



**Application Notes for configuring Data Track Eclipse Call Management System to interoperate with Avaya Aura® Communication Manager R6.3 to collect CDR data over TCP – Issue 1.0**

**Abstract**

These application notes describe the configuration steps required for Data Track Eclipse Call Management System to successfully interoperate with Avaya Aura® Communication Manager. Eclipse Call Management System collects Call Detail Records from Avaya Aura® Communication Manager and processes them to allow users to analyse and report on incoming, outgoing, internal and Automatic Call Distribution traffic.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

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 compliance tested configuration used to validate Data Track Eclipse Call Management System (Eclipse CMS) with Avaya Aura® Communication Manager. Eclipse CMS receives Call Detail Recording (CDR) and Real-Time Transport Control Protocol (RTCP) data by listening for connections on a specific TCP ports and processes this data to provide a complete overview of a voice network's operation and performance. A comprehensive reporting suite allows the user to produce a range of reports including:

- Quality of Service Reports.
- Cost Allocation Reports.
- Response Reporting.
- Traffic Analysis Reports.
- Fraud Analysis Reports.

During compliance testing a customized CDR format was supplied by Data Track for use with Eclipse CMS.

## 2. General Test Approach and Test Results

The general test approach was to configure the Eclipse CMS to communicate with Communication Manager as implemented on a customer's premises. See **Figure 1** for a network diagram. The interoperability compliance testing included feature and serviceability testing. The feature testing verified the ability of Eclipse CMS to collect and process CDR records for various types of calls including intra-switch, PSTN, outgoing and incoming calls. The source, destination and duration of each call were verified on the Eclipse CMS. For call quality reporting, a number of calls were made using Voice over IP (VoIP) handsets and the receipt of the RTCP data and subsequent Mean Opinion Score (MOS) calculations were done. The serviceability testing introduced failure scenarios to see if Eclipse CMS can resume CDR and RTCP data collection after a failure.

There are some differences in the call records generated by SIP endpoints compared to Digital, and H.323 endpoints. As a result in certain scenarios involving SIP endpoints (e.g., two-party call, transfer, or conference), a CDR application may see more or less records, or records with condition codes/calling party other than expected.

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

## 2.1. Interoperability Compliance Testing

The testing included:

- Verification of connectivity between Eclipse CMS and Communication Manager.
- Verification that CDR data was collected as output by Communication Manager.
- Link Failure\Recovery was also tested to ensure successful reconnection after link failure.
- CDR data collected included.
  - Local Internal call handling
  - Handling of Incoming Network calls
  - Handling of External Calls
  - Call Forwarding on Busy or No Answer
  - Transfers (Blind and Supervised)
  - Conference Calls
  - Call Park and Call Pick Up
  - Bridged Appearances
  - Automatic Call Distribution (ACD) Calls
  - Calls to Voicemail
- Receiving RTCP data.

## 2.2. Test Results

Tests were performed to ensure full interoperability between Eclipse CMS and Communication Manager. The tests were all functional in nature and performance testing was not included. All the test cases passed successfully except for the following issue and observations which were noted.

- There are two records produced for the SIP phone outbound and this looks unsightly on the Eclipse Report. Therefor the reporting of CDR from SIP telephone is not fully supported.
- Eclipse CMS fails to report on a call to a busy extension even though a CDR record is sent to Eclipse CMS.
- Eclipse CMS fails to report on a call to an unobtainable number even though a CDR record is sent to Eclipse CMS.
- Specific reports can be run to show calls containing Account Codes and calls that are part of a Conference.

## 2.3. Support

For technical support on Data Track products please contact Data Track support team at:

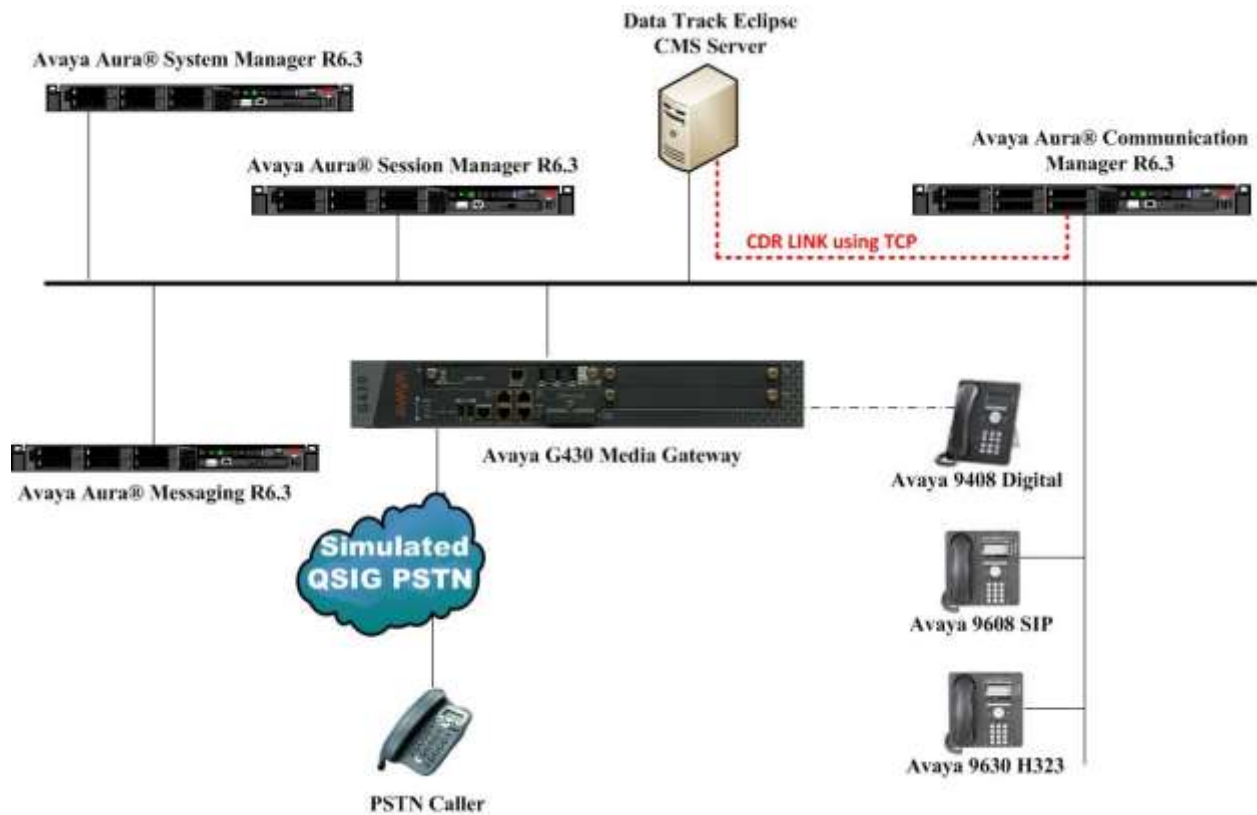
Web: [www.dtrack.com](http://www.dtrack.com)

Email: [support@dtrack.com](mailto:support@dtrack.com)

Phone: +44 (0) 1425282020

### 3. Reference Configuration

**Figure 1** illustrates the network topology used during compliance testing. The Avaya solution consists of a Communication Manager, System Manager, Session Manager and a G430 Gateway. Session Manager is present to register SIP endpoints. The Communication Manager is configured to output CDR and RTCP data over TCP/IP ports to the Eclipse CMS server. A variety of Avaya 9600 Series H323 and SIP phones along with an Avaya 9408 Digital phone were used to generate intra-switch calls (calls between phones on the same system), and outbound/inbound calls to/from the PSTN. Avaya Aura® Messaging was also configured to test Voice Mail interoperability. To test calls to VDN's and agents, the Communication Manager Elite feature was used.



**Figure 1:** Avaya Aura® Communication Manager and Data Track Eclipse Call Management System Reference Configuration

## 4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® System Manager running on a virtual server	System Manager 6.3.11 (SP11) Build No. – 6.3.0.8.5682-6.3.8.3204 Software Update Revision No: 6.3.7.7.2275
Avaya Aura® Communication Manager running on a virtual server	R6.3 SP9 R016x.03.0.124.0
Avaya Aura® Session Manager running on a virtual server	Session Manager R 6.3 SP11 Build No. – 6.3.11.0.631103
Avaya Aura® Messaging running on a virtual server	R6.3.2 (SP2)
Avaya G430 Gateway	33.12.0 /1
Avaya 9620 Series Deskphone	96xx H.323 Release 3.1 SP2
Avaya 9608 Series Deskphone	96x1 H323 Release 6.4014U
Avaya 9641 Series Deskphone	96x1 SIP Release 6.2.1.26
Avaya 9608 Series Deskphone	96x1 SIP Release 6.4.0.33
Data Track Eclipse CMS Server running on a Windows 2012 Server	Eclipse CMS Release 4.1.15 Windows 2012 R2

## 5. Configure Avaya Aura® Communication Manager

Configuration and verification operations on the Communication Manager illustrated in this section were all performed using Avaya Site Administrator Emulation Mode. The information provided in this section describes the configuration of the Communication Manager for this solution. It is implied a working system is already in place, including Skill Hunt Groups, Agents, Vectors and voice mail boxes. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. The configuration operations described in this section can be summarized as follows:

- Create Node Name for Eclipse CMS Server.
- Define the CDR Link.
- Change system-parameters cdr.
- Define Intra-Switch Extensions.
- Configure Trunks for CDR Reporting.
- Configure RTCP Monitor Server.
- Configure IP Network Region.

### 5.1. Create Node Name for Eclipse CMS Server

A Node Name needs to be created to associate Eclipse CMS with the Communication Manager. Use the **change node-names ip** command to configure the following on Page 1.

- **Name** Enter an informative name i.e. **Eclipse**.
- **IP address** Enter the IP address of the Eclipse CMS.

<b>change node-names ip</b>		Page	1	of	2
IP NODE NAMES					
Name	IP Address				
<b>Eclipse</b>	<b>10.10.40.44</b>				
Procr	10.10.40.31				

## 5.2. Define the CDR Link

A CDR link needs to be defined between the Communication Manager and Eclipse CMS. Use the **change ip-services** command to configure the following:

- **Service Type**           Enter **CDR1**.
- **Local Node**            Enter **procr**.
- **Remote Node**         Enter **Eclipse**.
- **Remote Port**         Enter **5101**.

change ip-services				Page 1 of 3		
IP SERVICES						
Service Type	Enabled	Local Node	Local Port	Remote Node	Remote Port	
<b>CDR1</b>		<b>Procr</b>	0	<b>Eclipse</b>	<b>5101</b>	

Navigate to **Page 3** and set the **Reliable Protocol** field to **n**. This will enable Reliable Session Protocol (RSP) for CDR transmission. In this case, the CDR link will use TCP with RSP.

- **Reliable Protocol**           Enter **n**.

Press **F3** button to save the new settings. **Note:** This may be different depending on the SAT tool being used.

change ip-services				Page 3 of 3		
SESSION LAYER TIMERS						
Service Type	Reliable Protocol	Packet Resp Timer	Session Connect Message Cntr	SPDU Cntr	Connectivity Timer	
<b>CDR1</b>	<b>n</b>	30	3	3	60	

### 5.3. Change system parameters cdr

Certain parameter changes are required for Communication Manager to interoperate with Eclipse CMS. The screen shots below show the settings used during compliance testing. Use the **change system-parameters cdr** command to configure the following:

- **CDR Date Format:** Set it to **month/day**. The date format will be used for the date stamp that begins each new day of call records.
- **Primary Out Format:** Set this to **customized** format.
- **Primary Output Endpoint:** Set to **CDR1** to correspond with CDR link set in **Section 5.2**.
- **Intra-switch CDR:** Set this to **y** to allow call records for internal calls involving specific stations. Those stations must be specified in the **inter-switch-cdr** form as set in **Section 5.4**.
- **Record Outgoing Calls Only:** Set this to **n** to allow incoming trunk calls to appear in the CDR records along with the outgoing trunk calls.
- **Suppress CDR for Ineffective Call Attempts?** Set this to **n** so that calls that are blocked do not generate CDR.
- **Outg Trk Call Splitting:** Set this to **y** to allow a separate call record for any portion of an outgoing call that is transferred or conferenced.
- **Inc Trk Call Splitting:** Set this to **y** to allow a separate call record for any portion of an incoming call that is transferred or conferenced.

```
change system-parameters cdr                               Page 1 of 2
                  CDR SYSTEM PARAMETERS

Node Number (Local PBX ID):                               CDR Date Format: month/day
Primary Output Format: customized      Primary Output Endpoint: CDR1
Secondary Output Format:
  Use ISDN Layouts? n                               Enable CDR Storage on Disk? n
  Use Enhanced Formats? n      Condition Code 'T' For Redirected Calls? n
  Use Legacy CDR Formats? n                               Remove # From Called Number? n
Modified Circuit ID Display? n                               Intra-switch CDR? y
  Record Outgoing Calls Only? n      Outg Trk Call Splitting? y
  Suppress CDR for Ineffective Call Attempts? n      Outg Attd Call Record? y
  Disconnect Information in Place of FRL? n      Interworking Feat-flag? n
Force Entry of Acct Code for Calls Marked on Toll Analysis Form? n
  Calls to Hunt Group - Record: member-ext
Record Called Vector Directory Number Instead of Group or Member? n
Record Agent ID on Incoming? n      Record Agent ID on Outgoing? y
  Inc Trk Call Splitting? y                               Inc Attd Call Record? n
Record Non-Call-Assoc TSC? n      Call Record Handling Option: warning
  Record Call-Assoc TSC? n      Digits to Record for Outgoing Calls: dialed
  Privacy - Digits to Hide: 0                               CDR Account Code Length: 15
```



Navigate to **Page 2** and enter the following information.

