Avaya Solution & Interoperability Test Lab

Application Notes for Scantalk TeamView Office Manager with Avaya Aura® Communication Manager 6.0 and Avaya Aura® Application Enablement Services 5.2.2 – Issue 1.0

Abstract

These Application Notes describe the interoperability of Scantalk TeamView Office Manager and Avaya Aura® Application Enablement Services. Scantalk TeamView Office Manager is a Windows based application based on the .Net framework with an SQL database running in the background. Scantalk TeamView Office Manager allows users to view the status of colleagues and interact using Avaya Aura® Application Enablement Services to control a handset. Scantalk TeamView Office Manager can also be used as an agent workstation with the agent able to take calls, monitor queues and monitor other agent states.

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 describes the compliance tested configuration used to connect Scantalk TeamView Office Manager to Avaya Aura® Application Enablement Services. The tested configuration consisted of Avaya Aura® Communication Manager, Avaya 9600 and 2400 Series handsets and Avaya Aura® Application Enablement Services to allow the telephony functionality. Scantalk TeamView Office Manager allows users to take control of a range of Avaya handsets using Avaya Aura® Application Enablement Services to perform telephony functions. Scantalk TeamView Office Manager also provides functionality for ACD agents to log in and be sent calls using Avaya Aura® Communication Manager call centre functionality. Scantalk TeamView Office Manager also provides screen pop and email functionality, however these features lay outside the scope of the interoperability testing carried out.

2. General Test Approach and Test Results

To verify the interoperability between TeamView Office Manager and Application Enablement Services, a link was established to a handset and calls were made to and from TeamView Office Manager controlling the handset from the application interface. The testing was carried out using SIP, H.323 and digital handsets and common PBX features on these handsets were verified as functioning as designed. Agent Functionality was tested using H.323 and digital handsets as the SIP ACD functionality was not an option at the time of testing.

2.1. Interoperability Compliance Testing

Interoperability testing covered the following features and functionality originating from TeamView Office Manager:

- Take control of SIP, H.323, digital handset
- Make and receive calls on SIP, H.323 and digital handsets
- Transfer calls to SIP, H.323 and digital handset
- Park a call on TeamView Office Manager
- Pick up a call from TeamView Office Manager
- Login as an agent on a digital and H.323 handset
- Answer an ACD call using TeamView Office Manager
- Change agent state to after Call Work
- Set different AUX work reason codes
- Monitor changes in the state of SIP, H.323 and digital handsets.

2.2. Test Results

During the test it was noted that transfer works in a different way to the method used in Communication Manager. The transfer method used in TeamView Office Manager requires 2 active calls (ringing for blind and answered for assisted). The transfer button then joins the 2 active calls together whilst ceasing the calls in TeamView Office Manager.

TeamView Office Manager does not support a conference feature at this time.

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2.3. Support

For technical support on Scantalk products please contact the Scantalk support team at:
Web: www.scantalk.com
Email: support@scantalk.com
Phone: +45 70 222 080

3. Reference Configuration

The test configuration in **Figure 1** was used to compliance test the interoperability of TeamView Office Manager**.** TeamView Office Manager connects to the Application Enablement Server and Communication Manager is used by TeamView Office Manager to provide connectivity to called parties.

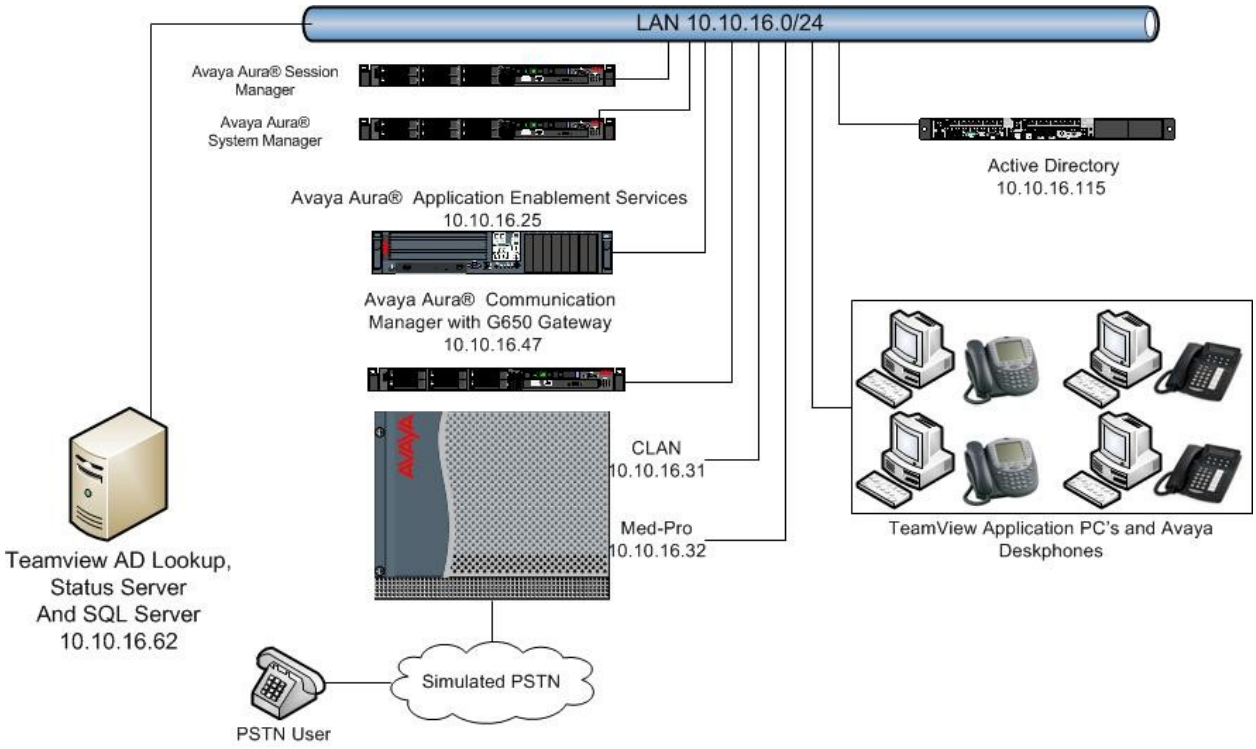

Figure 1: ScanTalk TeamView Office Manager Topology

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4. Equipment and Software Validated

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

Equipment	Software
Avaya S8800 Media Server	Avaya Aura® Communication Manager 6.0.1 (R16x.0.0.345.0-18444)
Avaya G650 Media Gateway TN799DP CLAN TN2602AP Media Processor	 FW0038 FW0057
Avaya S8800 Media Server	Avaya Aura® Session Manager 6.1 (R6.1.0.0.610023)
Avaya S8800 Media Server	Avaya Aura® System Manager 6.1 (R6.1.0.4.5072-6.1.4.113)
Avaya S8500 Media Server	Avaya Aura® Application Enablement Services 5.2.2 (r5-2-2-105-0)
Avaya 9600 Series H.323 Handsets	Avaya one-X® Deskphone v3.1
Avaya 9600 Series SIP Handsets	Avaya one-X® Deskphone SIP v2.6.4.0
Avaya 2400 Series Digital Handsets	--
Dell Precision 490 Windows 7 PC	ScanTalk TeamView AD Lookup Ver 2.3.12.86
Dell Precision 490 Windows 7 PC	ScanTalk TeamView Office Manager Ver 2.0.15.250
Dell Precision 490 Windows 7 PC	ScanTalk TeamView Status Server Ver 1.2.5.63
IBM Xseries 336 Server	Management Console for Windows 2003 Active Directory
Dell Precision 490 Windows 7 PC	Microsoft SQL Server 2008

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5. Configure Avaya Aura® Communication Manager

This section describes the steps required in Communication Manager to allow Application Enablement Services to give TeamView Office Manager control of stations and agent logins.

5.1. Verify System Capacity

The license file installed on the system controls these attributes. If a required feature is not enabled or there is insufficient capacity, contact an authorized Avaya sales representative. Use the **display system-parameters customer-options** command to determine these values. On **Page 1** verify that there are sufficent stations available.

```
display system-parameters customer-options                    Page   1 of  11
                            OPTIONAL FEATURES

     G3 Version: V16                            Software Package: Enterprise
       Location: 2                               System ID (SID): 1
       Platform: 28                              Module ID (MID): 1

                                                          USED
                            Platform Maximum Ports: 65000 673
                                 Maximum Stations: 41000 45
                         Maximum XMOBILE Stations: 41000 0
                Maximum Off-PBX Telephones - EC500: 41000 0
                Maximum Off-PBX Telephones -   OPS: 41000 27
                Maximum Off-PBX Telephones - PBFMC: 41000 0
                Maximum Off-PBX Telephones - PVFMC: 41000 0
                Maximum Off-PBX Telephones - SCCAN: 0     0
                     Maximum Survivable Processors: 313   0



        (NOTE: You must logoff & login to effect the permission changes.)
```

5.2. Verify the Dial Plan entries

Use the **change dialplan analysis** command to enter valid entries for adding stations, agents and hunt group extensions. In this configuration an entry of **4 digit** extensions starting with **1, 60 and 309** are used respectively.

```
change dialplan analysis                                      Page   1 of  12
                          DIAL PLAN ANALYSIS TABLE
                               Location: all            Percent Full: 2

   Dialed   Total  Call     Dialed   Total  Call     Dialed   Total  Call
   String   Length Type     String   Length Type     String   Length Type
  1           4   ext
  309         4   ext
  350         4   ext
  5           1   fac
  60          4   ext
```


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5.3. Add connection to Avaya Aura® Application Enablement Services

Use **display node-names ip** and take a note of the node name of the Clan used to connect to the Application Enablement Services.

```
display node-names ip                                          Page   1 of   2
                                IP NODE NAMES
    Name              IP Address
AES522              10.10.16.25
CLAN                10.10.16.31
```

Use the **change ip-services command** and enter **AESVCS** as the **Service Type**. Set the **Enabled** field to **y**. In the **Local Node** field, enter the node name of the CLAN you have configured to connect to Application Enablement Services.

```
change ip-services                                             Page   1 of   4

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

Move to **Page 4** and enter the node name of the Application Enablement Services in the **AE Services Server** field, and the CTI password for the user configured in Application Enablement Services in the **Password** field. Set the **Enabled** field to **y**.

