



Avaya Solution & Interoperability Test Lab

Application Notes for IEX TotalView Workforce Management with Avaya Proactive Contact – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for IEX TotalView Workforce Management to interoperate with Avaya Proactive Contact 4.0. IEX TotalView Workforce Management is a work force management solution that provides forecasting and monitoring of work for contact center agents. IEX TotalView Workforce Management uses the historical data from Avaya Proactive Contact to produce forecasts for contact center agents, and then uses the real-time data from Avaya Proactive Contact to check the agent adherence to the forecasts.

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

IEX TotalView Workforce Management is a work force management solution that provides forecasting and monitoring of work for contact center agents. IEX TotalView Workforce Management uses the historical data from Avaya Proactive Contact to produce forecasts for contact center agents, and then uses the real-time data from Avaya Proactive Contact to check the agent adherence to the forecasts.

For historical data, IEX TotalView Workforce Management queries the Avaya Proactive Contact Oracle database to obtain information on jobs and agents. For real-time data, IEX TotalView Workforce Management uses the Avaya Proactive Contact Event Service interface to obtain events on agent states.

1.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying IEX TotalView Workforce Management's receive, parse, and display of historical and real-time data from Avaya Proactive Contact.

The serviceability testing focused on verifying the ability of the IEX TotalView Workforce Management server to recover from adverse conditions, such as disconnecting the Ethernet cable to the server.

1.2. Support

Technical support on IEX TotalView Workforce Management can be obtained through the following:

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

2. Reference Configuration

These Application Notes assume the configuration and connectivity between Avaya Communication Manager and Avaya Proactive Contact is already in place and will not be described.

During the testing, the Avaya Proactive Contact Supervisor and the IEX TotalView Supervisor shown in **Figure 1** were used for report verification purposes.

