

Avaya Solution & Interoperability Test Lab

# **Application Notes for INI EQuilibrium<sup>TM</sup> with Avaya Aura® Experience Portal – Issue 1.0**

### Abstract

These Application Notes describe the configuration steps required to integrate Interactive Northwest, Inc. (INI) EQuilibrium with Avaya Aura® Experience Portal.

INI EQuilibrium is a load-balancing solution for distributing VoiceXML and CCXML page fetch requests from Avaya Aura® Experience Portal to multiple application servers. EQuilibrium maintains application server status for all the application servers within its control and directs page fetches only to available application servers. EQuilibrium supports several distribution strategies, such as ordered and round-robin, for selecting an appropriate application server for the next request. EQuilibrium is a software-only solution integrated with Avaya Aura® Experience Portal platform. Its administrative menus are integrated into the administrative menus of Experience Portal Manager and alarm events are generated directly into the Avaya Aura® Experience Portal's alarm stream. This gives the administrator visibility and control over the application servers used by Avaya Aura® Experience Portal.

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 Interactive Northwest, Inc. (INI) EQuilibrium with Avaya Aura® Experience Portal. INI EQuilibrium is a load-balancing solution for distributing VoiceXML and CCXML page fetch requests from Avaya Aura® Experience Portal to multiple application servers. EQuilibrium maintains application server status for all application servers within its control and directs page fetches only to available application servers. EQuilibrium supports several distribution strategies, such as ordered and round-robin, for selecting the appropriate application server for the next request. EQuilibrium is a software-only solution integrated with Avaya Aura® Experience Portal platform. Its administrative menus are integrated into the administrative menus of Experience Portal Manager (EPM) and alarm events are generated directly into Avaya Aura® Experience Portal's alarm stream. This gives the administrator visibility and control over the application servers used by Avaya Aura® Experience Portal.

EQuilibrium software is installed directly on the Avaya Aura® Experience Portal platform. There are two components of Equilibrium, one for EPM and another for Experience Portal Media Processing Platform (MPP). The EPM component includes the EQuilibrium menus, the event/alarm monitor, and the EQuilibrium configuration database. An administrator accesses these menus via the EPM menu structure to configure EQuilibrium. The EQuilibrium configuration is stored in specific database tables within the PostgreSQL database on EPM. Application servers, controlled by EQuilibrium, and clusters (discussed below) are configured through EPM.

EQuilibrium allows application servers to be partitioned into separate clusters each with its own distribution strategy. Clusters can be used to achieve specialized types of resource balancing, such as ordered, round-robin, or random. Every Avaya Aura® Experience Portal application that uses EQuilibrium must indicate a cluster name in the URL. EQuilibrium Dispatcher will use the cluster name parameter to select the appropriate application server for a page request.

As mentioned above, EQuilibrium also consists of EQuilibrium Dispatcher, a Java application installed on each MPP. When applications are administered on EPM, instead of constructing their URLs to point to specific application servers, the URLs are directed to the EQuilibrium Dispatcher on the local MPP. The Dispatcher processes the request by selecting an appropriate application server, rewriting the URL to point to that application server, and forwarding the request. The MPP Dispatcher gets its configuration information from the central EPM component. Dispatchers can generate alarms when they detect a state change in an application server. Alarms are reported using the standard mechanism on Avaya Aura® Experience Portal.

# 2. General Test Approach and Test Results

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

Compliance testing was performed on two separate configurations.

- 1. EPM/MPP on a single server
- 2. EPM and MPP on separate servers

The general test approach entailed placing calls manually to Experience Portal and verifying that EQuilibrium dispatched the application to the appropriate application server according to the cluster dispatch method, including *Random, Ordered* and *Round-Robin*. Testing was performed with application servers running Apache Tomcat 5.x and 6.x. In addition, various states of the application servers were tested to verify that EQuilibrium would indicate the correct state in the **Monitor** screen, that calls would not be dispatched to offline application servers, and that the appropriate alarms were generated in the EPM. Finally, the fail-over URL feature in Experience Portal was used together with EQuilibrium to verify that it would be used if all the application servers in the cluster were not available.

