Avaya Solution & Interoperability Test Lab

Application Notes for OpenText Qfiniti 20.4 with Avaya Proactive Contact 5.2 with PG230 and Avaya Aura® Application Enablement Services 8.1.3 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for OpenText Qfiniti 20.4 to interoperate with Avaya Proactive Contact 5.2 with PG230 and Avaya Aura® Application Enablement Services 8.1.3. OpenText Qfiniti is a call recording solution.

In the compliance testing, OpenText Qfiniti used the Event Services interface from Avaya Proactive Contact to obtain information on calls and agent states, and used the Service Observing feature from the Avaya Aura® Application Enablement Services Device, Media, and Call Control interface to capture media associated with the monitored agent stations for call recording.

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

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

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1. Introduction

These Application Notes describe the configuration steps required for OpenText Qfiniti 20.4 to interoperate with Avaya Proactive Contact 5.2 with PG230 and Avaya Aura® Application Enablement Services 8.1.3. Qfiniti is a call recording solution.

In the compliance testing, Qfiniti used the Event Services interface from Proactive Contact to obtain information on calls and agent states, and used the Service Observing feature from the Application Enablement Services Device, Media, and Call Control (DMCC) XML interface to capture media associated with the monitored agent stations for call recording.

The DMCC interface is used by Qfiniti to register virtual IP softphones, and for adding softphones to active calls using the Service Observing feature to pick up the media for call recording. When there is an active call at the monitored agent station, Qfiniti is informed of the call via events from the Event Services interface and starts call recording by using Service Observing via the DMCC interface to add a virtual IP softphone to the active call to obtain the media. The Event Services events are also used to determine when to stop the call recordings.

The compliance testing covered the recording of calls that were delivered by Proactive Contact for the PG230 deployment option. The possible recording of inbound calls delivered by Communication Manager under the agent blending mode is outside the scope of this compliance test.

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2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of Qfiniti, the application automatically established Event Services connection with Proactive Contact and DMCC connection with Application Enablement Services and registered the virtual IP softphones.

For the manual part of the testing, each call was handled manually at the agent with generation of unique audio content for recording. Necessary agent actions such as hold and reconnect were performed from the Proactive Contact Agent application running on the agent desktops to test various call scenarios.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet connection to Qfiniti.

The verification of tests included use of Qfiniti logs for proper message exchanges and use of Qfiniti web interfaces for proper logging and playback of call recordings.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

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

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

For the testing associated with these Application Notes, the interface between Qfiniti and Proactive Contact included encrypted SSL for Event Services and non-encrypted DMCC with Application Enablement Services, as requested by OpenText.

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2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on Qfiniti:

- Handling of Event Services agent states and call events.
- Use of DMCC registration services to register the virtual IP softphones.
- Use of DMCC services to register virtual IP softphones, and to activate Service Observing via button press to obtain the media for call recording.
- Proper recording, logging, and playback of calls for scenarios involving agent drop, customer drop, hold, reconnect, simultaneous calls, conference, transfer, forward work, long duration, multiple agents, manual call, inbound call blending, outbound call blending, and outbound agent blending scenarios.

The serviceability testing focused on verifying the ability of Qfiniti to recover from adverse conditions, such as disconnecting and reconnecting the Ethernet connection to Qfiniti.

2.2. Test Results

All test cases were executed and verified. The following were observations on Qfiniti from the compliance testing.

- By design, all call recordings contained audio up to the agent finished work action.
- By design, the held interval was included in the recordings and contained audio from the agent.

2.3. Support

Technical support on Qfiniti can be obtained through the following:

- **Phone:** (800) 540-7292
- **Web:** http://engage.opentext.com/products/qfiniti

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3. Reference Configuration

The configuration used for the compliance testing is shown in **Figure 1**. The detailed administration of basic connectivity between Communication Manager and Proactive Contact, between Communication Manager and Application Enablement Services, and of call center devices are not the focus of these Application Notes and will not be described.

The agent station extensions used in the compliance testing are shown in the table below.

Extension	Type
65001	H.323
66002	SIP

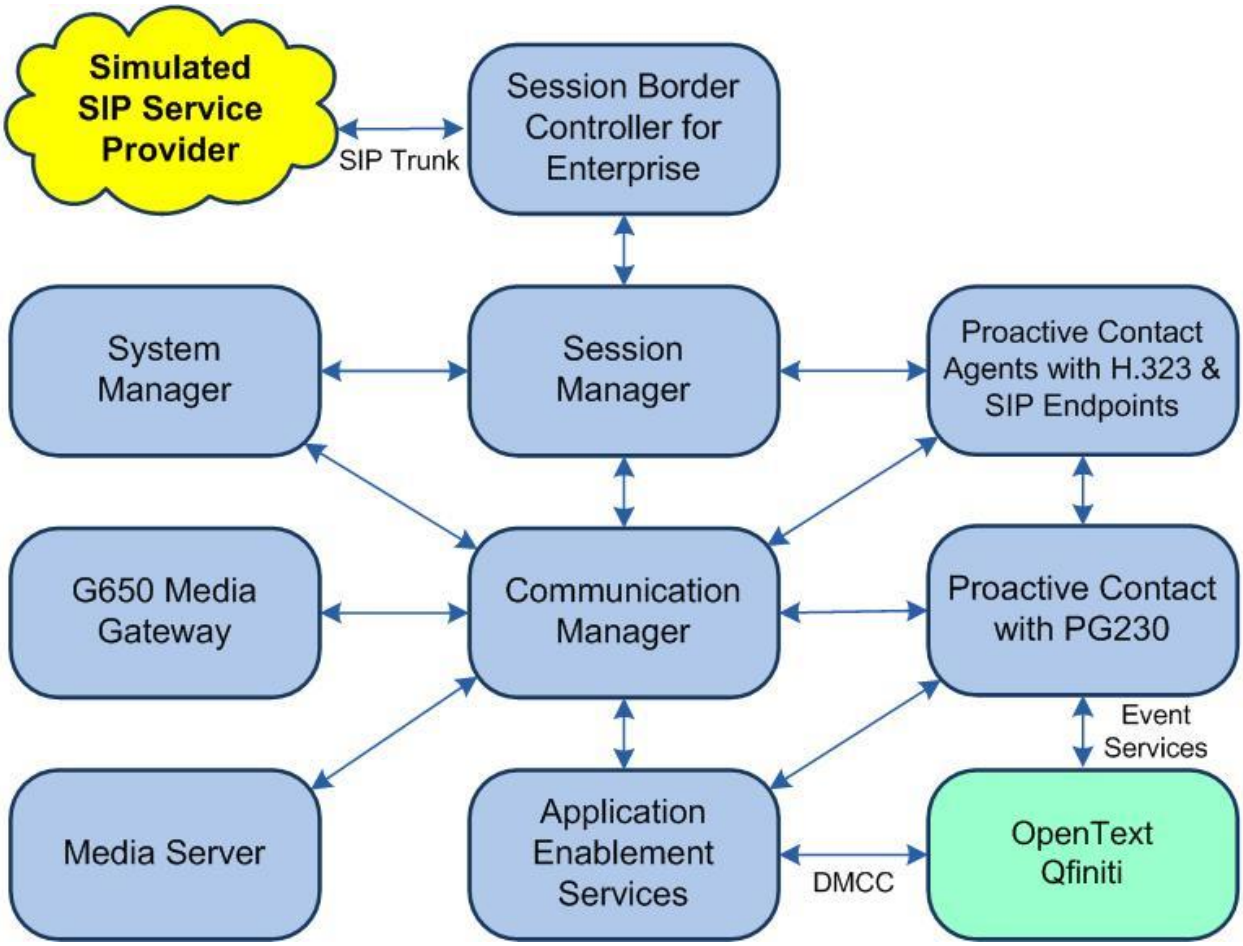

Figure 1: Compliance Testing Configuration

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4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Communication Manager in Virtual Environment	8.1.3 (8.1.3.0.1.890.26685)
Avaya G650 Media Gateway	NA
Avaya Aura® Media Server in Virtual Environment	8.0.2.138
Avaya Aura® Application Enablement Services in Virtual Environment	8.1.3 (8.1.3.0.0.25-0)
Avaya Aura® Session Manager in Virtual Environment	8.1.3 (8.1.3.0.813014)
Avaya Aura® System Manager in Virtual Environment	8.1.3 (8.1.3.0.1012091)
Avaya Session Border Controller for Enterprise in Virtual Environment	8.1.1 (8.1.1.0-19390)
Avaya Proactive Contact	5.2.0.2
Avaya Proactive Contact Agent	5.2.0.2
Avaya 9611G & J179 IP Deskphone (H.323)	6.8502
Avaya J169 IP Deskphone (SIP)	4.0.7.1.5
OpenText Qfiniti on Microsoft Windows Server 2019 • Avaya Event Service SDK • OpenSSL Shared Library • Microsoft SQL Server 2019 • Avaya DMCC XML	20.4.0 with QF-16308 Standard 5.2 1.0.2o 15.0.4034.2 7.0.0.38

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5. Configure Avaya Aura® Communication Manager

This section provides the procedures for configuring Communication Manager. The procedures include the following areas:

- Verify license
- Administer IP codec set
- Administer system parameters features
- Administer class of restriction
- Administer agent stations
- Administer virtual IP softphones

5.1. Verify License

Log in to the System Access Terminal to verify that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the "display system-parameters customer-options" command to verify that the **Service Observing (Basic)** customer option is set to "y" on **Page 7**. If this option is not set to "y", then contact the Avaya sales team or business partner for a proper license file.

```
display system-parameters customer-options                      Page   7 of  12
                         CALL CENTER OPTIONAL FEATURES

                          Call Center Release: 8.0

                               ACD? y                          Reason Codes? y
                      BCMS (Basic)? y               Service Level Maximizer? n
         BCMS/VuStats Service Level? y             Service Observing (Basic)? y
  BSR Local Treatment for IP & ISDN? y     Service Observing (Remote/By FAC)? y
                  Business Advocate? n              Service Observing (VDNs)? y
                    Call Work Codes? y                               Timed ACW? y
      DTMF Feedback Signals For VRU? y                     Vectoring (Basic)? y
                   Dynamic Advocate? n                 Vectoring (Prompting)? y
       Expert Agent Selection (EAS)? y             Vectoring (G3V4 Enhanced)? y
                           EAS-PHD? y              Vectoring (3.0 Enhanced)? y
                   Forced ACD Calls? n     Vectoring (ANI/II-Digits Routing)? y
               Least Occupied Agent? n     Vectoring (G3V4 Advanced Routing)? y
          Lookahead Interflow (LAI)? y                     Vectoring (CINFO)? y
Multiple Call Handling (On Request)? y      Vectoring (Best Service Routing)? y
    Multiple Call Handling (Forced)? y                  Vectoring (Holidays)? y
  PASTE (Display PBX Data on Phone)? y                 Vectoring (Variables)? y
        (NOTE: You must logoff & login to effect the permission changes.)
```


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5.2. Administer IP Codec Set

Use the "change ip-codec-set n" command, where "n" is an existing codec set number used for integration with Qfiniti.

For customer networks that use encrypted media, make certain that "none" is included for **Media Encryption**, and that **Encrypted SRTP** is set to "best-effort", these settings are needed for support of non-encrypted media with the virtual IP softphones used by Qfiniti.

In the compliance testing, this IP codec set was assigned to the virtual IP softphones used by Qfiniti.

```
change ip-codec-set 1                                           Page   1 of   2

                          IP Codec Set

    Codec Set: 1

    Audio        Silence      Frames   Packet
    Codec        Suppression  Per Pkt  Size(ms)
 1: G.711MU           n         2        20
 2: G.729
 3:
 4:
 5:
 6:
 7:

    Media Encryption                   Encrypted SRTP: best-effort
 1: 1-srtp-aescm128-hmac80
 2: aes
 3: none
 4:
 5:
```


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5.3. Administer System Parameters Features

Use the "change system-parameters features" command and navigate to **Page 11**. Set **Service Observing: Warning Tone** to the needed setting per customer requirement, and enable **Allow Two Observers in Same Call**, as shown below.

```
change system-parameters features                                 Page  11 of  19
                        FEATURE-RELATED SYSTEM PARAMETERS
CALL CENTER SYSTEM PARAMETERS
  EAS
         Expert Agent Selection (EAS) Enabled? y
        Minimum Agent-LoginID Password Length:
          Direct Agent Announcement Extension:                    Delay:
    Message Waiting Lamp Indicates Status For: station
                            Work Mode On Login: aux
  VECTORING
                     Converse First Data Delay: 0      Second Data Delay: 2
                 Converse Signaling Tone(msec): 100         Pause (msec): 70
                       Prompting Timeout(secs): 10
                   Interflow-qpos EWT Threshod: 2
    Reverse Star/Pound Digit For Collect Step? n
          Available Agent Adjustments for BSR? n
                             BSR Tie Strategy: 1st-found
   Store VDN Name in Station's Local Call Log? n
  SERVICE OBSERVING
             Service Observing: Warning Tone? n     or Conference Tone? n
    Allowed with Exclusion: Service Observing? n                   SSC? n
             Allow Two Observers in Same Call? y           Coach on SSC? n
```


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5.4. Administer Class of Restriction

Enter the "change cor n" command, where "n" is the class of restriction (COR) number used for integration with Qfiniti. Set the **Can Be Service Observed** and **Can Be A Service Observer** fields to "y", as shown below. For the compliance testing, this COR was assigned to the agent stations and virtual IP softphones.

If desired, separate COR can be used for enablement of each parameter. The COR with **Can Be Service Observed** enabled needs to be assigned to the agent stations, and the COR with **Can Be A Service Observer** enabled needs to be assigned to the virtual IP softphones.

```
change cor 2                                                    Page   1 of  43
                              CLASS OF RESTRICTION

               COR Number: 2
          COR Description: Service Observing

                      FRL: 0                                 APLT? y
  Can Be Service Observed? y           Calling Party Restriction: none
Can Be A Service Observer? y            Called Party Restriction: none
        Time of Day Chart: 1       Forced Entry of Account Codes? n
         Priority Queuing? n                Direct Agent Calling? n
     Restriction Override: none       Facility Access Trunk Test? n
     Restricted Call List? n                 Can Change Coverage? n
```

5.5. Administer Agent Stations

Use the "change station n" command, where "n" is the first H.323 agent station extension from **Section 3**. For **COR**, enter the COR number from **Section 5.4**.

