



**Avaya Solution and Interoperability Test Lab**

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## **Application Notes for interoperability between Data Track Eclipse Call Management System Version 1.32.2.3 and Avaya Communication Server 1000 Release 7.5 – Issue 1.0**

### **Abstract**

These Application Notes describe a solution comprised of Avaya Communication Server 1000 Release 7.5 and Eclipse Call Management System Version 1.32.2.3. During the compliance testing, the Eclipse Call Management System was able to utilize the Avaya Data Buffering and Access tool kit version 1.05 to collect the call records from the Avaya Communication Server 1000 and then extract these call records from the raw database and generate customer call accounting 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.

## 1. Introduction

Eclipse Call Management System allows user to log, analyze and report on all incoming, outgoing and internal telecommunication traffic on a telephone network in an organisation. It can interface with most telephone systems, in particular, with the Avaya Communication Server 1000, to collect and interpret the detailed records of inbound, outbound, tandem, and internal telephone calls. It then calculates the appropriate charge for local, long distance, international & special calls and allocates them to responsible parties.

The solution comprised of the Eclipse Call Management System (hereafter referred to as Eclipse CMS), which is running on Window server 2003 Operating System 32 bit with Service Pack 2. Co-resident with the Eclipse CMS application is the Avaya Data Buffering and Access (DBA) toolkit version 1.05, which is connected to the Communication Server 1000 (hereafter referred to as CS 1000). This DBA tool kit extracts the raw data from the DBA buffer of the CS 1000 and populates it into a database file image ready for processing.

## 2. General Test Approach and Test Results

The general test approach was to verify the Avaya DBA tool kit on the Eclipse CMS server which communicates directly to the CS 1000 via network connectivity. Execute the DBA tool kit application to collect the raw CDR (Call Detail Recording) from the DBA buffer of the CS 1000. Run the Eclipse CMS application to pull the raw call records from the database file and then generate the accounting reports using Eclipse CMS Reporting.

### 2.1. Interoperability Compliance Testing

The focus of this compliance testing was to verify that the Eclipse CMS system can interface with an Avaya Communication Server 1000 telephone switching system and process their call records.

This interface will use the CS 1000 Data Buffering and Access (DBA) Toolkit pre-installed in the Eclipse CMS server to receive the Call Detail Recording (CDR) from the CS 1000 over the IP network. The Eclipse CMS application will then use the Eclipse Collection Manager to pull out the raw call records from the DBA Toolkit.

The following areas were covered in this compliant testing:

- CDR collection via Data Buffering and Access.
- Power loss and disconnect from network.
- Add CS 1000 site via Eclipse Collection Manager.
- Process and report on Incoming, Outgoing, Internal, Conference, Transfer and Tandem calls.

The objectives outlined in the **Section 2.1** were verified and met. All test cases were executed and were passed.

Technical support for the Eclipse CMS application can be obtained by contacting the Data Track Technologies Inc via email at [support@dtrack.com](mailto:support@dtrack.com) or by calling +44 (0) 1425 282020.

### 3. Reference Configuration

The diagram illustrates a network architecture for SIP phones and a CMS server. Key components and connections include:

- SIP Phone 1140** (DN 54002) connected to the **SIP Line Server**.
- IP 2004P1** (DN 54000) and **IP 2050** (DN 54001) connected to the **CS 1000E Rel 7.5** server.
- IP 2004P1** (DN 613.965.5505) connected to the **CS 1000E Emulated PSTN** server.
- Workstation PC Report User** connected to the **12/13 Switch**.
- Eclipse CMS Server** (ECLIPSE CMS with DBA Toolkit installed) connected to the **12/13 Switch** via **SFTP protocol**.
- Signaling Server** (CS 1000E) connected to the **12/13 Switch** and **IP 2004P1** (DN 75008).
- Signaling/TPS** components connected to both **CS 1000E** servers.
- Tandem call** path indicated by a dashed blue arrow from the **CS 1000E Rel 7.5** server to the **Signaling Server**.
- PRI Trunk E.164** connection indicated by a solid red arrow from the **CS 1000E Rel 7.5** server to the **CS 1000E Emulated PSTN** server.

KP; Reviewed:  
SPOC 11/3/2011



## 4. Equipment and Software Validated

The following equipment and software were used during the lab testing:

Equipment	Software Version
Avaya CS1000E	Call Server (CPPM): 7.50Q Signaling Server (CPPM): 7.50.17
Avaya IP Soft Phone 2050	3.04.0003
Avaya IP Phone 1140	0625C6O
Avaya IP Phone 2004P2	0692D93
Avaya IP Phone 2002P2	0604DC5
Avaya DBA Toolkit	1.0.5
Data Track Eclipse CMS	1.32.2.3
Data Track Eclipse CMS OS	Windows 2003 32bit Standard SP2
Workstation OS	Windows Vista 32bit SP1

Note that the current version of the DBA Toolkit requires a 32-bit Operating System. For a list of supported Operating Systems see [1].

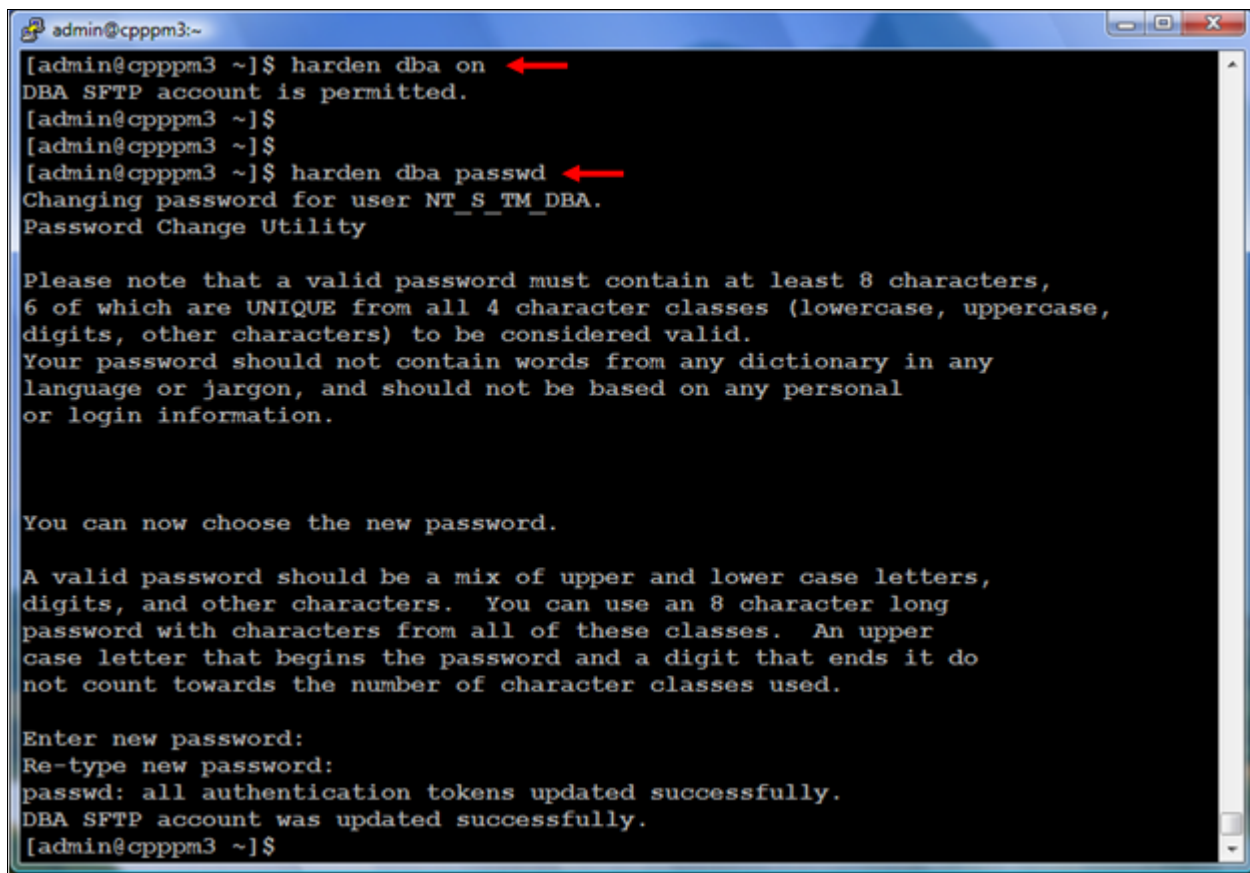
## 5. Configure Avaya Communication Server 1000

This section provides steps on how to configure the CDR feature on CS 1000. This document assumes that the Avaya CS 1000 was properly installed and configured as per the product document. For more information about how to install, configure and administer CS 1000 please refer to **Section 10[1]**.

To enable and set the password for the DBA FTP user on the CS 1000 Co-res system, log in to the command line interface (CLI) of Linux base of the Call Server as an administrator and issue the two commands below:

- **harden dba on** → to enable DBA SFTP account
- **harden dba passwd** → to set password for NT\_S\_TM\_DBA user.

**Figure 2** below shows the example of how these commands were executed in the CS 1000 Co-res system.

A terminal window titled 'admin@cphpm3:~' with standard window controls. The terminal shows a sequence of commands and their outputs. Two red arrows point to the commands 'harden dba on' and 'harden dba passwd'. The output includes a confirmation message, a password change utility prompt, a detailed password policy notice, and a successful update message for the DBA SFTP account.

```
admin@cphpm3:~$ harden dba on
DBA SFTP account is permitted.
admin@cphpm3:~$
admin@cphpm3:~$
admin@cphpm3:~$ harden dba passwd
Changing password for user NT_S_TM_DBA.
Password Change Utility

Please note that a valid password must contain at least 8 characters,
6 of which are UNIQUE from all 4 character classes (lowercase, uppercase,
digits, other characters) to be considered valid.
Your password should not contain words from any dictionary in any
language or jargon, and should not be based on any personal
or login information.

You can now choose the new password.

A valid password should be a mix of upper and lower case letters,
digits, and other characters. You can use an 8 character long
password with characters from all of these classes. An upper
case letter that begins the password and a digit that ends it do
not count towards the number of character classes used.

Enter new password:
Re-type new password:
passwd: all authentication tokens updated successfully.
DBA SFTP account was updated successfully.
admin@cphpm3:~$
```

**Figure 2: Enable and set password for DBA FTP account**

In order for the Call Server Co-res system to allow the DBA tool kit application to connect to its CDR database, the IP address of the server where DBA Toolkit was installed needs to be added in the **Route** table of the **Base Manager** of the Call server. To do that, launch the **Unified Communication Management (UCM)** webpage where the Call Server Co-res system was registered to, and from the UCM webpage click on Call Server element link to launch the **Base Manager** Webpage of the Call Server as shown in **Figures 3 and 4**.