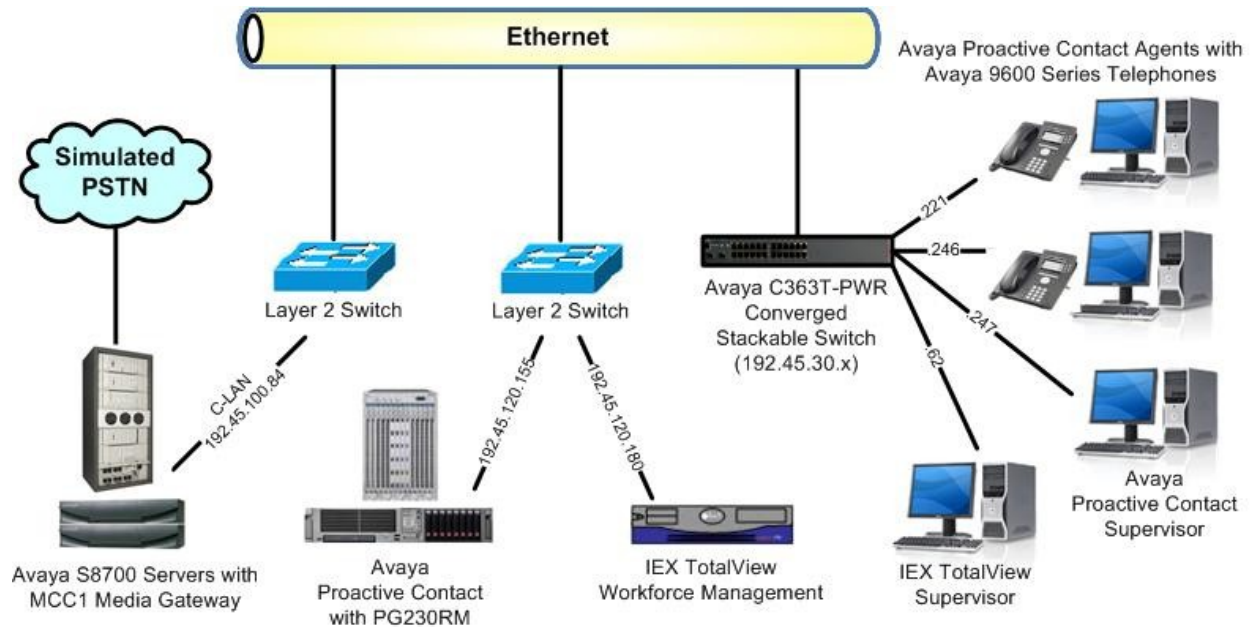


Figure 1: IEX TotalView Workforce Management with Avaya Proactive Contact

3. Equipment and Software Validated

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

| Equipment | Software |
|---|--|
| Avaya S8700 Servers | Avaya Communication Manager 5.1.2, R015x.01.2.416.4 |
| Avaya MCC1 Media Gateway <ul style="list-style-type: none">TN799DP C-LAN Circuit Pack | HW01 FW024 |
| Avaya Proactive Contact with PG230RM | 4.0.1 |
| Avaya Proactive Contact Agent | 4.0.1 |
| Avaya Proactive Contact Supervisor | 4.0.1 |
| Avaya 9600 Series IP Telephones (H.323) | 3.0 |
| IEX TotalView Workforce Management <ul style="list-style-type: none">Avaya Proactive V4 Generic Query | 3.12.4.0 1.0 |
| IEX TotalView Supervisor | 3.12.5.0 |

4. Configure Avaya Proactive Contact

The detailed administration of contact center resources and connectivity between Avaya Communication Manager and Avaya Proactive Contact are not the focus of these Application Notes and will not be described. For administration of contact center resources and connectivity to Avaya Proactive Contact, refer to the appropriate documentation listed in **Section 9**.

This section provides the procedures for how to configure a hierarchy for jobs that are monitored by IEX TotalView Workforce Management, and on how to obtain the necessary Interoperable Object Reference (IOR) file and host name information that are required by IEX TotalView Workforce Management.

4.1. Obtain IOR File

IEX TotalView Workforce Management uses the Event Service interface from Avaya Proactive Contact to obtain real-time agent events. The Event Service is a service based on the Common Object Request Broker Architecture (CORBA), and supports client application connection via several methods. The IOR method is used by IEX TotalView Workforce Management to locate and connect to the CORBA objects on Avaya Proactive Contact.

As part of installation, a copy of the IOR file from the Avaya Proactive Contact server needs to be provided to the IEX implementation team, and the path to the file is shown below:

`/opt/avaya/services/data/ns_ior`

4.2. Obtain Host Name

As part of installation, the host name and the IP address of the Avaya Proactive Contact server needs to be provided to the IEX implementation team. Log in to the Linux shell of the Avaya Proactive Contact server. Use the “`uname -a`” command to obtain the host name. In the compliance testing, the host name of the Avaya Proactive Contact server is “`lzpds4b`”, as shown below.

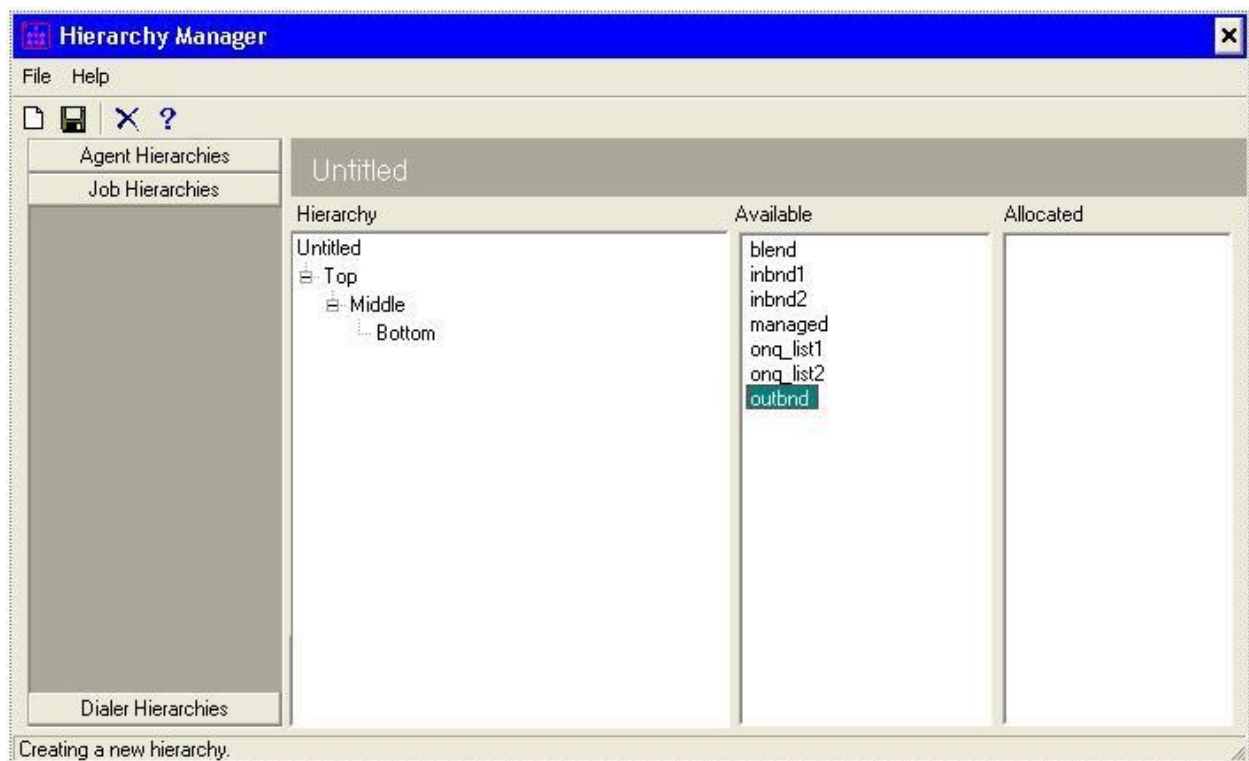
```
$ uname -a
Linux lzpds4b 2.6.9-42.0.10.ELsmp #1 SMP Fri Feb 16 17:17:21 EST 2007 i686 athlon i386
GNU/Linux
LZPDS4B(admin)/opt/avaya/pds [4]
$
```