The compliance test included feature and serviceability testing. Feature testing focused on verifying the following features and functionality:

- Installing EQuilibrium software on EPM and MPP.
- Removing EQuilibrium software from EPM and MPP.
- Licensing the product.
- Enabling EQuilibrium to report alarms.
- Configuring EQuilibrium with application servers and clusters.
- Generating alarms related to application server state changes.
- Configuring Experience Portal applications to use EQuilibrium.
- Using EQuilibrium in conjunction with Experience Portal fail-over URL.
- Verifying that Experience Portal requests are dispatched to the appropriate application server according to the cluster distribution strategy and the application server's availability.
- Verifying that the EQuilibrium detects application servers in various states, such as online, offline, or in maintenance mode.
- Verifying that EQuilibrium detects the cluster state, such as online, offline, or degraded.

Serviceability testing focused on verifying the ability of EQuilibrium to recover from adverse conditions, such as EPM and MPP server restarts.

### 2.2. Test Results

All test cases were passed.

### 2.3. Support

To obtain technical support for INI EQuilibrium, contact Interactive Northwest via phone, email or through their website.

- Web: <u>http://www.interactivenw.com/support.php</u>
- Email: <u>support@interactivenw.com</u>
- **Phone:** (800) 808-8090

# 3. Reference Configuration

The following diagram shows the configuration where EPM and MPP were running on a single server.

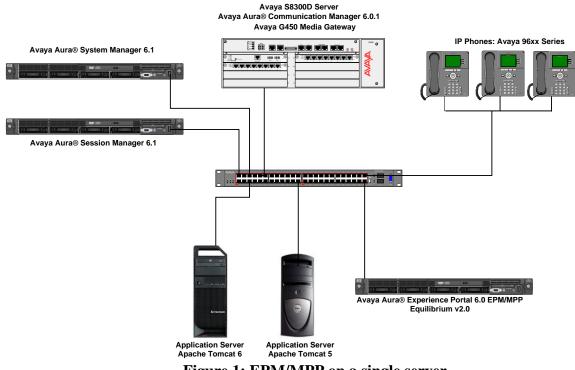


Figure 1: EPM/MPP on a single server

The following diagram shows the configuration where EPM and MPP were running on separate servers.

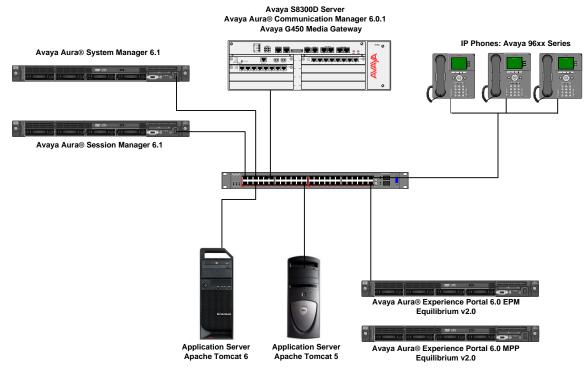


Figure 2: EPM and MPP on separate servers

## 3.1. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Experience Portal running on HP DL360 G7 server	6.0 (6.0.0.3306)
Avaya G450 Media Gateway	31.20.1
Avaya Aura Communication Manager running on Avaya S8300D Server	6.0.1 SP7
Avaya 9600 Series IP Telephones	3.011b (H.323)
INI EQuilibrium <sup>1</sup>	INI-EQ-EPM-2.0.4-1 INI-EQ-MPP-2.0.4-1
Apache Tomcat running on Microsoft Windows 7	6.x
Apache Tomcat running on CentOS 6.2	5.x

<sup>&</sup>lt;sup>1</sup> The INI EQuilibrium version can be checked by running the "rpm –qa | grep EQ" command on the EPM and MPP.

# 4. Install and Configure INI EQuilibrium

This section covers the installation and administration of INI EQuilibrium. The procedures include the following areas:

- INI EQuilibrium Software Installation on EPM and MPP
- License EQuilibrium
- Configure EQuilibrium to Report Alarms
- Configure Application Servers
- Configure Cluster
- Configure Experience Portal Application

**Note:** It is assumed that the Experience Portal system has already been installed and configured as described in [1] or [2] and [3].

### 4.1. INI EQuilibrium Software Installation on EPM and MPP

The EPM component should be installed on the primary EPM and the MPP component should be installed on every MPP. In this example, only one MPP was used. Refer to [4] for more information on the EQuilibrium installation process. Also detailed installation instruction can be found in [4].

Note: The Experience Portal system used in the configuration was using Avaya Enterprise Linux.

