



Avaya Solution & Interoperability Test Lab

Application Notes for IEX TotalView Workforce Management with Avaya Communication Manager and Avaya IQ with Historical Interface – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate IEX TotalView Workforce Management with Avaya IQ using the IEX historical interface to capture ACD call center data from Avaya Communication Manager. The historical interface is used to obtain historical data for routing points, queues, and agents, which can then be displayed on the IEX TotalView Supervisor Workstation. This interface is provided by the Avaya Communication Solutions and Integration (CSI) group within Avaya Global Services.

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

These Application Notes describe the configuration steps required to integrate IEX TotalView Workforce Management with Avaya IQ using the IEX historical interface to capture ACD call center data from Avaya Communication Manager. The historical interface is used to obtain historical data for routing points, queues, and agents, which can then be displayed on the IEX TotalView Supervisor Workstation. This interface is provided by the Avaya Communication Solutions and Integration (CSI) group within Avaya Global Services.

IEX TotalView Workforce Management software provides a centralized platform for optimizing the performance of a contact center. It supplies real-time and historical information to better manage the performance of the people in the contact center. The contact center reports received from Avaya IQ can be viewed from the TotalView Supervisor Workstation.

Historical data is sent by Avaya IQ to IEX TotalView periodically at the end of each predetermined interval (usually 30 minutes). The IEX historical interface on Avaya IQ starts up automatically at system boot up and transmits historical interval data using FTP. A Linux “cron” daemon is scheduled to run 10 minutes after an interval completes. TotalView parses the raw data streams received and makes the data available on the TotalView system. Avaya CSI installs and configures the IEX historical interface on Avaya IQ.

The IEX historical interface package supports the following seven interval reports. All of the interval reports were sent in the same data file. See the Appendix for sample interval data, including field names.

- Agent by Queue Interval Report
- Agent by Routing Point Interval Report
- Queue Detail Interval Report
- Routing Point Detail Interval Report
- Agent Readiness Interval Report
- Agent Interval Report
- Agent Profile Daily Report (sent once a day)

Figure 1 illustrates the test configuration. In this configuration, Avaya Communication Manager received calls for the skills and VDNs monitored by Avaya IQ. The calls were then routed to available agents in the ACD call center. Routing point, queue and agent historical information were sent from Avaya Communication Manager to Avaya IQ over a configured link. Avaya IQ then stored the data in its database and sent the data to IEX TotalView using the historical interface at the end of an interval. The IEX TotalView Supervisor Workstation was used to view the reports. The Avaya IQ Admin PC was used to access the IEX historical interface menu and the Avaya IQ OAM interface using an Internet browser.

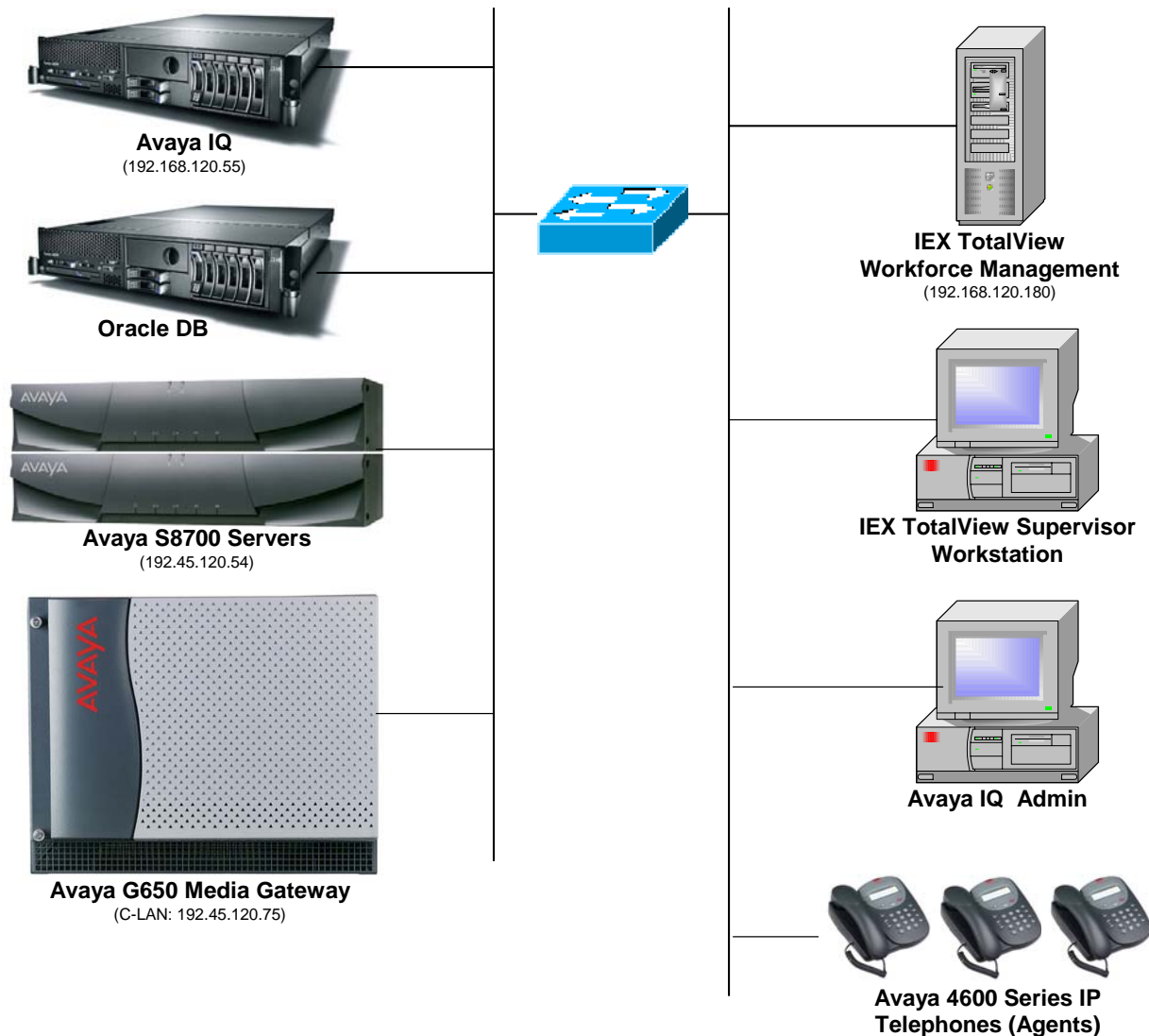


Figure 1: IEX TotalView with Avaya Communication Manager and Avaya IQ

2 Equipment and Software Validated

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

Equipment	Software
Avaya S8700 Servers	Communication Manager 4.0.1, load 731.2
Avaya G650 Media Gateway <ul style="list-style-type: none">▪ TN799DP C-LAN Circuit Pack	HW01 FW024
Avaya IQ	4.1
Avaya 4600 Series IP Telephones	2.8 (H.323)
IEX TotalView Workforce Management	3.12.5.0
IEX TotalView Supervisor Workstation	3.12.5.0

