



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

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# **Application Notes for etalk Qfiniti Trunk Side Recording with Avaya Communication Manager using Avaya Application Enablement Services – Issue 1.0**

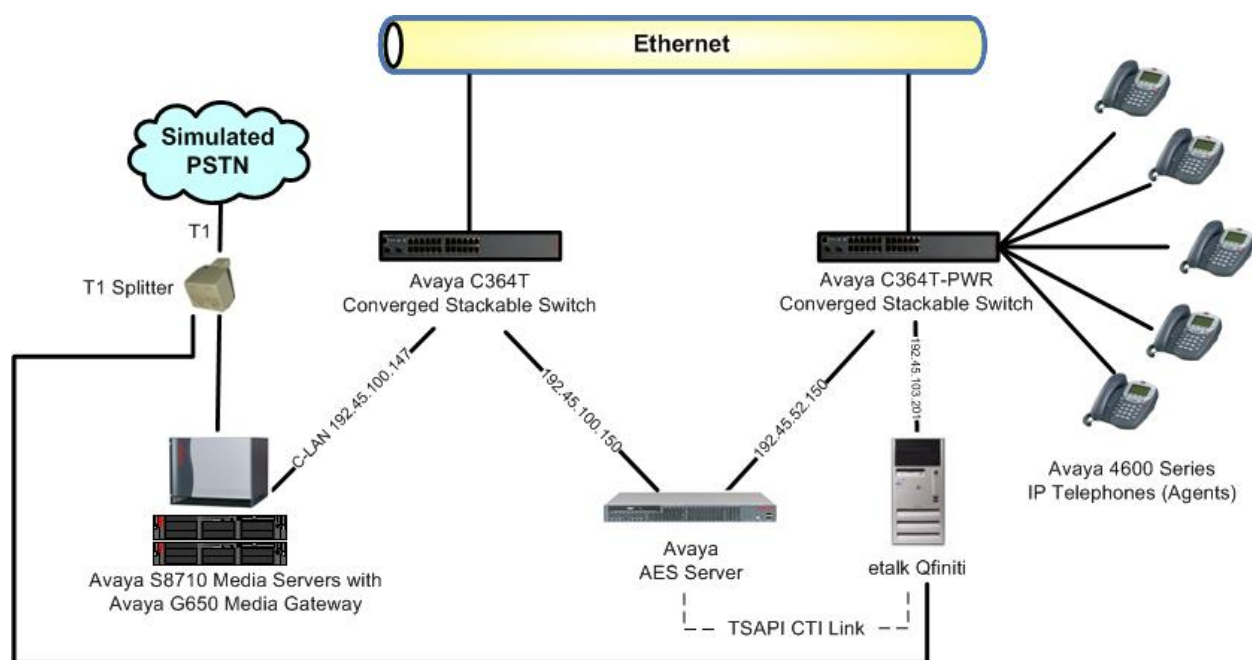
### **Abstract**

These Application Notes describe the configuration steps required for the etalk Qfiniti trunk side recording solution to successfully interoperate with Avaya Communication Manager using Avaya Application Enablement Services. Information in these Application Notes has been obtained through compliance testing and additional technical discussions. Testing was conducted via the Developer*Connection* Program at the Avaya Solution and Interoperability Test Lab.

# 1. Introduction

etalk Qfiniti provides a number of quality assurance call recording solutions for call centers. With the trunk side recording solution, Qfiniti utilizes a trunk side passive tap method to record all calls over the tapped T1 trunks, and associates the recorded calls with agents through the use of CTI event reports from Avaya Communication Manager.

The CTI integration with Avaya Communication Manager is achieved through the Application Enablement Services (AES) Telephony Services Application Programming Interface (TSAPI) service, as illustrated below.



As shown in the configuration above, the T1 trunk tapping is accomplished by using a T1/E1 splitter between the PSTN and Avaya Communication Manager. All voice and data over the tapped T1 trunks are replicated and forwarded to the Qfiniti server. The Qfiniti server utilizes an AiLogix T1/E1 passive tap card with high impedance inputs to monitor and to signal the recording of all inbound and outbound calls. The calls are associated with the proper agents through the use of CTI event reports obtained from the Avaya AES server on the monitored agents.

Although capable of recording outbound traffic, the Qfiniti trunk side recording is typically used as an inbound application. Outbound recording can occur when a monitored agent makes an outbound call in the attempt to transfer the inbound call.

## 2. Equipment and Software Validated

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

Equipment	Software
Avaya S8710 Media Servers	Communication Manager 3.0.1, load 346.0
Avaya MCC1 Media Gateway <ul style="list-style-type: none"><li>• TN799DP C-LAN Circuit Pack</li><li>• TN2302AP IP Media Processor Circuit Pack</li><li>• TN464GP DS1 Interface</li></ul>	HW01 FW016 HW20 FW108 HW02 FW018
Avaya Application Enablement Services	3.0, build 50.1
Avaya C364T-PWR Converged Stackable Switch	4.5.14
Avaya C364T Converged Stackable Switch	4.3.12
Avaya 4600 Series IP Telephones	2.3 (4602SW, 4610SW, 4620SW) 2.5 (4625SW)
etalk Qfiniti server on Compaq 320 <ul style="list-style-type: none"><li>• AiLogix DP Card with Smartworks</li></ul>	3.0 SP2 with Hot Fix 17839 Windows 2003 SP1 3.5.2

## 3. Configure Avaya Communication Manager

This section provides the procedures for configuring Avaya Communication Manager. The procedures fall into the following areas:

- Administer IP node name for C-LAN
- Administer IP interface for C-LAN
- Administer data module for C-LAN
- Administer IP services for AES transport link
- Administer CTI link for TSAPI service
- Administer DS1 circuit pack
- Administer ISDN trunk group
- Administer ISDN signaling group
- Administer ISDN trunk group members

The detailed administration of contact center devices, such as VDN, Skill, Logical Agents and Station Extensions are assumed to be in place and are not covered in these Application Notes.

### 3.1. Administer IP Node Name for C-LAN

Use the “change node-names ip” command, and add an entry for the C-LAN that will be used for connectivity to the AES server. In this case, “CLAN-1A06” and “192.45.100.147” are entered as **Name** and **IP Address**. The actual node name and IP address may vary. Submit these changes.

change node-names ip		Page 1 of 1	
IP NODE NAMES			
Name	IP Address	Name	IP Address
CCS	192.45 .51 .155	.	.
CLAN-1A02	192.45 .100.144	.	.
CLAN-1B02	192.45 .100.155	.	.
MEDPRO-1A03	192.45 .103.145	.	.
MEDPRO-1A13	192.45 .103.148	.	.
MEDPRO-1B03	192.45 .103.156	.	.
MEDPRO-1B13	192.45 .103.157	.	.
default	0 .0 .0 .0	.	.
<b>CLAN-1A06</b>	<b>192.45 .100.147</b>	.	.

### 3.2. Administer IP Interface for C-LAN

Add the C-LAN to the system configuration using the “add ip-interface 1a06” command. Note that the actual slot number may vary. In this case, “1a06” is used as the slot number. Enter the C-LAN node name assigned from **Section 3.1** into the **Node Name** field. The **IP Address** field will be populated automatically.

Enter proper values for the **Subnet Mask** and **Gateway Address** fields. In this case, “255.255.255.0” and “192.45.100.1” are used to correspond to the network configuration in these Application Notes. Set the **Enable Ethernet Port** field to “y”, and use a separate **Network Region** for the C-LAN dedicated for AES connectivity. Default values may be used in the remaining fields. Submit these changes.

add ip-interface 1a06	
IP INTERFACES	
Type: C-LAN	
Slot: 01A06	
Code/Suffix: TN799 D	
Node Name: CLAN-1A06	
IP Address: 192.45 .100.147	
Subnet Mask: 255.255.255.0	
Gateway Address: 192.45 .100.1	
Enable Ethernet Port? y	
Network Region: 2	
VLAN: n	
Number of CLAN Sockets Before Warning: 400	
Receive Buffer TCP Window Size: 8320	
ETHERNET OPTIONS	
Auto? y	

### 3.3. Administer Data Module for C-LAN

Add a new data module using the “add data-module n” command, where “n” is an available extension. Enter the following values:

- **Name:** A descriptive name.
- **Type:** “ethernet”
- **Port:** Same slot number from **Section 3.2** above and port “17”.
- **Link:** An available link number.

```
add data-module 2003
                                DATA MODULE

Data Extension: 2003           Name: clan-1a06
      Type: ethernet
      Port: 01A0617
      Link: 3
```

Network uses 1's for Broadcast Addresses? y

### 3.4. Administer IP Services for AES Transport Link

Administer the transport link to the AES server with the “change ip-services” command. Add an entry with the following values for fields on **Page 1**:

- **Service Type:** “AESVCS”
- **Enabled:** “y”
- **Local Node:** C-LAN node name from **Section 3.1**.
- **Local Port:** Retain the default value of “8765”.

```
change ip-services
Page 1 of 3

Service      Enabled      Local      IP SERVICES
Type          n           Node      Local      Remote      Remote
              y           Node      Port      Node      Port
AESVCS        n           CLAN-1A02 8765
SAT           y           CLAN-1A02 5023      any        0
AESVCS        n           clan-1a05-AES2 8765
AESVCS        n           CLAN-1B02 8765
AESVCS      y         CLAN-1A06 8765
```

Proceed to **Page 3**, and enter the following values:

- **AE Services Server:** Name obtained from the AES server, in this case “AES-DevCon1”.
- **Password:** Same password to be administered on the AES server.
- **Enabled:** “y”

Note that the name and password entered for the **AE Services Server** and **Password** fields are case sensitive, and must match the name and password on the AES server. The administered name for the AES server 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. The same password entered in the screen below will need to be set on the AES server, as described in **Section 4.3**.

change ip-services				Page	3 of	3
AE Services Administration						
Server ID	AE Services	Password	Enabled	Status		
	Server					
1:	AES-DevCon2	*	y	idle		
2:	AES-Demo	*	y	idle		
3:	<b>AES-DevCon1</b>	*	<b>y</b>			
4:						

### 3.5. Administer CTI Link for TSAPI Service

Add a CTI link using the “add cti-link n” command, where “n” is an available CTI link number. Enter an available extension number in the **Extension** field. Note that the CTI link number and extension number may vary. Enter “ADJ-IP” in the **Type** field, and a descriptive name in the **Name** field. Default values may be used in the remaining fields. Submit these changes. The CTI link number will be used to administer the TSAPI link on the AES server in **Section 4.4**.

add cti-link 2		Page 1 of 2	
CTI LINK			
CTI Link: 2			
Extension: 2002			
Type: ADJ-IP			
		COR: 1	
Name: AES-DevCon1 TSAPI/JTAPI			

### 3.6. Administer DS1 Circuit Pack

Administer a DS1 circuit pack to be used for connectivity to the PSTN. Use the “add ds1 1a07” command. Note that the actual slot number may vary. In this case “1a07” is used as the slot number.

