



Avaya Solution & Interoperability Test Lab

**Application Notes for Configuring Avaya Aura®
Communication Manager R6.0.1 and Avaya Aura®
Application Enablement Services with Partner Teknoloji
Outbound Campaign Management – Issue 1.0**

Abstract

These Application Notes describe the steps to configure Partner Teknoloji Campaign Management to operate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services. The Partner Teknoloji Outbound Campaign Management performs configurable automated outbound dialing tasks.

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 Partner Teknoloji Outbound Campaign Management (OCM) to successfully interoperate with Avaya Aura® Communication Manager, Avaya Aura® Application Enablement Services (AES) and Avaya. Partner Teknoloji Outbound Campaign Management provides a platform with which scheduled outbound campaigns can be generated and managed. Partner Teknoloji Outbound Campaign Management is configured to call each number in a calling list based on predefined criteria and to play each number which answers an announcement. Partner Teknoloji Outbound Campaign Management can be used to create informational, collection or sales based dialing campaigns. Partner Teknoloji Outbound Campaign Management connects to Avaya Aura® Application Enablement Services using JTAPI to provide the telephony functionality available from Avaya Aura® Communication Manager.

2. General Test Approach and Test Results

The interoperability compliance testing evaluated the ability of the Outbound Campaign Management to successfully place outbound calls and play an announcement when the outbound call was answered. Correct classification of calls and multiple simultaneous campaigns were verified and real time monitoring was evaluated for accuracy.

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

The following tests were performed as part of the compliance testing, all calls were routed to an announcement only:

- Use of Pool Trunks
- Use of Dedicated Trunks
- Single Campaign
- Multiple Simultaneous Campaigns
- Call Classification
- Recall scenarios e.g. engaged, no answer

Recovery from power and network failure was not tested.

2.2. Test Results

All test cases were completed successfully with the following observations:

- Only outbound answered calls routed to an announcement are supported.
- The number of active calls on the Real Time Monitor relates to active application threads, not real active calls.

- The number of scheduled calls on the Real Time Monitor relates to the number of calls which are to be recalled. Once the recall period has expired, the scheduled call is put back into the active calling list.
- In the event of multiple simultaneous campaigns, it was observed that the call would disconnect upon answer. This issue is addressed by a software patch from Partner Teknoloji.

2.3. Support

Technical Support can be obtained for the Partner Teknoloji products as follows:

- Email: info@partnerteknoloji.com.tr
- Phone: +90-216-368-07-68

3. Reference Configuration

Figure 1 illustrates the network topology used during compliance testing. The Avaya solution consists of an Avaya S8800 server running Communication Manager with an Avaya G650 Media Gateway. An Avaya S8800 server hosts Application Enablement Services. The Tomcat application server on which the OCM configuration is made is hosted on a Generic VMWare server running the Debian operating system.

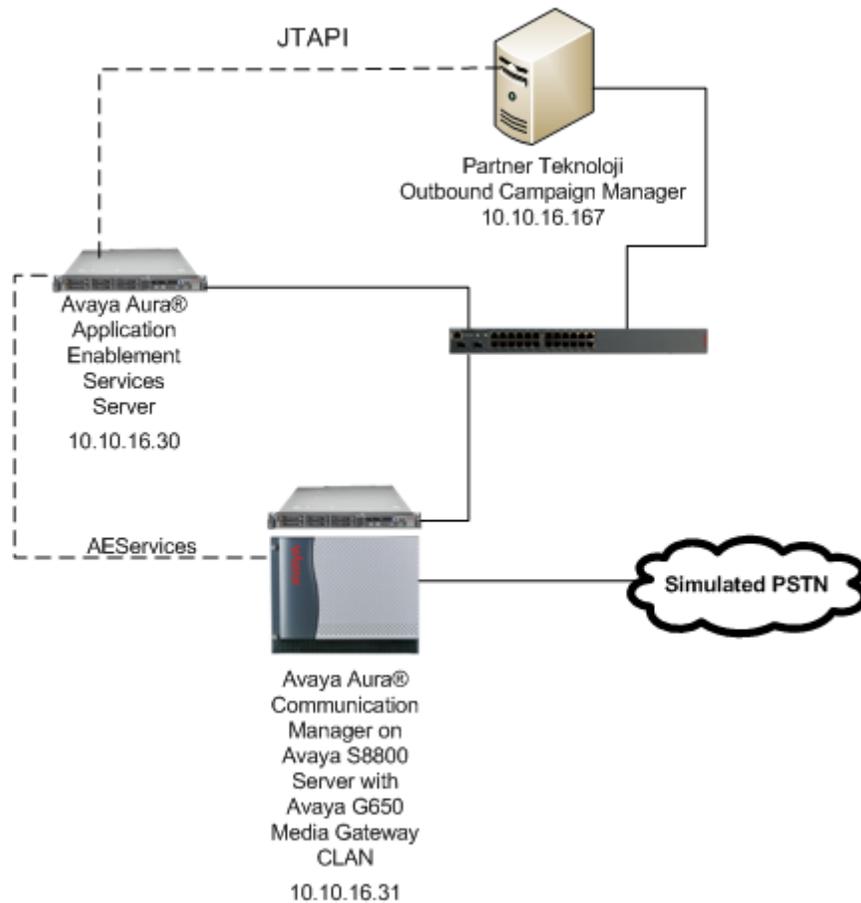


Figure 1: Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services Configuration with Partner Teknoloji Outbound Campaign Manager Solution

4. Equipment and Software Validated

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

Equipment	Software
Avaya S8800 Server	Avaya Aura® Communication Manager R6.0.1 SP6 R16.00.1.510.1-19350
Avaya G650 Media Gateway : <ul style="list-style-type: none">• TN799DP• TN2302AP• TN750C• TN2464CP	HW1 FW40 HW20 FW121 000014 HW02 FW024
Avaya S8800 Server	Avaya Aura® Application Enablement Services R6.1.1 r6-1-1-30-0
Generic VMWare Server	VMWare ESXi 4.1 Debian Linux 6 Apache Tomcat 7 Outbound Campaign Manager 0.1.0.1138 Central Management 0.1.0.1146 TSCS 0.1.0.1172 DCS 0.1.0.1180

5. Configure Avaya Aura® Communication Manager

The configuration and verification operations illustrated in this section were all performed using Communication Manager System Administration Terminal (SAT). The information provided in this section describes the configuration of Communication Manager for this solution. The Application Notes assume trunk connectivity and call routing between Communication Manager and the PSTN is established

- Define Feature Access Codes
- Configure Announcement
- Configure CLAN for Avaya AES Connectivity
- Configure Transport Link for AES Connectivity
- Configure CTI Link for TSAPI Service
- Configure CTI Extensions

5.1. Define Feature Access Codes

Use the **change feature-access-codes** command to define the required access codes. On **Page 1** define a FAC for **Announcement Access Code**.

```
change feature-access-codes                               Page 1 of 10
                FEATURE ACCESS CODE (FAC)
Abbreviated Dialing List1 Access Code:
Abbreviated Dialing List2 Access Code:
Abbreviated Dialing List3 Access Code:
Abbreviated Dial - Prgm Group List Access Code:
Announcement Access Code: *14
Answer Back Access Code: *13
Attendant Access Code:
Auto Alternate Routing (AAR) Access Code: 5
Auto Route Selection (ARS) - Access Code 1: 9      Access Code 2:
Automatic Callback Activation:                    Deactivation:
Call Forwarding Activation Busy/DA:               All:         Deactivation:
Call Forwarding Enhanced Status:                  Act: *11     Deactivation: *12
Call Park Access Code:
Call Pickup Access Code: *10
CAS Remote Hold/Answer Hold-Unhold Access Code:
CDR Account Code Access Code:
Change COR Access Code:
Change Coverage Access Code:
Conditional Call Extend Activation:                Deactivation:
Contact Closure Open Code:                        Close Code:
```

5.2. Configure Announcement

Enter the command **add announcement next**, take a note of the extension number and assign a descriptive **Annc Name**, in the **Annc Type** field enter **integrated** and in the **Group/Board** field enter the location of the announcement board, in this case **01a12**.

```
add announcement next                               Page 1 of 1
                ANNOUNCEMENTS/AUDIO SOURCES
Extension: 774                                     COR: 1
Annc Name: hello_fake_answer                       TN: 1
Annc Type: integrated                               Queue? y
Group/Board: 01a12
Protected? n                                       Rate: 64
```

5.3. Configure CLAN for Avaya Aura® Application Enablement Services Connectivity

Define a node name for the CLAN by using the command **change node-names ip** and add an IP address and node name for the CLAN.

```
change node-names ip                               Page 1 of 2
                IP NODE NAMES
Name          IP Address
devconaes611 10.10.16.29
clancm601    10.10.16.31
```

Add the CLAN to the system configuration using the **add ip-interface n** command where **n** is the CLAN board location. Enter the CLAN node name assigned in the previous step to the **Node Name** field. Enter values for the **Subnet Mask** and **Gateway Address** fields. In this case, **/24** and **Gateway** are used to correspond to the network configuration in these Application Notes. Set the **Enable Interface** field to **y**, default values may be used in the remaining fields.

```
add ip-interface 01a02                                     Page 1 of 3
                                                           IP INTERFACES
Type: C-LAN
Slot: 01A02          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: 1    Gatekeeper Priority: 5

                                                           IPV4 PARAMETERS
Node Name: clancm601          IP Address:
Gateway Node Name: netscreen IP Address:
Subnet Mask: /24

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

5.4. Configure Transport Link for Avaya Aura® Application Enablement Services Connectivity

To administer the transport link to AES use the **change ip-services** command. On **Page 1** add an entry with the following values:

- **Service Type:** Set to **AESVCS**
- **Enabled:** Set to **y**
- **Local Node:** Set to the node name assigned for the CLAN in **Section 5.3**
- **Local Port:** Retain the default value of **8765**.