```
change ip-services                                             Page   4 of   4
                           AE Services Administration

   Server ID    AE Services       Password          Enabled    Status
                   Server
      1:      DCAES             gatekeeper123         y        in use
```


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5.4. Add a Station

Use the **add station n** command to add the next valid station in the dialplan. The configuration necessary to add a station may vary depending on the **Type** selected and features desired. The example below is for a 9600 Series H.323 handset. Enter the handset **Type** you wish to use and enter a valid **Security Code.** A valid **COR** and **COS** is administered depending on the level of restriction and service required. Repeat this for each H.323 or digital handset that will be controlled by Office Manager.

```
add station n                                                Page   1 of   5
                                    STATION

Extension: 1603                         Lock Messages? n               BCC: 0
     Type: 9620                         Security Code: 123456           TN: 1
     Port: S00025                     Coverage Path 1:                 COR: 1
     Name: TeamView, Scantalk         Coverage Path 2:                 COS: 1
                                      Hunt-to Station:
STATION OPTIONS
                                          Time of Day Lock Table:
             Loss Group: 19           Personalized Ringing Pattern: 1
                                                Message Lamp Ext: 1603
           Speakerphone: 2-way                Mute Button Enabled? n
        Display Language: english
 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

                                                 Customizable Labels? y
```


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5.5. Change to allow control of SIP Endpoints

The tested configuration assumes that all equipment has been installed and configured when SIP endpoints are present on the system. This configuration is outwith the scope of this document. To allow Teamview Office Manager to control SIP endpoints the **Type of 3PCC Enabled** must be set to **Avaya**. Verify the state of this field using the **display station** command and navigating to on **Page 6**.

```
display station 1307                                          Page   6 of   6
                                     STATION
SIP FEATURE OPTIONS
         Type of 3PCC Enabled: Avaya
                    SIP Trunk: aar
```


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5.6. Add a hunt group as a skill

Use the command **add hunt-group n** to add the next hunt group available. On **Page 1,** give the hunt group an appropriate **Group Name**, set **ACD** as **y** and set **Vector** as **y**. Set the **Group Type** as either **ead-mia** or **ead-loa**. For this example **ead-mia** was used.

```
add hunt-group n                                              Page   1 of   4
                                  HUNT GROUP

            Group Number: 7                                 ACD? y
              Group Name: Scantalk Agent                  Queue? n
         Group Extension: 3097                          Vector? y
              Group Type: ead-mia
                      TN: 1
                     COR: 1                     MM Early Answer? n
           Security Code:                 Local Agent Preference? n
 ISDN/SIP Caller Display:
```

On **Page 2,** set **Skill?** to **y.**

```
change hunt-group 7                                           Page   2 of   4
                                  HUNT GROUP

                    Skill? y      Expected Call Handling Time (sec): 180
                      AAS? n
                 Measured: none
     Supervisor Extension:
```


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5.7. Add an agent Login-Id

Use the **add agent-loginID n** to administer an agent to be used with TeamView Office Manager. On **Page 1,** provide the agent with an appropriate **Name** and set a suitable **Password.**

```
add agent-loginID n                                          Page   1 of   3
                                AGENT LOGINID

               Login ID: 6010                                    AAS? n
                   Name: Scantalk 1                            AUDIX? n
                     TN: 1                              LWC Reception: spe
                    COR: 1                     LWC Log External Calls? n
          Coverage Path:                     AUDIX Name for Messaging:
          Security Code:
                                     LoginID for ISDN/SIP Display? n
                                                         Password: 6010
                                          Password (enter again): 6010
                                                       Auto Answer: station
                                                 MIA Across Skills: system
                                        ACW Agent Considered Idle: system
                                        Aux Work Reason Code Type: system
                                          Logout Reason Code Type: system
```

On **Page 2,** add the hunt group administered in **Section 5.6** as the **Direct Agent Skill** and as the **first skill preference** with an appropriate **SL** (skill level). Repeat this section for each agent that will be controlled by Office Manager.

```
add agent-loginID n                                          Page   2 of   3
                                AGENT LOGINID
      Direct Agent Skill: 7                              Service Objective? n
Call Handling Preference: skill-level                 Local Call Preference? n