4.3. Administer Hierarchy

Hierarchies are used in Avaya Proactive Contact to group and organize data, and to adjust the scope of data to monitor and view. IEX TotalView Workforce Management requires the monitored jobs to be configured with hierarchy.

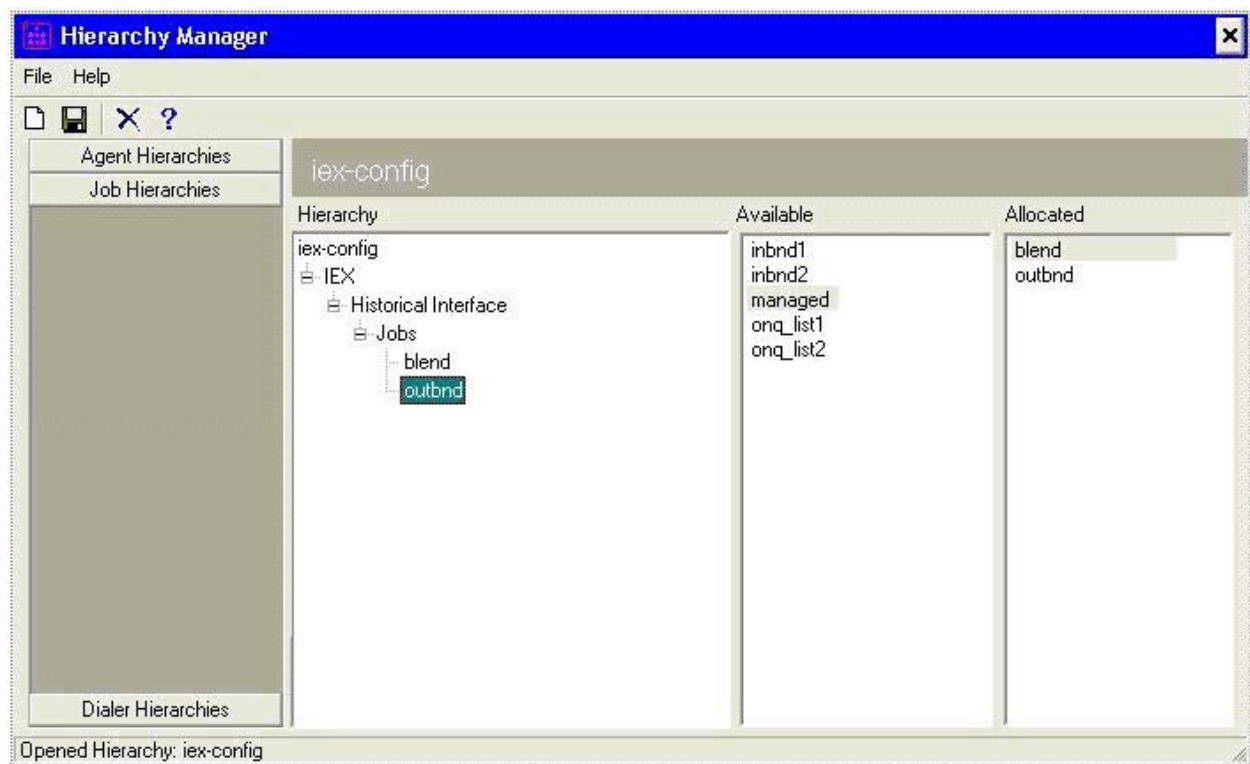
From the Avaya Proactive Contact Supervisor PC, launch the Hierarchy Manager by selecting **Start > Programs > Avaya Proactive Contact > Supervisor > Analyst**, followed by selecting **Tools > Hierarchy Manager** from the top menu. The **Hierarchy Manager** screen is displayed.

