

Avaya Solution & Interoperability Test Lab

Application Notes for Metropolis ProfitWatch Call Accounting System with Avaya IP Office 8.0 – Issue 1.0

Abstract

These Application Notes describe the steps required to integrate the Metropolis ProfitWatch Call Accounting System with Avaya IP Office 8.0. Metropolis ProfitWatch Call Accounting System captures call records from Avaya IP Office using a Station Message Detail Recording (SMDR) link. In turn, ProfitWatch processes the call records and generates detailed reports.

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

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1. Introduction

These Application Notes describe the steps required to integrate the Metropolis ProfitWatch Call Accounting System with Avaya IP Office 8.0. Metropolis ProfitWatch Call Accounting System captures call records from Avaya IP Office using a Station Message Detail Recording (SMDR) link. In turn, ProfitWatch processes the call records and generates detailed reports.

2. General Test Approach and Test Results

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.

This section describes the compliance testing used to verify interoperability of Metropolis ProfitWatch Call Accounting System with Avaya IP Office 8.0. This section covers the general test approach and the test results. The testing covered feature and serviceability test cases. The feature testing covered the ability of ProfitWatch to capture and process call records.

The call records captured and displayed by ProfitWatch were compared for accuracy to the call records displayed by Avaya IP Office Monitor. Call records for various call types were generated, including internal calls, inbound and outbound trunk calls, including PSTN calls, transferred calls, and conference calls.

The serviceability testing focused on the ability of ProfitWatch to recover from adverse conditions such as loss of network connectivity. It was also verified that call records that were generated while ProfitWatch was disconnected from the network were not lost.

2.1. Interoperability Compliance Testing

Interoperability compliance testing covered the following features and functionality:

- Sending call records from IP Office to ProfitWatch for various call types, including internal calls, inbound and outbound trunks, including PSTN calls, transferred calls, and conference calls
- Call records were captured and displayed on ProfitWatch
- Call records were processed by ProfitWatch, which generated detailed reports
- Proper system recovery after loss of network connectivity and power loss

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2.2. Test Results

ProfitWatch passed compliance testing with Avaya IP Office 8.0.

2.3. Support

For technical support on Metropolis ProfitWatch Call Accounting System, contact Metropolis Customer Service by phone, through their website, or email.

Phone: (954) 414-2900 x32
Web: http://www.metropolis.com/support.html
Email: support2012@metropolis.com

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3. Reference Configuration

Figure 1 illustrates the configuration used for the compliance test. In the sample configuration, two sites, Sites A and B, are connected via an ISDN-PRI trunk. ProfitWatch only monitors the calls at Site B. Site A is primarily used to generate inter-site calls and PSTN calls.

Site A has an Avaya S8800 Servers running Avaya Aura® Communication Manager with an Avaya G650 Media Gateway. Site B consists of Avaya IP Office and Avaya IP and Digital Telephones. ProfitWatch connects via the LAN and establishes a SMDR link to IP Office at Site B.

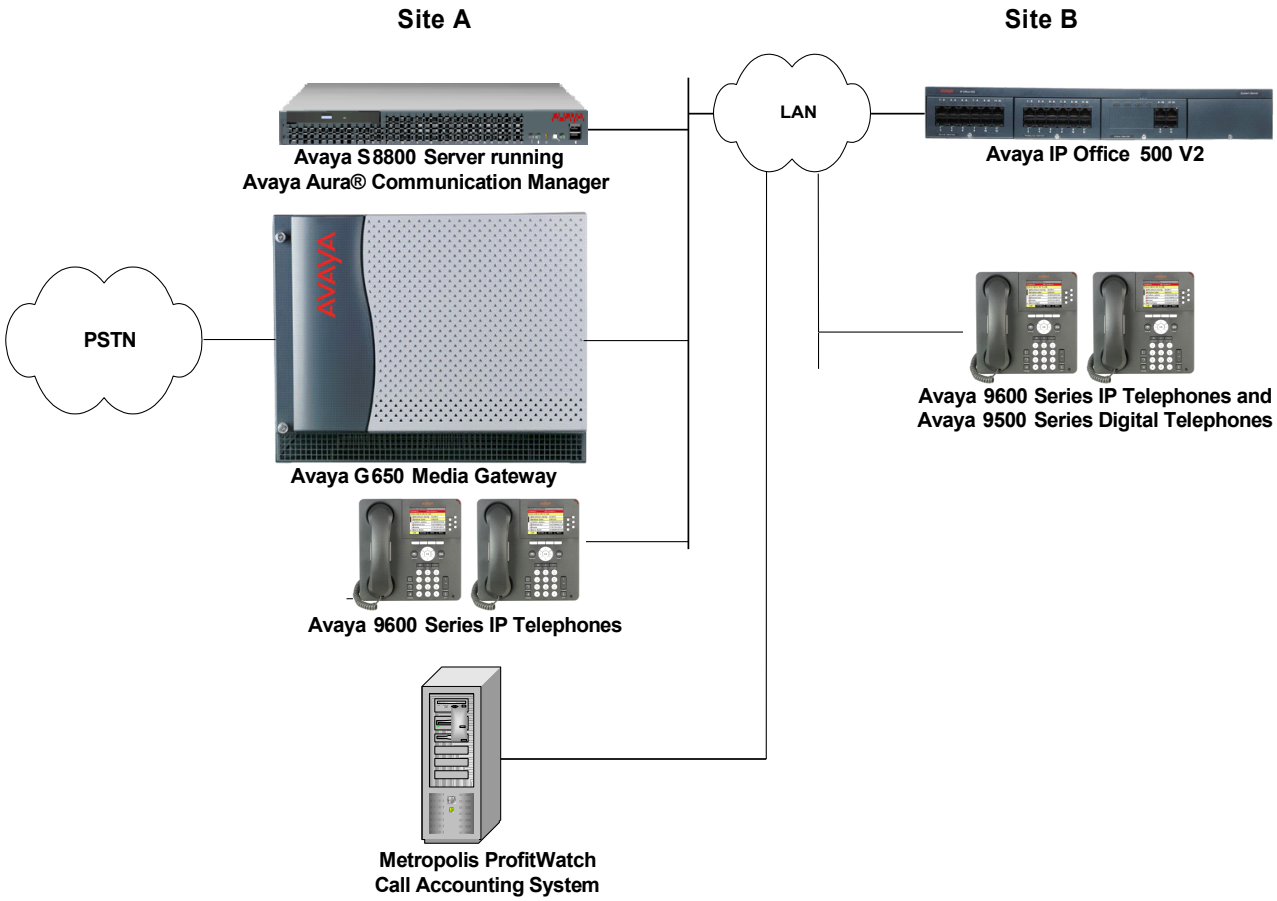


Figure 1: Metropolis ProfitWatch Call Accounting System with Avaya IP Office

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4. Equipment and Software Validated