3 Configure Avaya Communication Manager

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

- Verify Avaya Communication Manager Options
- Administer adjunct CCR release
- Administer IP node names for C-LAN
- Administer IP interface for C-LAN
- Administer data module for C-LAN
- Administer processor interface channel
- Administer measured VDN
- Administer measured Skill

The detailed administration of contact center devices such as ACD/Skill, VDN, Vector, and Agents are assumed to be in place. These Application Notes will only cover how to enable ACD/Skill, VDN, and Agent data to be sent to Avaya IQ.

3.1 Verify Avaya Communication Manager Software Options

Log into the System Access Terminal (SAT) to verify that the Avaya 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 **G3 Version** field is set to “V14” on **Page 1**, as shown below.

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

G3 Version: V14
Location: 1                                RFA System ID (SID): 1
Platform: 6                                RFA Module ID (MID): 1

                                USED
Platform Maximum Ports: 44000 373
Maximum Stations: 500 205
Maximum XMOBILE Stations: 0 0
Maximum Off-PBX Telephones - EC500: 5 0
Maximum Off-PBX Telephones - OPS: 100 14
Maximum Off-PBX Telephones - PBFMC: 0 0
Maximum Off-PBX Telephones - PVFMC: 0 0
Maximum Off-PBX Telephones - SCCAN: 0 0

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

Figure 2: Customer-Options – Page 1

Navigate to **Page 6** and verify that the **Call Center Release** field is set to “4.0”, as shown below.

```
display system-parameters customer-options                               Page 6 of 11
                                CALL CENTER OPTIONAL FEATURES

Call Center Release: 4.0

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? n    Service Observing (Remote/By FAC)? y
Business Advocate? y                  Service Observing (VDNs)? y
Call Work Codes? y                    Timed ACW? y
DTMF Feedback Signals For VRU? y        Vectoring (Basic)? y
Dynamic Advocate? y                   Vectoring (Prompting)? y
Expert Agent Selection (EAS)? y         Vectoring (G3V4 Enhanced)? y
EAS-PHD? y                           Vectoring (3.0 Enhanced)? n
Forced ACD Calls? n                   Vectoring (ANI/II-Digits Routing)? y
                                       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)? n
PASTE (Display PBX Data on Phone)? y    Vectoring (Variables)? y
(NOTE: You must logoff & login to effect the permission changes.)
```

Figure 3: Customer-Options – Page 6

3.2 Administer Adjunct CCR Release

Use the “change system-parameters features” command and navigate to **Page 12**. Set the **Adjunct CCR Release** field to the software release of the Avaya IQ. In this case, “4.0” is used to correspond to Avaya IQ software release 4.0.

change system-parameters features	Page 12 of 17
FEATURE-RELATED SYSTEM PARAMETERS	
AGENT AND CALL SELECTION	
MIA Across Splits or Skills?	y
ACW Agents Considered Idle?	y
Call Selection Measurement:	current-wait-time
Service Level Supervisor Call Selection Override?	n
Auto Reserve Agents:	all
CALL MANAGEMENT SYSTEM	
REPORTING ADJUNCT RELEASE	
CMS (appl mis):	
CCR (appl ccr):	4.0
BCMS/VuStats LoginIDs?	
BCMS/VuStats Measurement Interval:	hour
BCMS/VuStats Abandon Call Timer (seconds):	
Validate BCMS/VuStats Login IDs?	n
Clear VuStats Shift Data:	on-login
Remove Inactive BCMS/VuStats Agents?	n

Figure 4: System-Parameters Features

3.3 Administer IP Node Name for C-LAN

Use the “change node-names ip” command, to add entries for Avaya IQ and the C-LAN that will be used for connectivity. In this case, “avayaiq” and “192.45.120.55” are entered as **Name** and **IP Address** for the Avaya IQ server, and “clancrm” and “192.45.120.75” are entered as **Name** and **IP Address** for the C-LAN. The actual node names and IP addresses may vary. Submit these changes.

change node-names ip		Page 1 of 1	
IP NODE NAMES			
Name	IP Address	Name	IP Address
clancrm	192.45 .120.75	.	.
avayaiq	192.45 .120.55	.	.

Figure 5: IP Node Names

3.4 Administer IP Interface for C-LAN

Add the C-LAN to the system configuration using the “add ip-interface 1a04” command. The actual slot number may vary. In this case, “1a04” is used as the slot number. Enter the C-LAN node name assigned from **Section 3.3** into the **Node Name** field. The **IP Address** field will be populated automatically.

Enter proper values for the **Subnet Mask** and **Gateway Address** fields. In this case, “255.255.255.0” and “192.45.120.1” are used to correspond to the network configuration in these Application Notes. Set the **Enable Ethernet Port** field to “y”. Default values may be used in the remaining fields. Submit these changes.

add ip-interface 1a04		Page 1 of 1
IP INTERFACES		
Type: C-LAN		
Slot: 01A04		
Code/Suffix: TN799 D		
Node Name: clancrm		
IP Address: 192.45 .120.75		
Subnet Mask: 255.255.255.0		
Gateway Address: 192.45 .120.1		
Link: 1		
Enable Ethernet Port? Y		
Allow H.323 Endpoints? y		
Network Region: 1		
Allow H.248 Gateways? y		
VLAN: n		
Gatekeeper Priority: 5		
Number of CLAN Sockets Before Warning: 400		
Receive Buffer TCP Window Size: 8320		
ETHERNET OPTIONS		
Auto? y		

Figure 6: IP Interfaces

3.5 Administer Data Module for C-LAN

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

- **Name:** A descriptive name.
- **Type:** “ethernet”
- **Port:** Same slot number from **Section 3.4** above and port “17”.
- **Link:** An available link number.

add data-module 50000		Page 1 of 1
DATA MODULE		
Data Extension: 50000		
Name: CRM CLAN LINK		
Type: ethernet		
Port: 01A0417		
Link: 1		
Network uses 1's for Broadcast Addresses? y		

Figure 7: Data Module

3.6 Administer Processor Interface Channel

Assign a new processor interface channel with the “change communication-interface processor-channels” command. Add an entry with the following values, and submit these changes.

