



Avaya Solution & Interoperability Test Lab

Application Notes for eTelemetry Locate911-A with Avaya Communication Manager and Avaya Application Enablement Services - Issue 1.0

Abstract

These Application Notes describe the procedures for configuring eTelemetry Locate911-A with Avaya Communication Manager and Avaya Application Enablement Services.

The Locate911-A is a plug-and-play appliance that automates the tracking of IP phone assets on the network and automatically updates the phone's location in the Avaya 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 a compliance-tested configuration comprised of Avaya Communication Manager, Avaya Application Enablement Services (AES), and eTelemetry Locate911-A. The Locate911 is a plug-and-play appliance that automates the tracking of IP phone assets on the network and automatically updates the phone's location in Avaya Communication Manager. The Locate911-A is an on-site component that interfaces with AES through HTTP/SOAP and Avaya Communication Manager to automatically updates the movement of VoIP phones over the network.

Figure 1 provides the configuration used for the compliance test. Note that actual configurations may vary. The solution described herein is also extensible to other Avaya Servers and Media Gateways. The primary test was on an Avaya S8720 Server with a G650 Media Gateway. During the test, an Avaya C364T-PWR Converged Stackable Switch and an Extreme Summit 48 Layer 3 Switch were utilized. An Avaya S8300 Server with an Avaya G700 Media Gateway was included during the test, to verify that the Locate911-A can perform on multiple Avaya Communication Manager systems.