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

Equipment	Software/Firmware
Avaya IP Office	8.0(44)
Avaya Aura® Communication Manager running on Avaya S8800 Server with Avaya G650 Media Gateway.	6.0.1 (R016x.00.1.510.1) with Service Pack 5.01 (Patch 19303)
Avaya 9600 Series IP Telephones	3.1 SP 4 (H.323)
Avaya 9500 Series Digital Telephones	--
Metropolis ProfitWatch Call Accounting System	2012.07.20

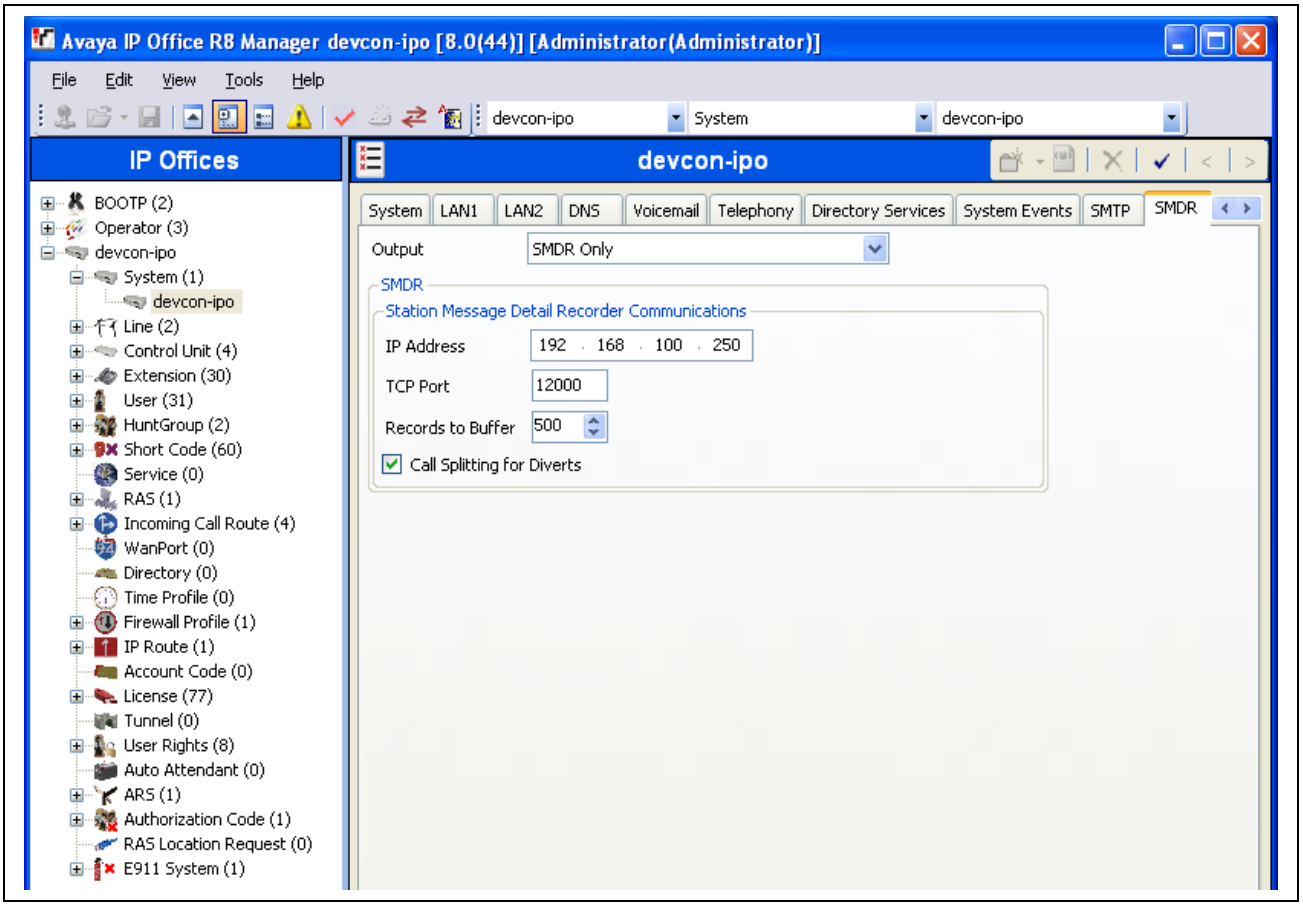
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5. Configure Avaya IP Office

This section describes the IP Office configuration at Site A that is required to interoperate with ProfitWatch. In the test configuration, ProfitWatch did not monitor Site A so only the configuration for Site B is shown. This section covers the configuration of the SMDR link.

Launch the Avaya IP Office Manager application, select the proper IP Office system, and log in with the appropriate credentials. From the configuration tree in the left pane, select **System** to display the **devcon-ipo** screen in the right pane. Select the **SMDR** tab. Select *SMDR Only* from the **Output** field drop-down list to display the **SMDR** section.

For **IP Address**, enter the IP address of the Metropolis ProfitWatch server. For **TCP Port**, enter *12000*. Modify the **Records to Buffer** field if desired, and check **Call Splitting for Diverts**. The record buffer is used by IP Office to cache SMDR records in the case of a communication failure with Metropolis ProfitWatch.



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6. Configure Metropolis ProfitWatch Call Accounting System

This section provides the procedures for configuring Metropolis ProfitWatch Call Accounting System. The procedures include the following areas:

- Administer PBX
- Administer Customize
- Administer Grace Periods

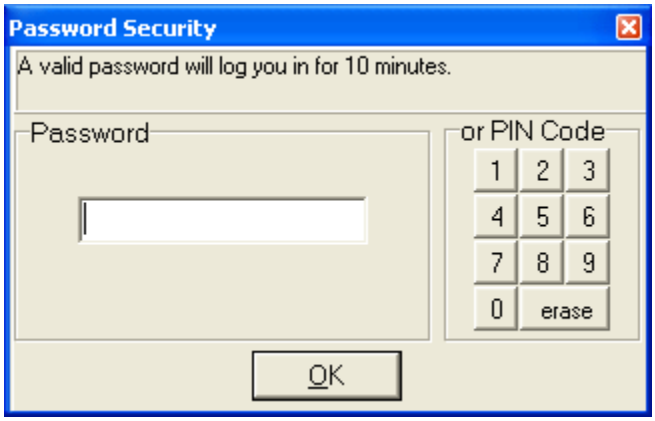
6.1. Administer PBX

From the Metropolis ProfitWatch Call Accounting System server, launch **ProfitWatch** to display the **ProfitWatch Call Accounting 2012** screen as shown below. Select **Setup → PBX** from the top menu.



