



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring TS-Dialer from Telesoft with Avaya IP Office R8.1 using a Hardware PCI Dialer for Predictive Dialling -Issue 1.0

Abstract

These Application Notes describe the configuration steps required for TS-Dialer Hardware PCI Dialer to interoperate with Avaya IP Office.

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

1. Introduction

TS-Dialer (predictive) is combination of Computer Telephony Integration (CTI) platform that provides call control and hardware PCI dialer used for outbound predicative dialling.

TS-Dialer (predictive) uses the Telephony Service API (TAPI) interface on Avaya IP Office for call control and a hardware PCI dialer connecting to analog ports on the Avaya IP Office for outbound dialling. TS-Dialer utilises a client/server model. The server component of the software will connect to the TAPI interface on the Avaya IP Office using TAPI Service Provider SDK installed on the TS-Dialer Server. The client component of the software allows agents to control making and receiving calls via an Avaya handset registered to the Avaya IP Office.

TS-Dialer (predictive) dials numbers using a physical hardware connection to the IP Office. A PCI card located on the TS-Dialer (predictive) server utilises a number of analog connections to the Avaya IP Office allowing for a number of simultaneous outbound calls to be dialled. Only calls which are picked up are transferred to available agents. The moment a call is transferred to the agent; a window showing the details of the call appears on the agent's computer screen. Agents have the scope to enter details of a conversation while conversing or after the conversation is over. Agents can also schedule the call to be redialled at called person's preferred time. TS-Dialer (predictive) offers required analysis to monitor Agent's Performance, Call Traffic, Campaign wise Agent performance, Dialed Number Analysis, etc. The Alarms module triggers emails to respective individuals on realizing specified situation during its operation. This ensures that corrective action been taken at the earliest possible time.

2. General Test Approach and Test Results

The interoperability compliance testing included feature and serviceability testing. The feature testing focused on verifying TS-Dialer's handling of CTI messages in the areas of call control, event notification and routing. Various types of calls including intra-switch, PSTN, outgoing and incoming calls are tested.

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

2.1. Compliance testing

The following dialling options are tested:

- Intra-Switch Calls
- PSTN calls
- Outbound Predictive Dialling Calls
- Failover Testing

2.2. Test Results

All tests passed successfully.

2.3. Support

For technical support on Telesoft products, please contact the Telesoft support team at:

Web address : <http://www.telesoft.in/products.html>

Telephone : +91 22 2615 5153 / 54 / 39 / 41

+91 22 2613 2001 / 02

+91 93228 65750

Email : support@telesoft.in

3. Reference Configuration

Figure 1 shows the network topology for compliance testing. TS-Dialer from Telesoft which resides on a Windows 2003 Server with IP Office TAPI3 Service Provider to provide CTI connection to Avaya IP Office. A PCI card installed on the TS-Dialer Server provides a physical connection to the Avaya IP Office analog ports to provide outbound dialling facilities. Avaya 2400 Series digital deskphones are associated with TS-Dialer operators giving each TS-Dialer Desktop operator telephony functionality from the IP Office.