- **Enable:** “y”
- **Appl.:** “ccr”
- **Mode:** “s” for server mode.
- **Interface Link:** Link number for data module Ethernet port from **Section 3.5**.
- **Interface Chan:** TCP channel number for Avaya IQ. In this case “5002”.
- **Destination Node:** Avaya IQ server node name from **Section 3.3**.
- **Destination Port:** “0”
- **Session Local:** Corresponding channel number in **Proc Chan** field. In this case “1”.
- **Session Remote:** Corresponding channel number in **Proc Chan** field. In this case “1”.

The **Interface Chan** field contains the Avaya IQ TCP channel number, which is defined as part of the Avaya IQ installation. For the compliance testing, TCP channel number of “5002” was used.

change communication-interface processor-channels									
PROCESSOR CHANNEL ASSIGNMENT									
Proc			Gtwy		Interface		Destination	Session	Mach
Chan	Enable	Appl.	To	Mode	Link/Chan	Node	Port	Local/Remote	IDnp
1:	y	ccr		s	1 5002	avayaiaq	0	1 1	
2:	n						0		

Figure 8: Processor Channel Assignment

3.7 Administer Measured VDN

Use the “change vdn n” command, where “n” is the extension of the VDN to be measured by Avaya IQ. Set the **Measured** field to “external” or “both” to enable measurement data on the VDN to be sent to Avaya IQ. Repeat this step for all VDNs that will be monitored by Avaya IQ.

change vdn 75000									
VECTOR DIRECTORY NUMBER									
Extension: 75000									
Name*: IQ VDN 1									
Vector Number: 250									
Attendant Vectoring? n									
Meet-me Conferencing? n									
Allow VDN Override? n									
COR: 1									
TN*: 1									
Measured: both									
Acceptable Service Level (sec): 20									
Service Objective (sec): 20									
VDN of Origin Annc. Extension*:									
1st Skill*:									
2nd Skill*:									
3rd Skill*:									
* Follows VDN Override Rules									

Figure 9: Vector Directory Number (VDN) – Page 1

3.8 Administer Measured Skill

Use the “change hunt-group n” command, where “n” is the extension of the ACD/Skill group number to be measured by Avaya IQ. Set the **Measured** field to “external” or “both” to enable real-time measurement data on the ACD/Skill group and the associated agents to be sent to Avaya IQ. Repeat this step for all ACD/Skill groups that will be measured by Avaya IQ.

change hunt-group 250		Page 2 of 3	
HUNT GROUP			
Skill? y	Expected Call Handling Time (sec): 180		
AAS? n	Service Level Target (% in sec): 80 in 20		
Measured: both	Service Objective (sec): 20		
Supervisor Extension:	Service Level Supervisor? n		
Controlling Adjunct: none			
VuStats Objective:			
Timed ACW Interval (sec):	Dynamic Queue Position? n		
Multiple Call Handling: none			
Redirect on No Answer (rings):			
Redirect to VDN:			
Forced Entry of Stroke Counts or Call Work Codes? n			

Figure 10: Hunt Group – Page 2

4 Configure Avaya IQ

Configuration of the IEX TotalView historical interface is performed by Avaya CSI and is outside the scope of these Application Notes. However, the following information must be provided to Avaya CSI for configuring the IEX historical interface.

- The FTP directory on the IEX TotalView server where the interval data will be stored. In this configuration, the FTP directory was /usr/prms/ftp/switches/31.
- The user/password of the FTP account.
- The time that the Agent Profile Daily Report should be sent. During testing, this daily report was sent in the 1:00am interval data.

After the interface is configured, the user can follow the procedure below to enable the interface.

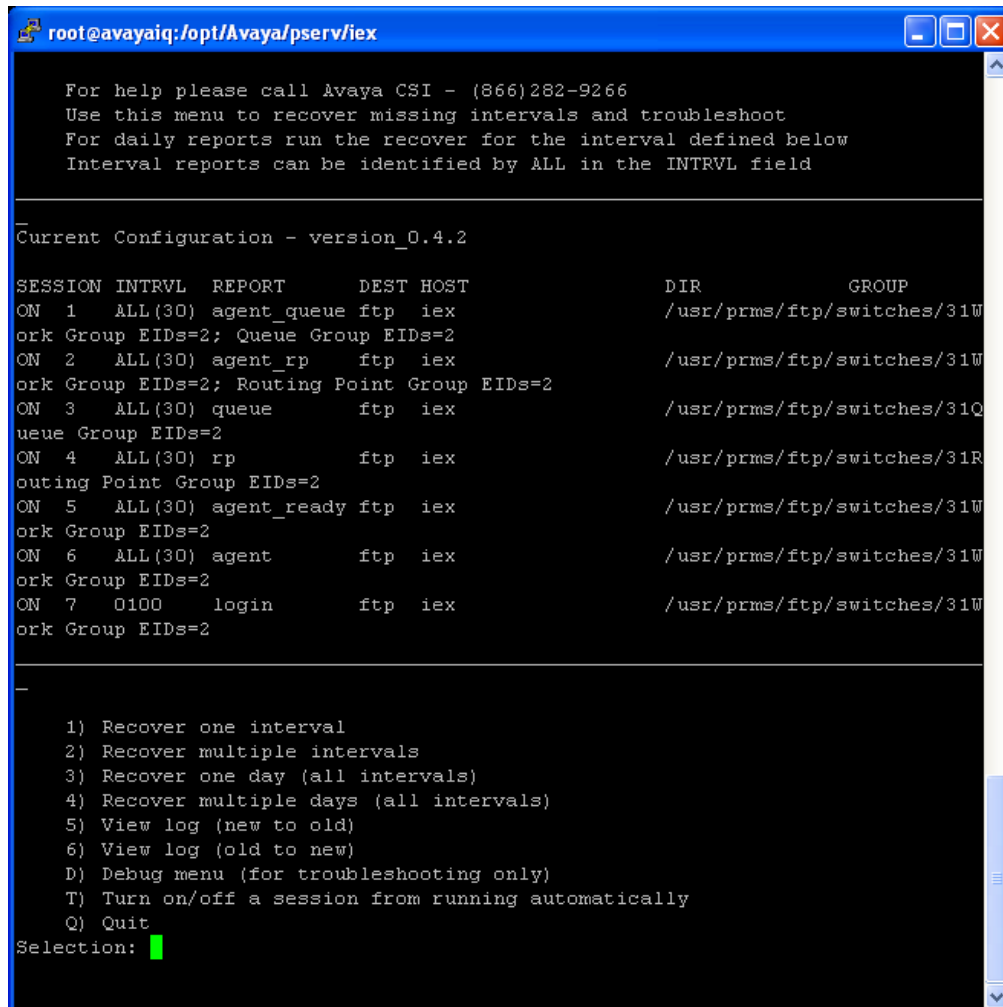
4.1 Enable IEX Historical Interface

Use a terminal emulator to connect to Avaya IQ and log in with the proper credentials. At the command prompt, follow these steps:

- **cd** to the `/opt/Avaya/pserv/iex` directory
- Run the `./menu` command to display the **IEX Historical Interface Menu** shown below.