#### 4.1.1. Install the EPM Component

The following procedure installs the EPM component:

- 1. SSH to the EPM server Linux shell with a root login.
- 2. Insert the INI EQuilibrium CDROM into the CDROM drive.
- 3. Mount the EQuilibrium installation CDROM by entering the mount /mnt/cdrom command, where /mnt/cdrom is the mount point directory.
- 4. Change to the mount point directory using the cd /mnt/cdrom command.
- 5. Determine whether Java is installed on the server by entering the rpm -qa | grep jdk command. If the package jdk-1.6.0\_18-fcs is not present, load Java on the EPM. Change to the /mnt/cdrom/Java directory and run the rpm -ivh jdk\*.rpm command.
- 6. Enter the rpm -ivh INI-EQ-EPM-2.0.4.rpm command to start the installation.

When the installation completes, the location of the installation log file is provided.

#### 4.1.2. Install the MPP Component

The following procedure installs the MPP component:

- 1. SSH to the MPP server Linux shell with a *root* login.
- 2. Insert the INI EQuilibrium CDROM into the CDROM drive.
- 3. Mount the EQuilibrium installation CDROM by entering the mount /mnt/cdrom command, where /mnt/cdrom is the mount point directory.

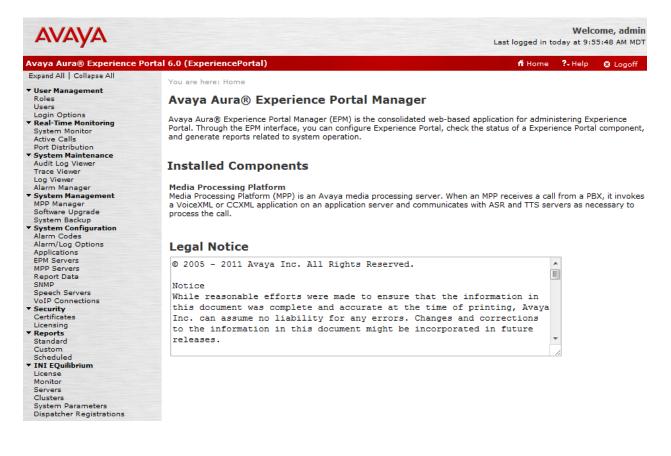
KJA; Reviewed:	Solution & Interoperability Test Lab Application Notes	8 of 24
SPOC 7/16/2012	©2012 Avaya Inc. All Rights Reserved.	INIEQ2AEP60

- 4. Change to the mount point directory using the cd /mnt/cdrom command.
- 5. Determine whether Java is installed on the server by entering the rpm -qa | grep jdk command. If the package jdk-1.6.0\_18-fcs is not present, load Java on the MPP. Change to the /mnt/cdrom/Java directory and run the rpm -ivh jdk\*.rpm command.
- 6. Add an entry in the /etc/hosts file for the EQEPM alias. The following entry should be added: 10.64.10.31 EQEPM, where 10.64.10.31 is the EPM IP address.
- 7. Change to the /mnt/cdrom directory and enter the rpm -ivh INI-EQ-MPP-2.0.4.rpm command to start the installation.

When the installation completes, the location of the installation log file is provided.

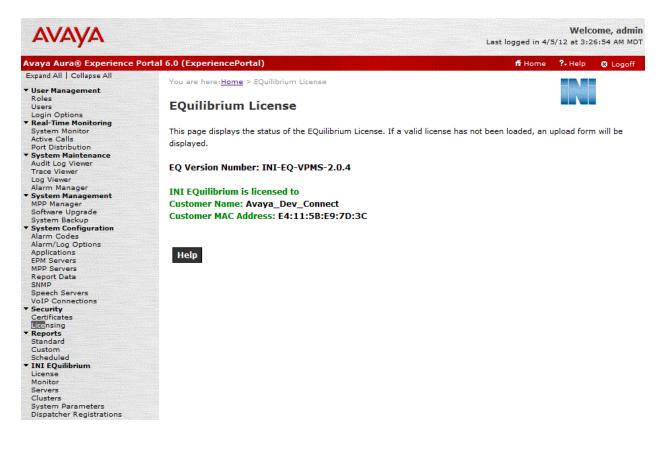
### 4.2. Configure INI EQuilibrium

EQuilibrium is configured via the Experience Portal Manager (EPM) web interface. To access the web interface, enter http://<*ip-addr>*/ as the URL in a web browser, where <*ip-addr>* is the IP address of the EPM. Log in using the Administrator user role. The screen shown below is displayed with the INI EQuilibrium menu options in the left pane after the software is installed on the EPM. Refer to [5] for more information on configuring EQuilibrium.