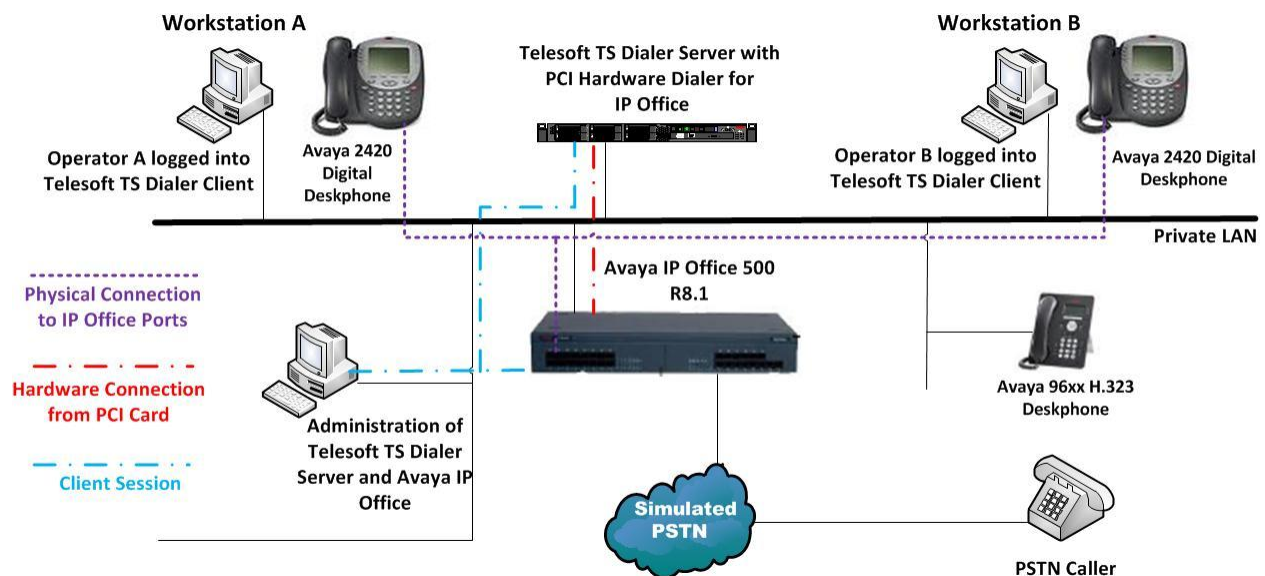


Figure 1: Connection of TS-Dialer Hardware PCI dialer with Avaya IP Office R8.1

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office 500 V2	Avaya IP office Release 8.1
Avaya 96xx H.323 Desk phone	Avaya H323 IP Office Firmware Ha96xxua3_Hbas.bin
Avaya 2420 Digital Ports plus one Digital Extension	N/A
Avaya TAPI3 Telephony Service Provider Client for IP Office Installed on TS-Dialer Server.	Avaya TSPI3w.tsp 1.0.0.17
Windows 2003 Server and TS-Dialer Server.	TS-Dialer Server 2.10
TS-Dialer PCI Card (Hardware Dialer)	Release 2.10
Client Workstation with Windows XP and TS-Dialer Client	TS-Dialer Client 2.10

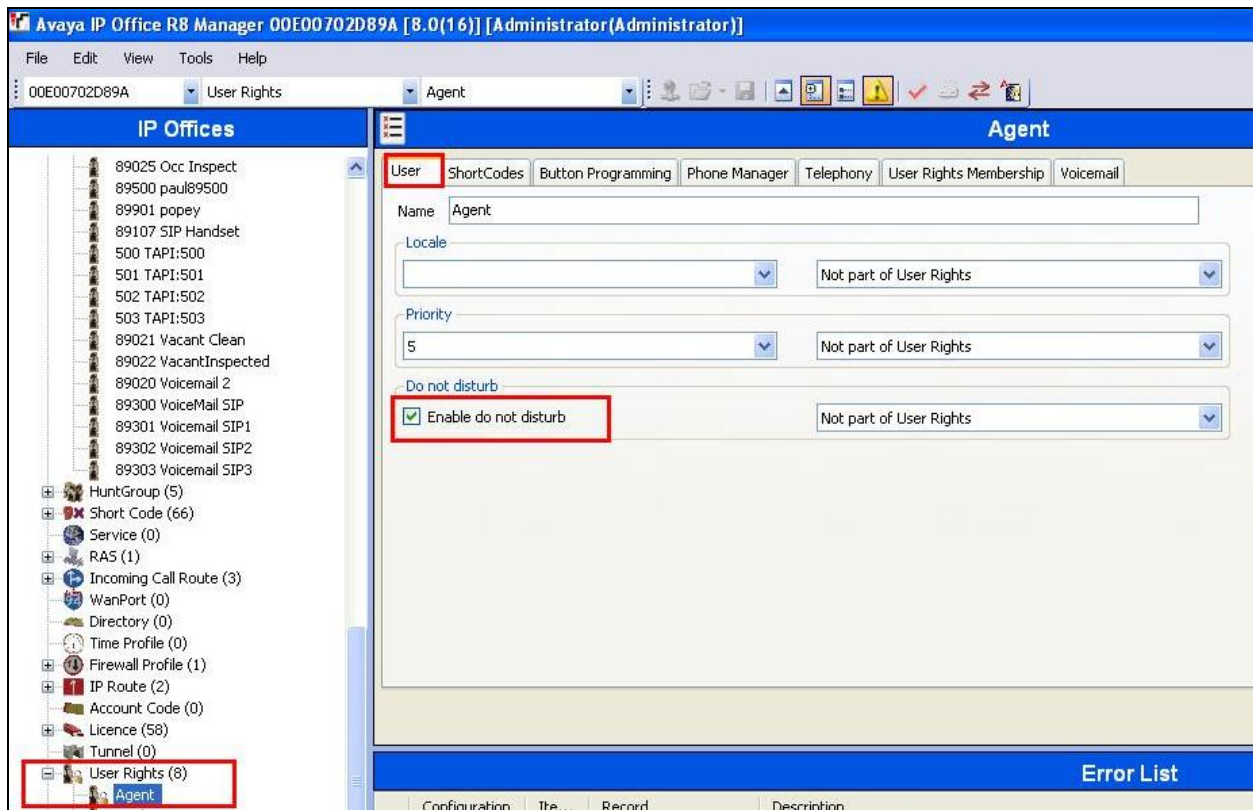
5. Configuration of Avaya IP Office

IP Office is administered using IP Office Manager installed on a PC. It is assumed that a working IP Office is in place with extensions and users preconfigured. This section shows what changes to the IP Office configuration is required for TS-Dialer to interoperate correctly.

