Avaya Solution & Interoperability Test Lab

Application Notes for iQ NetSolutions VistaPoint Enterprise with Avaya MERLIN MAGIX Integrated System - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for the iQ NetSolutions VistaPoint Enterprise to successfully interoperate with the Avaya MERLIN MAGIX Integrated System. The iQ NetSolutions VistaPoint Enterprise is a complete client/server suite of computer telephony applications providing desktop call control for users. Features and functionality were validated and performance testing was conducted in order to verify operation under load. Information in these Application Notes has been obtained through interoperability compliance testing and additional technical discussions. Testing was conducted via the Developer*Connection* Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the compliance-tested configuration utilizing Avaya MERLIN MAGIX Integrated System 4.0 and iQ NetSolutions VistaPoint Enterprise 3.3.3.1 with patch 3.3.3A.

The iQ NetSolutions VistaPoint Enterprise is a complete client/server suite of computer telephony applications designed to provide end-users with desktop call control. The following VP Enterprise suite components are part of this solution:

VistaPoint Enterprise Server – a Windows based software server application providing connectivity to the TSAPI server of the MERLIN MAGIX Integrated System to the companion client software.

VistaPoint Desktop Companion – a Windows based software application providing desktop call control. VP Desktop Companion provides desktop call control, desktop-to-desktop instant messaging, system-wide notes, enterprise-wide busy lamp fields (BLFs), calling party information, and much more. With VP Desktop Companion, users can see via real-time the enterprise-wide BLF status of other MERLIN MAGIX Integrated System extensions. When another user is on the phone, simply "pop" an instant message to their computer screen to get a message to them.

VistaPoint Console Companion – an application including all the capabilities of VP Desktop Companion with additional features designed specifically for system operators and supervisors.

VistaPoint Companion for Outlook – an application plug-in for the professional who uses Microsoft Outlook as a key tool for conducting day-to-day business. It provides the ability to seamlessly navigate between VP Companion's functions and Outlook. A telephony call control toolbar within Outlook makes it easy to place calls, transfer, conference, and perform a variety of other call control functions from within Outlook. Users can also configure screen pops and place calls from within Outlook Contacts.

The tested configuration is shown in **Figure 1**.

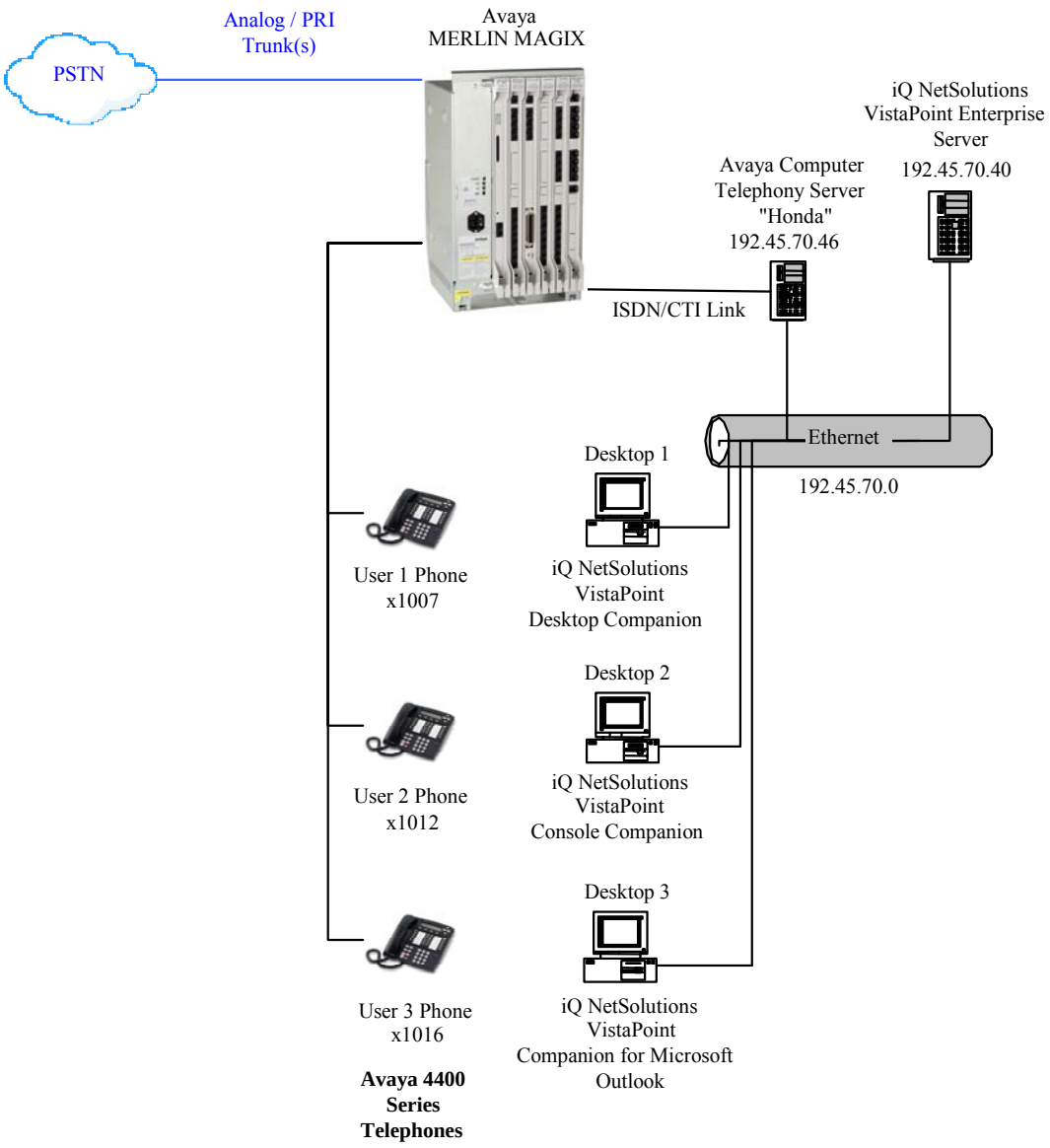


Figure 1: iQ NetSolutions VistaPoint Enterprise and Avaya MERLIN MAGIX Integrated System Configuration

1.1. Compliance Test Notes

1.1.1. Issues

- **Memory Leak in VistaPoint Server AvayaSIM process**: A memory leak was detected in the AvayaSIM process of the VistaPoint Server during load testing. The leak was fixed in patch 3.3.3A provided by iQ NetSolutions and it will be incorporated in the next release of VistaPoint Enterprise.

- **Default Log settings in VistaPoint Server set to log too much detail**: The default logging in VistaPoint Server was set for troubleshooting and this caused the server processes to keep growing. iQ NetSolutions will modify the default log settings to a production environment level (log fatal errors only) in the next release.

- **'Send call to Voicemail' not supported**: VistaPoint clients cannot be used to send a caller to another extension's voicemail. iQ NetSolutions is aware of the problem and is working to resolve it.

1.1.2. Observations

- **Blind Transfer feature handling:** VistaPoint clients perform a blind transfer as a modified supervised transfer. That is, the call is transferred, and then the user at the extension performing the transfer hangs up once the phone at the remote end rings.