#### 4.2.1. License EQuilibrium

Navigate to **License** under **INI Equilibrium** and specify the **License File** (not shown); click **Upload**. After the license has been installed, the screen should display an "INI EQuilibrium is licensed to …" message.



### 4.2.2. Configure EQuilibrium to Report Alarms

After EQuilibrium is licensed, the next step is to configure alarm reporting for EQuilibrium. Select **EPM Servers** under **System Configuration** in the left pane to display the screen below. Click on the **EPM Settings** button to display the **EPM Settings** screen.

AVAYA		Welcome, admir Last logged in today at 9:55:48 AM MD1		
Avaya Aura® Experience P	Portal 6.0 (ExperiencePortal)	👫 Home 📪 Help 🕴 Logoff		
Expand All   Collapse All	You are here: <b>Home</b> > System Configuration > EPM Servers			
<ul> <li>✓ User Management Roles Users Login Options</li> <li>✓ Real-Time Monitoring System Monitor</li> </ul>	<b>EPM Servers</b> This page displays EPM server(s) in the Experience Portal system.			
Active Calls Port Distribution • System Maintenance Audit Log Viewer Trace Viewer Log Viewer Alarm Manager	Name     Type     Host Address       EPM     Primary aaep       Add     Delete			
Alarm Manager <b>System Management</b> MPP Manager Software Upgrade System Backup <b>System Configuration</b> Alarm Codes Alarm/Log Options Applications EPM Servers MPP Servers MPP Servers Report Data SNMP Sech Servers VoIP Connections <b>Security</b> Certificates Licensing <b>Reports</b> Standard Custom Scheduled <b>TIM EQuilibrium</b> License Monitor Servers Clusters System Parameters Dispatcher Registrations	EPM Settings Email Servers Report DB Settings S	Syslog Settings Help		

In the **EPM Settings** screen, specify a **User Name** and **Password** under **Application Reporting** as shown below. Click **Save**.

Αναγα		Welcome, admin Last logged in today at 9:55:48 AM MDT
Avaya Aura® Experience Po	ortal 6.0 (ExperiencePortal)	📅 Home 📪 Help 🛛 Logoff
Expand All   Collapse All	Yes and have there a dealer of the stress of <b>FOM O</b>	
<ul> <li>✓ User Management Roles Users Login Options</li> <li>✓ Real-Time Monitoring System Monitor</li> </ul>	You are here: <u>Home</u> > System Configuration > <u>EPM Servers</u> > EPM Settings <b>EPM Settings</b> Use this page to configure system parameters that affect the Experience Po	ortal system.
Active Calls Port Distribution <b>System Maintenance</b> Audit Log Viewer Trace Viewer	Experience Portal Name: ExperiencePortal Number of Application Server Failover Logs : 10 Commands to Retain in Configuration History: 50	
Log Viewer Alarm Manager System Management MPP Manager Software Upgrade System Backup System Configuration Alarm Codes	Resource Alerting Thresholds (%) High Water Disk: 90 80	
Alarm/Log Options Applications EPM Servers	Web Service Authentication 🔻	
MPP Servers Report Data SNMP Speech Servers	User Name: equilibrium	
VoIP Connections Security Certificates	Password: •••••••• Verify Password:	
Licensing ▼ Reports Standard	Outcall	
Custom Scheduled <b>TINI EQuilibrium</b> License	User Name:	
Monitor Servers Clusters	Verify Password:	
System Parameters Dispatcher Registrations	Miscellaneous	
	License Re-allocation Wait Time (minutes): 10 Operational Grace Period (minutes): 5	
	Operational Grace Period (minutes):       5         Event Level Threshold to Send to EPM:       Error	
	Save Apply Cancel Help	

Next, configure the same User Name and Password in EQuilibrium. Select System Parameters under INI EQuilibrium in the left pane and specify VP WS Username and VP WS Password as shown below. Click Save.

