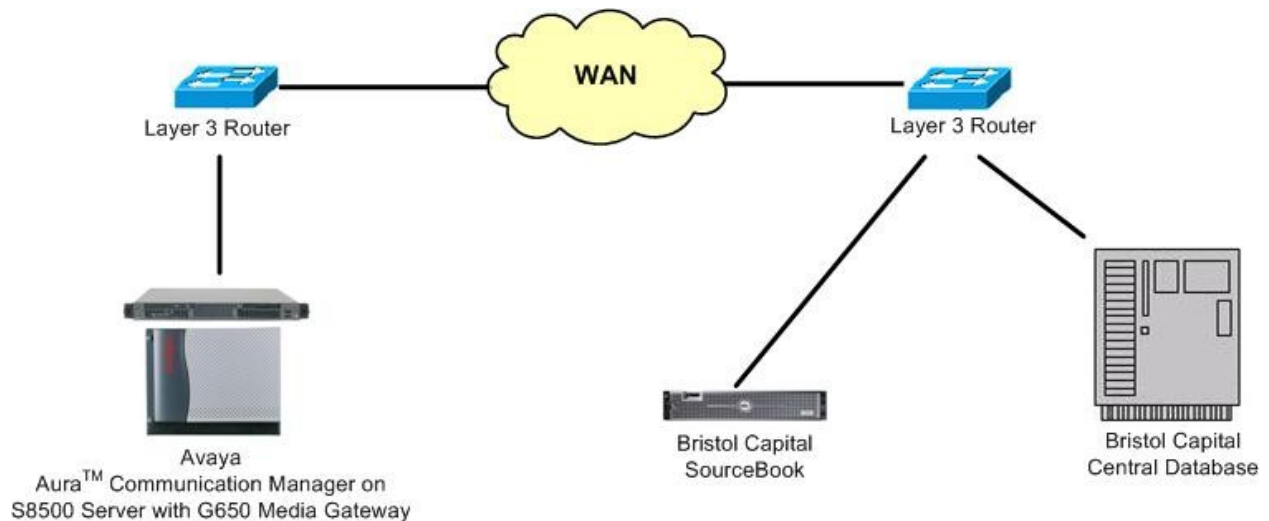


Figure 1: Bristol Capital Site SourceBook with Avaya Aura™ Communication Manager

3. Equipment and Software Validated

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

Equipment	Software
Avaya Aura™ Communication Manager on Avaya S8500 Server	R015x.02.0.947.3
Avaya G650 Media Gateway <ul style="list-style-type: none"><li data-bbox="228 533 708 569">• TN799DP C-LAN Circuit Pack	HW01 FW024
Bristol Capital SourceBook	Build 8026

4. Configure Avaya Aura™ Communication Manager

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

- Obtain node names
- Administer node names
- Administer IP services

4.1. Obtain Node Names

Log in to the SAT with proper credentials. Use the “display ip-interface x” command, where “x” is the location of an existing C-LAN circuit pack that will be used to connect to the public network. Note the values in the **Node Name** and **Gateway Node Name** fields.

```
display ip-interface 1a05                                     Page 1 of 3
                                                           IP INTERFACES
Type: C-LAN
Slot: 01A05          Target socket load and Warning level: 400
Code/Suffix: TN799  D          Receive Buffer TCP Window Size: 8320
Enable Interface? y          Allow H.323 Endpoints? y
VLAN: n          Allow H.248 Gateways? y
Network Region: 2          Gatekeeper Priority: 5

                                                           IPV4 PARAMETERS
Node Name: Clan-2
Subnet Mask: /24
Gateway Node Name: Gateway002

Ethernet Link: 2
Network uses 1's for Broadcast Addresses? Y
```

4.2. Administer Node Names

Use the “change node-names ip” command to modify the IP address of the C-LAN circuit pack from **Section 4.1**, and the IP address of the associated gateway. In this case, the C-LAN node name is “Clan-2”, and the associated gateway node name is “Gateway002”. Enter the appropriate public IP addresses for these two entries to match the network configuration. The public IP addresses for the entries are masked in the screen below for privacy.

```
change node-names ip                                     Page 1 of 2
```

IP NODE NAMES	
Name	IP Address
AES-Test	10.32.32.20
Annc-1	10.32.32.14
CDR-2nd	192.168.1.12
CDR-Metropolis	192.2.5.25
Clan-1	10.32.32.12
Clan-2	xxx . xxx . xxx . xxx
G150-Lan2	192.10.20.1
G350-S8300	10.32.38.10
Gateway001	10.32.32.1
Gateway002	yyy . yyy . yyy . yyy
IPO500	10.32.33.10
Prowler-1	10.32.32.13
Prowler-2	12.184.9.168
S8300-G250	10.10.1.5