Repeat this section to administer all H.323 agent stations from **Section 3**. In the compliance testing, one agent station was administered as shown below.

```
change station 65001                                            Page   1 of   5
                                     STATION

Extension: 65001                        Lock Messages? n               BCC: 0
     Type: 9611                         Security Code: *                TN: 1
     Port: S00104                     Coverage Path 1: 1              COR: 2
     Name: CM Station 1               Coverage Path 2:                 COS: 1
Unicode Name? n                     Hunt-to Station:                Tests? Y
```


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5.6. Administer Virtual IP Softphones

Add a virtual IP softphone using the "add station n" command, where "n" is an available extension number. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **Extension:** The available extension number.
- **Type:** Any IP telephone type, such as "4620".
- **Name:** A descriptive name.
- **Security Code:** A desired code.
- **COR:** The COR number from **Section 5.4**.
- **IP SoftPhone:** "y"

```
add station 65991                                                Page   1 of   5
                                     STATION

Extension: 65991                         Lock Messages? n               BCC: 0
     Type: 4620                          Security Code: 123456           TN: 1
     Port: IP                          Coverage Path 1:                COR: 2
     Name: Qfiniti DMCC 1              Coverage Path 2:                 COS: 1
Unicode Name? n                     Hunt-to Station:                  Tests: y
STATION OPTIONS
               Location:                  Time of Day Lock Table:
             Loss Group: 19         Personalized Ringing Pattern: 1
                                          Message Lamp Ext: 65991
           Speakerphone: 2-way             Mute Button Enabled? y
        Display Language: english             Expansion Module? n
 Survivable GK Node Name:
          Survivable COR: internal             Media Complex Ext:
   Survivable Trunk Dest? y                         IP SoftPhone? y

                                              IP Video Softphone? n
                                 Short/Prefixed Registration Allowed: default
```

Navigate to **Page 4** and add "serv-obsrv" to the 6th button as required by Qfiniti.

```
add station 65991                                                Page   4 of   5
                                     STATION
 SITE DATA
       Room:                                            Headset? n
       Jack:                                            Speaker? n
      Cable:                                           Mounting: d
      Floor:                                       Cord Length: 0
   Building:                                         Set Color:

ABBREVIATED DIALING
     List1:                    List2:                    List3:

BUTTON ASSIGNMENTS
 1: call-appr                            5:
 2: call-appr                            6: serv-obsrv
 3: call-appr                            7:
 4:                                      8:
```


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Repeat this section to administer the desired number of virtual IP softphones. In the compliance testing, two virtual IP softphones were administered as shown below.

```
list station 65991 count 2

                                  STATIONS

Ext/          Port/   Name/                          Room/      Cv1/  COR/
 Hunt-to       Type      Surv GK NN      Move  Cable   Jack   Cv2  COS  TN

65991            S000011 Qfiniti DMCC 1                                2
                 4620                       no                        1  1
65992            S000012 Qfiniti DMCC 2                                2
                 4620                       no                        1  1
```


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6. Configure Avaya Aura® Application Enablement Services

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

- Launch OAM interface
- Verify license
- Administer H.323 gatekeeper
- Administer Qfiniti user
- Administer security database
- Administer ports
- Restart service

6.1. Launch OAM Interface

Access the OAM web-based interface by using the URL "https://ip-address" in an Internet browser window, where "ip-address" is the IP address of the Application Enablement Services server.

The **Please login here** screen is displayed. Log in using the appropriate credentials.

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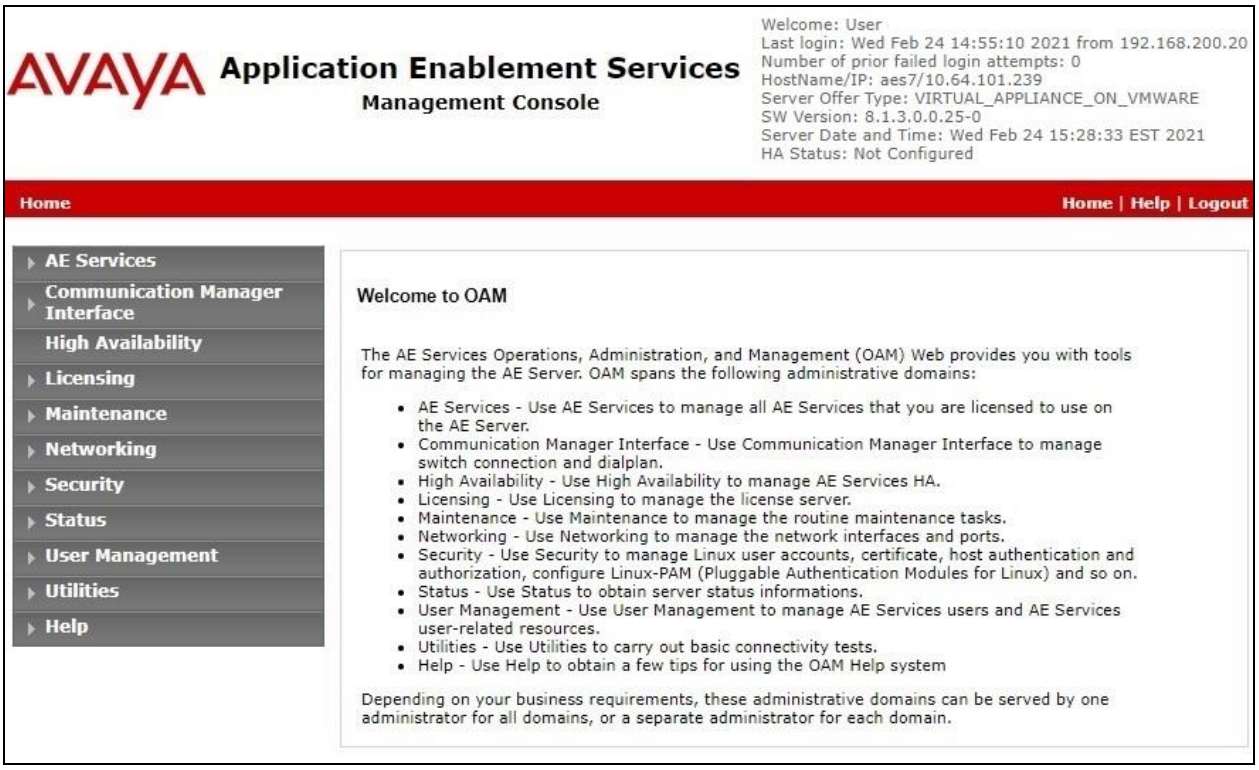
The **Welcome to OAM** screen is displayed next.



6.2. Verify License

Select **Licensing → WebLM Server Access** in the left pane, to display the applicable WebLM server log in screen (not shown). Log in using the appropriate credentials and navigate to display installed licenses (not shown).

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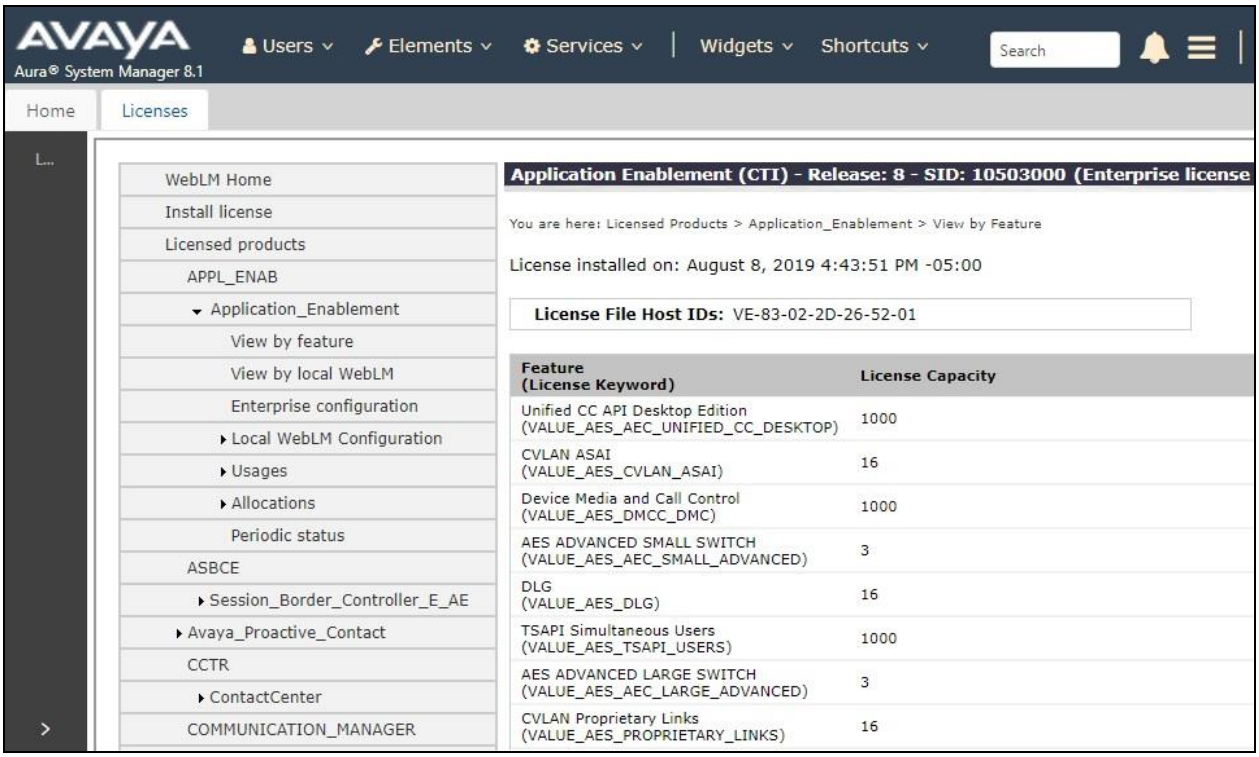
Select **Licensed products → APPL_ENAB → Application_Enablement** in the left pane, to display the **Application Enablement (CTI)** screen in the right pane.

Verify that there are sufficient licenses for **Device Media and Call Control** as shown below.



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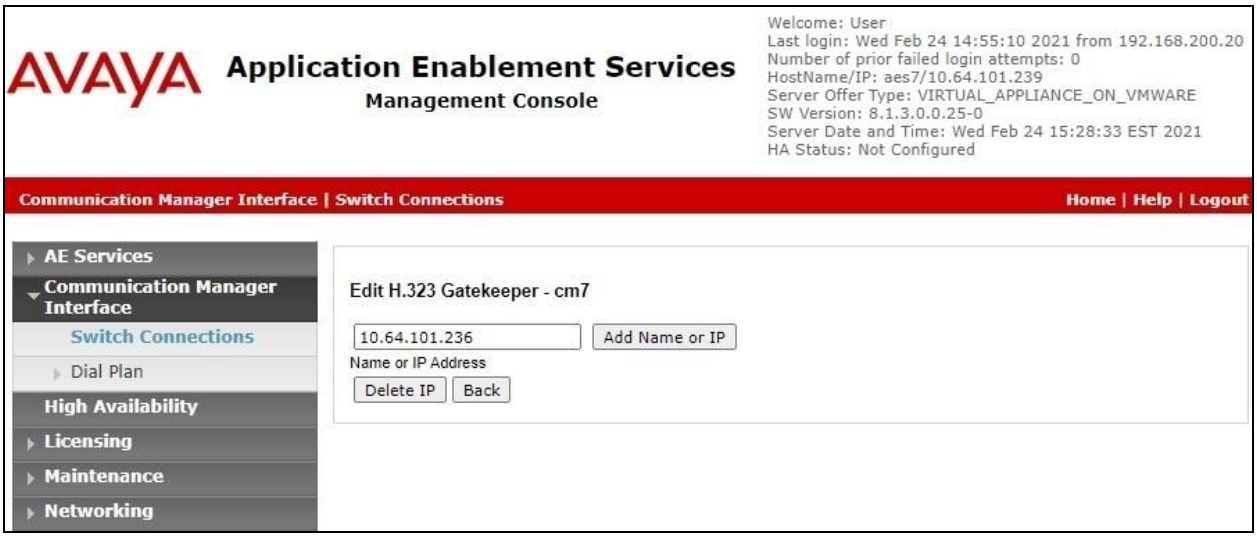
6.3. Administer H.323 Gatekeeper

Select **Communication Manager Interface → Switch Connections** from the left pane. The **Switch Connections** screen shows a listing of the existing switch connections.

Locate the connection name associated with the relevant Communication Manager, in this case "cm7", and select the corresponding radio button. Click **Edit H.323 Gatekeeper**.

The **Edit H.323 Gatekeeper** screen is displayed next. Enter the IP address of a C-LAN circuit pack or the Processor on Communication Manager to use as the H.323 gatekeeper, in this case "10.64.101.236" as shown below. Click **Add Name or IP**.



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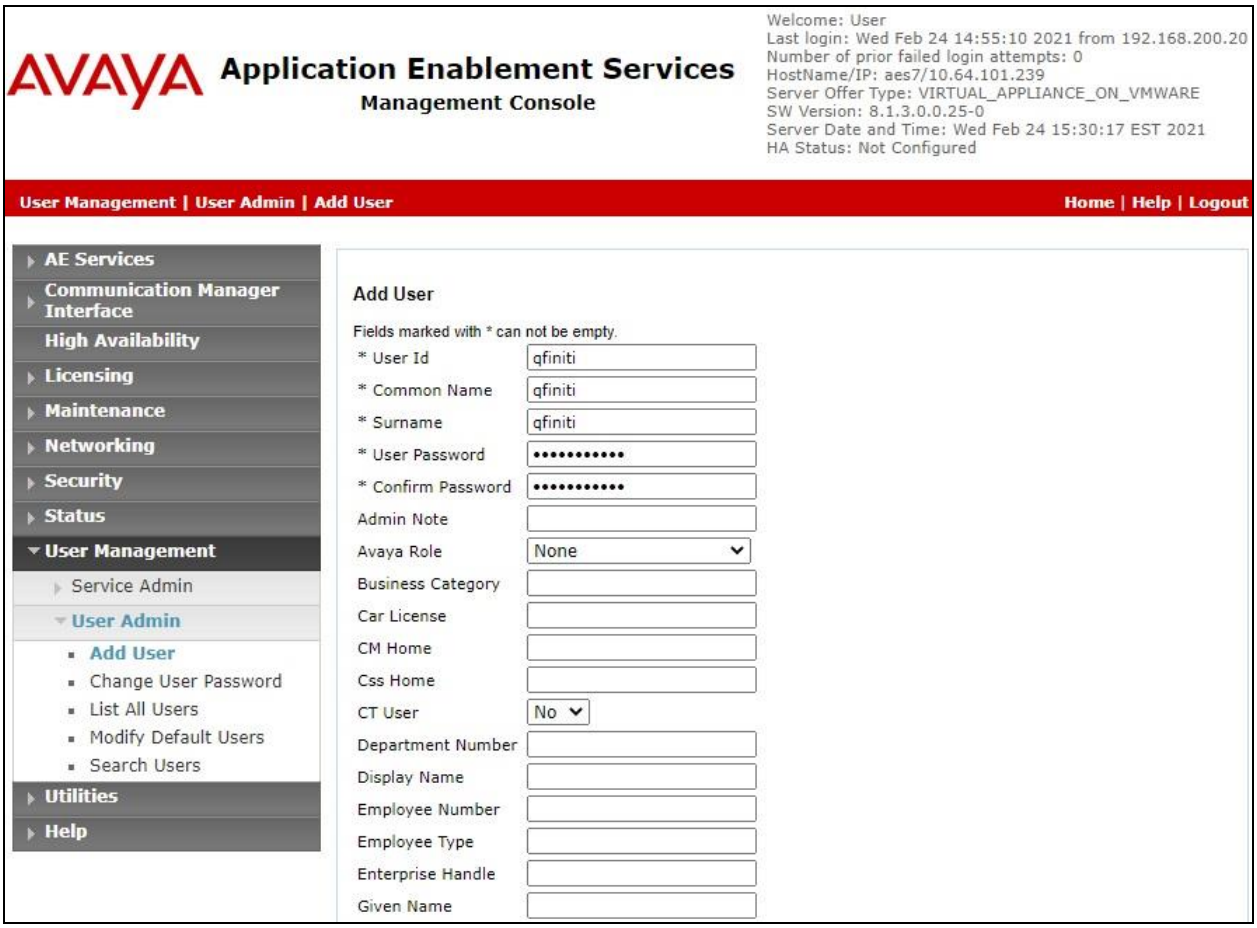
6.4. Administer Qfiniti User

Select **User Management → User Admin → Add User** from the left pane, to display the **Add User** screen in the right pane (not shown).

Enter desired values for **User Id**, **Common Name**, **Surname**, **User Password**, and **Confirm Password**. For **CT User**, select "Yes" from the drop-down list. Retain the default value in the remaining fields.