    SN   RL SL          SN   RL SL          SN   RL SL          SN   RL SL
 1: 7       1       16:                 31:                 46:
```


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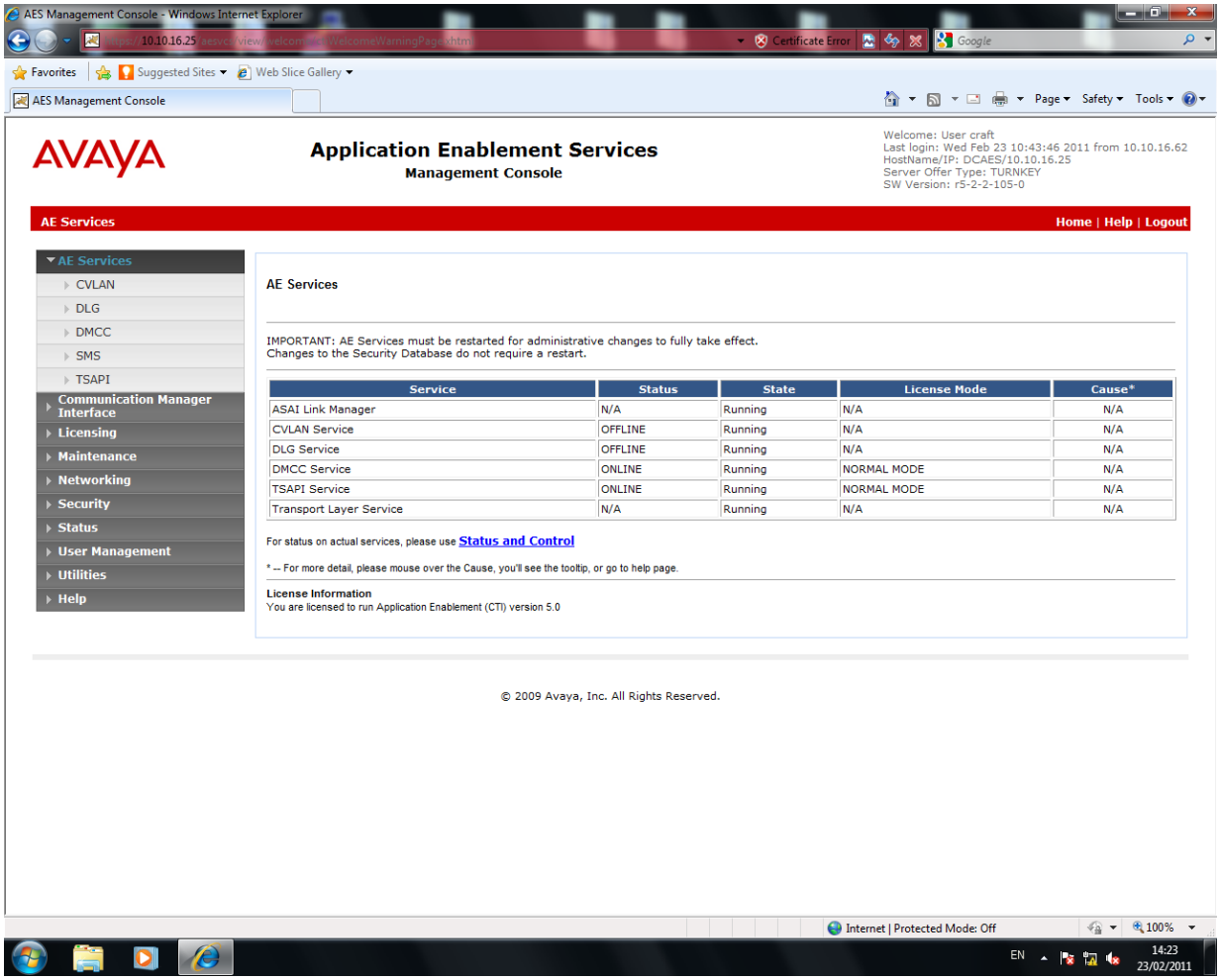
6. Configure Avaya Aura® Application Enablement Services

This section explains the steps required to configure Application Enablement Services to allow TeamView Office Manager to connect to Application Enablement services. This allows commands to be set to and from TeamView Office Manager and forwarded to Communication Manager to control the handsets.

6.1. Log in to Avaya Aura® Application Enablement Services

Open a Microsoft Internet Explorer session and navigate to https://<IP Address of Application Enablement Services>. After logging in with appropriate credentials, you will be presented with the home screen.



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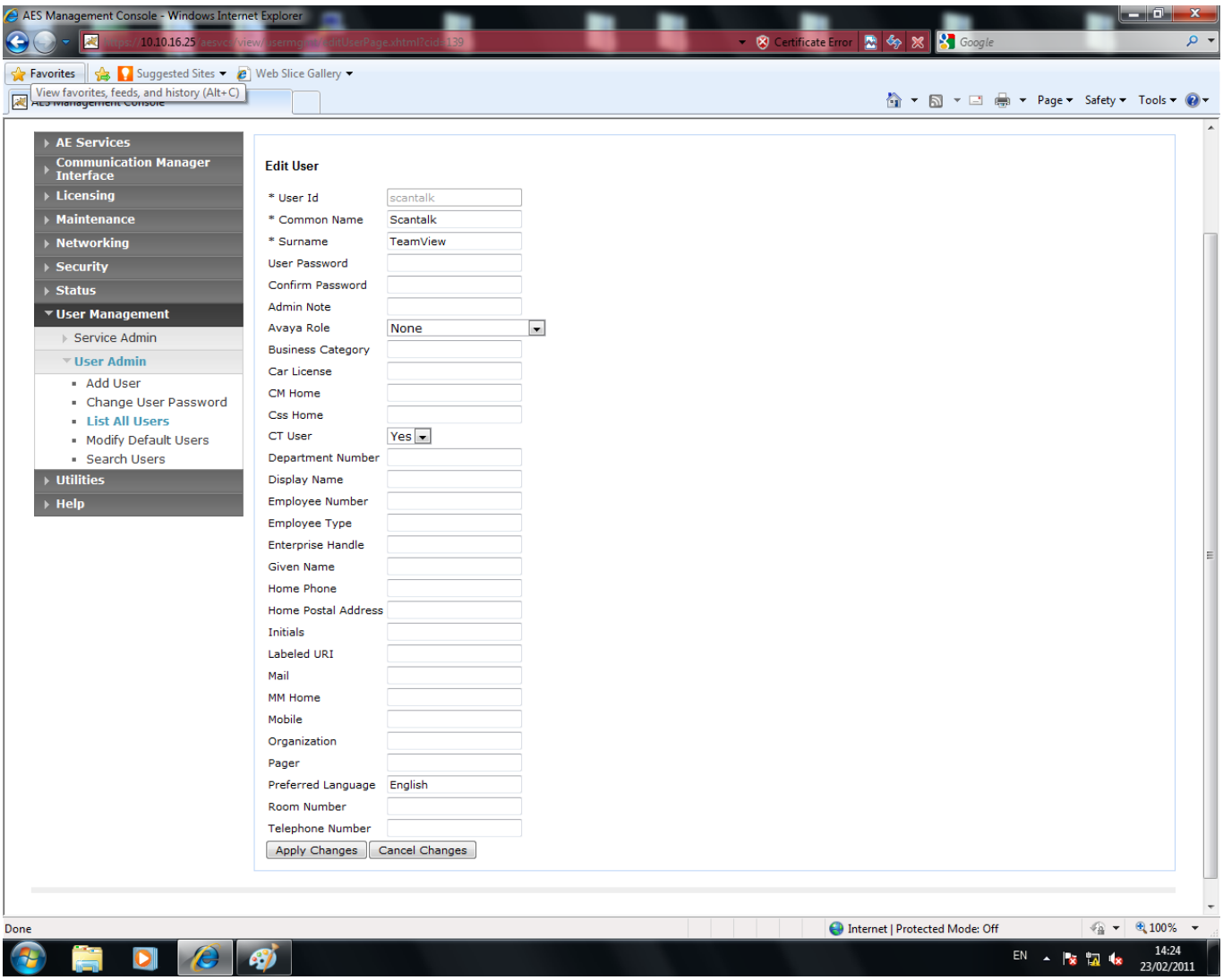
6.2. Add a new user

From the left hand menu, choose **User Management → User Admin → Add User**. When presented with the **Add User** screen, enter a **User Id** and **User Password** in the appropriate boxes. Set **CT User** as **Yes** and enter a **Common Name** and **Surname** as these are required fields. The screen below shows the configuration for user **scantalk** created previously for the compliance test.



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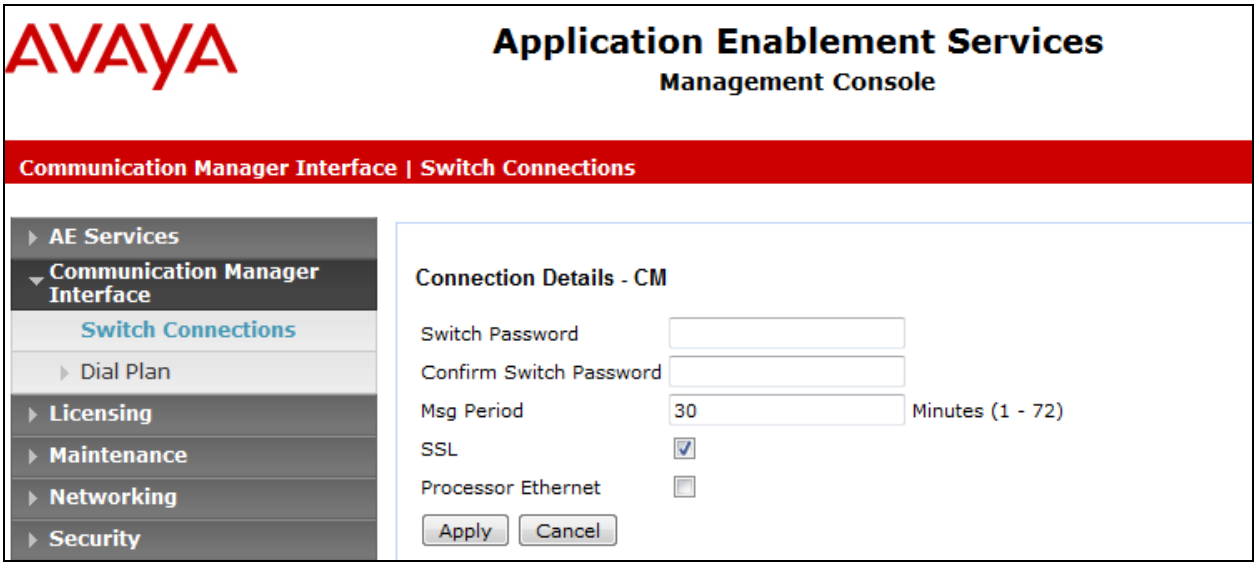
6.3. Add a Switch connection