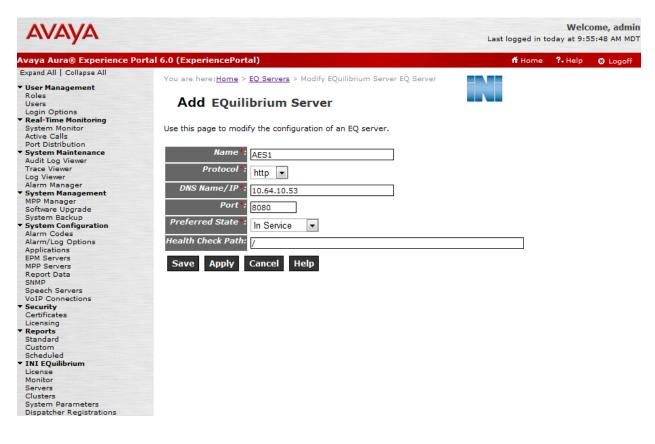
Ανάγα		Welcome, admin Last logged in today at 9:55:48 AM MD
Avaya Aura® Experience Po	rtal 6.0 (ExperiencePortal)	📅 Home 📪 Help 🕴 Logoff
Expand All   Collapse All		
	You are here: <u>Home</u> > EQuilibrium System Parameters	
▼ User Management		
Roles	FOullibrium Oustand Developmentane	
Users	EQuilibrium System Parameters	
Login Options		
<ul> <li>Real-Time Monitoring</li> </ul>		
System Monitor	Use this page to set the username and password for	the VPMS Alarm/Reporting web service.
Active Calls		
Port Distribution		
<ul> <li>System Maintenance</li> </ul>		
Audit Log Viewer		
Trace Viewer		
Log Viewer		
Alarm Manager	VP WS Username*: equilibrium	
<ul> <li>System Management</li> </ul>		
MPP Manager	VP WS Password*:	
Software Upgrade		
System Backup	Email Smart Host:	
<ul> <li>System Configuration</li> </ul>		
Alarm Codes	Email User:	
Alarm/Log Options		
Applications	Email Password:	
EPM Servers		
MPP Servers	Email Recipients:	
Report Data	Endir Keeprenes.	
SNMP		
Speech Servers	Save Help	
VoIP Connections		
<ul> <li>Security</li> </ul>		
Certificates		
Licensing		
▼ Reports		
Standard		
Custom		
Scheduled		
<ul> <li>INI EQuilibrium</li> </ul>		
License		
Monitor		
Servers		
Clusters		
System Parameters		
Dispatcher Registrations		

#### 4.2.3. Configure Application Servers

Click on **Servers** under **INI EQuilibrium**. In the **EQuilibrium Servers** screen (not shown), click on the **Add** button. The **Add EQuilibrium Server** screen is displayed. Configure the following fields:

Name:	Specify a descriptive name for the application server (e.g., AES1).
Protocol:	This is the protocol used when EQuilibrium redirects the page fetch to the
	application server. In this example, <i>http</i> was used.
DNS Name/IP:	This is the IP address of the application server (e.g., 10.64.10.53).
Port:	This field specifies the http port used by the application server running
	Apache Tomcat (e.g., 8080).
Preferred State:	This selection indicates the state the application server is placed into when
	the EQuilibrium Dispatcher initializes.
Health Check Path:	This is the URL path to the health check application on the application
	server. When a forward-slash (/) is used, the root node of the application
	server will be polled. As long as the application server is alive, the root
	node should respond and the application will be considered online.
	However, a special health check application may be used.

After the EQuilibrium server is configured, click Save.



Repeat the above procedure for the second application server. Once the application servers have been configured, they will be listed in the **EQuilibrium Servers** screen shown below.



### 4.2.4. Configure Cluster

To create a cluster that groups application servers, click on **Clusters** under **INI EQuilibrium**. In the **EQuilibrium Clusters** screen (not shown), click on the **Add** button. The **EQuilibrium Cluster Information** screen is displayed. Provide a descriptive name for the cluster and select a **Dispatch Method**, such as *Ordered*, *Round-Robin*, or *Random*, as shown below. Refer to [5] for a description of the dispatch methods. Accept the default values for other fields or fine-tune according to customer requirements. Click **Next**.