- Enter **Data Item** and **Length** as shown in the screen below.

Press **F3** button to save the new settings.

```
change system-parameters cdr                               Page 2 of 2
                                CDR SYSTEM PARAMETERS

Data Item - Length      Data Item - Length      Data Item - Length
1: date                 - 6      17: in-trk-code         - 4      33: feat-flag           - 1
2: space                 - 1      18: space                - 1      34: frl                  - 1
3: time                 - 4      19: auth-code            - 7      35: node-num            - 2
4: space                 - 1      20: space                - 1      36: vdn                  - 5
5: sec-dur              - 5      21: in-crt-id           - 3      37: country-from        - 3
6: space                 - 1      22: space                - 1      38: country-to          - 3
7: cond-code            - 1      23: out-crt-id          - 3      39: location-from       - 3
8: space                 - 1      24: space                - 1      40: location-to         - 3
9: code-dial            - 4      25: isdn-cc             - 11     41: return               - 1
10: space                - 1      26: space                - 1      42: line-feed           - 1
11: code-used           - 4      27: ppm                  - 5      43:                      -
12: space                - 1      28: space                - 1      44:                      -
13: dialed-num          - 18     29: acct-code           - 15     45:                      -
14: space                - 1      30: space                - 1      46:                      -
15: calling-num         - 15     31: attd-console        - 4      47:                      -
16: space                - 1      32: bandwidth           - 2      48:                      -

                                Record length = 149
```

## 5.4. Define Intra-Switch Extensions

When the Intra-switch CDR field is set to **y** in the cdr system parameters form in **Section 5.3**, use the **change intra-switch-cdr** command to define the extensions that will be subject to CDR. On **Page 1** of the **INTRA-SWITCH CDR** enter the specific extensions whose usage will be tracked with a CDR. Add an entry for each **Extension**.

**Note:** To simplify the process of adding multiple extensions in the Assigned Members field, the **Intra-switch CDR by COS (SA8202)** feature may be utilized in the **SPECIAL APPLICATIONS** form under the system-parameters section. To utilize this feature, contact an authorized Avaya account representative to obtain the license

```
change intra-switch-cdr                               Page 1 of 3
                                INTRA-SWITCH CDR

Assigned Members: 5 of 5000 administered
Extension      Extension      Extension      Extension
1001
1004
2015
2016
2500
```

## 5.5. Configure Trunks for CDR Reporting

For each trunk group for which CDRs are desired, verify that CDR reporting is configured to generate CDRs. Use the **change trunk-group n** command, where **n** is the trunk group number, to verify that the **CDR Reports** field is set to **r**. This applies to all types of trunk groups.

```
change trunk-group 9                                     Page 1 of 21
                                     TRUNK GROUP
Group Number: 9                Group Type: isdn                CDR Reports: r
  Group Name: OUTSIDE CALL          COR: 1                TN: 1                TAC: 109
  Direction: two-way              Outgoing Display? y          Carrier Medium: PRI/BRI
Dial Access? y                Busy Threshold: 255      Night Service:
Queue Length: 0
Service Type: public-ntwrk        Auth Code? n                TestCall ITC: rest
                                     Far End Test Line No:
TestCall BCC: 4
```

## 5.6. Configure RTCP Monitor Server

Eclipse CMS uses RTCP packets to calculate and report the quality of the call stream, Eclipse CMS needs to be defined as an RTCP Monitor Server in Communication Manager. Use the **change system-parameters ip-options** command to configure the following:

- The **Server IPV4 Address** field should be set to the IP address of the Eclipse CMS as configured in **Section 5.1**.
- The **IPV4 Server Port** should be set to **5005**. This port number must match what is configured on Eclipse CMS as the RTCP Listening Port (**Section 6.5**).
- **RTCP Report Period(secs)** should be set to a **5**. This defines how frequently the Communication Manager forwards RTCP packets to the RTCP Monitor Server, which is the Eclipse CMS server.

```
change system-parameters ip-options                     Page 1 of 3
                                     IP-OPTIONS SYSTEM PARAMETERS
IP MEDIA PACKET PERFORMANCE THRESHOLDS
  Roundtrip Propagation Delay (ms)    High: 800    Low: 400
    Packet Loss (%)                   High: 40     Low: 15
    Ping Test Interval (sec): 20
  Number of Pings Per Measurement Interval: 10
    Enable Voice/Network Stats? n
RTCP MONITOR SERVER
  Server IPV4 Address: 10.10.40.44    RTCP Report Period(secs): 5
    IPV4 Server Port: 5005
  Server IPV6 Address:
    IPV6 Server Port: 5005
AUTOMATIC TRACE ROUTE ON
  Link Failure? y
                                     H.323 IP ENDPOINT
H.248 MEDIA GATEWAY
  Link Loss Delay Timer (min): 5      Primary Search Time (sec): 75
    Periodic Registration Timer (min): 20
    Short/Prefixed Registration Allowed? n
```

## 5.7. Configure IP Network Region

RTCP reporting is enabled on a per IP network region basis. Enter the **change ip-network-region n** command, where **n** is IP network region number to be monitored. Navigate to **Page 2** and enter the following information.

- Set **RTCP Reporting Enabled** to **y**.
- Set the **Use Default Server Parameters** field to **y** so that the IP network region will use the default server parameters defined in **Section 5.6**.

**Note:** Only one RTCP monitor server can be configured per IP network region.

```
change ip-network-region 1                               Page 2 of 20
                                     IP NETWORK REGION

RTCP Reporting Enabled? y

RTCP MONITOR SERVER PARAMETERS
Use Default Server Parameters? y
```

## 5.8. Save Avaya Aura® Communication Manager Configuration

From the Command Line enter **Save Translation**, in order to commit the changes that have been introduced to memory on Communication Manager.

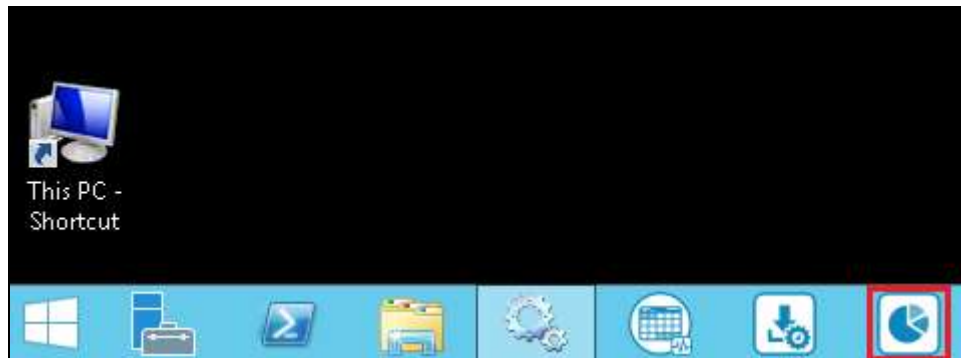
## 6. Configure Eclipse Call Management System

The following sections describe the steps required to configure the base configuration required to enable Eclipse CMS to collect CDR records and report on the RTCP generated by Communication Manager. It is implied a working system is already in place. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. The configuration operations described in this section can be summarized as follows:

- Configure Site.
- Configure Digit Translation.
- Configure Default Trunk.
- Configure CDR Data Collection.
- Configure RTCP Data Collection.

### 6.1. Configure Site

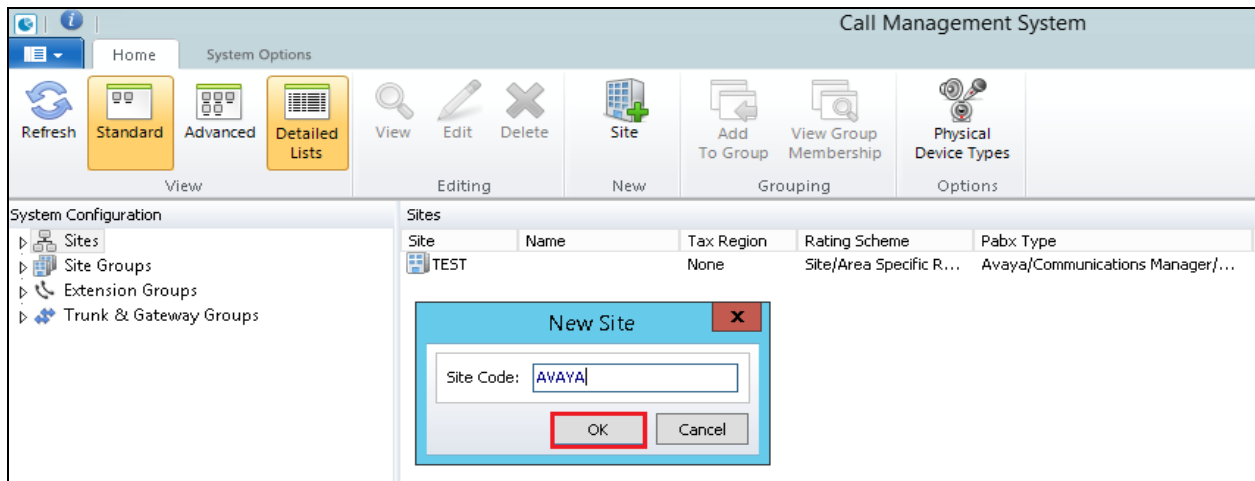
To configure a site launch the Eclipse System Configuration tool by navigating to **Start → All Programs → Eclipse III CMS → Eclipse Configuration** or click on the shortcut shown on the screen below.



From the Eclipse System Configuration window select **Sites** from the left window and click on the “Add Site” icon highlighted below.

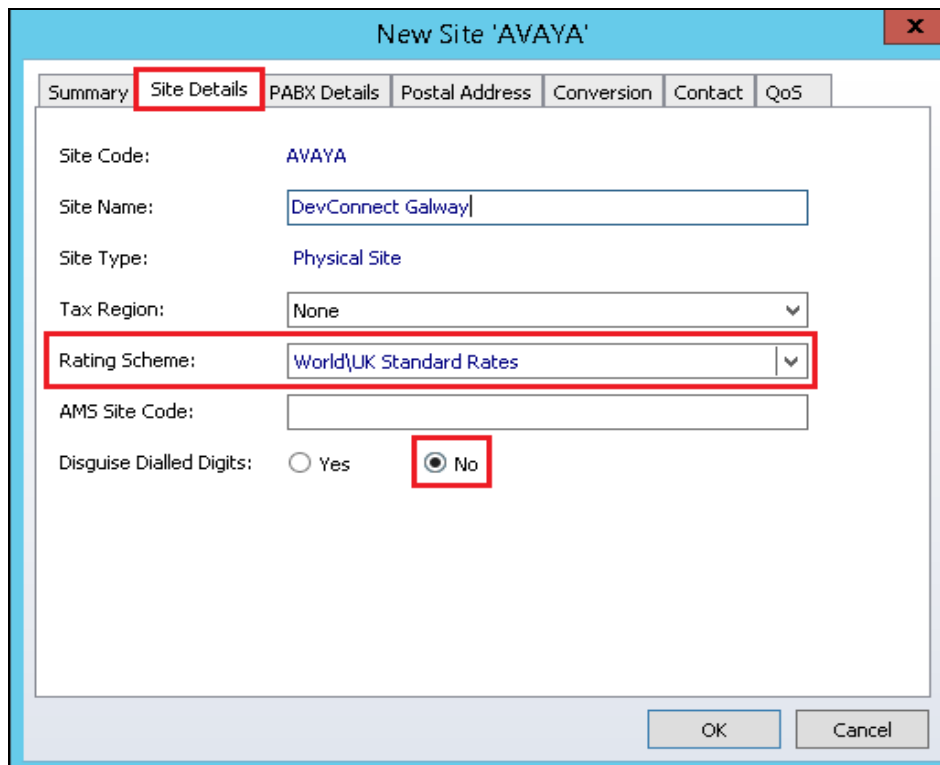


Once the **New Site** window opens, enter a name for the logical site that the CDR records and RTCP data will be associated with. The example below shows a **Site Code** of **AVAYA** being used. Click on the **OK** button to save.