```
change ip-services Page 1 of 3
```

IP SERVICES					
Service Type	Enabled	Local Node	Local Port	Remote Node	Remote Port
AESVCS	y	CLAN	8765		

Go to **Page 3** of the ip-services form and enter the following values:

- **AE Services Server:** Name obtained from the AES server, in this case **devconaes611**
- **Password:** Enter a password to be administered on the AES server
- **Enabled:** Set to **y**

Note: The password entered for **Password** field must match the password on the AES server in **Section 6.1**. The **AE Services Server** should match the administered name for the AES server, this is created as part of the AES installation, and can be obtained from the AES server by typing **uname -n** at the Linux command prompt.

```
change ip-services Page 3 of 3
```

AE Services Administration				
Server ID	AE Services Server	Password	Enabled	Status
1:	devconaes611	Avayapassword1	y	in use
2:	:			

5.5. Configure CTI Link for TSAPI Service

Add a CTI link using the **add cti-link n** command. Enter an available extension number in the **Extension** field. Enter **ADJ-IP** in the **Type** field, and a descriptive name in the **Name** field. Default values may be used in the remaining fields.

```
add cti-link 1 Page 1 of 3
```

CTI LINK	
CTI Link: 1	
Extension: 4999	
Type: ADJ-IP	
Name: devconaes	COR: 1

5.6. Configure CTI Extensions

Outbound Campaign Manager uses CTI extensions (trunks) to place outbound calls. Enter the command **add station next**, take a note of the **Extension**, set the **Type** as **CTI**, set the **Port** to **X** and assign an identifying **Name**.

