



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for Hua Pu Information Technology SmartLog 4.1 with Avaya Voice Portal 5.1 – Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for Hua Pu Information Technology SmartLog 4.1 to interoperate with Avaya Voice Portal 5.1. SmartLog is a network management software product which provides network monitoring of Avaya Voice 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 for Hua Pu Information Technology SmartLog 4.1 to interoperate with Avaya Voice Portal 5.1. Hua Pu SmartLog is a network management software product which provides network monitoring of Avaya Voice Portal.

Hua Pu SmartLog integrates directly to Avaya Voice Portal using Secure Shell (SSH) to monitor the status of the configured ports. It also queries the system resources of the Media Processing Platform (MPP) such as CPU, disk and memory utilizations using SNMP.

## 2. General Test Approach and Test Results

The feature test cases were performed manually. Port outages were generated on Voice Portal and verified on SmartLog's web-based alarm monitoring screen and notification emails. The system resources obtained by SmartLog through SNMP were also compared against the values reported on the Voice Portal Management System (VPMS) web interface.

The serviceability test cases were performed manually by disconnecting the network connections to the SmartLog and Voice Portal servers, and rebooting the SmartLog and Voice Portal servers.

### 2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the proper reporting of the status of the configured ports, and accuracy of the CPU, disk and memory utilizations retrieved using SNMP.

The serviceability testing focused on verifying the ability of SmartLog to recover from network disruptions to the SmartLog and Voice Portal servers, and the rebooting of the SmartLog and Voice Portal servers.

### 2.2. Test Results

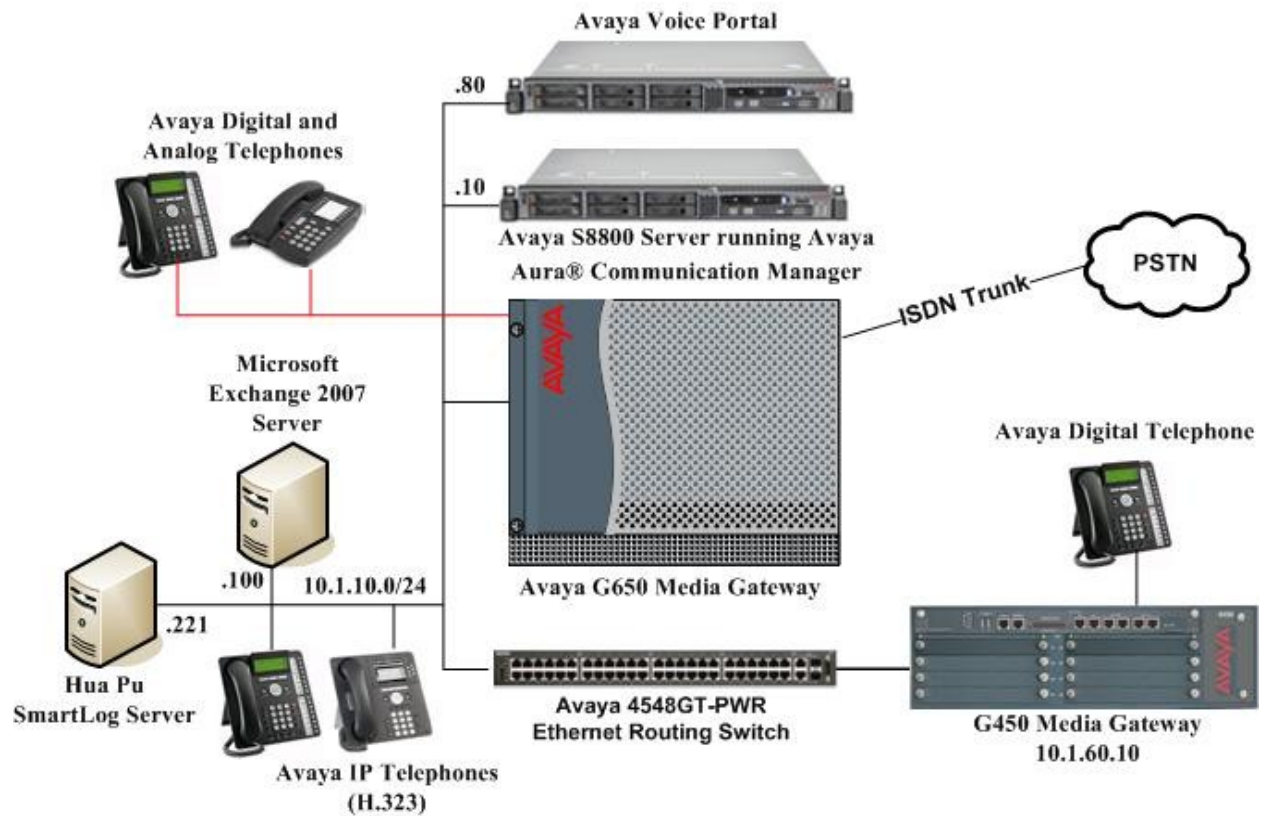
All test cases were executed and passed.