The following shows the settings used for the compliance testing. The PSTN connection is simulated by connecting the DS1 circuit pack, configured with ISDN T1 service, to a PBX that provides access to the PSTN. Set the **Line Coding** field to “b8zs”, and the **Framing Mode** field to “esf”, as these are required for interoperability with Qfiniti. The remaining field values may be modified as necessary to reflect the actual network configuration.

add ds1 1a07		Page 1 of 2
DS1 CIRCUIT PACK		
Location: 01A07	Name: T1 PRI to G3r1	
Bit Rate: 1.544	<b>Line Coding: b8zs</b>	
Line Compensation: 1	<b>Framing Mode: esf</b>	
Signaling Mode: isdn-pri		
Connect: pbx	Interface: user	
TN-C7 Long Timers? n	Country Protocol: 1	
Interworking Message: PROGress	Protocol Version: a	
Interface Companding: mulaw	CRC? n	
Idle Code: 11111111		
DCP/Analog Bearer Capability: 3.1kHz		
T303 Timer(sec): 4		
Slip Detection? n	Near-end CSU Type: other	

### 3.7. Administer ISDN Trunk Group

Administer an ISDN trunk group to interface with the PSTN. Use the “add trunk-group n” command, where “n” is an available trunk group number.

The following shows the settings used for the compliance testing. Set the **Group Type** field to “isdn”, and the **Carrier Medium** field to “PRI/BRI”, as these are required for interoperability with Qfiniti. The remaining field values may be modified as necessary to reflect the actual network configuration.

add trunk-group 6		Page 1 of 20
TRUNK GROUP		
Group Number: 6	Group Type: isdn	CDR Reports: y
Group Name: T1 ISDN-PRI trunks	COR: 1	TN: 1 TAC: 106
Direction: two-way	Outgoing Display? n	Carrier Medium: PRI/BRI
Dial Access? y	Busy Threshold: 255	Night Service:
Queue Length: 0		
Service Type: tie	Auth Code? n	TestCall ITC: rest
	Far End Test Line No:	
TestCall BCC: 4		
TRUNK PARAMETERS		
Codeset to Send Display: 6	Codeset to Send National IEs: 6	
Max Message Size to Send: 260	Charge Advice: none	
Supplementary Service Protocol: a	Digit Handling (in/out): enbloc/enbloc	
Trunk Hunt: cyclical		
	Digital Loss Group: 13	
Incoming Calling Number - Delete:	Insert:	Format:
Bit Rate: 1200	Synchronization: async	Duplex: full
Disconnect Supervision - In? y Out? n		
Answer Supervision Timeout: 0		

### 3.8. Administer ISDN Signaling Group

Administer an ISDN signaling group for the newly added trunk group to use for signaling. Use the “add signaling-group n” command, where “n” is an available signaling group number. For the **Primary D-Channel** field, enter the slot number for the DS1 circuit pack from **Section 3.6** and port “24”. For network configurations using the ISDN E1 service, use port “16” instead of “24” for the **Primary D-Channel** field, as the signaling port is “16” for E1 and “24” for T1.

For the **Trunk Group for Channel Selection** field, enter the ISDN trunk group number from **Section 3.7**. Maintain the default values for the remaining fields, and submit these changes.

add signaling-group 6		Page 1 of 5
SIGNALING GROUP		
Group Number: 6	Group Type: isdn-pri	
Associated Signaling? y	Max number of NCA TSC: 0	
Primary D-Channel: 01A0724	Max number of CA TSC: 0	
	Trunk Group for NCA TSC:	
Trunk Group for Channel Selection: 6		
Supplementary Service Protocol: a		



### 3.9. Administer ISDN Trunk Group Members

Use the “change trunk-group n” command, where “n” is the trunk group number added in **Section 3.7**. Navigate to **Page 4** of the **TRUNK GROUP** screen. Enter all 23 ports of the DS1 circuit pack into the **Port** fields, and the corresponding **Code** and **Sfx** fields will be populated automatically. For network configurations using ISDN E1 service, enter all 30 ports of the DS1 circuit pack into the Port fields. Enter the ISDN signaling group number from **Section 3.8** into the **Sig Grp** fields as shown below. Submit these changes.

change trunk-group 6				Page 4 of 20	
				TRUNK GROUP	
				Administered Members (min/max): 0/0	
GROUP MEMBER ASSIGNMENTS				Total Administered Members: 0	
	Port	Code	Sfx	Name	Sig Grp
1:	01A0701	TN464	G		6
2:	01A0702	TN464	G		6
3:	01A0703	TN464	G		6
4:	01A0704	TN464	G		6
5:	01A0705	TN464	G		6
6:	01A0706	TN464	G		6
7:	01A0707	TN464	G		6
8:	01A0708	TN464	G		6
9:	01A0709	TN464	G		6
10:	01A0710	TN464	G		6
11:	01A0711	TN464	G		6
12:	01A0712	TN464	G		6
13:	01A0713	TN464	G		6
14:	01A0714	TN464	G		6
15:	01A0715	TN464	G		6

change trunk-group 6				Page 5 of 20	
				TRUNK GROUP	
				Administered Members (min/max): 0/0	
GROUP MEMBER ASSIGNMENTS				Total Administered Members: 0	
	Port	Code	Sfx	Name	Sig Grp
16:	01A0716	TN464	G		6
17:	01A0717	TN464	G		6
18:	01A0718	TN464	G		6
19:	01A0719	TN464	G		6
20:	01A0720	TN464	G		6
21:	01A0721	TN464	G		6
22:	01A0722	TN464	G		6
23:	01A0723	TN464	G		6
24:					

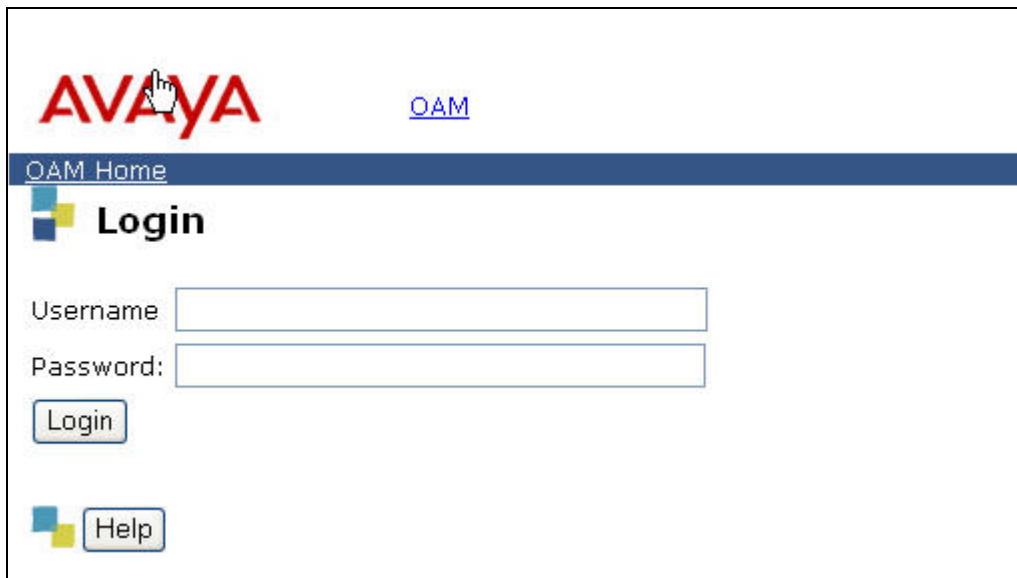
## 4. Configure Avaya Application Enablement Services

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

- Verify Avaya Application Enablement Services License
- Administer local IP
- Administer switch connection
- Administer TSAPI link
- Obtain Tlink name
- Administer Qfiniti user

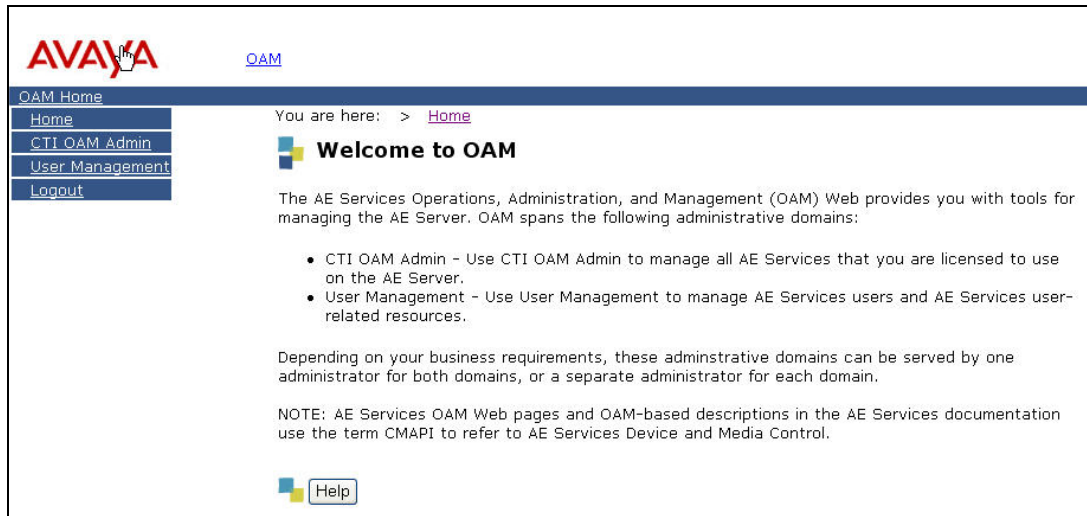
### 4.1. Verify Avaya Application Enablement Services License

Access the AES OAM web based interface by using the URL “https://ip-address:8443/MVAP” in an Internet browser window, where “ip-address” is the IP address of the AES server. The **Login** screen is displayed as shown below. Note that the AES OAM includes two separate administrative accounts, one to access CTI OAM Admin and a separate one to access User Management. Log in using the CTI OAM Admin user and password.

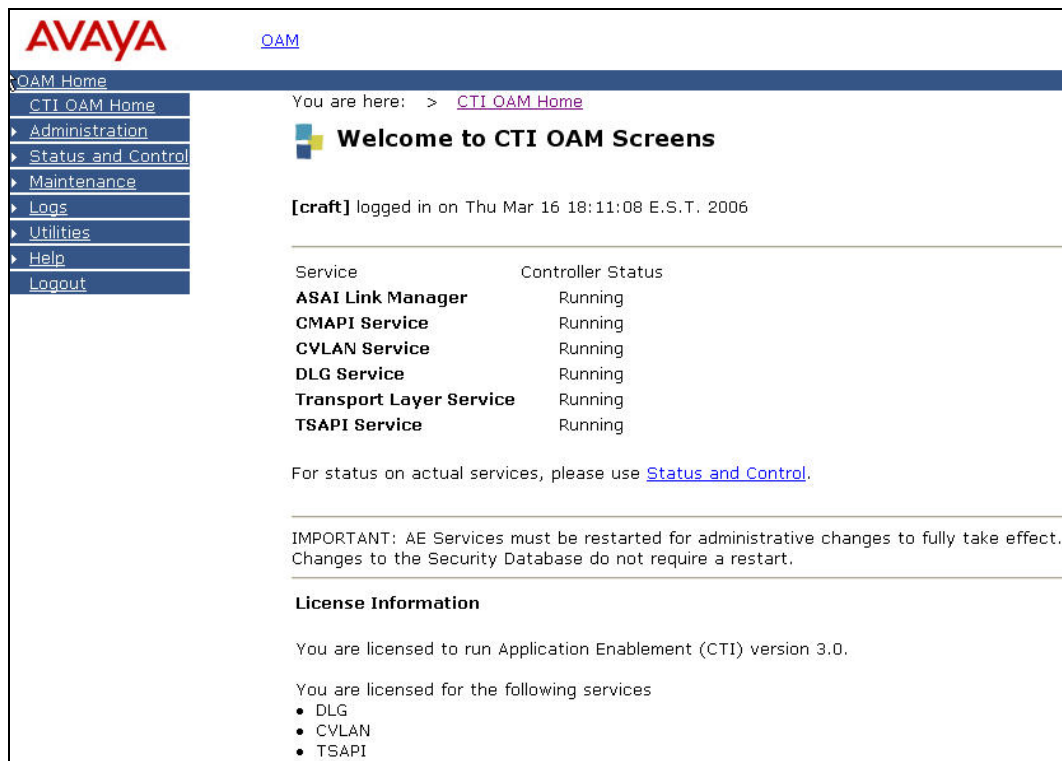


The screenshot shows the Avaya OAM login interface. At the top left is the red 'AVAYA' logo with a mouse cursor pointing at it. To its right is a blue link labeled 'OAM'. Below these is a dark blue horizontal bar with the text 'OAM Home' in white. Underneath the bar, on the left, is a small blue and yellow square icon followed by the word 'Login' in bold. The main area contains two input fields: 'Username' and 'Password:', each followed by a text box. Below the password field is a 'Login' button. At the bottom left, there is another small blue and yellow square icon followed by a 'Help' button.