```
add station next                                     Page 1 of 5
                                                    STATION
Extension: 1855                                     Lock Messages? n          BCC: 0
Type: CTI                                           Security Code:            TN: 1
Port: X                                             Coverage Path 1:         COR: 1
Name: Acquire 6                                     Coverage Path 2:         COS: 1
                                                    Hunt-to Station:
STATION OPTIONS
Loss Group: 1                                       Time of Day Lock Table:
Data Module? n                                     Personalized Ringing Pattern: 1
Display Module? n                                   Message Lamp Ext: 1855
Survivable COR: internal                           Media Complex Ext:
Survivable Trunk Dest? y
```

6. Configure Avaya Aura® Application Enablement Services Server

This section provides the procedures for configuring Application Enablement Services. The procedures fall into the following areas:

- Create Switch Connection
- Administer TSAPI link
- Create CTI User
- Enable CTI Link User
- Identify Tlinks

6.1. Create Switch Connection

From the AES Management Console navigate to **Communication Manager Interface** → **Switch Connections** to set up a switch connection. Enter in a name for the Switch Connection to be added and click the **Add Connection** button.



Communication Manager Interface | Switch Connections Home | Help | Logout

- ▶ AE Services
- ▼ Communication Manager Interface
 - Switch Connections
 - ▶ Dial Plan
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▶ Status
- ▶ User Management
- ▶ Utilities
- ▶ Help

Switch Connections

Connection Name	Processor Ethernet	Msg Period	Number of Active Connections
<input type="radio"/> CM521	No	30	1
<input checked="" type="radio"/> CM601	No	30	1

In the resulting screen enter the **Switch Password**, the Switch Password must be the same as that entered into Communication Manager AE Services Administration screen via the **change ip-services** command, described in **Section 5.4**. Default values may be accepted for the remaining fields. Click **Apply** to save changes.



Communication Manager Interface | Switch Connections Home | Help | Logout

- ▶ AE Services
- ▼ Communication Manager Interface
 - Switch Connections
 - ▶ Dial Plan
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▶ Status
- ▶ User Management
- ▶ Utilities
- ▶ Help

Connection Details - CM601

Switch Password

Confirm Switch Password

Msg Period Minutes (1 - 72)

SSL

Processor Ethernet

From the **Switch Connections** screen, select the radio button for the recently added switch connection and select the **Edit CLAN IPs** button (not shown). In the resulting screen, enter the IP address of the CLAN that will be used for the AES connection and select the **Add Name or IP** button.



Communication Manager Interface | Switch Connections Home | Help | Logout

- ▶ AE Services
- ▼ Communication Manager Interface
 - Switch Connections
 - ▶ Dial Plan
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking

Edit CLAN IPs - CM

Name or IP Address	Status

6.2. Administer TSAPI link

From the Application Enablement Services Management Console, select **AE Services** → **TSAPI** → **TSAPI Links**. Select **Add Link** button as shown in the screen below.



AE Services | TSAPI | TSAPI Link Home | Help | Logout

- ▼ AE Services
 - ▶ CVLAN
 - ▶ DLG
 - ▶ DMCC
 - ▶ SMS
 - ▼ TSAPI
 - TSAPI Links
 - ▶ TSAPI Properties
 - ▶ Communication Manager Interface

TSAPI Links

Link	Switch Connection	Switch CTI Link #	ASAI Link Version	Security

On the **Add TSAPI Links** screen, enter the following values:

- **Link:** Use the drop-down list to select an unused link number.
- **Switch Connection:** Choose the switch connection **CM**, which has already been configured in **Section 6.1**, from the drop-down list.
- **Switch CTI Link Number:** Corresponding CTI link number configured in **Section 5.5** which is **1**.
- **ASAI Link Version:** This can be left at the default value of **4**.
- **Security:** This can be left at the default value of **Unencrypted**.

Once completed, select **Apply Changes**.

The screenshot shows the Avaya Application Enablement Services Management Console. The header includes the Avaya logo, the title 'Application Enablement Services Management Console', and user information: 'Welcome: User craft', 'Last login: Thu Dec 15 19:28:13 2011 from 10.10.16.62', 'HostName/IP: devconaes611/10.10.16.29', 'Server Offer Type: TURNKEY', and 'SW Version: r6-1-1-30-0'. The navigation bar shows 'AE Services | TSAPI | TSAPI Link' and 'Home | Help | Logout'. The left sidebar lists 'AE Services' with sub-items: CVLAN, DLG, DMCC, SMS, TSAPI (expanded to show TSAPI Links and TSAPI Properties), Communication Manager Interface, and Licensing. The main content area is titled 'Add TSAPI Links' and contains a form with the following fields: Link (dropdown set to 1), Switch Connection (dropdown set to CM601), Switch CTI Link Number (dropdown set to 1), ASAI Link Version (dropdown set to 4), and Security (dropdown set to Unencrypted). At the bottom of the form are 'Apply Changes' and 'Cancel Changes' buttons.

Another screen appears for confirmation of the changes. Choose **Apply**.