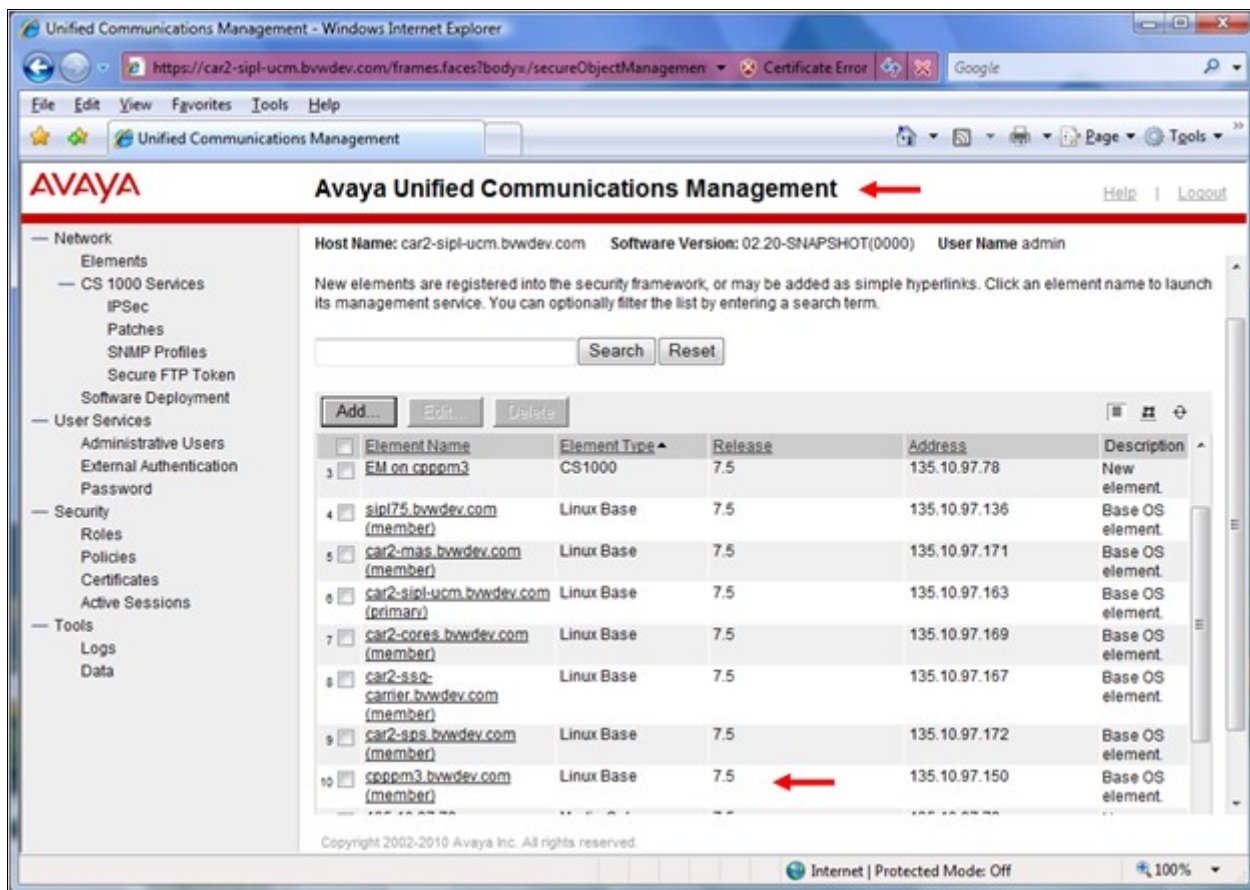


Figure 3: UCM homepage of CS 1000 system





To add a route in Call Server for the CS 1000 Co-res system, on the left menu of the **Base Manager** webpage, navigate to **Base System > Networking > Route Table**, the **Route Table** appears on the right side of the **Base Manager** webpage (not shown), and click on the **Add** button and enter the IP address of the server where the DBA Toolkit was installed as shown in **Figure 5**.

Click on the **Save** button to effect this change.

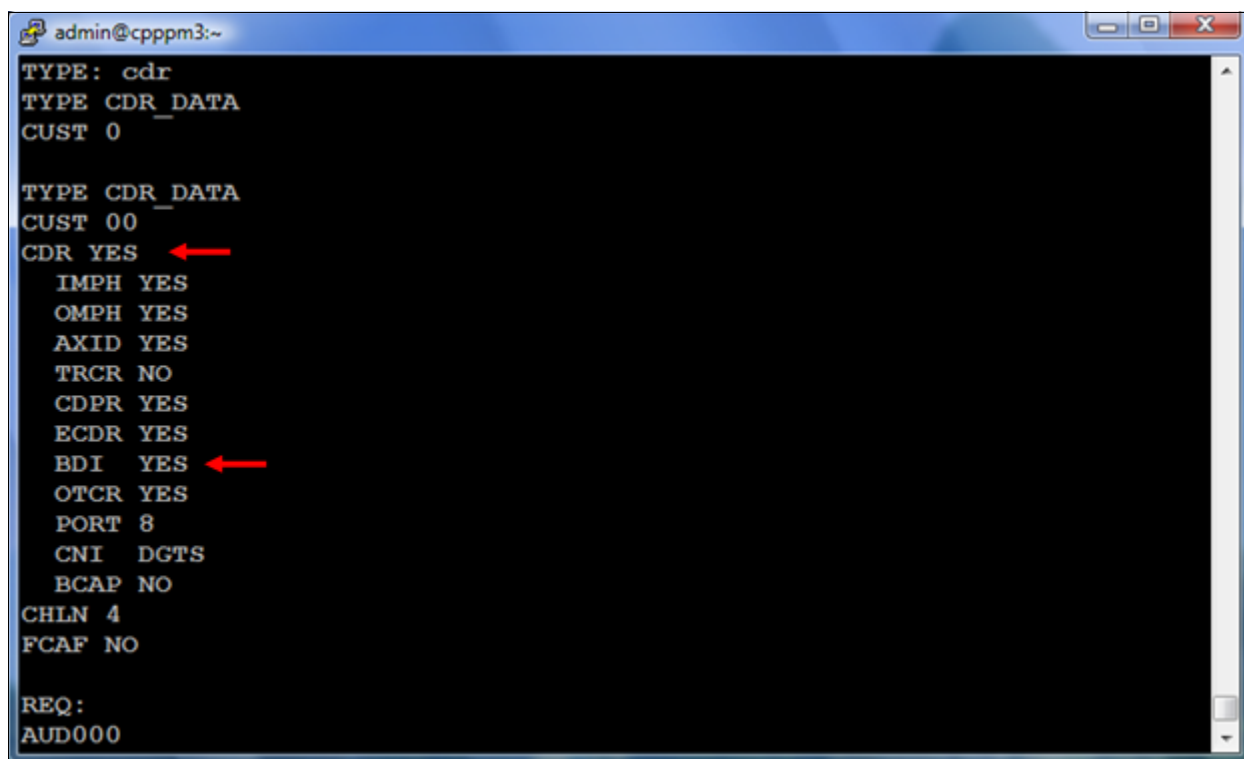
The screenshot shows the Avaya Base Manager web interface. The left sidebar contains a navigation menu with the following items: «UCM Network Services, BaseSystem, Networking (expanded), Network Identity, DNS and Hosts, Route Table (highlighted), Explicit Congestion Notification, Date and Time, SSH Keys, Software, Applications, Patches, Tools, Logs, Application, and OAM. The main content area is titled 'Base Manager' and shows the breadcrumb path 'Base System » Networking » Route Table » New Route'. The 'New Route' form contains the following fields: 'Destination IP address: 192.168.1.101' (marked with an asterisk), '(Host/Network)', 'Gateway IP address: 192.168.1.65' (marked with an asterisk), 'Host Route: ☒', 'Destination netmask: 255.255.255.255' (marked with an asterisk), 'Interface: ELAN' (dropdown menu), and 'Tag: Manual'. At the bottom of the form, there is a note '\*Required value.' and two buttons: 'Save' and 'Cancel'. The footer of the page reads 'Copyright © 2009,2010 Avaya Inc. All rights reserved.'

**Figure 5: Sample of adding route in Call Sever for CS1000 Cores system**

To enable the CDR feature, log in to the CLI of the Call Server as an administrator and issue overlay command (LD) 15 as shown below.

```
LD 15
REQ CHG
TYPE CDR_DATA
CDR YES
BDI YES
```

Figure 6 shows sample of output CDR data set on CS 1000.