The historical interface menu provides information about each interval report. In this example, the menu interface indicates that all the reports are turned on, the interval in which each report is sent, and that interval data is sent via FTP to host “iex” and stored in the `/usr/prms/ftp/switches/31` FTP directory.

To enable or disable the IEX historical interface, use option “T” in the menu displayed below to toggle the session status. When prompted for the sessions, press the **Enter** key to specify all sessions. The session status will be updated accordingly.

A terminal window titled 'root@avaya: /opt/Avaya/pserv/iex' showing the IEX Historical Interface Menu. The menu displays current configuration for seven sessions (1-7) with columns for Session, INTRVL, REPORT, DEST, HOST, DIR, and GROUP. Below the configuration is a list of menu options (1-9) and a 'Selection:' prompt with a green cursor.

```
root@avaya: /opt/Avaya/pserv/iex

For help please call Avaya CSI - (866)282-9266
Use this menu to recover missing intervals and troubleshoot
For daily reports run the recover for the interval defined below
Interval reports can be identified by ALL in the INTRVL field

-----
Current Configuration - version_0.4.2

SESSION INTRVL  REPORT      DEST HOST      DIR              GROUP
ON 1  ALL(30) agent_queue ftp iex          /usr/prms/ftp/switches/31W
ork Group EIDs=2; Queue Group EIDs=2
ON 2  ALL(30) agent_rp   ftp iex          /usr/prms/ftp/switches/31W
ork Group EIDs=2; Routing Point Group EIDs=2
ON 3  ALL(30) queue      ftp iex          /usr/prms/ftp/switches/31Q
ueue Group EIDs=2
ON 4  ALL(30) rp         ftp iex          /usr/prms/ftp/switches/31R
outing Point Group EIDs=2
ON 5  ALL(30) agent_ready ftp iex          /usr/prms/ftp/switches/31W
ork Group EIDs=2
ON 6  ALL(30) agent      ftp iex          /usr/prms/ftp/switches/31W
ork Group EIDs=2
ON 7  0100  login        ftp iex          /usr/prms/ftp/switches/31W
ork Group EIDs=2

-----

1) Recover one interval
2) Recover multiple intervals
3) Recover one day (all intervals)
4) Recover multiple days (all intervals)
5) View log (new to old)
6) View log (old to new)
D) Debug menu (for troubleshooting only)
T) Turn on/off a session from running automatically
Q) Quit
Selection: █
```

Figure 11: IEX Historical Interface Menu

Although the interval data is sent periodically by Avaya IQ, there may be times when the user may want to send interval data on an on-demand basis. This may be accomplished through the historical interface menu by choosing option '1' to recover one interval. When prompted for the sessions, press the **Enter** key to FTP all the reports in a single file associated with the interval specified on the next line. The system provides status updates as the data file is populated with data for each report. When the interval data file is created, Avaya IQ will FTP the file to the IEX TotalView server.

```

root@avayaqi:/opt/Avaya/pserv/iex

2) Recover multiple intervals
3) Recover one day (all intervals)
4) Recover multiple days (all intervals)
5) View log (new to old)
6) View log (old to new)
D) Debug menu (for troubleshooting only)
T) Turn on/off a session from running automatically
Q) Quit
Selection: 1

Current Configuration - version_0.4.2

SESSION INTRVL  REPORT    DEST HOST    DIR          GROUP
ON 1    ALL(30)  agent_queue ftp localhost  /opt/Avaya/pserv/iex/ftp_dirW
ON 2    ALL(30)  agent_rp    ftp localhost  /opt/Avaya/pserv/iex/ftp_dirW
ON 3    ALL(30)  queue      ftp localhost  /opt/Avaya/pserv/iex/ftp_dirQ
ON 4    ALL(30)  rp         ftp localhost  /opt/Avaya/pserv/iex/ftp_dirR
ON 5    ALL(30)  agent_ready ftp localhost  /opt/Avaya/pserv/iex/ftp_dirW
ON 6    ALL(30)  agent      ftp localhost  /opt/Avaya/pserv/iex/ftp_dirW
ON 7    ALL(30)  login      ftp localhost  /opt/Avaya/pserv/iex/ftp_dirW

Enter session number(s) or press <ENTER> for all sessions [ex. 1 2 4]:
Enter date in mm/dd/yyyy format: 04/30/2008
Enter interval in HHMM format: 0930
running for session: 1 date: 04/30/2008 time: 0930
04/30/08 18:38:58 Session 1 sending files to destination
running for session: 2 date: 04/30/2008 time: 0930
04/30/08 18:39:11 Session 2 sending files to destination
running for session: 3 date: 04/30/2008 time: 0930
04/30/08 18:39:20 Session 3 sending files to destination
running for session: 4 date: 04/30/2008 time: 0930
04/30/08 18:39:30 Session 4 sending files to destination
running for session: 5 date: 04/30/2008 time: 0930
04/30/08 18:39:36 Session 5 sending files to destination
running for session: 6 date: 04/30/2008 time: 0930
04/30/08 18:49:36 Session 6 sending files to destination
running for session: 7 date: 04/30/2008 time: 0930
04/30/08 18:49:36 Session 7 sending files to destination
KERBEROS_V4 rejected as an authentication type

Press ENTER to continue:

```

Figure 12: IEX Historical Interface Menu – Recover One Interval

Enter 'Q' at the **IEX Historical Interface Menu** to exit from the menu, followed by the **Enter** key.

5 Configure IEX TotalView Workforce Management

The IEX TotalView system is installed and configured by an IEX implementation team. The customer is also provided with TotalView training, which includes how to configure contact center information, such as skills, VDNs, and agents, and how to use the TotalView Supervisor Workstation. The procedure for installing and configuring the TotalView system is outside the scope of these Application Notes and the reader should refer to [4] for the TotalView Reference Guides. It is assumed that the TotalView server has already been installed and configured with the Skills, VDNs, and Agents configured in Avaya Communication Manager. This section will describe how to establish a connection to the TotalView server using the Supervisor Workstation and how to view real-time agent information. It is assumed that the TotalView Supervisor Workstation has already been installed on a Windows PC.