Note: A user must be logged into a H.323 extension before TS-Dialer can assume control of that extension; this is not the case with Digital extensions where a TS-Dialer user can log in and out.

5.1. Configuration of Avaya IP Office Users

Each user will need to be configured to allow the do not disturb feature. Click on **User Rights** in the left window and select the user right associated with the users. In the example below, this is called **Agent**. Under the **User** tab ensure **Enable do not disturb** is ticked as shown. Enter a suitable **Name** for the User rights as this will be referenced in the User configuration to follow. Click **OK** once the information is entered correctly (not shown).



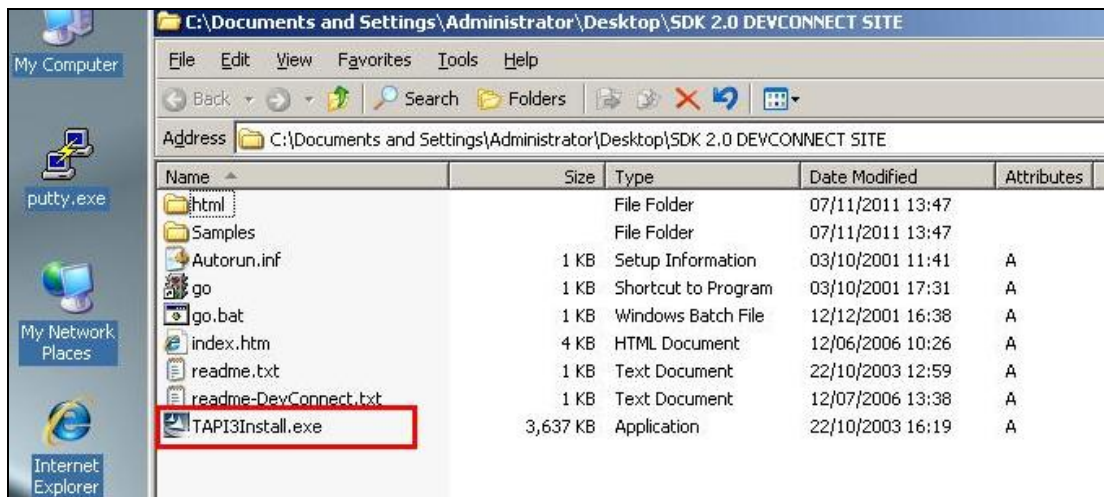
Expand on **User** in the left window and select the user to modify. Under the **User** tab in the right window, ensure that **Working hours User Rights** is set to that user rights configured above.

The screenshot displays the Avaya user management interface. On the left, under the 'IP Offices' section, the 'User (51)' folder is expanded, and the user '8910 Extn8910' is selected. On the right, the 'User' tab is active for 'Extn8910: 8910'. The configuration includes:

- System Phone Rights:** None
- Profile:** Teleworker User
- Receptionist:** ☐
- Enable Softphone:** ☒
- Enable one-X Portal Services:** ☒
- Enable one-X TeleCommuter:** ☒
- Enable Remote Worker:** ☒
- Ex Directory:** ☐
- Device Type:** Avaya 2420
- User Rights:**
 - User Rights view:** Working hours User Rights
 - Working hours time profile:** <None>
 - Working hours User Rights:** Agent
 - Out of hours User Rights:** (dropdown menu)

6. Installation and Configuration of Avaya IP Office TAPI3 Service Provider

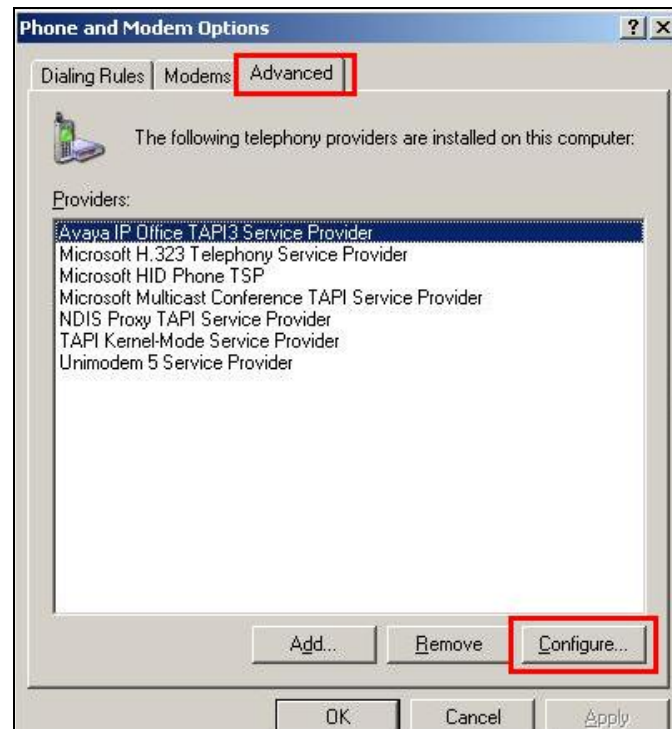
TAPI3 Service Provider is included in the IP Office CTI Link Software Development Kit (SDK) located on the DevConnect website (<http://www.avaya.com/gcm/master-usa/en-us/corporate/alliances/devconnect/index.htm>) under the product name IP Office. Once downloaded, the install is initiated by running **TAPI3Install.exe** as shown below.