2. Equipment and Software Validated

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

Equipment	Software
Avaya MERLIN MAGIX Integrated System	4.0
Avaya Centre-Vu Computer Telephony Server	9.1
Avaya Centre-Vu Computer Telephony Client	9.1
Avaya Centre-Vu Computer Telephony Software license disk	-
Avaya MERLIN MAGIX PBX Driver	3.0
Avaya MERLIN MAGIX PBX Driver authorization disk	-
Avaya 4412D, 4424D telephones	-
Eicon DIVA ISDN interface card	2.0.2
iQ NetSolutions VistaPoint Enterprise Server	3.3.3.1 + 3.3.3A patch
iQ NetSolutions VistaPoint Desktop Companion	3.3.3.1
iQ NetSolutions VistaPoint Console Companion	3.3.3.1
iQ NetSolutions VistaPoint Companion for MS Outlook	3.3.3.1
PC for use as Avaya Computer Telephony Server	Windows 2000 Server Service Pack 4
Generic PCs for use with iQ NetSolutions VistaPoint Server and Clients	Windows 2000 Professional Service Pack 4

3. Configure Avaya MERLIN MAGIX Integrated System

These Application Notes address provisioning of the MERLIN MAGIX Integrated System as it relates to integration of the VistaPoint Server. For all other provisioning information, such as provisioning of the trunks, call coverage, extensions, etc., please refer to the MERLIN MAGIX Integrated System documentation.

Step	Description
	Set Hybrid / PBX Mode
1.	Go to the System Programming Console Main Menu and set the mode of the switch to **Hybrid/PBX** by clicking the console buttons as follows: **(Sys Program) → (Start) → (System) → (Mode) → (Hybrid/PBX)**. Then, press **(Enter)** and the system will restart.
	Configure CTI Link
2.	Select an eligible MLX port to be the CTI link port and note the extension number. For the purposes of these Application Notes, extension 1030 of the MLX board in slot 02 of the MERLIN MAGIX was used. **NOTE**: Please refer to the product documentation for a listing of the restrictions involved, e.g., cannot use a potential operator port or a console-programmed port.
3.	Go to the System Programming Console Main Menu and busy out the slot containing the board with the designated CTI link port: **(Maintenance) → (Slot) → (02) → (Busy-Out) → (Yes).**
4.	Return to the System Programming Console Main Menu and assign the extension number identified in Step 2 (e.g., x1030) as the CTI Link port: **(Sys Program) → (Start) → (AuxEquip) → (CTI Link) → (1030) → (Enter).**
5.	Return to System Maintenance and restore the slot containing the CTI Link port: **(Maintenance) → (Slot) → (02) → (Restore) → (Yes).**

4. Configure Avaya Computer Telephony Server

Note: The Avaya Telephony Services software version used with MERLIN MAGIX is approved for use on Windows 2000 Professional.

4.1. Install Eicon DIVA ISDN Interface Card

Step	Description
1.	Shut down the Telephony Server PC and install the ISDN interface card.
2.	Connect the MLX port that has been administered as the CTI link on the MERLIN MAGIX to the modular jack located on the back of the ISDN interface card.
3.	Power on the Telephony Server PC and log in with administrative privileges.
4.	The Found New Hardware window is displayed indicating that new hardware is being installed.
5.	In the Found New Hardware Wizard Welcome window that appears, click **Next** to begin installation of the Eicon Diva 2.02 device driver.

Step	Description
6.	In the Install Hardware Device Drivers window that appears, select **Search for suitable driver for my device (recommended)** and click **Next**.
7.	In the Locate Driver Files window that appears, make sure only the **Specify a location** option is checked, insert the Diva Client Software Suite CD, then click **Next**.
8.	In the Found New Hardware Wizard window that appears, browse to the CD-ROM and then to the win_2k directory, and then click **OK**.
9.	In the Driver Files Search Results window that appears, click **Next**.
10.	If the Digital Signature Not Found window appears or if the Not Passed Windows Logo Testing window appears, click on **Yes** or **Continue Anyway** to proceed with the installation.
11.	In the Completing the Found New Hardware Wizard window, click **Finish**.
12.	Following Diva Tools Installation, when the Windows installer prompts to restart the system, click **Yes**.
13.	Following restart of the system, log back in with administrative privileges. Wait for the installation of the Diva Tools and the Diva Assistant to complete automatically.
	Verify installation
14.	Open DIVA from the Programs folder on the Start menu.
15.	Select **Link Check** to display the DIVA Line Check dialog box.
16.	Click **Start** to check the DIVA ISDN interface configuration.
17.	If the Line Check is successful, the message 'SUCCESS! Link Check test passed' appears in the Result section of the dialog box.
18.	Click **Finish** to close the DIVA Line Check dialog box.

4.2. Install Avaya Computer Telephony Server Software

Step	Description
1.	Insert the Avaya Computer Telephony CD into the Telephony Server PC, browse to the CD-ROM and run Wininst\Setup.exe.
2.	In the Telephony Services Setup window that appears, click **CentreVu Computer-Telephony Software**.
3.	In the Server Setup window that appears, check **Telephony Services Security Data Base** and **Telephony Server for Windows NT**, verify **DEFINITY G3 PBX Driver** and **CallVistor PC** are unchecked and click **Next**.
4.	Click **Next** until the Enter Information window appears, then enter the IP address of the Telephony Server PC and click **Next**.
5.	In the Select Tserver Administrator window that appears, verify **Administrator** is selected and click **Next**. (This defines the Administrator login credentials on the Tserver).
6.	In the Setup Needs the Next Disk window, insert the LICENSE diskette and click **OK**.
7.	In the Information popup that appears, click **OK**.
	Install Telephony Server Admin client
8.	In the Telephony Services Setup window that appears, click **Client Software**.
9.	In the Client Setup window that appears, click **32** to install the 32-bit Windows client.
10.	In the Welcome window that appears, click **Next**.
11.	In the Telephony Services Setup Options window that appears, check **Administration Utilities** and click **Next**.
12.	In the Choose Destination Location window, click **Next**.

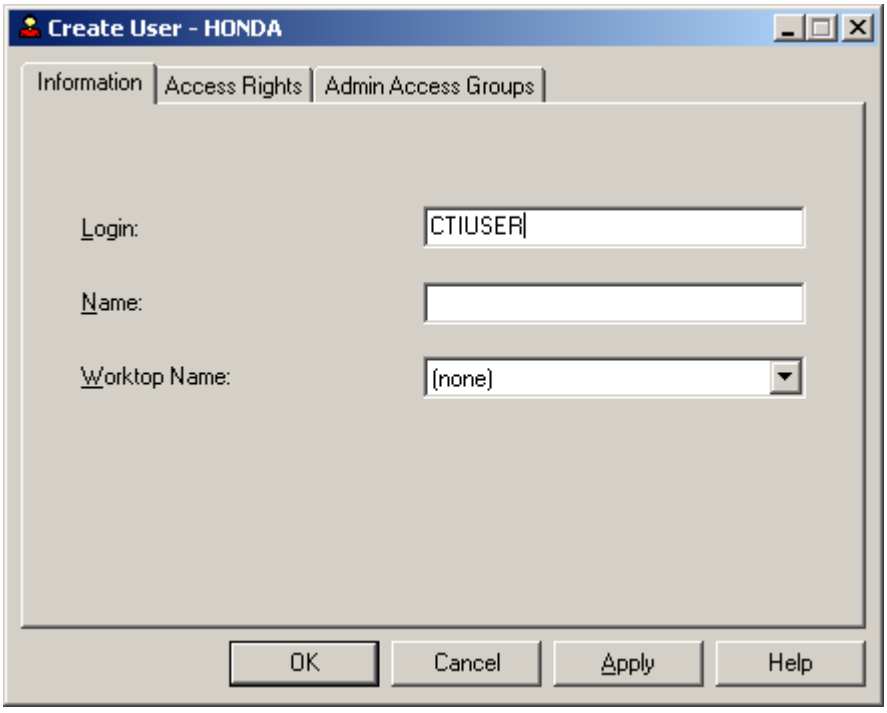
Step	Description
13.	In the TCP/IP Name Server Configuration window, set *IP Address* to the Telephony Server's IP address, e.g., **192.45.70.46**, set *TCP Port* to **450**, click **Add to List** and click **Next**.
14.	In the Information popup that appears, click **OK**.
15.	In the Telephony Services Setup window, click **Exit**.
16.	Do not reboot the PC and do not start the Telephony Services software.