### 2.3. Support

Technical support on Hua Pu SmartLog can be obtained through the following:

- **Phone:** 400-09-7987 (China only)
- **Email:** [hotline\\_tech@huapu.com](mailto:hotline_tech@huapu.com)

**Figure 1** illustrates a test configuration consisting of an Avaya S8800 Server, Avaya G650 and G450 Media Gateways, Avaya Voice Portal, Avaya IP and Digital Telephones and a Windows 2003 Server running Hua Pu SmartLog. The single server configuration is used for Avaya Voice Portal, where a single server is running both the Voice Portal Management System (VPMS) and Media Processing Platform (MPP) software. Microsoft Exchange Server 2007 was used for the email notification feature of Hua Pu SmartLog.



**Figure 1: Test Configuration for Hua Pu SmartLog Solution**

## 4. Equipment and Software Validated

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

Equipment	Software
Avaya Voice Portal	5.1 Service Pack 1 (5.1.0.1.1602)
Avaya S8800 Server	Avaya Aura® Communication Manager 6.0.1 (Service Pack 4 00.1.510.1-19100)
Avaya G650 Media Gateway <ul style="list-style-type: none"><li>• TN2312BP IP Server Interface</li><li>• TN799DP C-LAN Interface</li><li>• TN2302AP IP Media Processor</li><li>• TN2602AP IP Media Processor</li><li>• TN2214CP Digital Line</li></ul>	- HW07, FW054 HW01, FW040 HW20, FW121 HW02, FW059 HW08, FW015
Avaya G450 Media Gateway	31.20.0
Avaya 9600 Series IP Telephones - 9640	3.1 SP2 (H.323)
Avaya 1600 Series IP Telephones - 1616	1.300B (H.323)
Avaya 1416 Digital Telephone	-
Avaya 4548GT-PWR Ethernet Routing Switch	V5.4.0.008
Hua Pu SmartLog	4.1

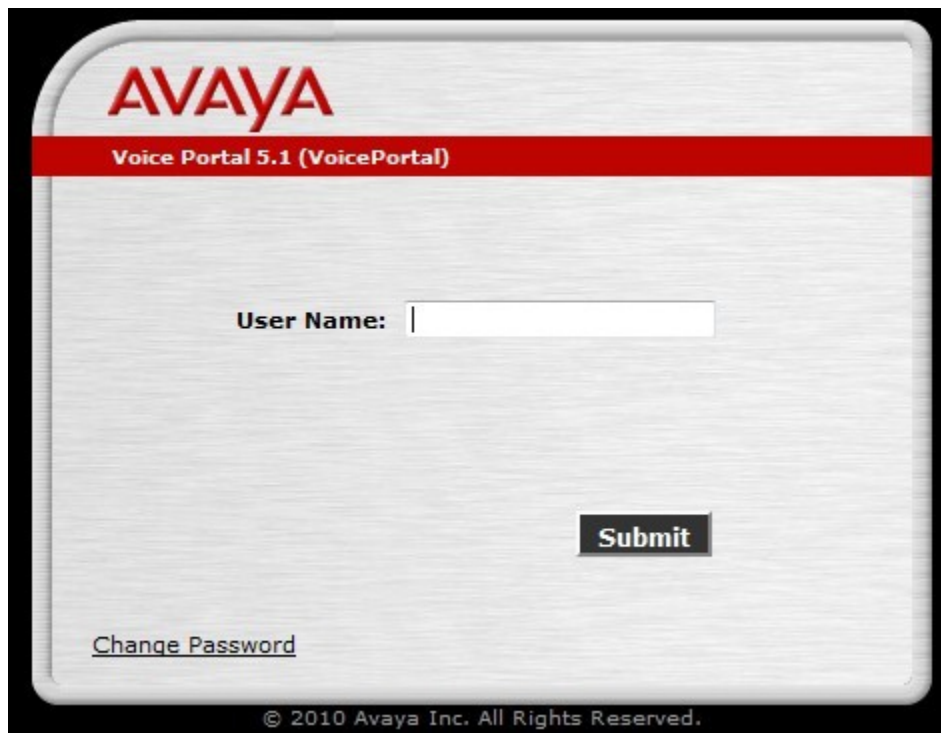
## 5. Configure Avaya Voice Portal

This section provides the procedures for configuring SNMP on Avaya Voice Portal. The procedures include the following areas:

- Launch maintenance web interface
- Administer SNMP Agent

### 5.1. Launch VPMS Web Interface

Access the Voice Portal VPMS web interface by using the URL **https://<ip-address>** in an Internet browser window, where **<ip-address>** is the IP address of Voice Portal. Log in using the appropriate credentials.

The image shows the Avaya Voice Portal 5.1 (VoicePortal) login interface. At the top, the Avaya logo is displayed in red. Below it, a red horizontal bar contains the text "Voice Portal 5.1 (VoicePortal)". The main area is white and contains a "User Name:" label followed by a text input field. Below the input field is a "Submit" button. At the bottom left, there is a link labeled "Change Password". At the bottom center, the copyright notice "© 2010 Avaya Inc. All Rights Reserved." is displayed.

The VPMS home screen is displayed.

**AVAYA** Welcome, admin  
Last logged in 11/24/11 at 11:31:02 AM SGT

**Voice Portal 5.1 (VoicePortal)** Home ? Help Logoff

Expand All | Collapse All

You are here: Home

### Voice Portal Management System Version 5.1.0.1.1602

Voice Portal Management System (VPMS) is the consolidated web-based application for administering Voice Portal. Through the VPMS interface, you can configure Voice Portal, check the status of a Voice Portal component, and generate reports related to system operation.

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Last Login: 11/24/11 11:31:02 AM SGT

- ▼ **User Management**
  - Roles
  - Users
  - Login Options
- ▼ **Real-Time Monitoring**
  - System Monitor
  - Active Calls
  - Port Distribution
- ▼ **System Maintenance**
  - Audit Log Viewer
  - Trace Viewer
  - Log Viewer
  - Alarm Manager
- ▼ **System Management**
  - MPP Manager
  - Software Upgrade
  - System Backup
- ▼ **System Configuration**
  - Alarm Codes
  - Alarm/Log Options
  - Applications
  - MPP Servers
  - Report Data
  - SNMP
  - Speech Servers
  - VoIP Connections
  - VPMS Servers
- ▼ **Security**
  - Certificates
  - Licensing
- ▼ **Reports**
  - Standard
  - Custom
  - Scheduled

## 5.2. Administer SNMP Agent

Select **System Configuration > SNMP** from the left pane to display the **SNMP** screen. Click **SNMP Agent Settings**.

**AVAYA** Welcome, admin  
Last logged in 11/10/11 at 2:57:20 AM SGT

**Voice Portal 5.1 (VoicePortal)** Home ? Help Logoff

Expand All | Collapse All

You are here: [Home](#) > System Configuration > SNMP

### SNMP

This page displays the destination servers to which Voice Portal sends Simple Network Management Protocol (SNMP) notifications when certain alarms occur.

#### SNMP Traps

No SNMP traps are configured.

**Add** **Delete** **Test**

**SNMP Agent Settings** **SNMP Device Notification Settings** **Help**

- ▼ **User Management**
  - Roles
  - Users
  - Login Options
- ▼ **Real-Time Monitoring**
  - System Monitor
  - Active Calls
  - Port Distribution
- ▼ **System Maintenance**
  - Audit Log Viewer
  - Trace Viewer
  - Log Viewer
  - Alarm Manager
- ▼ **System Management**
  - MPP Manager
  - Software Upgrade
  - System Backup
- ▼ **System Configuration**
  - Alarm Codes
  - Alarm/Log Options
  - Applications
  - MPP Servers
  - Report Data
  - SNMP
  - Speech Servers
  - VoIP Connections



Configure the following fields:

- Enable SNMP Version 1:** Checked.  
**Security Name:** Enter an appropriate value. This value is used to configure Hua Pu SmartLog in **Section 6** to query Voice Portal.
- Enable SNMP Version 2c:** Checked.  
**Security Name:** Enter the same value as above. This value is used to configure Hua Pu SmartLog in **Section 6** to query Voice Portal.
- Enable SNMP Version 3:** Un-checked.  
**Note:** Hua Pu SmartLog does not support SNMP Version 3.
- Authorized for SNMP Access:** For this testing, this was set to **Allow All IP Addresses** to allow SNMP queries from all IP addresses. This can also be set to **Allow Only the Following** and then enter the IP address of the SmartLog server in the blank field below for better security.