The screenshot shows the Avaya Application Enablement Services Management Console. The header includes the Avaya logo, the title 'Application Enablement Services Management Console', and user information: 'Welcome: User craft', 'Last login: Thu Dec 15 19:28:13 2011 from 10.10.16.62', 'HostName/IP: devconaes611/10.10.16.29', 'Server Offer Type: TURNKEY', and 'SW Version: r6-1-1-30-0'. The navigation bar shows 'AE Services | TSAPI | TSAPI Link' and 'Home | Help | Logout'. The left sidebar is identical to the previous screenshot. The main content area is titled 'Apply Changes to Link' and contains a warning message: 'Warning! Are you sure you want to apply the changes? These changes can only take effect when the TSAPI server restarts. Please use the Maintenance -> Service Controller page to restart the TSAPI server.' At the bottom of the message are 'Apply' and 'Cancel' buttons.

When the TSAPI Link is completed, it should resemble the screen below.

AVAYA Application Enablement Services Management Console

Welcome: User craft
 Last login: Thu Dec 15 19:28:13 2011 from 10.10.16.62
 HostName/IP: devconaes611/10.10.16.29
 Server Offer Type: TURNKEY
 SW Version: r6-1-1-30-0

AE Services | TSAPI | TSAPI Link Home | Help | Logout

- ▼ AE Services
 - ▶ CVLAN
 - ▶ DLG
 - ▶ DMCC
 - ▶ SMS
 - ▼ TSAPI
 - TSAPI Links

TSAPI Links

Link	Switch Connection	Switch CTI Link #	ASAI Link Version	Security
1	CM601	1	4	Unencrypted

The TSAPI Service must be restarted to effect the changes made in this section. From the Management Console menu, navigate to **Maintenance** → **Service Controller**. On the Service Controller screen, tick the **TSAPI Service** and select **Restart Service**.

AVAYA Application Enablement Services Management Console

Welcome: User craft
 Last login: Thu Dec 15 19:28:13 2011 from 10.10.16.62
 HostName/IP: devconaes611/10.10.16.29
 Server Offer Type: TURNKEY
 SW Version: r6-1-1-30-0

Maintenance | Service Controller Home | Help | Logout

- ▶ AE Services
- ▶ Communication Manager Interface
- ▶ Licensing
- ▼ Maintenance
 - Date Time/NTP Server
 - ▶ Security Database
 - Service Controller**
 - ▶ Server Data
- ▶ Networking
- ▶ Security
- ▶ Status
- ▶ User Management

Service Controller

Service	Controller Status
<input type="checkbox"/> ASAI Link Manager	Running
<input type="checkbox"/> DMCC Service	Running
<input type="checkbox"/> CVLAN Service	Running
<input type="checkbox"/> DLG Service	Running
<input type="checkbox"/> Transport Layer Service	Running
<input checked="" type="checkbox"/> TSAPI Service	Running

For status on actual services, please use [Status and Control](#)

6.3. Create Avaya CTI User

User ID and password needs to be configured for OCM to communicate as a TSAPI client with the Application Enablement Services server. Navigate to the **User Management** → **User Admin** screen then choose the **Add User** option. In the **Add User** screen shown below, enter the following values:

- **User Id** - This will be used by the OCM in **Section 7.1**.
- **Common Name** and **Surname** - Descriptive names need to be entered.
- **User Password** and **Confirm Password** - This will be used with the **User Id** in **Section 7.1**.
- **Avaya Role** – **userservice.useradmin**
- **CT User** - Select **Yes** from the drop-down menu.

Complete the process by choosing **Apply** at the bottom of the screen (not shown).



User Management | User Admin | Add User Home | Help | Logout

- ▶ AE Services
- ▶ Communication Manager Interface
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▶ Status
- ▼ **User Management**
 - ▶ Service Admin
 - ▼ **User Admin**
 - **Add User**
 - Change User Password
 - List All Users
 - Modify Default Users
 - Search Users
- ▶ Utilities
- ▶ Help

Add User

Fields marked with * can not be empty.

* User Id	<input type="text" value="Tsapi"/>
* Common Name	<input type="text" value="tsapi"/>
* Surname	<input type="text" value="tsapi"/>
* User Password	<input type="password" value="*****"/>
* Confirm Password	<input type="password" value="*****"/>
Admin Note	<input type="text"/>
Avaya Role	<input type="text" value="userservice.useradmin"/>
Business Category	<input type="text"/>
Car License	<input type="text"/>
CM Home	<input type="text"/>
Css Home	<input type="text"/>
CT User	<input type="text" value="Yes"/>
Department Number	<input type="text"/>

6.5. Identify Tlinks

Navigate to **Security** → **Security Database** → **Tlinks**. Verify the value of the **Tlink Name**. This will be needed to configure OCM in **Section 7.1**.



Tlinks

Tlink Name

- AVAYA#CM521#CSTA#DEVCONAES611
- AVAYA#CM601#CSTA#DEVCONAES611
- AVAYA#CM601#CSTA-S#DEVCONAES611

Delete Tlink

7. Configure Partner Teknoloji Outbound Campaign Manager

For the purposes of the compliance test, Outbound Campaign Manager was installed and provided by Partner Teknoloji, the configuration can be summarized as follows:

- Create CTI Connection and Trunks
- Create Campaign
- Generate Customer File
- Create Segment
- Create Action
- Load Action
- Start Action

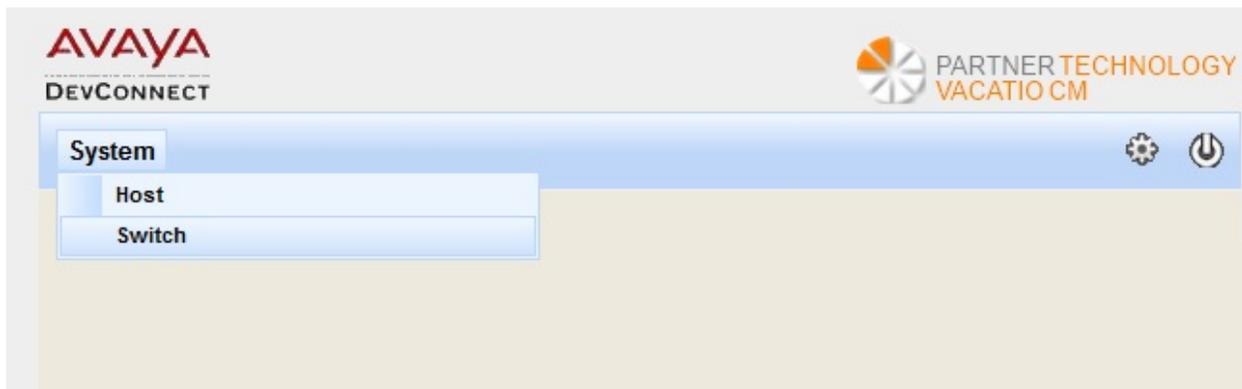
7.1. Create CTI Connection

Configuration of the CTI connection between OCM and the Avaya solution is performed from the web interface, browse to http://<ip_of_ocm:8080/ConfigurationManager in this case <http://10.10.16.167:8080/ConfigurationManager>, enter the relevant login details as shown below and click **Sign in**.

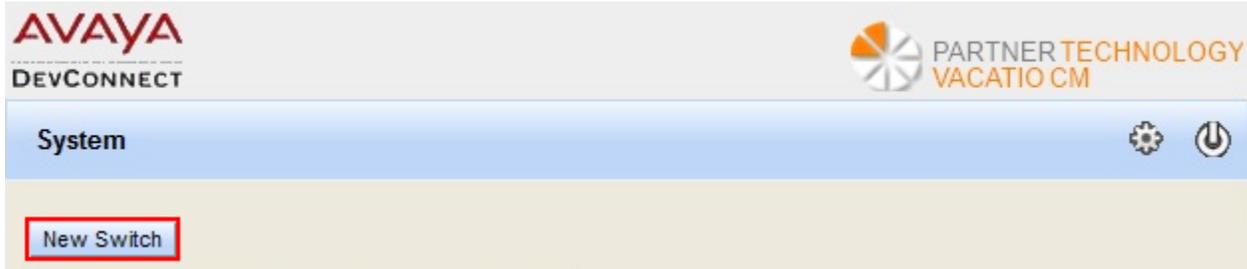


The image shows a login form for Partner Technology Vacatio CM. The form is centered on a light gray background. At the top left of the form is the logo, which consists of a stylized orange and white circular icon followed by the text "PARTNER TECHNOLOGY" in orange and "VACATIO CM" in black. Below the logo are two input fields: "Username : CompanyUser" and "Password : *****". Both fields have a yellow background. Below the password field is a blue "Sign in" button.