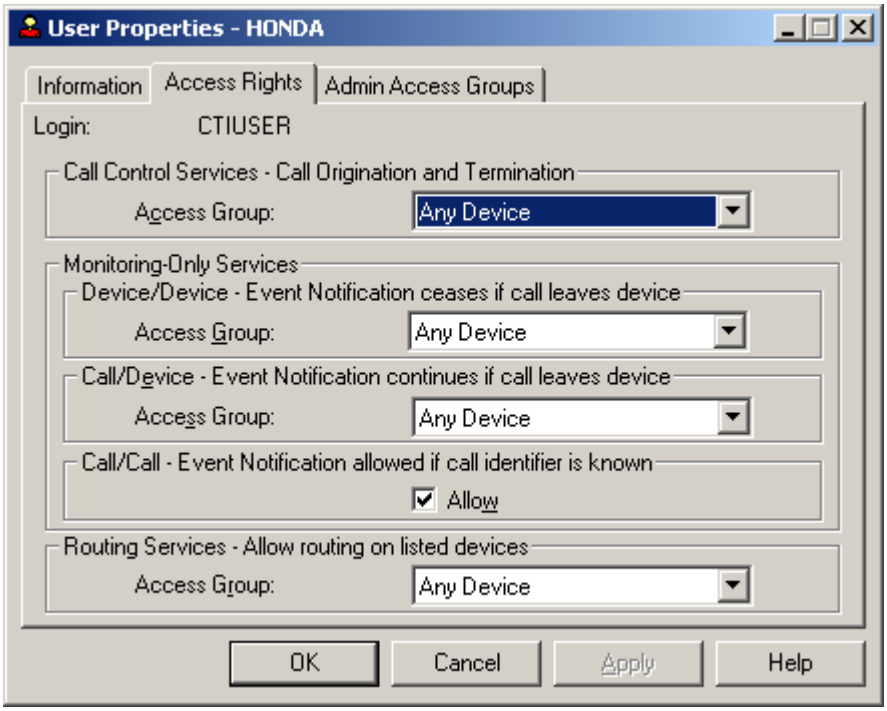
4.3. Install Avaya MERLIN MAGIX PBX Driver

Step	Description
1.	Insert the MERLIN MAGIX PBX Driver CD into the Telephony Server PC, browse to the CD-ROM and run Wininst\Setup.exe.
2.	In the MERLIN MAGIX Integrated System Setup window that appears, click **Install Server Software**.
3.	In the Welcome window that appears, click **Next**.
4.	Continue to click **Next** to proceed with the installation until the MERLIN MAGIX PBX Driver Configuration window appears.
5.	In the MERLIN MAGIX PBX Driver Configuration window, the *Advertised Switch Name* should be set to **MAGIX** and the *Adapter Name* should be set to **MAGIX**. Click **Next**. **Note**: The Adapter Name should match the name given to the Eicon DIVA ISDN adapter. On Windows 2000, the adapter is automatically named MAGIX. Please refer to the documentation for Windows NT installations.
6.	In the Start Copying Files window, click **Next**.
7.	In the Please insert the MERLIN MAGIX PBX Driver Authorization [MMPDAUTH] disk into the drive popup, insert the authorization diskette into the floppy drive and click **OK**.
	Install MERLIN MAGIX PBX Driver Admin client
8.	In the MERLIN MAGIX Integrated System Setup window, click **Install Client Software**.
9.	In the Welcome window that appears, click **Next**.
10.	In the MERLIN MAGIX Client Setup Options window, check **Install Administration Software** and click **Next**.
11.	In the Choose Destination Location window, click **Next**.
12.	In the Information popup that appears, click **OK**.
13.	In the MERLIN MAGIX Integrated System Setup window, click **Exit**.
14.	Reboot the Telephony Server PC. This completes the installation of the MERLIN MAGIX PBX Driver.
	Verify installation
15.	Login to the Telephony Server PC using administrative privileges.
16.	Verify the Telephony Servers are running via Services.
17.	Start the Windows MMPD OA&M Utility by clicking **Start → Programs → MERLIN MAGIX Win32 Client → MAGIX Driver Admin**.
18.	In the Known MMPD Tlinks window that appears, verify the listed service (AVAYA#ML_OAM#OAM#*server_name*) is highlighted and click **OK**. **NOTE**: For the purpose of these Application Notes, *Honda* will replace *server_name* for the remainder of this document.
19.	In the Login to AVAYA#ML_OAM#OAM#HONDA window that appears, enter the login credentials defined during the CentreVu Telephony server installation, click **OK**.

Step	Description
20.	In the MMPD Administrator AVAYA#ML_OAM#OAM#HONDA window, select **Maint → Link Status** from the Menu.
21.	In the Link Status window that appears, verify the link listing Link Type=ISDN, Switch Type=MAGIX has the following status settings: Switch Connection = active, Layer 2 Link Status = up and Layer 4 Link Status = up.

4.4. Provision Telephony Services User and Devices

Step	Description
1.	Start the Telephony Services Administration utility in the Telephony Server PC by going to **Start → Programs → Telephony Services Win32 client → Telephony Services Admin**.
2.	In the Open Tserver popup that appears, select the Telephony Server name in the Tserver pull-down list. Enter **Administrator** in the *Login* field and click **OK**.
	Create Telephony Services CTIUSER
3.	In the Telephony Services Administrator 32-bit window, select **Admin → Create User** from the pull-down menu to add the telephony services user that will be used by the VistaPoint Enterprise application.
4.	In the Create User – HONDA window that appears set *Login* to **CTIUSER**. 

Step	Description
5.	In the Access Rights tab of the Create User – HONDA window, verify each instance of *Access Group* is set to **Any Device**. 
6.	In the Admin Access Groups tab of the Create User – *TserverNM* window, add **CTIUSER** to the All Admin Access group and click **OK**.
	Create TSAPI Devices
7.	In the Telephony Services Administrator 32-bit window, select **Admin → Create Device** from the pull-down menu to add the extension numbers of the devices that will be controlled/used by the VistaPoint Enterprise application.
8.	In the Create Devices – HONDA window that appears, set *Device ID* to the extension number to be controlled, e.g., **1007**, set *Device Type* to **PHONE**, set *Tlink Group* to **Any Tlink**, and click **OK**.
9.	Repeat steps 7 - 8 for every device that will be controlled/used by the VistaPoint Enterprise application. For the purposes of these Application Notes, extensions 1007, 1012, and 1016 were provisioned.
	Add user to Telephony Server operating system
10.	Create a user account called *ctiuser* (matching the account name defined in Step 4) on the Telephony Server PC. Go to **Start → Settings → Control Panel** and double-click the **Users and Passwords** icon.
11.	In the Users and Passwords window that appears, click **Add…**
12.	In the Add New User window that appears, type **ctiuser** for User name and click **Next**.
13.	In the next Add New User window that appears, type the desired password in the Password and Confirm password fields and click **Next**.
14.	In the next Add New User window that appears, select the access level **Standard User** and click **Finish**.
15.	In the Users and Passwords window that appears, click **OK**.