From the **Hierarchy Manager** screen, create a new job hierarchy by selecting **Job Hierarchies** in the left pane, followed by **File > New** from the top menu. The screen is updated with default hierarchy levels, and a list of available jobs to assign to the hierarchy, as shown below.



Rename the default levels for the hierarchy as desired, and use the click and drag method to assign the jobs monitored by IEX TotalView Workforce Management to the new hierarchy. In the compliance testing, IEX TotalView Workforce Management monitored the “blend” and “outbnd” jobs.

Select **File > Save As** from the top menu to save the hierarchy configuration, and provide a copy of this screenshot to the IEX implementation team.



5. Configure IEX TotalView Workforce Management

IEX TotalView Workforce Management is installed and configured by the IEX implementation team. Customers are provided with training on how to configure resources to map to the resources on Avaya Proactive Contact, and on how to use the IEX TotalView Supervisor.

The procedure for installing and configuring IEX TotalView Workforce Management is outside the scope of these Application Notes and will not be covered. For detailed information on installation and configuration, refer to the appropriate documentation listed in **Section 9**.

These Application Notes assume that the IEX TotalView Workforce Management server has already been installed and configured with the job and agent information from Avaya Proactive Contact. This section describes the configuration needed on the IEX TotalView Supervisor to establish a connection with the IEX TotalView Workforce Management server.

5.1. Configure IEX TotalView Supervisor

From the IEX TotalView Supervisor PC, launch the configuration application by selecting **Programs > CCapps > TotalView Configuration**. The **IEX TotalView Workforce Management Configuration** screen is displayed. Configure the fields as shown below. The value to enter for the **Default Customer ID** field is provided by the IEX implementation team. In the **Host Name or IP Address** column, enter the IP address of the IEX TotalView Workforce Management server, and check the corresponding checkbox under the **Selected** column. Click **OK**.

| 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"/> | | |

6. General Test Approach and Test Results

The feature test cases were performed semi-automatically. The outbound calls were launched automatically by Avaya Proactive Contact, whereas the inbound calls were placed manually.

The serviceability test cases were performed manually by disconnecting/reconnecting the LAN cable to the IEX TotalView Workforce Management server.

The verification of all tests included checking of proper display of data at the IEX TotalView Supervisor, and of comparing the displayed data with the Analyst report from the Avaya Proactive Contact Supervisor.