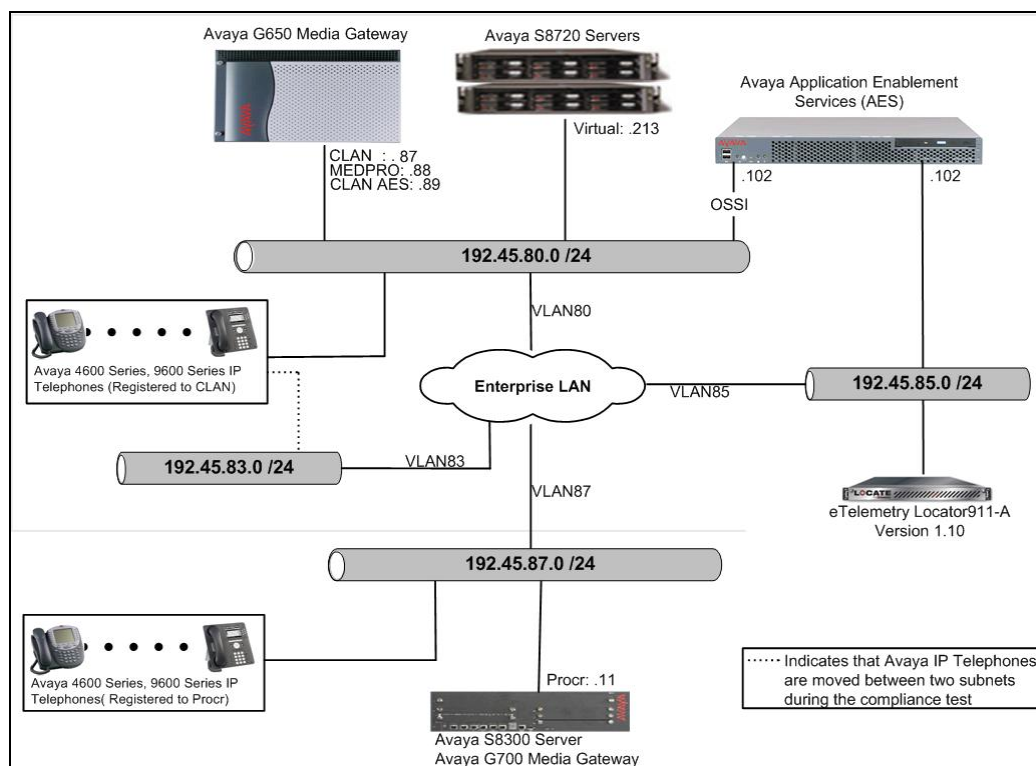


Figure 1: Sample Test Configuration for the eTelemetry Locate911-A Solution

2. Equipment and Software Validated

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

Equipment		Software/Firmware
Avaya S8700 Server		Avaya Communication Manager 5.0 (R015x.00.0.825.4)
Avaya G650 Media Gateway		-
	TN2312BP IP Server Interface	HW11 FW030
	TN799DP C-LAN Interface	HW20 FW017
	TN2302AP IP Media Processor	HW01 FW108
	TN2602AP IP Media Processor	HW02 FW007
Avaya S8300 Media Server with Avaya G700 Media Gateway		Avaya Communication Manager 5.0 (R015x.00.0.825.4)
Avaya Application Enablement Services Server		R4.1.31.2
Avaya 4600 Series IP Telephones		
	4620SW (H.323)	2.8
	4625SW (H.323)	2.8
Avaya 9600 Series IP Telephones		
	9630 (H.323)	1.5
	9650 (H.323)	1.5
Avaya C364T-PWR Converged Stackable Switch		4.5.14
Extreme Summit 48 Layer 3 Switch		4.1.21
eTelemetry Locate911-A on Linux 2.6 (Fedora)		1.10

3. Configure Avaya Communication Manager

The solution utilizes System Management Service (SMS) to modify device status on Avaya Communication Manager. The assumption has been made that the basic configuration of Avaya Communication Manager has been completed. The only item that needs to be configured is Administrator Accounts in Avaya Communication Manager. During the compliance test, the default **craft** account was utilized.

4. Configure Avaya Application Enablement Services

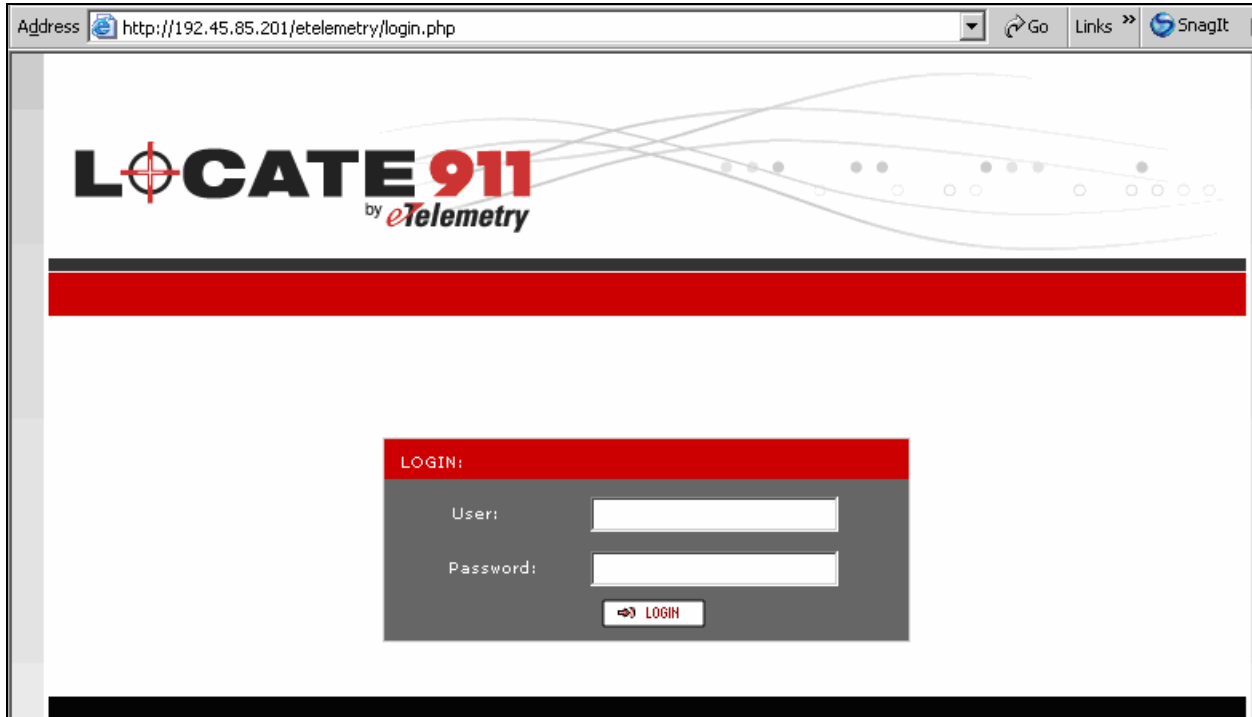
Avaya AES terminates the Locate911-A's request message and initiates an SMS process to query the Locate911-A request to Avaya Communication Manager. Therefore, there is no special configuration needed in Avaya AES.