From the left hand menu, choose **Communication Manager Interface → Switch Connections** and click on the **Add Connection** button (not shown). In the **Switch Password** field, enter the password from **Section 5.3**. Click on the **Apply** button to save.



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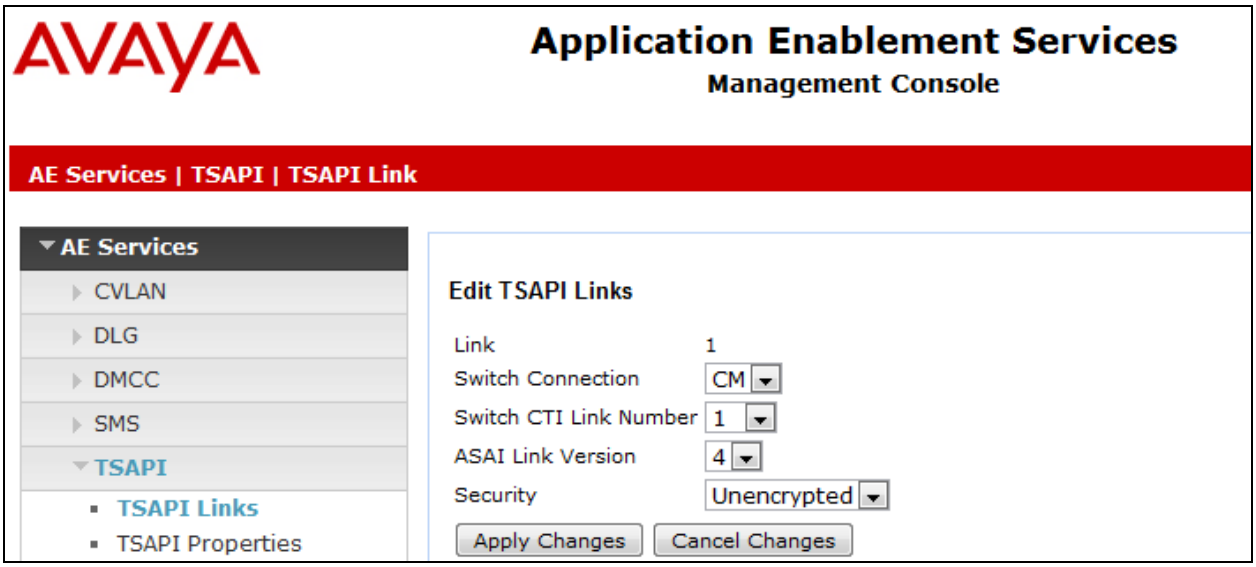
6.4. Add a TSAPI link

From the left hand menu, choose **AE Services → TSAPI → TSAPI Links** and click the **Add Link** button (not shown). From the drop down menus, choose the **Switch Connection** administered in the previous section and enter the **Switch CTI Link Number**. Click on the **Apply Changes** button to save.



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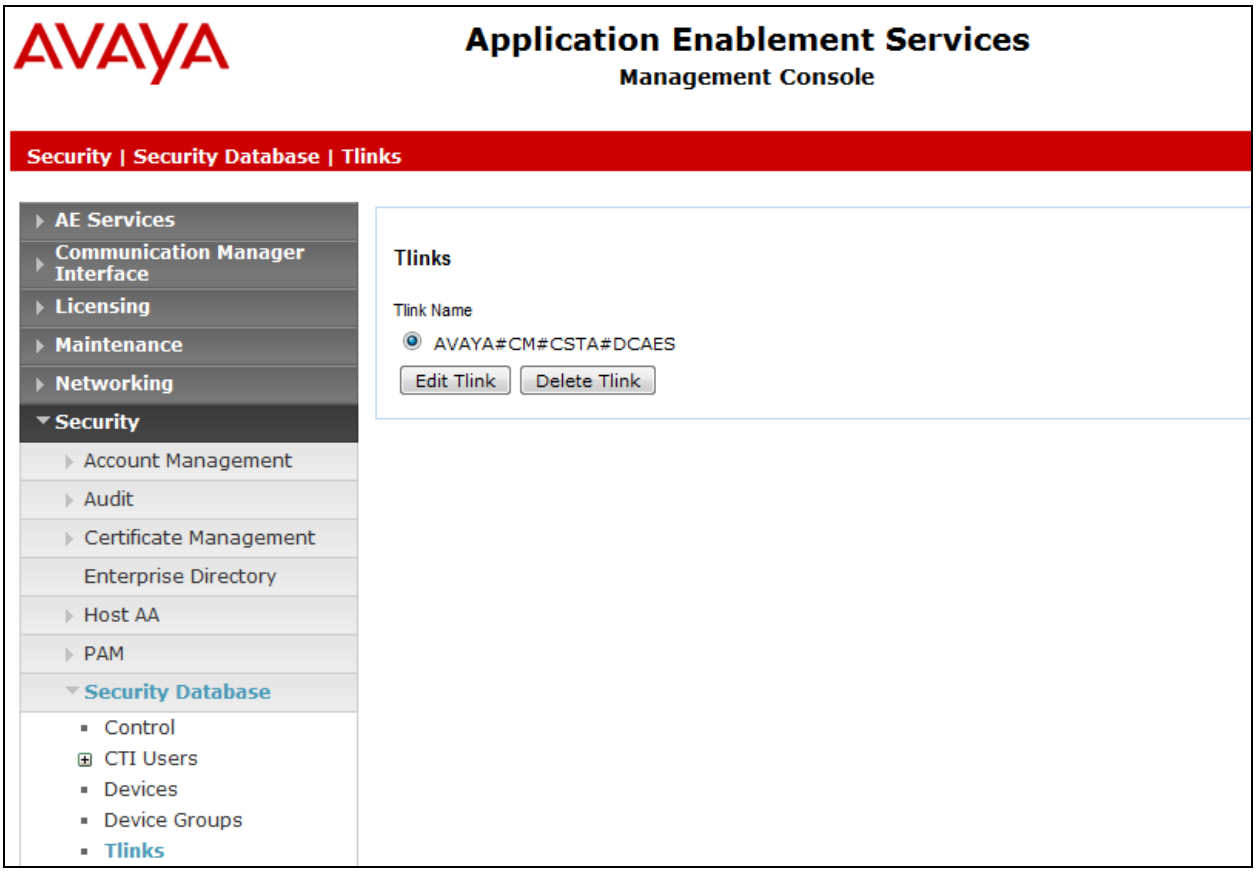
6.5. Check Tlink

From the left hand menu, choose **Security → Security Database → Tlinks**. Note the **Tlink Name** shown for use later in the TeamView Office Manager administration.



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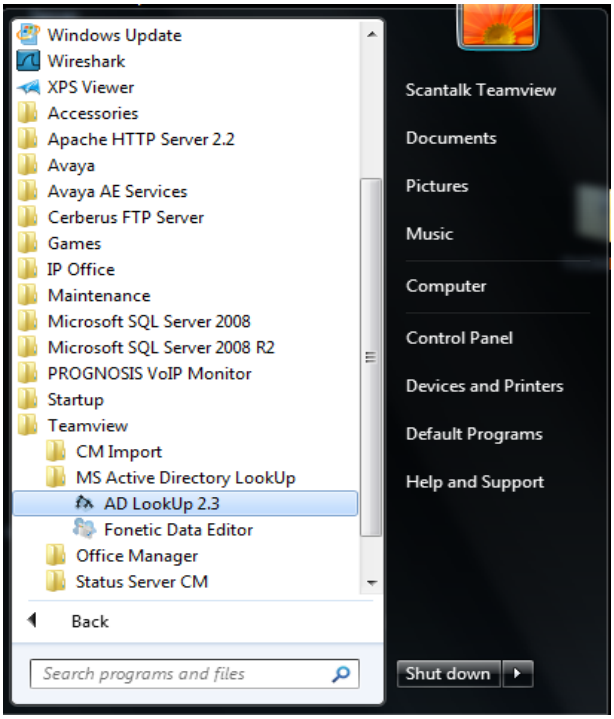
7. Configure ScanTalk TeamView Office Manager

This section explains the procedure for configuring TeamView Office Manager allowing the application to take control of a handset and display the status of stations and agents. All configurations in this section assume that both Active Directory and the SQL server have been configured in accordance with Scantalk recommendations.

7.1. Import Active Directory