5. Configure iQ NetSolutions VistaPoint Enterprise Server

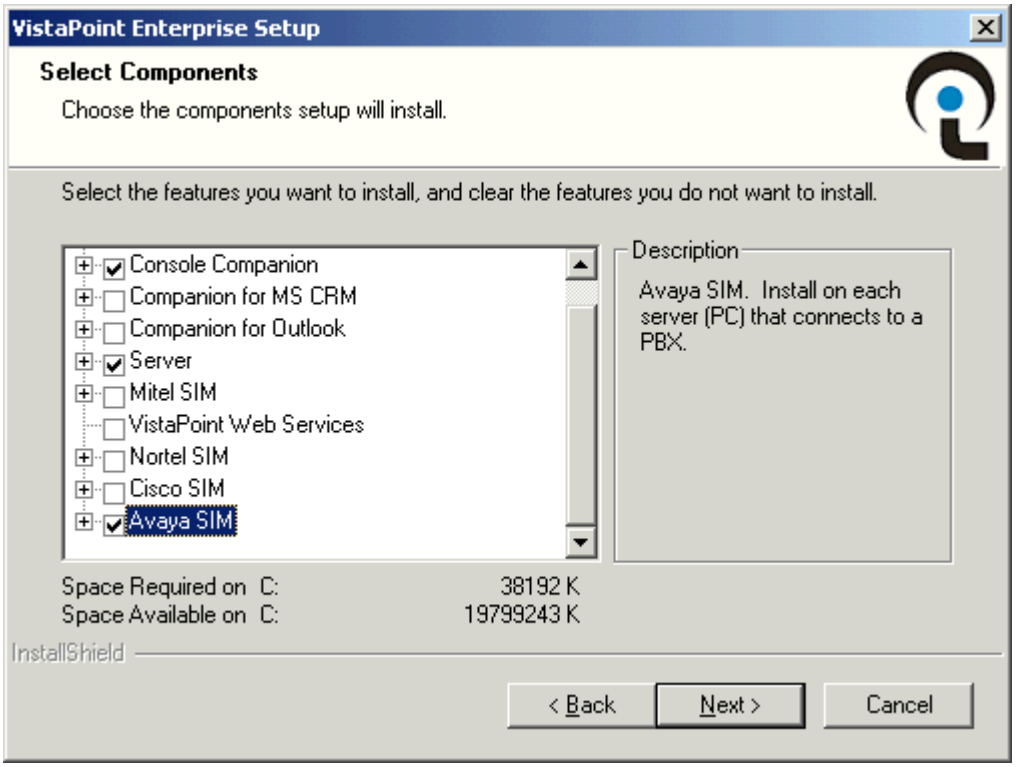
These Application Notes address provisioning of the VP Server as it relates to the Avaya MERLIN MAGIX Integrated System. For all other provisioning information, please refer to the iQ NetSolutions System Guide available on the Installation CD.

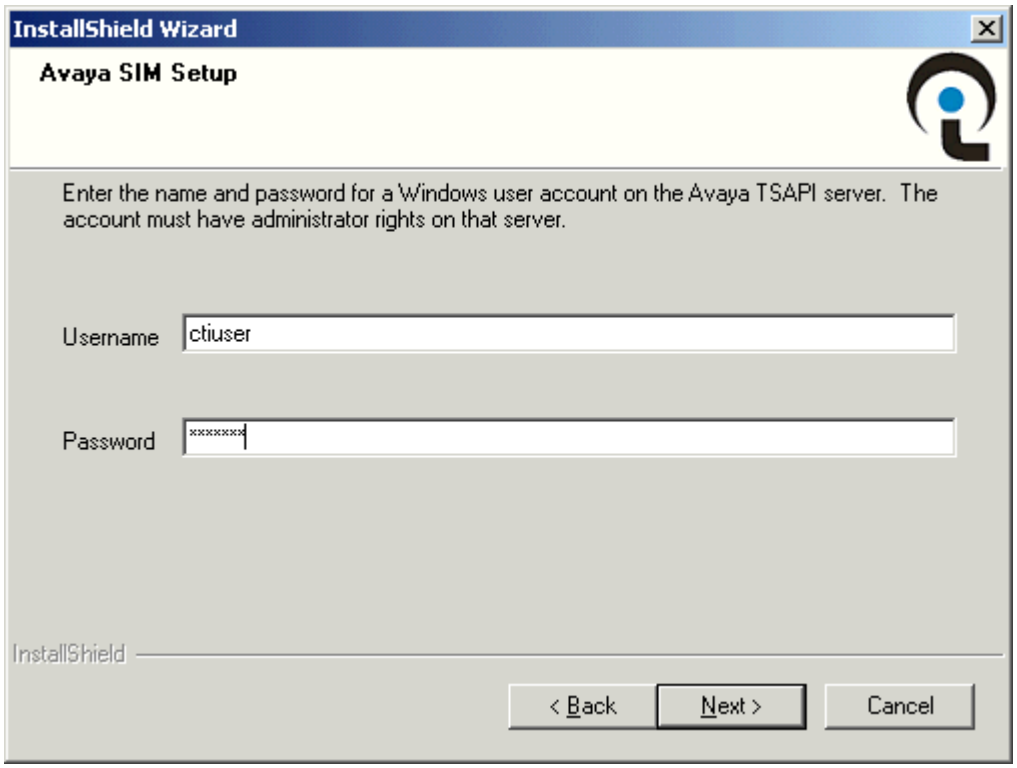
5.1. Install Avaya Computer Telephony Client Software without Administrator Privileges

Step	Description
1.	Insert the Avaya Computer Telephony CD into the VistaPoint Enterprise Server PC, browse to the CD-ROM and run Wininst\Setup.exe.
2.	In the Telephony Services Setup window that appears, click **Client Software**.
3.	In the Client Setup window that appears, click **32** to install the 32-bit Windows client.
4.	In the Welcome window that appears, click **Next**.
5.	In the Telephony Services Setup Options window that appears, verify **Administration Utilities** is unchecked and click **Next**.
6.	In the Choose Destination Location window, click **Next**.
7.	In the TCP/IP Name Server Configuration window, set *IP Address* to the Telephony Server's IP address, e.g., **192.45.70.46**, set *TCP Port* to **450**, click **Add to List** and click **Next**.
8.	In the Information popup that appears, click **OK**.
9.	In the Telephony Services Setup window, click **Exit**.
	Verify installation
10.	Go to **Start** → **Programs** → **TS Win32 client** → **TS Test** to launch TS Test.
11.	In the TSTest Telephony Services Test Application window that appears, place test calls as follows: set *Server* to **AVAYA#MAGIX#CSTA#HONDA**, set *User* to **ctiuser**, set *Password* to the Windows password defined for ctiuser, set *From* to **1007**, set *To* to **1016** and click **Dial**. Confirm extension 1007 goes off-hook and 1016 starts ringing.
12.	In the TS Test Telephony Services Test Application popup that appears, click **OK**.