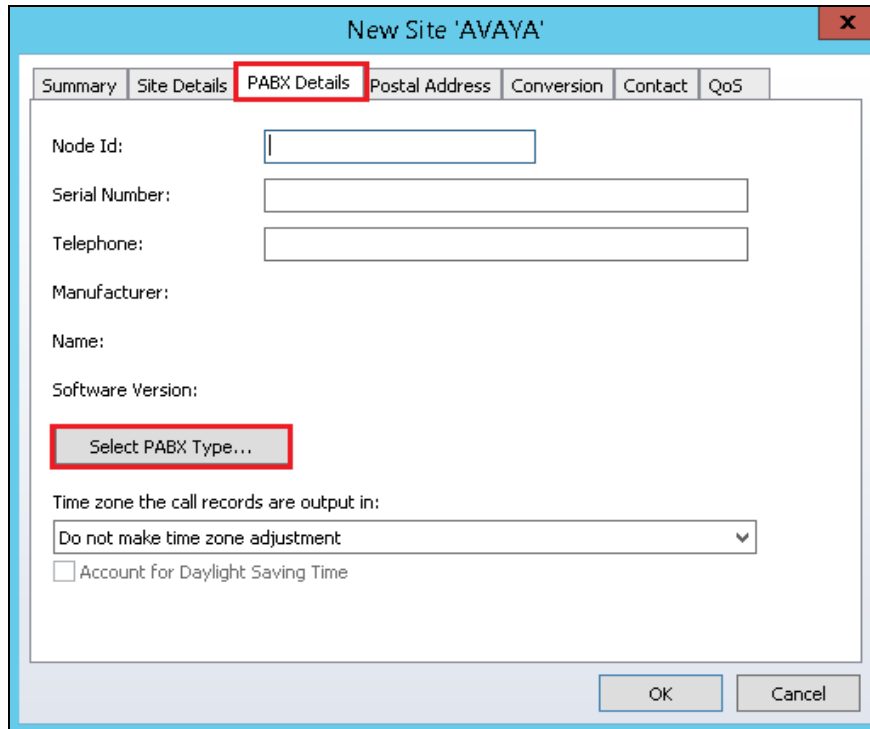


In the resulting window select the **Site Details** tab and enter the following.

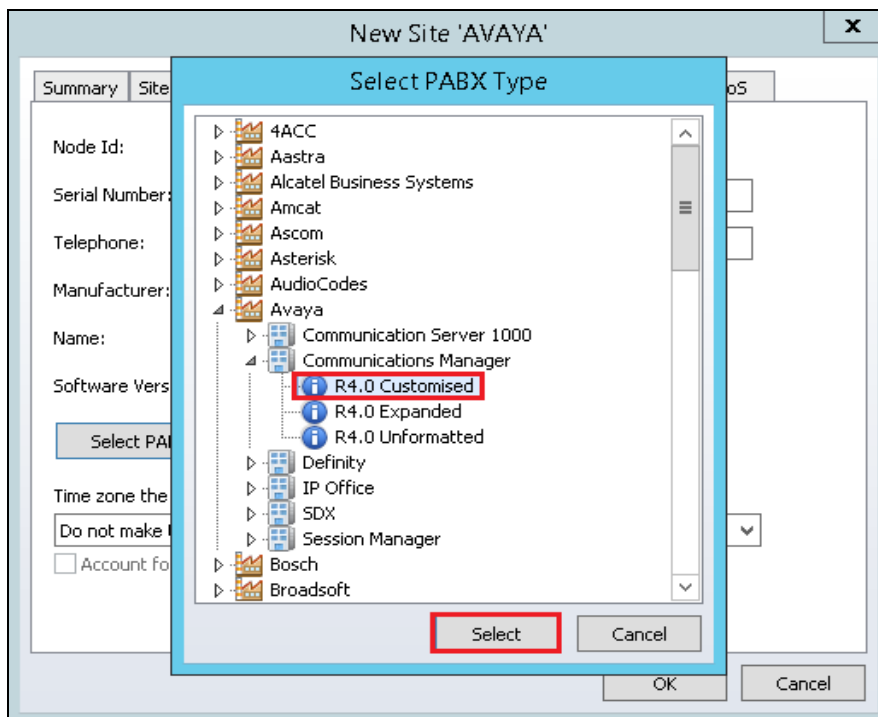
- From the **Rating Scheme** drop down box select an appropriate Rating Scheme. A Rating Scheme allows calls to be costed based on their origin and destination. During compliance testing **World\UK Standard Rates** was selected.
- Click on the **No** Radio button for **Disguise Dialed Digits**.



Click on the **PBX Details** tab followed by the **Select PBX Type** button.



In the resulting menu expand the menu tree to **Avaya** → **Communication Manager** → **R4.0 customised** and click the **Select** button.



Click on the **Conversion** tab and select and select the following:

- Click on the **Yes** radio button for **Log Data** to log information about the conversion.
- Click the **Live** radio button for **Data Conversion** to ensure that any received data is processed in real time.
- Enter **2** in the **Options** field. Eclipse CMS provides a number of options that can alter the behaviour of the system, however during compliance testing the **Options** field was set to **2**. By default Eclipse CMS uses a UK date format. Option **2** allows the use of an American date format as this was used for the CDR Date Format in **Section 5.3**. The remaining fields can be left with their default values.

The screenshot shows a dialog box titled "New Site 'AVAYA'" with a close button (X) in the top right corner. The dialog has several tabs: "Summary", "Site Details", "PABX Details", "Postal Address", "Conversion", "Contact", and "QoS". The "Conversion" tab is selected and highlighted with a red box. Inside the "Conversion" tab, there are four sections of controls:

- Log Data?**: Radio buttons for "Yes" (selected) and "No".
- Data Conversion:**: Radio buttons for "Live" (selected), "Batch", and "None".
- Options:**: A text input field containing the number "2".
- Disguise Extension?**: Radio buttons for "Yes" and "No" (selected).

At the bottom right of the dialog, there are "OK" and "Cancel" buttons.

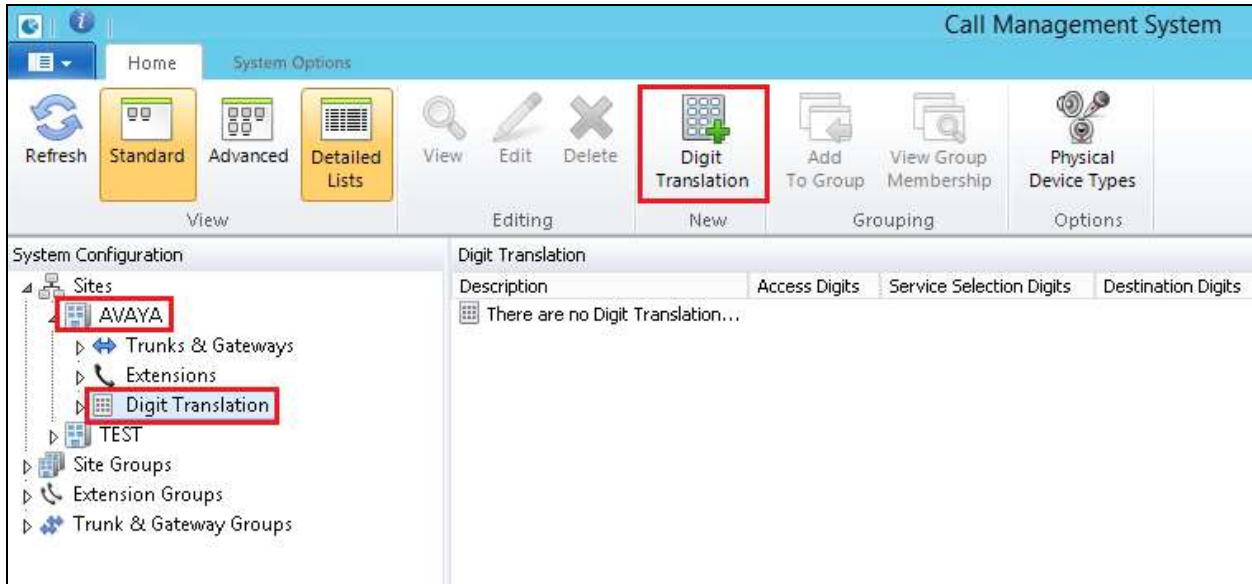
Click on the **QoS** tab and select the Codec from the drop down box that will be used to calculate the MOS score for calls made involving the site being configured. During compliance testing **G.711** was used. Click on the **OK** button to save.

The image shows a software window titled "New Site 'AVAYA'" with a close button (X) in the top right corner. The window contains several tabs: "Summary", "Site Details", "PABX Details", "Postal Address", "Conversion", "Contact", and "QoS". The "QoS" tab is selected and highlighted with a red box. Below the tabs, there are two input fields: "Codec:" with a dropdown menu showing "G.711" (highlighted with a red box) and "Options:" with a text box containing "0". At the bottom right of the window, there are two buttons: "OK" (highlighted with a red box) and "Cancel".



## 6.2. Configure Digit Translation

Digit translations are used to identify routing digits and prevent costing errors. For example a call made to a number with the initial digits 1-9 are costed as local rate calls, however in the compliance test, users dialled 9 for an outside line so a digit translation must be entered to make the Eclipse CMS aware that 9 is a routing digit and should be ignored for costing purposes. From the **System Configuration** window, expand the site created in **Section 6.1 (AVAYA)** and highlight **Digit Translation**. From the top menu click on the “Add Digit Translation” button highlighted.



In the resulting window, enter the following:

- Enter a descriptive name in the **Description** field. (Example **Default 9**).
- Enter the access code (in the case **9**) in the **Access Digits** field.
- Enter a plus (+) in the **Destination Digits** field. A plus symbol indicates an acceptance of any combination and length of digits. All other fields can be left with their default values.

Click the **OK** button to save.