From the Windows start menu under TeamView, launch AD Lookup 2.3.



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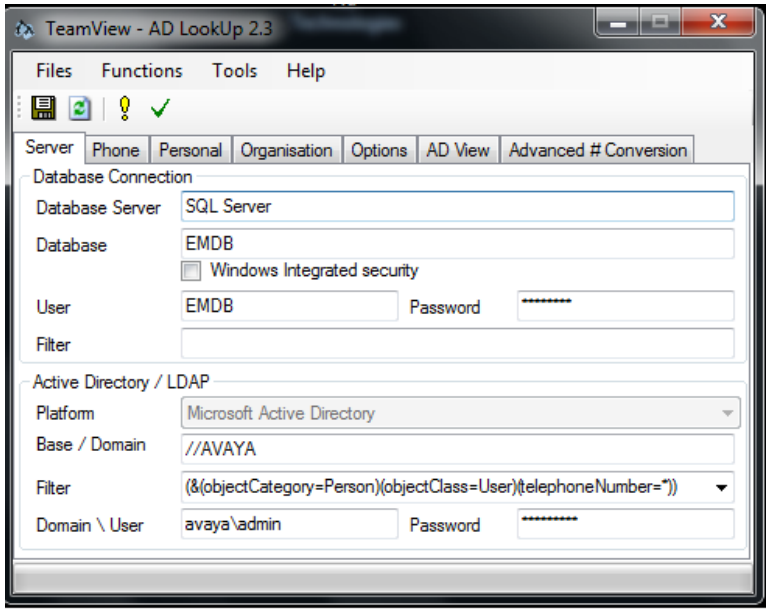
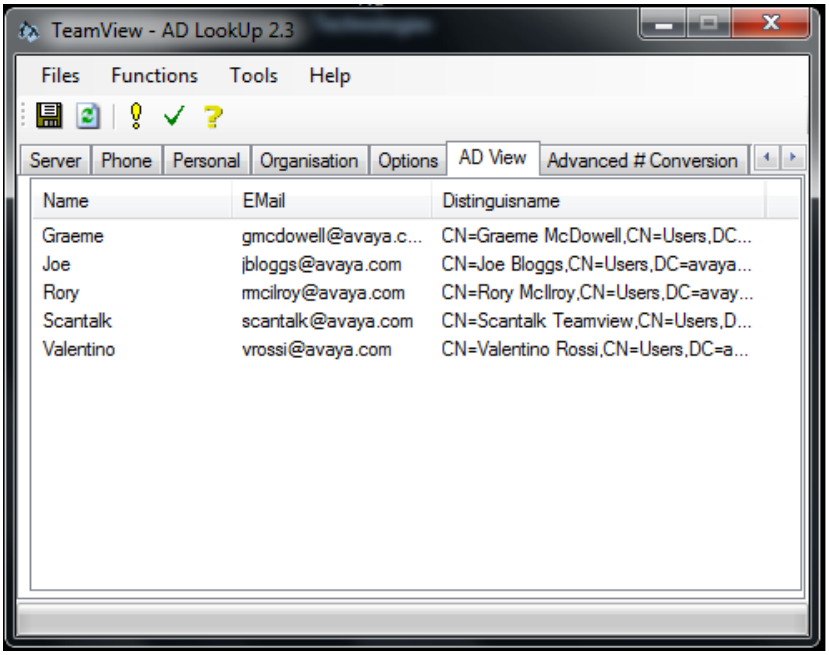
From the Server tab of AD Lookup, enter the details for the SQL Database and Active Directory configured out of the scope of this document. When the entries are complete, click on the save icon.



Click on the AD View Tab and press the **?** Icon to view the administered users. This is populated and confirms the Active Directory configuration is entered correctly.



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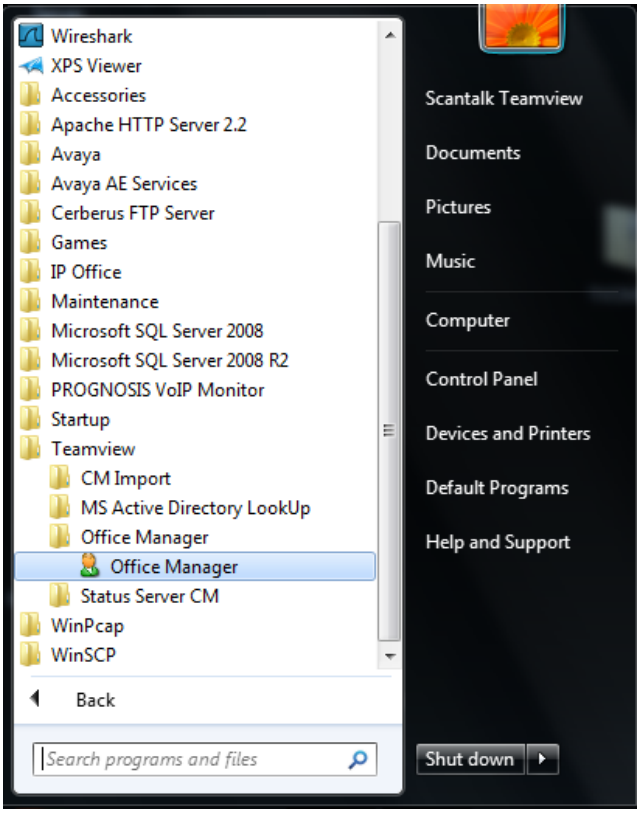
7.2. Administer ScanTalk TeamView Office Manager

7.2.1. Login into ScanTalk TeamView Office Manager

From the Windows start menu under TeamView, launch Office Manager.



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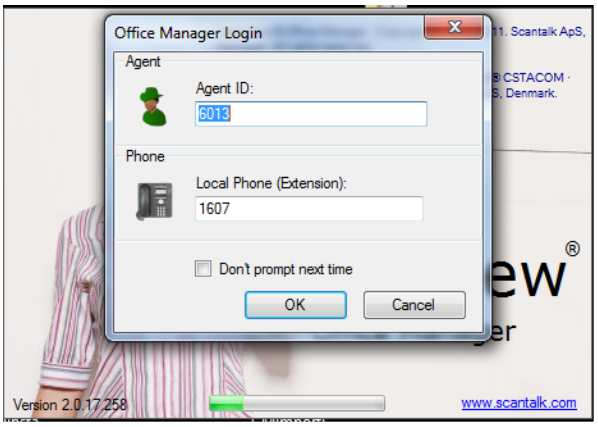
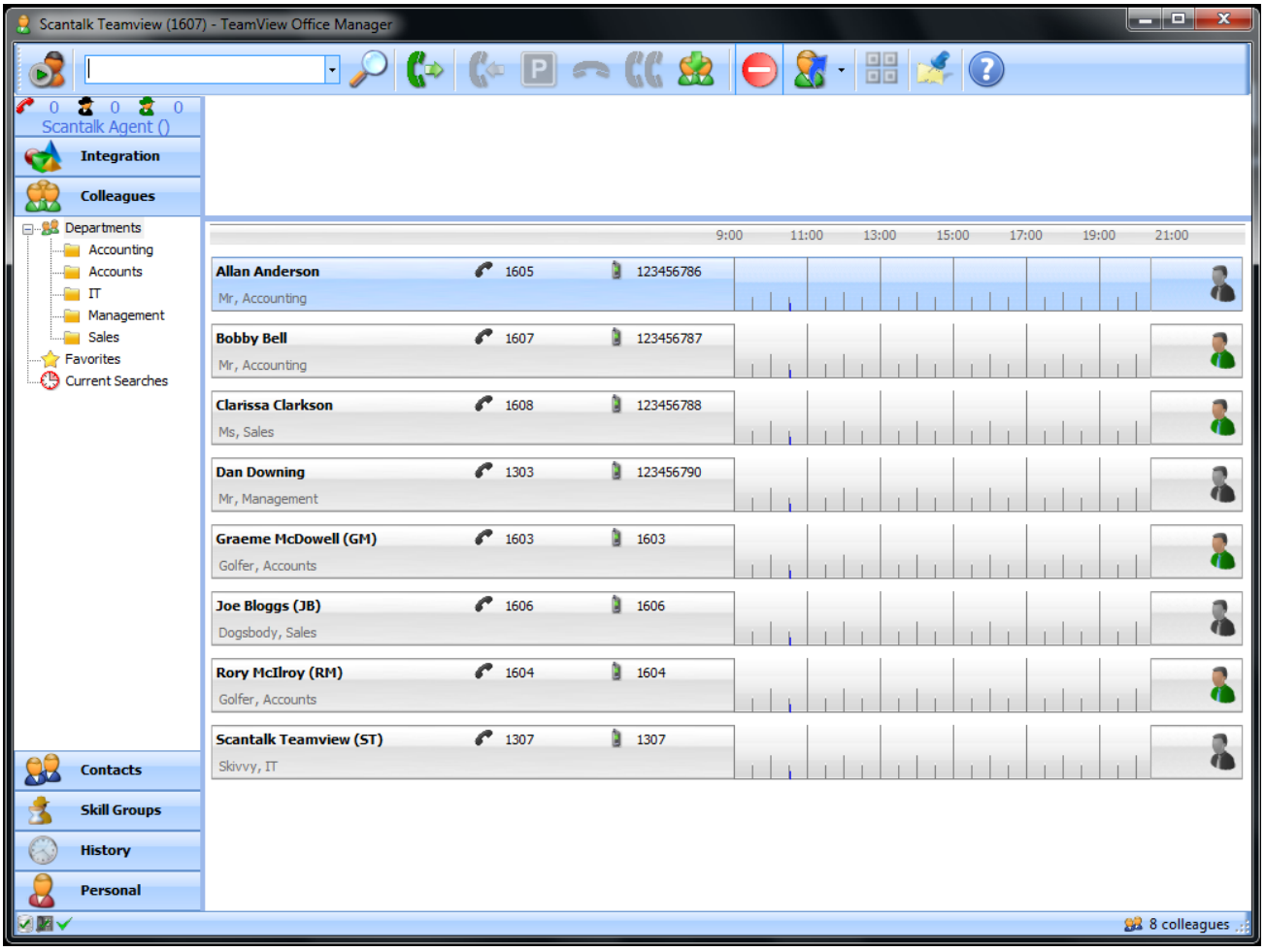
Enter the extension of the handset to be controlled and agent login (if required) and click the **OK** button.



You will be presented with the opening screen. In the bottom left hand corner, the icons indicate connectivity to Active Directory, SQL and Application Enablement Services and when configured correctly these have a green tick through them.



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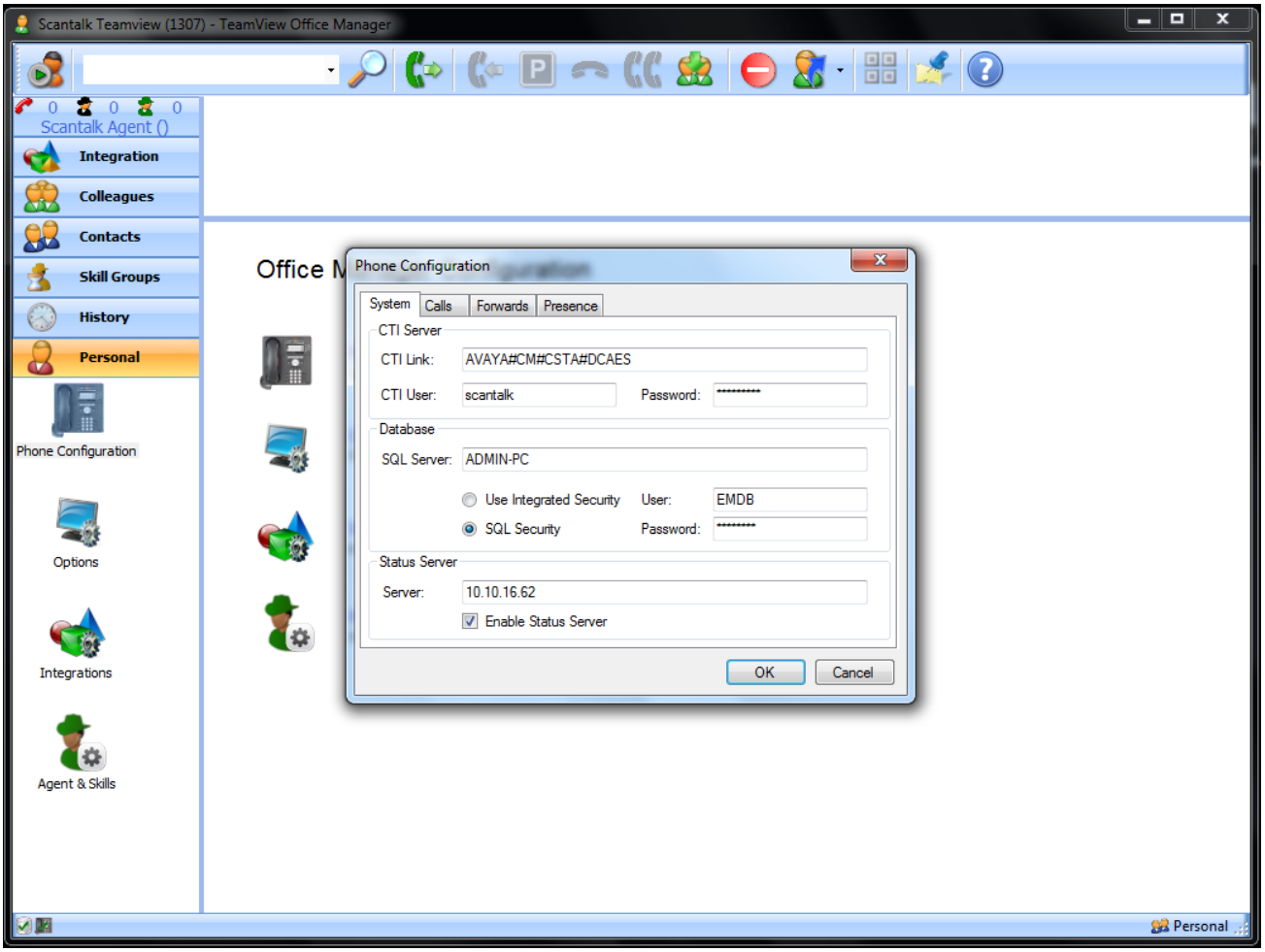
7.2.2. Administer phone configuration