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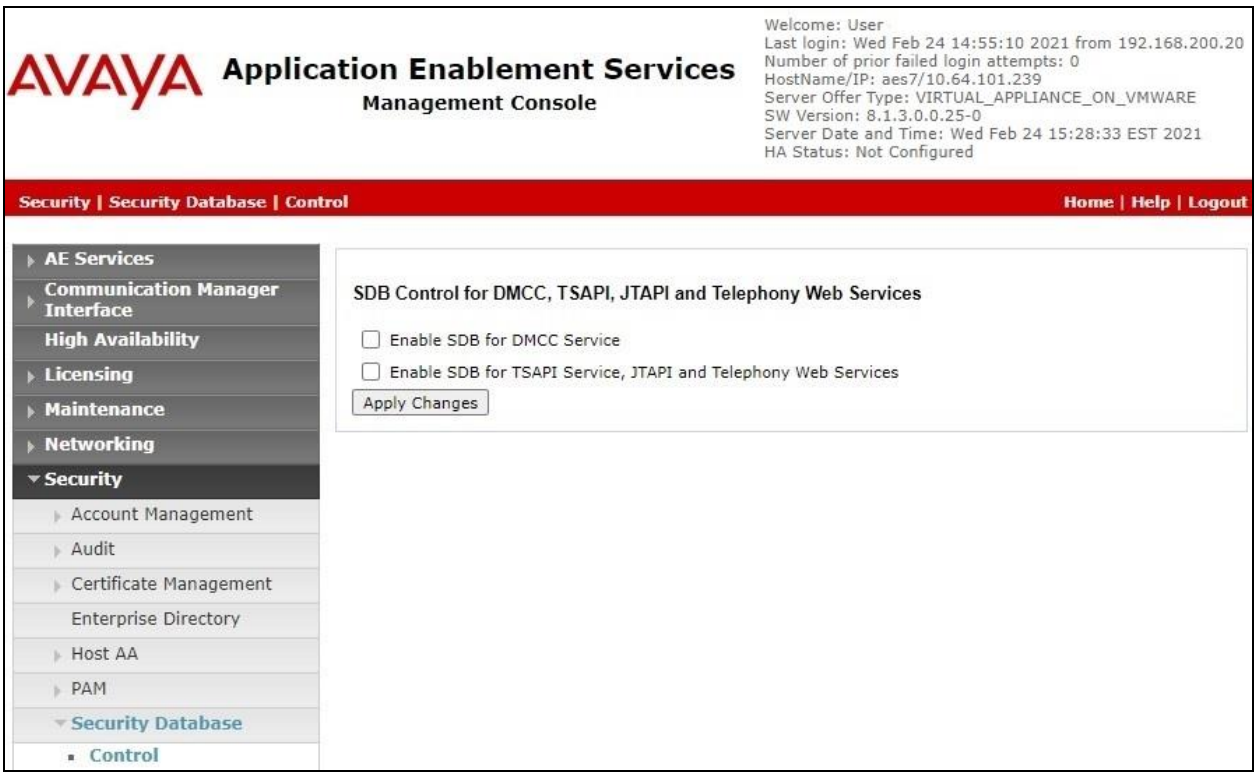
6.5. Administer Security Database

Select **Security → Security Database → Control** from the left pane, to display the **SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services** screen in the right pane. Make certain **Enable SDB for DMCC Service** is unchecked, as shown below.

In the event that the security database is used by the customer with the parameter already enabled, then follow reference **[2]** to configure access privileges for the Qfiniti user from **Section 6.4**.



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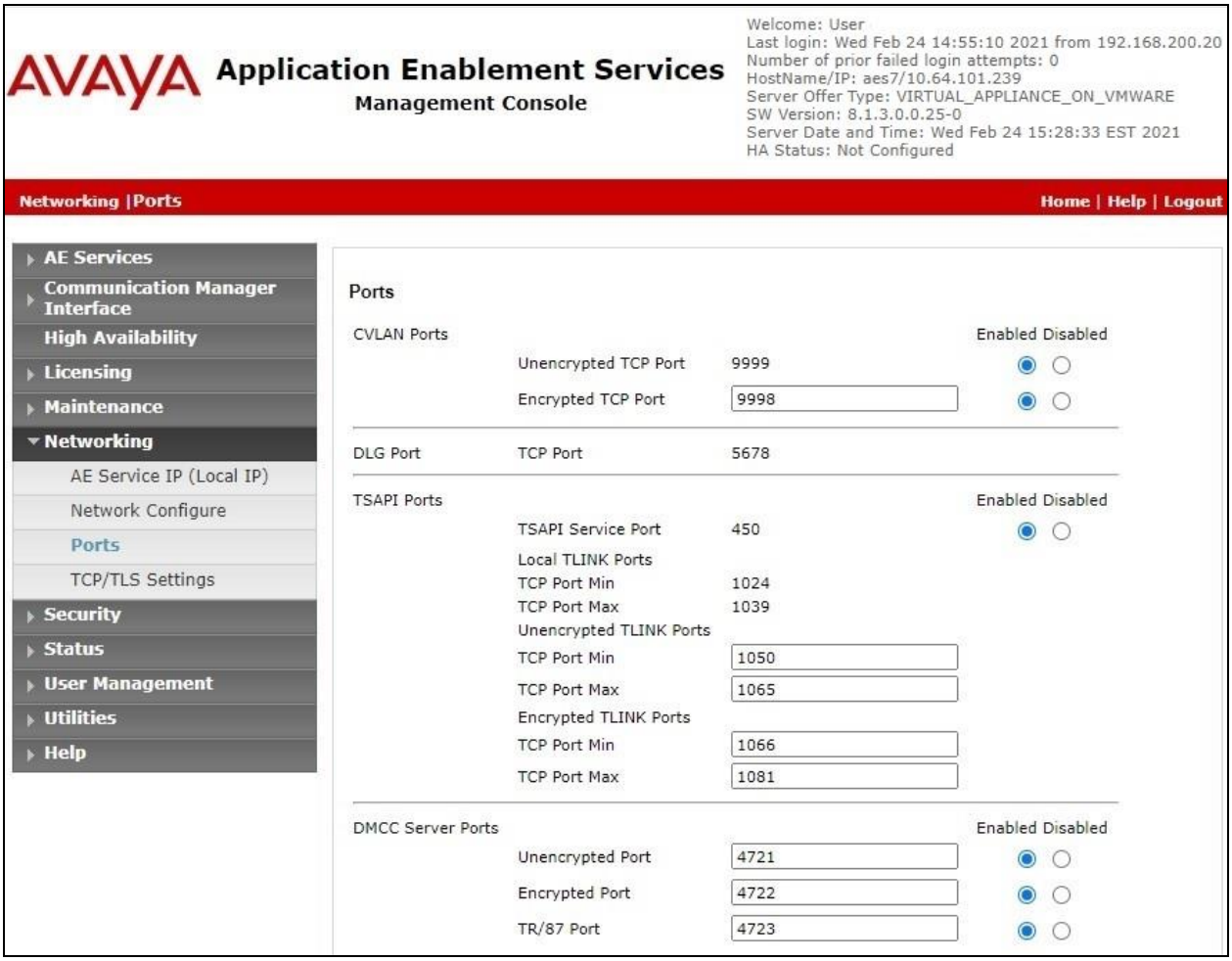
6.6. Administer Ports

Select **Networking → Ports** from the left pane, to display the **Ports** screen in the right pane.

In the **DMCC Server Ports** section, make certain the radio button for **Unencrypted Port** is selected under the **Enabled** column, as shown below. Retain the default values in the remaining fields.



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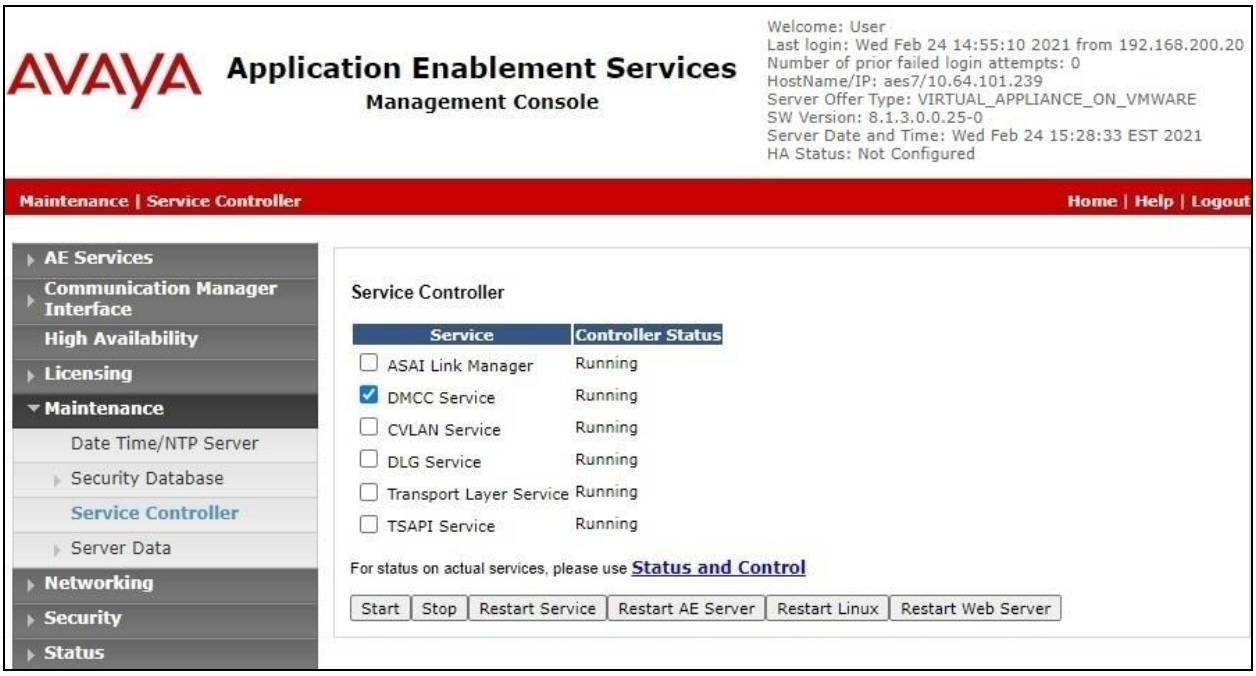
6.7. Restart Service

Select **Maintenance → Service Controller** from the left pane, to display the **Service Controller** screen in the right pane. Check **DMCC Service** and click **Restart Service**.



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7. Configure Avaya Aura® Session Manager

This section provides the procedures for configuring Session Manager, which is performed via the web interface of System Manager. The procedures include the following areas:

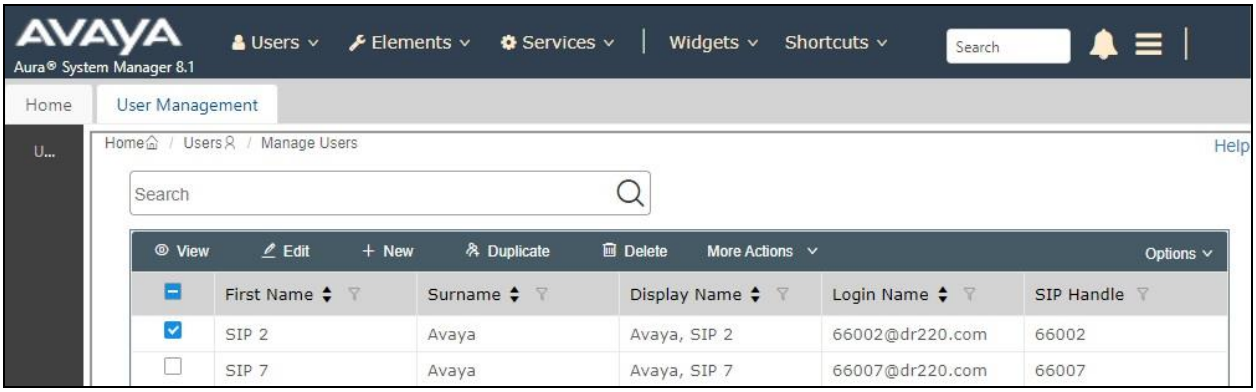
- Launch System Manager
- Administer users

7.1. Launch System Manager

Access the System Manager web interface by using the URL "https://ip-address" in an Internet browser window, where "ip-address" is the IP address of System Manager. Log in using the appropriate credentials.

7.2. Administer Users

In the subsequent screen (not shown), select **Users → User Management** from the top menu. Select **User Management → Manage Users** (not shown) from the left pane to display the screen below. Select the entry associated with the first SIP agent station from **Section 3**, in this case "66002", and click **Edit**.



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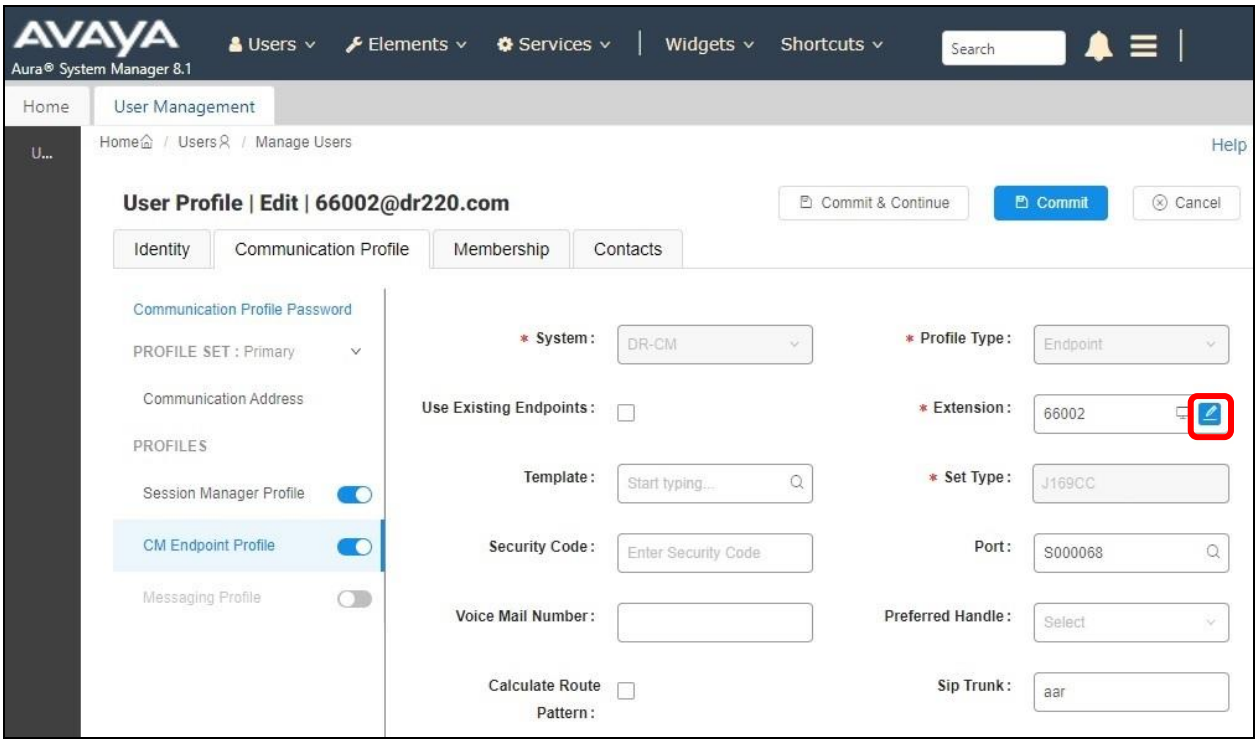
The **User Profile | Edit** screen is displayed. Select the **Communication Profile** tab, followed by **CM Endpoint Profile** to display the screen below.

Click on the **Editor** icon shown below.