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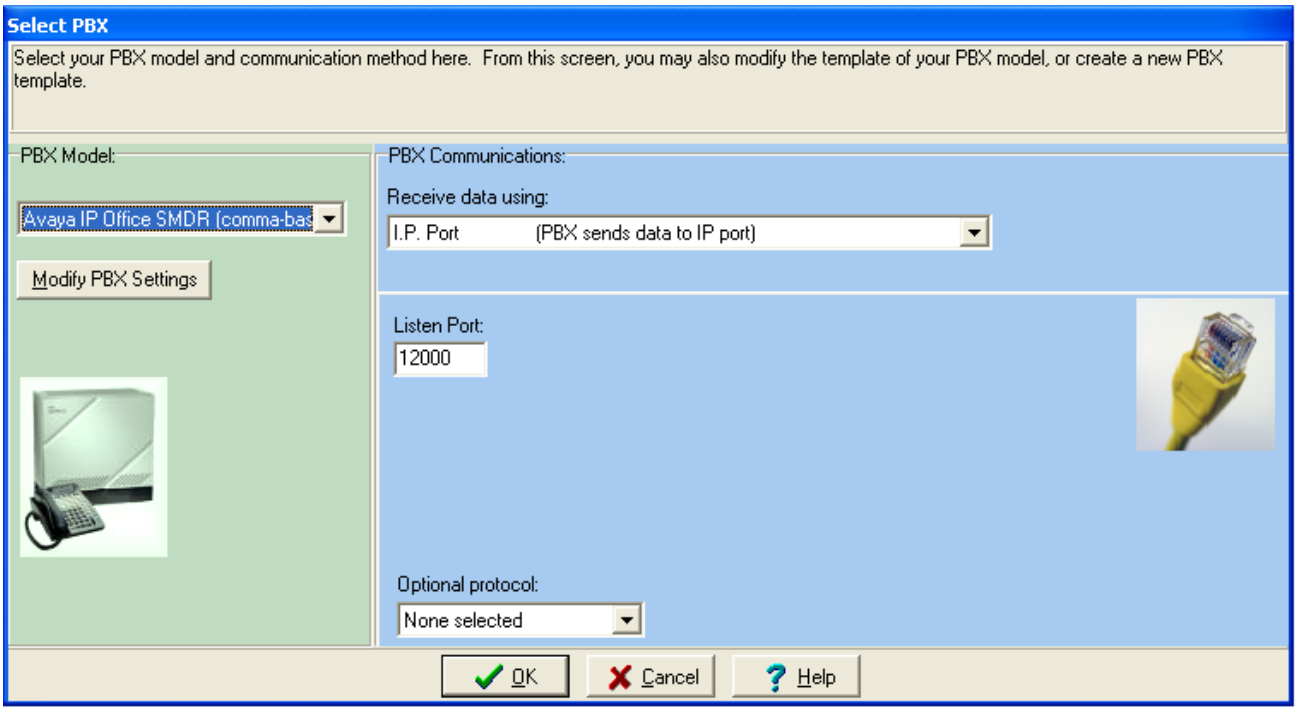
The **Password Security** screen is displayed. Enter the appropriate credentials.



The **Select PBX** screen is displayed next. Enter the following values for the specified fields, and retain the default values for the remaining fields.

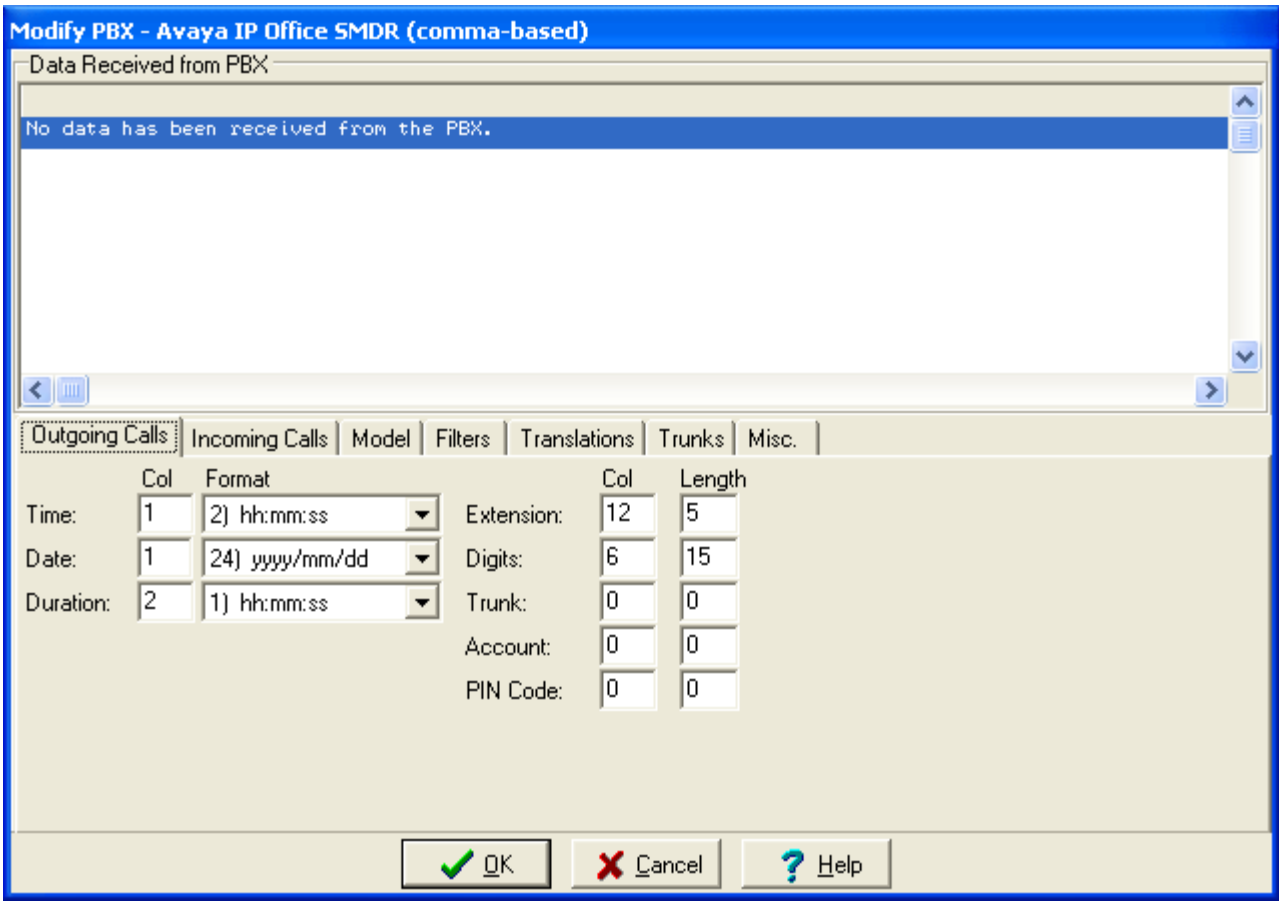
- **PBX Model:** Select an applicable type, in this case *Avaya IP Office SMDR (comma-based)*.
- **Receive data using:** *I.P. Port (PBX sends data to IP port)*
- **Listen Port:** The remote port number from **Section 5**.
- **Optional protocol:** *None selected*

Click **Modify PBX Settings** in the left pane.