The first time Office Manager is opened, the Phone Configuration screen needs to be administered under the Personal tab on the bottom left of the opening screen. The CTI link noted in **Section 6.5** needs to be entered as well as the CTI user details administered in **Section 6.2.** The SQL Server details have to be entered. The configuration of the SQL server is outwith the scope of this document and the details of the server are determined at the time of installation. Enter the IP address of the Status Server and select **Enable Status Server** to complete the configuration. Click **OK**.



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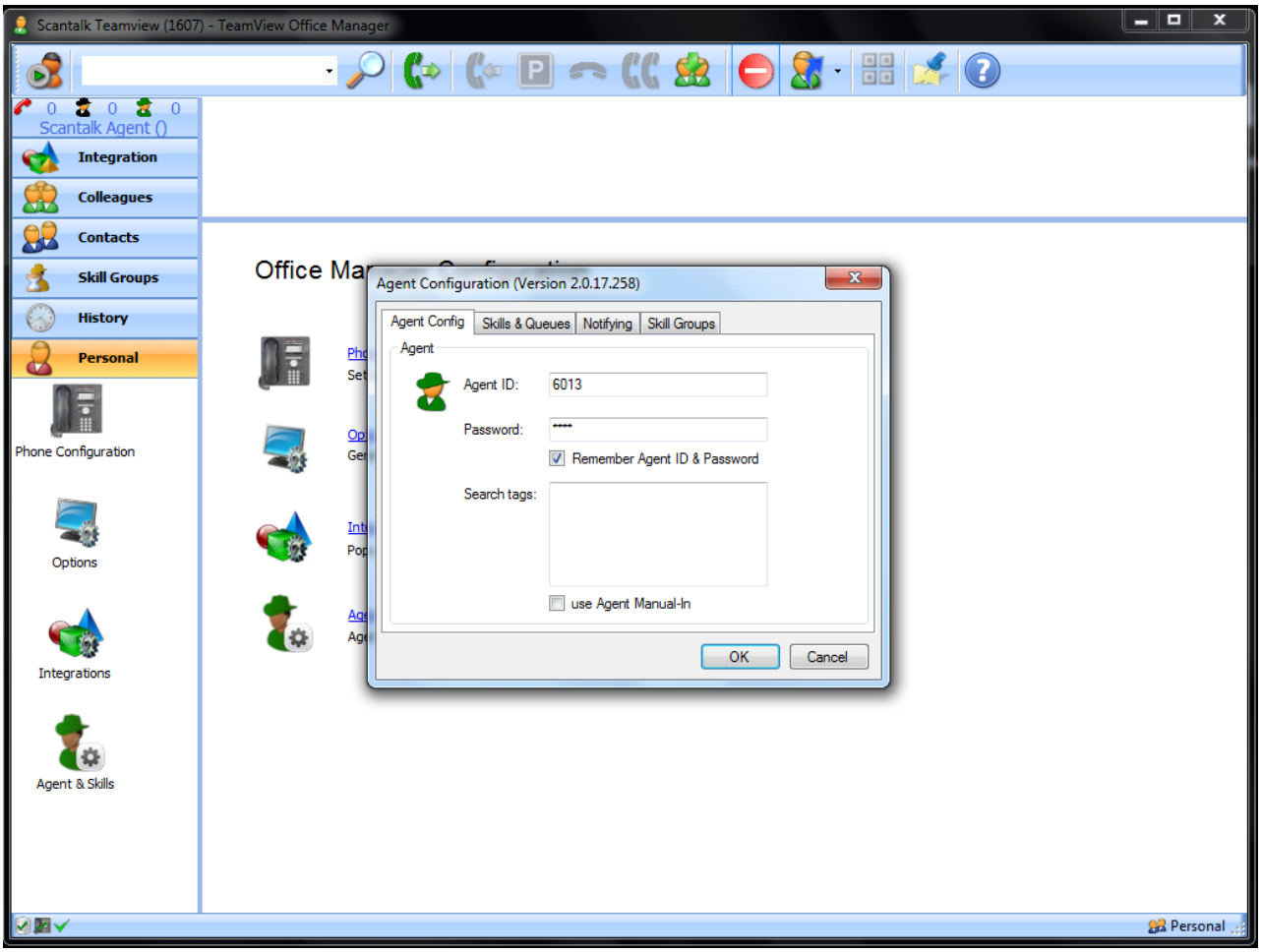
7.2.3. Administer Agent

The agent details and skills need to be administered to allow an agent to log in and receive ACD calls. Choose **Agent & Skills** and enter **Agent ID** and the **Password** using the agent **Login ID** and **Password** administered in **Section 5.7.** Click **OK.**



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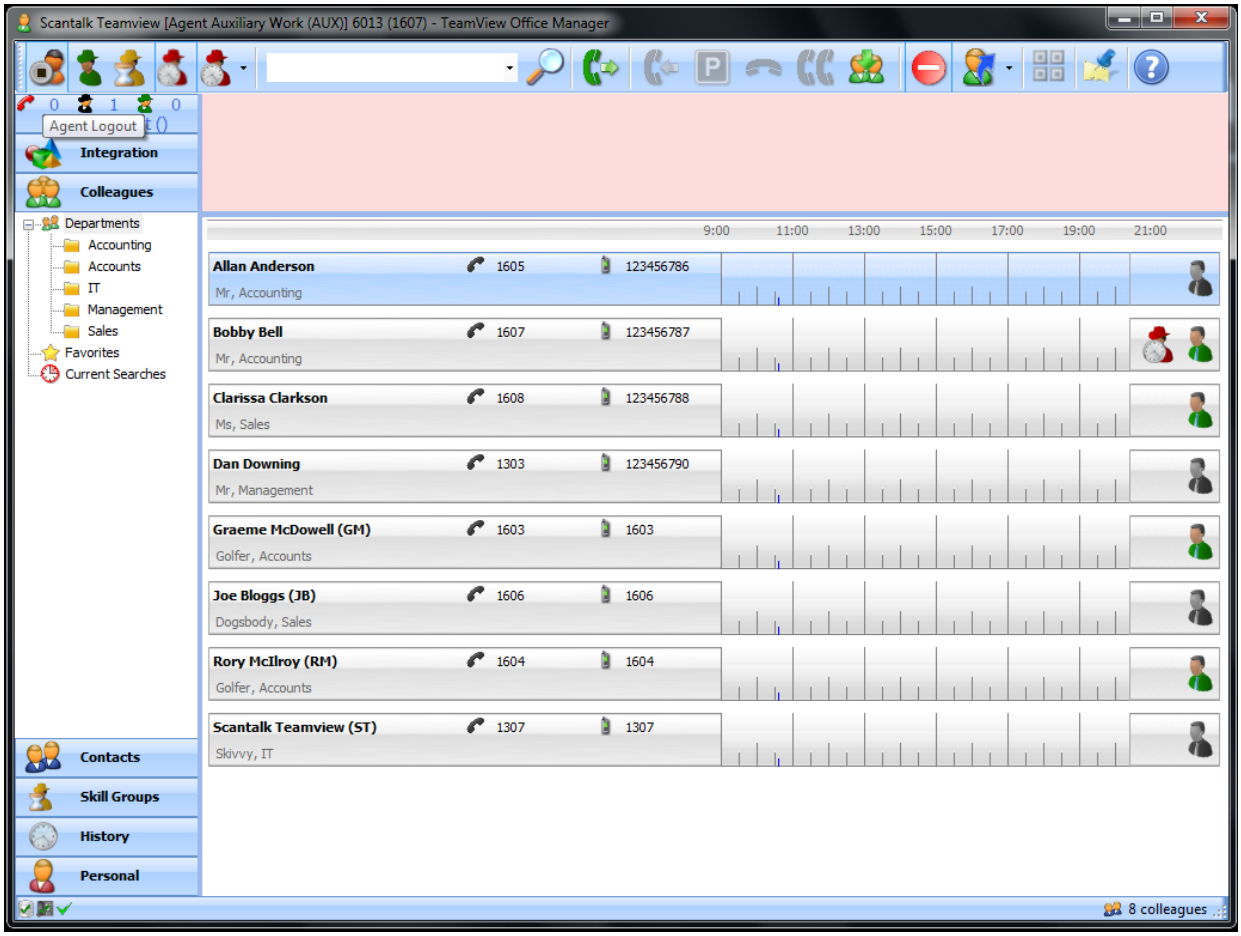
7.2.4. Login Agent and Make available

Use the icon in the top left hand corner of the screen depicting a figure and green play symbol. An icon will now appear beside the user icon on the right hand list of colleagues beside the assigned extension. At first log in, the icon is a red figure with a clock in front indicating a default not ready state.



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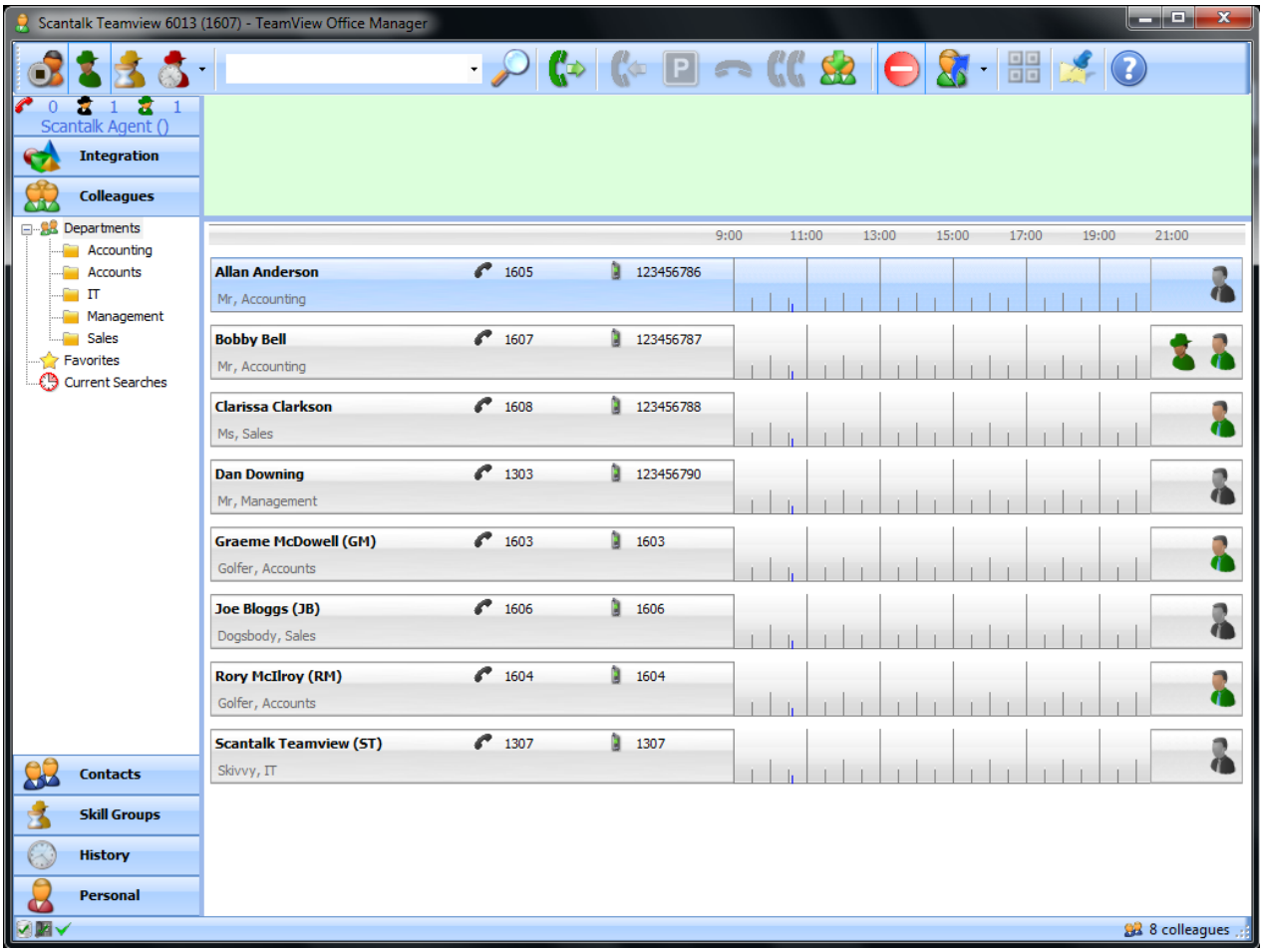