A screenshot of a terminal window titled 'admin@cphpm3:~'. The terminal displays the following text: 'TYPE: cdr', 'TYPE CDR\_DATA', 'CUST 0', 'TYPE CDR\_DATA', 'CUST 00', 'CDR YES' (with a red arrow pointing to it), 'IMPH YES', 'OMPH YES', 'AXID YES', 'TRCR NO', 'CDPR YES', 'ECDR YES', 'BDI YES' (with a red arrow pointing to it), 'OTCR YES', 'PORT 8', 'CNI DGTS', 'BCAP NO', 'CHLN 4', 'FCAF NO', 'REQ:', and 'AUD000'. The terminal has a blue title bar and standard window controls (minimize, maximize, close) in the top right corner.

```
admin@cphpm3:~
TYPE: cdr
TYPE CDR_DATA
CUST 0

TYPE CDR_DATA
CUST 00
CDR YES
    IMPH YES
    OMPH YES
    AXID YES
    TRCR NO
    CDPR YES
    ECDR YES
    BDI YES
    OTCR YES
    PORT 8
    CNI DGTS
    BCAP NO
CHLN 4
FCAF NO

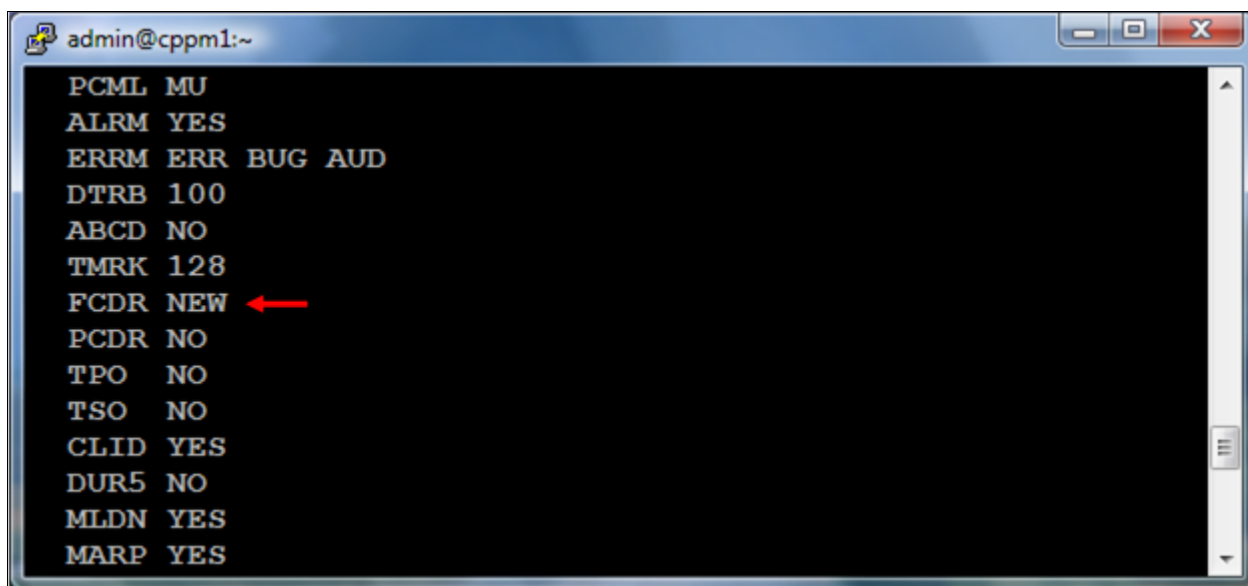
REQ:
AUD000
```

Figure 6: Sample of output of CDR data on CS1000

Configuring CS 1000 to generate the CDR with new format, log in to the CLI of the Call Server and issue overlay command (LD) 17 as below.

**LD 17**  
**REQ CHG**  
**TYPE PARM**  
**FCDR NEW**

**Figure 7** shows the sample of output of CS 1000 system parameters.



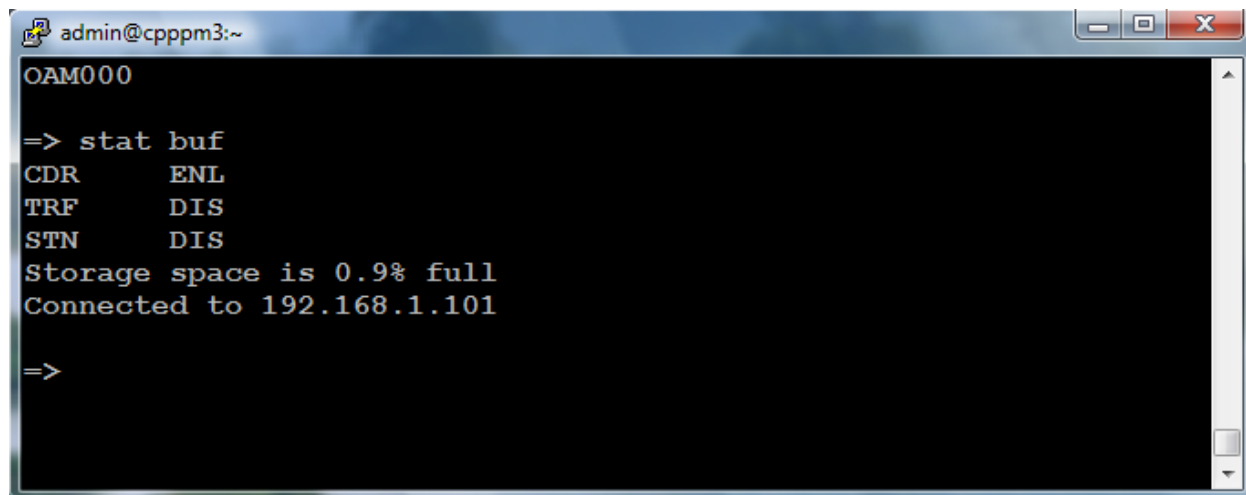
```
admin@c ppm1:~  
PCML MU  
ALRM YES  
ERRM ERR BUG AUD  
DTRB 100  
ABCD NO  
TMRK 128  
FCDR NEW  
PCDR NO  
TPO NO  
TSO NO  
CLID YES  
DUR5 NO  
MLDN YES  
MARP YES
```

**Figure 7: Sample of output of CS100 system parameters**

To enable buffering for CDR data on the CS 1000, log in to the CLI of the Call Server and issue the overlay command (LD) 117 as shown in **Figure 8**.

**LD 117**

**=> ENL BUF CDR**

A screenshot of a terminal window titled 'admin@c ppm3:~'. The terminal shows the command 'OAM000' followed by '=> stat buf'. The output displays 'CDR ENL', 'TRF DIS', 'STN DIS', 'Storage space is 0.9% full', and 'Connected to 192.168.1.101'. The prompt '=>' is visible at the bottom.

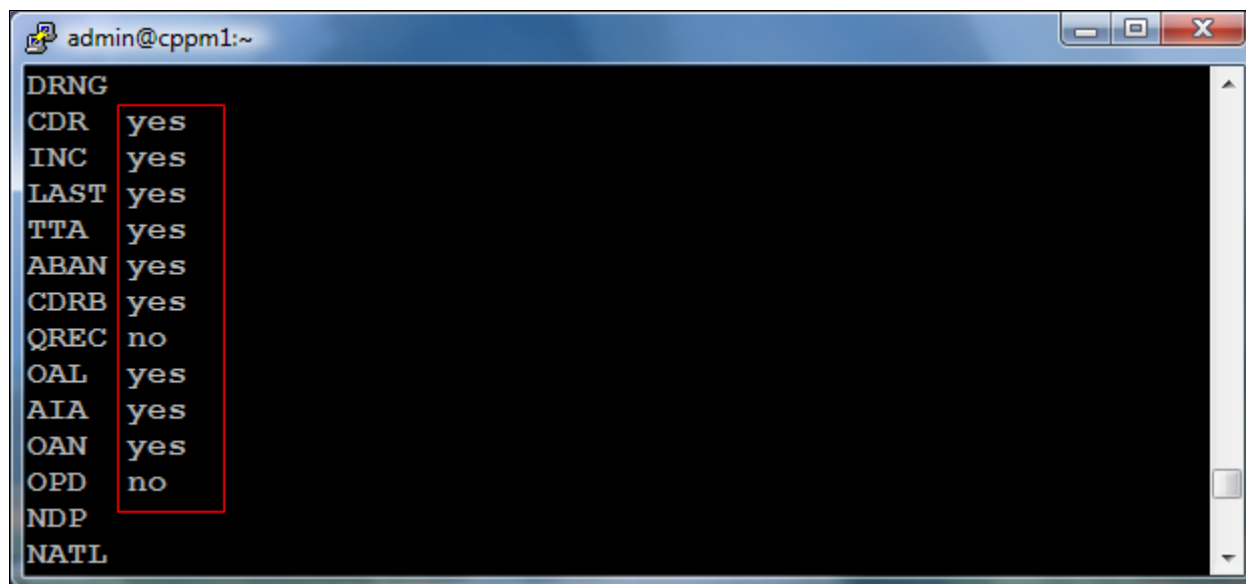
```
admin@c ppm3:~
OAM000

=> stat buf
CDR      ENL
TRF      DIS
STN      DIS
Storage space is 0.9% full
Connected to 192.168.1.101

=>
```

**Figure 8: Sample of enabling buffer for CDR on CS 1000**

To configure CDR in the Route Data Block (RDB), log in to the CLI of the Call Server and issue overlay command (LD) 16 and enter values in the fields that are highlighted in the red box as shown in **Figure 9**.

A screenshot of a terminal window titled 'admin@c ppm1:~'. The terminal shows the command 'DRNG' followed by a list of configuration options. The values 'yes' for CDR, INC, LAST, TTA, ABAN, CDRB, OAL, AIA, and OAN are highlighted with a red box. The values 'no' for QREC, OPD, and NATL are not highlighted.

```
admin@c ppm1:~
DRNG
CDR  yes
INC  yes
LAST yes
TTA  yes
ABAN yes
CDRB yes
QREC no
OAL  yes
AIA  yes
OAN  yes
OPD  no
NDP
NATL
```

**Figure 9: Sample of configuring CDR in the RDB**

To enable IP Phone for the CDR feature, log in to the CLI of the CS 1000, issue overlay command **(LD) 11** and enable the class of services for the CDR feature as shown below:

**LD 11**  
**REQ CHG**  
**TYPE <IP Phone Type>**  
**ECHG YES**  
**ITEM CLS ABDA CMDA ICDA**

ABDA → Abandoned call record and Time to Answer Allowed

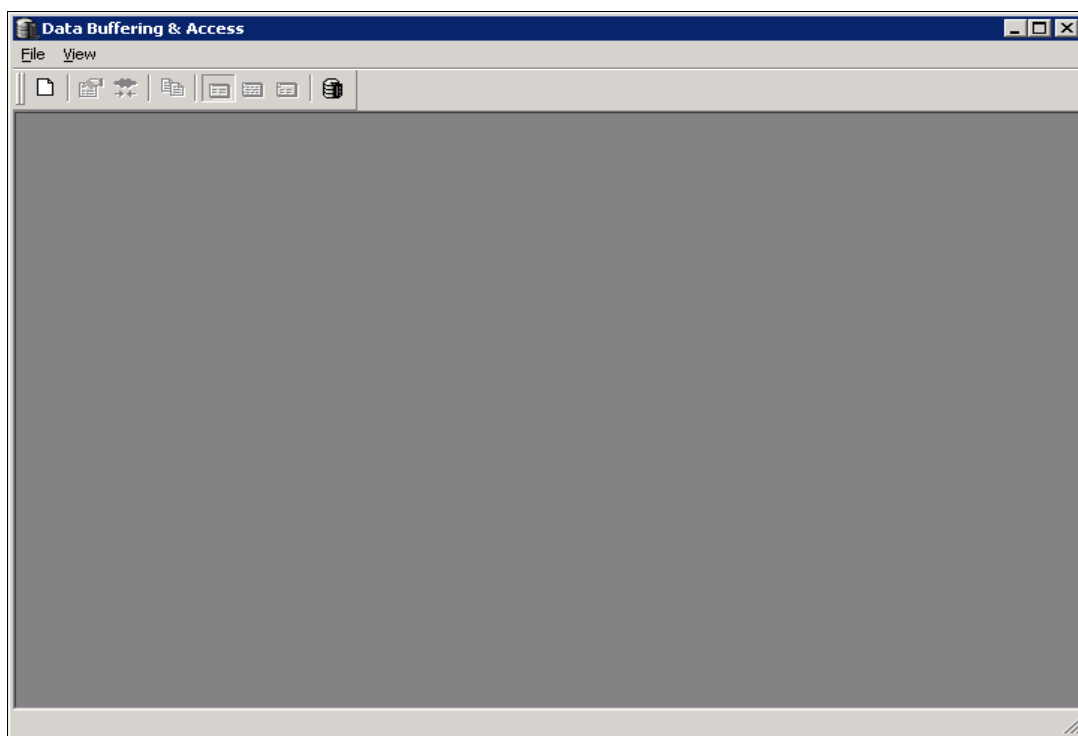
CDMA → Call Detail Monitoring Allowed (Station activity Call Detail Recording)

ICDA → Internal Call Detail Recording Allowed

## 6. Configure Avaya DBA Toolkit

These Application Notes assumes that the DBA Toolkit application was properly installed. This section provides steps on how to configure the DBA Toolkit application which connects to the CS 1000 system.