The **Welcome To OAM** screen is displayed, as shown below. Select **OAM Home -> CTI OAM Admin** from the left pane.



The **Welcome to CTI OAM Screens** is displayed. Verify that the Avaya Application Enablement Services license has proper permissions for the features illustrated in these Application Notes by ensuring the TSAPI service is licensed, as shown in the bottom of the screen below. If the TSAPI service is not licensed, contact the Avaya sales team or business partner for a proper license file.



## 4.2. Administer Local IP

From the **CTI OAM Home** menu in the left pane, select **Administration > Local IP**. The **Local IP** screen is displayed, as shown below. In the **Client Connectivity** field, select the IP address that corresponds to the NIC card in the AES server that will be used to connect to etalk Qfiniti. In the **Switch Connectivity** field, select the IP address that corresponds to the NIC card that will be used to connect to Avaya Communication Manager. Click on **Apply Changes**.

The screenshot shows the Avaya OAM interface. The left navigation pane includes links for OAM Home, CTI OAM Home, Administration (expanded), Local IP (selected), Ports, Switch Connections, CTI Link Admin, CMAPI Configuration, TSAPI Configuration, Security Database, Status and Control, Maintenance, Logs, Utilities, Help, and Logout. The main content area shows the breadcrumb 'You are here: > Administration > Local IP' and the title 'Local IP'. There are three dropdown menus: 'Client Connectivity' set to 'eth0:192.45.52.150', 'Switch Connectivity' set to 'eth1:192.45.100.150', and 'Media Connectivity' set to 'Any'. An 'Apply Changes' button is located below these fields. A 'Help' button is at the bottom left of the main area.

## 4.3. Administer Switch Connection

From the **CTI OAM Home** menu in the left pane, select **Administration > Switch Connections**. The **Switch Connections** screen is displayed, as shown below. Enter a descriptive name for the switch connection and click on **Add Connection**. In this case, “S8710” is used. Note that the actual switch connection name may vary.

The screenshot shows the Avaya OAM interface for the 'Switch Connections' screen. The left navigation pane is the same as in the previous screenshot, with 'Switch Connections' selected under 'Administration'. The main content area shows the breadcrumb 'You are here: > Administration > Switch Connections' and the title 'Switch Connections'. There is a text input field containing 'S8710' and an 'Add Connection' button. Below this, there are four buttons: 'Edit Connection', 'Edit CLAN IPs', 'Edit H.323 Gatekeeper', and 'Delete Connection'. The text 'Connection Name' is positioned above the first three buttons, and 'Number of Active Connections' is positioned above the 'Delete Connection' button.

Next, the **Set Password – S8710** screen is displayed. Enter the same password that was administered in the Avaya Communication Manager **IP SERVICES** screen from **Section 3.4**, and re-enter the same password in the **Confirm Switch Password** field. Note that the default value of checked may be retained for the **SSL** field. Had the switch been an Avaya DEFINITY Server G3csi, the **SSL** field would need to be unchecked. Click on **Apply**.

The screenshot shows the Avaya OAM interface. The left sidebar contains a navigation menu with options: OAM Home, CTI OAM Home, Administration (selected), Local IP, Ports, Switch Connections, CTI Link Admin, CMAPI Configuration, TSAPI Configuration, Security Database, Status and Control, and Maintenance. The main content area is titled 'Set Password - S8710'. It includes a breadcrumb trail: 'You are here: > Administration > Switch Connections'. Below the title, there are two password input fields labeled 'Switch Password' and 'Confirm Switch Password', both containing masked text (asterisks). An 'SSL' checkbox is checked. A note states: 'Please note that changing the password affects only new connections, not open connections.' At the bottom, there are 'Apply' and 'Cancel' buttons.

The **Switch Connections** screen is displayed next, as shown below. Select the newly added switch connection name from the listing, and click on **Edit CLAN IPs**. In this case, “S8710” is the only switch connection that exists.

The screenshot shows the Avaya OAM interface. The left sidebar is the same as in the previous screenshot. The main content area is titled 'Switch Connections'. It includes a breadcrumb trail: 'You are here: > Administration > Switch Connections'. Below the title, there is a text input field and an 'Add Connection' button. Below this is a table with two columns: 'Connection Name' and 'Number of Active Connections'. The table contains one entry: 'S8710' with '0' active connections. Below the table, there are four buttons: 'Edit Connection', 'Edit CLAN IPs' (highlighted with a dashed border), 'Edit H.323 Gatekeeper', and 'Delete Connection'.

The **Edit CLAN IPs – S8710** screen is displayed next. Enter the host name or IP address of the C-LAN used for AES connectivity from **Section 3.1**. In this case, “192.45.100.147” is used. Click on **Add Name or IP**.

#### 4.4. Administer TSAPI Link

To administer a TSAPI link, select **Administration > CTI Link Admin > TSAPI Links** from the **CTI OAM Home** menu in the left pane. The **TSAPI Links** screen is displayed, as shown below. Click on **Add Link**.

The **Add/Edit TSAPI Links** screen is displayed next. The **Link** field is only local to the AES server, and may be set to any available number. Select the following values, and click on **Apply Changes**.

- **Link:** Select an available link number from the drop down list.
- **Switch Connection:** Name of switch connection from **Section 4.3**.
- **Switch CTI Link Number:** CTI link number from **Section 3.5**.

AVAYA OAM

OAM Home

CTI OAM Home

Administration

Local IP

Ports

Switch Connections

CTI Link Admin

TSAPI Links

CVLAN Links

DLG Links

CMAPI Configuration

TSAPI Configuration

Security Database

You are here: > Administration > CTI Link Admin > TSAPI Links

**Add / Edit TSAPI Links**

Link: 1

Switch Connection: S8710

Switch CTI Link Number: 2

Apply Changes Cancel Changes

## 4.5. Obtain Tlink Name

From the **CTI OAM Home** menu in the left pane, select **Administration > Security Database > Tlinks**. The **Tlinks** screen shows a listing of the Tlink names. A new Tlink name is automatically generated by the AES server, upon creation of a new switch connection. Locate the Tlink Name associated with the newly created switch connection, which would utilize the name of the switch connection as part of the Tlink name. Make a note of the associated Tlink name, to be used later for configuring the Qfiniti server.

In this case, only one Tlink name exists, as there is only one switch connection in the system. Note the use of the switch connection name “S8710” from **Section 4.3** as part of the Tlink name “AVAYA#S8710#CSTA#AES-DEVCON1”.

AVAYA OAM

OAM Home

CTI OAM Home

Administration

Local IP

Ports

Switch Connections

CTI Link Admin

CMAPI Configuration

TSAPI Configuration

Security Database

CTI Users

Worktops

Devices

Device Groups

Tlinks

Tlink Groups

You are here: > Administration > Security Database > Tlinks

**Tlinks**

Tlink Name

AVAYA#S8710#CSTA#AES-DEVCON1

Edit Tlink Delete Tlink



## 4.6. Administer Qfiniti User

Select **OAM Home > User Management** from the left pane to display the same **Login** screen from **Section 4.1**. Log in using the User Management user name and password, and the same **Welcome To OAM** screen from **Section 4.1** is displayed.

To create the Qfiniti user on AES, from the **User Management Home** menu on the left pane, select **User Management > Add User**. The **Add User** screen is displayed as shown below. Enter the following values, and click on **Apply** at the bottom of the screen (**Apply** button not shown below).

- **User Id:** A descriptive user id for the Qfiniti user. In this case “test”.
- **Common Name:** A common name for the Qfiniti user.
- **Surname:** A surname for the Qfiniti user.
- **User Password:** A password for the Qfiniti user.
- **Confirm Password:** Re-enter the same password for the Qfiniti user.
- **Avaya Role:** Retain the default value of “None”.
- **CT User:** Select “Yes” from the drop down list.

**AVAYA** [OAM](#)

OAM Home

User Management Home

▼ User Management

[List All Users](#)

[Add User](#)

[Search Users](#)

[Modify Default User](#)

[Change User Password](#)

► Service Management

► Help

[Logout](#)

You are here: > [User Management](#) > [Add User](#)

**Add User**

Fields marked with \* can not be empty.

\* User Id

\* Common Name

\* Surname

\* User Password

\* Confirm Password

Admin Note

Avaya Role

Business Category

Car License

CM Home

Cms Home

CT User



Select **OAM Home > CTI OAM Admin** from the left plane (not shown) to display the **Login** screen again. Log in using the CTI OAM Admin user name and password, and the **Welcome to OAM** screen from **Section 4.1** is displayed. Bring up the **Welcome to CTI OAM Screens** by following the procedural steps described in **Section 4.1**.

From the **CTI OAM Home** menu in the left pane, select **Administration > Security Database > CTI Users > List All Users**. The **CTI Users** screen shows a listing of all CTI users. Select the Qfiniti user created above, and click on **Edit**.

The screenshot shows the AVAYA OAM interface. The left navigation pane is expanded to 'CTI Users' under 'Security Database'. The main area is titled 'CTI Users' and displays a table of users. The breadcrumb trail is 'You are here: > Administration > Security Database > CTI Users > List All Users'. Below the table are 'Edit' and 'List All' buttons.

	User ID	Common Name	Worktop Name	Device ID
<input checked="" type="radio"/>	test	test	NONE	NONE
<input type="radio"/>	test2	test2	NONE	NONE

The **Edit CTI User** screen is displayed next, as shown below. For test convenience, unrestricted access was given to the Qfiniti user. If unrestricted access is not desired, consult the AES documentation in **Section 10** for guidance on configuring the privileges. Click on **Apply Changes**.

The screenshot shows the 'Edit CTI User' screen in the AVAYA OAM interface. The left navigation pane is expanded to 'List All Users' under 'CTI Users'. The main area is titled 'Edit CTI User' and contains various configuration fields for the selected user 'test'. The breadcrumb trail is 'You are here: > Administration > Security Database > CTI Users > List All Users'. At the bottom are 'Apply Changes' and 'Cancel' buttons.