To make an agent available click on the Green figure in the top left of the screen. The icon beside the assigned extension will change to a green figure.



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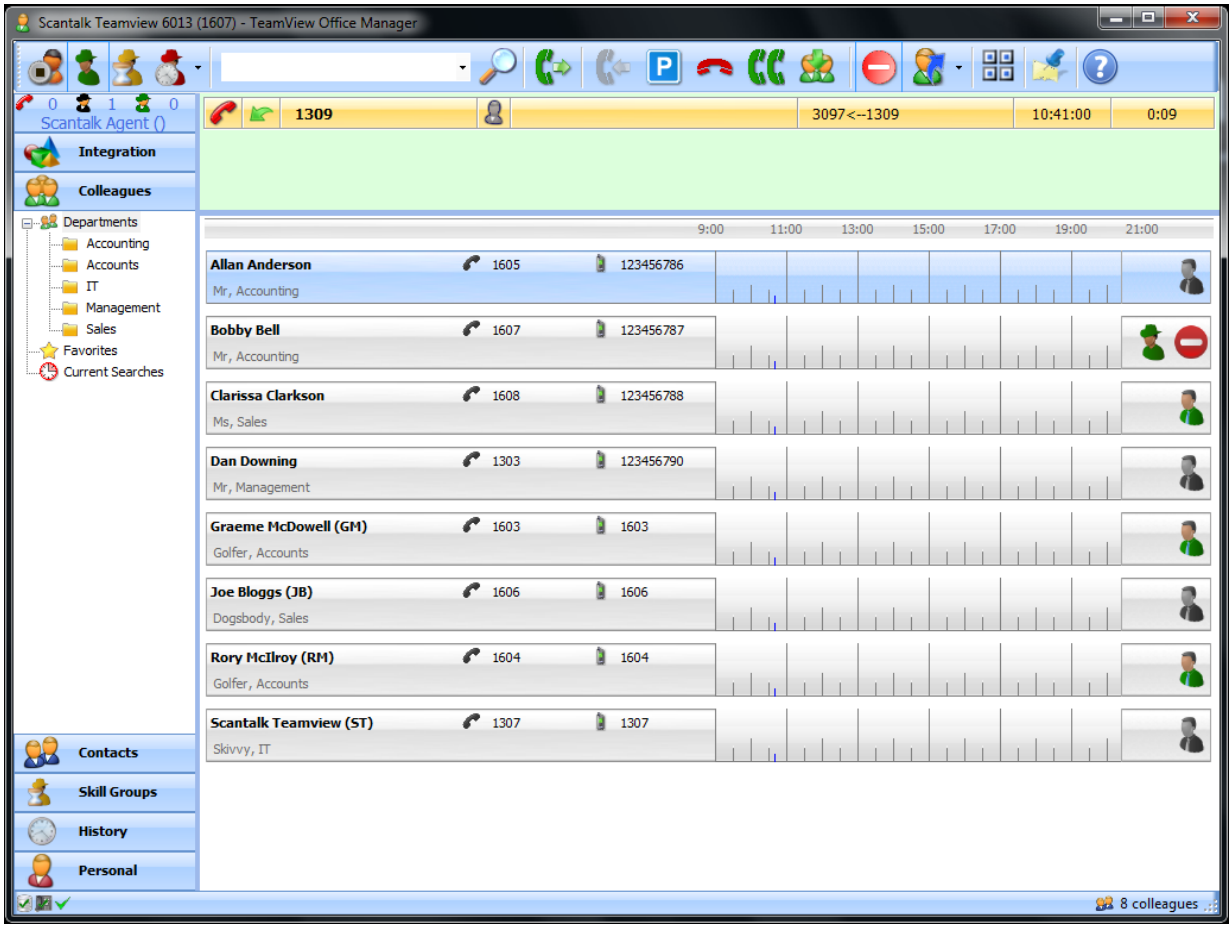
7.3. Verification Steps

This section provides the tests that can be performed to verify correct configuration of Application Enablement Services and the TeamView Office Manager solution.

7.4. Make a call

This step confirms that TeamView Office Manager can take control of a handset using a TSAPI link administered in Application Enablement Services. A call bar shows in the top section of the main screen with the call information. The user also shows the busy icon beside them .



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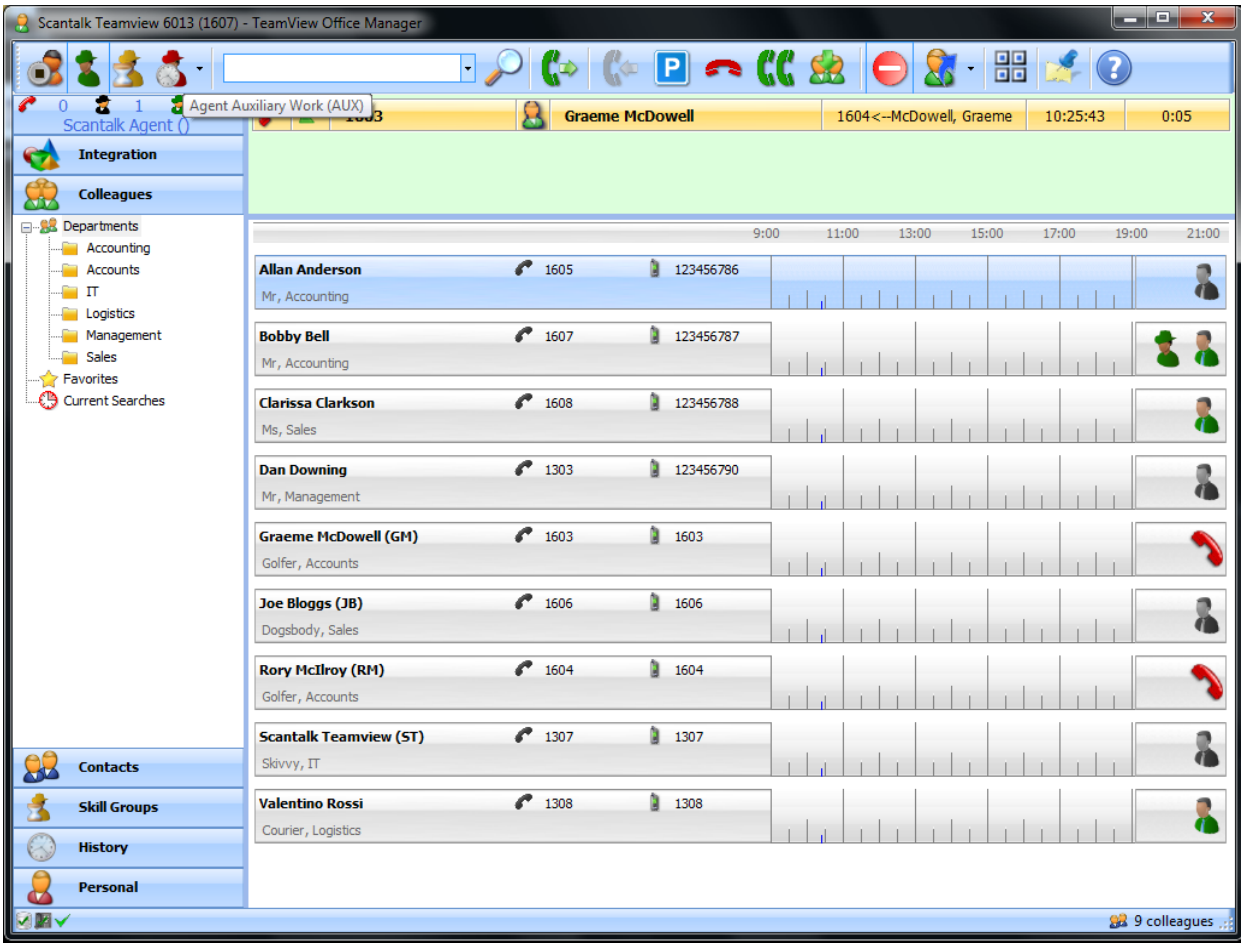
7.5. Colleague State Changes

This step confirms that information is being passed from the Application Enablement Services regarding other users. When other users are on a call the application shows a red handset against the user to indicate they are busy.



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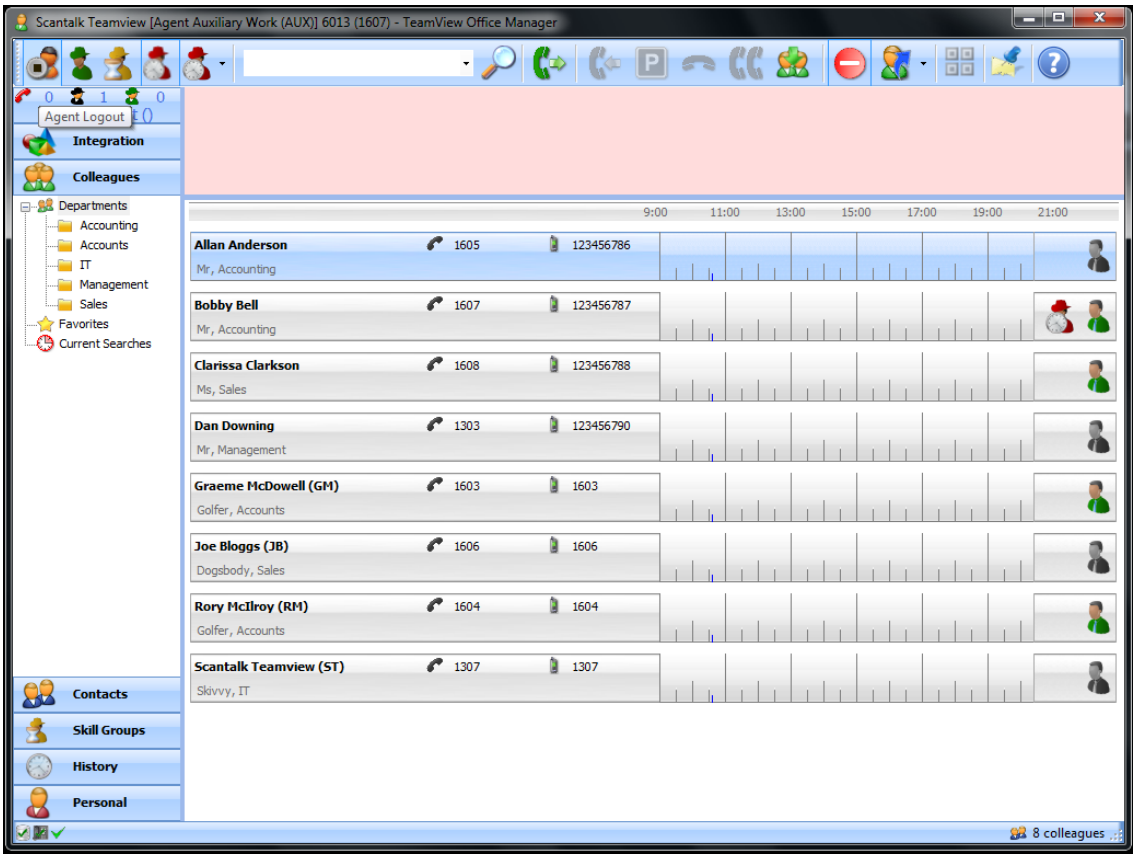
7.6. Agent State Changes

This step confirms that information is being passed to Application Enablement Services and the state of the agent is being changed in TeamView Office Manager and Communication Manager. Use the **monitor bcms skill n** to view the status of agent logged in. There is an **Available** icon beside the user in TeamView Office Manager.