Αναγα		Welcome, admin Last logged in today at 9:55:48 AM MD			
Avaya Aura® Experience Po	ortal 6.0 (ExperiencePortal)		f Home	?+ Help	8 Logoff
Expand All   Collapse All  User Management Roles Users	You are here: <u>Home</u> > <u>EQ Clusters</u> > EQuilibrium Cluster Information EQuilibrium Cluster Information				
Login Options <b>* Real-Time Monitoring</b> System Monitor Active Calls Port Distribution <b>* System Maintenance</b> Audit Log Viewer Trace Viewer	Use this page to modify the configuration of an EQ cluster.				
Trace Viewer Log Viewer Alarm Manager System Manager Software Upgrade	Dispatch Method : Ordered Health Check Frequency (ms) : 5000 Health Check Timeout (ms) : 5000				
System Backup System Configuration Alarm Codes Alarm/Log Options Applications EPM Servers MPP Servers Report Data SNMP Speech Servers VoIP Connections Security Certificates Licensing Reports	Offline Check Loops: 60 Next Finish Cancel Help				
Standard Custom Scheduled <b>VIN EQuilibrium</b> License Monitor Servers Clusters System Parameters Dispatcher Registrations					

In the **EQuilibrium Cluster Server Assignments** screen shown below, select the application servers to be added to this cluster. Click **Finish**.

In this example, the *Ordered* dispatch method was used (see previous screen). This means that page fetch requests are distributed to application servers based upon the listed order. If the first server is available, the call will be routed to that server.

Αναγα			Welcome, ad Last logged in today at 9:55:48 AM	
Avaya Aura® Experience Pe	ortal 6.0 (ExperiencePortal)		👫 Home 📪 Help 😮 Logi	off
Expand All   Collapse All				
▼ User Management Roles		<u>Cluster</u> > EQuilibrium Cluster Server Assignments		
Users	EOuilibrium Clu	ister Server Assignments		
Login Options	-	2		
▼ Real-Time Monitoring				
System Monitor	Use this page to assign E	Q servers to the EQ cluster.		
Active Calls				
Port Distribution				
<ul> <li>System Maintenance</li> </ul>	Available Servers	Assigned Servers		
Audit Log Viewer				
Trace Viewer	-	1504		
Log Viewer		AES1		
Alarm Manager		AES2		
▼ System Management		<-		
MPP Manager Software Upgrade		<u>×</u>		
System Backup				
▼ System Configuration		->		
Alarm Codes				
Alarm/Log Options				
Applications		<<		
EPM Servers				
MPP Servers				
Report Data		>>		
SNMP				
Speech Servers				
VoIP Connections				
▼ Security				
Certificates				
Licensing		- V ^		
▼ Reports				
Standard	Previous Finish	Cancel Help		
Custom Scheduled	Previous Finish	Cancer Help		
▼ INI EQuilibrium				
License				
Monitor				
Servers				
Clusters				
System Parameters				
Dispatcher Registrations				

### 4.2.5. Configure Experience Portal Application

Once EQuilibrium has been installed and configured, EQuilibrium is ready to provide application dispatch. This section covers the configuration of Experience Portal application that uses EQuilibrium. On the left pane, navigate to **Applications** under **System Configuration** (not shown).

- Click on an application that needs to be configured
- Change the application URL to point to EQuilibrium, example:

http://localhost:9090/MultilingualHelloWorld/Start?EQID=CA

This example points out two things. First, the URL for this application points to "localhost:9090", meaning that EQuilibrium listens to port 9090 on the local MPP ("localhost"). Secondly, the URL requires the EQID parameter that specifies the name of the cluster. In this example, the name of the cluster is "CA". If desired, a second fail-over URL may be configured in the application that will be used if the application servers in the specified cluster are not available.