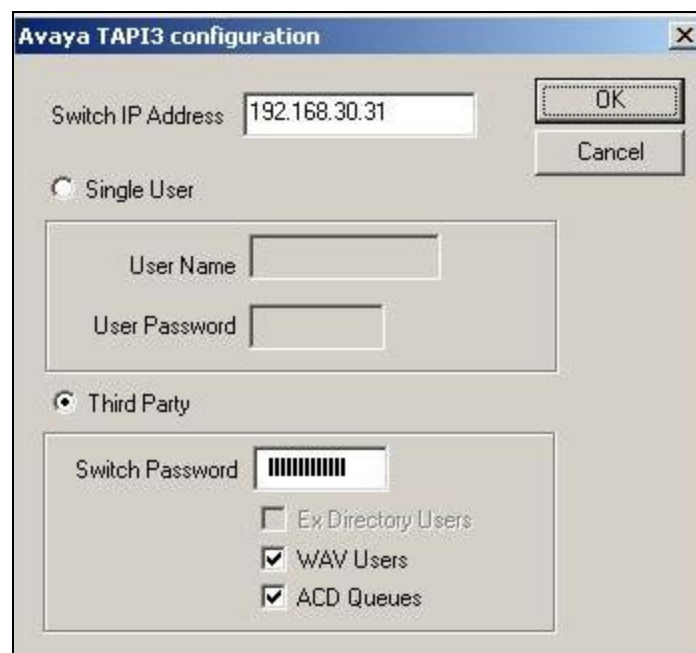
To configure the TAPI Service Provider, navigate to **Control Panel** and right click on **Phone and Modem Options** highlighted below. Then click on properties (not shown).



Once the Phone and Modem Options Window opens, click on the **Advanced** tab and highlight **Avaya IP Office TAPI3 Service Provider** and click **Configure**.

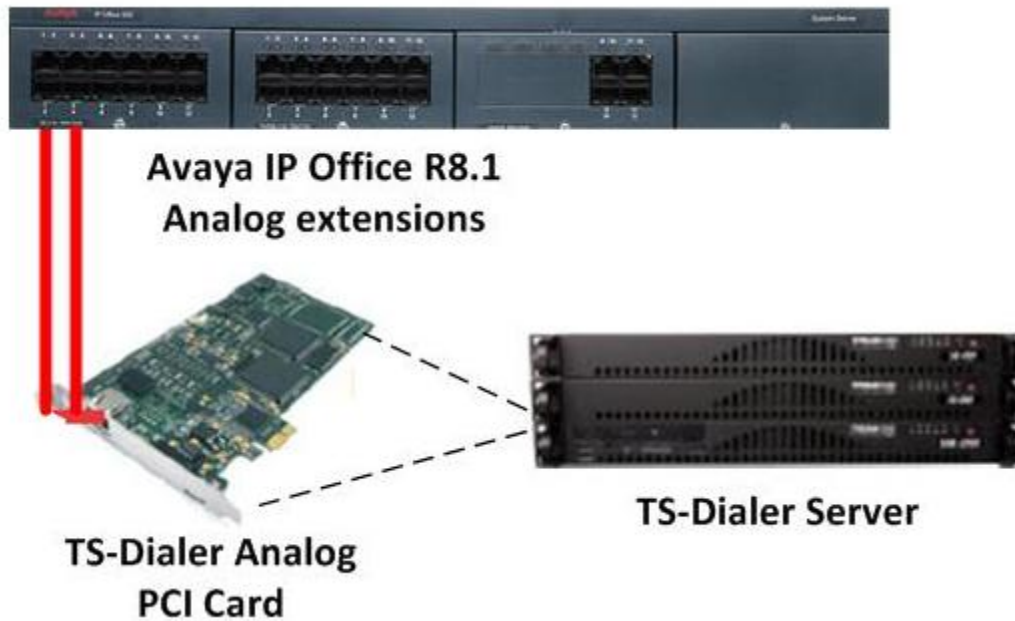


Enter the IP Office IP address into the **Switch IP Address** box. Select **Third Party** and enter the IP Office Administrator's password into the **Switch Password** box. Ensure **WAV Users** and **ACD Queues** are ticked as shown below.



7. Installing the TS-Dialer analog PCI card

The TS-Dialer PCI card has 4 ports capable of handling two analog extensions each achieved using an RJ11 splitter. The PCI card is installed onto the TS-Dialer Server and is physically connected to the IP Office using RJ11 cables between the PCI card and the analog extension module on the IP Office. There is a maximum of 8 simultaneous outbound calls per PCI card.