```
monitor bcms skill n                                          Page   1 of   1
                          BCMS SKILL (AGENT) STATUS

        Skill: 7                              Date:   10:42 THU FEB 24 2011
   Skill Name: Scantalk Agent
Calls Waiting:    0                        Acceptable Service Level: 20
  Oldest Call:   0:00                        % Within Service Level:

Staffed: 1   Avail: 1   ACD: 0   ACW: 0   AUX: 0   Extn Calls: 0   Other: 0

                                                              ACD   EXT IN  EXT OUT
AGENT NAME      LOGIN ID      EXT           STATE    TIME   CALLS   CALLS   CALLS

Scantalk 4      6013          1607          Avail    10:37    0       0       0
```

Use the red AUX figure icon to change the state of the agent within TeamView Office Manager.



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The status of the Agent using **monitor bcms skill n** will now show **STATE** as **AUX.**

```
monitor bcms skill 7                                          Page   1 of   1
                          BCMS SKILL (AGENT) STATUS

        Skill: 7                              Date:   10:49 THU FEB 24 2011
   Skill Name: Scantalk Agent
Calls Waiting:    0                       Acceptable Service Level: 20
  Oldest Call:   0:00                       % Within Service Level:

Staffed: 1   Avail: 0   ACD: 0   ACW: 0   AUX: 1   Extn Calls: 0   Other: 0

                                                          ACD   EXT IN  EXT OUT
AGENT NAME      LOGIN ID      EXT           STATE   TIME  CALLS   CALLS   CALLS

Scantalk 4      6013          1607          AUX     10:48    0       0       0
```

8. Conclusion

These Application Notes describe the procedures for configuring Scantalk TeamView Office Manager with Avaya Aura® Application Enablement Services and Avaya Aura® Communication Manager. TeamView Office Manager successfully passed all compliance testing. Observations made during compliance testing can be found in **Section 2.2** of this document.

9. Additional References

The following Avaya product documentation can be found at http://support.avaya.com.

[1] *Avaya Aura® Application Enablement Services Administration and Maintenance Guide* Release 5.2.x 20th November 2009, Doc Number 02-300357.

Scantalk TeamView documentation can be found at www.scantalk.com.

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