**New Digit Translation**

Site Code: AVAYA

Description: Default 9

Translate:

- Dialled Digits
- Internal Dialled Digits
- CLI

**From:**

Access Digits: 9  Supplied Separately

Service Selection Digits:

Destination Digits: +

**To:**

New Access Digits: 9  As Supplied

New Service Selection Digits:

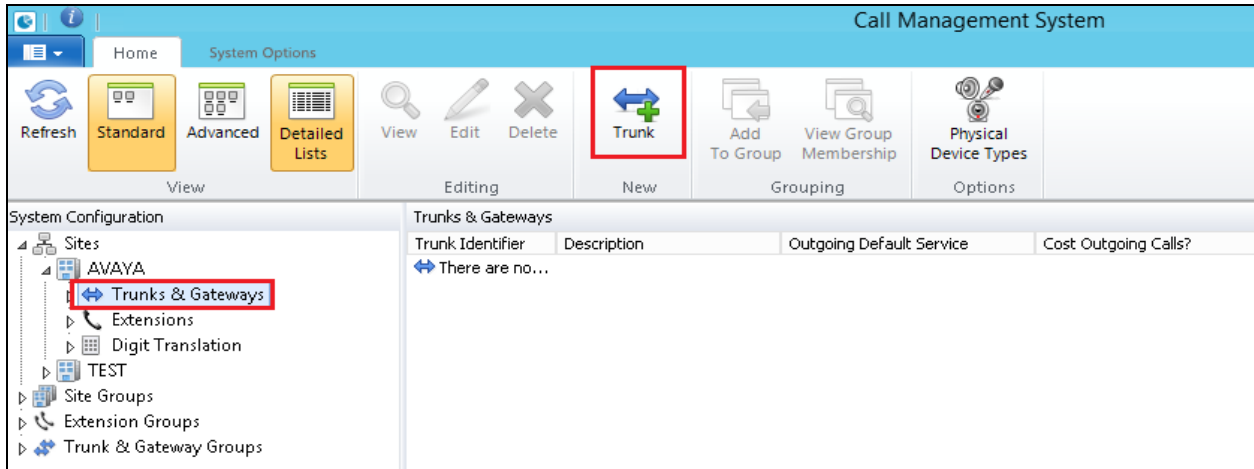
New Destination Digits: +

'+' = 1 or More Digits   '?' = Any Single Digit

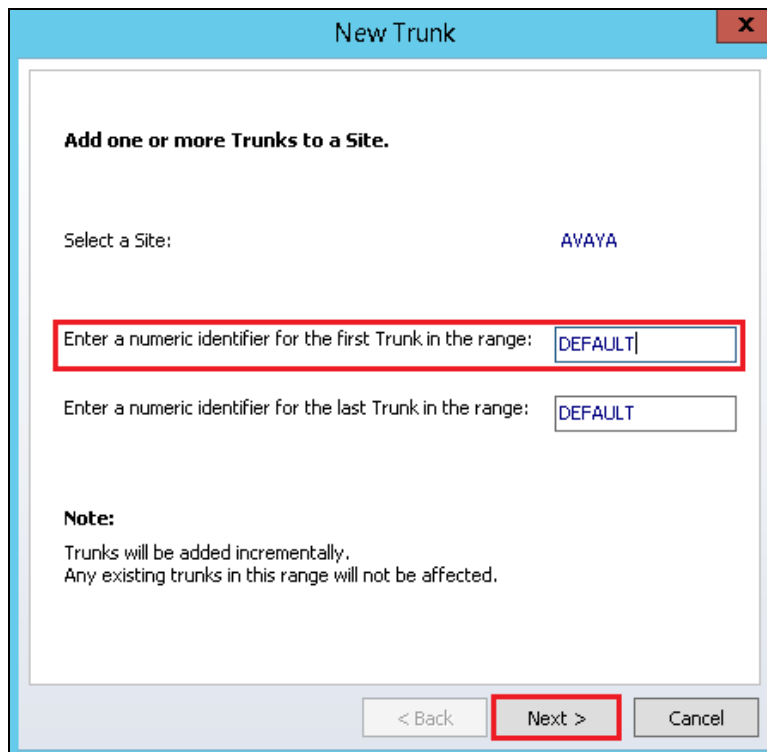
OK Cancel

### 6.3. Configure Default Trunk

Trunks can be individually defined within Eclipse CMS to provide individual costing per trunk. A default trunk is used to provide costing for any calls that are carried by trunks that are not configured. It is recommended that a default trunk is configured for each site to ensure that all trunk calls are accounted for. From the **System Configuration** window, expand the site that was created in **Section 6.1** (AVAYA) and highlight **Trunks**. From the top menu click on the “Add New Trunk” icon highlighted.



In the **Add Trunk** window enter **DEFAULT** as the trunk identifier and click the **Next** button.



Click on the **Outgoing/Tandem Costing** tab and enter the following:

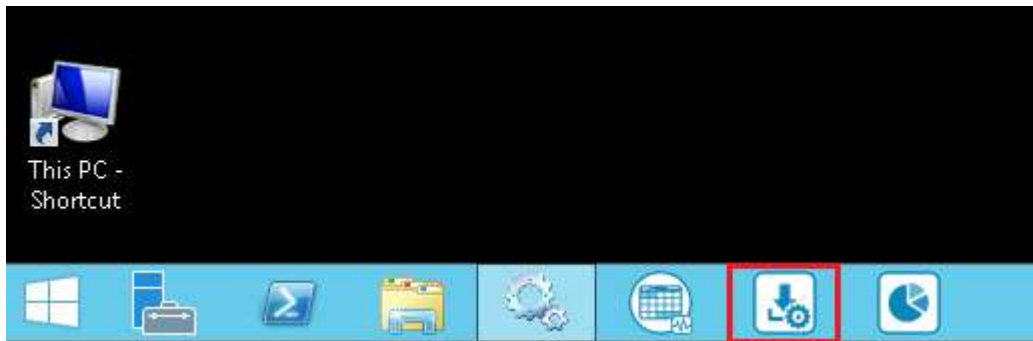
- Select the **Cost calls** radio button **Yes** so that Eclipse CMS will apply costings to the calls associate with the default trunk.
- From the **Default Service** drop down box select a service that will be used to cost the calls. During compliance testing **British Telecom – Business Rate** was selected.
- Check the **Actual Call Duration** check box.
- Check the **Answer Indication** check box.

All other fields can be left with their default values. Click **Finish** to complete the default trunk configuration.

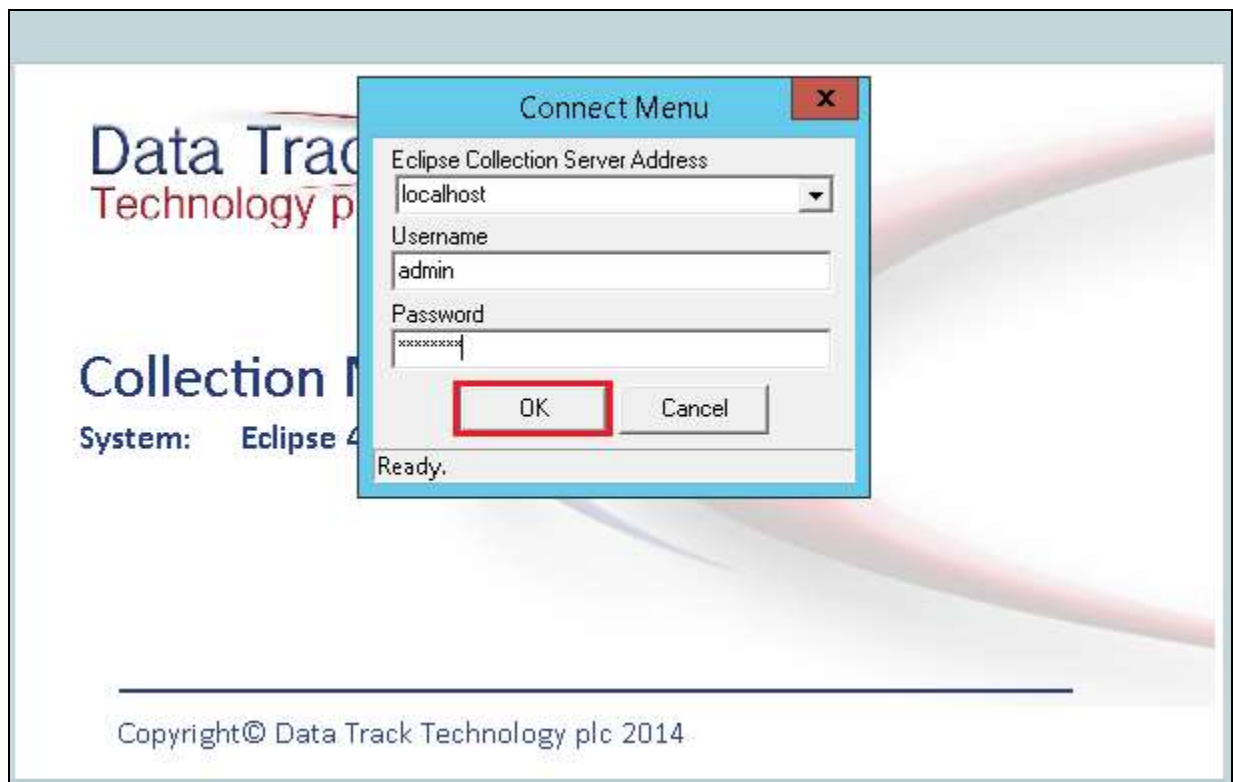
The screenshot shows the 'New Trunk' configuration window with the 'Outgoing/Tandem Costing' tab selected. The 'Cost Calls?' section has the 'Yes' radio button selected. The 'Default Service' dropdown menu is set to 'British Telecom - Business Rate'. In the 'Available Costing Methods' section, the 'Actual Call Duration' and 'Answer Indication' checkboxes are checked. The 'Finish' button at the bottom is highlighted with a red box.

## 6.4. Configure CDR Data Collection

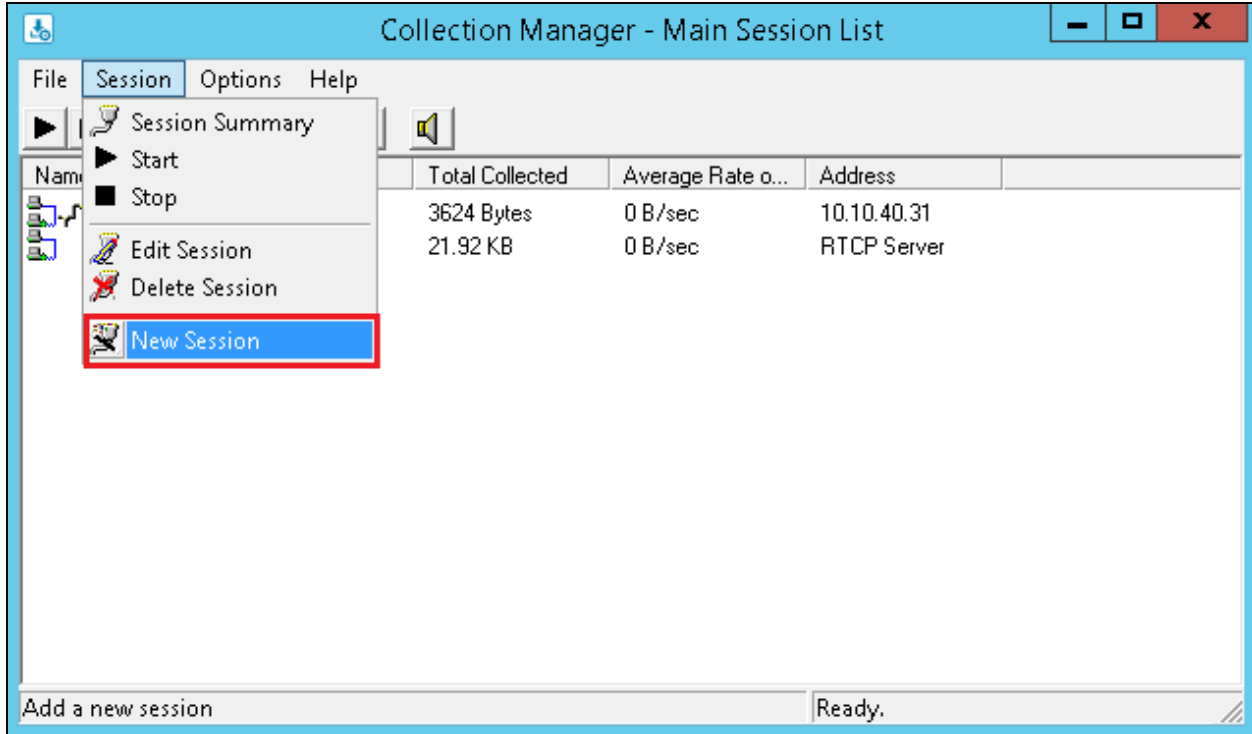
This section describes the steps required to configure a collection session on the Eclipse CMS. This session will be used to collect Call Detail Record data from Communication Manager, and will specify a location for the raw data to be stored. To add a new CDR collection session, navigate to **Start → All Programs → Eclipse III CMS → Eclipse Collection Manager (not shown)** or click on the shortcut shown on the screen below.