4.3. Administer IP Services

Use the “change ip-services” command to add an entry to allow SAT access via the public facing C-LAN circuit pack. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Service Type:** “SAT”
- **Enabled:** “y”
- **Local Code:** Node name of the public facing C-LAN circuit pack from **Section 4.2**.
- **Local Port:** “5023”
- **Remote Node:** “any”
- **Remote Port:** “0”

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

IP SERVICES					
Service Type	Enabled	Local Node	Local Port	Remote Node	Remote Port
CDR1		Clan-1	0	TestSite	9002
CDR2		Clan-1	0	CDR-2nd	9004
AESVCS	y	Clan-1	8765		
SAT	y	Clan-2	5023	any	0

5. Navigate Bristol Capital SourceBook Report

This section provides the procedures for navigating the Bristol Capital SourceBook report. The procedures include the following areas:

- Access report
- Review station information
- Review directories
- Review trunking information
- Review system information

5.1. Access Report

At the conclusion of the inventory data collection and analysis, the Bristol Capital SourceBook service will send an automatic email notification to the customer, including a URL to access the online report. From an Internet browser window, enter the URL from the email notification to display the **Report Access** screen below. Select **SourceBook**.

End User : Products and Services : Report Access : Support : Order : News & Information : Bristol Focus

InfoPlus

Report Access

Retry

Order

Online Studies and Reports

Account Name: Avaya Compliance Testing Lab
Account Number:

Attention Required

On December 8, 2009, we performed an **InfoPlus Traffic Study** for your Avaya communications system. The results of the Traffic Study indicated that you have 3 Trunk Group(s) that may be **under-trunked**. Proper trunking levels ensure that you are: avoiding excess trunking costs, meeting your current service level agreements, and providing superior service to your employees and customers. It is recommended that, once you have adjusted your trunking levels, you perform a follow-up Traffic Study to verify the impact of these changes.

For a cost that is in the hundreds of dollars, you have the potential to realize an annual cost reduction in the thousands of dollars. For further information, please contact your maintenance provider and request that an InfoPlus Traffic Study be conducted on your Avaya communications system.

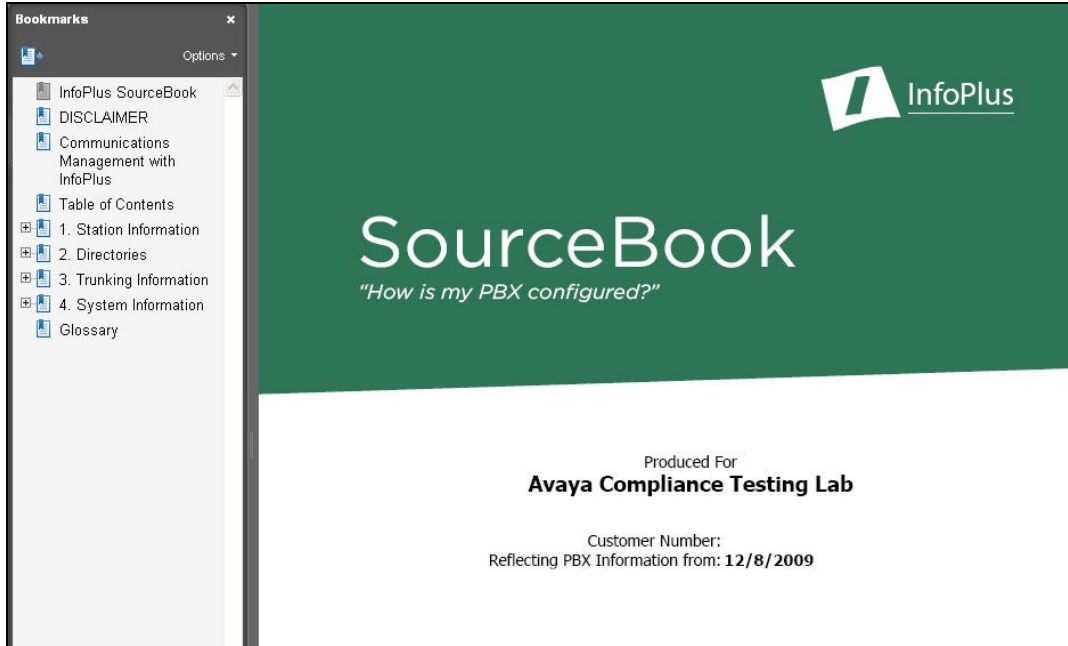
Available InfoPlus Reports and Data

The following InfoPlus Reports and services are available online:

Type	Name	Date
Inventory	Site Survey	12/08/09
Configuration	SourceBook	12/08/09
Performance	Traffic Study	12/08/09
Performance	Call Accounting (CDR)	Request Quote
Security	Security Audit	12/08/09
Security	SwitchMinder	Request Quote
Backup	Backup	Order

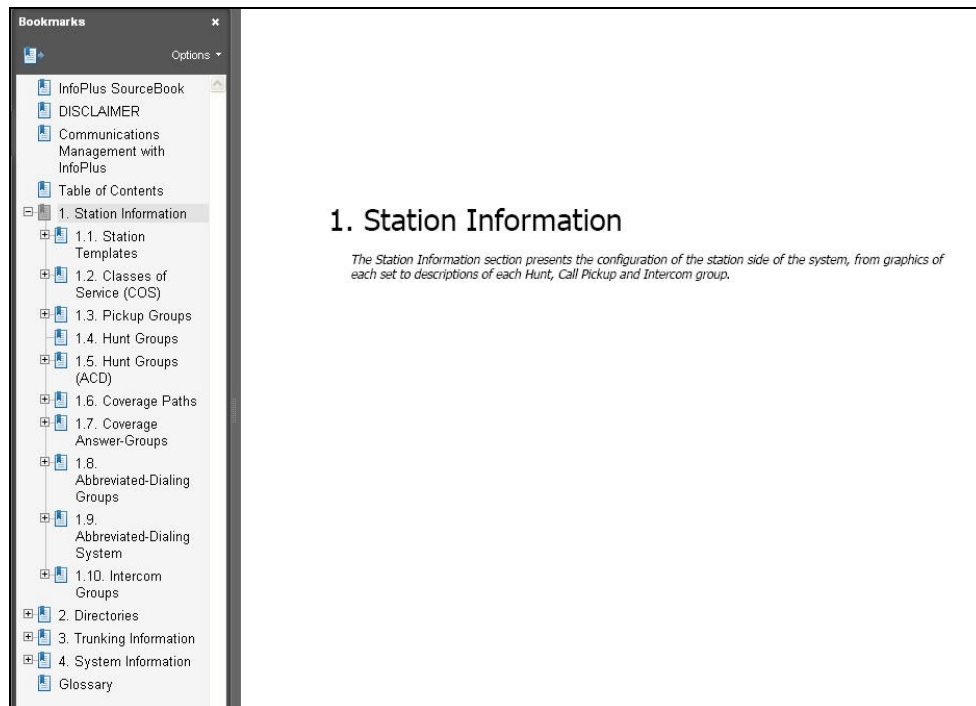
PEK reports provided by Bristol Capital, Inc. Morristown, NJ
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The **SourceBook** report is displayed. Select **Station Information** from the left pane.