User ID: test  
 Common Name: test  
 Worktop Name: NONE  
 Unrestricted Access: Enable  
 Call Origination and Termination: All  
 Device / Device: All  
 Call / Device: All  
 Call / Call: ☒  
 Allow Routing on Listed Device: None

## 5. Configure etalk Qfiniti

This section provides the procedures for configuring etalk Qfiniti. The procedures fall into the following areas:

- Administer general settings
- Administer cross system equipment
- Administer remaining general settings
- Start Qfiniti service
- Administer desktop

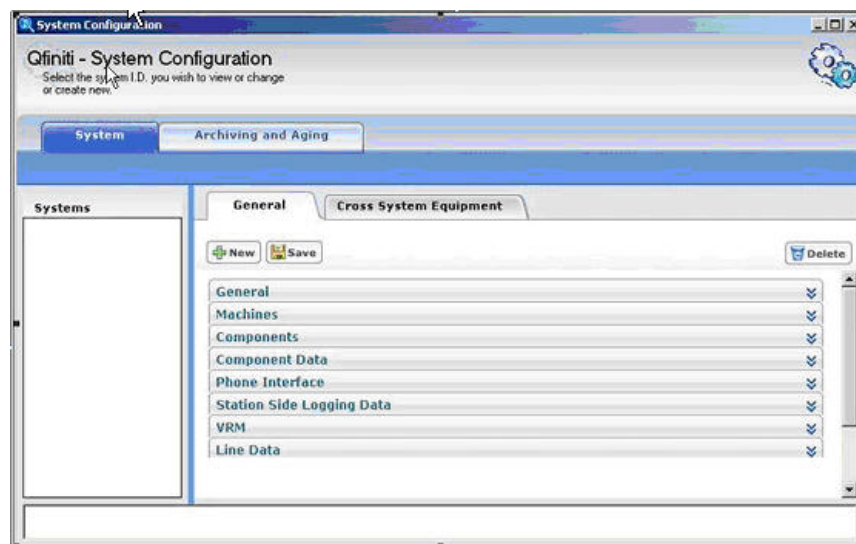
Note that configuration of etalk Qfiniti is typically performed by etalk technicians or certified third party vendors. The procedural steps are presented in these Application Notes for informational purposes. Qfiniti can be configured on a single server or with components distributed across multiple servers. For ease of compliance testing, the configuration used a single server hosting all components.

### 5.1. Administer General Settings

From the etalk Qfiniti server, bring up the system configuration interface by double clicking on the **System Configuration** icon shown below. Log in with the appropriate credentials.

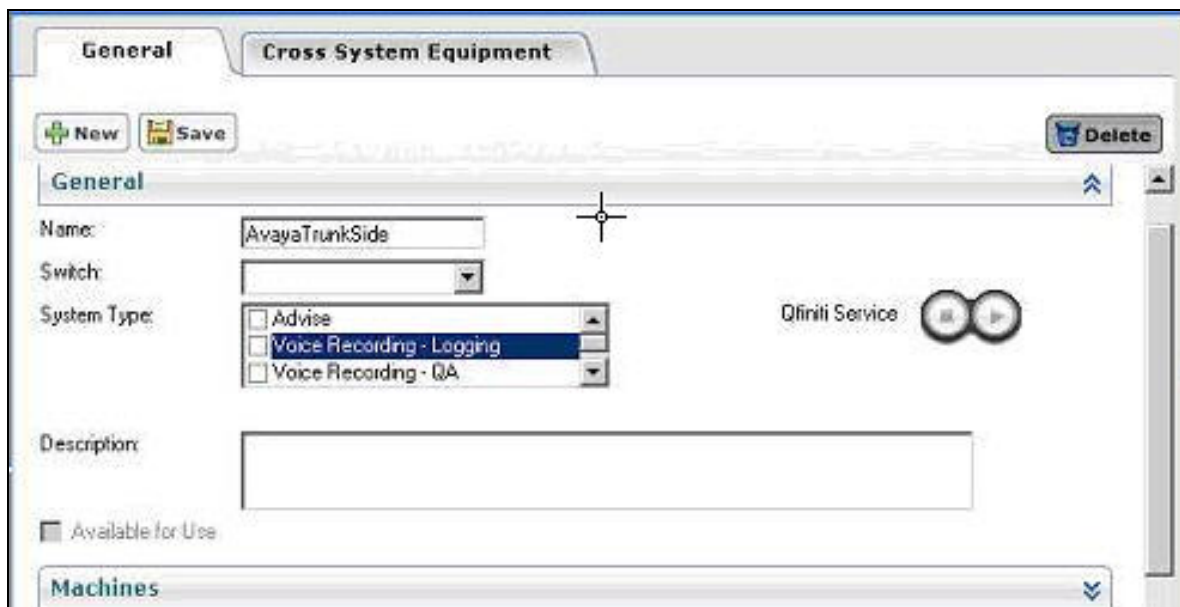


The **System Configuration** screen is displayed, as shown below. Select the **General** tab, and notice the areas listed in the right pane, which will need to be administered in stages. Expand the **General** area first by clicking on the corresponding arrow.



### 5.1.1. Administer General General

The expanded **General** area is displayed into the right pane, as shown below. In the **Name** field, enter a desirable name for the application. In this case, “AvayaTrunkSide” is used.



General Cross System Equipment

New Save Delete

General

Name: AvayaTrunkSide

Switch: [Dropdown]

System Type: [Dropdown]  
[ ] Advise  
[X] Voice Recording - Logging  
[ ] Voice Recording - QA

Qfiniti Service [Icon]

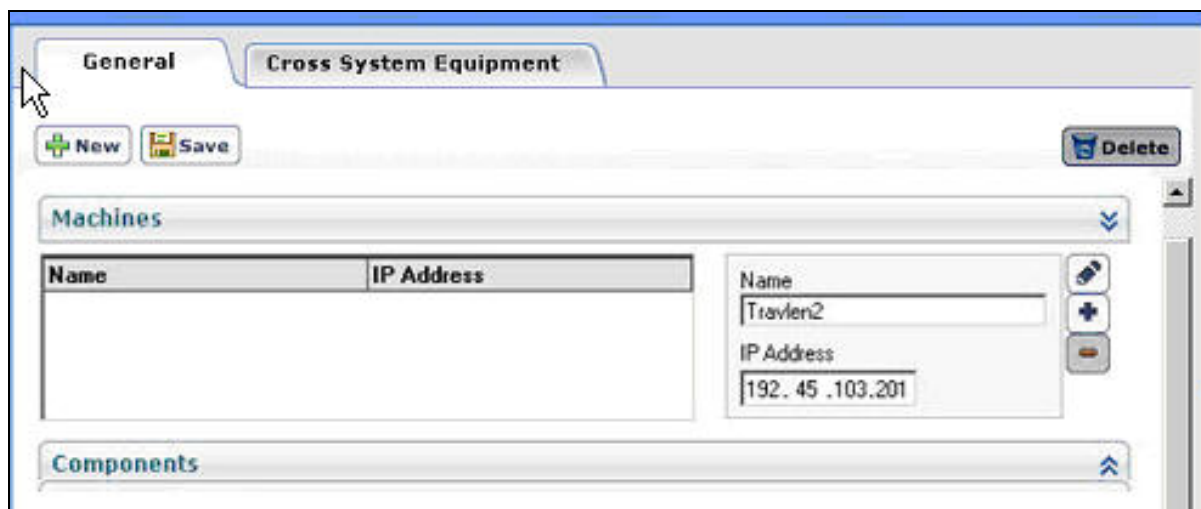
Description: [Text Area]

[ ] Available for Use

Machines [Dropdown]

### 5.1.2. Administer General Machines

Expand the **Machines** area next by clicking on the corresponding arrow. Scroll down the right pane as necessary to view the entire area, as shown below. Click on the **Pencil** icon to enable field input. In the **Name** field, enter a descriptive host name for the Qfiniti server. In the **IP Address** field, enter an available IP address for the Qfiniti server for the network configuration. In this case, “Travlen2” and “192.45.103.201” are used. Click on the **Plus** icon to add these settings. Click on **Save**, located toward the top of the screen, to save all settings.



General Cross System Equipment

New Save Delete

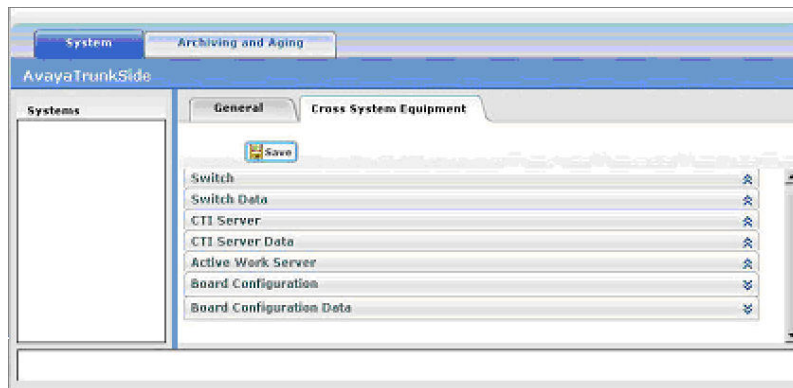
Machines [Dropdown]

Name	IP Address
Travlen2	192.45.103.201

Components [Dropdown]

## 5.2. Administer Cross System Equipment

Select the **Cross System Equipment** tab from the top of the screen, and notice the areas listed in the right pane, which will need to be administered. Expand the **Switch** area first by clicking on the corresponding arrow.

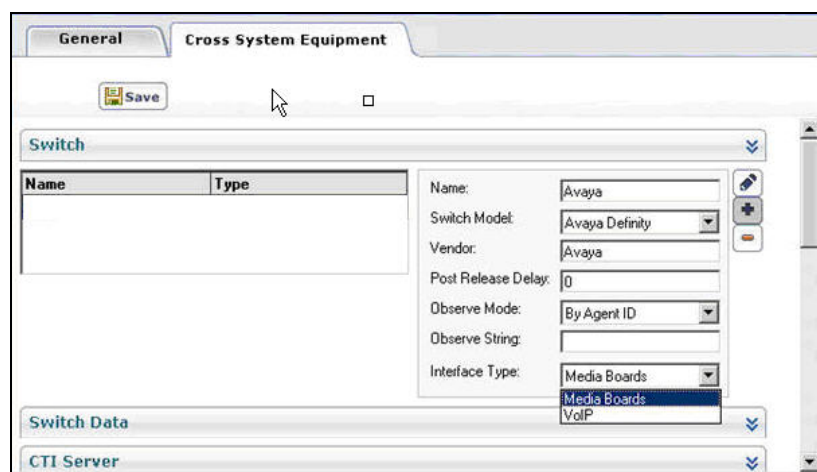


### 5.2.1. Administer Cross System Equipment Switch

The expanded **Switch** area is displayed into the right pane, as shown below. Click on the **Pencil** icon to enable field input. Enter the following values, and click on the **Plus** icon at the end to add these settings.