5. Configure eTelemetry Locate911-A

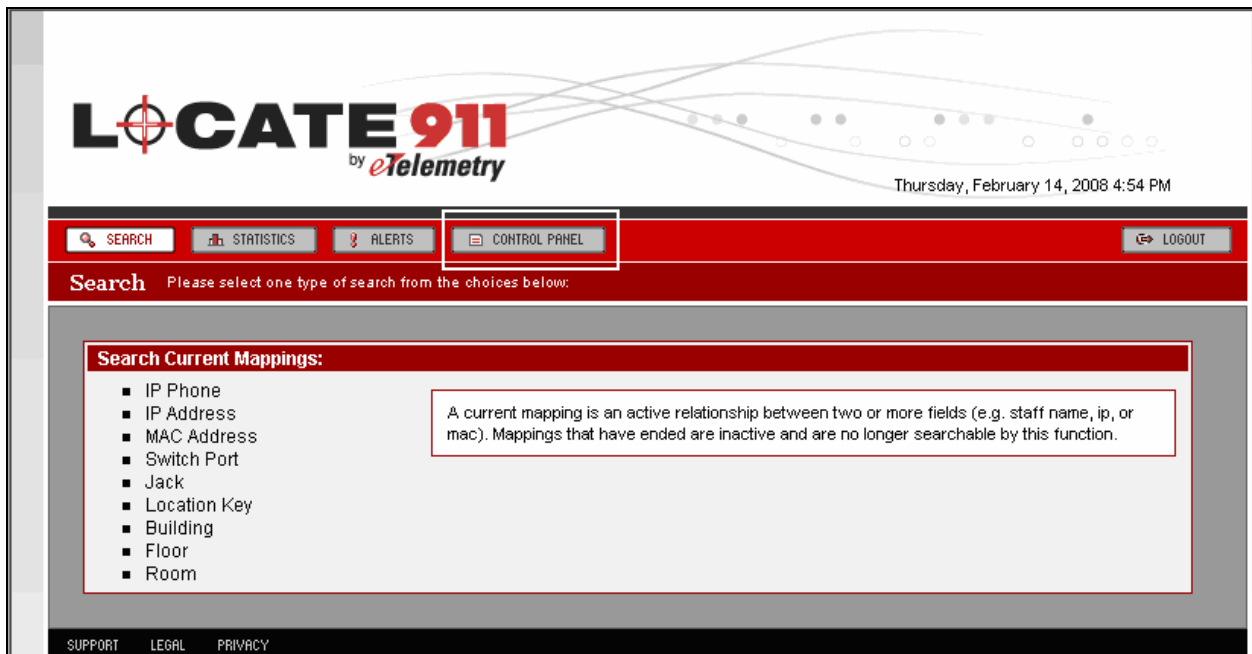
The Locate911-A is an on-site appliance that interfaces with Avaya AES through HTTP/SOAP and Avaya Communication Manager to automatically update the movement of VoIP phones over the network. This section only describes the interface configuration for the Locate911-A application to communicate with Avaya AES and Avaya Communication Manager.

Refer to [2] for configuring the eTelemetry Locate911-A application.