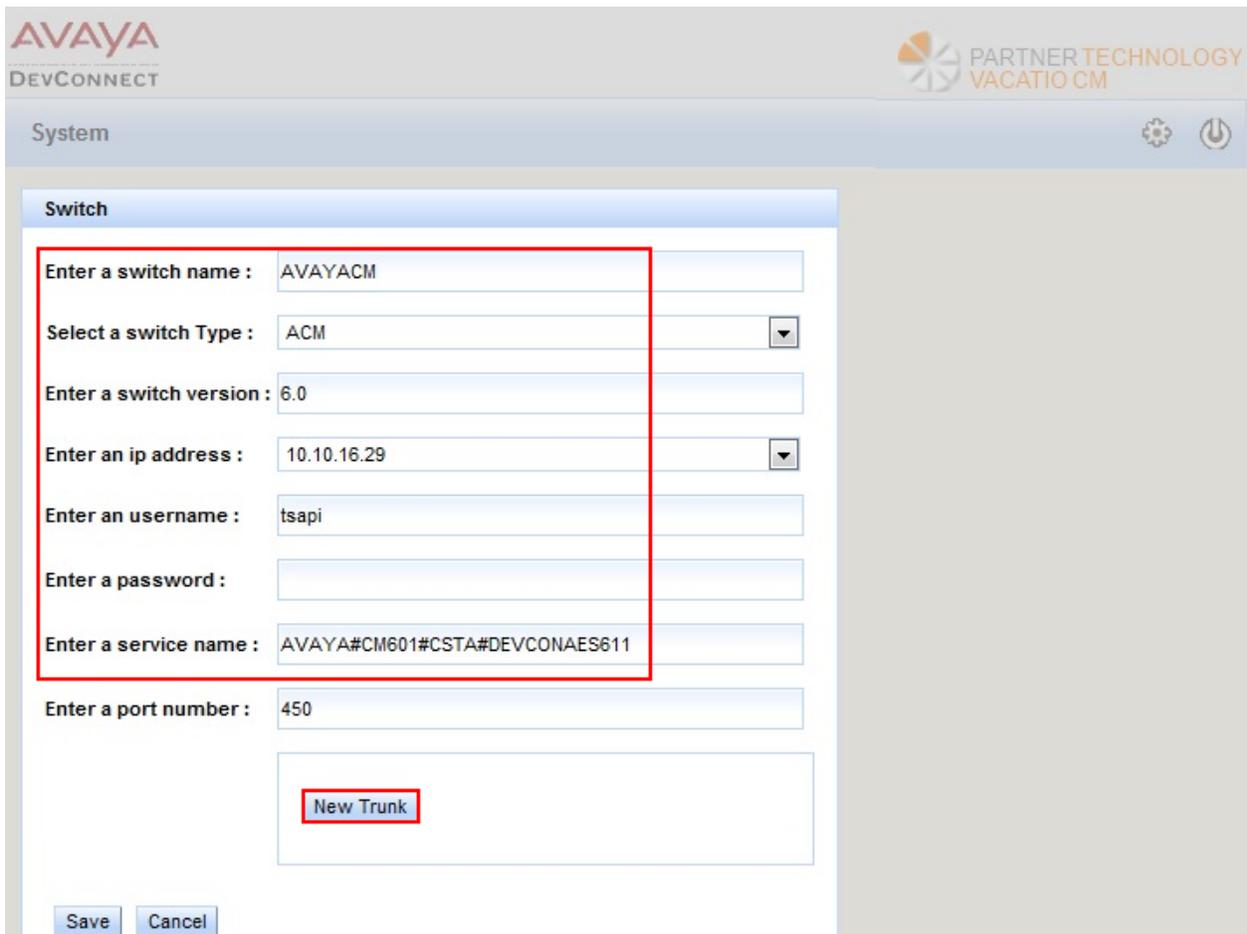
The screen shown below will display, click on **System → Switch**.



Click on **New Switch**, as shown below.



The screen below will appear, enter the relevant AES details as explained below where the **switch name** is an identifying name, the **switch Type** is **ACM**, the **switch version** is **6.0**, the **ip address** is the IP address of the AES, the **username** is the username configured in **Section 6.3** and the **service name** is the TLINK string noted in **Section 6.5**, when complete click on **New Trunk**.



The following screen will appear, enter an identifying **trunk code**, **trunk name** and **trunk description**, assign the trunk number according to the CTI extension configured in **Section 5.6** and click **Save**, repeat this task according to the number of trunks required.

The screenshot shows the Avaya DevConnect System configuration interface. At the top left is the AVAYA DEVCONNECT logo. At the top right is the PARTNER TECHNOLOGY VACATIO CM logo. Below the logos is a 'System' header with a gear icon and a power icon. The main content area is a 'Trunk' configuration form with the following fields:

- Enter a trunk code : Dedicated_Trunk_1
- Enter a trunk name : Dedicated_Trunk_1
- Enter a trunk description : Dedicated Trunk 1
- Enter a trunk number : 1855

At the bottom of the form are two buttons: 'Save' (highlighted with a red box) and 'Cancel'.

The following screen displays the CTI parameters and trunks configured, click **Save** when complete.

System

Switch

Enter a switch name : AVAYACM

Select a switch Type : ACM

Enter a switch version : 6.0

Enter an ip address : 10.10.16.29

Enter an username : tsapi

Enter a password :

Enter a service name : AVAYA#CM601#CSTA#DEVCONAES611

Enter a port number : 450

Configure trunk(s) :

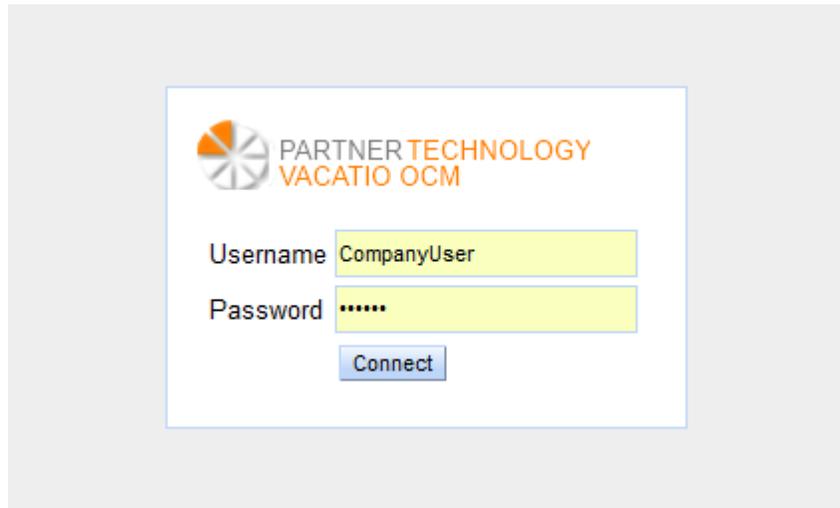
New Trunk

Trunk Code	Trunk Name	Trunk Description	
Trunk 3	Trunk_3	Trunk_3	⊖
Trunk 4	Trunk_4	Trunk_4	⊖
Trunk 2	Trunk_2	Trunk_2	⊖
Trunk 5	Trunk_5	Trunk_5	⊖
Trunk 1	Trunk_1	Trunk_1	⊖

Save Cancel

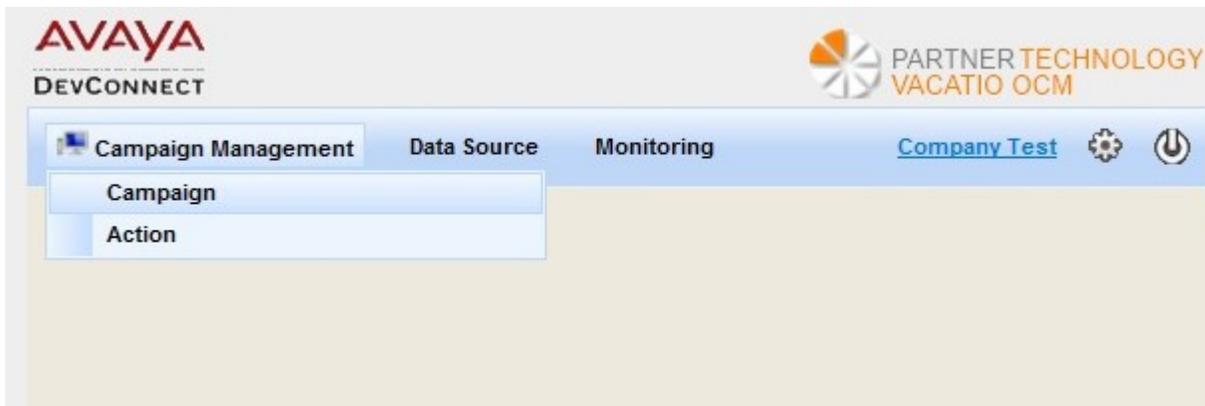
7.2. Create Campaign

Configuration of the OCM outbound campaign is performed from the web interface, browse to http://<ip_of_ocm:8080/OutboundCampaignManager in this case <http://10.10.16.167:8080/OutboundCampaignManager>, enter the relevant login details as shown below and click **Connect**.



The image shows a login form for Partner Technology Vacatio OCM. It features a logo with an orange and grey circular icon and the text "PARTNER TECHNOLOGY VACATIO OCM". Below the logo are two input fields: "Username" with the value "CompanyUser" and "Password" with masked characters "*****". A "Connect" button is positioned below the password field.

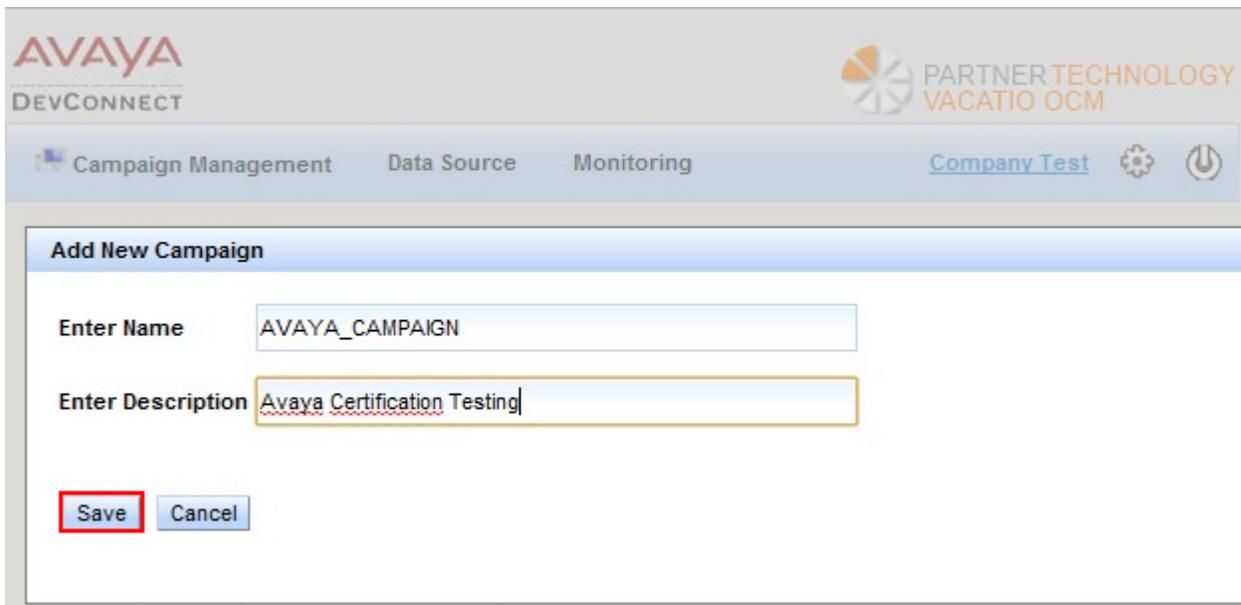
The screen shown below will display, click on **Campaign Management → Campaign**.



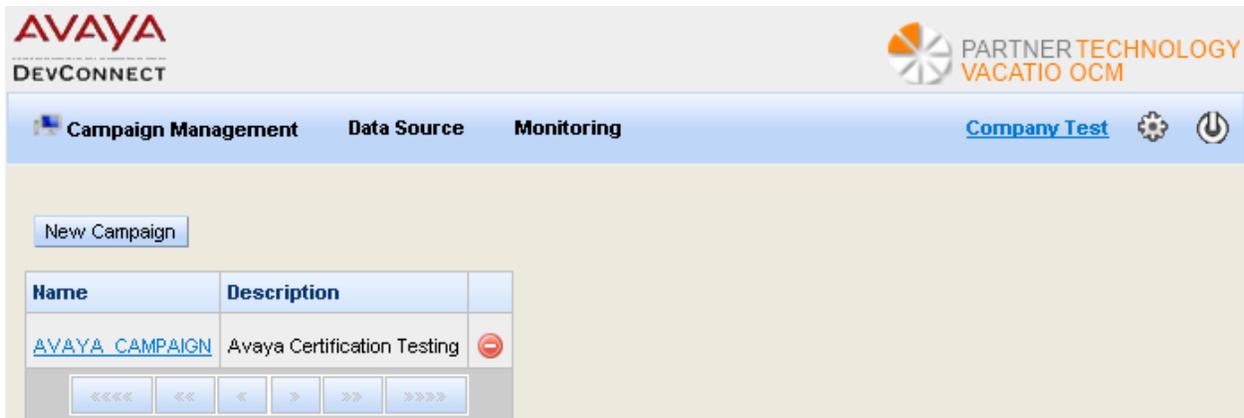
Click on **New Campaign**.



The **Add New Campaign** dialog box will appear, enter a **Name** and **Description** to identify the campaign and click **Save**.



The following screen will appear displaying the new campaign.



7.3. Generate Customer File

A customer file must be created, this specifies the template in which the customer data will be formatted.. Click on **Data Source** → **Customer**.

The screenshot shows the Avaya DevConnect interface. At the top left is the Avaya logo and 'DEVCONNECT'. At the top right is the 'PARTNER TECHNOLOGY VACATIO OCM' logo. Below the header, there are navigation tabs: 'Campaign Management', 'Data Source', and 'Monitoring'. The 'Data Source' tab is active, and a dropdown menu is open showing 'Customer' and 'Segment Management'. Below this, there is a 'New Campaign' button and a table of campaigns.

Name	Description	
CAMPAIGN ONE	Campaign Number One	⊖
CAMPAIGN FOUR	Campaign Number Four	⊖
CAMPAIGN FIVE	Campaign Number Five	⊖
CAMPAIGN SIX	Campaign Number Six	⊖
CAMPAIGN NINE	CLOUD Number Nine	⊖
CAMPAIGN TEN	Campaign Number Ten	⊖
CAMPAIGN ELEVEN	Campaign Number Eleven	⊖
Partner	DCS Test Campaign	⊖
AVAYA CAMPAIGN	Avaya Certification Testing	⊖

At the bottom of the table, there are navigation buttons: <<<<, <<, <, >, >>, >>>>.

Place a tick next to the information to be contained in the data source, in this case **name**, **surname**, **ssn**, **gsm** and **age**, click **Generate Customer File** when complete.

AVAYA
DEVCONNECT

PARTNER TECHNOLOGY
VACATIO OCM

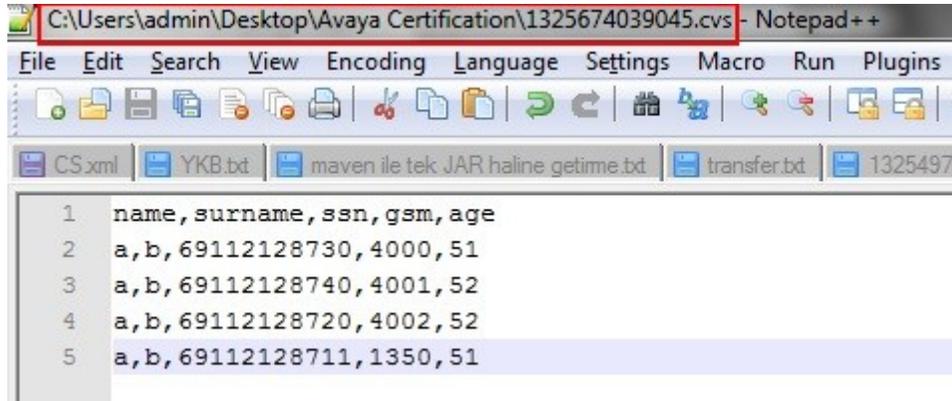
Campaign Management Data Source Monitoring Company Test

Generate Customer File Upload Customer

	Column Name	Column Type
<input checked="" type="checkbox"/>	name	String
<input checked="" type="checkbox"/>	surname	String
<input checked="" type="checkbox"/>	ssn	Integer
<input checked="" type="checkbox"/>	gsm	Integer
<input type="checkbox"/>	home phone	Integer
<input type="checkbox"/>	office phone	Integer
<input type="checkbox"/>	email	String
<input checked="" type="checkbox"/>	age	Integer
<input type="checkbox"/>	city	String
<input type="checkbox"/>	education	String
<input type="checkbox"/>	maritalstatus	String
<input type="checkbox"/>	gender	String

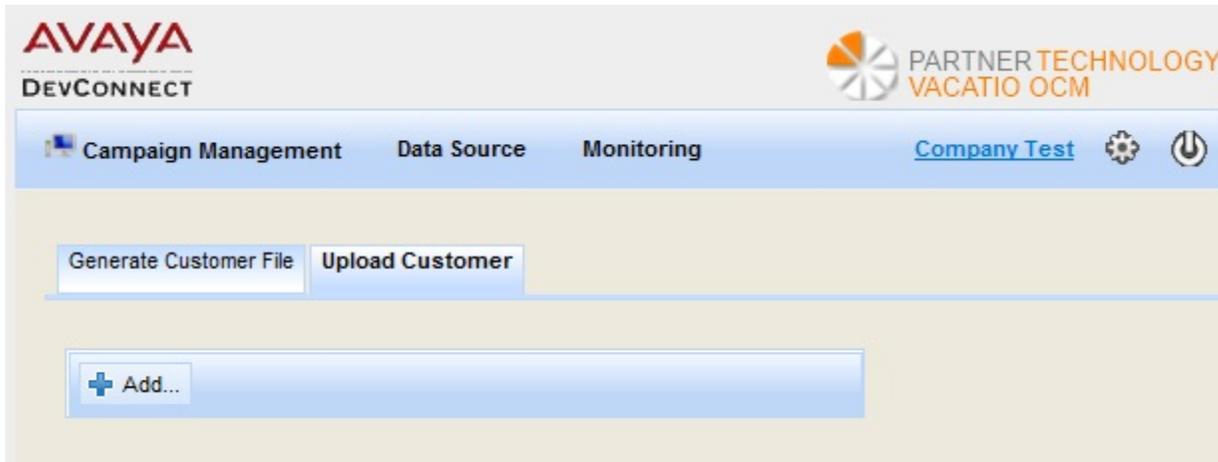
Generate Customer File

A .csv file will be generated and a prompt will appear to download the file. The downloaded file can be opened with an appropriate text editor. Enter customer data in the comma separate format as shown below. In this example file **1325674039045.csv** is saved on **C:\Users\admin\Desktop\Avaya Certification**.

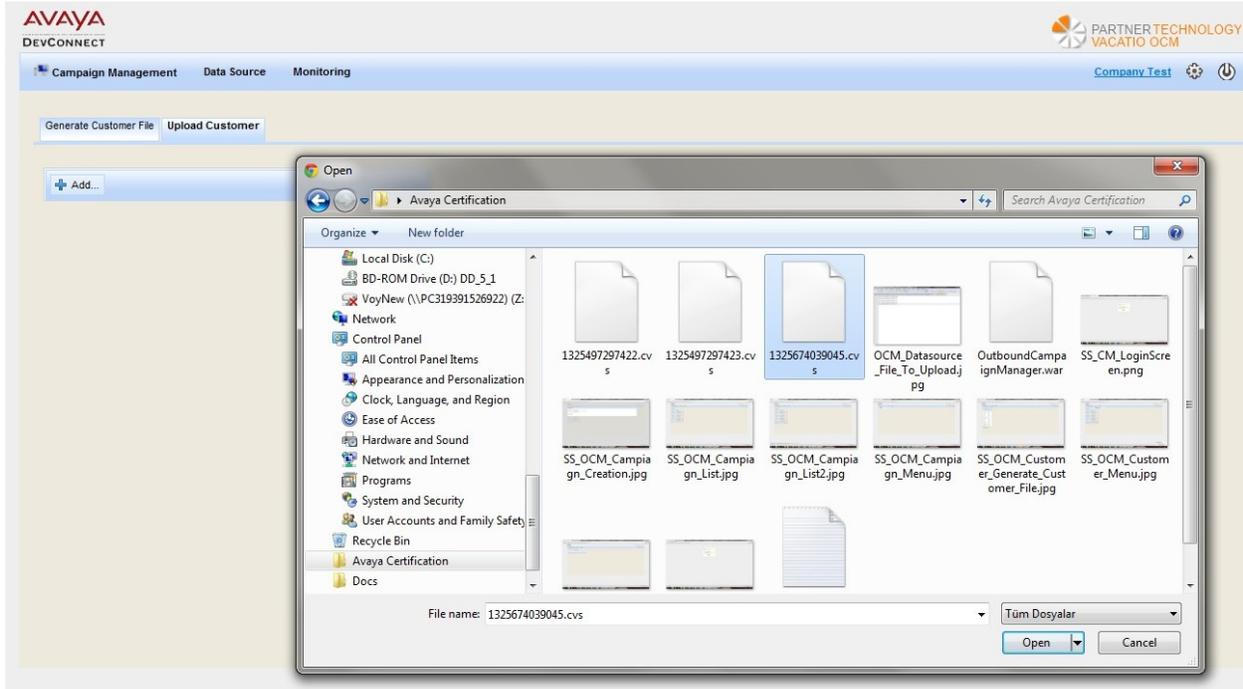