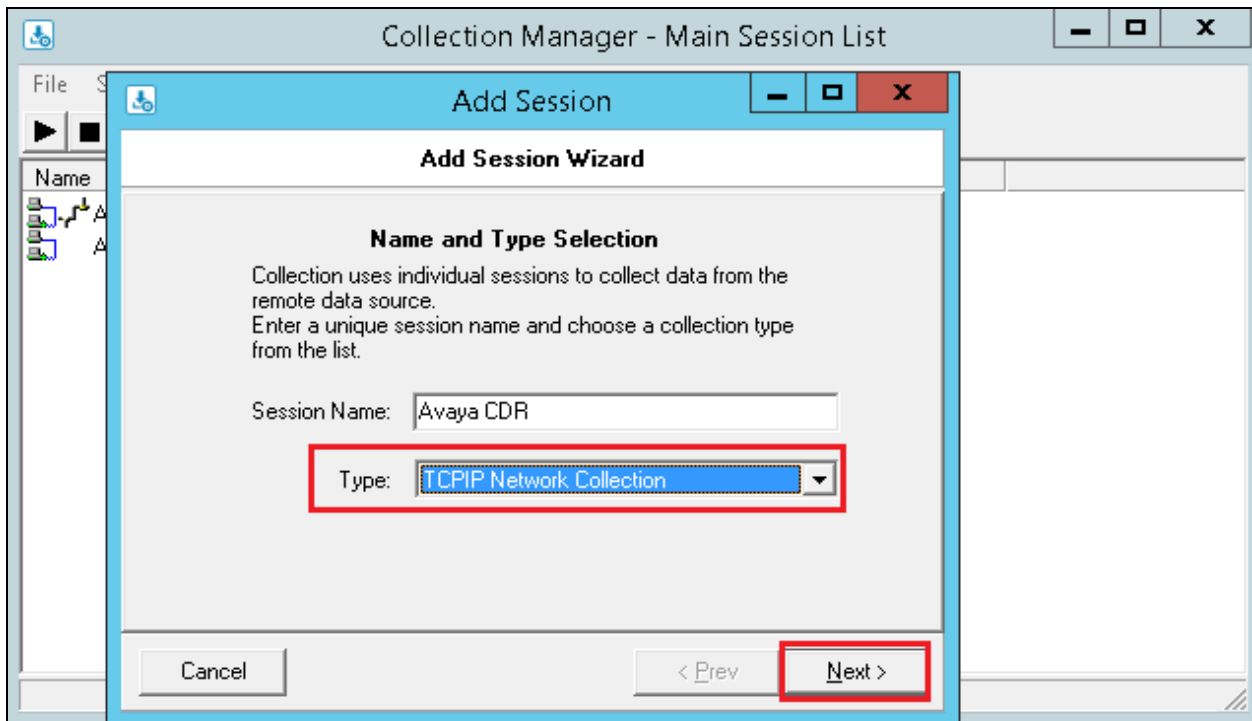
Log in with appropriate credentials and click on **OK**.



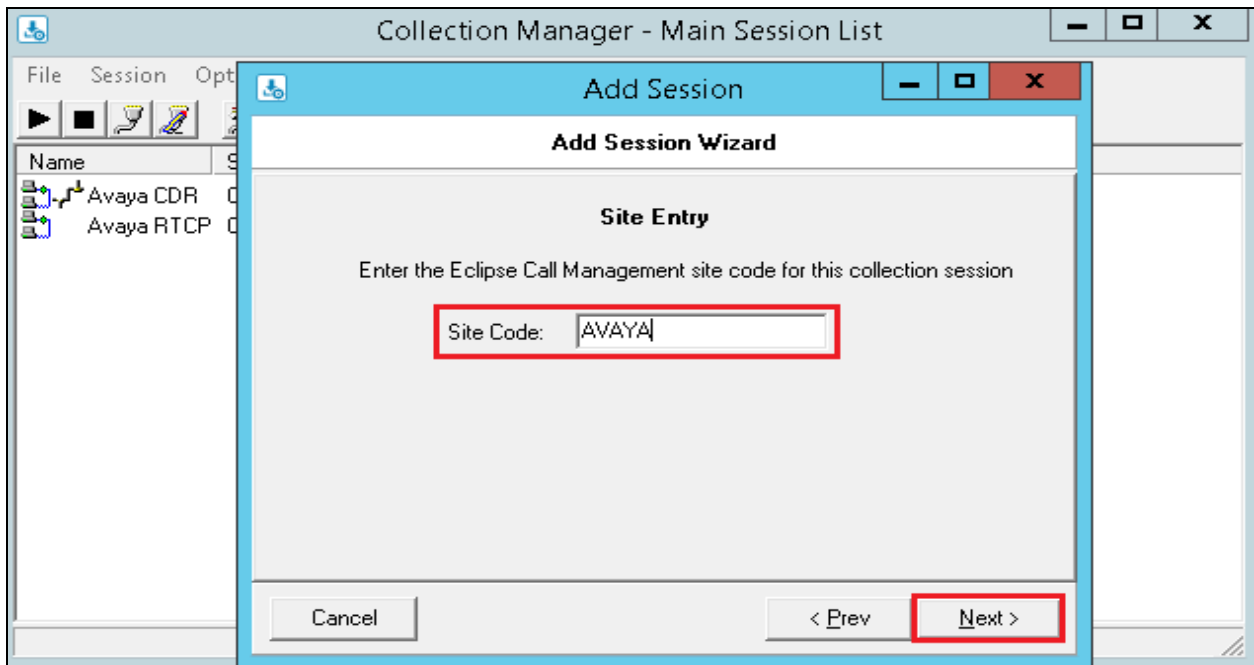
Once the **Collection Manager** window opens select **Session** followed by **New Session**.



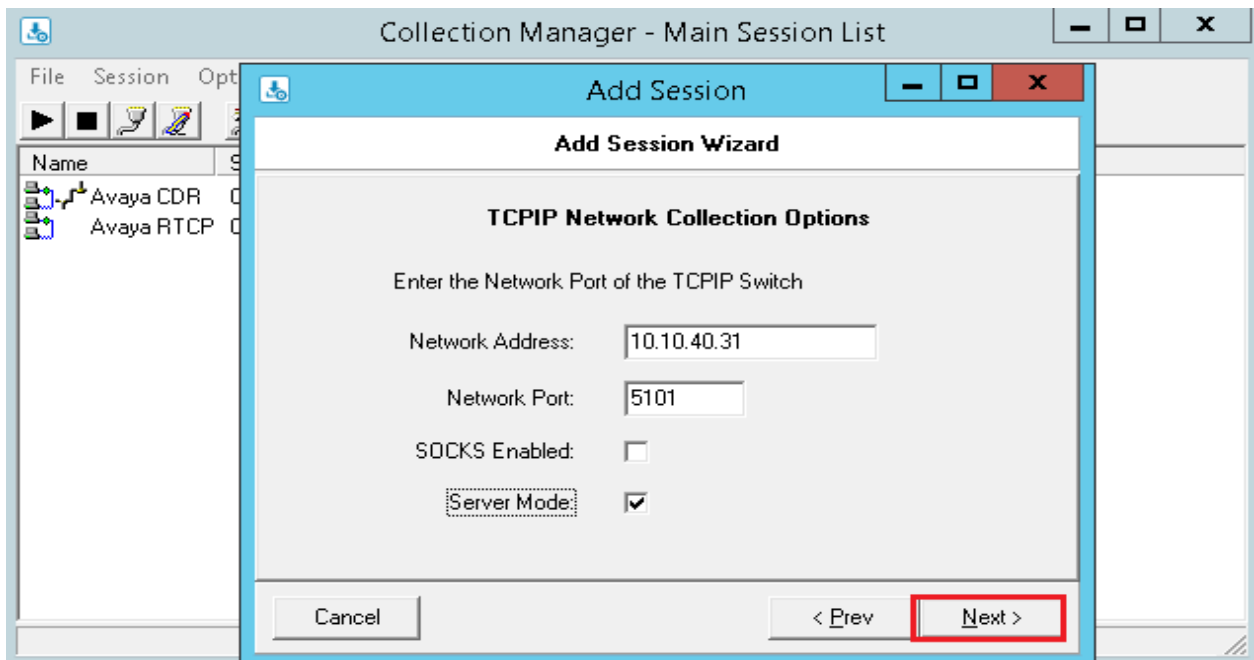
In the **Name and Type Selection** window enter any name in the **Session Name** field and select **TCP/IP Network Collection** form the **Type** drop down box. Click **Next** to continue.



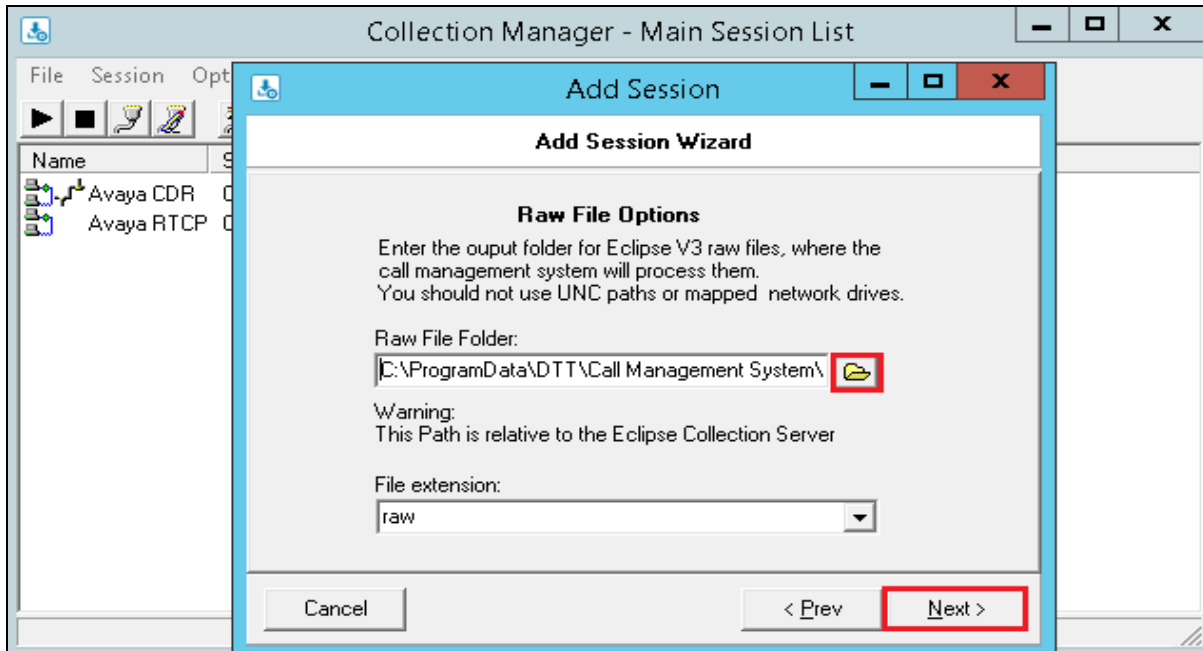
In the **Site Entry** window, enter the **Site Code** as configured in **Section 6.1**. Click **Next** to continue. The **Site Code** is not case sensitive. The case used in **Section 6.1** may differ from what is used here as long the characters match. Click **Next** to continue.



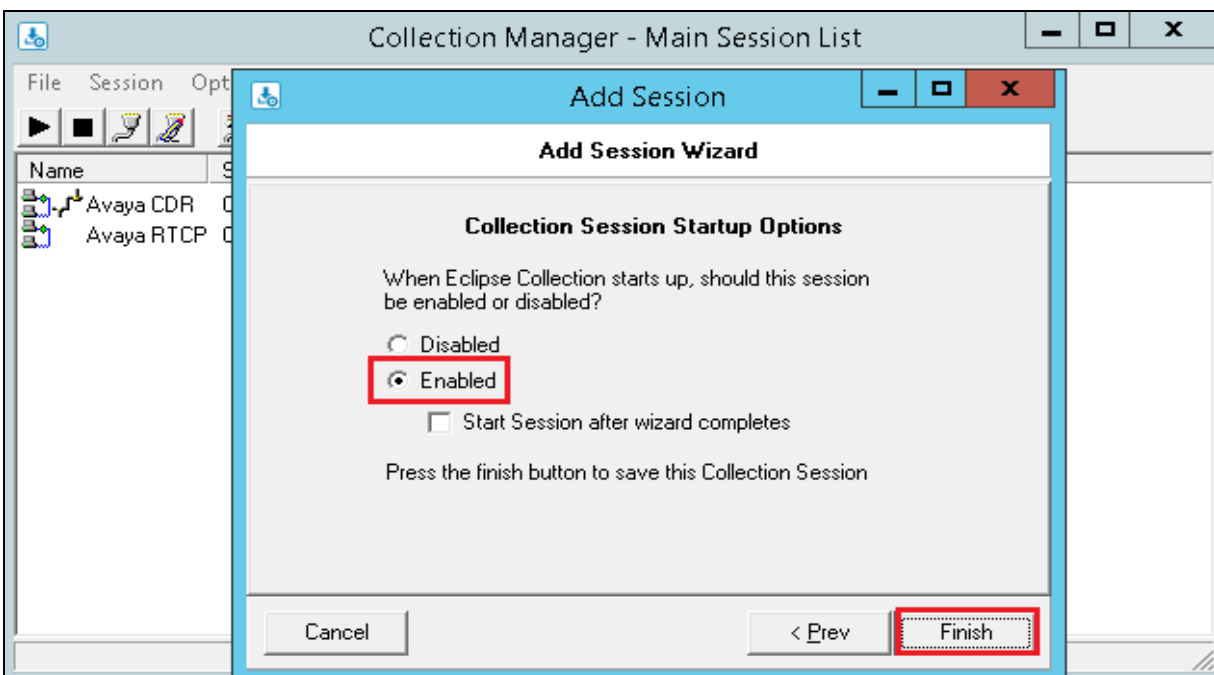
In the **TCPIP Network Collection Options** window, enter IP address of the PROCR (IP address of the Communication Manager) that will provide the CDR connection in the **Network Address** field. In the **Network Port** field enter the remote port as used in **Section 5.2**. Select the **Server Mode** check box and click **Next** to continue.