- **Name:** A descriptive switch name. In this case “Avaya”.
- **Switch Model:** Select “Avaya Definity” from the drop down list.
- **Vendor:** A descriptive vendor name. In this case “Avaya”.
- **Post Release Delay:** Maintain the default value of “0”.
- **Observe Mode:** Select “By Agent ID” from the drop down list.
- **Interface Type:** Select “Media Boards” from the drop down list.

Next, maintain the default values in the **Switch Data** area, and proceed to expand the **CTI Server** area by clicking on the corresponding arrow.



### 5.2.2. Administer Cross System Equipment CTI Server

The expanded **CTI Server** area is displayed. Scroll down the right pane as necessary to view the entire area, as shown below. Click on the **Pencil** icon to enable field input. Enter a descriptive CTI server name into the **Name** field. In this case, “CTI1” is used. Select “Avaya CT” from the **Type** drop down list. Select the switch name administered in **Section 5.2.1** from the **Available Switch** drop down list. Click on the **Plus** icon to add these settings.

The screenshot shows a software interface with two tabs: 'General' and 'Cross System Equipment'. The 'Cross System Equipment' tab is active. At the top left of the main area is a 'Save' button. Below it is a section titled 'CTI Server' with a downward arrow. This section contains a table with two columns: 'Name' and 'Type'. To the right of the table are three input fields: 'Name:' with the value 'CTI1', 'Type:' with a dropdown menu showing 'Avaya CT', and 'Available Switch:' with a dropdown menu showing 'Avaya'. To the right of these fields are three icons: a pencil (edit), a plus sign (add), and a minus sign (remove). Below the 'CTI Server' section is another section titled 'CTI Server Data' with an upward arrow.

Name	Type
------	------

Name: CTI1  
Type: Avaya CT  
Available Switch: Avaya

### 5.2.3. Administer Cross System Equipment CTI Server Data

Expand the **CTI Server Data** area by clicking on the corresponding arrow. Scroll down the right pane as necessary to view the entire area, as shown below. Enter the following values into the specified fields, and maintain the default value for all remaining fields. Recall from **Section 4.5** that the corresponding Tlink name generated by the AES server for the new switch connection is “AVAYA#S8710#CSTA#AES-DEVCON1”. This value is used to administer several fields “<Vendor>#<Driver>#<Service>#<ServerName>”. Enter the following:

- **Available CTI Server:** Select the CTI server name from **Section 5.2.2**.
- **ServerName:** AES server host name from the corresponding Tlink name.
- **Queue:** Enter the monitored skill group extensions. In this case “73000”.
- **Agent Extensions:** Enter the monitored agent extensions. In this case “50001-50005”.
- **User Name:** Qfiniti user identifier administered on AES from **Section 4.6**.
- **Password:** Qfiniti user password administered on AES from **Section 4.6**.
- **Vendor:** Vendor name from the corresponding Tlink name.
- **Driver:** Switch connection name from the corresponding Tlink name.
- **Service:** Service name from the corresponding Tlink name.

Next, maintain the default values in the **Active Work Server** area, and proceed to expand the **Board Configuration** area by clicking on the corresponding arrow.

The screenshot shows a web-based configuration interface for 'Cross System Equipment'. The 'General' tab is selected. A 'Save' button is at the top left. The 'CTI Server Data' section is expanded, showing a list of 'Available CTI Servers' with 'CTI1' selected. Below this, various fields are populated: 'ServerName' is 'AES-DEVCON1', 'Queue' is '73000', 'Agent Extensions' is '50001-50005', 'User Name' is 'test', 'Password' is 'test', 'Vendor' is 'AVAYA', 'Driver' is 'S8710', and 'Service' is 'CSTA'. On the right side, 'BackUp User Name', 'BackUp Password', 'BackUp Vendor', 'BackUp Driver', and 'BackUp Service' are empty. 'UUdata script name' is 'CTI\_UUdataScripts' and 'PrelimExtensions' is set to 'Yes' via a dropdown. At the bottom, 'Active Work Server' and 'Board Configuration' sections are visible with expand/collapse arrows.

General	Cross System Equipment	
Save		
CTI Server Data		
Available CTI Servers		
CTI1		
ServerName	AES-DEVCON1	BackUp User Name
Queue	73000	BackUp Password
		BackUp Vendor
		BackUp Driver
		BackUp Service
Agent Extensions	50001-50005	UUdata script name
		CTI_UUdataScripts
		PrelimExtensions
		Yes
User Name	test	
Password	test	
Vendor	AVAYA	
Driver	S8710	
Service	CSTA	
Active Work Server		
Board Configuration		



### 5.2.4. Administer Cross System Equipment Board Configuration

The expanded **Board Configuration** area is displayed. Scroll down the right pane as necessary to view the entire area, as shown below. Click on the **Pencil** icon to enable field input. Enter a descriptive board name into the **Name** field. Select “Ai-Logix DP – Trunk Side” from the **Board Model** drop down list. Click on the **Plus** icon to add these settings.

The screenshot shows the 'Cross System Equipment' tab with the 'Board Configuration' section expanded. It features a table with columns 'Name' and 'Model'. To the right, there are input fields for 'Name' (containing 'DP0') and 'Board Model' (a dropdown menu showing 'Ai-Logix DP - Trunk Si'). A 'Save' button is located at the top left of the configuration area. Below the table is a section for 'Board Configuration Data'.

Next, maintain the default values in the **Board Configuration Data** area. Click on **Save**, located toward the top of the screen to save all settings.

### 5.3. Administer Remaining General Settings

Select the **General** tab, located toward the top of the screen in the right pane, to display the list of areas again. Expand the **General** area by clicking on the corresponding arrow.

The screenshot shows the 'System Configuration' window with the 'General' tab selected. The 'General' section is expanded, showing a list of sub-sections: General, Machines, Components, Component Data, Phone Interface, Station Side Logging Data, VRM, and Line Data. Each sub-section has a corresponding arrow icon to its right. The 'Systems' list on the left is currently empty. At the top, there are tabs for 'System' and 'Archiving and Aging', and buttons for 'New', 'Save', and 'Delete'.

### 5.3.1. Administer Remaining General Settings General

The expanded **General** area is displayed, as shown below. For the **Switch** field, select the switch name administered in **Section 5.2.1** from the drop down list. For the **System Type** field, select “Voice Recording – Logging” from the drop down list.

Maintain the previously administered values in the **Machines** area, and proceed to the **Components** area next by clicking on the corresponding arrow.

The screenshot shows a software interface with two tabs: 'General' (selected) and 'Cross System Equipment'. At the top left are 'New' and 'Save' buttons, and at the top right is a 'Delete' button. Below the 'General' tab header are three expandable sections: 'General', 'Machines', and 'Components'. The 'General' section is expanded, showing the following fields:

- Name:** A text box containing 'AvayaTrunkSide'.
- Switch:** A dropdown menu with 'Avaya' selected.
- System Type:** A list box with three options: 'Advise' (unchecked), 'Voice Recording - Logging' (checked), and 'Voice Recording - QA' (unchecked).
- Description:** A large empty text area.
- Available for Use:** A checkbox that is currently unchecked.

To the right of the 'System Type' list box, the text 'Qfiniti Service' is displayed next to a circular icon containing two arrows.

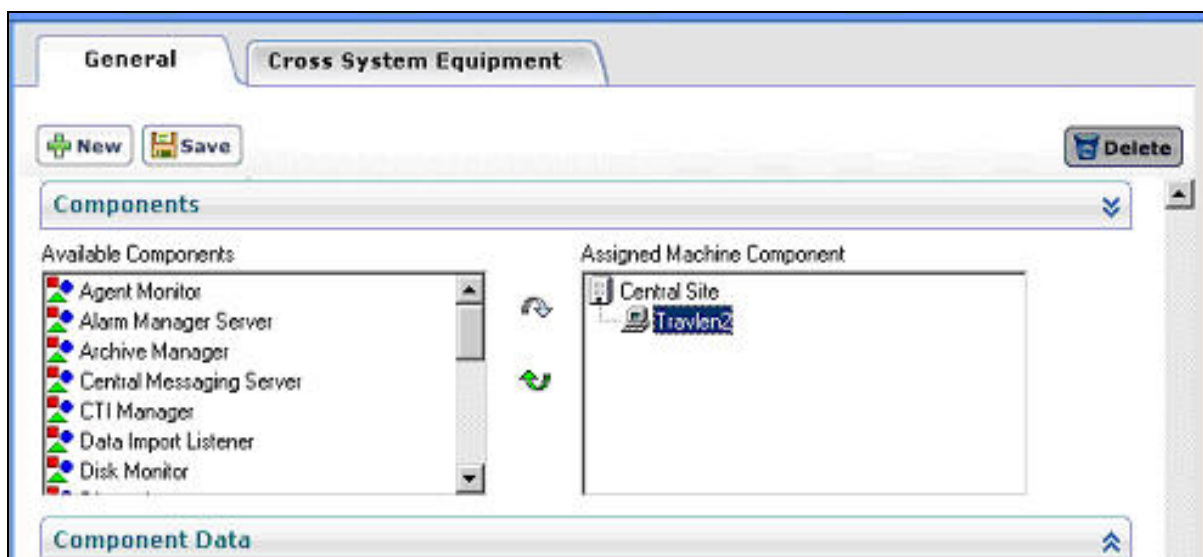


### 5.3.2. Administer Remaining General Settings Components

The expanded **Components** area is displayed. Scroll down the right pane as necessary to view the entire area, as shown below. In the box under **Assigned Machine Component**, select the server machine name from **Section 5.1.2**. Add the following list of components to the machine by clicking on each component in the box under **Available Components**, followed by the eastward arrow. Repeat this procedure for all components listed below.

- Alarm Manager Server
- Archive Manager
- Central Messaging Server
- Disk Monitor
- Dispatcher
- IP Message Scheduler
- Logger Voice Recording Manager
- Master Service
- Plan Manager
- Qfiniti File Server
- Session Manager

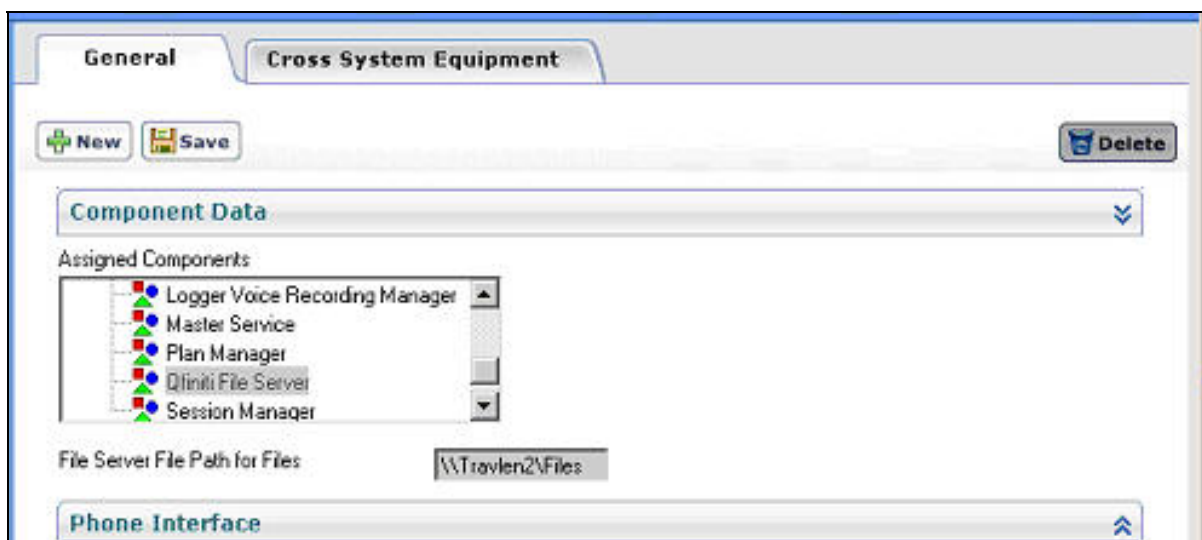
Note that had this been a distributed server configuration, the individual components would need to be added to the relevant server.