To open the DBA application, on the server where the DBA Toolkit application was installed, navigate to the folder **C:\Programs File\Avaya Inc\DBA** and double click on the **dba.exe** to launch the DBA application, the *Data Buffering & Access* window appears as shown in **Figure 10**.



**Figure 10: Main window of DBA application**

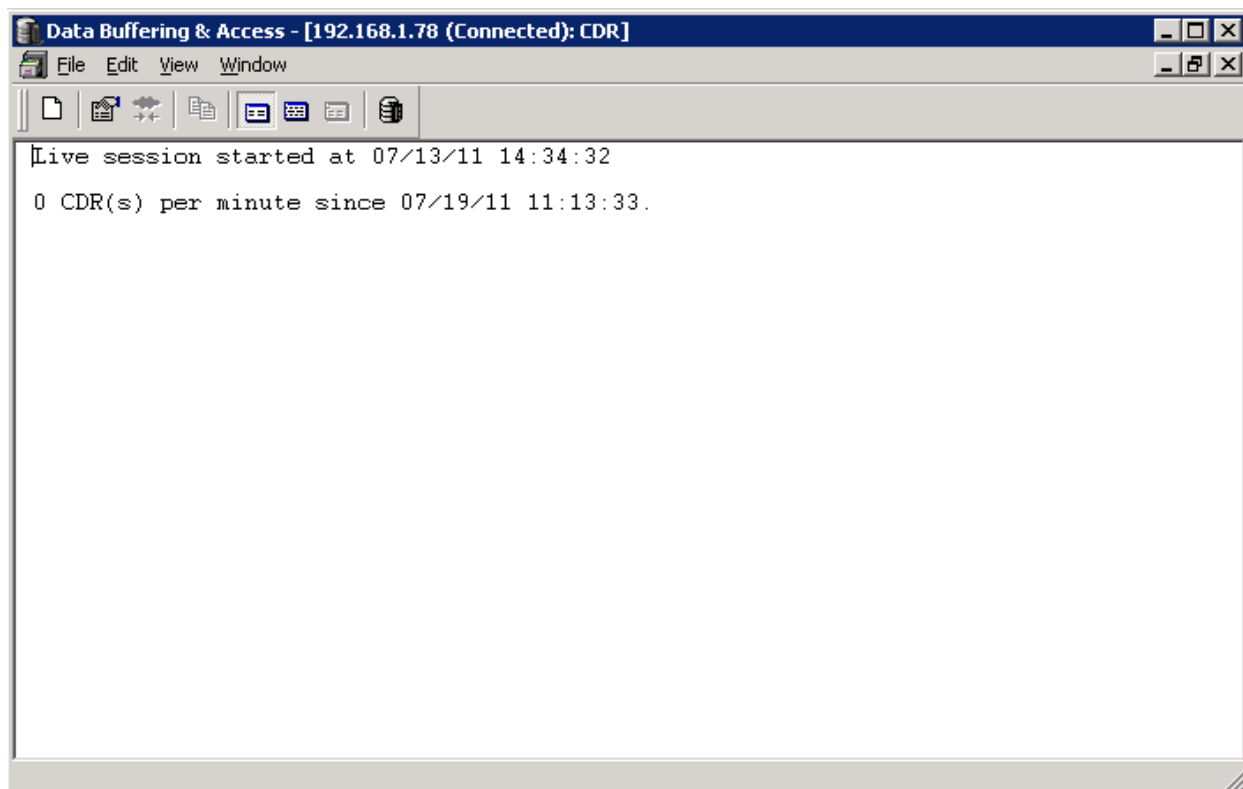
To create new session on the DBA Toolkit application, from the *Data Buffering and Access* window, navigate to the menu **File > New Session**, the *New Session* window appears as shown in **Figure 11**. Enter the IP address of the Call Server system that the DBA application is going to connect to, the Call Sever 1000 **User ID** and **Password** and the **FTP Username** *NT\_S\_TM\_DBA* and **FTP Password** that was created in **Section 5** above.

Click on the **Connect Now** button to connect to the CS 1000 system.

The screenshot shows the 'New Session' dialog box. At the top, there's a title bar 'New Session' with a close button. Below it, on the left, is a 'Select Session:' label followed by a dropdown menu showing '<select saved session>'. To the right of the dropdown are 'Remove' and 'Connect Now' buttons. Below these is a 'Network' section. It contains several input fields: 'IP Address' with the value '192.168.1.78', 'User ID' with 'admin', 'Password' with masked characters, 'FTP Username' with 'NT\_S\_TM\_DBA', and 'FTP Password' with masked characters. To the right of these fields are three checkboxes: 'Collect' (with 'CDR' checked and 'Traffic' unchecked), 'Default Credentials' (unchecked), and 'SFTP' (checked). At the bottom right of the dialog is a 'Cancel' button.

**Figure 11: Configure DBA connecting to CS 1000**

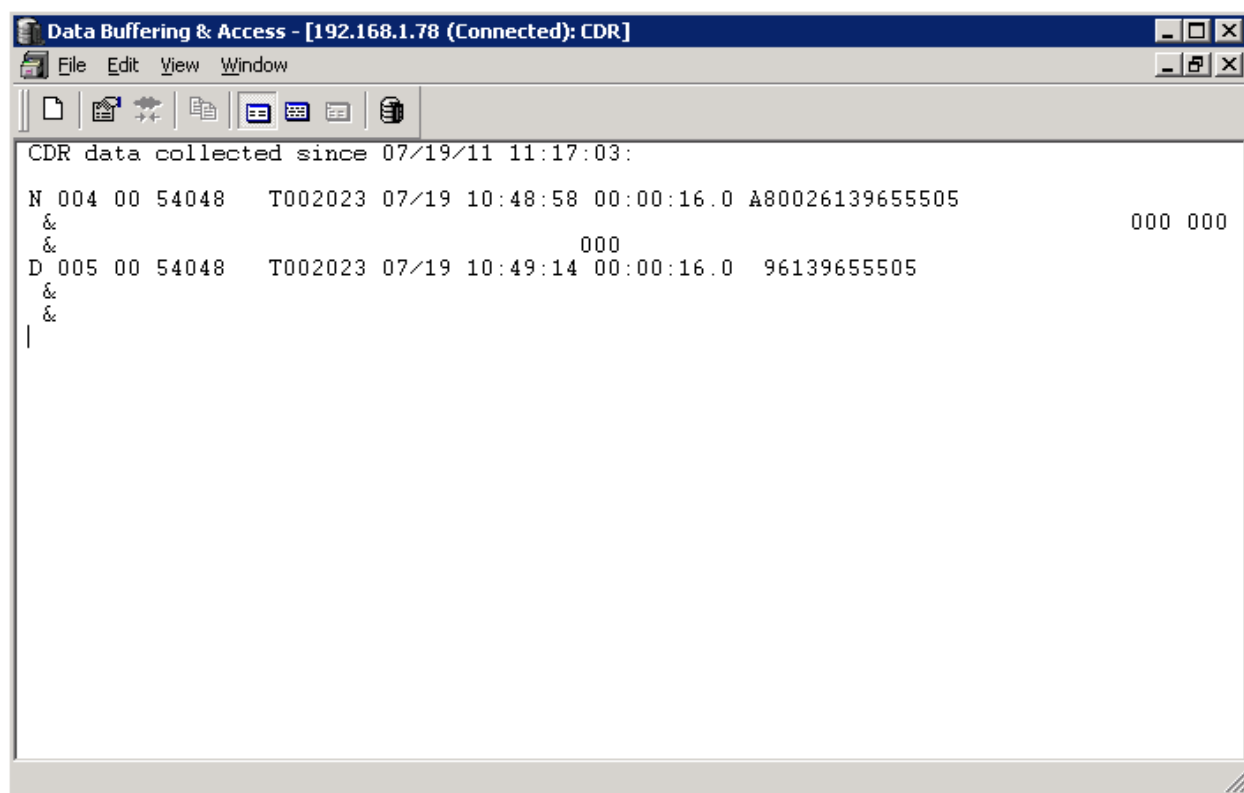
**Figure 12** below shows the DBA application successfully connected to the CS 1000 system.



**Figure 12: The connection status of DBA with CS 1000**



To verify the CDR feature and call records on the CS 1000 system can be outputted to the DBA Toolkit, place some phone calls, wait at least one minute after polling completes and observe these calls were successfully outputted as shown in **Figure 13** below.



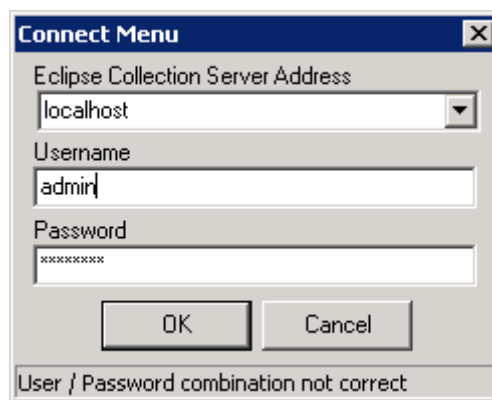
**Figure 13: Sample of call records outputted to DBA Toolkit**

## 7. Configure Eclipse CMS

This document assumes that the Eclipse CMS application was properly installed and configured by a Data Track engineer. This section provides steps on how to configure the Eclipse Collection Manager, CMS, and generate reports. For more information on how to install and configure the Eclipse CMS, please refer to **Section 10[2]**.