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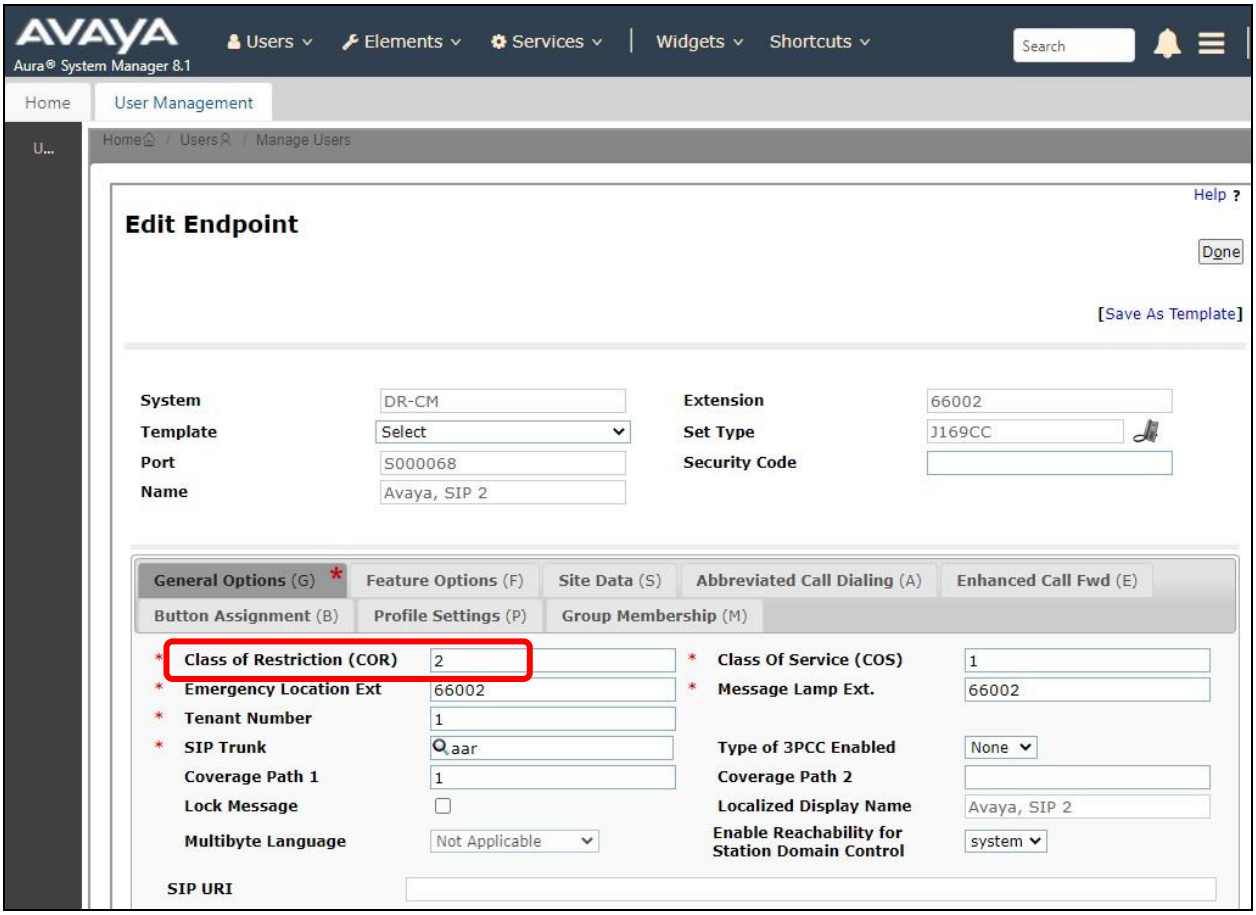
The **Edit Endpoint** pop-up screen is displayed. For **Class of Restriction (COR)**, enter the COR number from **Section 5.4** as shown below.

Repeat this section for all SIP agent extensions from **Section 3**. In the compliance testing, one SIP agent extension 66002 was configured.



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8. Configure Avaya Proactive Contact

This section provides the procedures for obtaining the host name of Proactive Contact.

Log in to the Linux shell of Proactive Contact. Use the "uname -a" command to obtain the host name, which will be used later to configure Qfiniti.

In the compliance testing, the host name of Proactive Contact is "lzpds4b", as shown below.

```
$ uname -a
Linux lzpds4b 2.6.32-754.28.1.el6.i686 #1 SMP Fri Jan 31 06:05:46 EST 2020 i686
I686 i386 GNU/Linux
LZPDS4B(xxx)@/opt/avaya/pds [431]
$
```


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9. Configure OpenText Qfiniti

This section provides the procedures for configuring Qfiniti. The procedures include the following areas:

- Administer certificates
- Launch SysConfig web interface
- Administer switches
- Administer CTI server
- Administer board configuration
- Administer general
- Administer machines
- Administer components
- Administer CTI sources
- Administer phone interface
- Administer logging data – phone class of service
- Administer VRM
- Administer line data
- Enable use
- Launch Qfiniti web interface
- Administer observe settings
- Administer agents
- Start service

The configuration of Qfiniti is performed by OpenText field service engineers. The procedural steps are presented in these Application Notes for informational purposes.

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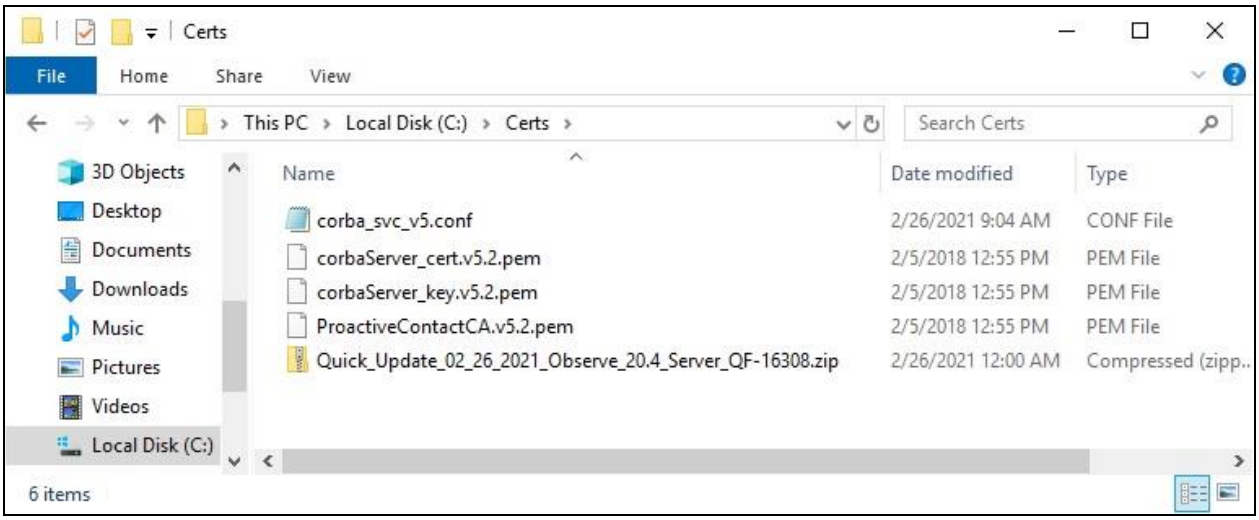
9.1. Administer Certificates

From the Qfiniti server, create a folder under the **C:** directory along with a desired name, in this case **Certs**. Note that Qfiniti requires the directory name to not contain spaces.

Copy one configuration and three certificate files shown below that were provided by OpenText to the newly created folder. In the compliance testing, the four files were unzipped from the Qfiniti Quick Update QF-16308 package shown below.



Open the **corba_svc_v5.conf** configuration file with an editor application and update the three **PEM** parameters with complete path and name of the pertinent certificate file, as shown below.

```
dynamic SSLIOP_Factory Service_Object * TAO_SSLIOP:
_make_TAO_SSLIOP_Protocol_Factory() "-SSLAuthenticate
SERVER_AND_CLIENT -SSLPrivateKey PEM:C:\Certs
\corbaServer_key.v5.2.pem -SSLCertificate PEM:C:\Certs
\corbaServer_cert.v5.2.pem -SSLCAfile PEM:C:\Certs
\ProactiveContactCA.v5.2.pem"
static Resource_Factory "-ORBProtocolFactory SSLIOP_Factory"
```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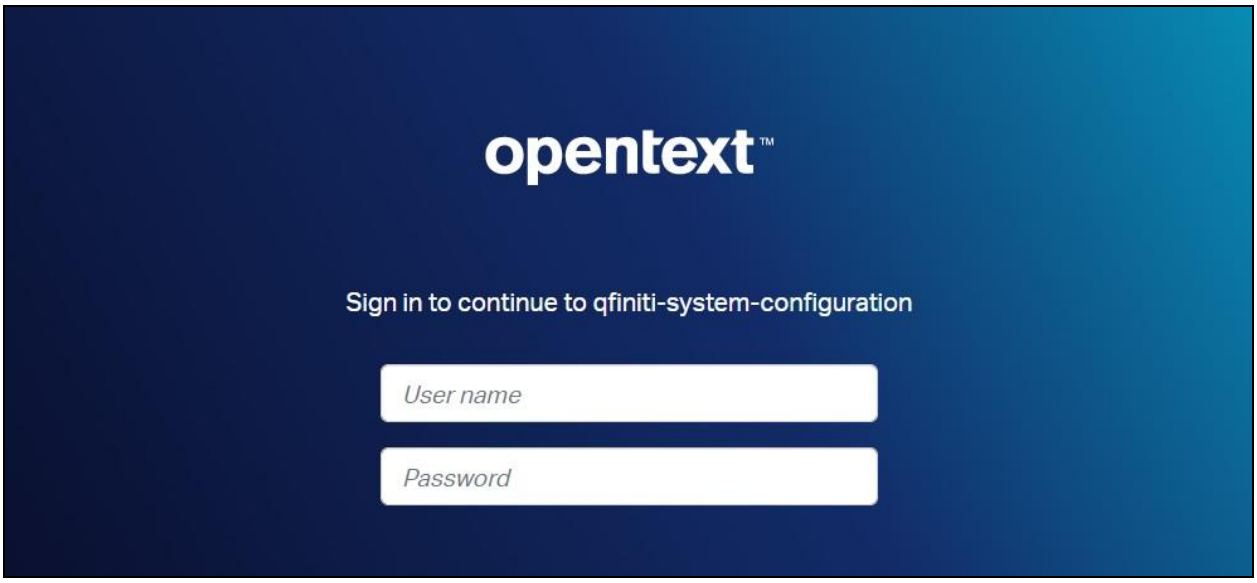
9.2. Launch SysConfig Web Interface

Access the SysConfig web interface by using the URL “http://hostname/sysconfig” in an Internet browser window, where “hostname” is the hostname of the Qfiniti server.

The screen below is displayed. Log in using the appropriate credentials.



In the subsequent screen, select the **Cross System** tab to display the screen below.

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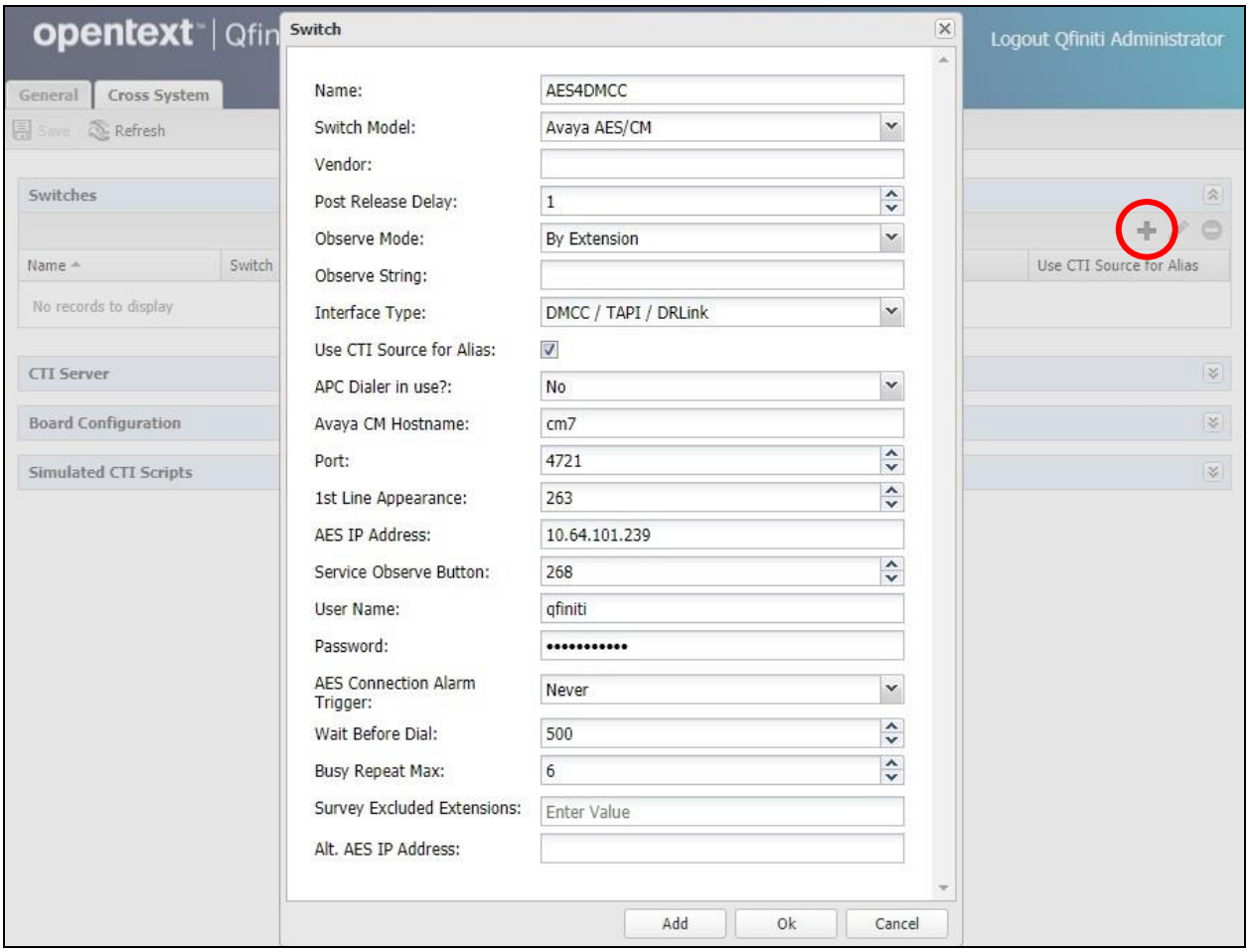
9.3. Administer Switches

Expand the **Switches** sub-section and click the **New Item** icon to add a new entry for Application Enablement Services. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **Name:** A descriptive name, in this case "AES4DMCC".
- **Switch Model:** "Avaya AES/CM"
- **Observe Mode:** "By Extension"
- **Interface Type:** "DMCC / TAPI / DRLink"
- **Use CTI Source for Alias:** Check this field.
- **Avaya CM Hostname:** The relevant switch connection name from **Section 6.3**.
- **AES IP Address:** The IP address of Application Enablement Services server.
- **User Name:** The Qfiniti user credentials from **Section 6.4**.
- **Password:** The Qfiniti user credentials from **Section 6.4**.