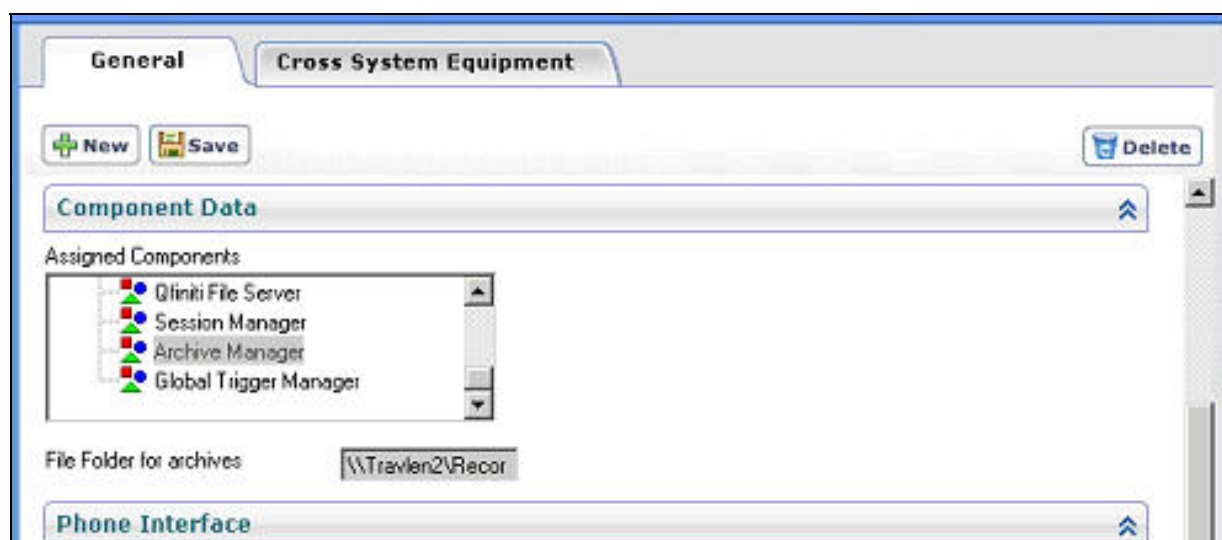
### 5.3.3. Administer Remaining General Settings Component Data

Expand the **Component Data** area next by clicking on the corresponding arrow. Scroll down the right pane as necessary to view the entire area, as shown below. The two components that need additional data to be administered are the **Qfiniti File Server** and the **Archive Manager**.

Scroll down under **Assigned Components** to locate and select the **Qfiniti File Server** component, as shown below. Enter an existing directory on the server to store the recording files. In this case, “\\Travlen2\\Files” is used, where “Travlen2” is the server machine name from **Section 5.1.2**, and “Files” is an existing directory created on the server.



Scroll down under **Assigned Components** again to locate and select the **Archive Manager** component, as shown below. Enter an existing directory located on the server to store the recording archive files. In this case, “\\Travlen2\\Recordings” is used.



#### 5.3.4. Administer Remaining General Settings Phone Interface

Expand the **Phone Interface** area next by clicking on the corresponding arrow. The expanded **Phone Interface** area is displayed. Scroll down as necessary to view the entire area, as shown below. The value of the **Machine** field is automatically populated. For the **Machine Type** field, select “Logger” from the drop down list. For the **Total Lines** field, enter “23” for network configuration with T1 service, and “30” for E1 service. In this case, “23” is entered. Click on the **Plus** icon to add these settings.

The screenshot shows a web-based configuration interface with two tabs: "General" and "Cross System Equipment". The "Cross System Equipment" tab is active. At the top, there are buttons for "New", "Save", and "Delete". Below these is a section titled "Phone Interface" with a downward arrow. Inside this section, there is a table with two columns: "Machine" and "Machine Type". The "Machine" column contains the text "Travlen2". To the right of the table is a "Machine Type" dropdown menu with "Logger" selected. Below the dropdown is a "Phone Interface Type" dropdown menu. At the bottom of this section is a "Total Lines" input field containing the number "23". At the very bottom of the window is a section titled "Station Side Logging Data" with an upward arrow.

#### 5.3.5. Administer Remaining General Settings Station Side Logging Data

Expand the **Station Side Logging Data** area next by clicking on the corresponding arrow. The expanded **Station Side Logging Data** area is displayed. Scroll down the right pane as necessary to view the entire area, as shown below. Click on the **Pencil** icon to enable field input. Enter a descriptive phone class of service into the **COS Name** field, in this case “DPClass” is used. Select “Trunk Side ISDN” from the **Phone** drop down list, and maintain the default value in the **Record on Lights** field. Click on the **Plus** icon to add these settings.

The screenshot shows the same web-based configuration interface as before, but now the "Station Side Logging Data" section is expanded. It contains a table with two columns: "Name" and "Phone". To the right of the table, there is a "COS Name" input field containing "DPClass", a "Phone" dropdown menu with "Trunk Side ISDN" selected, and a "Record on Lights" input field containing "0". There are also icons for editing (pencil), adding (plus), and deleting (minus) records. At the bottom of the window is a section titled "VRM" with an upward arrow.

### 5.3.6. Administer Remaining General Settings VRM

Expand the **VRM** area next by clicking on the corresponding arrow. The expanded **VRM** area is displayed. Scroll down as necessary to view the entire area, as shown below. Select the server machine name from **Section 5.1.2** in the box underneath **Machines**. In this case, “Travlen2” is selected. Enter the following values, and click on the **Plus** icon at the end to add these settings.

- **VRM Name:** A descriptive name for the virtual record machine.
- **Line From:** The starting range of the available ports. In this case “1”.
- **Line To:** The ending range of the available ports. In this case “23”.
- **Default Class of Serve:** Select the COS name from **Section 5.3.5**.
- **VRM Type:** Select “Logging” from the drop down list.
- **Interface Type:** Select “Trunk Side” from the drop down list.
- **Board Configuration:** Select the board name from **Section 5.2.4**.

Note that for network configurations using the ISDN E1 service, use “30” as the ending range of the available ports for the **Line To** field.

The screenshot shows a web-based configuration interface for VRM (Virtual Record Machine). The interface has two tabs: "General" and "Cross System Equipment". The "General" tab is active. At the top, there are buttons for "New", "Save", and "Delete". Below these buttons is a section labeled "VRM" with a dropdown arrow. Underneath is a "Machines" section with a list box containing "Travlen2". Below the "Machines" section are several input fields and dropdown menus: "VRM Name" (text box with "Log1"), "Line From" (text box with "1"), "Line To" (text box with "23"), "VRM Type" (dropdown menu with "Logging"), "Interface Type" (dropdown menu with "Trunk Side"), "Default Class of Service" (dropdown menu with "OPClass"), and "Board Configuration" (dropdown menu with "DP0"). To the right of these fields is a "Plus" icon. At the bottom, there is a "Line Data" section with an upward arrow.

### 5.3.7. Administer Remaining General Settings Line Data

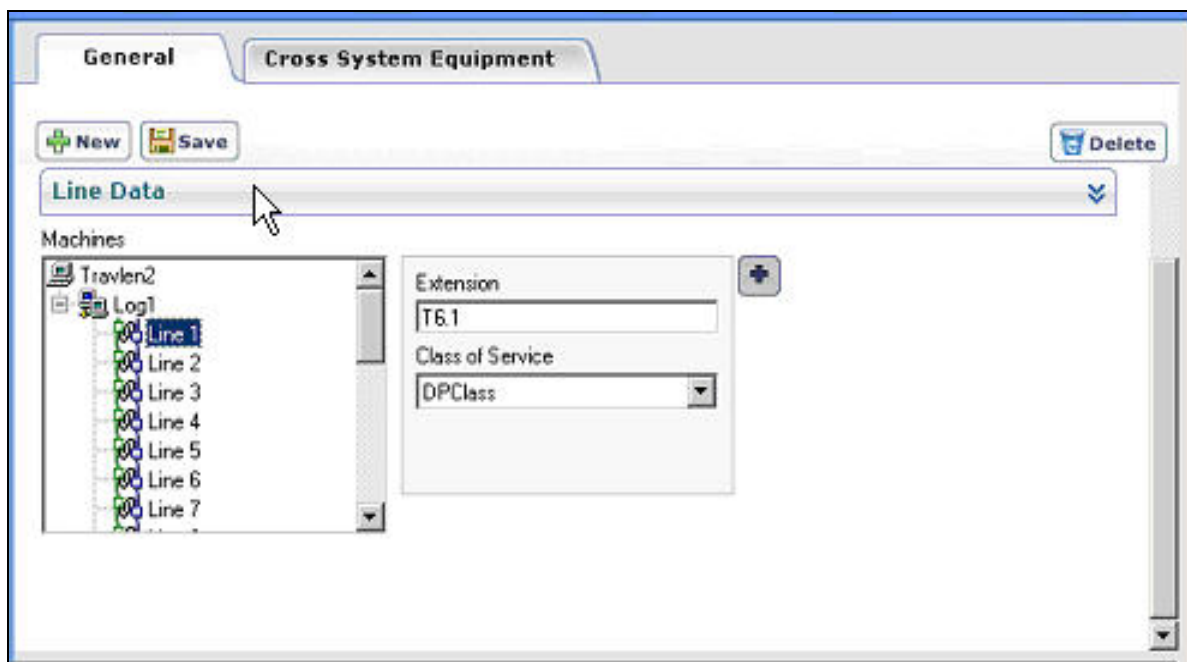
Expand the **Line Data** area next by clicking on the corresponding arrow. The expanded **Line Data** area is displayed. Scroll down as necessary to view the entire area, as shown below. Select the first line number under the server machine name, in the box under **Machines**. In this case, “Line 1” under “Travlen2” is selected.

For the **Extension** field, enter the value “Tx.y”, where “x” is the trunk group number from **Section 3.7**, and “y” is the line number. In this case, “T6.1” is used as the **Extension** for **Line 1** as shown below, and “T6.2” would be used as the **Extension** for **Line 2**, and so on.

For the **Class of Service** field, select the COS name from **Section 5.3.5**. Click on the **Plus** icon to add these changes.

