



**Avaya Solution & Interoperability Test Lab**

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## **Application Notes for configuring blackchair Spotlight Session Manager Audit V6 with Avaya Aura® System Manager R7.1 and Avaya Aura® Session Manager R7.1 – Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required to integrate Spotlight Session Manager Audit V6 with Avaya Aura® System Manager R7.1 and Avaya Aura® Session Manager R7.1. Session Manager Audit is capable of identifying changes made to Avaya Aura® System Manager with regard to a set of Session Manager objects.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

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 configuration steps required to integrate Spotlight Session Manager Audit V6 with Avaya Aura® System Manager R7.1 and Avaya Aura® Session Manager R7.1. Session Manager Audit is capable of identifying changes made to Avaya Aura® System Manager with regard to a set of Session Manager objects.

## 2. General Test Approach and Test Results

All feature test cases were performed manually. All fields and values in the System Manager logs are copied onto the Spotlight Session Manager Audit database. This database is then used to display changes made.

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.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

## 2.1. Interoperability Compliance Testing

blackchair Spotlight Session Manager Audit, which will be referred to as Session Manager Audit throughout the remainder of this document, was installed on a virtual server running Microsoft Windows 2008 Server R2 and Microsoft SQL Server 2008 R2. A client PC using the FireFox web browser was used to access the Session Manager Audit.

During compliance testing the following objects were checked in the System Manager logs relating to Session Manager and Routing.

- Session Manager
  - Remote Access
  - Application Sequences
  - Applications
  - Session Manager instances
  - Session Manager terminal group parameters
  - Conference Factory settings
  - Failover groups
  - Hostname resolution IPs
  - Session Manager Service State
  - Dial Pattern assignment
  - Communication Profiles
  - SIP firewall configurations
  - Tracer configuration
- Routing
  - Adaptations
  - Dial Pattern
  - Entity link
  - Domains
  - Regular Expressions
  - Locations
  - Routing policy
  - SIP entity
  - Time Ranges

## 2.2. Test Results

All test cases passed.