5.1 Configure TotalView Supervisor Workstation

From a Windows PC with TotalView Supervisor Workstation, start the **Configuration** application by launching **Programs → CCApps → TotalView Configuration**. The **Configuration** screen is displayed. Configure the fields as shown in **Figure 13**. The **Default Customer ID** is provided by IEX after TotalView has been configured. In the **Host Name or IP Address** field, enter the IP address of Avaya IQ and click on the **Selected** checkbox. When completed, click the **OK** button.

Selected	Host Name or IP Address	Link ID
<input checked="" type="checkbox"/>	192.45.120.180	4
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

Figure 13: TotalView Configuration

5.2 View Real-Time Agent Information from TotalView Supervisor Workstation

From a Windows PC with TotalView Supervisor Workstation installed, start the application by launching **Programs→CCApps→TotalView**. The **User Logon** window is displayed. Log in with the proper credentials and then click **OK**.



The image shows a Windows-style dialog box titled "User Logon" with a blue title bar and a red close button. The background is a light beige color. The text inside the dialog box reads: "IEX Corporation's", "TotalView® Workforce Management", "Server Version 3.12.4.0", and "Supervisor Workstation Version 3.12.4.0". Below this text, there are two input fields: "Customer:" with a dropdown menu showing "1" and a text box containing "Godzilla", and "Logon Name:" with an empty text box. To the right of the "Logon Name:" field is an "OK" button. Below the "Logon Name:" field is a "Password:" label with an empty text box. To the right of the "Password:" field is an "Exit" button. At the bottom of the dialog box, the copyright notice "Copyright © 1989-2007 by IEX Corporation" is displayed.

Figure 14: TotalView Supervisor Workstation Login

Once logged in, the TotalView main window is displayed as shown in **Figure 15**. To view routing point or queue information for the ACD call center configured on Avaya Communication Manager, navigate to **CT→Intraday**. The Intraday window is displayed as shown **Figure 16**.

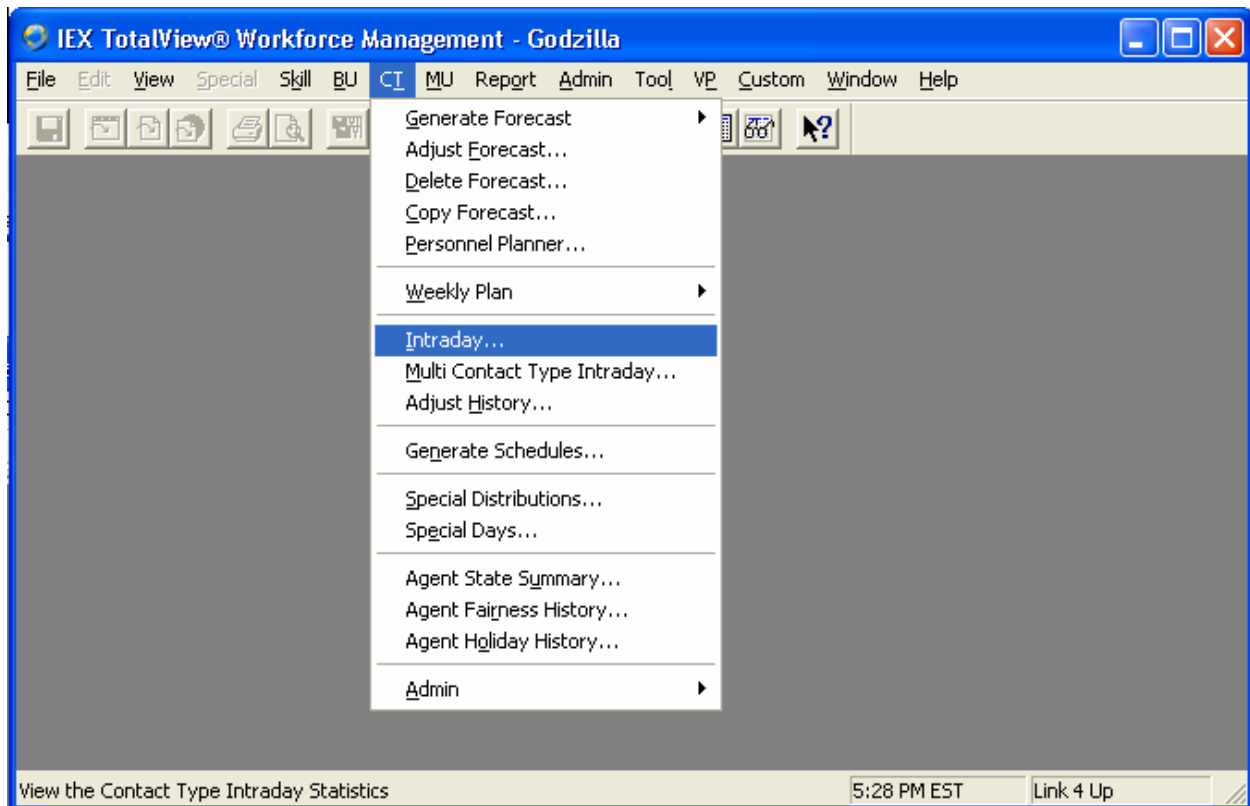


Figure 15: TotalView Supervisor Workstation Main Window

From the **Intraday** window, click on the **Ellipses** button [...] by the **CT** field to select the contact type. In the **Contact Types** window that is displayed, select the option corresponding to Avaya IQ. This option was already configured by IEX during the TotalView system configuration. Click the **OK** button.