```
C:\Users\admin\Desktop\Avaya Certification\1325674039045.csv - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins
CS.xml YKB.txt maven ile tek JAR haline getime.txt transfer.txt 1325497
1 name,surname,ssn,gsm,age
2 a,b,69112128730,4000,51
3 a,b,69112128740,4001,52
4 a,b,69112128720,4002,52
5 a,b,69112128711,1350,51
```

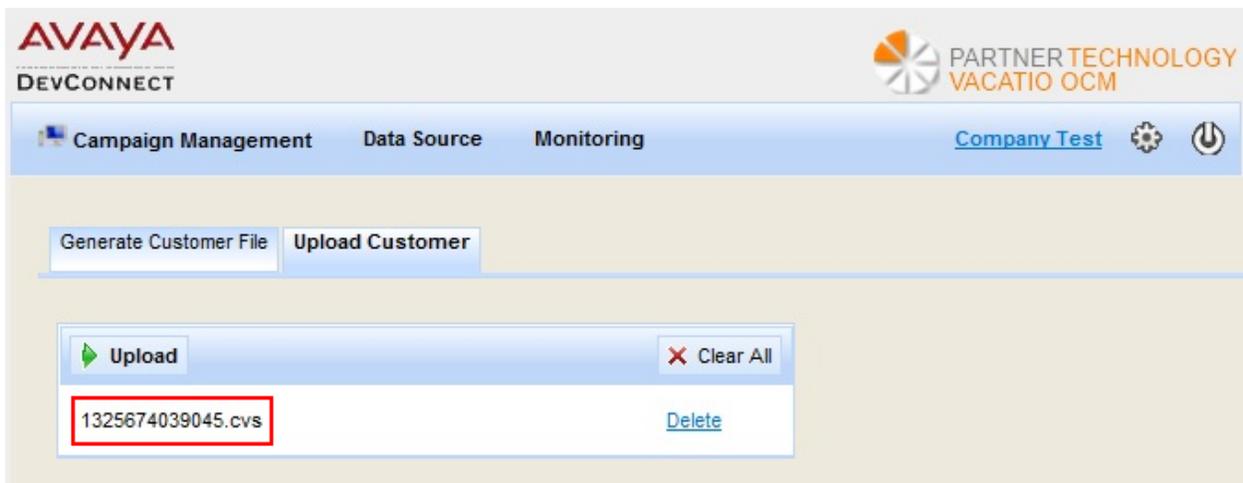
Save the file once the customer information has been added. On the OCM web interface click the **Upload Customer** tab and then click **Add**.



Browse to the saved .cvs file and click **Open**.



The .cvs file will be uploaded to OCM and the screen below will appear, showing the uploaded customer file.

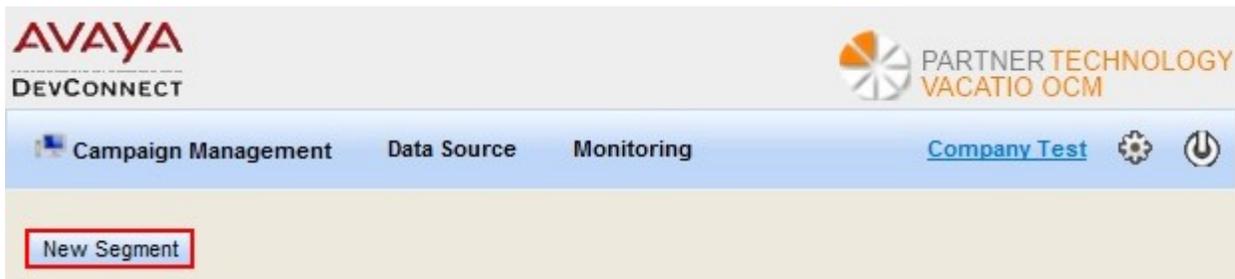


7.4. Create Segment

A Segment must be created, this is a filter which selects records from the customer file based on defined criteria. Click on **Data Source** → **Segment Management**.



The following screen will appear, click **New Segment**.



Enter an identifying **segment name** and **segment description** and click on **New Condition**.

AVAYA
DEVCONNECT

PARTNER TECHNOLOGY
VACATIO OCM

Campaign Management Data Source Monitoring Company Test

Add New Segment

1. Enter a segment name

SGM_AVAYA_1

2. Enter a segment description

Segment for Avaya Certification Testing

3. Configure segment condition

New Condition

Property	Operation	Value 1	Value 2		
<<<<	<<	<	>	>>	>>>>

Save Cancel

On the screen which appears, set the segment condition properties to be applied to the customer list, in this case records will be selected for the campaign where the **age** is more than (>) **49**, click **Save** when done.

The screenshot shows the Avaya DevConnect interface. At the top left is the Avaya logo and 'DEVCONNECT'. At the top right is the 'PARTNER TECHNOLOGY VACATIO OCM' logo. Below the header are navigation tabs: 'Campaign Management', 'Data Source', and 'Monitoring'. On the right side, there is a 'Company Test' link and two icons (a gear and a power button). The main content area is titled 'Add New Condition' and contains three steps:

- 1. Please select a property**
A dropdown menu with 'age' selected.
- 2. Please select a logical operation**
A dropdown menu with '>' selected.
- 3. Enter operation value 1**
A text input field containing '49'.

At the bottom of the dialog, there are two buttons: 'Save' (highlighted with a red box) and 'Cancel'.

The screen below will be shown, displaying the new segment and condition, click **Save** when complete.

AVAYA
DEVCONNECT

PARTNER TECHNOLOGY
VACATIO OCM

Campaign Management Data Source Monitoring [Company Test](#)

Add New Segment

1. Enter a segment name

SGM_AVAYA_1

2. Enter a segment description

Segment for Avaya Certification Testing

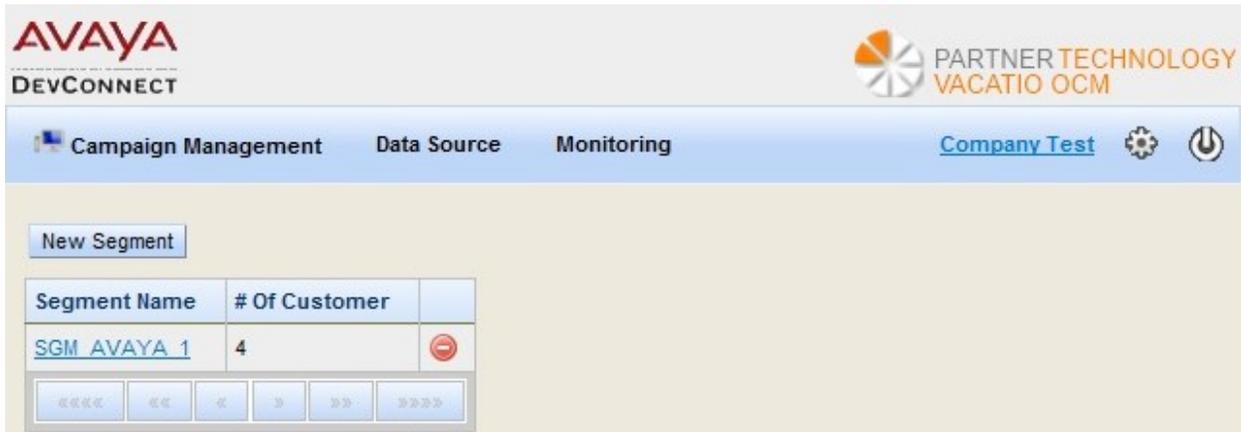
3. Configure segment condition

New Condition

Property	Operation	Value 1	Value 2
age	>	49	

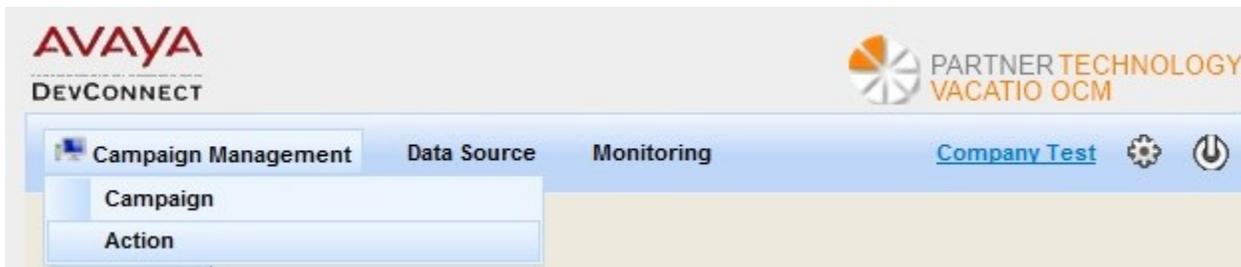
Save Cancel

The screen below will appear showing the new segment and the number of customers in the customer file that match the condition.

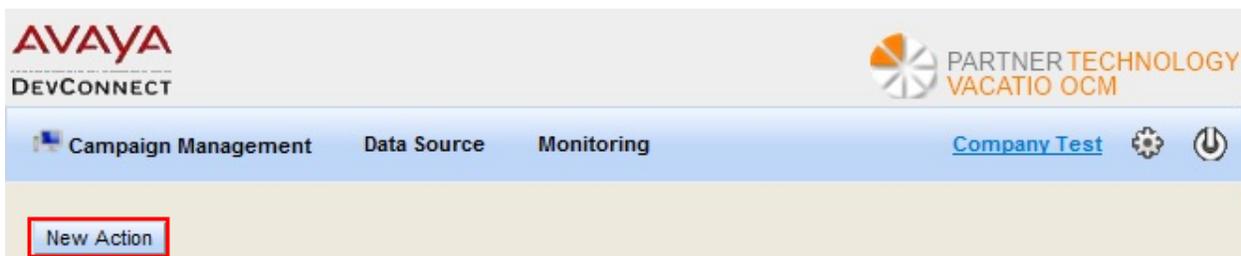


7.5. Create Action

An action must be created on OCM, the action references the campaign created in **Section 7.2**. Click on **Campaign Management** → **Action**.



Click on **New Action**.



The screen below will appear, enter an identifying **Action Name**, and select the campaign created previously. Set the **Start Date** and **End Date** and click **Detailed Schedule**.

The screenshot shows the Avaya DevConnect interface. At the top left is the Avaya logo and 'DEVCONNECT'. At the top right is the 'PARTNER TECHNOLOGY VACATIO OCM' logo. Below the header is a navigation bar with 'Campaign Management', 'Data Source', and 'Monitoring'. On the right of the navigation bar are 'Company Test', a gear icon, and a power icon. The main content area is titled 'Add New Action'. It contains the following fields and controls:

- Enter Action Name:** Text input field containing 'ACTION_AVAYA_1'.
- Select Campaign:** Dropdown menu showing 'AVAYA_CAMPAIGN'.
- Select Start Date:** Date and time picker showing '04/1/12 09:00'.
- Select End Date:** Date and time picker showing '06/1/12 12:00'.
- Detailed Schedule:** A button highlighted with a red border.
- Action Type Selection:** A row of four radio buttons labeled 'Call Action', 'Mail Action', 'SMS Action', and 'MMS Action'. Below this is a row of five tabs: 'Call Action' (selected), 'Mail Action', 'SMS Action', 'MMS Action', and 'Fax Action'.
- Call Action Configuration Fields:** A series of text input fields for 'Enter Caller Id', 'Enter Transfer DN', 'Enter TTS Message', 'Retry Duration', 'Enter Call Count', 'Enter Ring Count', and 'Priority' (a dropdown menu).
- Select Dial Scenario:** A dropdown menu at the bottom.
- Buttons:** 'Save' and 'Cancel' buttons at the bottom left.

Choose the **Day** of the week and **Start** and **End** time for the action schedule. In this instance, Wednesday to Friday, 9.00 – 17.00 are selected. Click **Close** when complete.

AVAYA
DEVCONNECT

Campaign Management Data Source Monitoring Company Test

Detailed Schedule

Sunday Monday Tuesday Wednesday Thursday Friday Saturday

Add Day

Start Time End Time
00 : 00 00 : 00

Add Times

Day Time Table			
	Start Time	End Time	
x	Wednesday Thursday Friday		Drop
	09:00:00	17:00:00	Drop

Close

The screen below will reappear, place a tick in the **Call Action** box, enter an identifying **Caller Id**, set the **Transfer DN** as the announcement configured in **Section 5.2**, set the **Retry Duration** and **Call Count** (recall count) accordingly and click on **Save** (not shown).