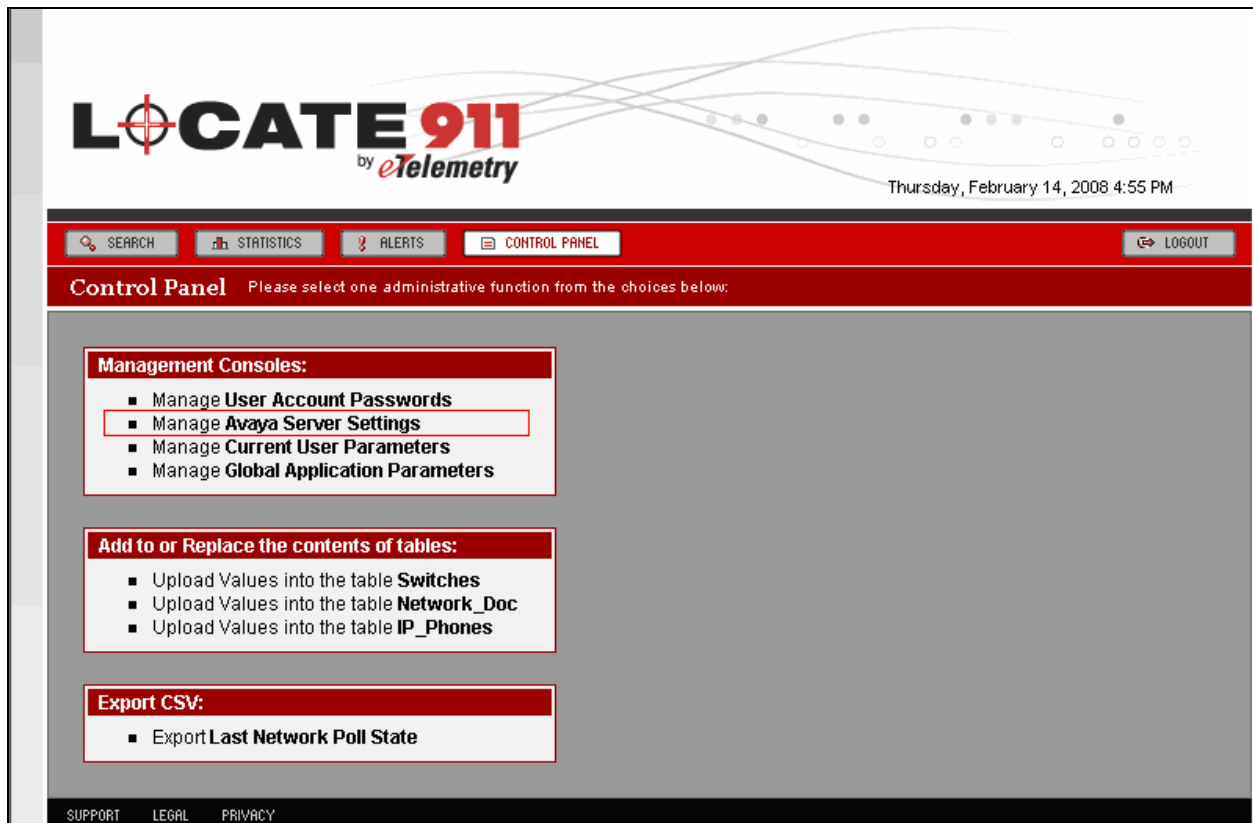
Launch a web browser, enter <http://<IP address of Locate911-A>> in the URL, and log in with the appropriate credentials for accessing the Search page.



In the Search page, click the **Control Panel** button.



In the Control Panel page, select the **Manage Avaya Server Settings** link to start to configure the SMS interface for the Locate911-A to communicate with Avaya Communication Manager through Avaya AES.



The following screen shows parameters that are required for the SMS process. Provide the following information:

- Avaya Server – IP address of the Avaya AES server. For the compliance test, the following line is inserted.
http://<Avaya AES IP address>/sms/SystemManagementService.php
- Avaya Username – A username of Avaya Communication Manager. For the compliance test, the following line is inserted.
username @<Avaya Communication Manager IP address>
- Avaya Password – The corresponding password for the username created above.

Click on the Validate Parameters button to ensure the values are valid. Then, click on the **Commit** button.

LOCATE911 by eTelemetry
Thursday, February 14, 2008 4:56 PM

SEARCH STATISTICS ALERTS CONTROL PANEL LOGOUT

Control Panel Manage Avaya Server Settings

Parameter	Value	Description
Avaya Server:	http://192.45.85.102/sms/SystemM	The Fully Qualified Domain Name of the Avaya SOAP/XML server
Avaya Username:	crkim@192.45.80.213	The Avaya Web Service user name
Avaya Password:	*****	The Avaya Web Service Password

Validate Parameters **Commit** Reset to Defaults Cancel

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Prior to running this version of the Locate911-A, all Switch Ports in the Layer 3 switches, Network Documentation, MAC addresses and extensions of VoIP devices should be provided and stored into the database. Instructions for populating the database are provided in the Locate911-A User's Guide. Once these databases are populated, the Locate911-A will perform snmpwalk on switches to collect the port information. The following screen shows the information collected on each VoIP device.