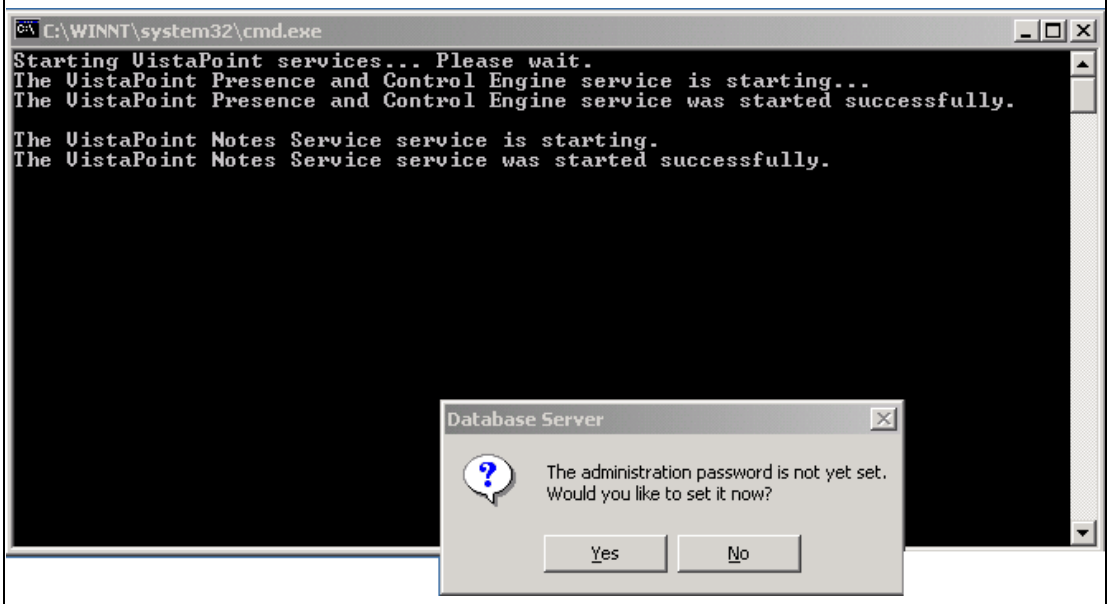
5.2. Install iQ NetSolutions VistaPoint Enterprise Server

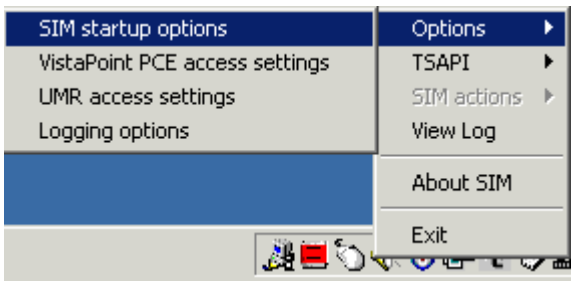
Step	Description
1.	Insert the VistaPoint Enterprise Installation CD into the VistaPoint Enterprise Server PC, browse to the CD-ROM and run setup.exe.
2.	In the VistaPoint Enterprise Setup window that appears, click **Next**.
3.	In the License Agreement window that appears, review the license agreement. If you accept the terms and wish to proceed with the installation, click **Yes**.
4.	In the Choose Destination Location window that appears, click **Next**.

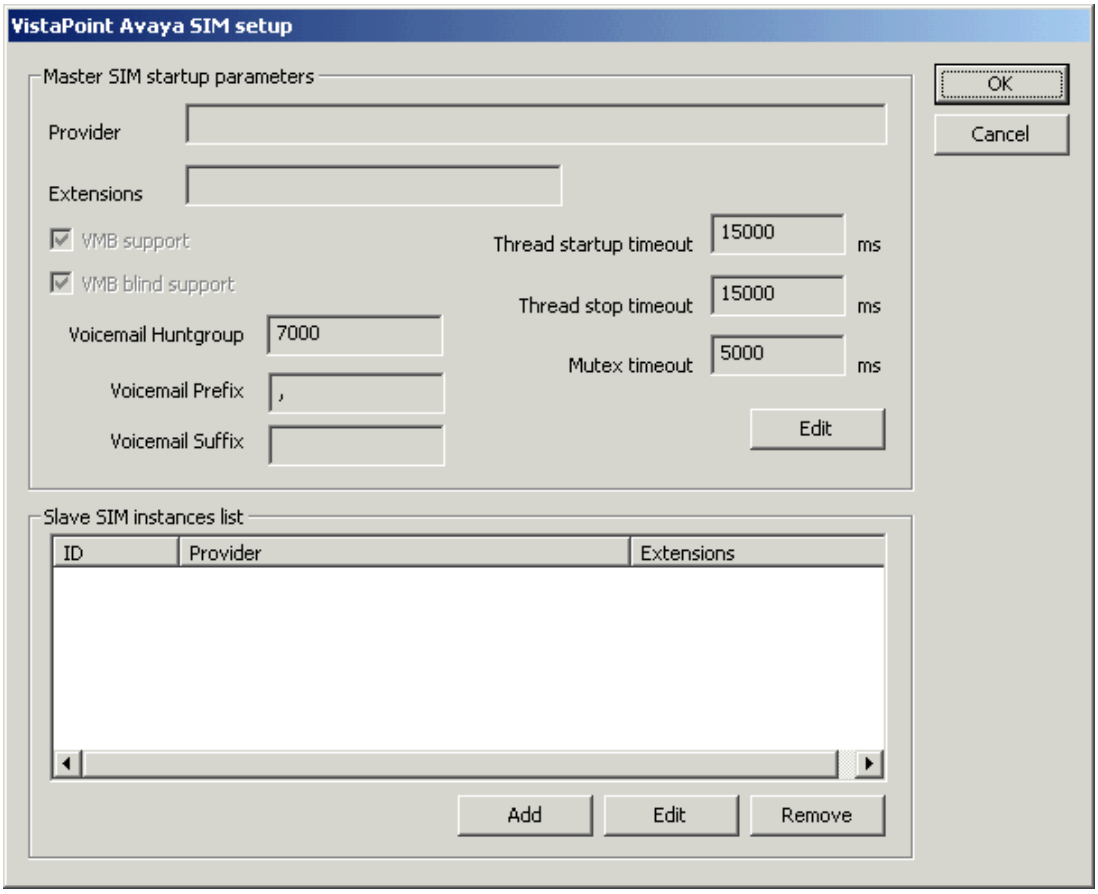
Step	Description
5.	In the Select Components window that appears, check **Console Companion**, **Server**, **Avaya SIM** and click **Next**. 

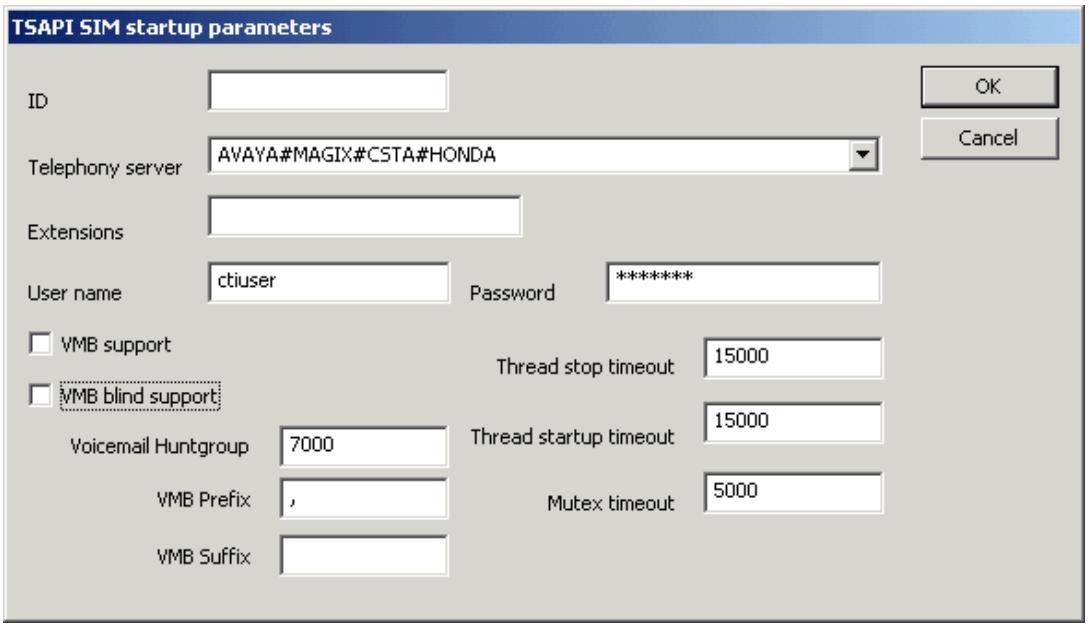
Step	Description
6.	In the Avaya SIM Setup window that appears, set *Username* to **ctiuser**, set *Password* to the password defined for ctiuser and click **Next**. 
7.	In the Review settings before copying files window that appears, click **Next**.
8.	In the VistaPoint License Retrieval window that appears, click **Cancel**. For the purposes of these Application Notes, the thirty-day trial license was used. This trial license can be upgraded later to a permanent license.
9.	In the VPLicenseAdmin popup that appears, click **OK**.
10.	In the VP License Administrator window that appears, click **Exit**.
11.	In the VistaPoint Enterprise Setup window that appears, select **Yes, I want to restart my computer now.** and click **Finish**.
12.	Remove the installation CD from the computer.