AVAYA	Last logged in today		me, admir 5:48 AM MDT
Avaya Aura® Experience P	Portal 6.0 (ExperiencePortal) fi Home ?	+ Help	8 Logoff
Expand All   Collapse All	You are here: Home > System Configuration > Applications > Change Application		
✓ User Management Roles Users	Change Application		
Login Options   Real-Time Monitoring  System Monitor	Use this page to change the configuration of an application.		
Active Calls	Name: MHW1		
Port Distribution ▼ System Maintenance	Enable: 🕘 Yes 🔘 No		
Audit Log Viewer Trace Viewer Log Viewer	Type: VoiceXML		
Alarm Manager System Management	URI		
MPP Manager Software Upgrade	Single ● Fail Over ● Load Balance		
System Backup System Configuration Alarm Codes	VoiceXML URL1: http://localhost:9090/MultilingualHelloWorld/Start?EQID=CA	Ve	rify
Alarm/Log Options Applications EPM Servers	VoiceXML URL2: http://10.64.10.53:8080/MultilingualHelloWorld/Start	Ve	rify
MPP Servers Report Data SNMP	Mutual Certificate Authentication: 🔘 Yes 💿 No		
Speech Servers VoIP Connections	Basic Authentication: O Yes O No		
✓ Security Certificates	Speech Servers	_	
Licensing  Reports	ASR: Nuance TTS: Nuance T		
Standard Custom	English(USA) en-US		
Scheduled <b>INI EQuilibrium</b> License Monitor	Languages: Voices:		
Servers Clusters			
System Parameters Dispatcher Registrations	Application Launch		
	Inbound Inbound Default Outbound		
	💿 Number 🔘 Number Range 🔘 URI		
	Called Number: Add		
	68888 Remove		
	Speech Parameters >	_	
	Reporting Parameters >		
	Advanced Parameters >		
	Save Apply Cancel Help		

# 5. Verification Steps

This section provides the verification steps that may be performed to verify that EQuilibrium is able to dispatch applications to the application servers under its control.

1. Verify that the EQuilibrium cluster is **ONLINE** and that the EQuilibrium Dispatcher is **RUNNING** on the MPP as shown in the **EQUILIBRIUM Monitor** below. This screen is accessible by clicking on **Monitor** under **INI EQUILIBRIUM**.

You are here: Home > EQuilibrium Monitor



#### **EQuilibrium Monitor**

This page displays the current state of EQ dispatchers and clusters. Click on any EQ cluster name for the status of each of the servers assigned to that cluster. NOTE: Changes to clusters or dispatchers may take up to 2 minutes to display the changes.

#### Clusters

Cluster Name	Current State	
CA	ONLINE	۲
<u>CB</u>	ONLINE	۲

#### Dispatchers

Host Name	Host IP	Current State	
mpp1	10.64.101.26	RUNNING	
Help			

2. From the **EQuilibrium Monitor**, click on the cluster name (e.g., CA) to check the status of the individual application servers in the cluster. The state of each application server should be **ONLINE** as shown below. The application servers can be placed in maintenance mode from this screen.

You are here: Home > EQ Monitor > EQuilibrium Monitor - Servers



#### **EQuilibrium Monitor - Servers**

This page displays the current state of EQ servers assigned to the selected cluster. To place a server into maintenance mode, click the Maintenance On link to the right of the selected server. To return a server into service from maintenance mode, click the Maintenance Off link to the right of the selected server. NOTE: Changes to servers or server state may take up to 2 minutes to display the changes.

Cluster: CA					
Server Name	Last Healt	th Check	Current State		Change State
AES1	2012-04-11	18:01:01	ONLINE	۲	Maintenance On
AES2	2012-04-11	1 18:01:01	ONLINE	۲	Maintenance On
Help					
Host Name He	ost IP	Current S	State		
mpp1 10	.64.101.26	RUNNING	•		
Help					

3. If any application server controlled by EQuilibrium is not available, an alarm will be raised. The Experience Portal Alarm Report may be checked for alarms and will be displayed as shown below. To view alarms, on the left pane, navigate to **System Monitor** under **Real-Time Monitoring**, and select icon under **Alarm** column and **Summary** row (now shown). One the next page, select icon under **Summary** column and **All Categories** row (now shown).