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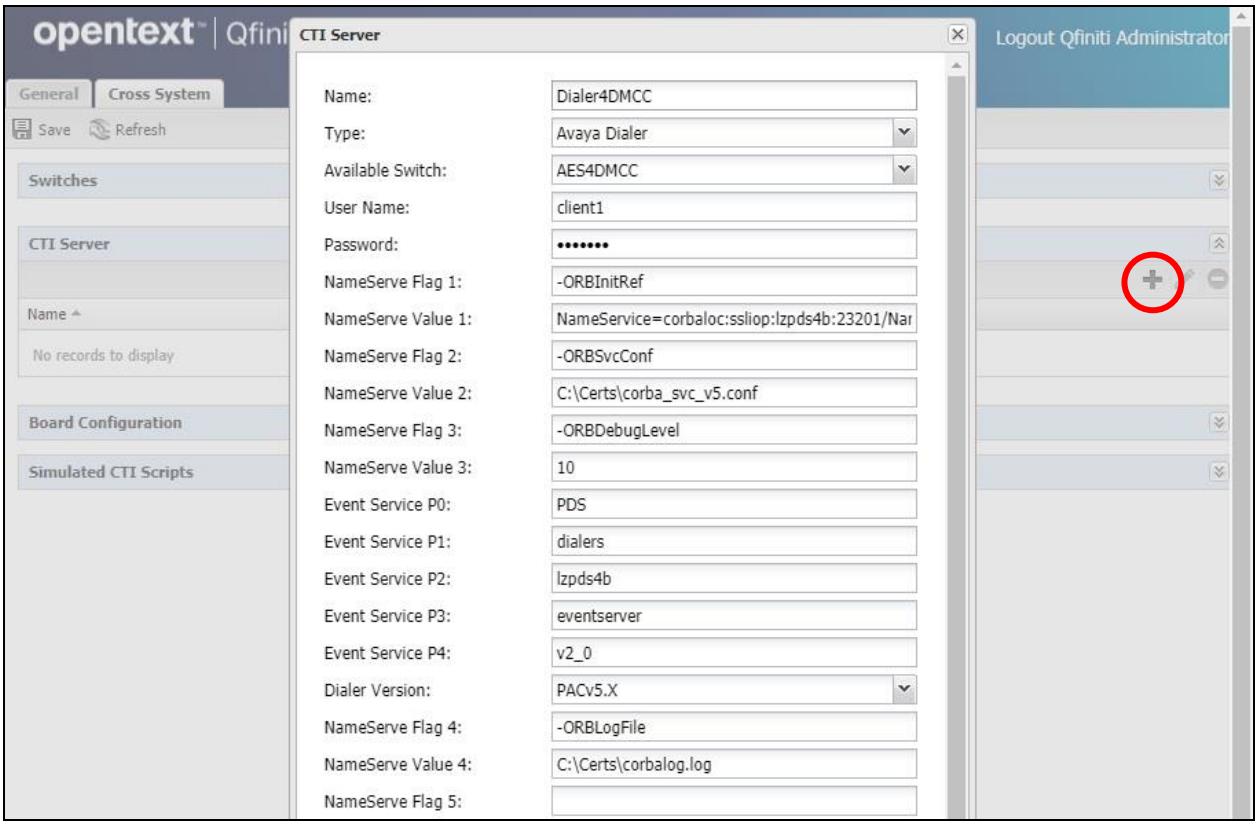
9.4. Administer CTI Server

Expand the **CTI Server** sub-section and click the **New Item** icon to add a new entry for Proactive Contact. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **Name:** A descriptive name, in this case "Dialer4DMCC".
- **Type:** "Avaya Dialer"
- **Available Switch:** Select the switch name from **Section 9.3**.
- **User Name:** The Proactive Contact Event Service client credentials.
- **Password:** The Proactive Contact Event Service client credentials.
- **NameServe Value 1:** "NameService=corbaloc:ssliop:**lzpds4b**:23201/NameService" , where **lzpds4b** is the Proactive Contact hostname from **Section 8**.
- **NameServe Flag 2:** "-ORBSvcConf"
- **NameServe Value 2:** Complete path of the **corba_svc_v5.conf** file from **Section 9.1**.
- **NameServe Value 3:** "10"
- **Event Service P2:** The Proactive Contact host name from **Section 8**.
- **Dialer Version:** "PACv5.X"
- **NameServe Value 4:** Complete path of the **corbalog.log** file from **Section 9.1**.



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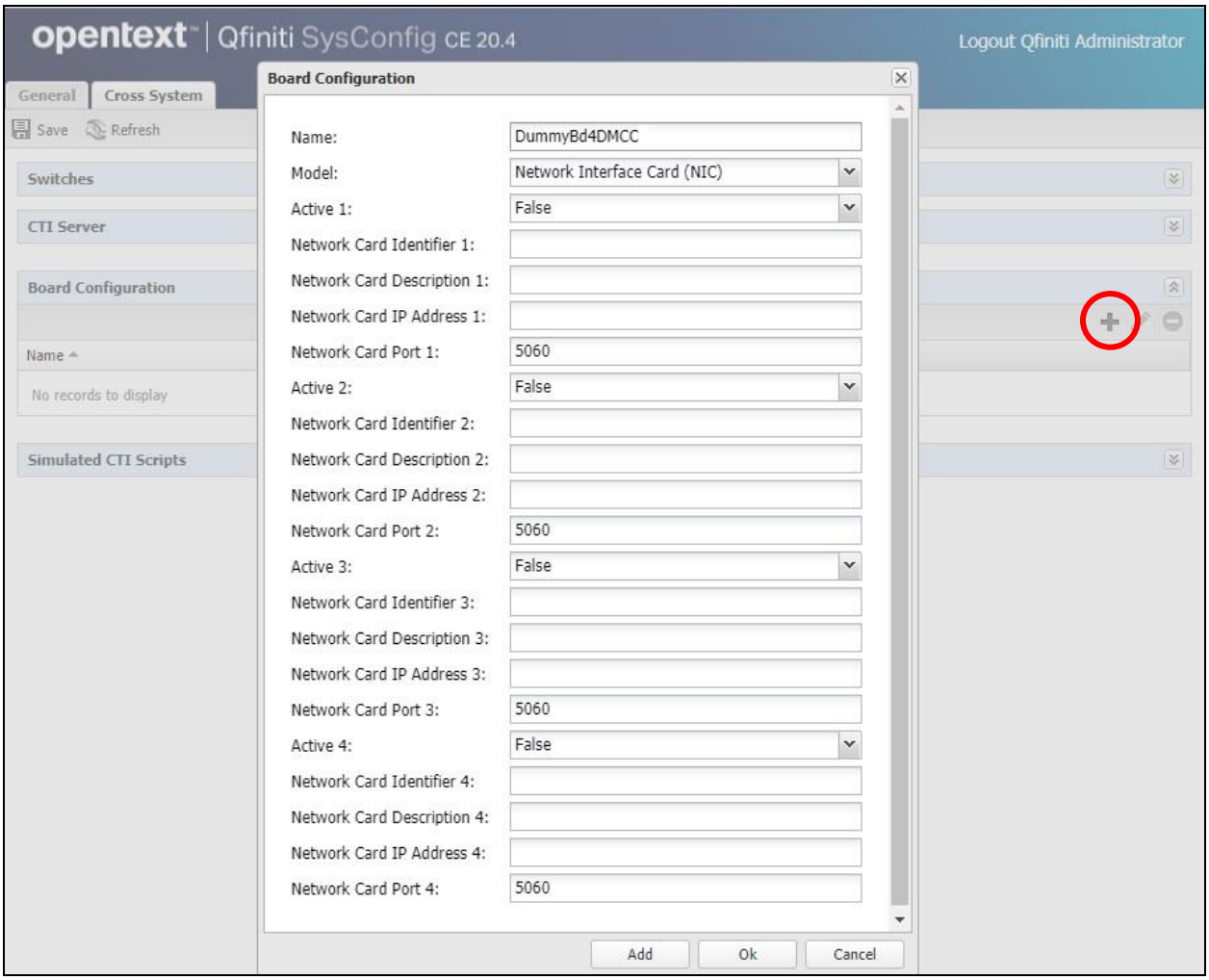
9.5. Administer Board Configuration

Expand the **Board Configuration** sub-section and click the **New Item** icon. Note that board is not used in the integration but required to be configured. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **Name:** A descriptive name, in this case "DummyBd4DMCC".
- **Model:** "Network Interface Card (NIC)"



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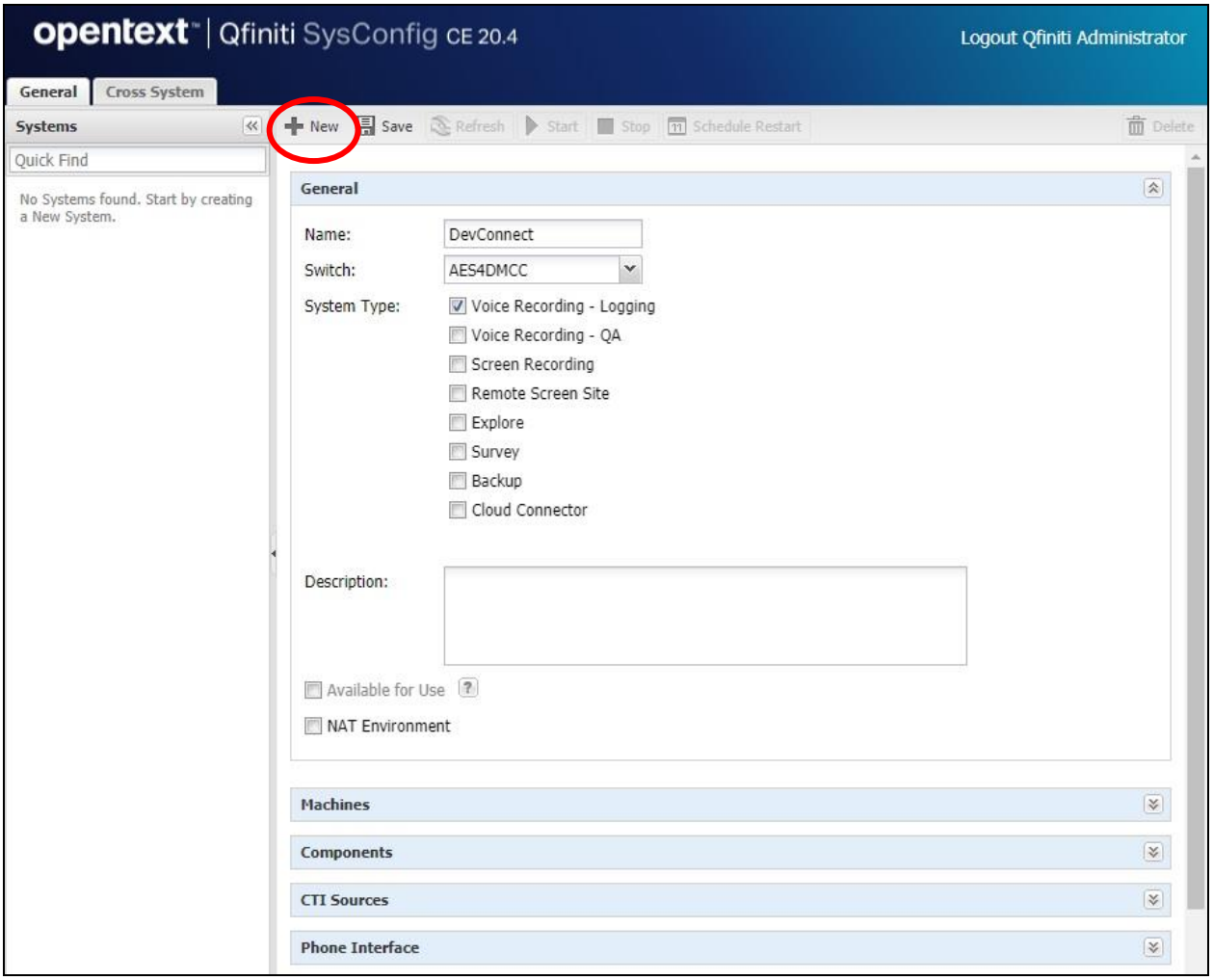
9.6. Administer General

Select the **General** tab. Expand the **General** sub-section and click the **New Item** icon to add a new system. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **Name:** A descriptive name, in this case "DevConnect".
- **Switch:** Select the switch name from **Section 9.3**.
- **System Type:** Check **Voice Recording - Logging**.



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9.7. Administer Machines

Expand the **Machines** sub-section and click the **New Item** to add a new machine. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **Server Name:** The host name of the Qfiniti server.
- **IP Address:** The IP address of the Qfiniti server.
- **Role:** "Master".

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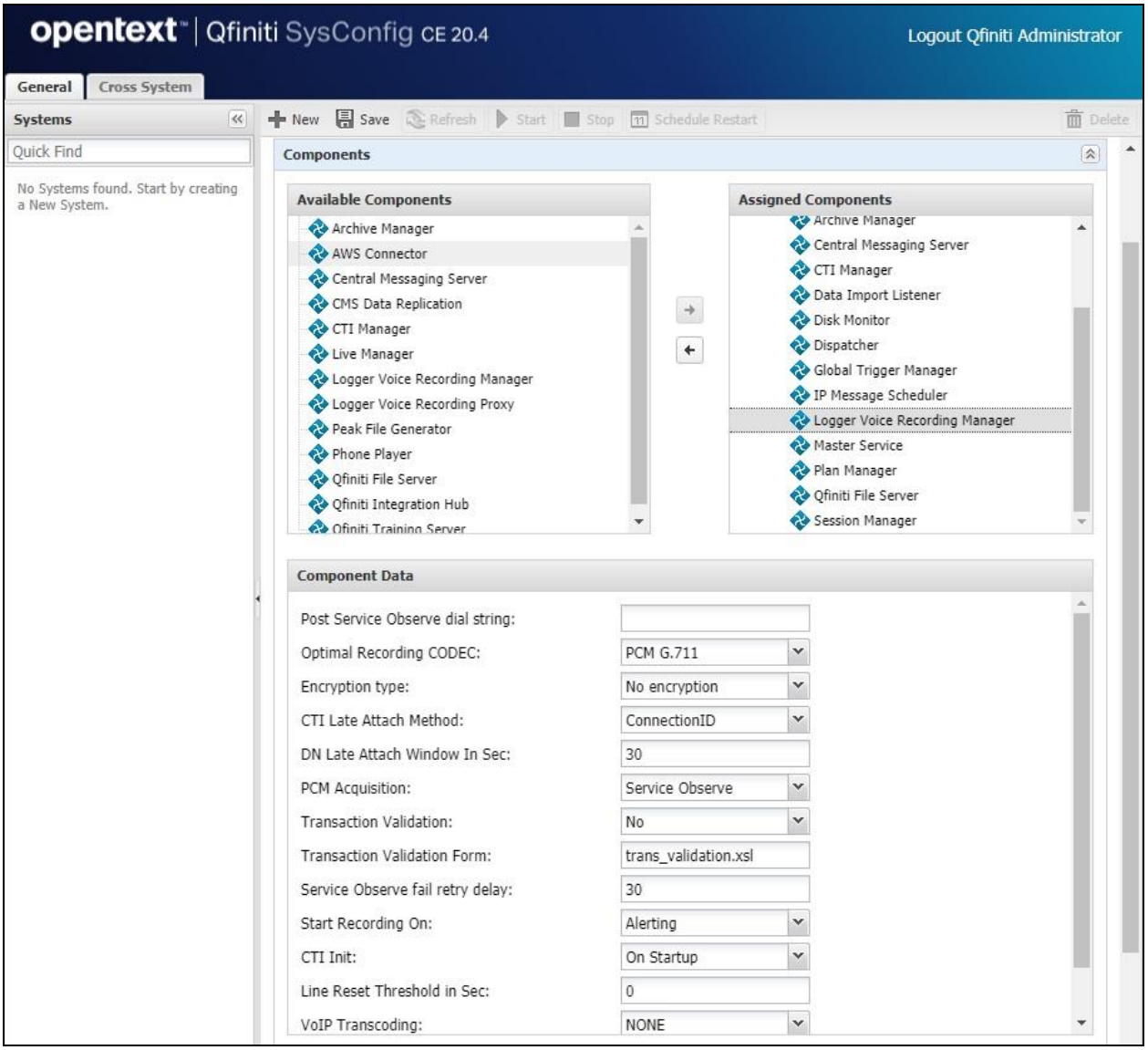
9.8. Administer Components

Expand the **Components** sub-section and follow reference **[5]** to assign and configure the required components. Under **Assigned Components**, select **Logger Voice Recording Manager**. Under **Component Data**, enter the following values for the specified fields and retain the default values for the remaining fields.