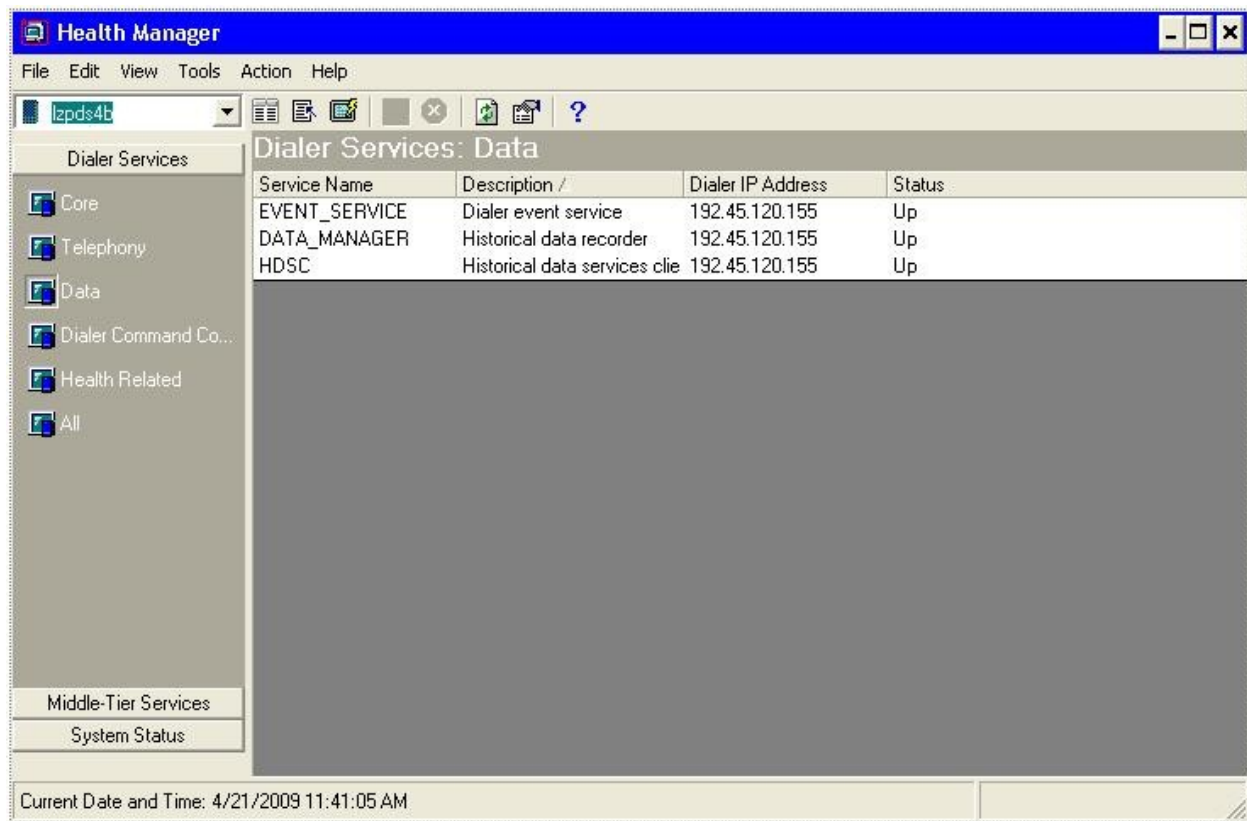
All test cases were executed and passed.

7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Proactive Contact and IEX TotalView Workforce Management.

7.1. Verify Avaya Proactive Contact

From the Avaya Proactive Contact Supervisor PC, launch the Health Manager by selecting **Start > Programs > Avaya Proactive Contact > Supervisor > Health Manager**. From the **Health Manager** screen, select **Data** under **Dialer Services** in the left pane. Verify that all services are up, as shown below.



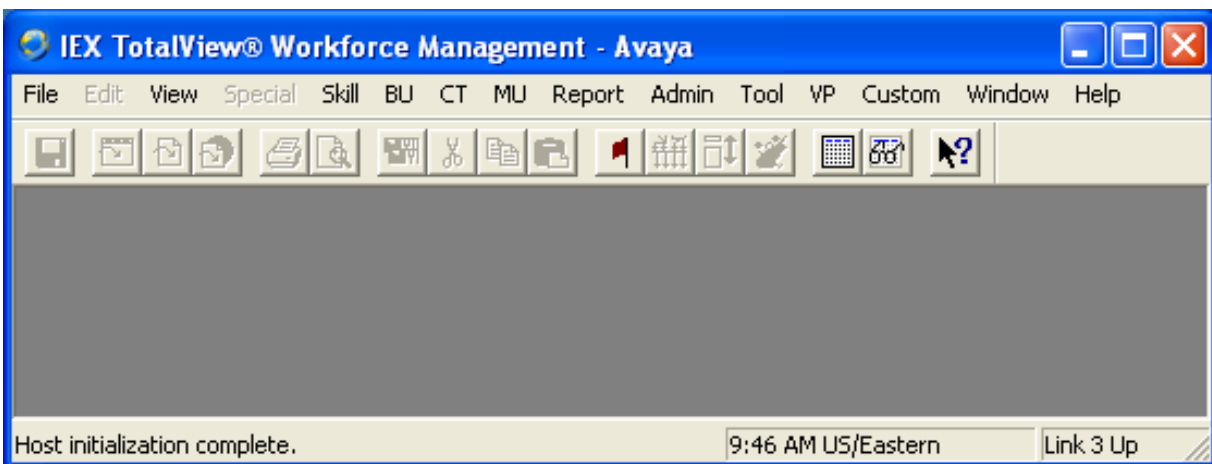
7.2. Verify IEX TotalView Workforce Management

From the IEX TotalView Supervisor PC, launch the TotalView application by selecting **Programs > CCApps > TotalView**. The **User Logon** screen is displayed. Log in with the proper credentials and click **OK**.