In the **Raw File Options** screen specify a path where the raw CDR files will be stored and processed by the Eclipse CMS. The path that should be used is dependent on the installation, if in doubt which path to use, please contact Data Track using the details in **Section 2.3**. Click **Next** to continue.



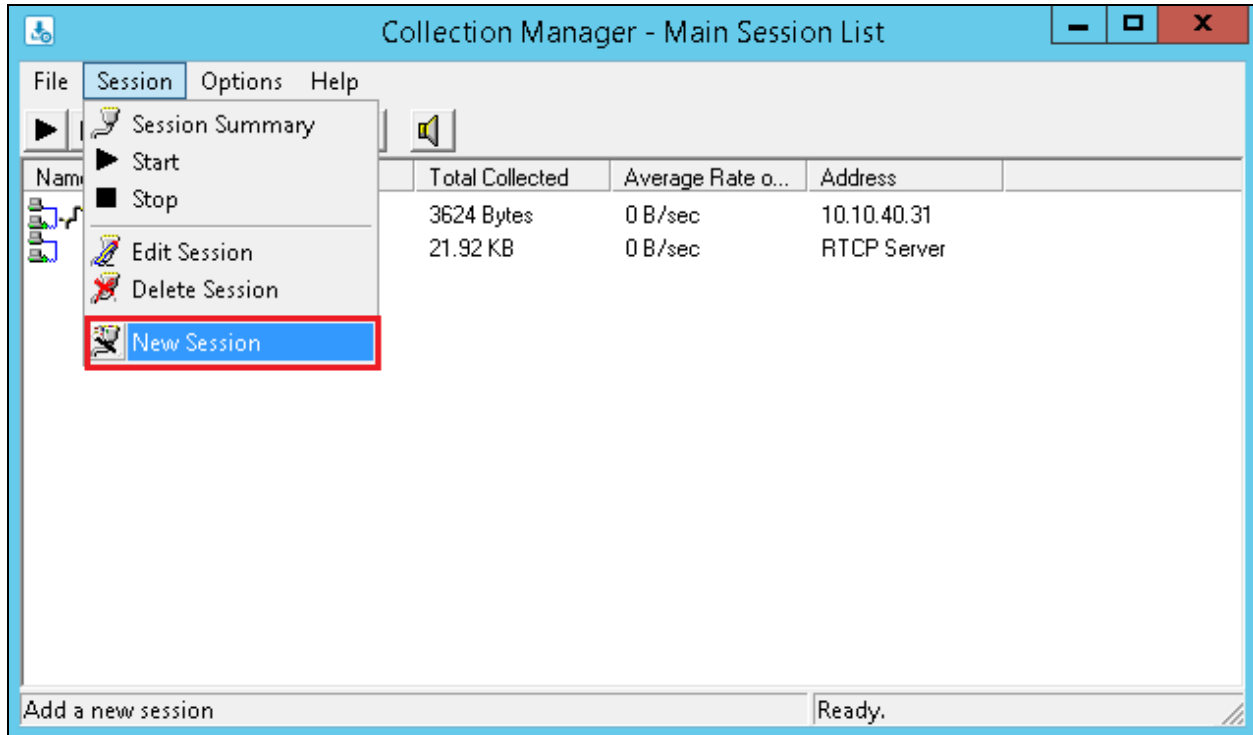
In the **Collection Session Startup Options** window select the **Enabled** radio button so that the collection session automatically starts when Eclipse CMS starts. Click **Finish** to complete the configuration of the CDR collection session.



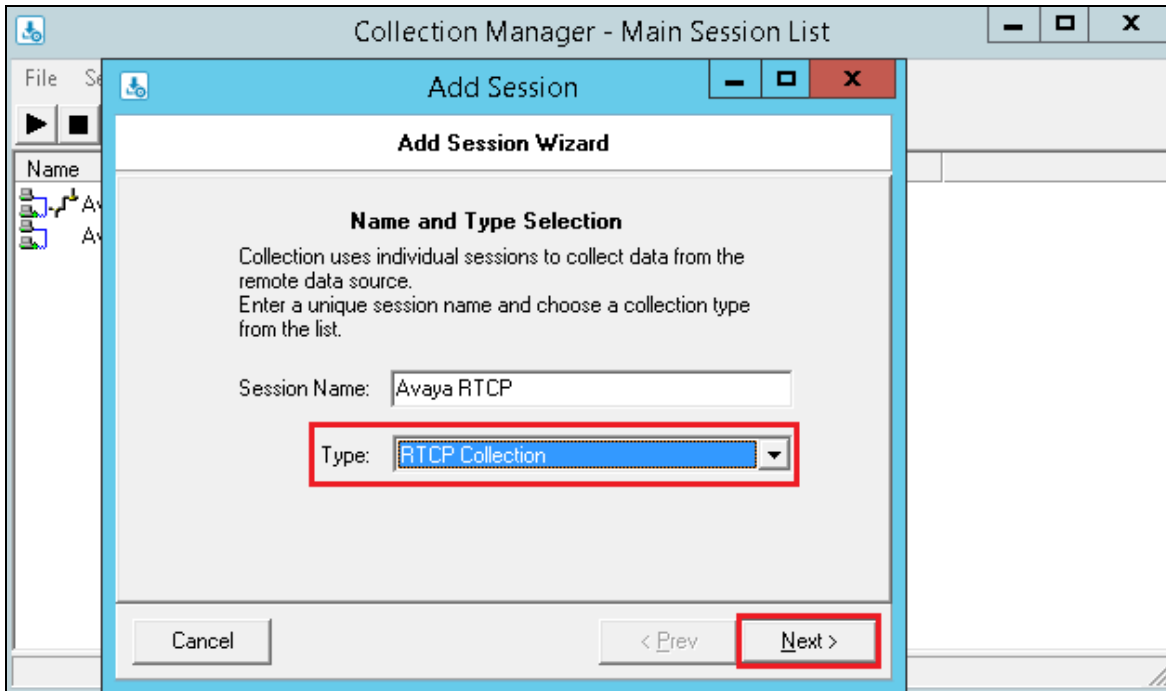


## 6.5. Configure RTCP Data Collection

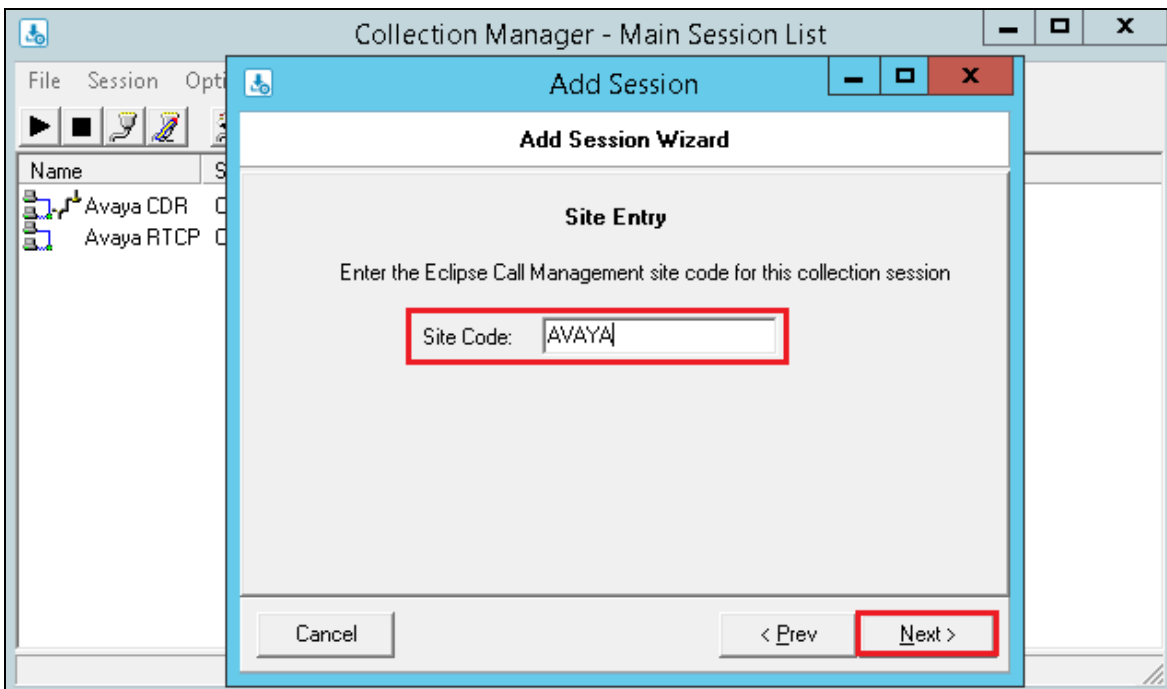
This section describes the steps required to configure a second collection session on the Eclipse CMS. This session will be used to collect RTCP data from Communication Manager, and will specify a location for the raw data to be stored. To add a new CDR collection session **Start → All Programs → Eclipse III CMS → Eclipse Collection Manager (not shown)** and log in with appropriate credentials. Once the **Collection Manager** window opens select **Session** followed by **New Session**.



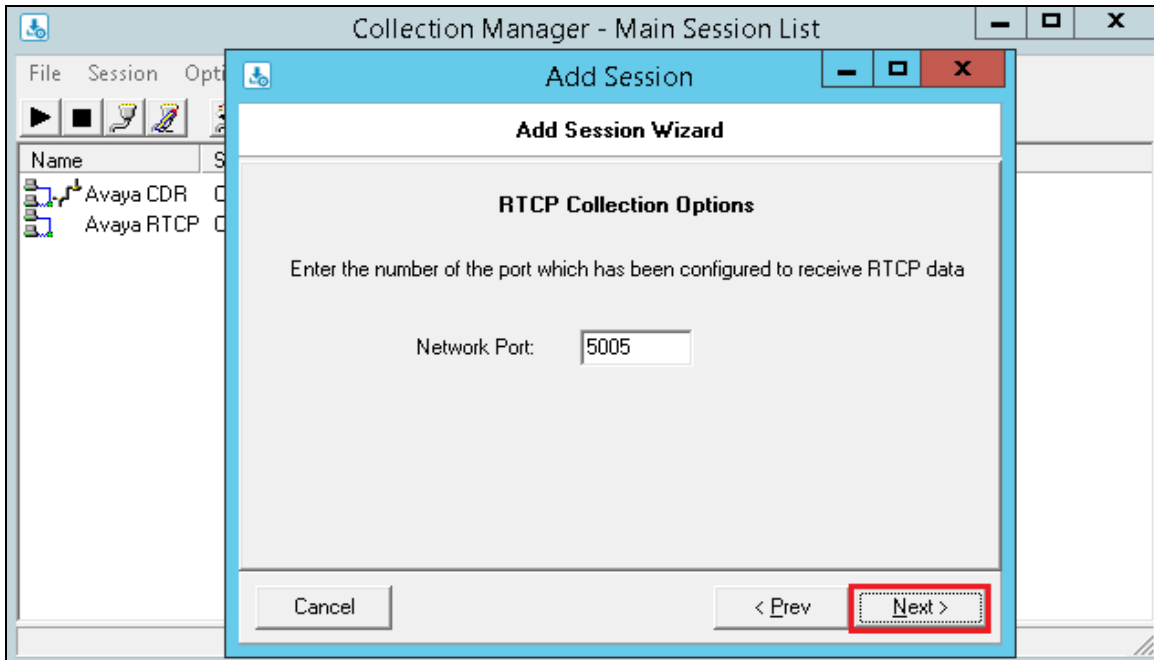
In the **Name and Type Selection** window enter any name in the **Session Name** field and select **RTCP Collection** from the **Type** drop down box. Click **Next** to continue.