The screenshot shows the 'Add New Action' configuration page in the Avaya DevConnect interface. The page includes the Avaya logo and 'DEVCONNECT' branding, along with a 'PARTNER TECHNOLOGY VACATIO OCM' logo. The navigation bar shows 'Campaign Management', 'Data Source', and 'Monitoring', with 'Company Test' selected. The main content area is titled 'Add New Action' and contains the following fields and options:

- Enter Action Name:** ACTION_AVAYA_1
- Select Campaign:** AVAYA_CAMPAIGN
- Select Start Date:** 04/1/12 09:00
- Select End Date:** 06/1/12 12:00
- Detailed Schedule:** Button
- Action Types:** Call Action (checked), Mail Action, SMS Action, MMS Action
- Action Tabs:** Call Action, Mail Action, SMS Action, MMS Action, Fax Action
- Enter Caller Id:** AVAYA1
- Enter Transfer DN:** 774 (highlighted with a red box)
- Enter TTS Message:** Nope
- Retry Duration:** 2
- Enter Call Count:** 4
- Enter Ring Count:** 1
- Priority:** Most Prior
- Trunks:** Button

The screen below will appear displaying the newly added action. Click on **Data Source**.

The screenshot shows the Avaya DevConnect interface. At the top left is the Avaya logo and 'DEVCONNECT'. At the top right is the 'PARTNER TECHNOLOGY VACATIO OCM' logo. Below the logo is a navigation bar with 'Campaign Management', 'Data Source', and 'Monitoring'. To the right of the navigation bar is 'Company Test' and two icons (a gear and a power button). Below the navigation bar is a 'New Action' button. Below that is a table with the following columns: Name, Campaign, Start Date, End Date, Status, LOAD, START, STOP, Data Source, and a red minus icon. The first row of the table is: ACTION_AVAYA_1, AVAYA_CAMPAIGN, 04.01.2012, 06.01.2012, Not Active, LOAD, START, STOP, Data Source (highlighted with a red box), and a red minus icon. Below the table are several navigation buttons: <<<<, <<, <, >, >>, and >>>>.

The screen below will appear, select the **Segment** created in **Section 7.4** from the **Available Segments** box and click on **Add**.

The screenshot shows the 'Bind Data Source' dialog in the Avaya DevConnect interface. At the top left is the Avaya logo and 'DEVCONNECT'. At the top right is the 'PARTNER TECHNOLOGY VACATIO OCM' logo. Below the logo is a navigation bar with 'Campaign Management', 'Data Source', and 'Monitoring'. To the right of the navigation bar is 'Company Test' and two icons (a gear and a power button). Below the navigation bar is a 'Bind Data Source' header. Below the header is a 'Calling List' section with 'Total Selected Number Of Records 0'. Below the 'Calling List' are two sections: 'Available Segments' and 'Selected Segments'. The 'Available Segments' list contains: Segment 1 (Rec # 1,), Segment 2 (Rec # 2,), Segment Ali 1 (Rec # 4, Test), SGM_Partner (Rec # 25, This is test segment. Please do not delete. Thank you. Ali.), SGM_Partner_2 (Rec # 4, This is test segment. Please do not delete. Thanks, Ali.), and SGM_AVAYA_1 (Rec # 4, Segment for Avaya Certification Testing) (highlighted in blue). Below the 'Available Segments' list are 'Add' and 'Remove' buttons. The 'Add' button is highlighted with a red box. Below the 'Selected Segments' list are 'Create' and 'Cancel' buttons.

Click **Create**, this binds the data source to the segment.

Bind Data Source

Calling List

Total Selected Number Of Records 4

Available Segments

- Segment 1 (Rec # 1,)
- Segment 2 (Rec # 2,)
- Segment Ali 1 (Rec # 4, Test)
- SGM_Partner (Rec # 25, This is test segment. Please do not delete. Thank you. Ali.)
- SGM_Partner_2 (Rec # 4, This is test segment. Please do not delete. Thanks, Ali.)

Selected Segments

- SGM_AVAYA_1 (Rec # 4, Segment for Avaya Certification Testing)

Buttons: Add, Remove, Create, Cancel

The screen below will appear, click **Load**.

New Action

Name	Campaign	Start Date	End Date	Status	LOAD	START	STOP	Data Source
ACTION_AVAYA_1	AVAYA_CAMPAIGN	04.01.2012	06.01.2012	Ready	LOAD	START	STOP	Data Source

Navigation: <<<< << < > >> >>>>

The **Status** will update to **Initiated**, click **Start** to begin the action.

The screenshot shows the Avaya DevConnect interface. At the top left is the Avaya logo and 'DEVCONNECT'. At the top right is the 'PARTNER TECHNOLOGY VACATIO OCM' logo. Below the header, there are tabs for 'Campaign Management', 'Data Source', and 'Monitoring'. A 'Company Test' link and a power icon are also visible. A 'New Action' button is present. Below it is a table with columns: Name, Campaign, Start Date, End Date, Status, LOAD, START, STOP, and Data Source. The row for 'ACTION_AVAYA_1' shows 'AVAYA_CAMPAIGN', '04.01.2012', '27.01.2012', 'Initiated', and buttons for 'LOAD', 'START', and 'STOP'. The 'START' button is highlighted with a red box. Navigation buttons are at the bottom.

Name	Campaign	Start Date	End Date	Status	LOAD	START	STOP	Data Source
ACTION_AVAYA_1	AVAYA_CAMPAIGN	04.01.2012	27.01.2012	Initiated	LOAD	START	STOP	Data Source

8. Verification Steps

This section provides the tests that can be performed to verify correct configuration of Communication Manager, Application Enablement Services and OCM.

8.1. Verify Avaya Aura® Communication Manager CTI Link

The following steps can ensure that the communication between Communication Manager and the Application Enablement Services server is functioning correctly. Check the TSAPI link status with Application Enablement Services by using the command **status aesvcs cti-link**. Verify the **Service State** of the TSAPI link is **established**.