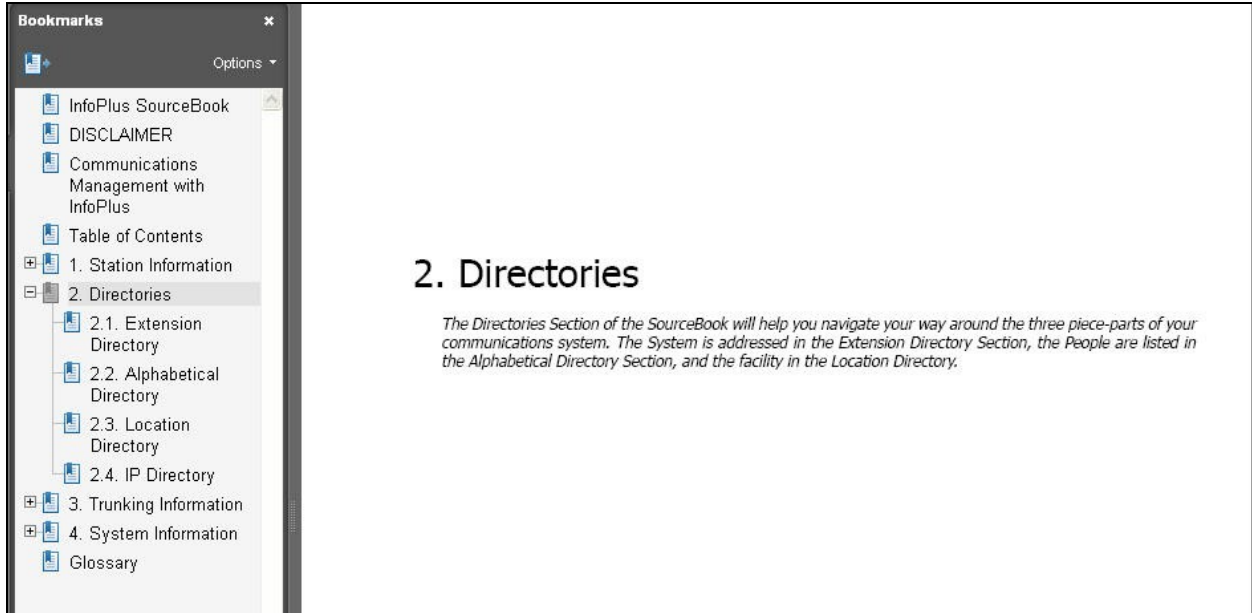
5.2. Review Station Information

The **Station Information** section is displayed. This section provides information on the station configuration, from graphics of each station set to descriptions of each class of service, pickup group, hunt group, coverage path, coverage answer group, abbreviated dialing list, and intercom group.



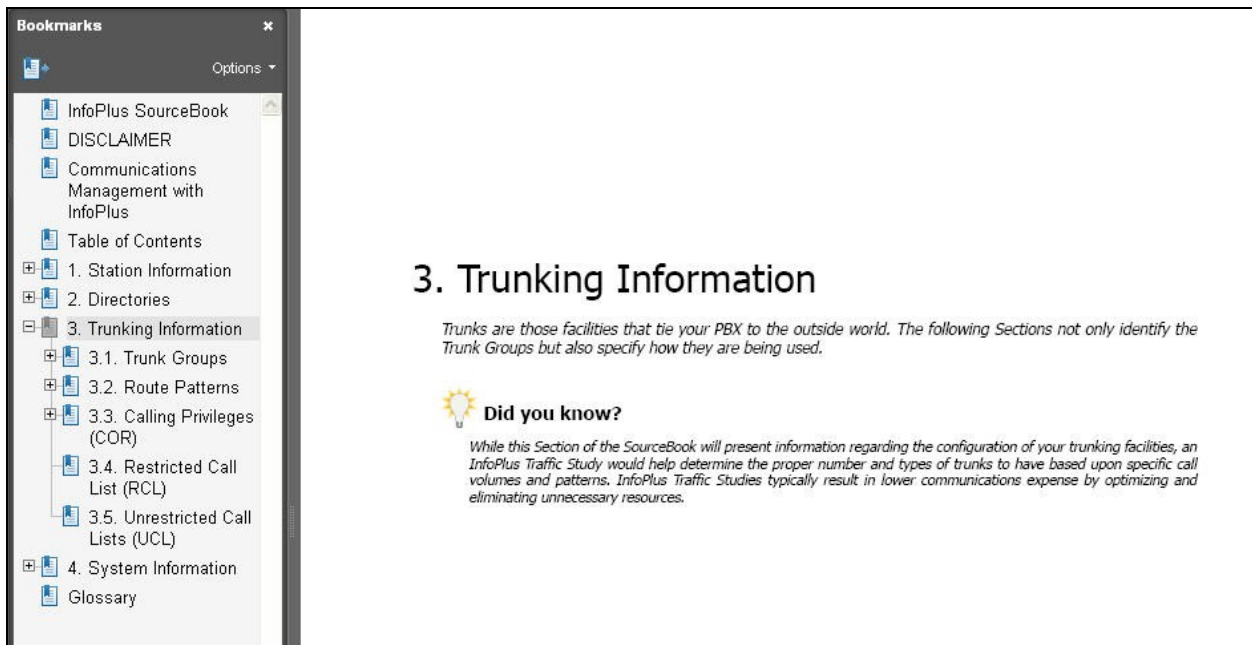
5.3. Review Directories

Select **Directories** from the left pane, to display the **Directories** section. This section provides four different directory listings – extension based, name based, facility based, and IP registration based.