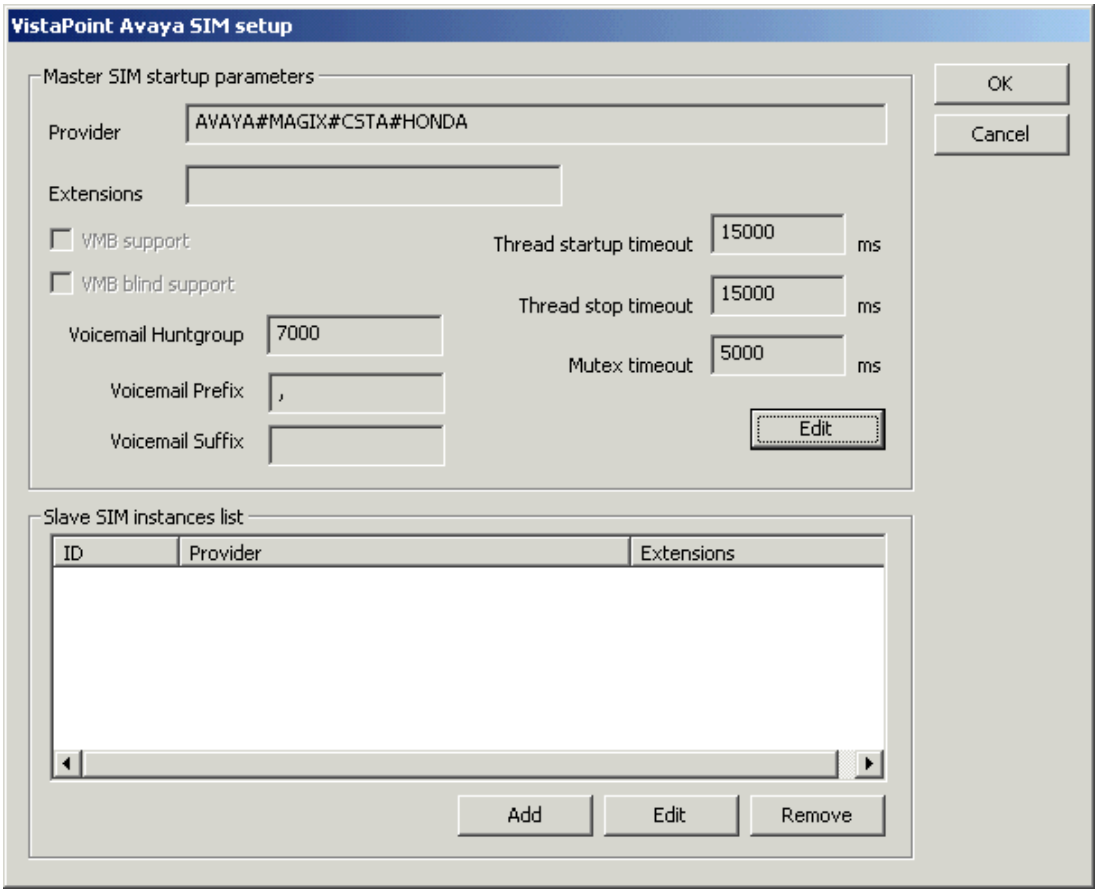
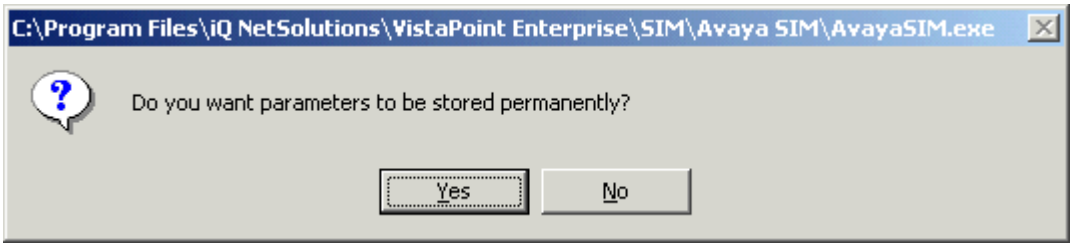
5.3. Configure VistaPoint Server Components

Step	Description
1.	Log in to the VistaPoint Enterprise Server PC using administrative privileges following installation reboot.
2.	In the Database Server popup that appears, click **Yes**. 
3.	In the System Administrator Password popup that appears, set *New password* and *Re-enter new password* to the password that will be used for accessing VistaPoint Enterprise administrator features from VistaPoint Enterprise clients. Click **OK**. 

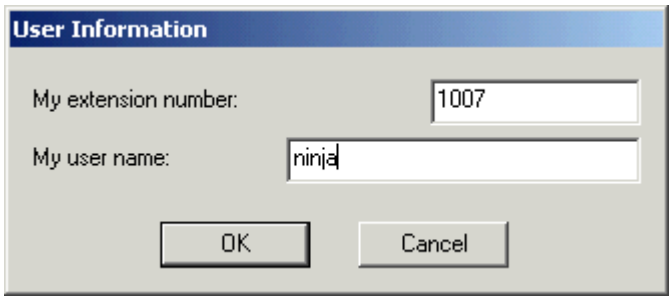
Step	Description
4.	Verify the Avaya SIM is running by finding the Avaya SIM icon in the Windows System Tray of the VistaPoint Server PC. 
5.	Right-click the Avaya SIM icon and choose **Options** → **SIM startup options**. 

Step	Description
6.	In the VistaPoint Avaya SIM setup window that appears, click **Edit**. 