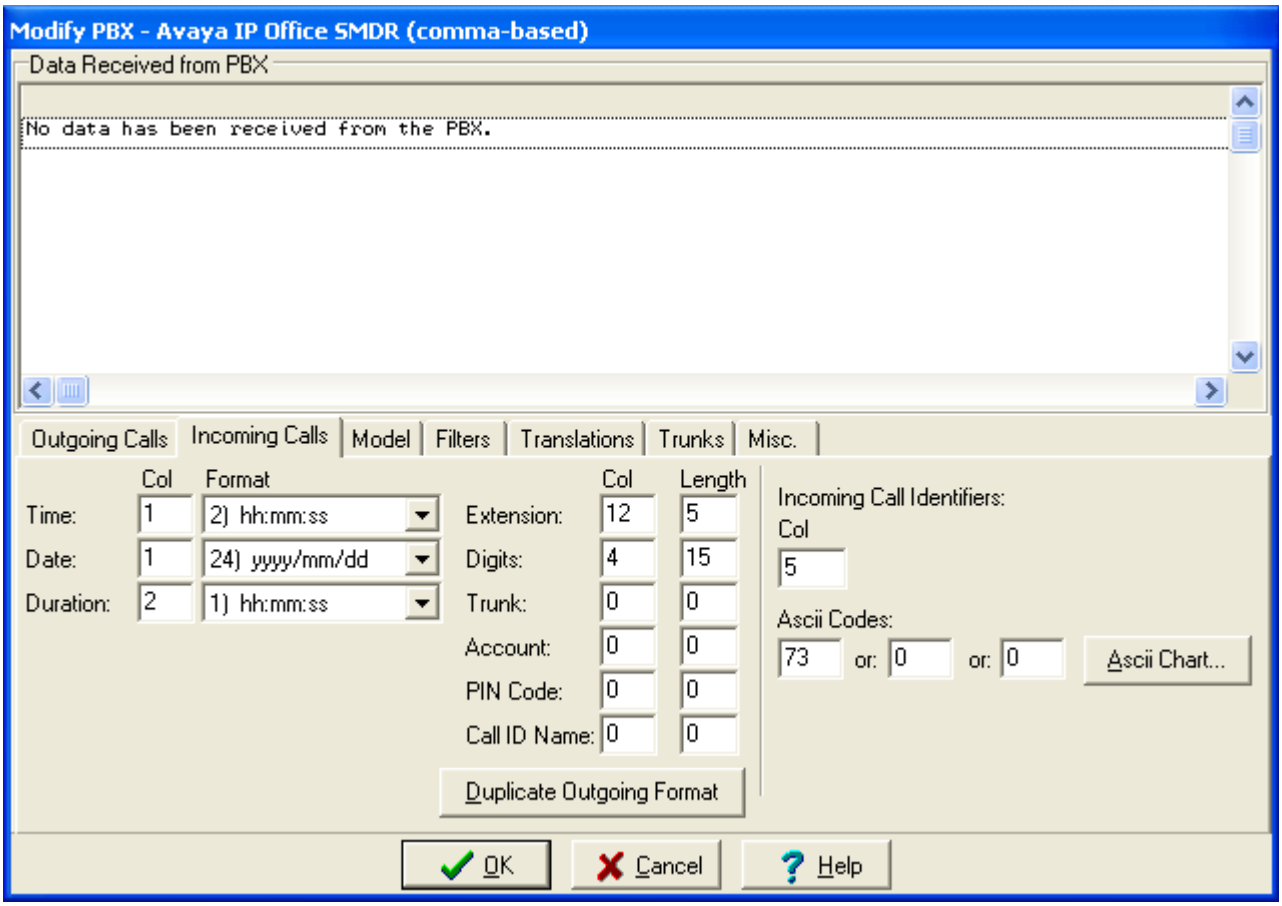
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The **Modify PBX** screen is displayed. Note that in a live customer environment, SMDR data may start appearing in the top portion of the screen. Select the **Outgoing Calls** tab. For **Extension Length**, enter the maximum number of digits used for internal extensions on Avaya IP Office, in this case "5". Retain the default values in the remaining fields.



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Select the **Incoming Calls** tab. For **Extension Length**, enter the maximum number of digits used for internal extensions on Avaya IP Office. Retain the default values in the remaining fields.

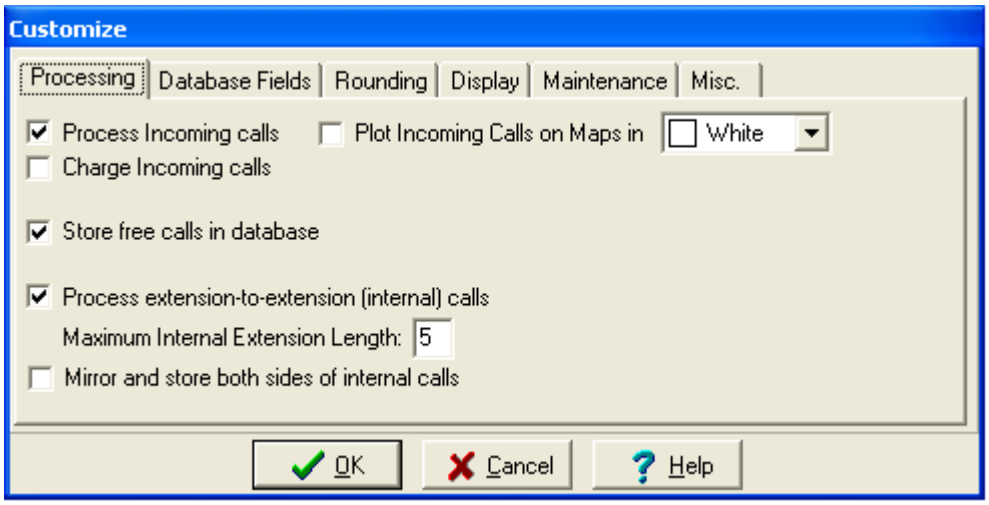


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6.2. Administer Customize

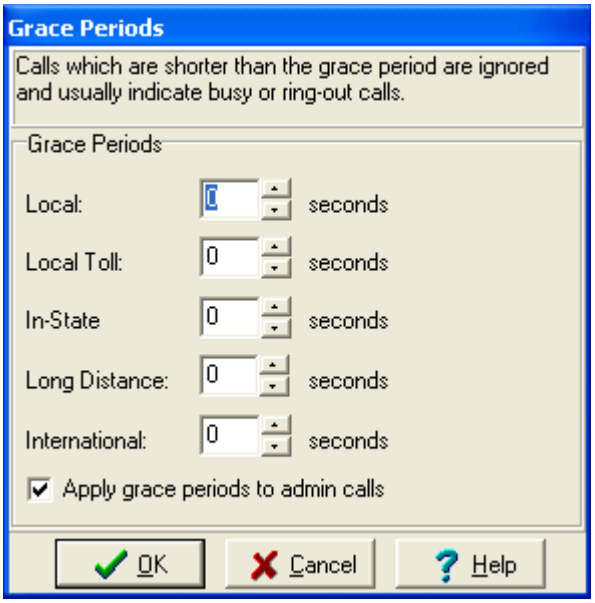
From the **ProfitWatch Call Accounting 2012** screen shown in **Section 6.1** select **Setup → Customize** from the top menu to display the **Customize** screen.