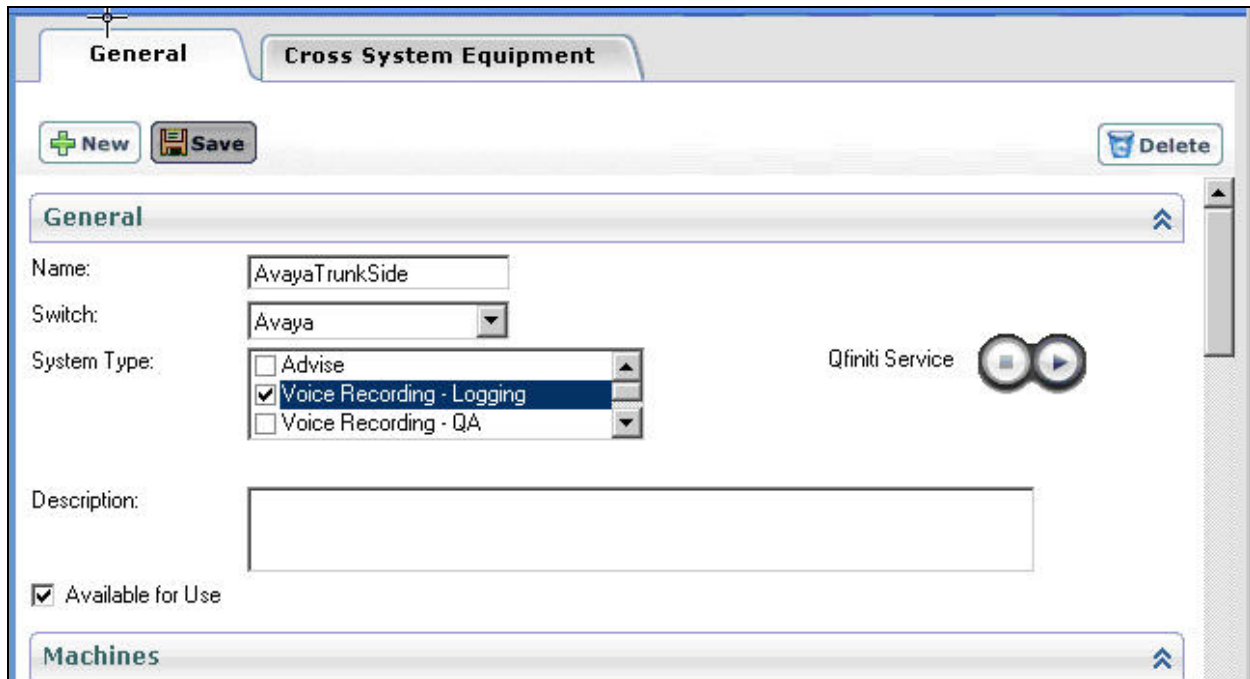
Repeat this procedure for all line numbers under the relevant machine server name.

Click the **Save** button at the end, located toward the top of the screen to save all changes.



## 5.4. Start Qfiniti Service

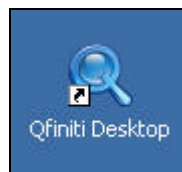
Scroll the window in the right pane to the top to locate the **General** area. Expand the **General** area by clicking on the corresponding arrow. The expanded **General** area is displayed, as shown below. Check the **Available for Use** field. Click on the **Eastward Arrow** icon next to **Qfiniti Service** toward the right of the screen to start the Qfiniti service.



The screenshot shows a web-based configuration interface for Qfiniti. At the top, there are two tabs: "General" and "Cross System Equipment". Below the tabs are three buttons: "New" (with a plus icon), "Save" (with a floppy disk icon), and "Delete" (with a trash can icon). The "General" tab is selected and expanded, showing a list of configuration items. The first item is "Name" with the value "AvayaTrunkSide". The second item is "Switch" with a dropdown menu showing "Avaya". The third item is "System Type" with a list of options: "Advise", "Voice Recording - Logging" (which is selected with a checkmark), and "Voice Recording - QA". To the right of the "System Type" list is a "Qfiniti Service" section with two circular icons, one of which is an "Eastward Arrow" (a circle with a right-pointing arrow). Below the "System Type" list is a "Description" field. At the bottom of the "General" tab is a checkbox labeled "Available for Use" which is checked. Below the "General" tab is a "Machines" tab.

## 5.5. Administer Desktop

From the etalk Qfiniti server, bring up the desktop configuration interface by double clicking on the **Qfiniti Desktop** icon shown below. Log in with the appropriate credentials.



The **Qfiniti Desktop** screen is displayed. Select the **Organization** tab, followed by the **Detail** sub-tab. For each agent to be associated with the call recordings, click on the **New** button located right below the **Detail** sub tab. In the box under **Category**, select **General Information**. The fields associated with **General Information** are displayed as shown below. Enter the following values into the specified fields, and retain the default value for all remaining fields.

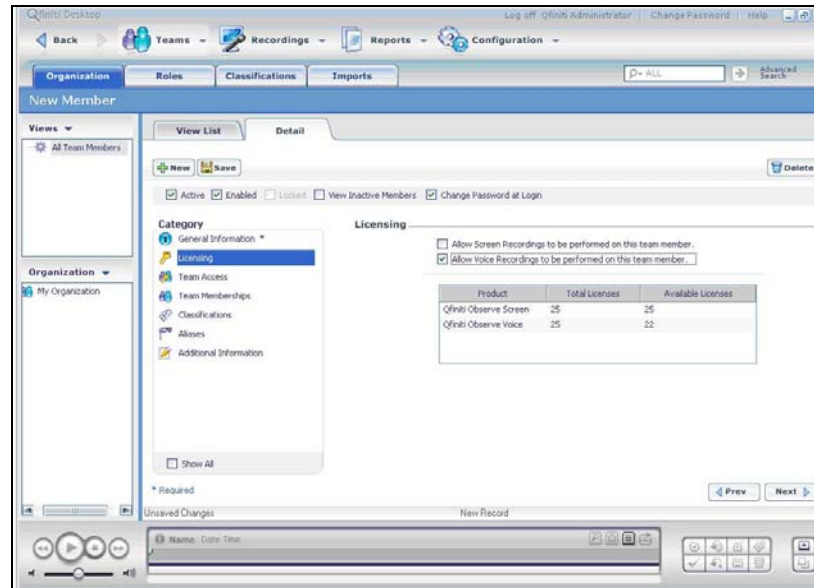
- **First Name:** Enter the first name of the agent.
- **Middle Name:** Enter the middle name of the agent, when applicable.
- **Last Name:** Enter the last name of the agent.
- **Role:** Select “agent” from the drop down list.
- **Login Type:** Select “Qfiniti” from the drop down list.
- **Login ID:** A login identifier for the agent.
- **Password:** A password for the agent.
- **Confirm Password:** Re-enter the same password.

For the compliance testing, the agent extension number was used as the **First Name**, for ease of verifying association of recordings with agents.

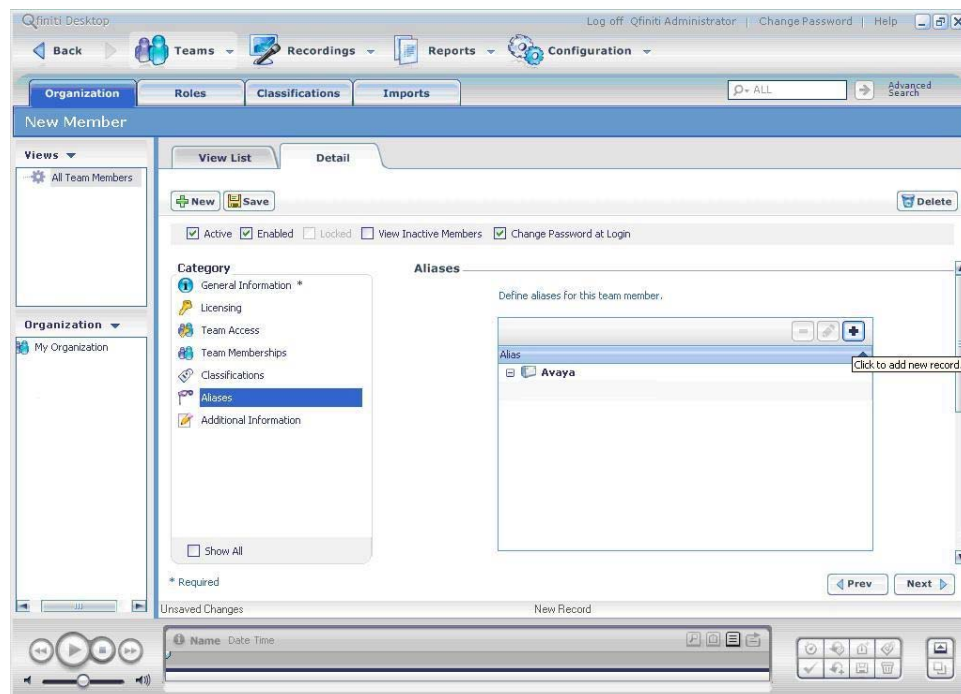
The screenshot shows the 'Qfiniti Desktop' application window. The top navigation bar includes 'Back', 'Teams', 'Recordings', 'Reports', and 'Configuration'. Below this, the 'Organization' tab is selected, and the 'Detail' sub-tab is active. The 'New Member' form is displayed. On the left, there is a sidebar with 'Views' (All Team Members) and 'Organization' (My Organization). The main form area has a 'Category' dropdown set to 'General Information \*'. Below this, there are checkboxes for 'Active', 'Enabled', 'Locked', 'View Inactive Members', and 'Change Password at Login'. The form fields are: 'Id: Not Saved', '\* First Name: A', 'Middle Name: ', '\* Last Name: 75004', 'Email Address: ', '\* Role: agent', '\* Login Type: Qfiniti', '\* Login ID: a75004', '\* Password: \*\*\*\*\*', and '\* Confirm Password: \*\*\*\*\*'. At the bottom, there is a status bar with 'Unsaved Changes' and 'New Record'.



Next, in the box under **Category**, select **Licensing**. The fields associated with **Licensing** are displayed, as shown below. Select **Allow Voice Recordings to be performed on this team member**. After the selection, the value in the **Available Licenses** field corresponding to **Qfiniti Observe Voice** should be decremented by one.

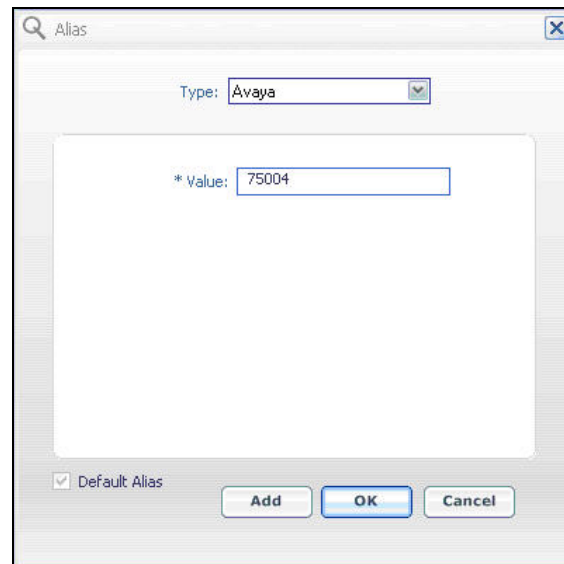


In the box under **Category**, select **Aliases**. The fields associated with **Aliases** are displayed into the right pane as shown below. Click on the **Plus** icon to add an alias for the agent.