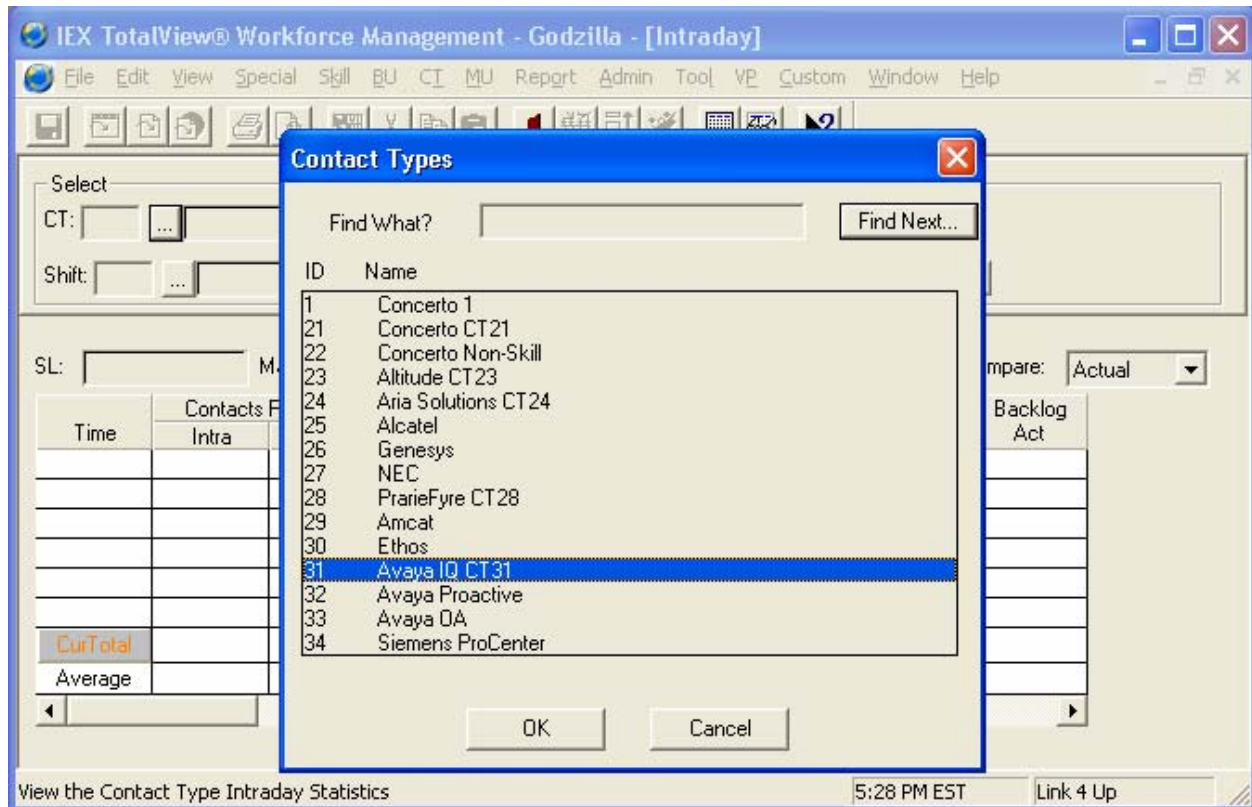


Figure 16: Intraday Window

From the **Intraday** window, click on the **Ellipses** button [...] by the **Shift** field and select the **All Day** shift. This option was already configured by IEX during the TotalView system configuration. Click the **OK** button.

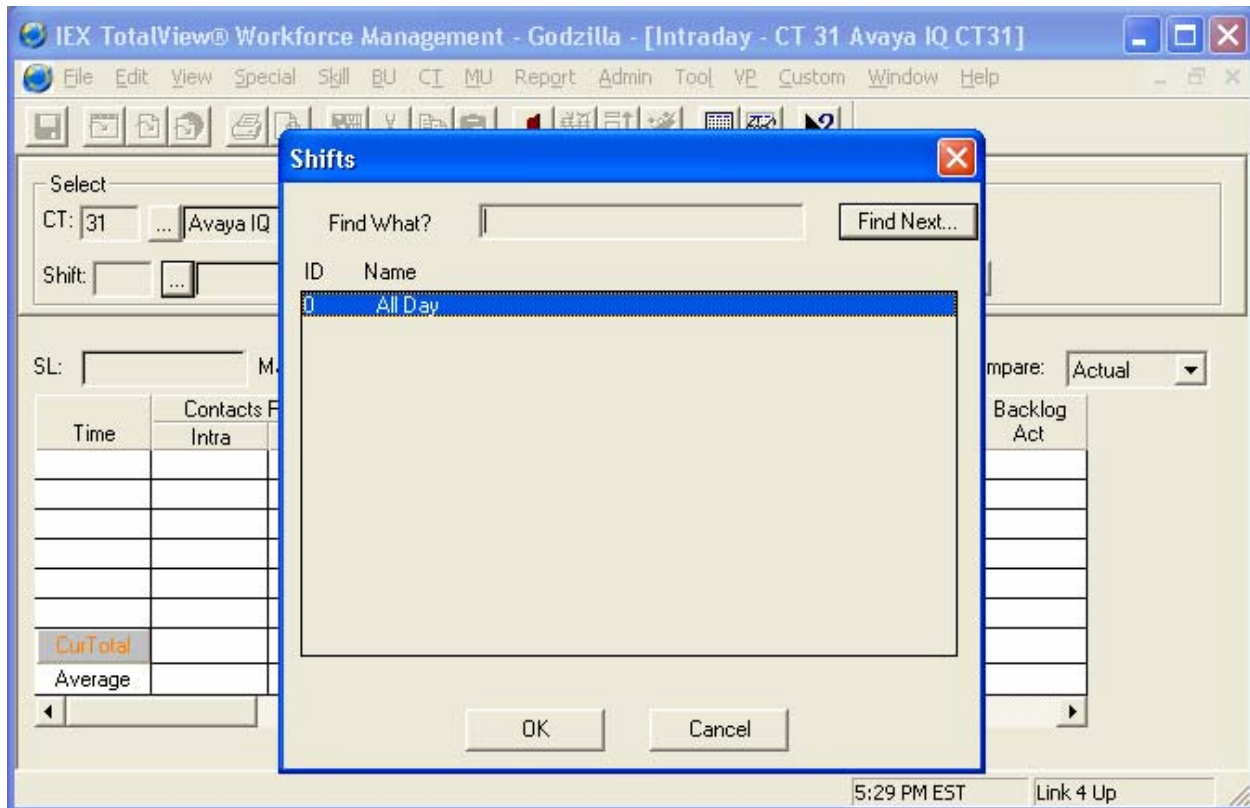


Figure 17: Intraday Window - Select Shift

The **Intraday** window is now displayed with queue data for the ACD call center configured on Avaya Communication Manager as shown in **Figure 18**. The historical intraday report will display routing point or queue data depending on how IEX TotalView is configured. In this configuration, the **Intraday** report was configured to display queue data.

Note: The interval data is FTP'd to the /usr/prms/ftp/switches/31 directory on the IEX TotalView server. Once the data files are processed by TotalView, the **Intraday** window is populated with the latest data and the data files are moved to a different directory.