- **Optimal Recording CODEC:** "PCM G.711".
- **PCM Acquisition:** "Service Observe"

Follow reference **[5]** to configure **Archive Manager** and **Qfiniti File Server** components (not shown).



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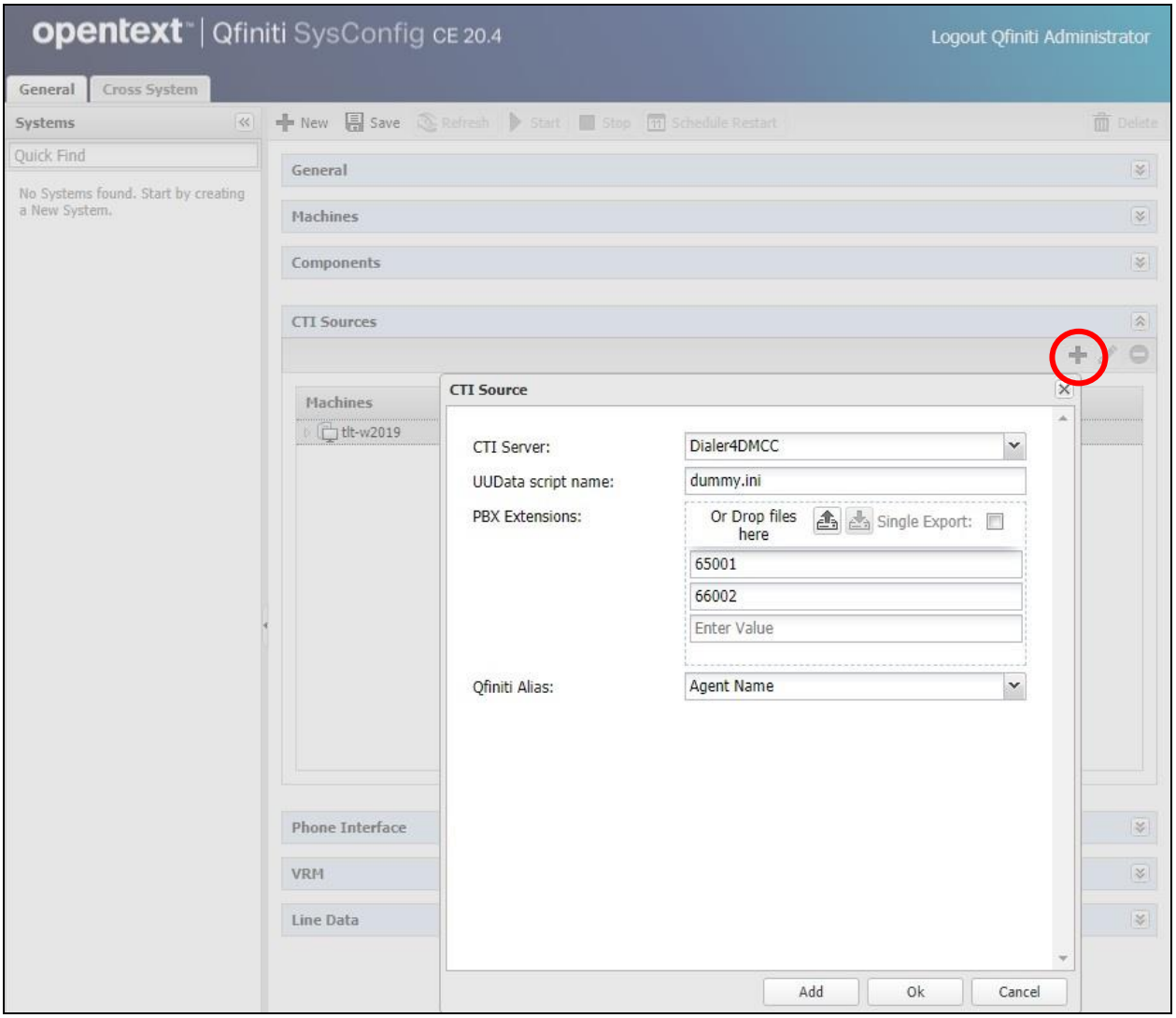
9.9. Administer CTI Sources

Expand the **CTI Sources** sub-section. Select the applicable machine server name from **Section 9.7**, followed by the **Add CTI Source** icon. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **CTI Server:** Select the CTI server name from **Section 9.4**.
- **UUData script name:** Script is not used in the integration but required to be configured.
- **PBX Extensions:** The agent station extensions from **Section 3**.
- **Qfiniti Alias:** "Agent Name"



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9.10. Administer Phone Interface

Expand the **Phone Interface** sub-section. Select the machine server name from **Section 9.7** and click on the **Edit** icon to edit the entry. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **Machine Type:** "Logger"
- **Phone Interface Type:** "DMCC Ver 7.0 & Up"
- **Number of Lines:** Select the total number of agents from **Section 3**.

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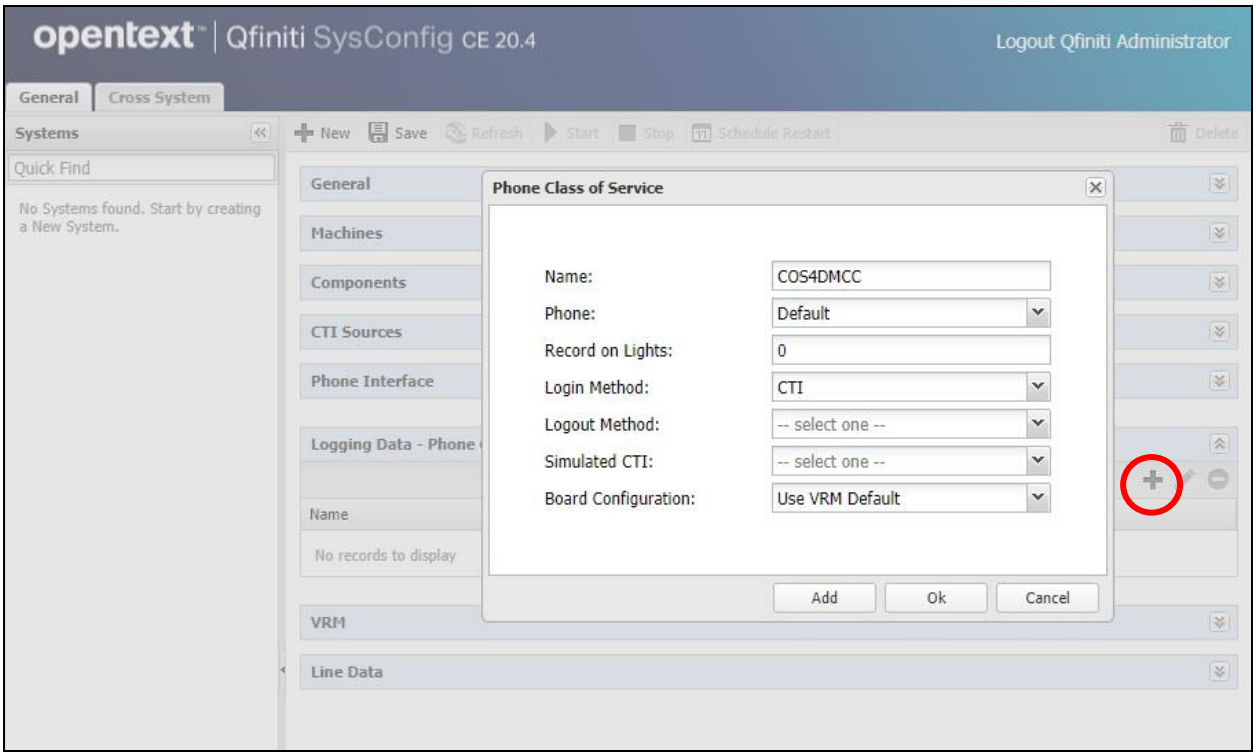
9.11. Administer Logging Data – Phone Class of Service

Expand the **Logging Data – Phone Class of Service** sub-section. Select the **New Item** icon. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **Name:** A desired name, in this case "COS4DMCC".
- **Phone:** "Default"
- **Record on lights:** "0"
- **Login Method:** "CTI".



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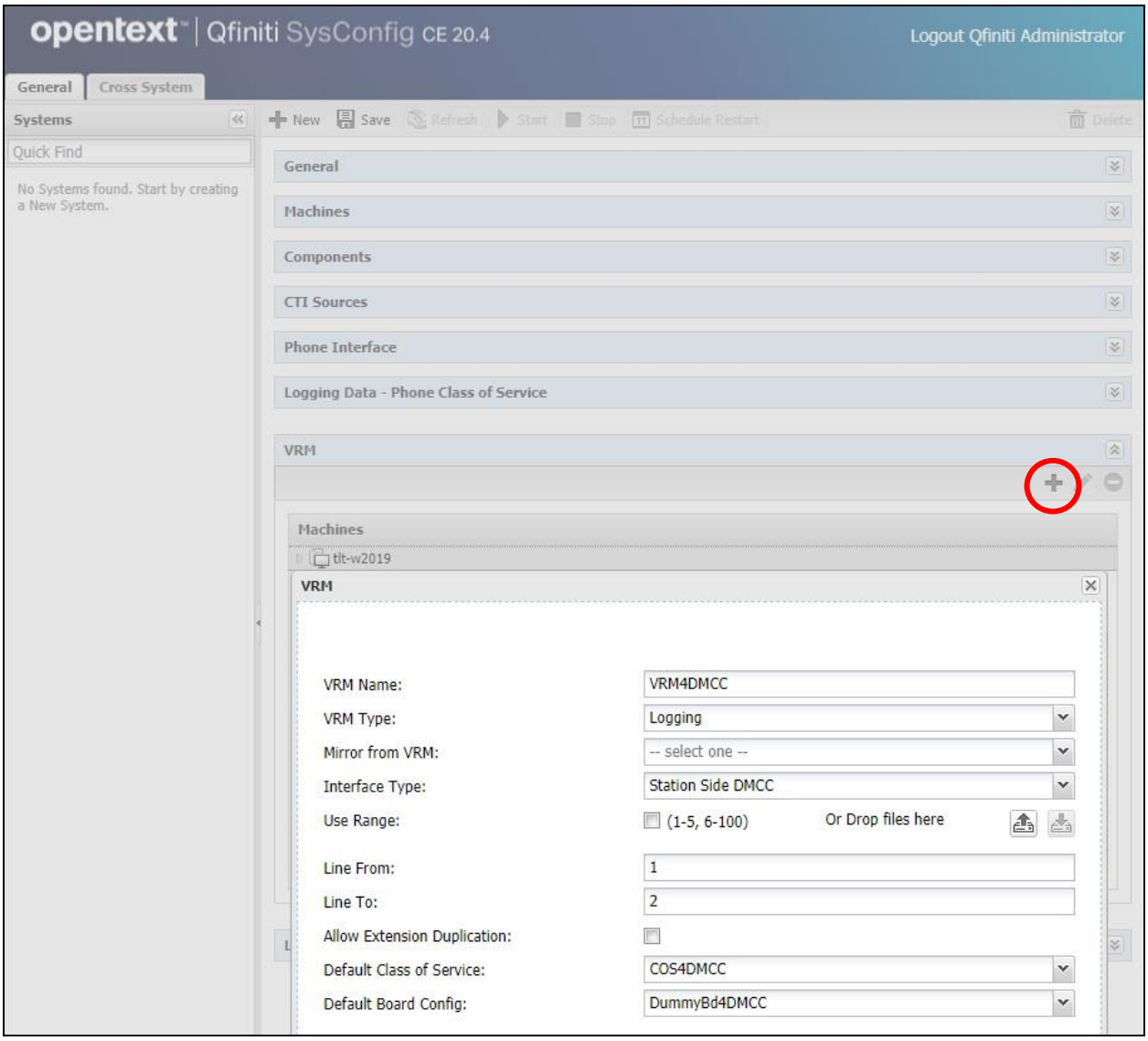
9.12. Administer VRM

Expand the **VRM** sub-section. Select the machine server name from **Section 9.7**, followed by the **Add VRM** icon. Enter the following values for the specified fields.

- **VRM Name:** A desired name, in this case "VRM4DMCC".
- **VRM Type:** "Logging"
- **Interface Type:** "Station Side DMCC"
- **Line From** and **Line To:** Range of agent stations, in this case two stations so "1" to "2".
- **Default Class of Service:** Select the phone class of service name from **Section 9.11**.
- **Default Board Config:** Select the board name from **Section 9.5**.



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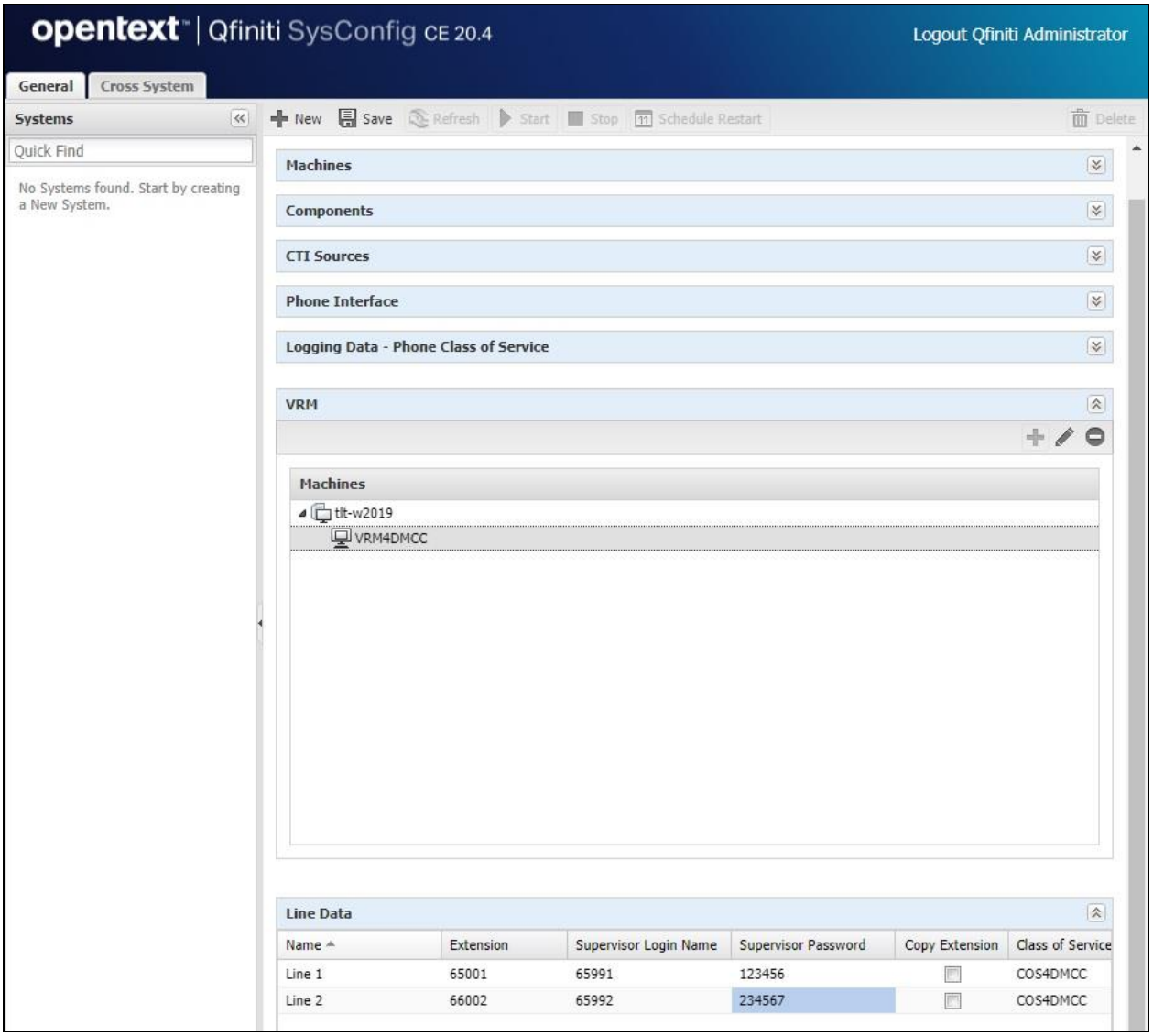
9.13. Administer Line Data

Select the newly added VRM from **Section 9.12**, and expand the **Line Data** sub-section. Select the first line. For **Extension**, enter the first agent station extension from **Section 3**. For **Supervisor Login Name** and **Supervisor Password**, enter the first virtual IP softphone extension and associated security code from **Section 5.6** respectively.