8. Configuration of Telesoft TS-Dialer Server

This section outlines the steps necessary to configure the TS-Dialer server to allow the TS-Dialer desktop clients have call control of the Avaya IP Office deskphones.

Note: Installation of the TS-Dialer software is outside the scope of this document and information regarding the installation can be found in **Section 11** of these Application Notes.

Note: Each installation of TS-Dialer is unique due to various specific customer requirements.

8.1. Configure TS-Dialer Server

The steps below describe the configuration for TS-Dialer Server to allow call control of IP Office. Open the file **CentMSat.ini** located on the TS-Dialer Server in the **CentMSat** folder [D:\telesoft\CentMSat]. Note the **ipaddr** is the IP address of the TS-Dialer Server and the **ipport** is set to **8000**. Note also the client ports are set in section **[porthub]**. Ensure that the section **[CTI]** is configured the same as is shown below.

CentMSat.ini

```
[parameters]
  ipaddr="192.168.30.220"
  ipport=8000
  from="centhub"
  to="loc1"
  /agentstatusfile="D:\rahul\avayatest\centmsat\loginsrv\agent.txt"
  /cddir="c:/telebrd/cd"
  waittime=1000000000
  restartports=10000000
  datastor to="out-datastor"
  datastorcc="inc-loginsrv,datastor"
  agentstatus="test.txt"

[porthub]
  nports=5
  totmem=100000
  port00="centhub"      tcps 10000 30000 192.168.30.220 8000"
  port01="loc1"         tcps 1000 5000 192.168.30.220 8001" ### Client Ports
  port02="loc2"         tcps 1000 5000 192.168.30.220 8002"
  port03="loc3"         tcps 1000 5000 192.168.30.220 8003"
  port04="loc4"         tcps 1000 5000 192.168.30.220 8004"

[grpcode]

[warnings]
  \warnfreq=600
  scrnwarn=120
  mailwarn=300
  errorlog="./error.log"
  \n-subject="Re : Data Capturing Stopped"
  \n-text="Please check the data capturing"
  \r-subject="Re : Started Capturing"
  \r-text="Data capturing Restored"
```

```

[name]
    1000="David"

[location-details]
    loc1="Manoj's PC|1|e:\iptntcs\tcs1\mumbai.log"
    loc2="Viresh's PC|2|e:\iptntcs\tcs2\delhi.log"

[cti]
    cfgfile="console.cfg"
    privilege=      ",owner"
    mediamode=      ",interactivevoice"
    tsp="ipoffice"
    mediamode=      ",interactivevoice"
    appver=         0x00010003
    nostrictcheckcallfeatures= ",prepareaddconf"
    nostrictcheckaddrfeatures=""