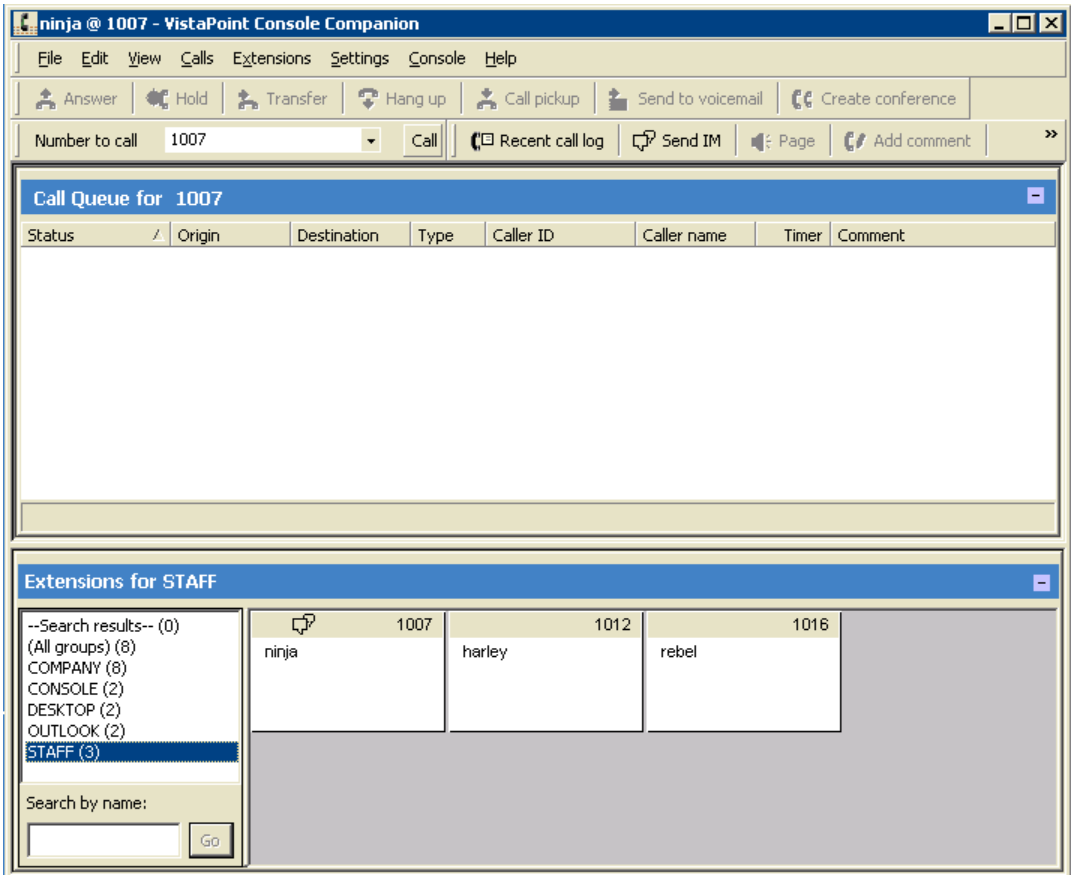
Step	Description
7.	In the TSAPI SIM startup parameters window that appears, set *Telephony server* to **AVAYA#MAGIX#CSTA#HONDA**, set *User name* to **ctiuser**, set *Password* to the password defined for ctiuser, uncheck **VMB support**, uncheck **VMB blind support**, and click **OK**. 

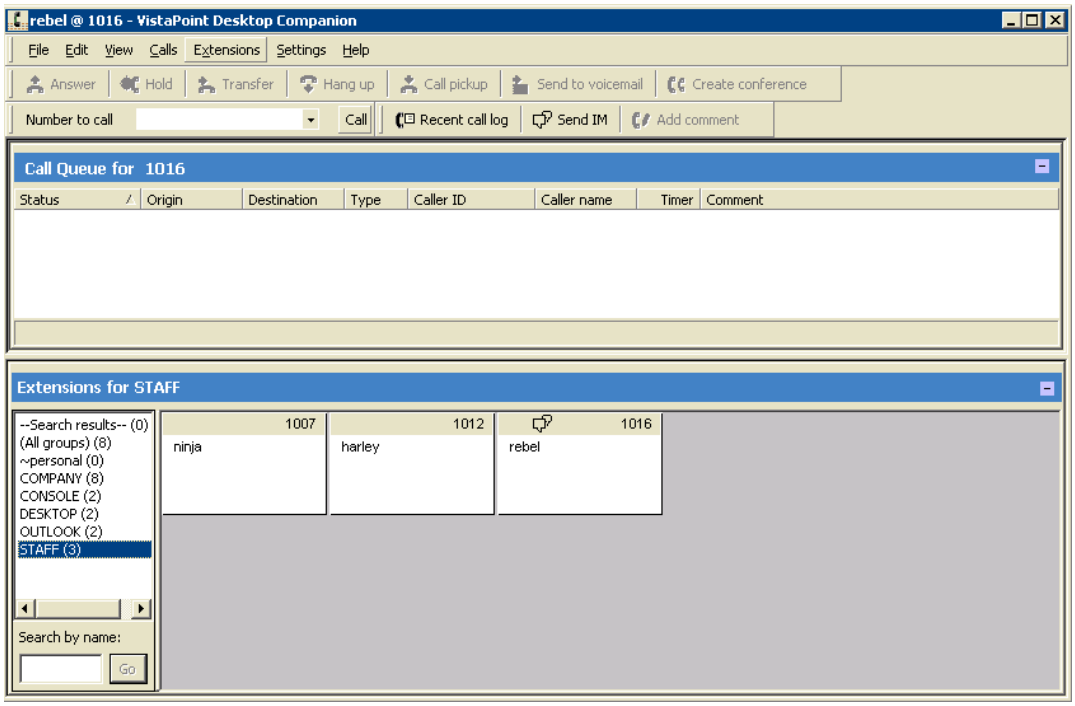
Step	Description
8.	In the VistaPoint Avaya SIM setup window, click **OK**. 
9.	In the AvayaSIM.exe popup that appears, click **Yes**. 
10.	Reboot the VistaPoint Enterprise Server PC. This completes the configuration of the VistaPoint Enterprise Server.

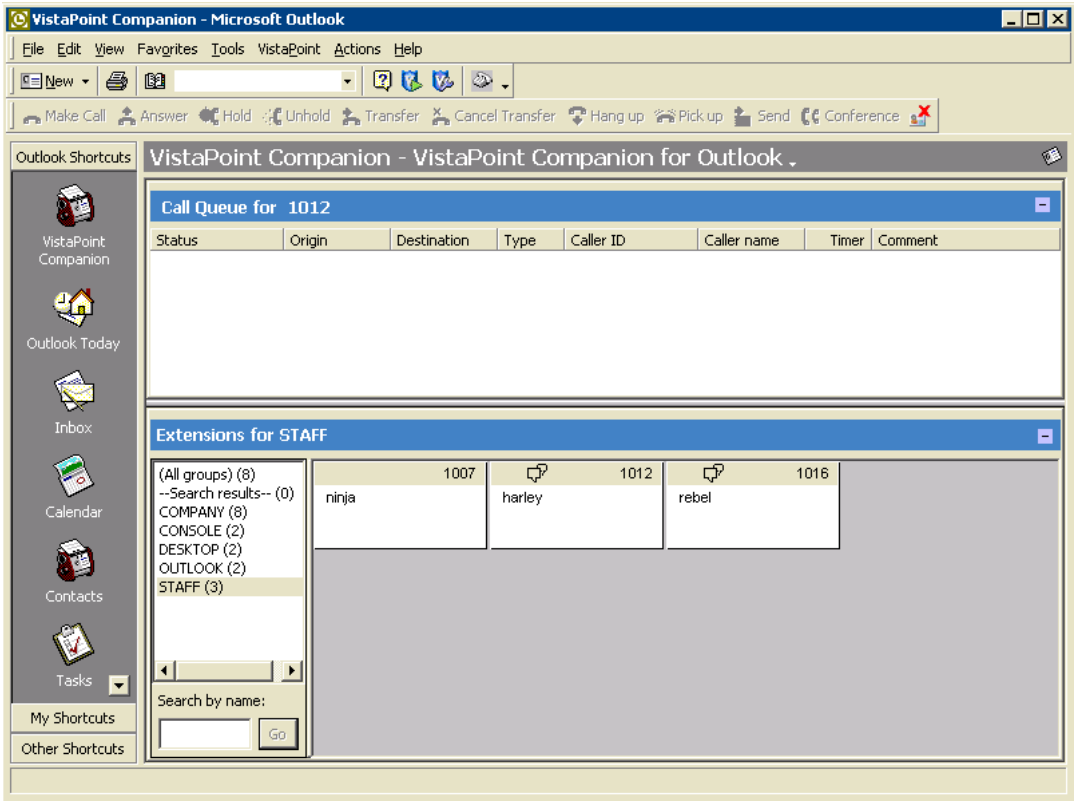
6. Install and configure iQ NetSolutions VistaPoint Enterprise Client(s)