7.2.1. Verify Historical Data

The **IEX TotalView Workforce Management** main screen is displayed. Select **CT > Intraday** from the top menu.



The **Intraday** screen is displayed next. Click the icon next to the **CT** field to select the proper system, in this case “Avaya ProActive”. Click the icon next to the **Shift** field to select the “All Day” value. Select the proper value for the **Date** field, and click **Retrieve**.

The screenshot shows the 'Intraday - CT 25 Avaya ProActive' window. The 'Select' section has three fields: 'CT: 25' with a selection icon, 'Date: 04/20/09' with a selection icon, and 'Shift: 0' with a selection icon. The 'Retrieve' button is also visible. Below these are input fields for 'SL: 80.00% 20', 'MaxOcc: 90.00%', 'ASA: 30.00', 'Contacts/AHT: Intraday', and 'Compare: Actual'. A table with 8 columns is shown, with the first row being the header and the second row being the 'Average' row.

| Time | Contacts Received | | Contacts Handled | Contacts Abandoned | | AHT | |
|---------|-------------------|-----|------------------|--------------------|-----|-------|-----|
| | Intra | Act | Act | Actual | Pct | Intra | Act |
| Average | | | | | | | |

The **Intraday** screen is updated with the historical data received from Avaya Proactive Contact.

The screenshot shows the 'Intraday - CT 25 Avaya ProActive' window after data retrieval. The 'Reselect' button is now visible. The table is populated with historical data for the date 04/20/09.

| Time | Contacts Received | | Contacts Handled | Contacts Abandoned | | AHT | |
|----------|-------------------|------|------------------|--------------------|------|-------|-------|
| | Intra | Act | Act | Actual | Pct | Intra | Act |
| 02:30 PM | 0.00 | 1 | 1 | 0 | 0 | 0.00 | 22.00 |
| 03:00 PM | 0.00 | 9 | 9 | 0 | 0 | 0.00 | 63.00 |
| 03:30 PM | 0.00 | 4 | 4 | 0 | 0 | 0.00 | 42.50 |
| 04:00 PM | 0.00 | 3 | 3 | 0 | 0 | 0.00 | 34.33 |
| 04:30 PM | 0.00 | 3 | 3 | 0 | 0 | 0.00 | 52.00 |
| CurTotal | 2.12 | 25 | 25 | 0 | | | |
| Average | 0.04 | 0.52 | 0 | 0 | 0.00 | 87.52 | 56.96 |

7.2.2. Verify Real-Time Data

From the **IEX TotalView Workforce Management** main screen shown in **Section 7.2.1**, select **MU > Real-time Adherence** from the top menu. The **Schedule Adherence** screen is displayed next. Click the icon next to the **MU** field to select the proper system, in this case “Avaya ProActive”. Click **Retrieve**.

| Agent ID | Name | Scheduled Activity | Out Of Adh. | Actual State | Time in State |
|----------|------|--------------------|-------------|--------------|---------------|
| | | | | | |
| | | | | | |
| | | | | | |

The **Schedule Adherence** screen is updated with the real-time agent state data received from Avaya Proactive Contact.

| Agent ID | Name | Scheduled Activity | Out Of Adh. | Actual State | Time in State |
|----------|--------|--------------------|-------------|--------------|---------------|
| 2498 | agent1 | No Schedul | 0:00 | Ready | 0:07 |
| 2499 | agent2 | No Schedul | 0:00 | OnCall | 2:13 |

8. Conclusion

These Application Notes describe the configuration steps required for IEX TotalView Workforce Management 3.12 to interoperate with Avaya Proactive Contact 4.0, via the Oracle database for historical data and the Event Service interface for real-time data. All feature and serviceability test cases were completed successfully.

9. Additional References

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

1. *Administrator Guide for Avaya Communication Manager*, Document 03-300509, Issue 4.0, Release 5.0, January 2008, available at <http://support.avaya.com>.
2. *Avaya Proactive Contact Release 4.0 Administering Avaya Proactive Contact*, January 2008, available at <http://support.avaya.com>.
3. *Avaya Proactive Contact Release 4.0 Software Developer's Kit (SDK)*, January 2008, available at <http://support.avaya.com>.
4. *IEX TotalView Product Documentation*, available on the IEX TotalView software CD.

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