```

8.2. Configure TS-Dialer Agent Desktop

Open **DPCLIENT.ini** file located in the **DPClient** folder. Set the **Tserver**, **Userver** to the IP Address of the TS-Dialer Server and set **UPort** to **8003**.

```

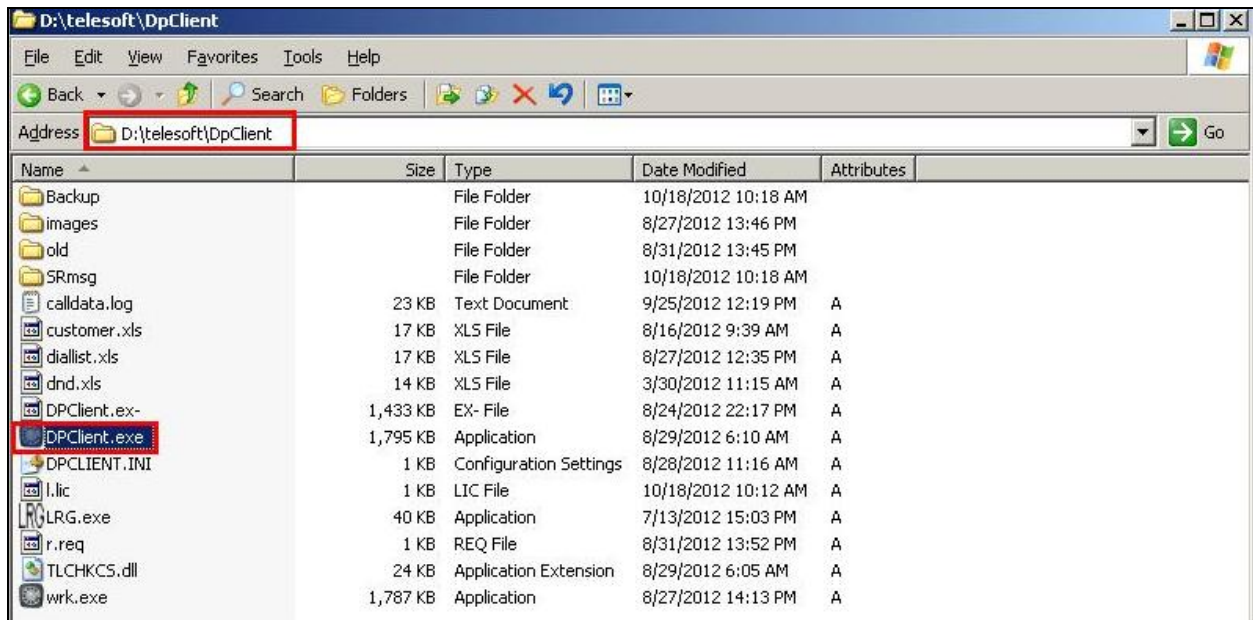
[CONN]
Tserver= "192.168.30.220"
Userver= "192.168.30.220"
UPort= "8003"
MsgFrom= "loc3"
MsgTo= "centhub"
Guide= "extn,203"

debug= 1
bakdir= "D:\telesoft\DpClient\Backup\"
msgdebug =1
msgdir= "D:\telesoft\DpClient\SRmsg\"

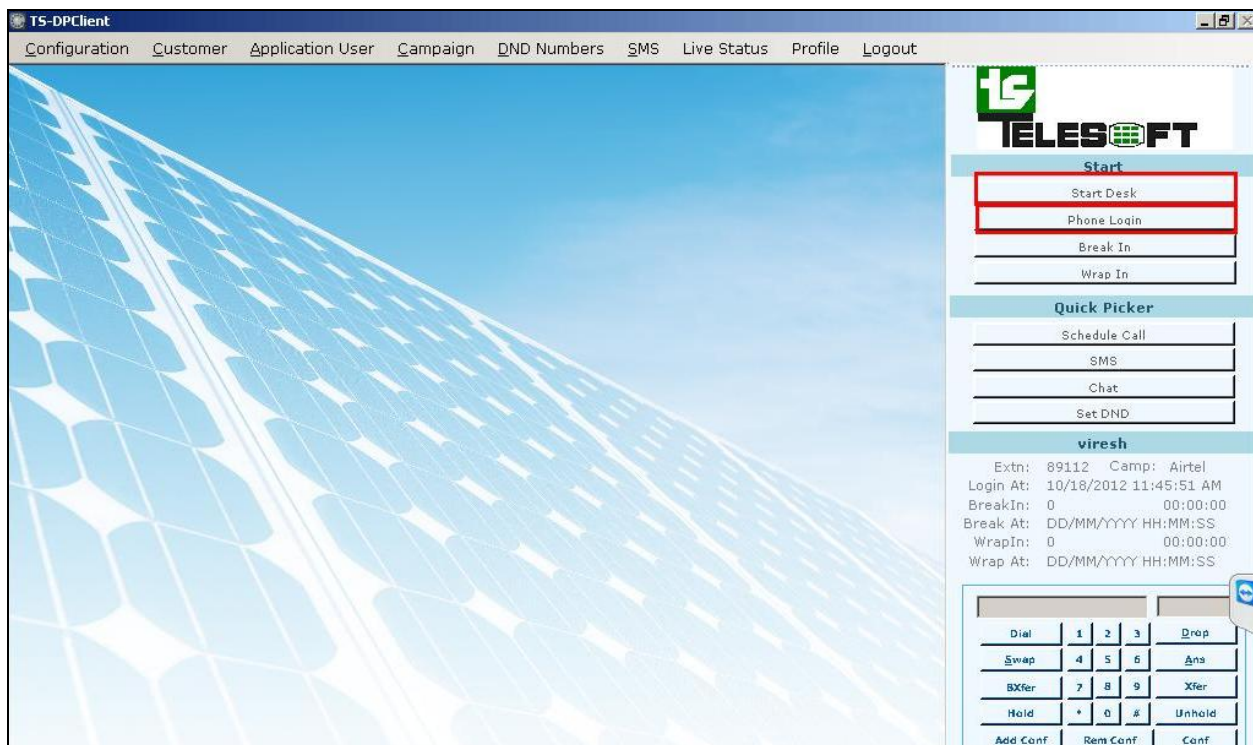
[SOURCE]
DBType= MSSQL
_DBHost= MANOJ-WXPP
DBHost= DELL1430\AMCR
DBName= dialer
DBUser= telesoft
DBUPwd= telesoft
DBAuth= 1
//0 for windows authentication 1 for user authentication

```

To launch the Agent Desktop Application navigate to the folder **DpClient** as shown below and open the program **DPCClient.exe**.



Click on **Start Desk** and then **Phone login** as highlighted below.



Some of the features included on TS-Dialer Agent Desktop are as follows.