Accept the default values for the remaining fields. Scroll to the bottom of the page and click **Save** (not shown).

The screenshot shows the Avaya Voice Portal 5.1 (VoicePortal) interface. The top header includes the Avaya logo, the user name 'Welcome, admin', and the last login time 'Last logged in 11/24/11 at 11:31:02 AM SGT'. The main navigation bar shows 'Voice Portal 5.1 (VoicePortal)' and links for Home, Help, and Logoff. The left sidebar contains a tree view with categories like User Management, Real-Time Monitoring, System Maintenance, System Management, System Configuration, Security, and Reports. The main content area is titled 'SNMP Agent Settings' and includes a breadcrumb trail: 'You are here: Home > System Configuration > SNMP > SNMP Agent Settings'. The page contains three sections for configuring SNMP versions: 'SNMP Version 1' with 'Enable SNMP Version 1' checked and 'Security Name' set to 'SmartLog'; 'SNMP Version 2c' with 'Enable SNMP Version 2c' checked and 'Security Name' set to 'SmartLog'; and 'SNMP Version 3' with 'Enable SNMP Version 3' unchecked. Below these is the 'Authorized for SNMP Access' section, where 'Allow All IP Addresses' is selected. There are also fields for 'IP Address/Hostname 1' and 'IP Address/Hostname 2' under the 'Allow Only the Following' option.

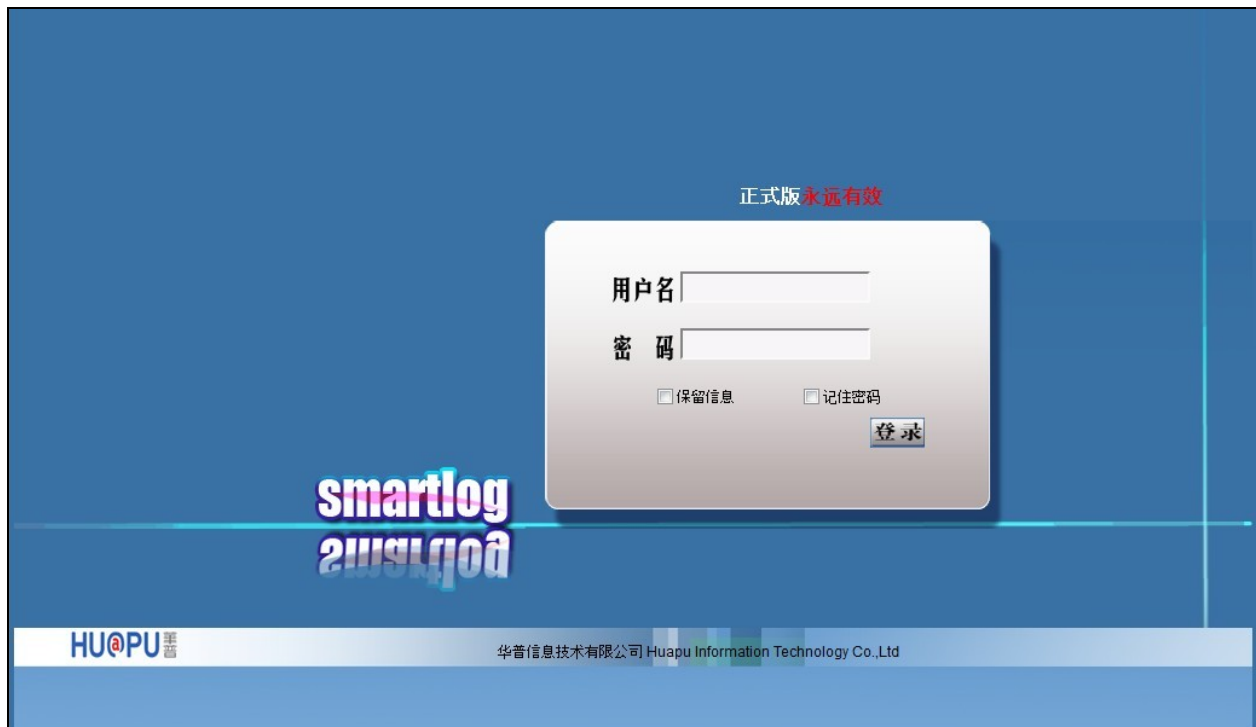
## 6. Configure Hua Pu SmartLog

This section provides the procedures for configuring Hua Pu SmartLog. The current version of SmartLog supports Chinese language only. The procedures include the following areas:

- Launch web interface
- Administer Location
- Administer Voice Portal



### 6.1. Launch Web Interface

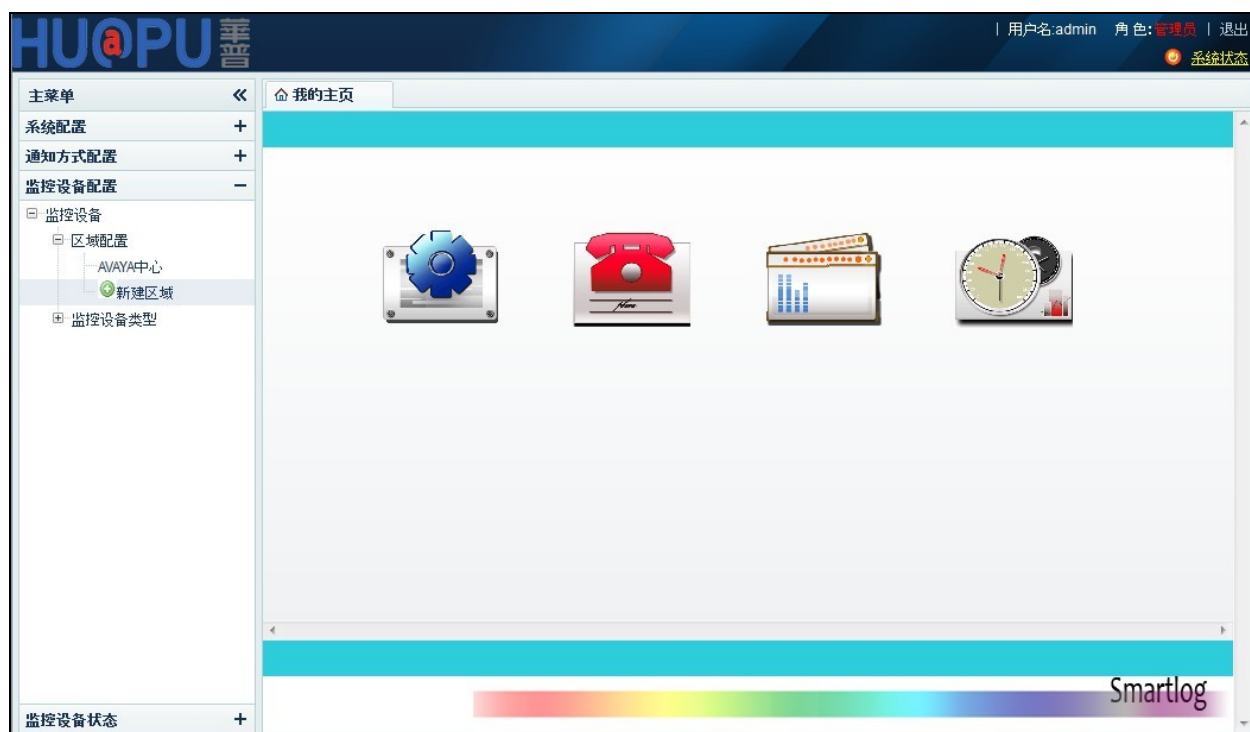
Access the SmartLog web interface using the URL **http://<ip-address>** in an Internet browser window, where **<ip-address>** is the IP address of the SmartLog server. Log in using the appropriate credentials.





## 6.2. Administer Location

The SmartLog Main Page is displayed as shown below. From the left menu, expand  监控设备 (Monitored System Setup) and click  新建区域 (Add Location).



In the new window that appears, enter an appropriate location name. In this testing, the name **AVAYA** is used.



### 6.3. Administer Voice Portal

From the left menu, expand  监控设备 (Monitored System Setup) and click  添加VP (Add VP). Configure the following values. Click **应用配置** (Confirm setup) when done.