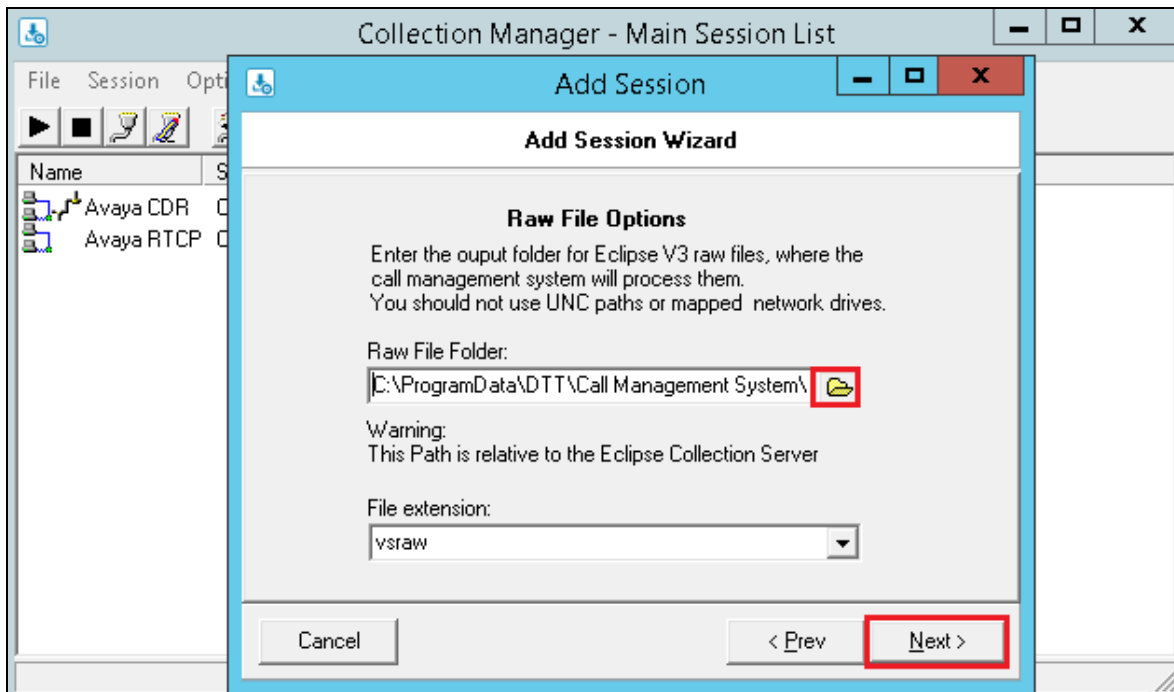
In the **Site Entry** window confirm the correct **Site Code**, the site code will be defined by Data Track as part of the system installation. Please use the details in **Section 3.2** to contact Data Track for further information. Click **Next** to continue.



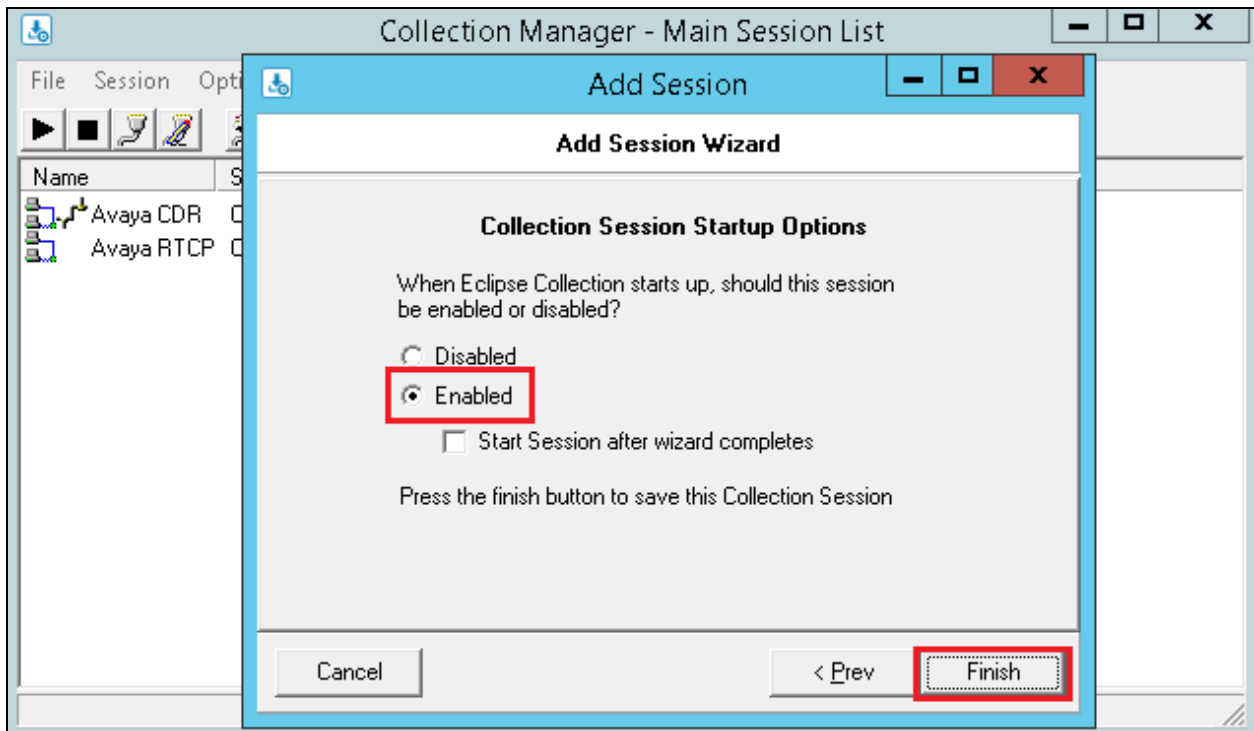
In the **RTCP Collection Options** window, enter the default server port as used in **Section 5.6** in the **Network Port** field and click **Next** to continue.



In the **Raw File Options** screen specify a path where the raw RTCP files will be stored and processed by the Eclipse CMS. The path that should be used is dependent on the installation, if in doubt which path to use, please contact Data Track using the details in **Section 2.3**. Click **Next** to continue.



In the **Collection Session Startup Options** window select the **Enabled** radio button so that the collection session automatically starts when Eclipse CMS starts. Click **Finish** to complete the configuration of the RTCP collection session.



## 7. Verification Steps

This section provides tests that can be performed to verify correct configuration of the Avaya and Data Track Eclipse CMS solution.

### 7.1. Verify the Avaya Aura® Communication Manager CDR Link

Use the **status cdr-link** command to verify that the link between the Communication Manager and the Eclipse CMS is in service. **Link State: up** and **Reason Code: OK** confirms successful connection.

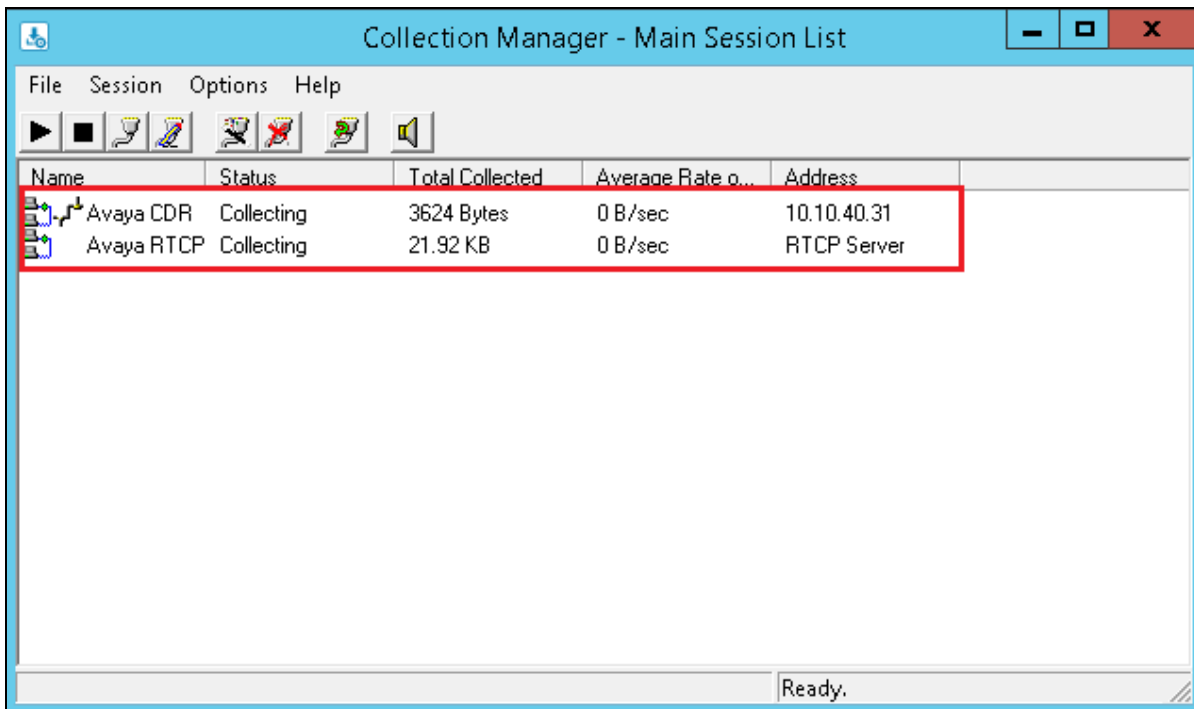
```
status cdr-link

                                CDR LINK STATUS

Primary                               Secondary
Link State: up                       CDR administered
Number of Retries: 999
Date & Time: 2015/03/05 18:01:12     0000/00/00 00:00:00
Forward Seq. No: 0                    0
Backward Seq. No: 0                   0
CDR Buffer % Full: 0.03                0.00
Reason Code: OK
```

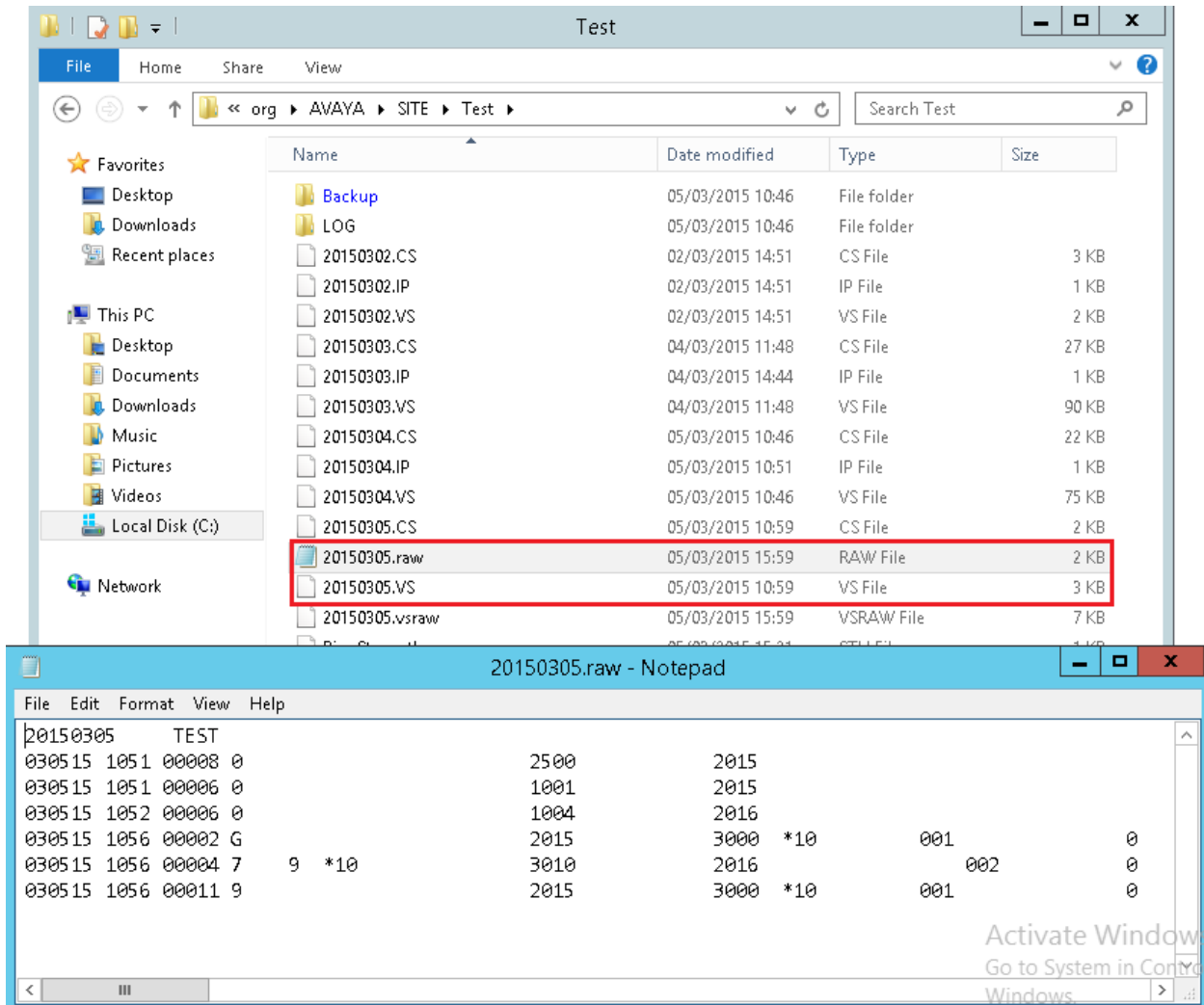
### 7.2. Verify Collection processes are running

To check if Eclipse Collection is running on the Eclipse CMS navigate to **Start → All Programs → Eclipse III CMS → Eclipse Collection Manager** or click on the shortcut shown at the beginning of **Section 6.4**. Check that the **Status** of both collections that were setup in **Sections 6.4** and **6.5** are showing up as **Collecting** as is shown below.