Step	Description
	Install Client Software
1.	Log in to the client PC using administrative privileges.
2.	Insert the VistaPoint Enterprise Installation CD into the client PC, browse to the CD-ROM and run setup.exe.
3.	In the VistaPoint Enterprise Setup window that appears, click **Next**.
4.	In the License Agreement window that appears, review the license agreement. If you accept the terms and wish to proceed with the installation, click **Yes**.
5.	In the Choose Destination Location window that appears, click **Next**.
6.	In the Select Components window that appears, select the VistaPoint Companion client desired, e.g., **Desktop Companion**, **Console Companion** or **Companion for Outlook**, and click **Next**.
7.	In the Review settings before copying files window that appears, click **Next**.
8.	In the VistaPoint License Retrieval window that appears, click **Cancel**. For the purposes of these Application Notes, the thirty-day trial license was used. This trial license can be upgraded later to a permanent license.
9.	In the VPLicenseAdmin popup that appears, click **OK**.
10.	In the VP License Administrator window that appears, click **Exit**.
11.	In the VistaPoint Enterprise Setup window that appears, select **Yes, I want to restart my computer now.** and click **Finish**.
12.	Remove the installation CD from the computer.
	Configure VistaPoint Console Companion
13.	Login to the client PC following installation reboot.
14.	Go to **Start** → **Programs** → **VistaPoint Enterprise** → **VistaPoint Console Companion** to launch the VistaPoint Console Companion client.
15.	In the User Information popup that appears, set *My extension number* to the extension number to be controlled/used from the client PC, e.g., **1007**, set *My user name* to the name to be associated with the extension controlled from the client PC, e.g., **ninja**. 

Step	Description
16.	Once configured, the VistaPoint Console Companion appears as follows.



Step	Description
	Configure VistaPoint Desktop Companion
17.	Repeat Steps 13 – 16 and go to **Start** → **Programs** → **VistaPoint Enterprise** → **VistaPoint Desktop Companion** to launch VistaPoint Desktop Companion. Set *My extension number* to **1016** and *My user name* to **rebel** to configure the VistaPoint Desktop Companion. Once provisioned, the client appears as follows: 
	Configure VistaPoint Companion for Outlook
18.	Log in to the client PC following installation reboot.
19.	Go to **Start** → **Programs** → **Microsoft Outlook** to launch the Microsoft Outlook client and log in as usual.
20.	In the My extension popup that appears, set *My extension number* to the extension number to be controlled/used from the client PC, e.g., **1012**, set *My user name* to the name to be associated with the extension controlled from the client PC, e.g., **harley**.

Step	Description
21.	Once configured, the VistaPoint Companion for Outlook appears as follows within Microsoft Outlook: 

7. Interoperability Compliance Testing

This interoperability compliance test included feature, functionality and performance load testing[1]. Feature and functionality testing examined iQ NetSolutions VistaPoint Enterprise suite's (VistaPoint Enterprise Server, VistaPoint Desktop Companion, VistaPoint Console Companion, and VistaPoint Companion for Outlook) ability to work with Avaya MERLIN MAGIX Integrated System. Call control (internal, inbound and outbound calls, supervised transfer, conference, drop, and hold) from the VistaPoint Enterprise Clients was verified. Performance load tests verified the configuration continued operating under load.

7.1. General Test Approach

Feature and functionality testing was performed manually. Analog loop start trunks and PRI trunks from the central office were connected to the MERLIN MAGIX Integrated System. Inbound calls were made to the MERLIN MAGIX Integrated System from analog and PRI trunks as well as internal extensions. The MERLIN MAGIX Integrated System routed calls to

[1] Feature and functionality testing was conducted at iQ NetSolutions Test labs and verified during load testing conducted at the Avaya Solution and Interoperability Test Lab.

destination extensions based on dial plan routing. Calls received at extensions configured with VistaPoint clients (VistaPoint Console Companion, VistaPoint Desktop Companion, VistaPoint Companion for Outlook) were answered via the client software. VistaPoint clients were used to place outbound calls, supervised transfers, and conference calls including call hold and drop.

Performance testing was accomplished by utilizing a call generation tool for placing calls from a PRI trunk to the MERLIN MAGIX Integrated System. The PRI trunk port on the call generation tool was connected to the PRI trunk port on the MERLIN MAGIX Integrated System using a T1 crossover cable. A call generation tool script was written to place calls to the MERLIN MAGIX Integrated System, pause and play wave files then hang up after a few moments. The MERLIN MAGIX Integrated System dial plan routing was set up to route the inbound calls to the appropriate destination extensions. Automated scripts were written to drive the VistaPoint clients on the client PCs used for load testing to answer incoming calls.

7.2. Test Results

Feature, functionality, and performance testing was successful. Any issues and/or observations noted during testing were presented in Section 1.1 of these Application Notes. Overnight performance testing at a rate of 845 BHCA (Busy Hour Call Attempts) as reported by the call generation tool and answered by seven VistaPoint client PCs was conducted. Performance statistics were captured on the VP Server to ensure that it was able to handle the call volume.

8. Verification Steps

The following steps can be used to verify system operation after a field installation:

- Verify the MERLIN MAGIX CTI port and Eicon DIVA ISDN card are operating properly by performing a Link Check from the Telephony Services PC where the Eicon DIVA card is installed (see Section 4.1).
- Verify the MERLIN MAGIX PBX Driver installation by verifying Link Status through the MERLIN MAGIX Administrator Utility (see Section 4.3).
- Verify the Telephony Services server and client installation by using TS TEST from a PC with the Telephony Services client installed (see Section 5.1).
- Verify the VistaPoint Enterprise Server by confirming VistaPoint services are running on the server and the VistaPoint clients can display the monitored extensions (see Section 6).
- Place a test call from one VistaPoint client extension to another, e.g., x1007 to x1012. Verify the call rings at the destination extension and there is call connectivity when the call is answered at the VistaPoint client of the destination extension.
- Place an inbound trunk call to one of the VistaPoint client extensions. Verify call connectivity when the call is answered at the VistaPoint client.

9. Support

Customers should call the iQ NetSolutions Inc. Customer Service Center when having problems related to the VistaPoint Enterprise. iQ NetSolutions will then determine the nature of the problem and recommend the best plan to the customer whether it is to:

- Fix the problem through remote access.
- Dispatch, at iQ NetSolutions' discretion, on-site technical support.

For technical support on VistaPoint Enterprise, contact the iQ NetSolutions Inc. Customer Service Center at (508) 870-3228 or support@iqnsi.com.

10. Conclusion

These Application Notes describe the required configuration steps for iQ NetSolutions VistaPoint Enterprise to successfully interoperate with Avaya MERLIN MAGIX Integrated System. Features, functionality, and performance were successfully validated.

11. Additional References

Avaya MERLIN MAGIX Integrated System Installation Release 3.0 and Earlier, 555-730-140, Issue 1, May 2003.

Avaya Network Manager's Guide for MERLIN MAGIX Integrated System PBX Driver Release 3.0, 555-730-145, Issue 1, May 2003.

Avaya Centre-Vu Computer-Telephony Telephony Services and CallVisor PC Installation, Release 9.1, Version 1, Issue 1, November 2000.

iQ NetSolutions VistaPoint Enterprise Install-Admin Guide, Release 3.3.3.1, April 2004.

iQ NetSolutions VistaPoint Enterprise User Guide, Release 3.3.3.1, April 2004.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya Developer*Connection* Program at devconnect@avaya.com.