Repeat this section to administer all agent station extensions from **Section 3** with all virtual IP softphones from **Section 5.6**, as shown below.



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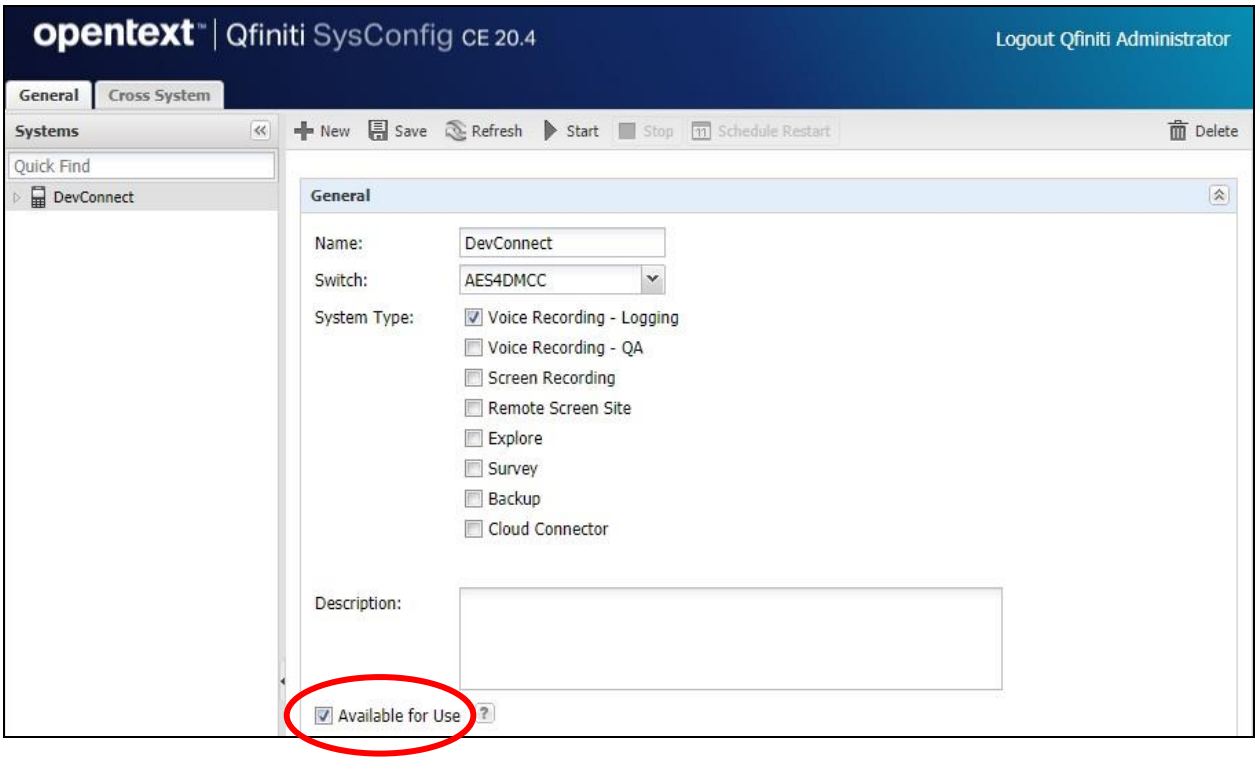
9.14. Enable Use

Scroll up the right pane and expand the **General** sub-section. Check **Available for Use**.



9.15. Launch Qfiniti Web Interface

Access the Qfiniti web interface by using the URL "http://hostname/qwa" in an Internet browser window, where "hostname" is the hostname of the Qfiniti server. The screen below is displayed. Log in using the appropriate credentials.

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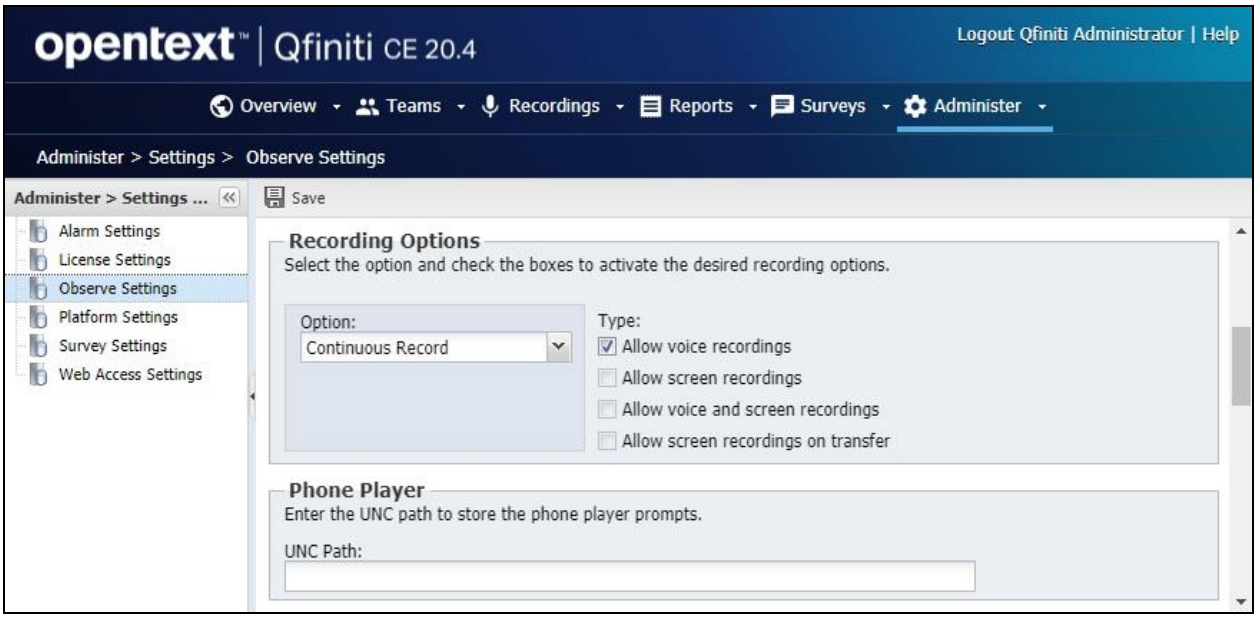
9.16. Administer Observe Settings

In the subsequent screen, select **Administer → Settings** from the top menu, followed by **Observe Settings** in the left pane.

Scroll down to the **Recording Options** sub-section. For **Option**, select "Continuous Record". For **Type**, check **Allow voice recordings**, as shown below. Retain the default values for the remaining fields.



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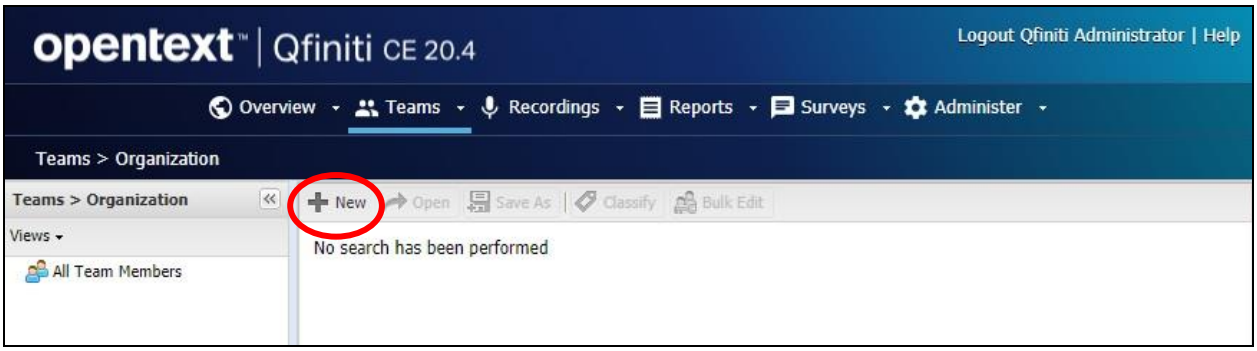
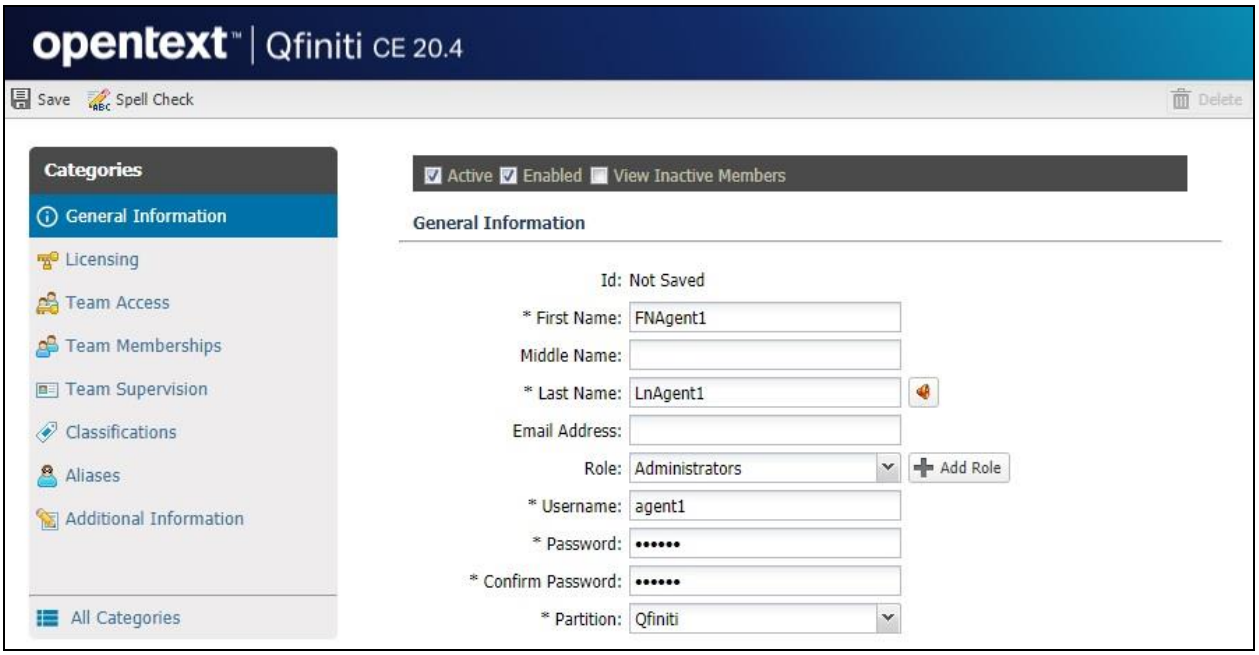
9.17. Administer Agents

Select **Teams → Organization** from the top menu, to display the screen below. Select the **New** icon in the right pane to add an agent.



In the pop-up screen below, enter the following values for the specified fields and retain the default values for the remaining fields.

- **First Name:** A desired first name for the first agent line from **Section 9.13**.
- **Last Name:** A desired last name for the first agent line from **Section 9.13**.
- **Role:** Select a desired and existing role.
- **Username:** The desired login credentials for the agent.
- **Password:** The desired login credentials for the agent.
- **Confirm Password:** The same desired login credential for the agent.
- **Partition:** "Qfiniti"



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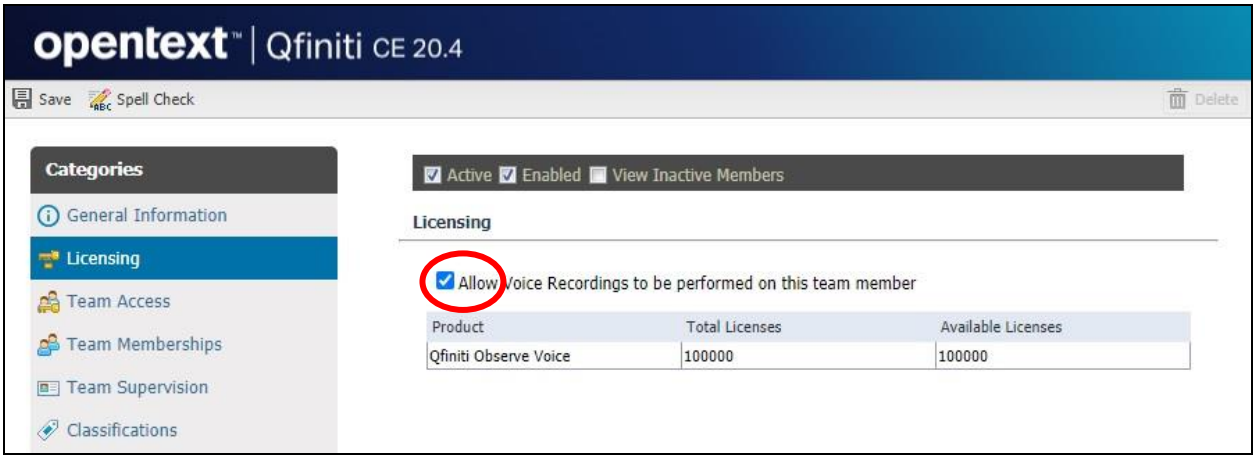
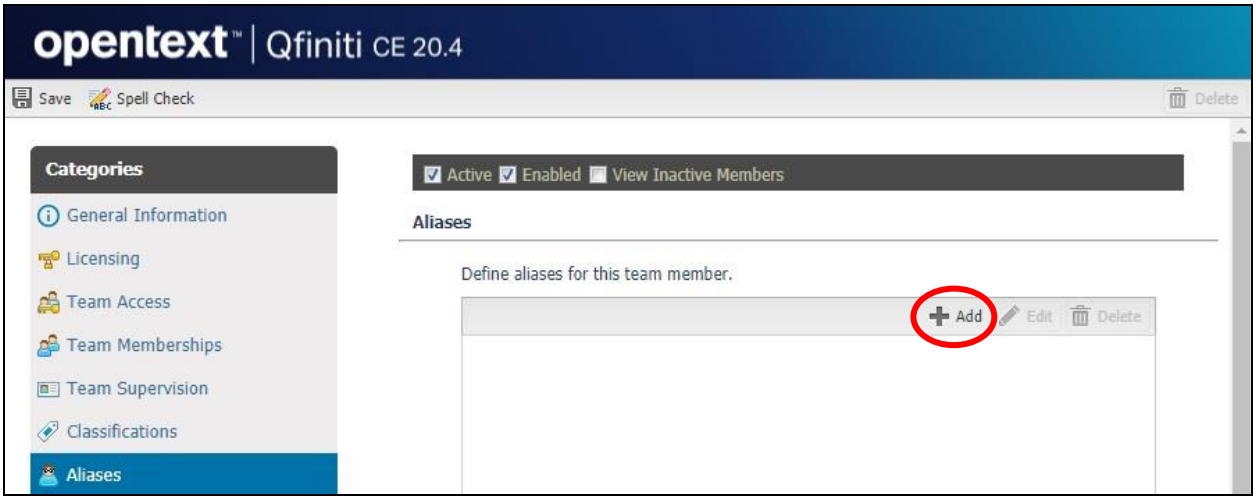
Select **Licensing** from the left pane to display the **Licensing** screen. Check **Allow Voice Recordings to be performed on this team member**, as shown below.