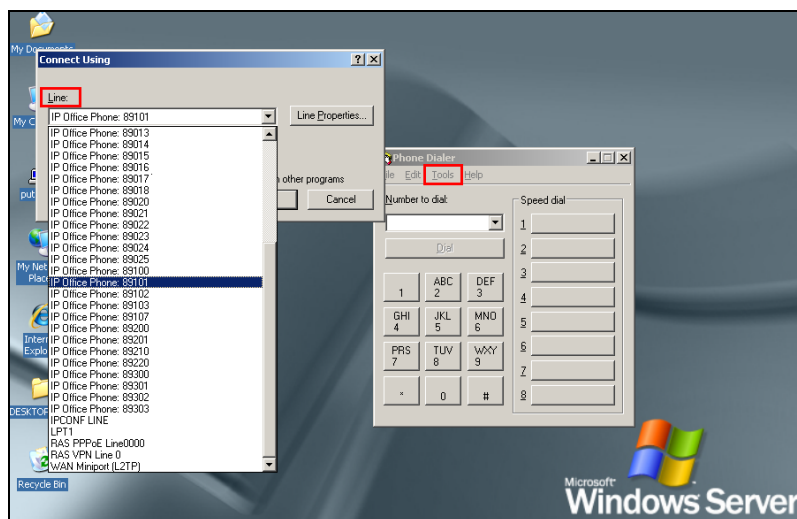
- Agent Log In/ Log out
- Break In/ Break Out which allows the agent go on break
- Wrap In/ Wrap Out which restricts system from allocating next call while agent is busy with data update
- Call Scheduling
- Online Chatting allows internal live chatting between Agents and Supervisor while handling complicated situations.
- Set DND allows the agent while being logged-in not to receive calls in-case he/she is not ready to take the call
- Call control which provides Dial Pad with special function keys such as:
 - Dial
 - Answer
 - Drop
 - Hold
 - Un-hold
 - Transfer
 - Blind transfer
 - Conference

9. Verification Steps

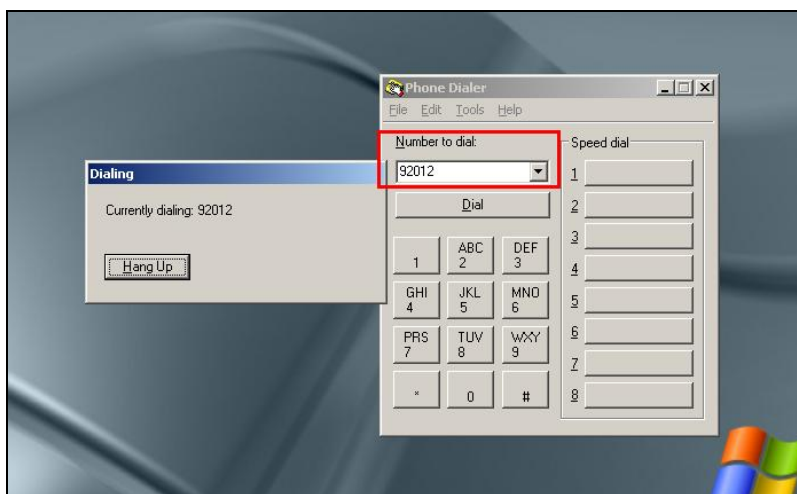
This section illustrates the steps necessary to verify that the TS-Dialer (predictive) Hardware PCI Dialer is connected to the IP Office correctly.

9.1. Verify that Avaya IP Office TAPI Service Provider is running correctly

Open **Phone Dialer** (Windows program installed on all Windows platforms) on the TS-Dialer server where TAPI is installed. Click on the Tools menu and select **Connect Using**. Another box opens as shown below. Open the **Line** dropdown box and all the IP Office users should be here as an available line to use.