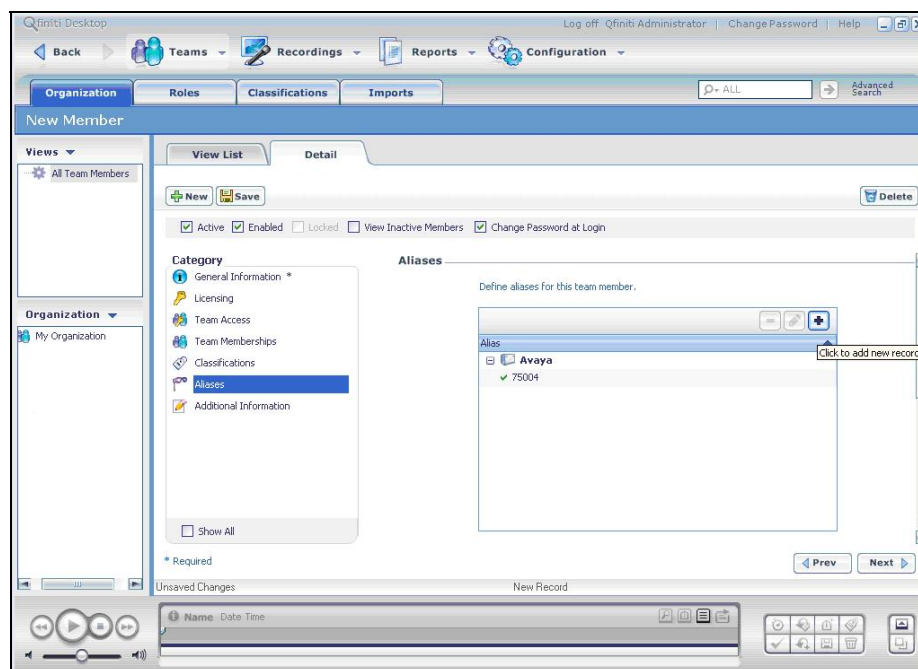




The **Alias** pop up window is displayed next, as shown below. For the **Type** field, select “Avaya” from the drop down list. For the **Value** field, enter the agent login ID on Avaya Communication Manager, assumed to have been already administered. For customer configurations not utilizing the Expert Agent Selection feature, use the agent physical extension instead. In this case, “75004” is the agent login ID. Click on **OK**.

The image shows a small dialog box titled "Alias" with a search icon and a close button. Inside, there is a "Type:" label followed by a dropdown menu showing "Avaya". Below this is a "\* Value:" label followed by a text input field containing "75004". At the bottom left, there is a checkbox labeled "Default Alias" which is checked. At the bottom right, there are three buttons: "Add", "OK", and "Cancel".

The Qfiniti Desktop screen is displayed again, and updated with the new alias information. Repeat the procedures described in this section to administer all remaining agents. After administering all agents, click on **Save**, located toward the top of the screen to save all settings.

The image shows the Qfiniti Desktop application interface. The top navigation bar includes "Back", "Teams", "Recordings", "Reports", and "Configuration". Below this is a sub-navigation bar with "Organization", "Roles", "Classifications", and "Imports". The main content area is titled "New Member" and has tabs for "View List" and "Detail". The "Detail" tab is active, showing a form for a new member. On the left, there is a sidebar with "Views" and "Organization" sections. The "Organization" section is expanded, showing a tree view with "My Organization" and "All Team Members". The "All Team Members" section is selected, showing a list of team members. The "Aliases" section is also visible, showing a list of aliases for the selected team member. The "Aliases" list contains one entry: "Avaya" with a checkmark and the value "75004". A tooltip "Click to add new record." is visible next to the "Avaya" entry. The bottom of the screen shows a status bar with "Unsaved Changes" and "New Record".

## 6. Interoperability Compliance Testing

The interoperability compliance test included feature functionality, load, and serviceability testing.

The feature functionality testing focused on verifying etalk Qfiniti handling of TSAPI messages, and the proper utilization of the messages to associate correct agents with the call recordings.

The load testing focused on verifying the ability of etalk Qfiniti to accurately associate the recordings with agents under a moderate traffic load over time.

The serviceability testing focused on verifying the ability of etalk Qfiniti to recover from adverse conditions, such as busying out the CTI link and disconnecting the Ethernet cable for the CTI link.

### 6.1. General Test Approach

The feature functionality test cases were performed both automatically and manually. Upon start of the etalk Qfiniti application, the application automatically queries Avaya Communication Manager for agent states and requests monitoring. For the manual part of the testing, incoming calls were made to the monitored Skill group to trigger event reports to etalk Qfiniti. Manual call controls from the agent telephones were exercised to verify remaining scenarios such as conference and transfer, and the proper utilization of these event reports to associate the call recordings with the correct agents.

The load test case was performed by generating ~200 calls over a period of an hour with 5 available agents, to verify accuracy of recordings and associations with answered agents.

The serviceability test cases were performed manually by busying out and releasing the CTI link, and by disconnecting and reconnecting the LAN cables.

The verification of all tests included human checking of proper states at the telephone sets, and monitoring the event report logs from the etalk Qfiniti server log files.

### 6.2. Test Results

All test cases were executed and passed.

The one observation from the compliance testing is that when the CTI link is down for more than 30 seconds, all recordings that are in progress are automatically stopped by the Qfiniti server. This is working as designed by Qfiniti, due to the fact that without event reports over the CTI link, the application would not be able to properly associate the ongoing recordings with the correct agents. Therefore, the design decision is to end the recordings, and to resume upon recovery of the CTI link.

## 7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Communication Manager, Avaya Application Enablement Services, and etalk Qfiniti.

### 7.1. Verify Avaya Communication Manager

Verify the status of the ISDN trunk group by using the “status trunk n” command, where “n” is the trunk group number administered in **Section 3.7**. Verify all trunks are in the “in-service/idle” state as shown below.

status trunk 6				Page 1
TRUNK GROUP STATUS				
Member	Port	Service State	Mtce Connected Ports Busy	
0006/001	01A0701	in-service/idle	no	
0006/002	01A0702	in-service/idle	no	
0006/003	01A0703	in-service/idle	no	
0006/004	01A0704	in-service/idle	no	
0006/005	01A0705	in-service/idle	no	
0006/006	01A0706	in-service/idle	no	
0006/007	01A0707	in-service/idle	no	
0006/008	01A0708	in-service/idle	no	
0006/009	01A0709	in-service/idle	no	
0006/010	01A0710	in-service/idle	no	
0006/011	01A0711	in-service/idle	no	
0006/012	01A0712	in-service/idle	no	
0006/013	01A0713	in-service/idle	no	
0006/014	01A0714	in-service/idle	no	

status trunk 6			
TRUNK GROUP STATUS			
Member	Port	Service State	Mtce Connected Ports Busy
0006/015	01A0715	in-service/idle	no
0006/016	01A0716	in-service/idle	no
0006/017	01A0717	in-service/idle	no
0006/018	01A0718	in-service/idle	no
0006/019	01A0719	in-service/idle	no
0006/020	01A0720	in-service/idle	no
0006/021	01A0721	in-service/idle	no
0006/022	01A0722	in-service/idle	no
0006/023	01A0723	in-service/idle	no

Verify the status of the administered CTI link by using the “status aesvcs cti-link” command. Verify the Service State is “established” for the CTI link number administered in **Section 3.5**, as shown below.

```
status aesvcs cti-link
```

AE SERVICES CTI LINK STATUS						
CTI Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd
1	4	no	AES-DevCon1	established	15	15
2	4	no	AES-DevCon1	established	14	14

## 7.2. Verify Avaya Application Enablement Services

From the **CTI OAM Home** menu, verify the status of the switch connection by selecting **Status and Control > Switch Conn Summary**, as shown below.

**AVAYA** [OAM](#)

OAM Home

You are here: > [Status and Control](#) > [Switch Conn Summary](#)

### Switch Connections Summary

Switch Conn	Conn State	Since	Online/Offline	Active CLANS/ Admin'd CLANS	# of MCI Conns	Msgs To Switch	Msgs From Switch	Msg Period
S8710	Talking	2006-03-15 19:59:25.0	Online	1 / 1	4	211	211	30

Verify the status of the TSAPI link by selecting **Status and Control > Services Summary** from the left pane. Click on **TSAPI Service**, followed by **Details**. The **TSAPI Link Details** screen is displayed, as shown below.

**AVAYA** [OAM](#)

OAM Home

You are here: > [Status and Control](#) > [Services Summary](#)

### TSAPI Link Details

Link	Switch Conn Name	Switch CTI Link Number	Conn Status	Since	Service State	Switch Version	Number of Associations	ASAI Message Rate
1	S8710	2	Talking	2006-03-16 15:48:44.0	Online	13	0	72

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

From the etalk Qfiniti server, bring up the system monitor interface by double clicking on the **System Monitor** icon shown below.



The **Qfiniti System Monitor** screen is displayed, and shows the recording status of each trunk port. Make an incoming call over the T1 trunk into the Skill group and answer it on an available agent. Verify that the **Rec. Channel Status** field shows “Recording” along with the extension of the answered agent in the **Extension** field, and the logical ID of the answered agent in the **Login ID** field, as shown below.

The screenshot displays the 'Qniti System Monitor (TSAPITraunk)' application window. The interface includes a menu bar with 'File', 'Alarm', 'Views', 'System', and 'Help'. Below the menu is a 'Channels' tab, with sub-tabs for 'Users', 'Server Info', 'Plans', 'Alarm', and 'Alarm History'. The main area contains a table with the following columns: Channel, Rec. Channel Status, Login ID, Extension, VRM Name, VRM Type, and Last updated.

Channel	Rec. Channel Status	Login ID	Extension	VRM Name	VRM Type	Last updated
1	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
2	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
3	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
4	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
5	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
6	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
7	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
8	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
9	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
10	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
11	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
12	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
13	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
14	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
15	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
16	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
17	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
18	Recording	75001	50001	Logger	Logging	3/16/2006 1:27:36 PM
19	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
20	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
21	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
22	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM
23	Idle	Idle Trunk		Logger	Logging	3/16/2006 1:26:30 PM

At the bottom of the window, the status 'System Running' is displayed.

## 8. Support

Technical support on TASKE Contact can be obtained through the following:

- **Phone:** (800) 346-4436
- **Email:** [techsupport@etalk.com](mailto:techsupport@etalk.com)

## 9. Conclusion

These Application Notes describe the configuration steps required for etalk Qfiniti 3.0 to successfully interoperate with Avaya Communication Manager 3.0.1 using Avaya Application Enablement Services. All feature functionality and serviceability test cases were completed successfully.

The one observation from the compliance testing is that when the CTI link is down for more than 30 seconds, all recordings that are in progress are automatically stopped by the Qfiniti server. This is working as designed by Qfiniti, due to the fact that without event reports over the CTI link, the application would not be able to properly associate the ongoing recordings with the correct agents. Therefore, the design decision is to end the recordings, and to resume upon recovery of the CTI link.

## 10. Additional References

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

- *Administrator Guide for Avaya Communication Manager*, Document 03-300509, Issue 1, June 2005, available at <http://support.avaya.com>
- *Avaya Application Enablement Services 3.0 Administration and Maintenance Guide*, Document ID 02-300357, Issue 1, June 2005, available at <http://support.avaya.com>.
- *etalk Qfiniti Installation Guide*, available from the etalk Qfiniti 3.0 Installation CD.

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