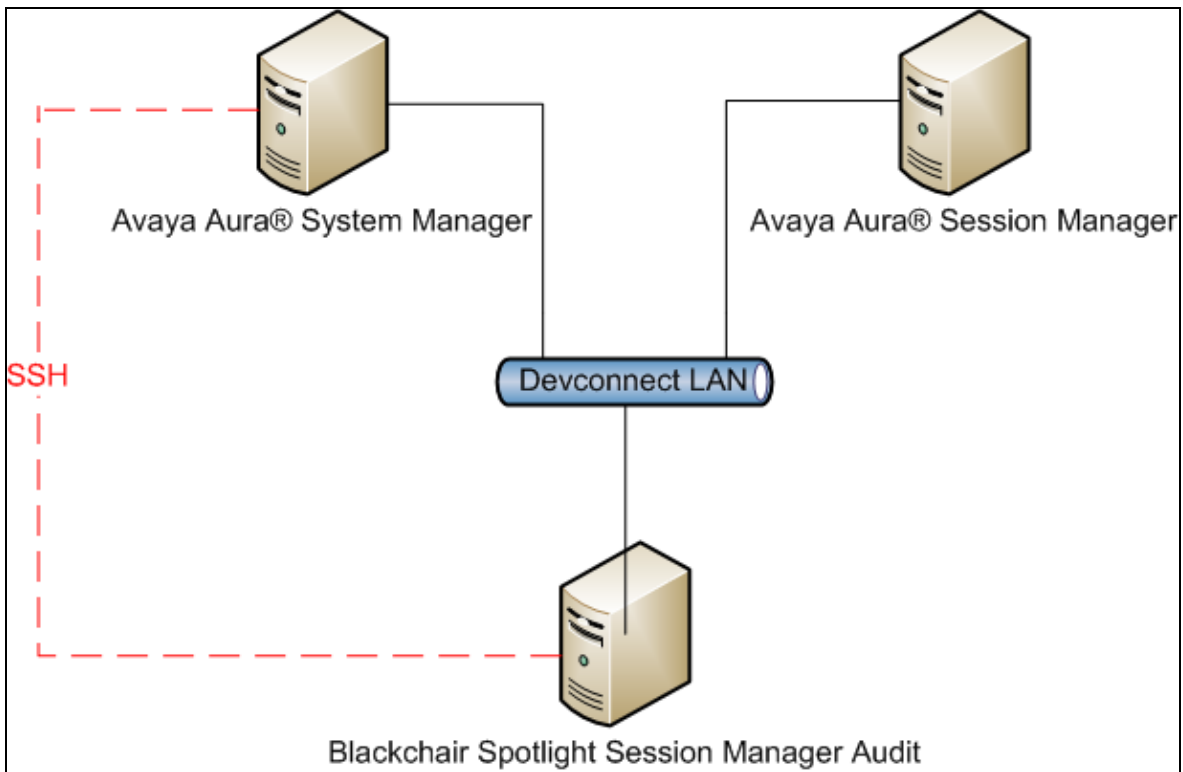
### 2.3. Support

For technical support on Spotlight Release Management, contact blackchair as shown below.

- Web: <http://www.theblackchair.com/contact-us/>
- Tel: +44 845 456 6751
- Email: [support@theblackchair.com](mailto:support@theblackchair.com)

### 3. Reference Configuration

**Figure 1** shows the network topology during compliance testing. The Spotlight Session Manager Audit server was placed on the Avaya telephony LAN. A user browsing to the Spotlight Release Management server using a web browser is capable of viewing changes made to the Session manager configuration using packages of objects built from the Spotlight Audit environment.



**Figure 1: Network solution of blackchair Spotlight Session Manager Audit V6 and Avaya Aura® System Manager R7.1 with Avaya Aura® Session Manager R7.1**

## 4. Equipment and Software Validated

The following equipment and software was used for the sample configuration provided.

<b>Equipment/Software</b>	<b>Release/Version</b>
Avaya Aura® System Manager running on a virtual server	R7.1.0.0 Build No. 7.1.0.0.1125193 Update 7.1.0.0.126816
Avaya Aura® Session Manager running on a virtual server	R7.1.0.0.710028
blackchair Spotlight Session Manager Audit running on a Virtual Server <ul style="list-style-type: none"><li>- Windows 2008 R2 O/S</li><li>- MS SQL 2008 R2</li></ul>	Version 6

## 5. Configure Avaya Aura® System Manager

This section describes the steps required to configure System Manager to allow Spotlight Session Manager Audit to extract information from the logs.

An SSH user must be created on System Manager that has permissions to access the following log files and use touch to extract the required information. The creation of a Linux user for this purpose is out with the scope of this document. The default customer user added during implementation has the correct permissions and was used during testing.

- a. `/var/log/Avaya/mgmt/nrp/nrpaudit.log`
- b. `/var/log/Avaya/mgmt/asm/adminaudit.log`

## 6. Configure blackchair Spotlight Session Manager Audit

This section describes the steps required to configure Spotlight to audit a Session Manager system. It is assumed that Session Manager has been added to an existing Spotlight instance, therefore the process for installing Spotlight framework is not covered here.

First create a Spotlight model database with standard tables. On this database run the following scripts to add tables specific to Session Manager audit:

- `VolatileItemTemplates.sql`
- `TableCreation.sql`
- `DataDictionaryEntries.sql`
- `ConfigItemTemplates.sql`
- `ConfigItems.sql`
- `ConfigItemVersion.sql`
- `ASMUpdates`
- `CreateASMSearchMetaData`
- `ASM2`
- `ASM3`

Add entries in the slconfig configuration database for the Session Manager environment; details can be found in the guide “blackchair spotlight core audit Avaya deployment guide v060” available from blackchair.