Check **Process Incoming calls** and **Process extension-to-extension (internal) calls,** if desired. Set the appropriate value for **Maximum Internal Extension Length**, and retain the default values in the remaining fields. The screenshot below shows the settings used for the compliance testing.



6.3. Administer Grace Periods

From the **ProfitWatch Call Accounting 2012** screen shown in **Section 6.1** select **Charges → Grace Periods** from the top menu to display the **Grace Periods** screen. Modify the grace period value for each type of call if desired. Note that calls with duration shorter than the grace period will not be logged. The screenshot below shows the settings used for the compliance testing.



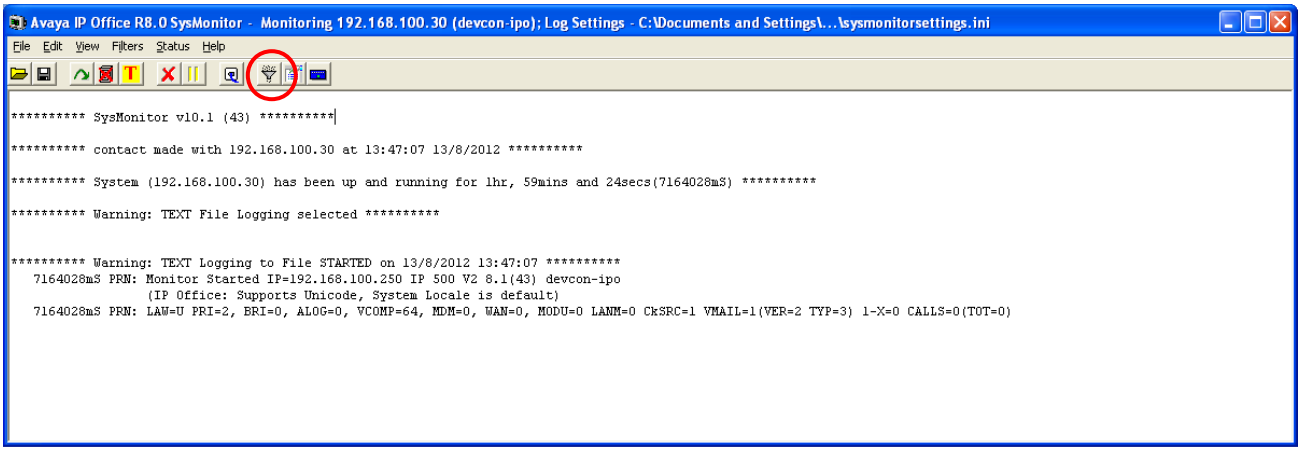
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7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and Metropolis ProfitWatch Call Accounting System.

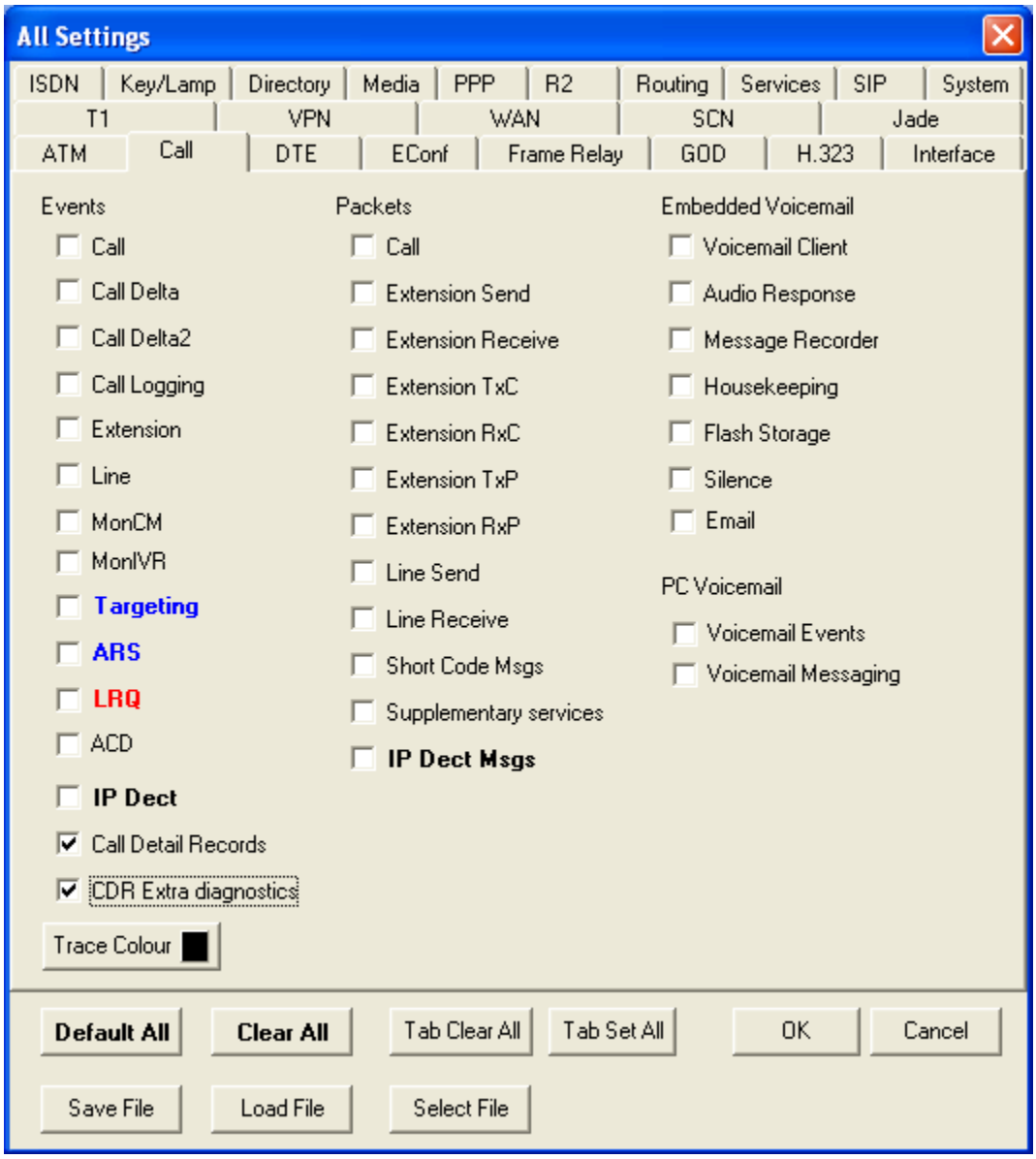
7.1. Verify Avaya IP Office

Launch the Avaya IP Office Monitor application to display the **Avaya IP Office R8.0 SysMonitor** screen as shown below. Click on the **Filter** icon.