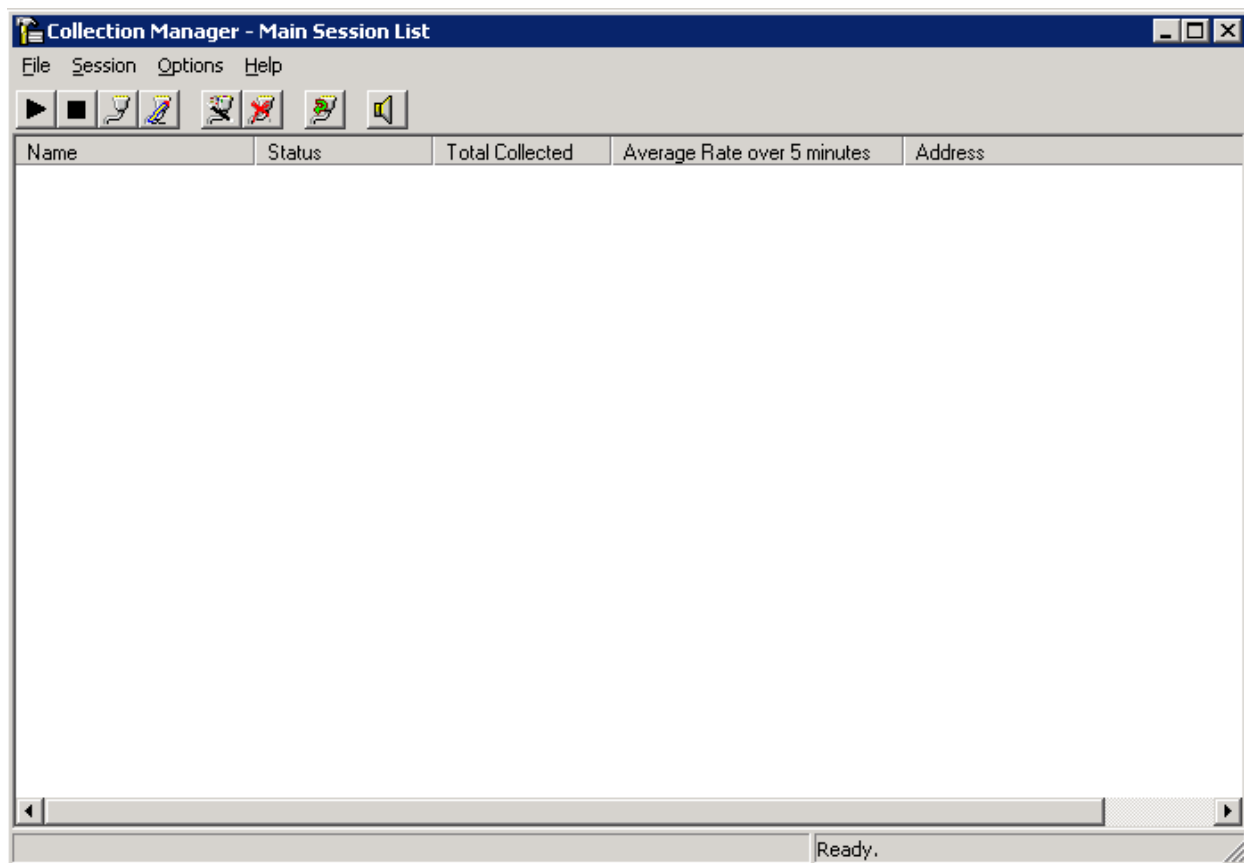
### 7.1. Configure Eclipse Collection Manager

To configure the Eclipse Collection Manager, from the server which the Eclipse CMS software is installed, navigate to the menu **Start > All Programs > Eclipse III CMS > Eclipse Collection Manager**, the **Connect Menu** window appears as shown in **Figure 14** below. Enter the username **admin** and its password in the **Username** and **Password** boxes to log in.



**Figure 14: The Connect Menu of the Eclipse Collection Manager**

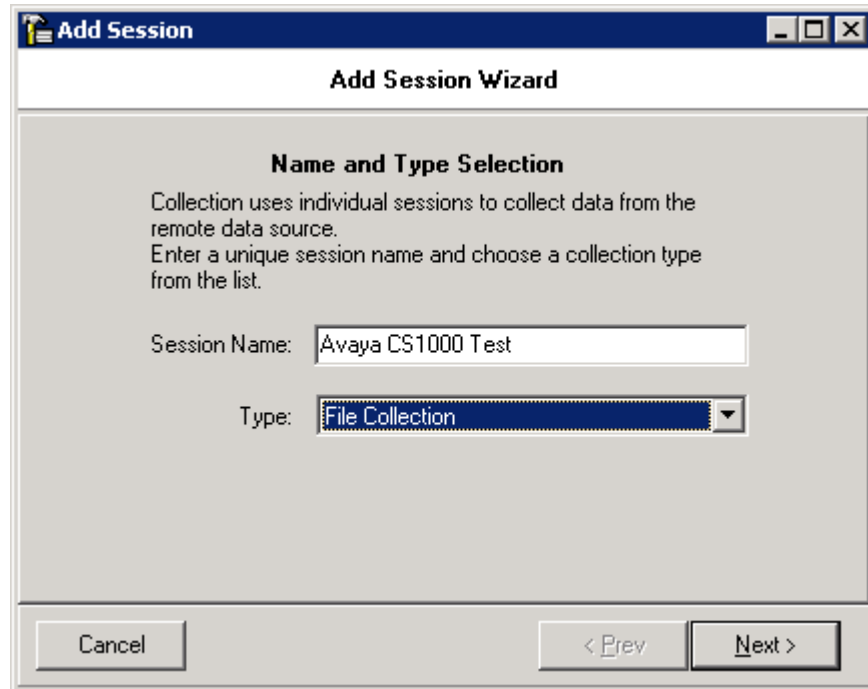
The **Collection Manager** window appears as shown in **Figure 15** below.



**Figure 15: The Collection Manager window**

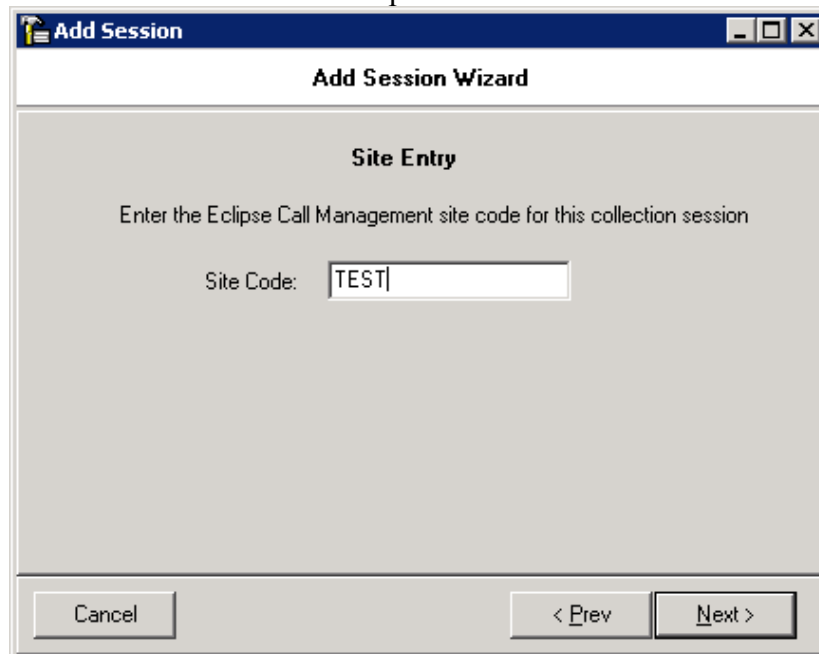
To create a new session, from the **Connection Manager** window, navigate to the menu **Session > New Session**, and the **Add Session** window appears as shown in **Figure 16**.

- In the Session Name, enter the description name for the session, as in this example it is set to **Avaya CS1000 Test**.
- In the **Type** field, select type of collection in the drop down list. Set to **File Collection** in this example since the Eclipse collects file from the DBA ToolKit.
- Click on the **Next** button to continue.



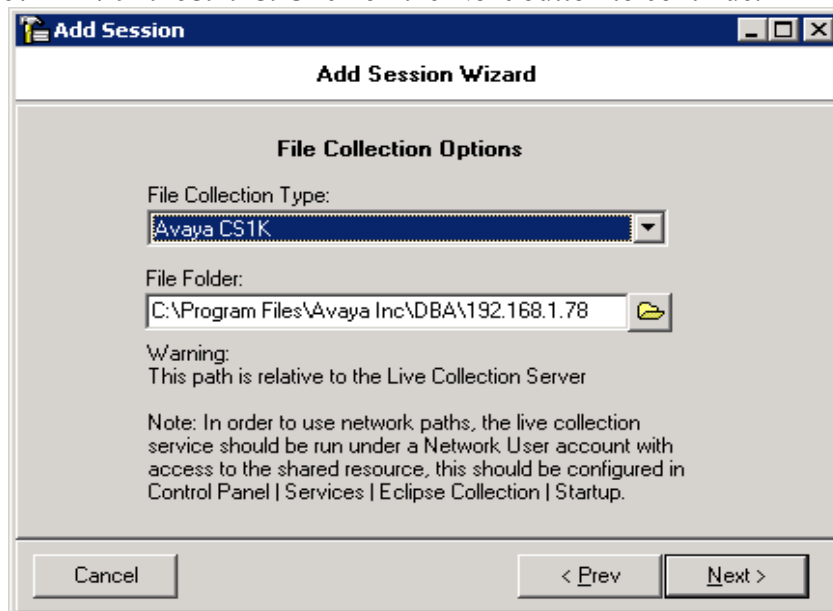
**Figure 16: The Add Session window**

The **Site Entry** section of Add Session appears as shown in **Figure 17**. Enter a name in the **Site Code** field, which is set to **TEST** in this example. Click on the **Next** button to continue.