LOCATE911 by eTelemetry
Thursday, February 14, 2008 4:58 PM

SEARCH STATISTICS ALERTS CONTROL PANEL LOGOUT

Search Current Mappings (Click any value to Drill further into the data)

Search for **Switch Port** with pattern <All> found 3 records. EXPORT CSV

IP Phone	IP Address	MAC Address	Switch Port	Jack	Location Key	Building	Floor	Room
22003	192.45.82.110	00:04:0d:ec:b8:ca	192.45.84.1 1/12	12	23012	Main	2	DevConnect Lab
22002	192.45.82.111	00:04:0d:51:01:1e	192.45.84.1 1/11	11	23011	Main	2	DevConnect Lab
72003	192.45.87.112	00:04:0d:ec:e5:32	192.45.84.1 1/38	38	72002	Main	2	DevConnect Lab

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6. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing evaluated the ability of eTelemetry Locate911-A to update the VoIP device location. The serviceability testing introduced failure scenarios to see if eTelemetry Locate911-A can resume updating after failure recovery.

6.1. General Test Approach

The general approach was to move IP telephones to different ports of the switch, move IP telephones to a different subnet of the network, and verify the correct port information and correct IP address of the IP telephone are observed. For serviceability testing, failures such as the Locate911-A network cable pulls and resets were tested.

6.2. Test Results

All test cases were executed and passed.

7. Verification

The verification can be accomplished via SMS. Enter the values as shown and click **Submit**. Verify that a response is populated into the Response box and that \$result_code=0. The following shows a sample SMS screen for station verification.

The screenshot shows a web browser window with the address `https://192.45.85.102/sms/sms_test.php`. The page title is "Web Service Request Form".

Connection Information

- OSSI Login ID: `craft@192.45.80.2 login@hostaddress:port`
- Password: `crftpw`
- SMS Host: `https://192.45.85.102`
- SOAP Request Timeout (Seconds): `30`

Request Parameters

- Model: `Station`
- Operation: `display`
- Objectname: (empty)
- Qualifier: `22001`
- Fields: `*`

Session Recording

- Record SMS Request
- Record Result Data

Buttons: **Get Record**, **Clear Record**, **Submit Request**, **Release**

Last Request Response

Session ID: `cd3ecc0294b764f5231561f41bba1b81` [Duplicate Session](#)

Response:

```
Response {
  var $result_code = 0
  var $result_data = 'Extension=22001|Type=4620|Port=S00165|Name=Dashboard
Display-
1|Native_Name=|Coverage_Path_1=|Coverage_Path_2=|Hunt_to_Station=|COR=1|COS=1|Ro
om=|Jack=|Cable=|Survivable_GK_Node_Name=|Lock_Messages=n|Security_Code=|TN=1|D
isplay_Language=english|Ringing_Pattern=1|Message_Lamp_Ext=22001|MM_Complex_Data
Ext=|LWC_Reception=spe|LWC_Activation=y|CDR_Privacy=n|Redirect_Notification=y|P
```

8. Support

Technical support for eTelemetry Locate911-A can be obtained by calling the support telephone number at 866-342-3660.

9. Conclusion

These Application Notes illustrate the procedures for configuring eTelemetry Locate911-A to automatically update VoIP device locations. During compliance testing, eTelemetry Locate911-A successfully updated the location of each VoIP device that was moved.

10. Additional References

This section references the Avaya and eTelemetry documentation that are relevant to these Application Notes.

The following Avaya product documentation can be found at <http://support.avaya.com>.

[1] *Application Enablement Services Administration and Maintenance Guide*, Release 4.1, Issue 8, December 2007, Document Number 02-300357

The following eTelemetry product documentation was provided by eTelemetry

[2] *Locate911-A User's Guide*, Version 1.10.

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