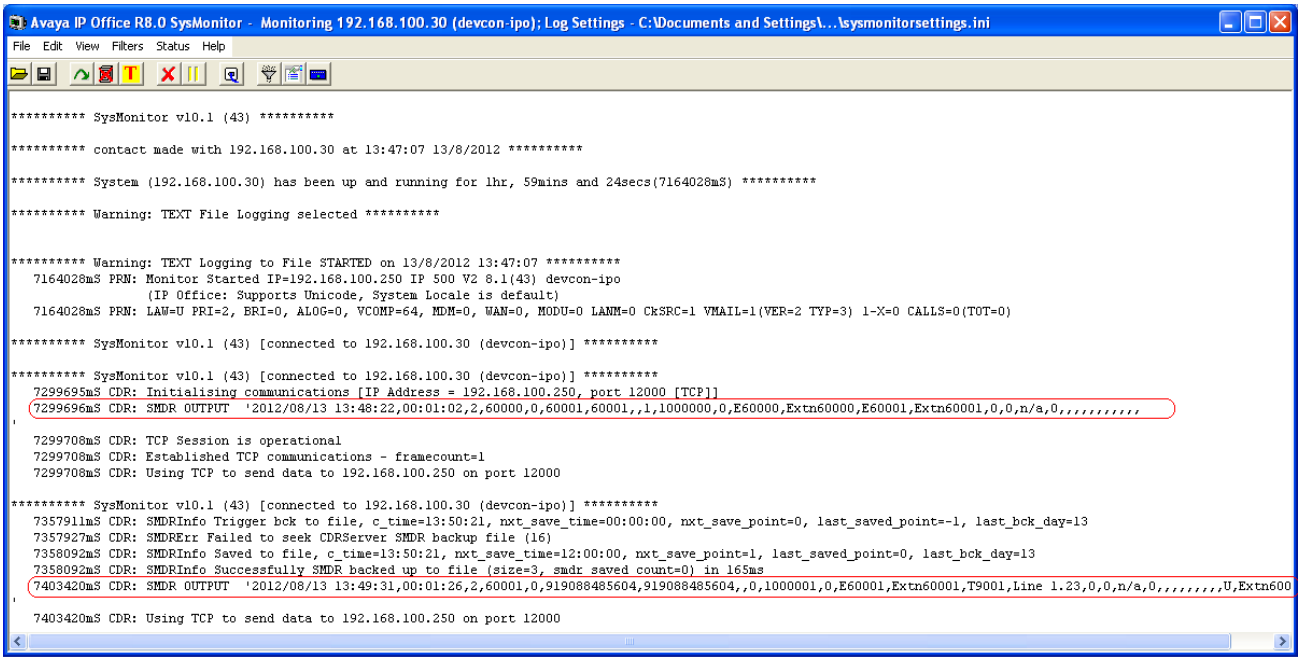
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The **All Settings** screen is displayed. Check **Call Detail Records** and **CDR Extra diagnostics** as shown below.



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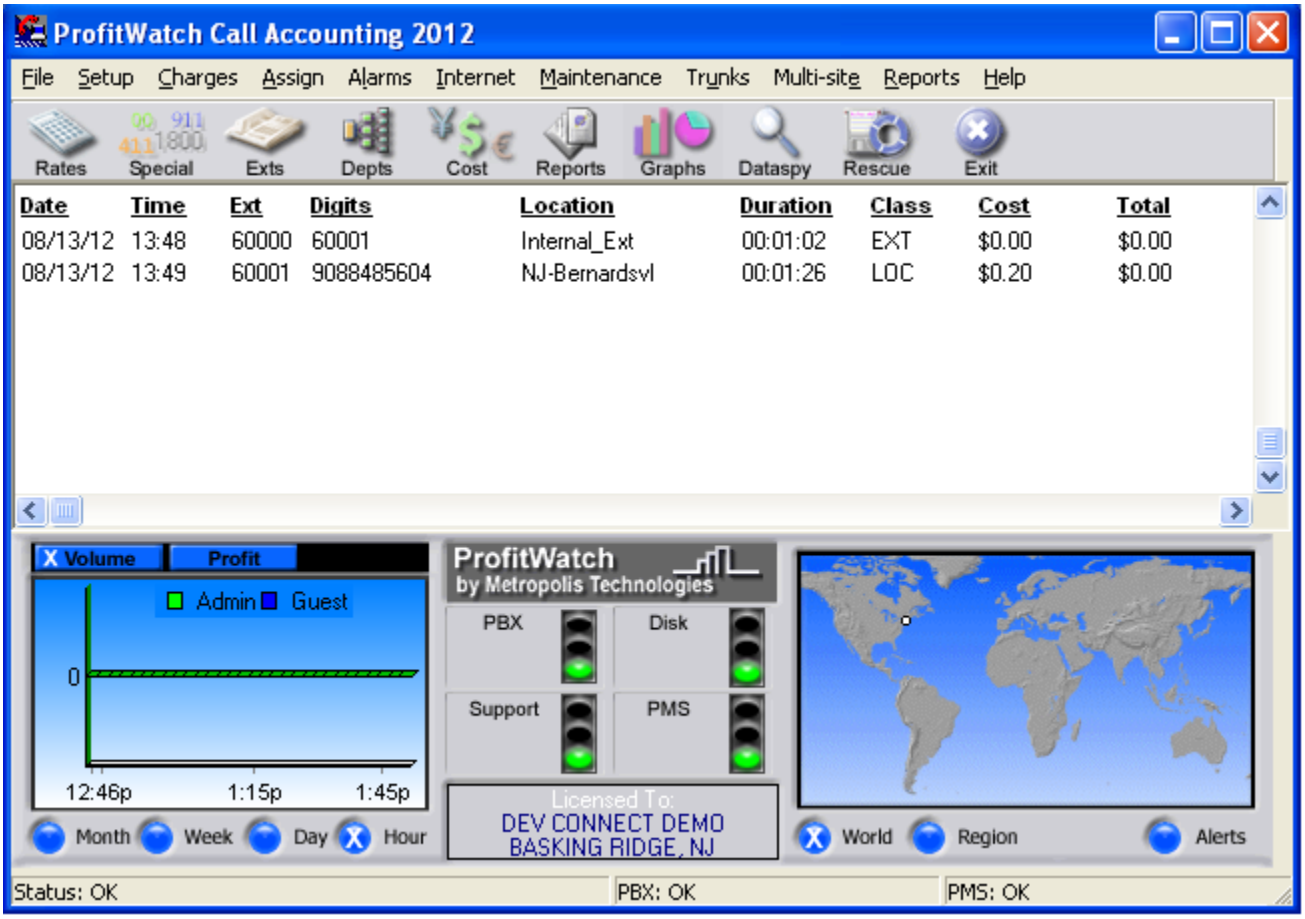
Make and complete a few phone calls, including internal, inbound from the PSTN, and outbound to the PSTN. Verify that raw SMDR data is displayed on the **Avaya IP Office R8.0 SysMonitor** screen as shown below.