The screenshot shows a Windows-style dialog box titled "Add Session" with a subtitle "Add Session Wizard". The main section is titled "Site Entry" and contains the instruction "Enter the Eclipse Call Management site code for this collection session". Below this is a text field labeled "Site Code:" containing the text "TEST". At the bottom, there are three buttons: "Cancel", "< Prev", and "Next >".

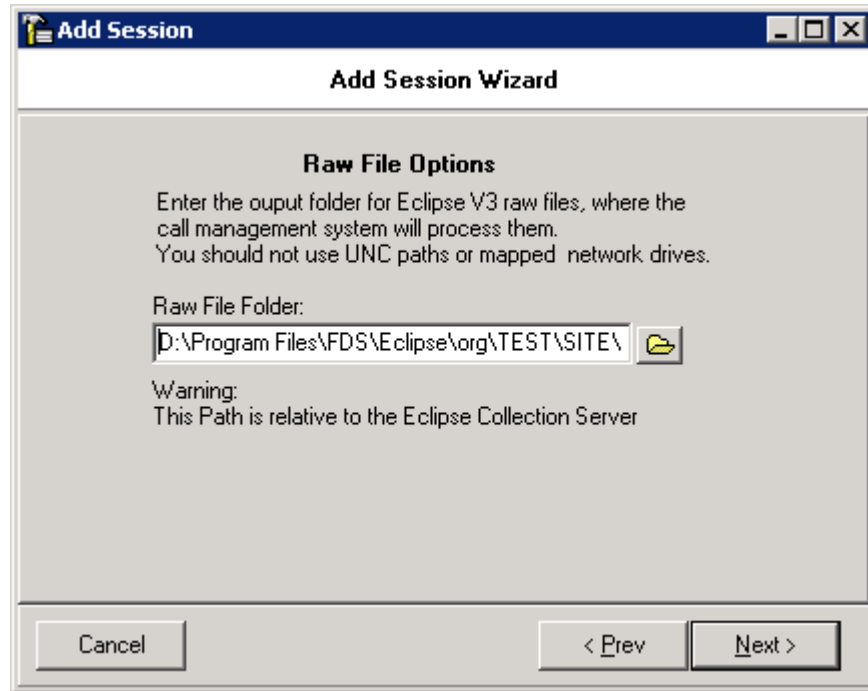
**Figure 17: The site Entry section of Add Session window**

In the **File Collection Options** section of **Add Session Wizard** as shown in **Figure 18**, select **Avaya CS1K** in the **File Collection Type** drop down menu and in the **File Folder** field browse to the folder where the DBA Toolkit saves its raw CDR file, example in this case is **C:\Program Files\Avaya Inc\DBA\192.168.1.78**. Click on the **Next** button to continue.

The screenshot shows the same "Add Session Wizard" dialog box, but the "File Collection Options" section is active. It features a "File Collection Type:" label above a dropdown menu currently showing "Avaya CS1K". Below this is a "File Folder:" label above a text field containing the path "C:\Program Files\Avaya Inc\DBA\192.168.1.78", with a folder icon button to its right. A "Warning:" section states "This path is relative to the Live Collection Server". A "Note:" section explains that for network paths, the live collection service should run under a Network User account with access to the shared resource, and provides instructions on how to configure this in the Control Panel. At the bottom, the same three buttons ("Cancel", "< Prev", "Next >") are present.

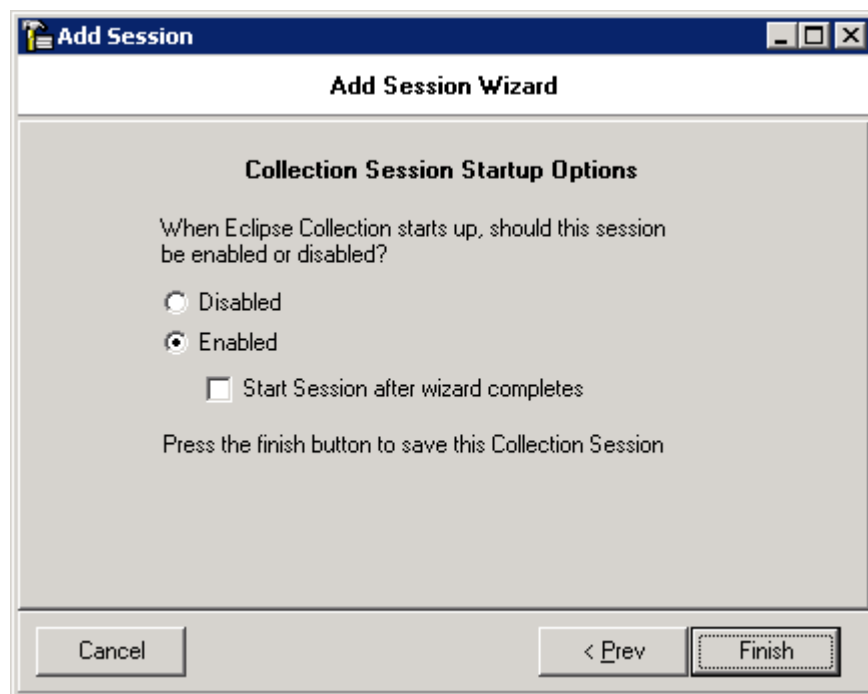
**Figure 18: The File Collection Options section of Add Session window**

In the **Raw File Options** section of **Add Session Wizard** as shown in **Figure 19**, in the **Raw File Folder** field enter the output folder for Eclipse raw files, where the call management system will process them. In this example, the path is **D:\Program Files\Eclipse\Org\\*\*\*\Site\TEST**, where \*\*\* is the customers organisation code. Click on the **Next** button to continue.



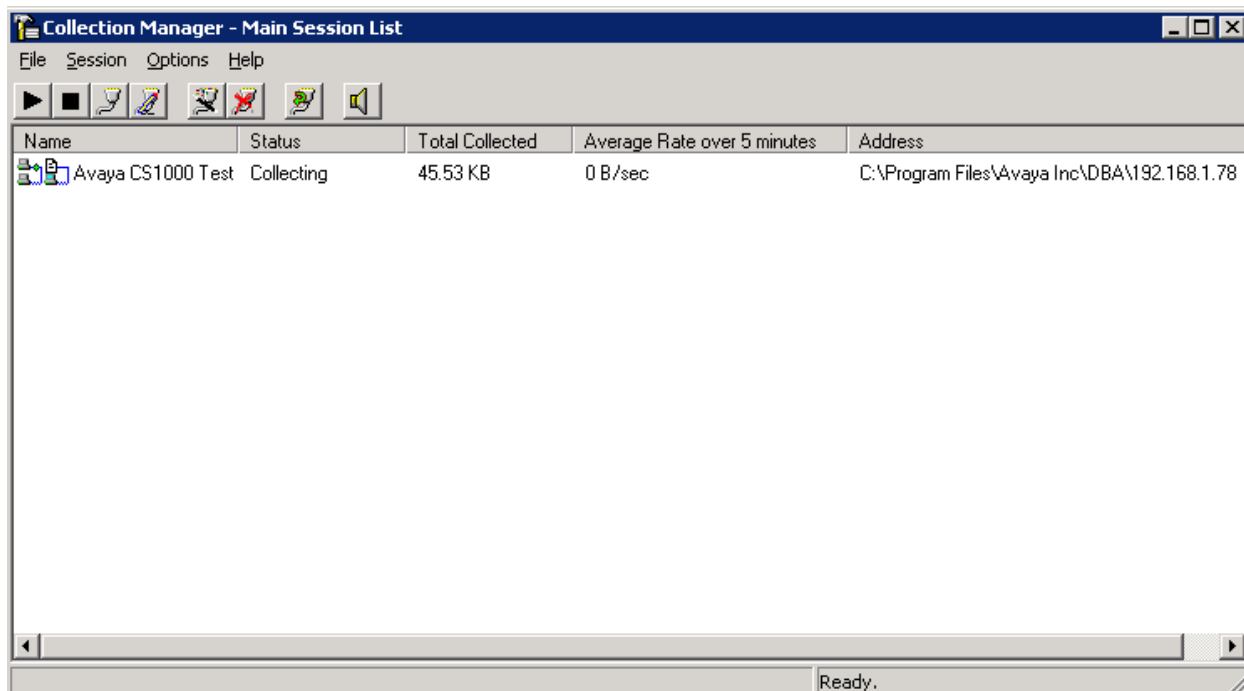
**Figure 19: The Raw File Options section of Add Session window**

In the **Collection Session Startup Options** section of **Add Session Wizard** as shown in **Figure 20**, select the **Enable** option radio button to enable this session when Eclipse Collection starts up. Click on the **Finish** button to complete addition of this new session.



**Figure 20: The Collection Session Startup Options section of Add Session window**

The **Figure 21** below shows that the session above has been successfully added and it is now collecting the data from the DBA Toolkit's folder.