Αναγα								Last log	Welcome, ad ged in today at 9:55:48 AM I
Avaya Aura® Experience P	ortal 6.0	(ExperiencePort	al)					f	Home 📪 Help 🙁 Logo
Expand All   Collapse All	Veu	and here a Here a	Real-Tim	- Manihar	ing a Custom	Manifes	Evening Rev	tal Alarm Maa	ites > Alares Report
<ul> <li>▼ User Management Roles Users Login Options ▼ Real-Time Monitoring</li> </ul>	You are here: <u>Home</u> > Real-Time Monitoring > <u>System Monit</u>						Print Experience Forcer Alemn Monitor - Alemn Report		
System Monitor Active Calls Port Distribution <b>System Maintenance</b>		page displays the cates that there is						ience Portal s	ystem components. An alarr
Audit Log Viewer Trace Viewer	0	Page 1      ■	of 3 🚺	D Tot	al Records: 2	225			
Log Viewer Alarm Manager System Management MPP Manager		Timestamp	Alarm Status	Server Name	Category	Alarm Severity	Alarm Code	Event Code	Alarm Message
Software Upgrade System Backup <b>System Configuration</b>		Apr 11, 2012 9:40:18 AM MDT	UNACK	EPM	EP Application Logger	Major	QAPP_00002	PAPP 00002	QAPP_00002: Application generated a Major alarm.
Alarm Codes Alarm/Log Options Applications EPM Servers		Apr 11, 2012 8:38:48 AM MDT	UNACK	EPM	EP Application Logger	Major	QAPP_00002	PAPP 00002	QAPP_00002: Application generated a Major alarm.
MPP Servers Report Data SNMP		Apr 11, 2012 7:37:18 AM MDT	UNACK	EPM	EP Application Logger	Major	QAPP_00002	PAPP 00002	QAPP_00002: Application generated a Major alarm.
Speech Servers VoIP Connections Security Certificates		Apr 11, 2012 6:35:47 AM MDT	UNACK	EPM	EP Application Logger	Major	QAPP_00002	PAPP 00002	QAPP_00002: Application generated a Major alarm.
Licensing <b>Reports</b> Standard Custom		Apr 11, 2012 5:34:17 AM MDT	UNACK	EPM	EP Application Logger	Major	QAPP_00002	PAPP 00002	QAPP_00002: Application generated a Major alarm.
Scheduled VINI EQuilibrium License		Apr 11, 2012 4:32:47 AM MDT	UNACK	EPM	EP Application Logger	Major	QAPP_00002	PAPP 00002	QAPP_00002: Application generated a Major alarm.
Monitor Servers Clusters System Parameters		Apr 11, 2012 3:31:16 AM MDT	UNACK	EPM	EP Application Logger	Major	QAPP_00002	PAPP 00002	QAPP_00002: Application generated a Major alarm.

4. Clicking on the **Event Code** of an active alarm (see previous screen) will display more information about the alarm, such as which application server or cluster changed state. The following screen displays the log report for an event.

You are here: <u>Home</u> > Real-Time Monitoring > <u>System M</u> for Event PAPP_00002	lonitor > Experience Portal Alarm Monitor > Alarm Report > Log Report					
Log Report for Event PAPP_00002						
This page displays the events that are associated with an alarm.						
Alarm Code:         QAPP_00002           Associated Event Code:         PAPP_00002           Event Count:         1           Event Time:         Apr 11, 2012 9:40:18 AM M	DT					
Page 1 of 1	Apr 11, 2012 9:40:18 AM MDT to Apr 11, 2012 9:40:18 AM MDT					
Timestamp Server Category Event Event Name Category Severity Code	Event Message					
Apr 11, EP 2012 EPM Application Error <u>PAPP 00003</u> 9:40:18 AM Logger	respond to a near beat request within the given timeo					
	Method=VPReport4SoapBindingImpl::logApplicationEventAlarm Apr 11, 2012 9:40:18 AM MDT to Apr 11, 2012 9:40:18 AM MDT					
Page 1 of 1						

5. Assuming that all application servers and clusters are online, place a call to Experience Portal that invokes an application that uses EQuilibrium. Verify that EQuilibrium dispatches the application to an available application server in the specified cluster. To verify that the appropriate application server was used according to the cluster dispatch method, on the left pane, navigate to **Reports** → **Standard** → **Session Details.** 

# 6. Conclusion

These Application Notes describe the configuration steps required to integrate INI EQuilibrium with Avaya Aura® Experience Portal for performing load-balancing across available application servers. All feature and serviceability test cases were completed successfully.

# 7. Additional References

This section references the Avaya documentation relevant to these Application Notes. The following Avaya product documentation is available at http://support.avaya.com.

Implementing Avaya Aura<sup>®</sup> Experience Portal on multiple servers, August 2011.
 Implementing Avaya Aura<sup>®</sup> Experience Portal on a single server, August 2011.

[3] Administering Avava Aura<sup>®</sup> Experience Portal, August 2011.

The following EQuilibrium documentation is available from INI.

[4] INI EQuilibrium Installation Guide, Revision 2.0.4, 10/20/2011. [5] INI EQuilibrium Administrator's Guide, Revision 2.0.4, 10/20/2011.

#### ©2012 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by  $\mathbb{B}$  and  $^{TM}$  are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at <u>devconnect@avaya.com</u>.