5.4. Review Trunking Information

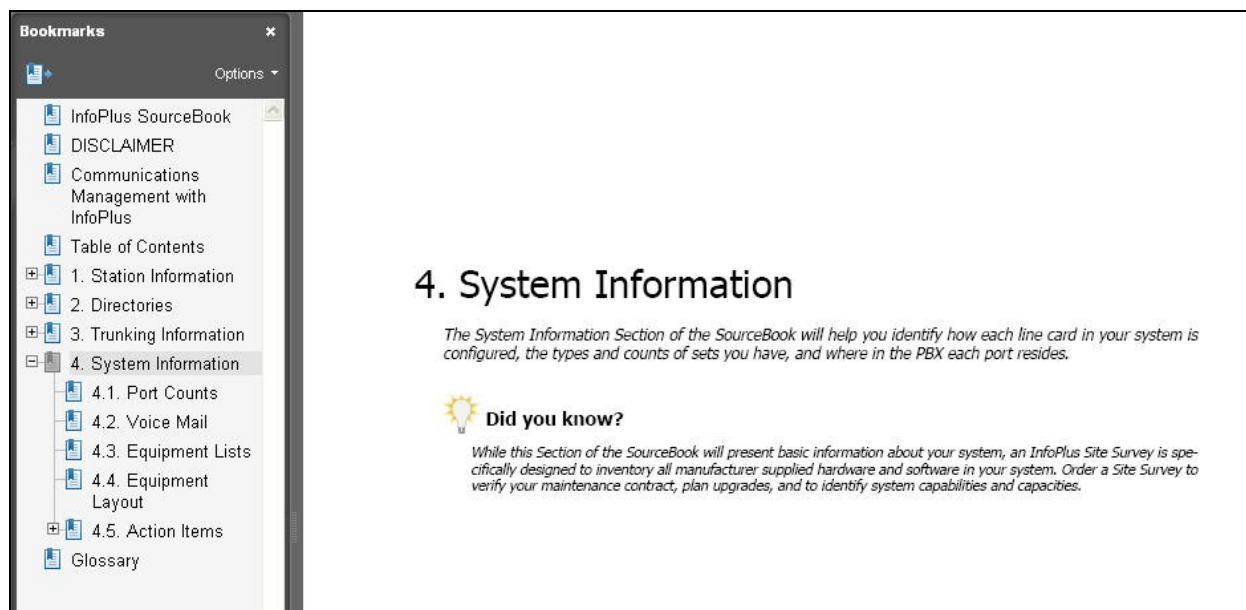
Select **Trunking Information** from the left pane, to display the **Trunking Information** section. This section provides details on the trunk groups, along with information on the associated route patterns, class of restrictions, restricted and unrestricted call lists.



5.5. Review System Information

Select **System Information** from the left pane, to display the **System Information** section. This section provides detailed port types and counts, voicemail ports, equipment lists, equipment layout, and list of recommended action items.

The **Action Items** sub-section includes potential anomalies found in the system programming, such as unused coverage paths, empty hunt groups, etc.



The screenshot shows a web application interface with a left-hand navigation pane titled "Bookmarks" and a main content area. The navigation pane lists several items, with "4. System Information" selected and expanded to show sub-items: "4.1. Port Counts", "4.2. Voice Mail", "4.3. Equipment Lists", "4.4. Equipment Layout", "4.5. Action Items", and "Glossary". The main content area displays the title "4. System Information" followed by a descriptive paragraph: "The System Information Section of the SourceBook will help you identify how each line card in your system is configured, the types and counts of sets you have, and where in the PBX each port resides." Below this is a "Did you know?" section with a lightbulb icon and a paragraph: "While this Section of the SourceBook will present basic information about your system, an InfoPlus Site Survey is specifically designed to inventory all manufacturer supplied hardware and software in your system. Order a Site Survey to verify your maintenance contract, plan upgrades, and to identify system capabilities and capacities."

6. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Inventory related data were manually configured on Avaya AuraTM Communication Manager, and automatically collected by the Bristol Capital SourceBook service.

The report produced by the Bristol Capital SourceBook service was reviewed manually and compared with the data on Avaya AuraTM Communication Manager for proper representation.

All test cases were executed. The following were the observations from the compliance testing, and Bristol Capital has committed to address the first two observations in a forthcoming release.

- Blank in the station Coverage Path 2 field were reported as “0” in the SourceBook report.
- The Port Counts section included the virtual CTI station sets but not the virtual IP trunks.
- The IP Directory section only includes registered IP devices.

7. Conclusion

These Application Notes describe the configuration steps required for the Bristol Capital SourceBook service to successfully interoperate with Avaya Aura™ Communication Manager. All test cases were completed successfully with three observations noted in **Section 6**.

8. Additional References

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

1. *Administrator Guide for Avaya Aura™ Communication Manager*, Document 03-300509, Issue 5.0, Release 5.2, May 2009, available at <http://support.avaya.com>.
2. *Avaya SourceBook Demo*, available upon at <http://www.infoplusonline.com>.

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