Now create a data loader service to connect to the System Manager that is used to configure the Session Manager. This is done using the “Create AdditionalLoaderService” tool in the utilities section of the Spotlight installation package. Add to this loader the specific dll, pdb and xml files for the Session Manager audit, supplied by blackchair, and configure the <RemoteHost> section in the “ASMPugin.xml” file as follows:

```
<RemoteHost>
  <Username>uuuuuu</Username>
  <Password>pppppp</Password>
  <RemoteHostIp>n.n.n.n</RemoteHostIp>
  <Environment>Session Manager</Environment>
</RemoteHost>
```

Where

**Username** = account to ssh to the System Manager server

**Password** = password for this account

**RemoteHostIp** = address of the System Manager server

**Environment** = friendly name for the Session Manager instance; **Session Manager** was used in this testing as the friendly name and is displayed in the Spotlight UI.

Add the appropriate license file to the loader (supplied by blackchair) and start the loader service.

## 7. Verification Steps

This section provides the tests that can be performed to verify that blackchair Spotlight Session Manager Audit has successfully connected with the Avaya solution.

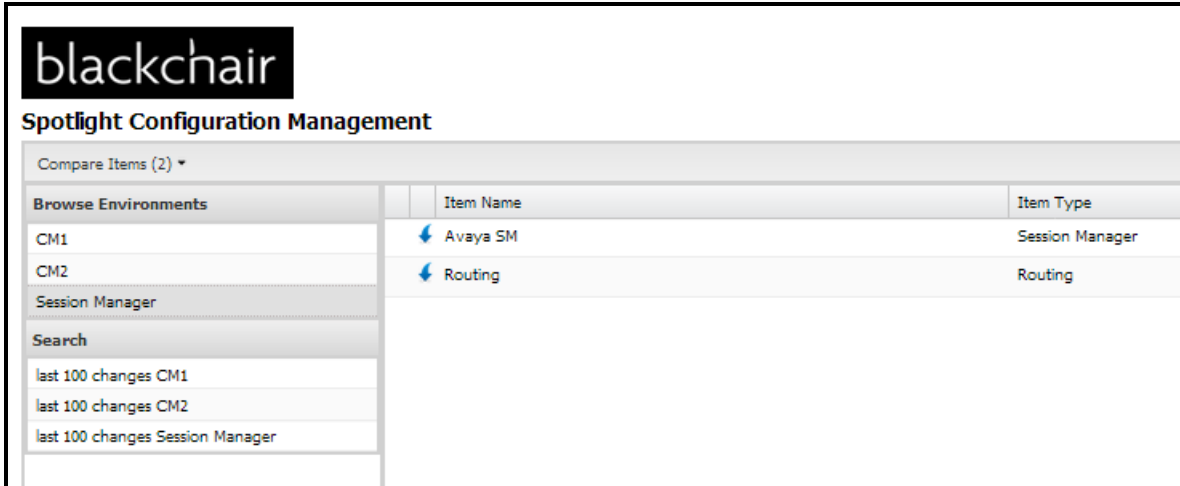
Check the logfile for the loader service, found in the folder specified in the SpotlightLoaderService.exe.config file. The process has completed its connection and initial data download when logfile messages indicate the process is queued, and this can be determined by logfile messages similar to the following:

*Load queue item ASMPluginProcessor=queued nn.nnnnnnns*

Search logfile for the text “exception”; if any instances are found:

- If a failed connection is indicated to the System Manager check the configuration described in **Section 6**, and check no firewall or network configuration is preventing access to the System Manager from the Spotlight server
- Any other exceptions should be referred to blackchair support using the contact information in **Section 2.3**

The Spotlight UI displays the following structure under the Session Manager environment with the name specified in the **Environment** entry described in **Section 6**. The friendly name is **Session Manager** under **Browse Environments**:





The following Avaya SM items are listed:

**blackchair**  
Spotlight Configuration Management

Compare Items (2) ▾

Browse Environments	Item Name	Item Type
CM1	Application Sequences	App Sets
CM2	Applications	Applications
Session Manager	ASM Instances	ASM Instances
Search	ASM Terminal Group Parm.	ASM Terminal Group Parm.
last 100 changes CM1	Communication Profiles	Sessions
last 100 changes CM2	Conference Factories	Factory Sets
last 100 changes Session Manager	Dashboard Service State	Initiation
	Failover Groups	Failover Groups
	Hostname Resolution IPs	Hostname Resolution IPs
	Pattern to App Sets	Pattern to App Sets