- 所属区域 (Location) : Select the location administered in **Section 6.2**.
- 设备名称 (System Name) : Enter an appropriate value to describe the system.
- VPMS地址 (VPMS IP) : Enter the IP address of VPMS Server, in this case, it is the Voice Portal Server from **Figure 1**.
- SNMP口令 (SNMP Community Name): Enter the community name defined in **Section 5.2**.
- SSH登录用户名 (SSH Login) : Enter a valid Linux login for Voice Portal. In this testing, the **craft** login was used.
- SSH密码 (SSH Password) : Enter the password for the Linux login account.
- SSH连接端口 (SSH Port) : Enter **22** to use the default SSH port.



主菜单 << 我的主页 监控设备配置 添加VP

系统配置 +

通知方式配置 +

监控设备配置 -

监控设备

区域配置

监控设备类型

CM

VP

添加VP

新建监控设备类型

所属区域: AVAYA

所属监控类型: VP

设备名称: VoicePortal1 输入合法,请进行下面的操作

VPMS地址: 10.1.10.80

SNMP口令: SmartLog

SSH登录用户名: craft

SSH密码: \*\*\*\*\*

SSH连接端口: 22 一般为22

校验配置 应用配置

From the left menu, select the system that was just added and click **监测指标配置** (Monitor Threshold Setup).

指标名称	指标描述	指标备注	报警等级
AC-POWER	AC Power	AC-POWER	一般报警
ADJ-IP	ASAI Adjunct TCP/IP Link	ADJ-IP	一般报警
AESV-SES	AE Services Session	AESV-SES	一般报警
AN-LN-PT	Analog Line Port	AN-LN-PT	一般报警

To monitor the CPU, disk and memory utilization, scroll to the bottom of the page and add a new line entry for **MppCpu**, **MppDisk** and **MppMem** respectively as shown below. In this example, SmartLog will raise a notification alarm when any of the monitored resources is over 80% utilized.

指标名称	指标描述	指标备注	报警等级
MppStatus	Mpp状态	MppStatus	一般报警
online	是否在线 1: 在线, 0: 离线	online	一般报警
VPChannel	VP通道	VPChannel	一般报警
VPMS	VPMS状态	VPMS	一般报警

指标名称	指标备注	指标阈值	阈值单位	报警标准	报警等级	操作
MppCpu		80	%	高于阈值时报警	严重报警	✖
MppDisk		80	%	高于阈值时报警	严重报警	✖
MppMem		80	%	高于阈值时报警	严重报警	✖
						⊕

**应用配置**

## 7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Voice Portal and Hua Pu SmartLog.

From the Hua Pu SmartLog screen, expand  监控设备状态 (System Status) and select the Voice Portal system added in **Section 6**. Verify that the status of Voice Portal displayed in the right pane as shown below is accurate.



主菜单	我的主页	AVAYA中心	VoicePortal1状态
系统配置	设备详情	统计图表	
通知方式配置			
监控设备配置			
监控设备状态			
按区域排列			
AVAYA中心			
VoicePortal1			
SITE1			
其它区域设备			
按类型排列			

指标	状态	开始时间	更新时间	操作
MppStatus(MppStatus)	正常	2011-11-24 13:00:02	2011-11-24 14:24:01	----
VPChannel(VPChannel)	正常	2011-11-24 12:18:01	2011-11-24 14:24:01	----
VPMS(VPMS)	正常	2011-11-24 11:36:06	2011-11-24 14:24:01	----
MppCpu(MPP服务器CPU使用率)	正常	2011-11-24 11:36:00	2011-11-24 14:24:00	----
MppDisk(MPP服务器磁盘使用率)	正常	2011-11-24 11:36:00	2011-11-24 14:24:00	----
MppMem(MPP服务器内存使用率)	正常	2011-11-24 13:10:02	2011-11-24 14:24:00	----

## 8. Conclusion

These Application Notes describe the configuration steps required Hua Pu Information Technology SmartLog 4.1 to successfully interoperate with Avaya Voice Portal 5.1. All feature and serviceability test cases were completed.

## 9. Additional References

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

1. *Administering Voice Portal*, Release 5.1, June 2010, available at <http://support.avaya.com>.
2. *Troubleshooting Voice Portal*, Release 5.1, June 2010, available at <http://support.avaya.com>.
3. *Hua Pu SmartLog 4.1 User Guide*, provided by Hua Pu.
4. *Hua Pu SmartLog 4.1 Installation Guide*, provided by Hua Pu.

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