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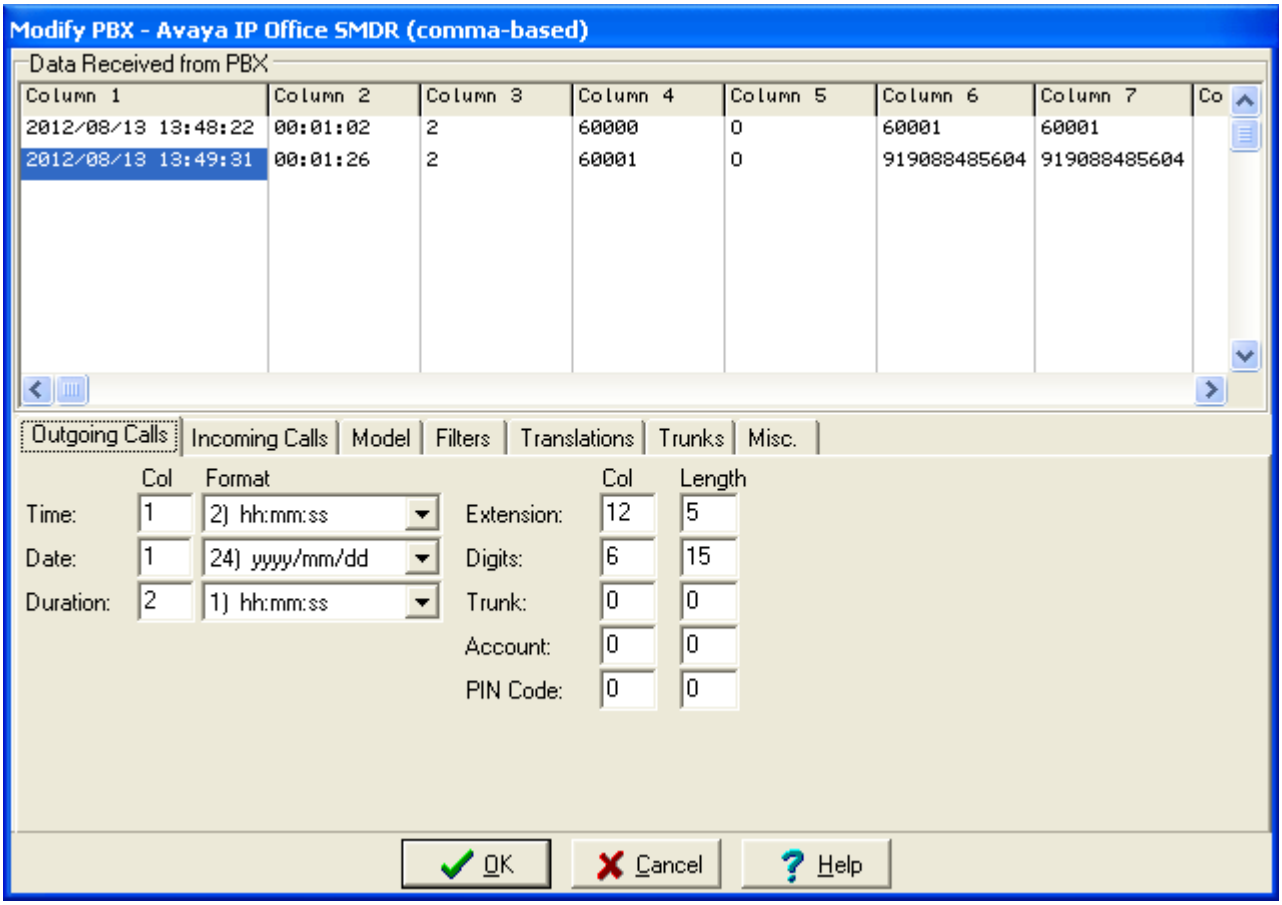
7.2. Verify Metropolis ProfitWatch Call Accounting System

From the Metropolis ProfitWatch server, follow the navigation in **Section 6.1**to display the **ProfitWatch Call Accouting 2012** screen. Verify that an entry is displayed for each SMDR record output from **Section 7.1**. Note that the **Cost** data shown below is estimated by ProfitWatch based on call destination and duration.