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Spotlight Configuration Management

Compare Items (2) ▾

Browse Environments	Item Name	Item Type
CM1	Remote Access Configuration	Address Mappings
CM2	SIP Firewall Configurations	SIP Firewall Configurations
Session Manager	Tracer Configuration Update	TracerConfigurationUpdate
Search		
last 100 changes CM1		
last 100 changes CM2		
last 100 changes Session Manager		

The following **Routing** items are listed:

blackchair		
Spotlight Configuration Management		
Compare Items (2) ▾		
Browse Environments	Item Name	Item Type
CM1	Adaptation	Adaptation
CM2	Dial Patterns	Digitmap
Session Manager	Entity Link	EntityLink
Search	Locations	Routingorigination
last 100 changes CM1	NRPCs domain	NRPCsdomain
last 100 changes CM2	Regexpmap	Regexpmap
last 100 changes Session Manager	Routing Policy	Routingpolicy
	SIP Entity	Sipentity
	Timerange	Timerange

Within each item name data is shown corresponding to the Session Manager configuration. The following screen shows an example of **Communication Profile** information found under **Avaya SM**:

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Compare Items (2) ▾

Browse Environments	Item Name	Item Type
CM1	Session 101	Session
CM2		
Session Manager		

Search

- last 100 changes CM1
- last 100 changes CM2
- last 100 changes Session Manager

Page 1 of 1 | Back

General Options

Version: 2

	Current	Previous
<b>Name :</b>		
<b>Version :</b>	2	1
<b>Last Updated By:</b>	id	id
<b>Updated Date:</b>	25 Jul 2017, 12:05:47	25 Jul 2017, 11:39:21
Property	Value	
Key :	101	
Conference Factory Set :	BlackchairUPDT	Blackchair
Enable Centralized Call History :		Yes
Home Location :	Devconnect	
Max Simultaneous Devices :		
Origination ASMAApplication Sequence :	Blackchair	CM71_Seq
Primary ASMSession Manager :		

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Compare Items (2) ▾

Browse Environments	Item Name	Item Type
CM1	Adaptation	Adaptation
CM2	Dial Patterns	Digitmap
Session Manager	Entity Link	EntityLink
	Locations	Routingorigin
	NRPCs domain	NRPCsdomain
	Regexpmap	Regexpmap
	Routing Policy	Routingpolicy
	SIP Entity	Sipentity
	Timerange	Timerange

Search

- last 100 changes CM1
- last 100 changes CM2
- last 100 changes Session Manager

Page 1 of 1 | Back

General Filter

Date Retrieved	Key	Entity Links 1	Entity Links 2	Listen Ports	Prefix Maps	Routing Policy	SIP Monitor F	TCP Fallover	Timezone	TLS Fallover
Jul 25, 2017 10:49:23 AM	BlackchairDummy									
Jul 24, 2017 12:05:05 PM	SM1676						5070		5071	
Jul 24, 2017 12:04:46 PM	SM1666						5070		5071	

## 8. Conclusion

These Application Notes describe the configuration steps required for Spotlight Session Manager Audit V6 from blackchair to successfully interoperate with Avaya Aura® System Manager R7.1 with Avaya Aura® Session Manager R7.1. Please refer to **Section 2.2** to see the compliance test results and observations.

## 9. Additional References

The following documents are available at <http://support.avaya.com>.

- [1] *Implementing Avaya Aura® Session Manager* Document ID 03-603473
- [2] *Administering Avaya Aura® Session Manager*, Doc ID 03-603324
- [3] *Deploying Avaya Aura® System Manager, Release 7.1, Issue 2*

The following document is available directly from blackchair

- [4] *blackchair spotlight core audit Avaya deployment guide v060*

Further product information on blackchair Spotlight can be found at <http://www.theblackchair.com>

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