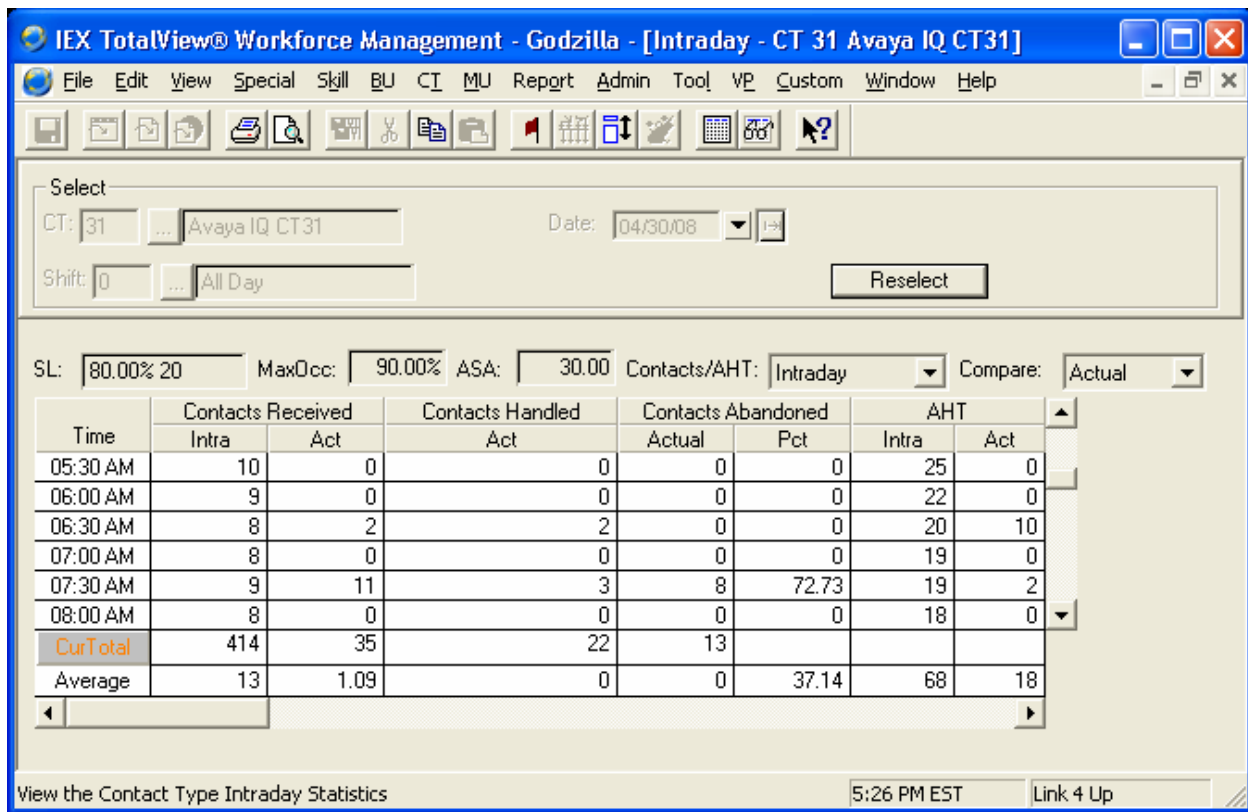


Figure 18: Intraday Window with Queue Data

6 Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing focused on verifying that IEX TotalView can receive, parse and display routing point and queue data received from Avaya IQ. In addition, the accuracy of the Avaya IQ data was also verified.

The serviceability testing focused on verifying the ability of IEX TotalView to recover from adverse conditions, such as disconnecting the network interface and restarting the IEX TotalView historical interface from Avaya IQ.

6.1 General Test Approach

The feature test cases were performed manually. Incoming calls were made to the monitored ACD/Skill and VDN groups and routed to available agents. This allowed historical routing point, queue, and agent data to be sent to IEX TotalView. Manual work mode changes were made from the agent telephones to generate agent state changes and populate specific fields in the agent data streams. The accuracy of the agent data was also verified on TotalView.

The serviceability test cases were performed manually by stopping and restarting the IEX TotalView historical interface, and by disconnecting and reconnecting the LAN cable to the TotalView server.

6.2 Test Results

All test cases were executed and passed.

Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Communication Manager, Avaya IQ, and IEX TotalView.

6.3 Verify Avaya Communication Manager

Verify the status of the processor interface channel by using the “status processor-channels n” command, where “n” is the processor channel number from **Section 3.6**. Verify that the **Session Layer Status** is “In Service”, and that the **Socket Status** is “TCP connected”, as shown below.

```
status processor-channels 1
                                PROCESSOR-CHANNEL STATUS

Channel Number: 1
Session Layer Status: In Service
Socket Status: TCP connected
Link Number: 1
Link Type: ethernet
Message Buffer Number: 0

Last Failure: Far end sent disconnect messag
At: 05/08/08 11:44
```

Figure 19: Processor-Channel Status

Verify the status of the TCP/IP link number by using the “status link n” command, where “n” is the TCP/IP link number assigned to the C-LAN used to connect to the Avaya IQ server from **Section 3.5**. Verify that the **Link Status** is “connected”, and that the **Service State** is “in-service/active”, as shown below.

```
status link 1
                                LINK/PORT STATUS
Page 1 of 5

Link Number: 1
Link Status: connected
Link Type: ethernet
Link Name: CRM CLAN LINK
Service Port Location: 01A0417
Service Port Data Extension: 50000
Service State: in-service/active
Node Name: clancrm
Source IP Address: 192.45.120.75
Subnet Mask: 255.255.255.0
Broadcast Address: 192.45.120.255
Physical Address: 00:04:0d:4a:ef:9c
Enabled? yes
Maintenance Busy? no
Active Channels: 1
```

Figure 20: Link/Port Status

6.4 Verify Avaya IQ

From an Internet browser, access the Avaya IQ OAM Interface by entering `https://<IP Addr>:28443/CS-OAM` as the URL. Log in with the proper credentials. From the OAM interface, select the **Enterprise** tab in the left pane and navigate to Sites→Default Admin Site→<site name> to display the status of all the Avaya IQ processes. Ensure that all the processes have been started as indicated by a green LED besides each process as shown in **Figure 21**.