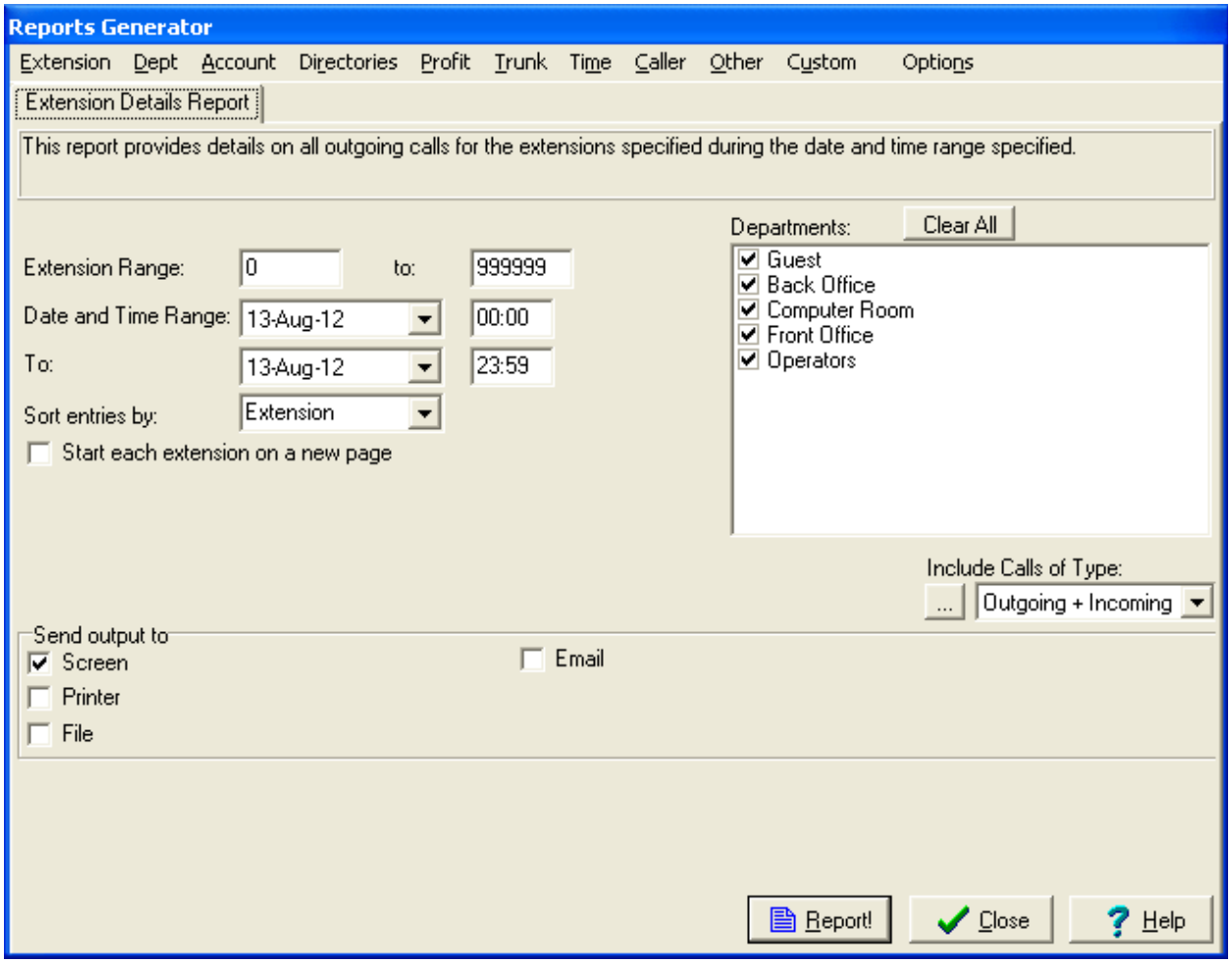
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Follow the navigation in **Section 6.1** to display the **Modify PBX** screen. In the top portion of the screen, verify that an entry is displayed for each SMDR record output from **Section 7.1** with matching values.



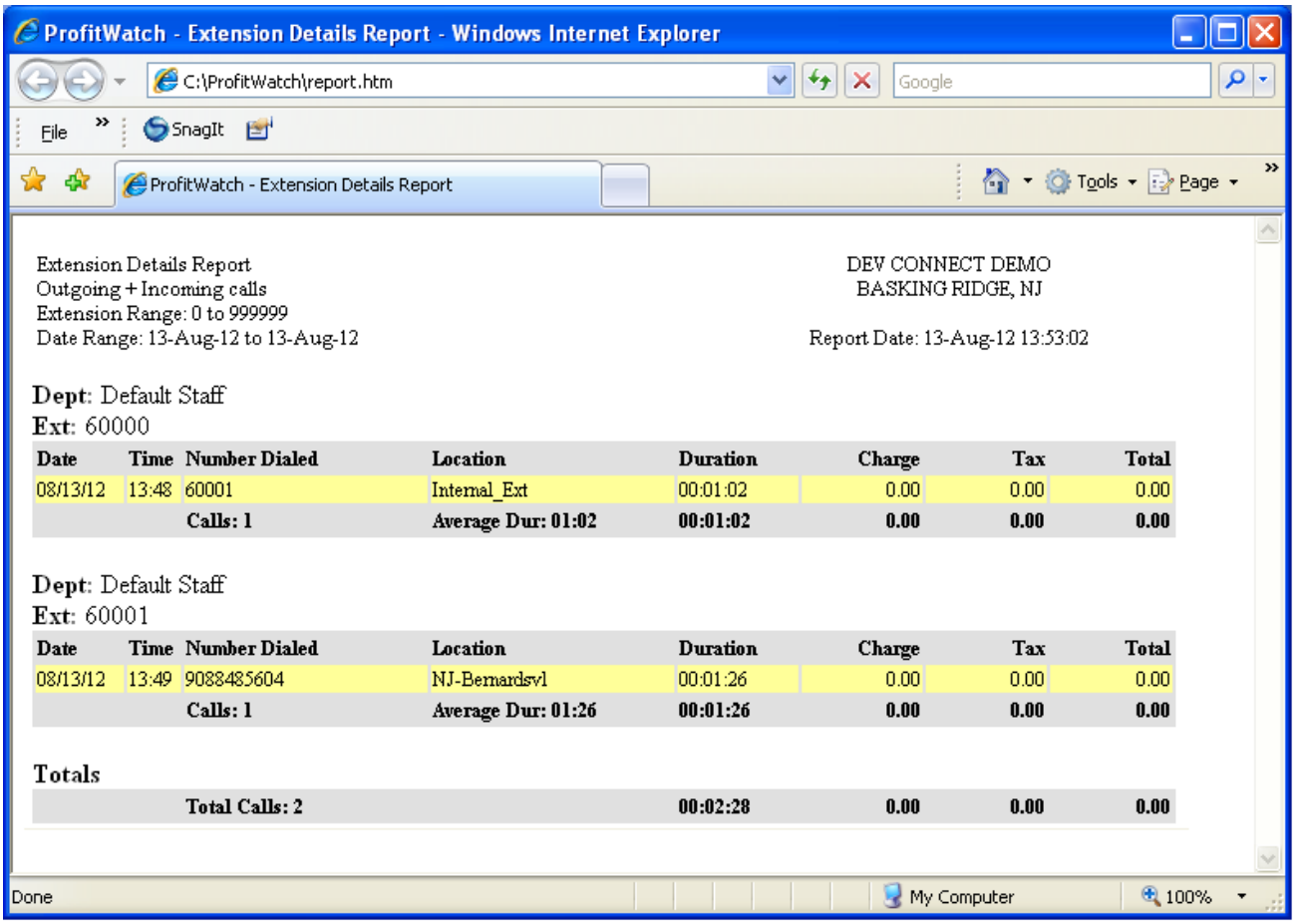
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From the **ProfitWatch Call Accoutning 2012** screen (not shown below), select **Reports → Report Generator** from the top menu. The **Reports Generator** screen is displayed. Select **Extension → Extension Details Report** from the top menu, and click **Report**.



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The **Extension Details Report** automatically pops up in a browser window. Verify that the report entries match to the entries on the **ProfitWatch Call Accounting 2010** screen.



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8. Conclusion

These Application Notes describe the steps required to configure Metropolis ProfitWatch Call Accounting System to interoperate with Avaya IP Office 8.0. All feature and serviceability tests were completed successfully.

9. Additional References

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

[1] *Avaya IP Office R8.0 Manager 10.0*, August 8th 2012, Issue 28p, Document Number 15-601011, available at http://support.avaya.com.

[2] *Metropolis ProfitWatch Call Accounting User Guide*, available at http://www.metropolis.com.

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