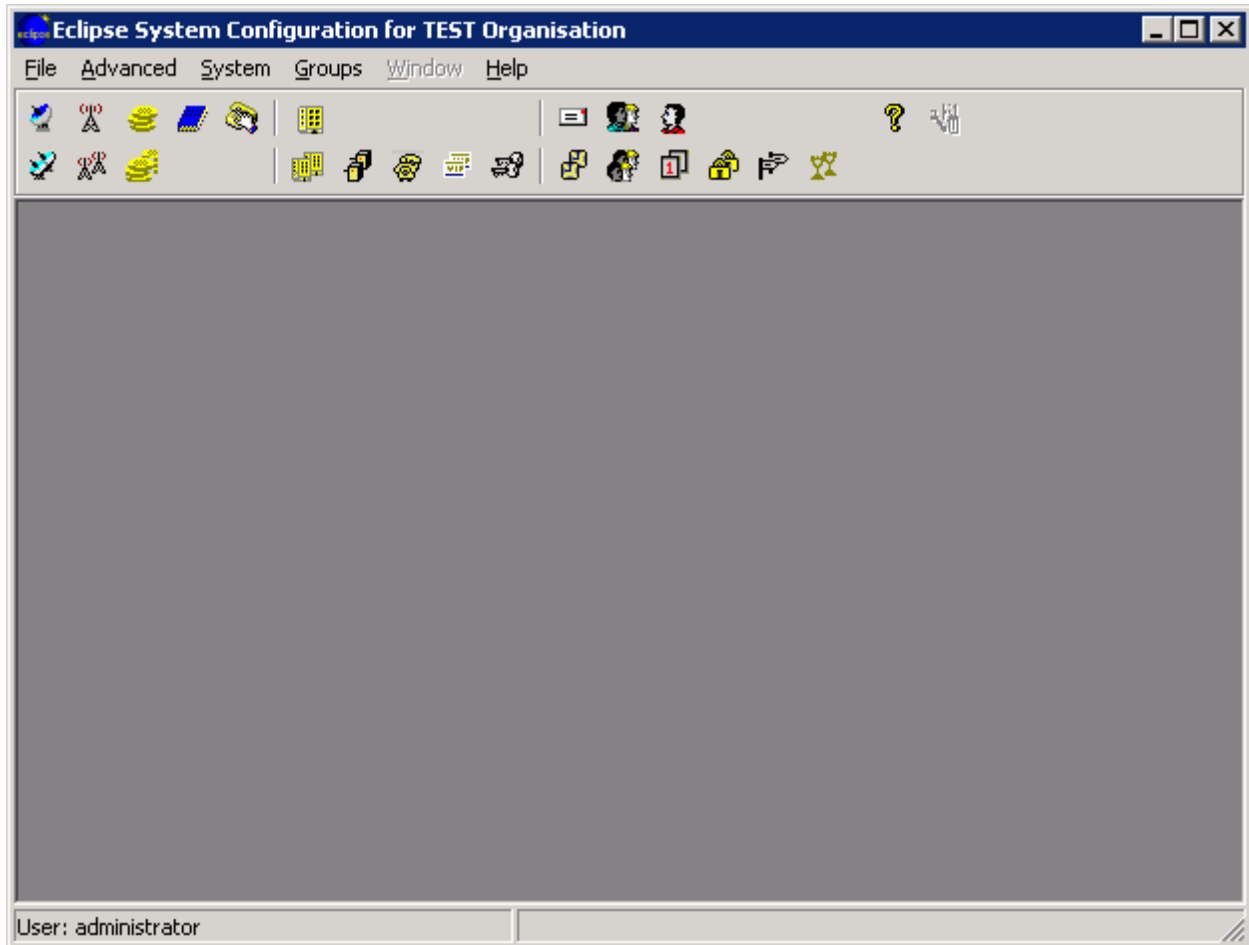


**Figure 21: The new session has been added**



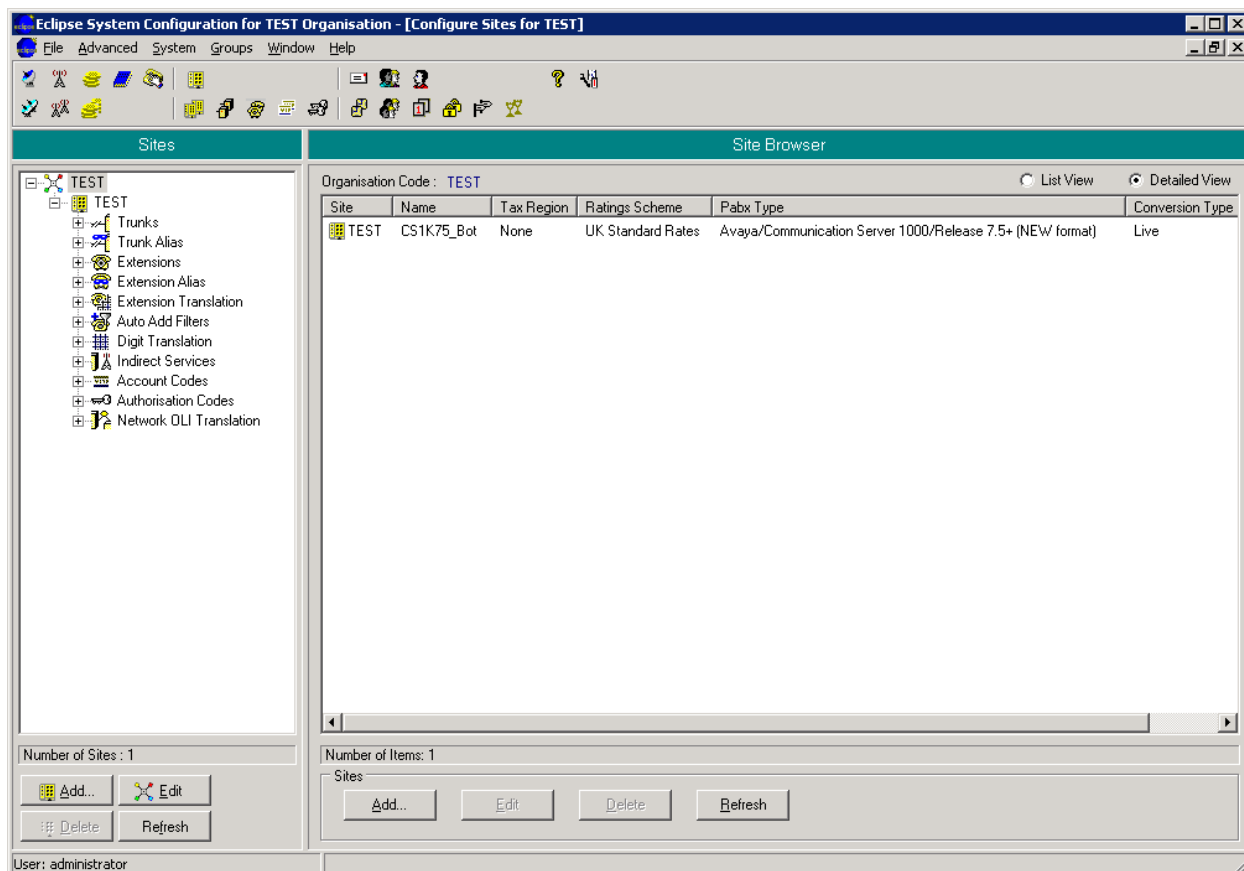
## 7.2. Configure Eclipse CMS

To configure Eclipse CMS, navigate to menu **Start > All Programs > Eclipse III CMS > Eclipse Configuration**, the **Eclipse Configuration** window appears as shown in **Figure 22**.



**Figure 22: The Eclipse System Configuration window**

Navigate to the menu **System > Sites**, the **TEST** site window appears as shown in **Figure 23**.



**Figure 23: The Test site window**

Since the access code of trunk is included in dialed digits when calls are collected by the DBA Toolkit, the access code should be separated from the dialed digits. To remove the access code of trunk in dialed digits, under tree menu **TEST** right-click on the **Digit Translation** in **Figure 23** and select **Add...** button, the **Add Digit Translation** window with sample of removing access code 8001 appears as shown in **Figure 24**.

**Add Digit Translation**

Site Code: **TEST**

Description: **Remove AC 8001**

Translate: ☒ Dialled Digits ☐ CLI ☐ Internal Dialed Digits

Access Digits:  ☐ Supplied Separately

Service Selection Digits:

Destination Digits: **8001+**

---

New Access Digits: **8001** ☐ As Supplied

New Service Selection Digits:

New Destination Digits: **+**

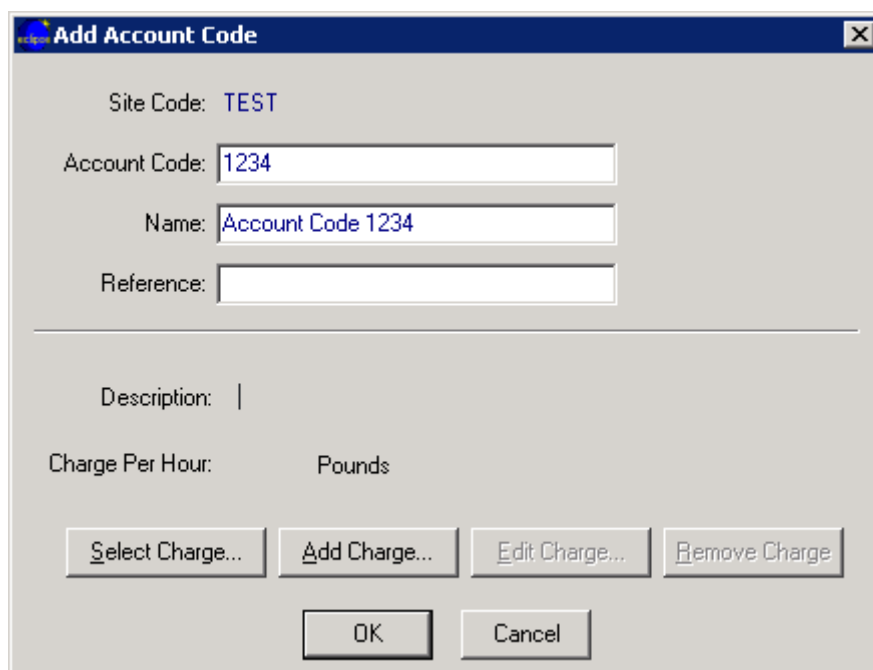
+ - 1 or More Digits    ? - Any Single Digit

**OK** **Cancel**

**Figure 24: The Add Digit Translation window**

Account codes are used to identify a customer or account by dialing an additional number before or during a call.

To add an account code, from the **Eclipse System Configuration** window in **Figure 22** navigate to the menu **System > Sites** and select and expand the Site wanted to configure, in this sample the site name is **TEST**. Select the **Account Code** entry under menu **TEST**. The Account Codes Browser window is displayed in the right-hand panel (not shown). Right-click on this panel and select **Add...** button, and the **Add Account Code** window appears as shown in **Figure 25**. Enter a code that is defined in the CS1000 system in the Account Code textbox. Name and other fields are optional. Click **OK** to complete adding the Account code.



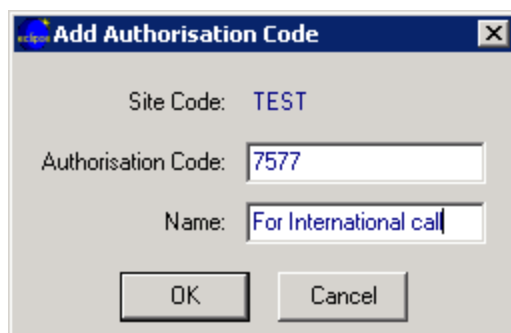
The screenshot shows a Windows-style dialog box titled "Add Account Code". It has a standard title bar with a close button (X). The dialog contains the following elements:

- Site Code:** A label followed by a text box containing the value "TEST".
- Account Code:** A label followed by a text box containing the value "1234".
- Name:** A label followed by a text box containing the value "Account Code 1234".
- Reference:** A label followed by an empty text box.
- Description:** A label followed by a text box with a vertical cursor.
- Charge Per Hour:** A label.
- Pounds:** A label.
- Buttons:** A row of four buttons: "Select Charge...", "Add Charge...", "Edit Charge...", and "Remove Charge". Below these are two more buttons: "OK" and "Cancel".