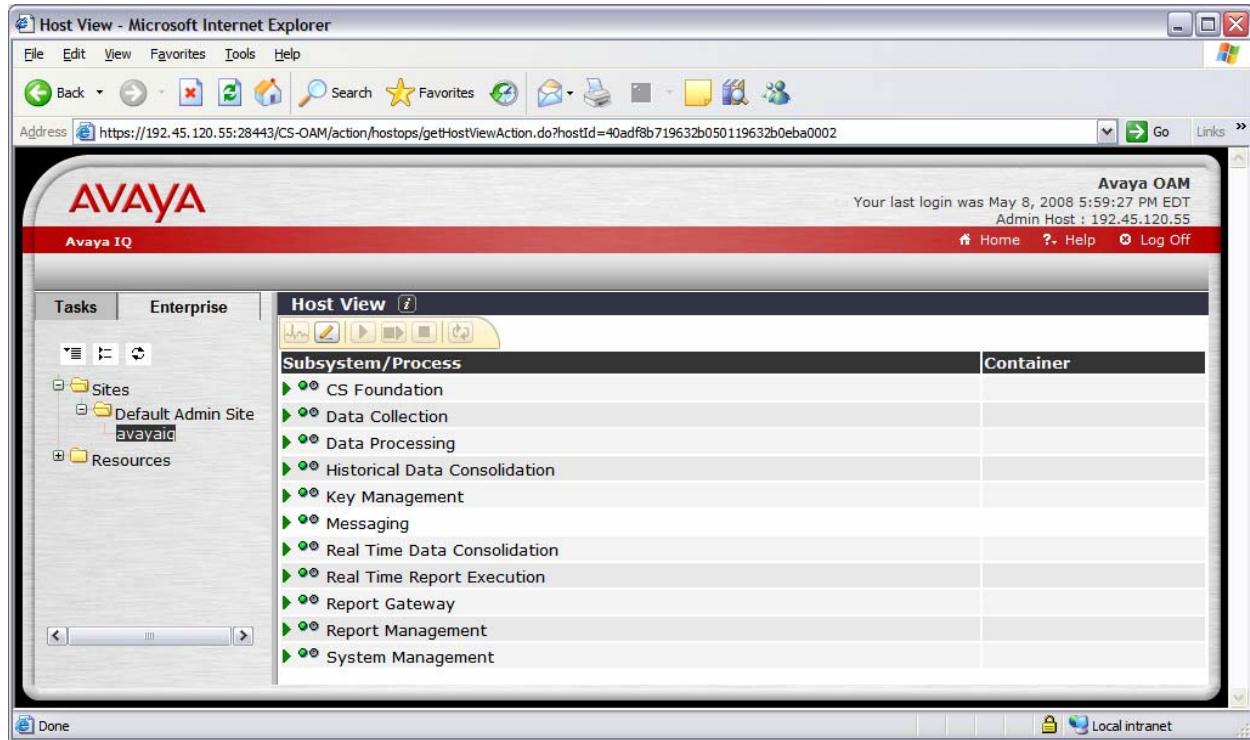


Figure 21: Avaya IQ Process Status

To verify that the session that the IEX TotalView historical interface is turned on, access the IEX historical menu as shown in **Figure 11**.

7 Support

IEX technical support is available via the Internet, phone, or Email.

- **Web:** www.iex.com/service/service--support/support.html
- **Phone:** (800) 433-7692
- **Email:** iexinfo@iex.com

8 Conclusion

These Application Notes describe the configuration steps required for IEX TotalView to successfully interoperate with Avaya Communication Manager using the IEX historical interface of Avaya IQ. All feature and serviceability test cases were completed successfully.

9 References

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

- [1] *Administrator Guide for Avaya Communication Manager*, Document 03-300509, Issue 3.1, February 2007, available at <http://support.avaya.com>
- [2] *Avaya IQ Overview*, Release 4.1, March 2008, available at <http://support.avaya.com>.
- [3] *Avaya IQ Administration*, Release 4.1, March 2008, available at <http://support.avaya.com>.
- [4] *IEX TotalView Product Documentation CD*, available on IEX TotalView software CD.

10 Appendix

This section provides a sample interval report.

```
$AGENT BY QUEUE REPORT
Date: 04/30/2008
Time: 10:30-11:00
Agent ID,Queue ID,Accepts,Interactions,Handles,Active Duration,In Focus Hold
Duration,Hold Duration,Wrap-up Duration
76302,250,1,1,1,15,0,0,0
76303,250,1,1,1,21,0,0,0
$END OF AGENT BY QUEUE REPORT

$AGENT BY ROUTING POINT REPORT
Date: 04/30/2008
Time: 10:30-11:00
Agent ID,Routing Point ID,Accepts,Interactions,Handles,Active Duration,In Focus Hold
Duration,Hold Duration,Wrap-up Duration
76302,75000,1,1,1,15,0,0,0
76303,75000,1,1,1,21,0,0,0
$END OF AGENT BY ROUTING POINT REPORT

$QUEUE DETAIL REPORT
Date: 04/30/2008
Time: 10:30-11:00
Queue ID,Arrivals,Accepts,Abandons,Acceptables,Short Abandons,Active Duration,In Focus
Hold Duration,Hold Duration,Wrap-up Duration,Outflows,Average Duration To Accept*100,%
Service Level*100
250,2,2,0,2,0,36,0,0,0,0,300,10000
$END OF QUEUE DETAIL REPORT

$ROUTING POINT DETAIL REPORT
Date: 04/30/2008
Time: 10:30-11:00
Routing Point ID,Arrivals,Accepts,Abandons,Acceptables,Short Abandons,Active
Duration,In Focus Hold Duration,Hold Duration,Wrap-up Duration,Outflows,Average
Duration To Accept*100,% Service Level*100
75000,2,2,0,0,0,36,0,0,0,0,500,0
$END OF ROUTING POINT DETAIL REPORT

$AGENT READINESS REPORT
Date: 04/30/2008
Time: 10:30-11:00
Agent ID,Staffed Duration,Idle Duration,Active Duration,Wrap-up Duration,Occupied
Duration,Not-Occipied Duration,Working AUX Duration,Non-Working AUX Duration,Unknown
Duration
76302,1061,1012,45,0,49,1012,0,0,0
76303,161,96,52,0,65,96,0,0,0
$END OF AGENT READINESS REPORT

$AGENT REPORT
Date: 04/30/2008
Time: 10:30-11:00
Agent ID,Inbound Accepts,Inbound Interactions,Inbound Handles,Inbound Active
Duration,Inbound Handle Duration,Internal Accepts,Internal Interactions,Internal
Handles,Internal Active Duration,Internal Handle Duration,Outbound Accepts,Outbound
Interactions,Outbound Handles,Outbound Active Duration,Outbound Handle Duration
76302,0,0,0,0,0,1,1,1,30,30,0,0,0,0,0
76303,0,0,0,0,0,0,1,1,30,30,0,0,0,0,0
$END OF AGENT REPORT
```

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