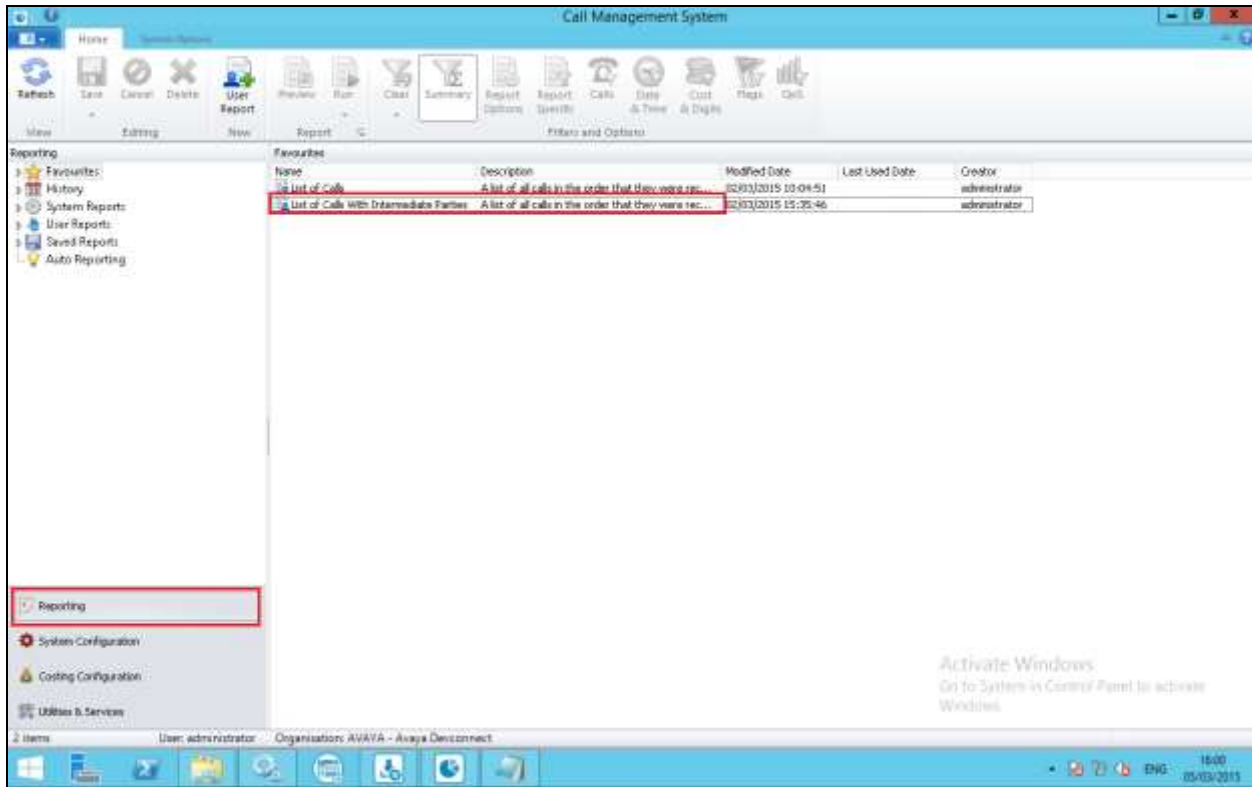
### 7.3. Verify Data is being received

To check CDR and RTCP data is being received browse to the installation directory specified for the **Raw File Options** screens in **Section 6.4** and **Section 6.5**. Locate the RAW and VSRAW files and confirm that they are increasing in size when calls are made. The RAW file relates to the CDR data being received and the VSRAW file relates to the RTCP data being received. Double click on the \*.raw file to show the CDR data being received as is shown in the example below taken during compliance testing.

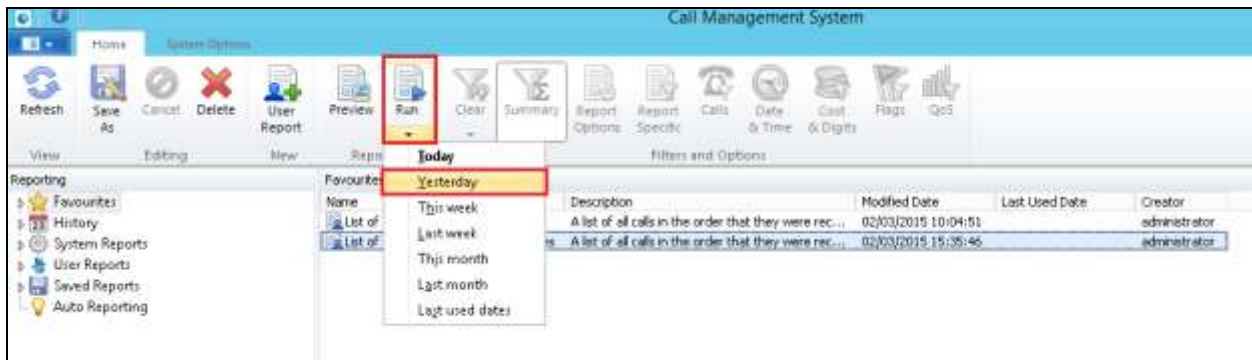


## 7.4. Verify a CDR Report is being displayed correctly

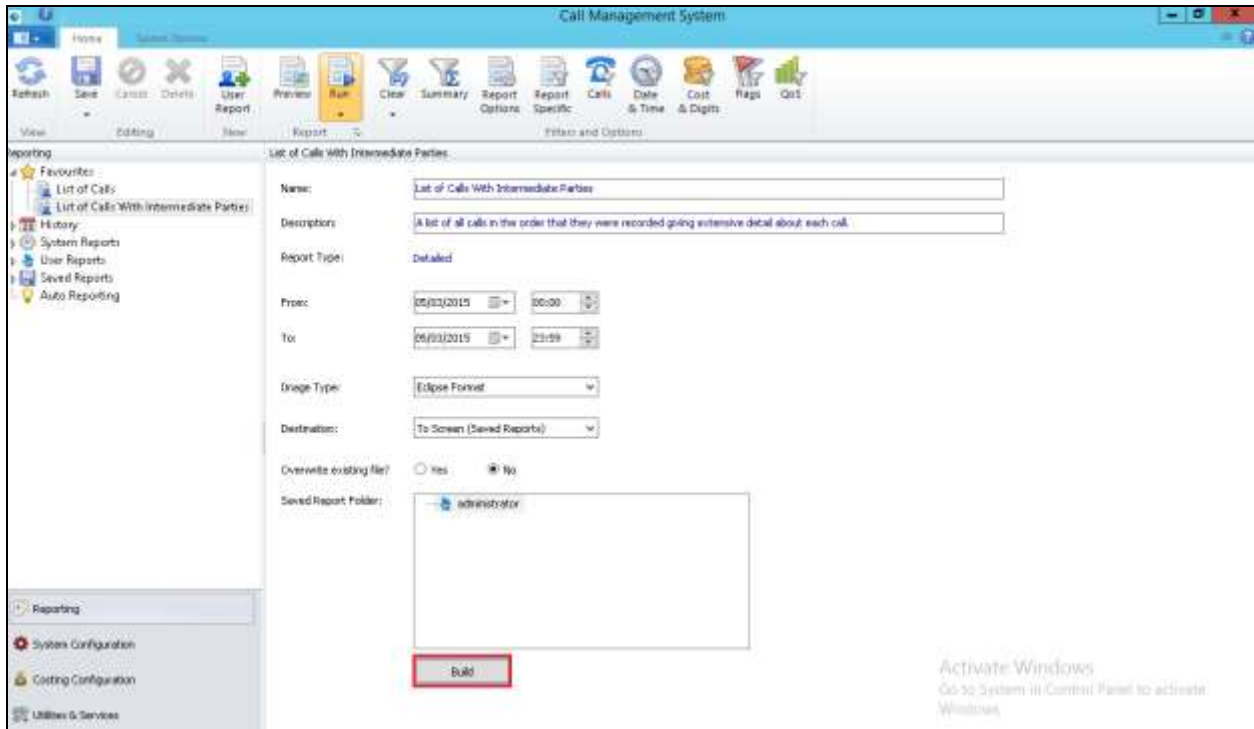
Open the Call Management System as per **Section 6.1**. Once opened click on Reporting at the bottom left of the screen and select a suitable report to run. The two reports shown in the example below were created by Data Track for the purpose of compliance testing.



Highlight the desired report and select the drop down menu under the **Run** icon as shown below. Select the desired day to run the report for.



From the resulting screen, shown below, click on **Build** at the bottom of the screen to launch the report.



A report such as the following is displayed showing the calls that were made for that day.

The screenshot shows the report output in a window titled 'List of Calls With Intermediate Parties\_104 for AVAYA - Call Management System Report Viewer'. The report period is 05/03/2015 00:00:00 to 05/03/2015 23:59:59. The report is titled 'Data Track List of Calls With Intermediate Parties'. The table below shows the call records.

Site	Date	Time	From	To	Duration	Ring	Access	Digits	Place Name
TEST	05/03/2015	10:45:51	E 2015	E 2016	00:00:10	00:00			
TEST	05/03/2015	10:50:53	E 2015	E 2500	00:00:08	00:00			
TEST	05/03/2015	10:50:55	E 2015	E 1001	00:00:06	00:00			
TEST	05/03/2015	10:51:55	E 2015	E 1004	00:00:06	00:00			
TEST	05/03/2015	10:55:57	E 2015	T *10002	00:00:04	00:00	9	3010	Local
TEST	05/03/2015	10:55:48	T *10001	E 2015	00:00:11	00:02	CLI	3000	Local
Total			6 calls		00:00:45				



## 8. Conclusion

These Application Notes describe the compliance tested configuration used to validate Data Track Eclipse Call Management System with Avaya Aura® Communication Manager R6.3. A full and comprehensive set of feature and functional test cases were performed during Compliance testing. Data Track Eclipse Call Management System is considered compliant with Avaya Aura® Communication Manager. Most of the test cases have passed with all issues and observations outlined in **Section 2.2**.

## 9. Additional References

These documents form part of the Avaya official technical reference documentation suite. Further information may be had from <http://support.avaya.com> or from your Avaya representative.

- [1] *Avaya Aura® Communication Manager Feature Description and Implementation, Release 6.3.*
- [2] *Administering Avaya Aura® Communication Manager, Release 6.3.*

Data Track documentation can be found on the Eclipse Call Management system installation disk or requested from Data Track by using the contact details listed in **Section 2.3**.

---

**©2015 Avaya Inc. All Rights Reserved.**

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

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 DevConnect Program at [devconnect@avaya.com](mailto:devconnect@avaya.com).