Follow reference **[5]** to configure subsequent steps for the new agent (not shown). Upon reaching the **Aliases** step, click the **Add** icon to create an alias.



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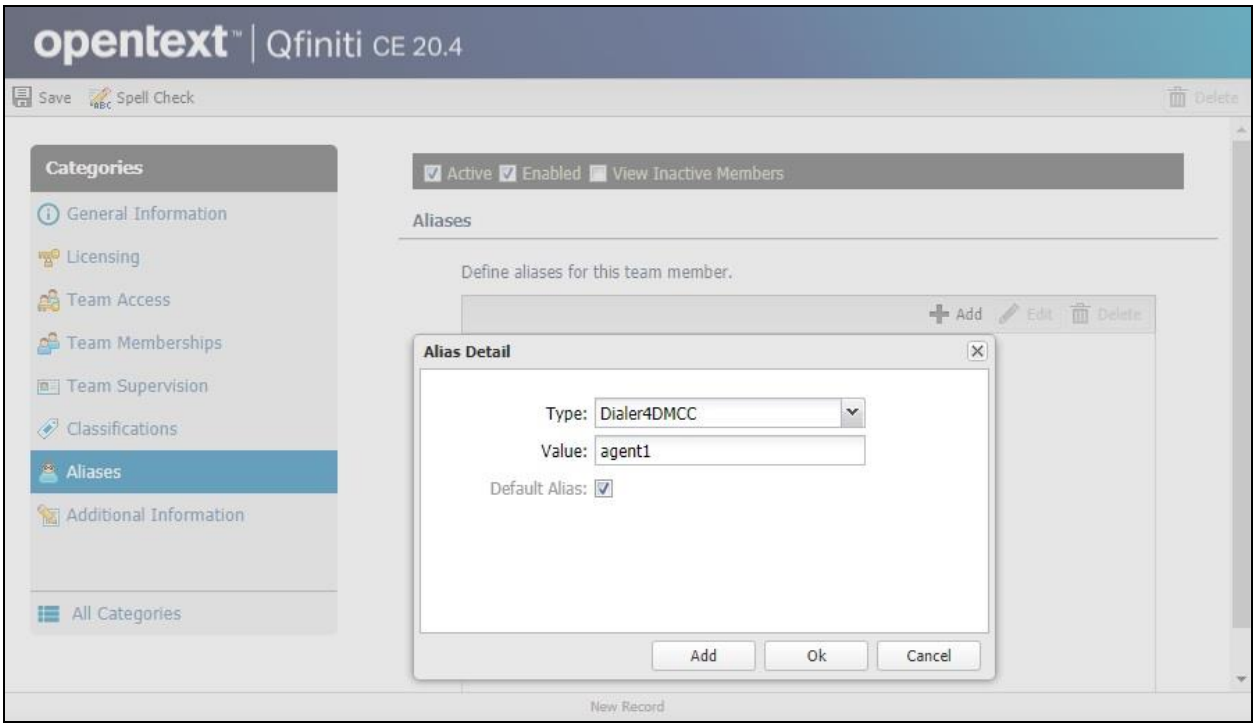
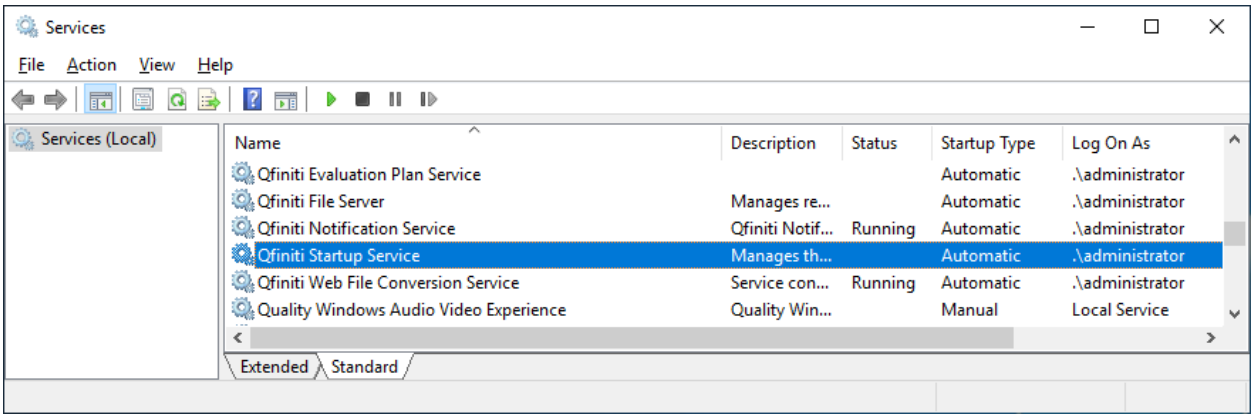
The **Alias Detail** pop-up screen is displayed. For **Type**, select the CTI server name from **Section 9.4**. For **Value**, enter the agent ID for the first line in **Section 9.13** that the agent uses to log into Proactive Contact Agent, in this case "agent1". Retain the default value in the remaining field.

Repeat this section to add a team member for each line from **Section 9.13**. In the compliance testing, two team members with alias values "agent1" and "agent2" were configured.



9.18. Start Service

From the Qfiniti server, select **Windows → Control Panel → Administrative Tools → Services** to display the **Services** screen. Start **Qfiniti Startup Service**, as shown below



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10. Verification Steps

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

10.1. Verify Avaya Aura® Communication Manager

On Communication Manager, verify registration status of the virtual IP softphones by using the "list registered-ip-stations" command. Verify that all virtual IP softphones from **Section 5.6** are displayed along with the IP address of the Application Enablement Services server, as shown below.

```
list registered-ip-stations

                            REGISTERED IP STATIONS

Station Ext      Set Type/ Prod ID/    Station IP Address/
or Orig Port     Net Rgn   Release     Gatekeeper IP Address
  Socket
65000            9611      IP_Phone    192.168.200.219
  tls            1         6.8502      10.64.101.236
65001            9611      IP_Phone    192.168.200.125
  tls            1         6.8502      10.64.101.236
65991            4620      IP_API_A    10.64.101.239
  tcp            1         6.8502      10.64.101.236
65992            4620      IP_API_A    10.64.101.239
  tcp            1         6.8502      10.64.101.236
```


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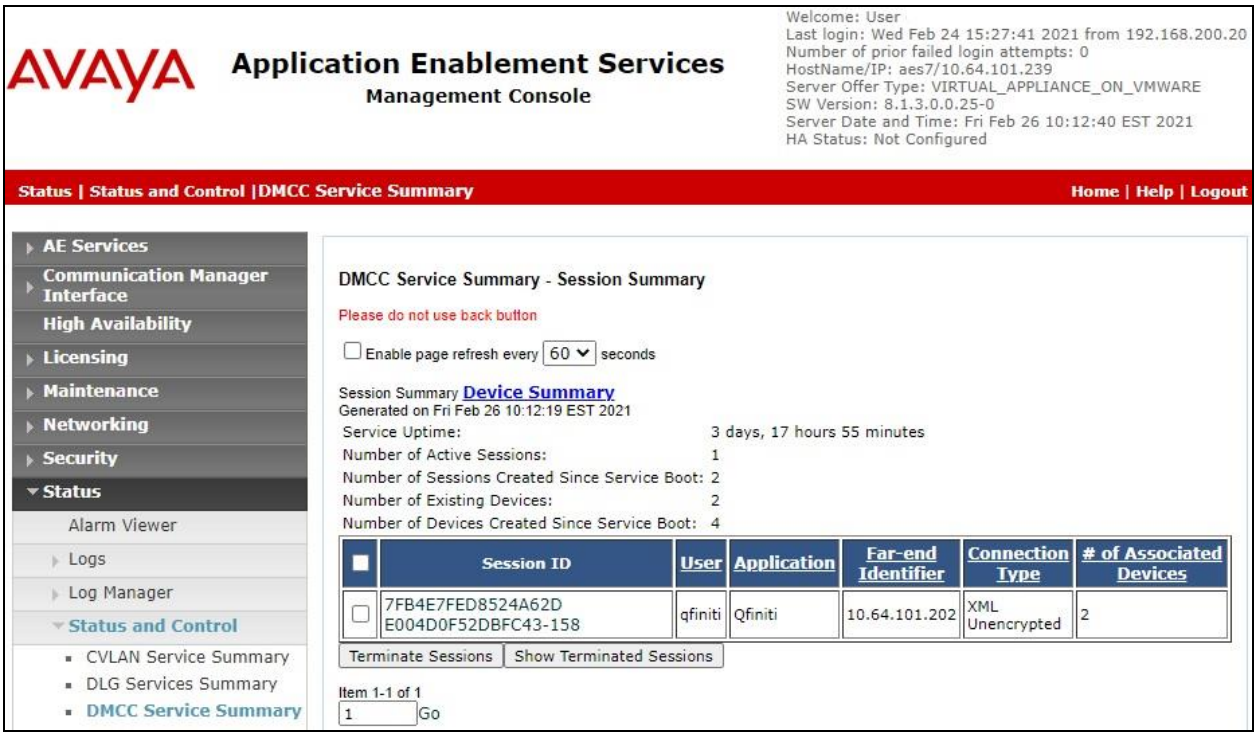
10.2. Verify Avaya Aura® Application Enablement Services

On Application Enablement Services, verify status of the DMCC link by selecting **Status → Status and Control → DMCC Service Summary** from the left pane. The **DMCC Service Summary – Session Summary** screen is displayed.

Verify the **User** column shows a session with the Qfiniti user from **Section 6.4**, and that the **# of Associated Devices** reflects the number of lines from **Section 9.13**, as shown below.



10.3. Verify Avaya Proactive Contact

Log in to the Linux shell of Proactive Contact and issue the "netstat | grep enserver" command. Verify that there is an entry showing an **ESTABLISHED** connection with IP address of the Qfiniti server, as shown below.

```
tcp        0      0 lzpds4b:enserver_ssl      10.64.101.202:54304       ESTABLISHED
tcp        0      0 lzpds4b:enserver_ssl      lzpds4b:33464             ESTABLISHED
tcp        0      0 lzpds4b:33464             lzpds4b:enserver_ssl      ESTABLISHED
```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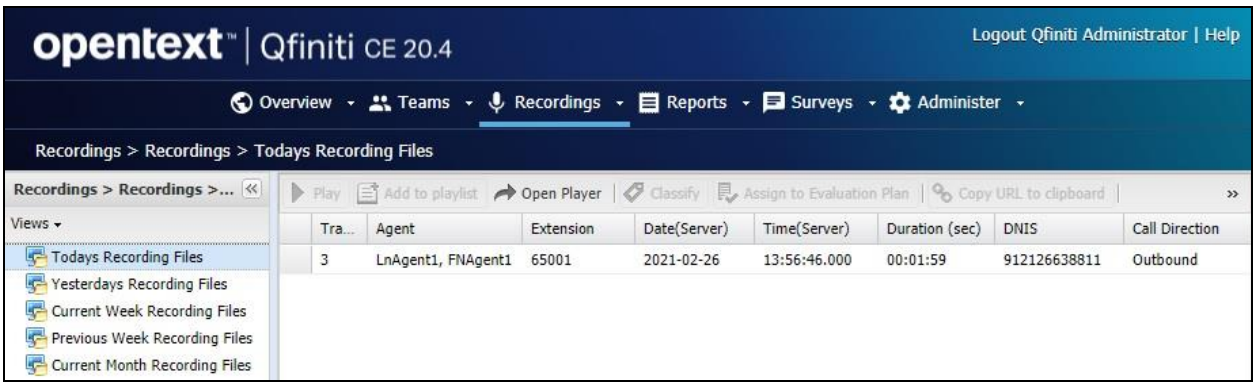
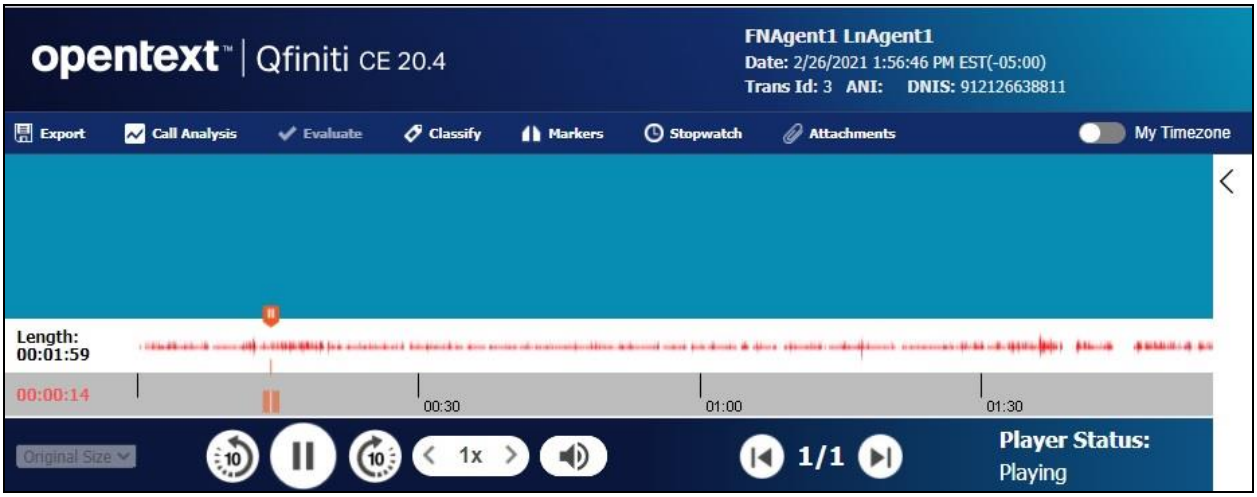
10.4. Verify OpenText Qfiniti

Start a job on Proactive Contact and log an agent in to handle and complete an outbound call. Follow the procedure in **Section 9.15** to launch the Qfiniti web interface, and log in using the appropriate user credentials.

Select **Recordings → Recordings** from the top menu, followed by **Todays Recording Files** from the left pane, to display a list of recordings for today. Verify that there is an entry reflecting the last call, with proper values in the relevant fields.



Double click on the entry and verify that the recording can be played back.



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10.5. Conclusion

These Application Notes describe the configuration steps required for OpenText Qfiniti 20.4 to successfully interoperate with Avaya Proactive Contact 5.2 with PG230 and Avaya Aura® Application Enablement Services 8.1.3. All feature and serviceability test cases were completed with observations noted in **Section 2.2**.

11. Additional References

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

1. *Administering Avaya Aura® Communication Manager*, Release 8.1.x, Issue 8, November 2020, available at http://support.avaya.com.

2. *Administering Avaya Aura® Application Enablement Services*, Release 8.1.x, Issue 8, December 2020, available at http://support.avaya.com.

3. *Administering Avaya Aura® Session Manager*, Release 8.1.x, Issue 8, February 2021, available at http://support.avaya.com.

4. *Administering Avaya Proactive Contact*, Release 5.2, Issue 1, July 2018, available at http://support.avaya.com.

5. *OpenText Qfiniti User Guide*, Version 20.4, Rev. 2020-Oct-28, available to existing customers at https://knowledge.opentext.com/knowledge.

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