```
status aesvcs cti-link

          AE SERVICES CTI LINK STATUS

CTI   Version  Mnt   AE Services   Service   Msgs   Msgs
Link                               State      Sent   Rcvd
-----
1     4         no    devconaes611  established  87    61
```

Use the command **status aesvcs interface** to verify that the status **Local Node CLAN** of Application Enablement Services interface is connected and **listening**.

```
status aesvcs interface

          AE SERVICES INTERFACE STATUS

Local Node   Enabled?  Number of   Status
              Connections
-----
clancm601   yes       1           listening
```

Verify that there is a link with the Application Enablement Services and that messages are being sent and received by using the command **status aevcs link**.

```
status aevcs link

                                AE SERVICES LINK STATUS

Srvr/ AE Services   Remote IP      Remote  Local Node   Msgs   Msgs
Link  Server          Remote IP      Port    Node         Sent   Rcvd
01/01 devconaes611    10.10.16.29   45883   clancm601    683    665
```

8.2. Verify Avaya Aura® Application Enablement Services CTI Connection

The following steps are carried out on the Application Enablement Services to ensure that the communication link between Communication Manager, the Application Enablement Services server and OCM is functioning correctly.

8.2.1. TSAPI Link

On the Application Enablement Services Management Console verify the status of the TSAPI link by selecting **Status → Status and Control → TSAPI Service Summary** to display the **TSAPI Link Details** screen. Verify the status of the TSAPI link by checking that the **Status** is **Talking** and the **State** is **Online**.



- ▶ AE Services
- ▶ Communication Manager Interface
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▼ Status
 - Alarm Viewer
 - ▶ Logs
 - ▼ Status and Control
 - CVLAN Service Summary
 - DLG Services Summary
 - DMCC Service Summary
 - Switch Conn Summary
 - **TSAPI Service Summary**

TSAPI Link Details

Enable page refresh every seconds

	Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
⊙	1	CM521	1	Talking	Wed Dec 14 16:03:39 2011	Online	15	0	15	15	30
⊙	2	CM601	1	Talking	Wed Dec 14 16:10:07 2011	Online	16	8	71	87	30

For service-wide information, choose one of the following:

8.2.2. TSAPI User Status

On the Application Enablement Services Management Console verify the status of the TSAPI link by selecting **Status** → **Status and Control** → **TSAPI Service Summary** → **User Status** to display the **CTI User Status** page. Select the CTI user created in **Section 6.3** from the drop down list and click on **Show Closed Streams**. Verify that streams have been opened by the CTI user during the time the OCM campaign was running.



Status | Status and Control | TSAPI Service Summary [Home](#) | [Help](#) | [Logout](#)

- ▶ AE Services
- ▶ Communication Manager Interface
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▼ **Status**
 - Alarm Viewer
 - ▶ Logs
 - ▼ **Status and Control**
 - CVLAN Service Summary
 - **DLG Services Summary**

CTI User Status

Enable page refresh every seconds

CTI Users:

Open Streams: 0
Closed Streams: 22

Closed Streams

Name	Time Opened	Time Closed	Trunk Name
tsapi	Fri Jan 6 13:48:58 2012	Tue Jan 10 13:02:33 2012	AVAYA#CM601#CSTA#DEVCONAES611
tsapi	Fri Jan 6 13:48:59 2012	Tue Jan 10 13:02:33 2012	AVAYA#CM601#CSTA#DEVCONAES611
tsapi	Fri Jan 6 13:48:59 2012	Tue Jan 10 13:02:33 2012	AVAYA#CM601#CSTA#DEVCONAES611

8.3. Verify Partner Teknoloji Outbound Campaign Manager

8.3.1. Verify Action is Running

Click **Campaign Management** → **Action** verify the status of the relevant action is **Running**.

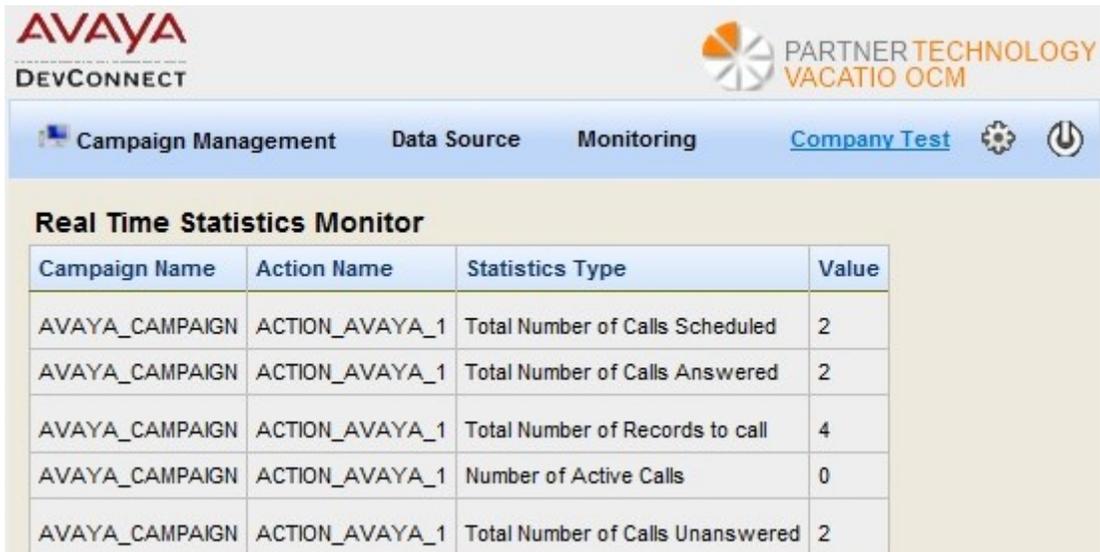
Campaign Management
Data Source
Monitoring
[Company Test](#)

New Action

Name	Campaign	Start Date	End Date	Status	LOAD	START	STOP	Data Source	
ACTION_AVAYA_1	AVAYA_CAMPAIGN	04.01.2012	27.01.2012	Initiated	<input type="button" value="LOAD"/>	<input type="button" value="START"/>	<input type="button" value="STOP"/>	<input type="button" value="Data Source"/>	
ACTION_AVAYA_2	AVAYA_CAMPAIGN	04.01.2012	27.01.2012	Running	<input type="button" value="LOAD"/>	<input type="button" value="START"/>	<input type="button" value="STOP"/>	<input type="button" value="Data Source"/>	
ACTION_AVAYA_3	AVAYA_CAMPAIGN	05.01.2012	07.01.2012	Ready	<input type="button" value="LOAD"/>	<input type="button" value="START"/>	<input type="button" value="STOP"/>	<input type="button" value="Data Source"/>	

8.3.2. Verify Action Statistics

Click on **Monitoring** → **Real Time Monitor**, verify statistics reflect current activity.



The screenshot shows the Avaya DevConnect interface. At the top left is the Avaya logo and 'DEVCONNECT'. At the top right is the 'PARTNER TECHNOLOGY VACATIO OCM' logo. Below the header is a navigation bar with 'Campaign Management', 'Data Source', 'Monitoring', and 'Company Test'. The main content area is titled 'Real Time Statistics Monitor' and contains a table with the following data:

Campaign Name	Action Name	Statistics Type	Value
AVAYA_CAMPAIGN	ACTION_AVAYA_1	Total Number of Calls Scheduled	2
AVAYA_CAMPAIGN	ACTION_AVAYA_1	Total Number of Calls Answered	2
AVAYA_CAMPAIGN	ACTION_AVAYA_1	Total Number of Records to call	4
AVAYA_CAMPAIGN	ACTION_AVAYA_1	Number of Active Calls	0
AVAYA_CAMPAIGN	ACTION_AVAYA_1	Total Number of Calls Unanswered	2

8.3.3. Verify TSCS Service Status

From the Debian shell, navigate to `/vacatio/tscs/resource` and execute the `./cli.sh` command. At the prompt enter the `status` command and verify **ServerStatus:RUNNING** as shown below.

```
root@avayatest:~# cd /vacatio/tscs/resource/  
root@avayatest:/vacatio/tscs/resource# ./cli.sh  
>>status  
>>ServerStatus:RUNNING  
>>  
>>
```

8.3.4. Verify TSCS Trunks Status

At the same prompt, enter the **trunks** command, verify trunks status are **IDLE** or **IN_USE** accordingly.

```
>>trunks
>>Pbx Id      Extension      Status      Company Id    Action Id
-----
      10         1852         IDLE         0             0
      10         1851         IDLE         0             0
      10         1850         IDLE         0             0
      10         1854         IDLE         0             0
      10         1853         IN_USE       0             0
```

9. Conclusion

These Application Notes describe the configuration steps required for the Partner Teknoloji Outbound Campaign Management solution to successfully interoperate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services. All functionality and serviceability test cases were completed successfully with observations noted in **Section 2.2**.

10. Additional References

Product documentation for Avaya products may be found at <http://support.avaya.com>

- [1] Administering Avaya Aura® Communication Manager – Release 6.0, Issue 6.0, June 2010

Product documentation for Partner Teknoloji Products can be found at <http://www.partnerteknoloji.com.tr>

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