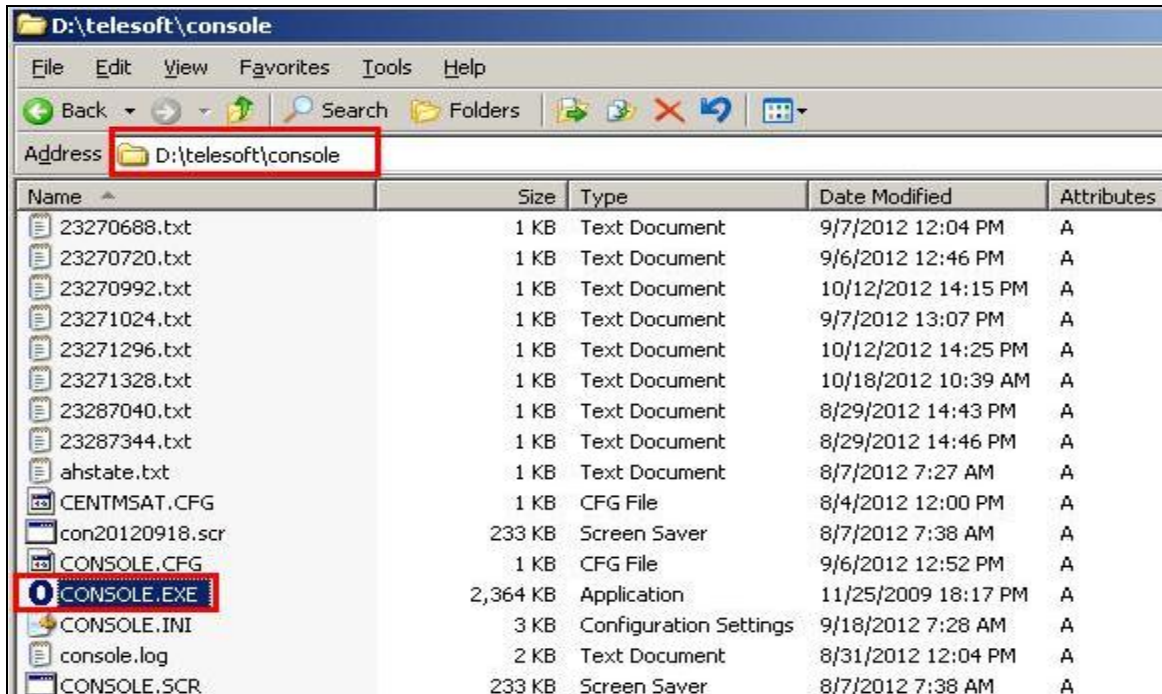


Choose any line and in the box **Number to dial** enter a valid IP Office extension number as shown below and click **Dial**. The **Phone Dialer** should successfully call the chosen extension number.

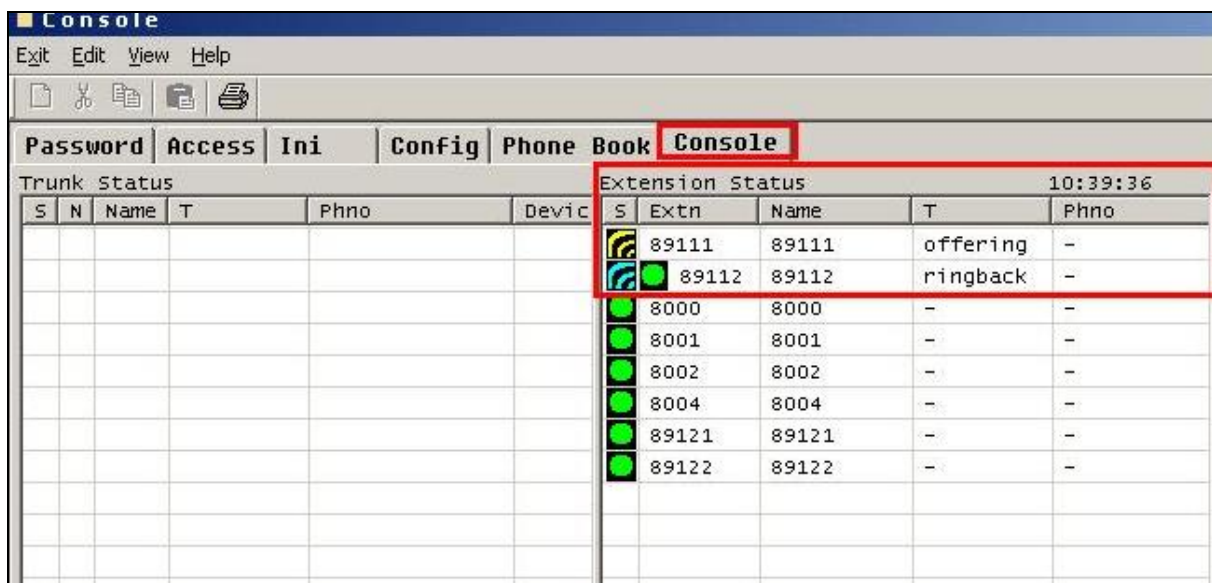


9.2. Verify that TS-Dialer has CTI functionality

Navigate to the **console** folder and open the console program by double clicking on **CONSOLE.EXE**.



Select the **Console** tab and when a call is active the information is displayed as shown in the example below of with extensions **89111** and **89112** active.



10. Conclusion

As illustrated in these Application Notes the procedures for configuring Telesoft TS-Dialer (predictive) Hardware PCI Dialer to interoperate with Avaya IP Office R8.1. In the configuration described in these Application Notes, Predictive Dialling outbound calls were tested. During compliance testing, all test cases were completed successfully as outlined in **Section 2.2**.

11. Additional References

This section references documentation relevant to these Application Notes. The Avaya product documentation is available at <http://support.avaya.com>.

- [1] *TAPI Link installation* Doc # 15-601034 Issue 11d
- [2] *TAPI Link* Doc # 15-601035 Issue 11f
- [3] *IP Office R8.1* Doc library

The Telesoft product documentation can be found at <http://www.telesoft.in/products.html>

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