**Figure 25: The Add Account Code window**

An authorization code is a personal identification number (PIN) that allows certain restricted calls to be made from an extension. Authorization codes can be given to individuals to allow them to override the access restrictions on an extension.

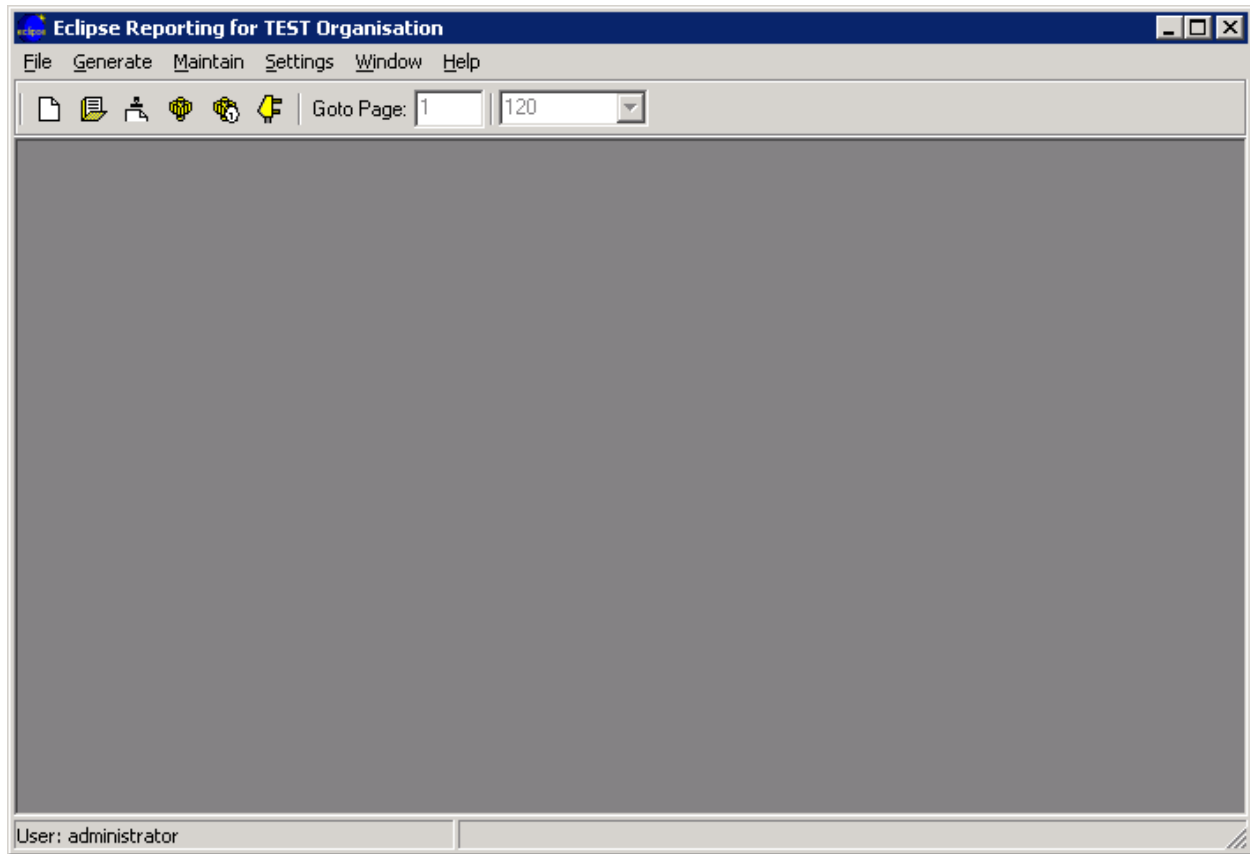
To add an authorization code, from the **Eclipse System Configuration** window in **Figure 22** navigate to the menu **System > Sites** and select and expand the Site wanted to configure. In this sample the site name is **TEST**. Select the Authorization Code entry under menu **TEST**. The Account Codes Browser window is displayed in the right-hand panel (not shown), right-click on this panel and select **Add...** button, and the **Add Authorisation Code** window appears as shown in **Figure 26**. Enter an authorization code that is defined in the CS1000 system in the **Authorisation Code** textbox, and description in the **Name** field. Click **Ok** to complete adding the Account code.



**Figure 26: The Add Authorisation Code window**

### 7.3. Generate Reports

The CMS Reporting allows filtering the call segment files to produce reports that only contain the required information. To generate a report, navigate to the menu **Start > All Programs > Eclipse Reporting**, the **Eclipse Reporting** window appears as show in **Figure 27**.



**Figure 27: The Eclipse Reporting window**

**Eclipse Reporting for TEST Organisation**

File Generate Maintain Settings Window Help

Goto Page: 1 120

**New Report**

**Report**

- Report Structure
  - Report Type
  - Page Layout
  - Front Cover
  - Item/Group
  - Sort/Limit To
- Calls
  - Direction and Parties
  - Intermediate Parties
- Date and Time
  - Start of Call
  - Duration and Ring Time
- Cost and Digits
  - Call Cost
  - Digits
- Flags
  - Response and Transfers
  - Advanced 1
  - Advanced 2
- Quality of Service
  - Extn and IP Address
  - Codec and Jitter
  - Packets
  - R-Values

**Report Structure**

Report Type Page Layout Front Cover Item/Group Sort/Limit To

Name: New Report-20072011-142751

Description:

**Report Type**

- Management
- Costing
- Response
- Traffic
- Summary
- Listing
  - Detailed
  - Detailed Report with IP Inclusion
  - Extension Call Detail
  - Phone Bill
- Configuration
- Call Tracing
- Account Code
- User Defined
- Quality of Service
- All Report Types

**Report Type Preview**

The preview above is intended to provide you with an indication of the appearance of the finished report

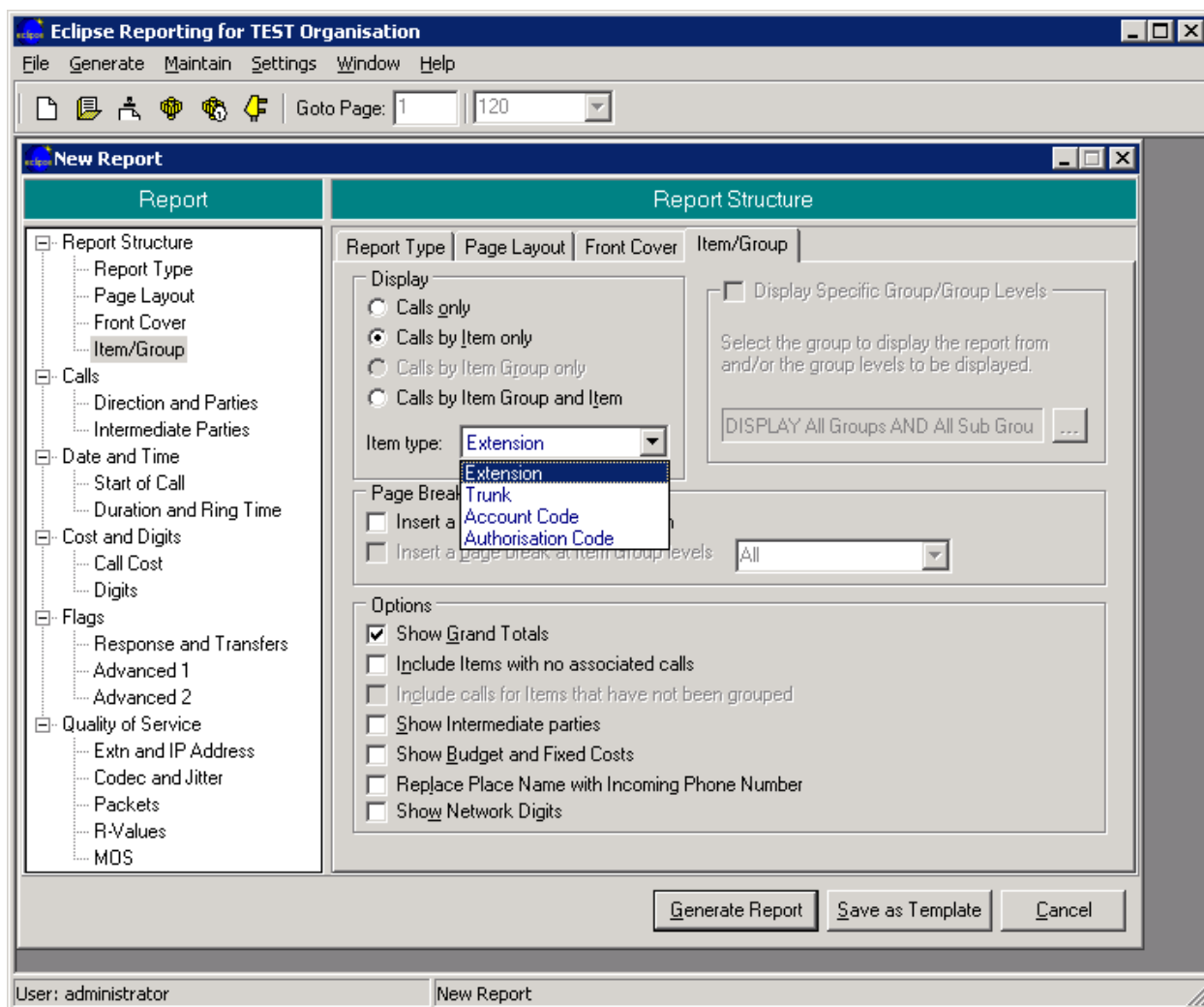
Generate Report Save as Template Cancel

User: administrator

There are many types of report, but only three sample reports are shown here.

On the **New Report** window, select and expand the **Report Structure** and select the **Item/Group**, and the Item/Group tab displays in right-hand. In the **Display** section, select the **Calls by Item only** and in the **Item type** field, select **Extension** in the dropdown list as shown in **Figure 29**.

Click on the **Generate Report** to continue.

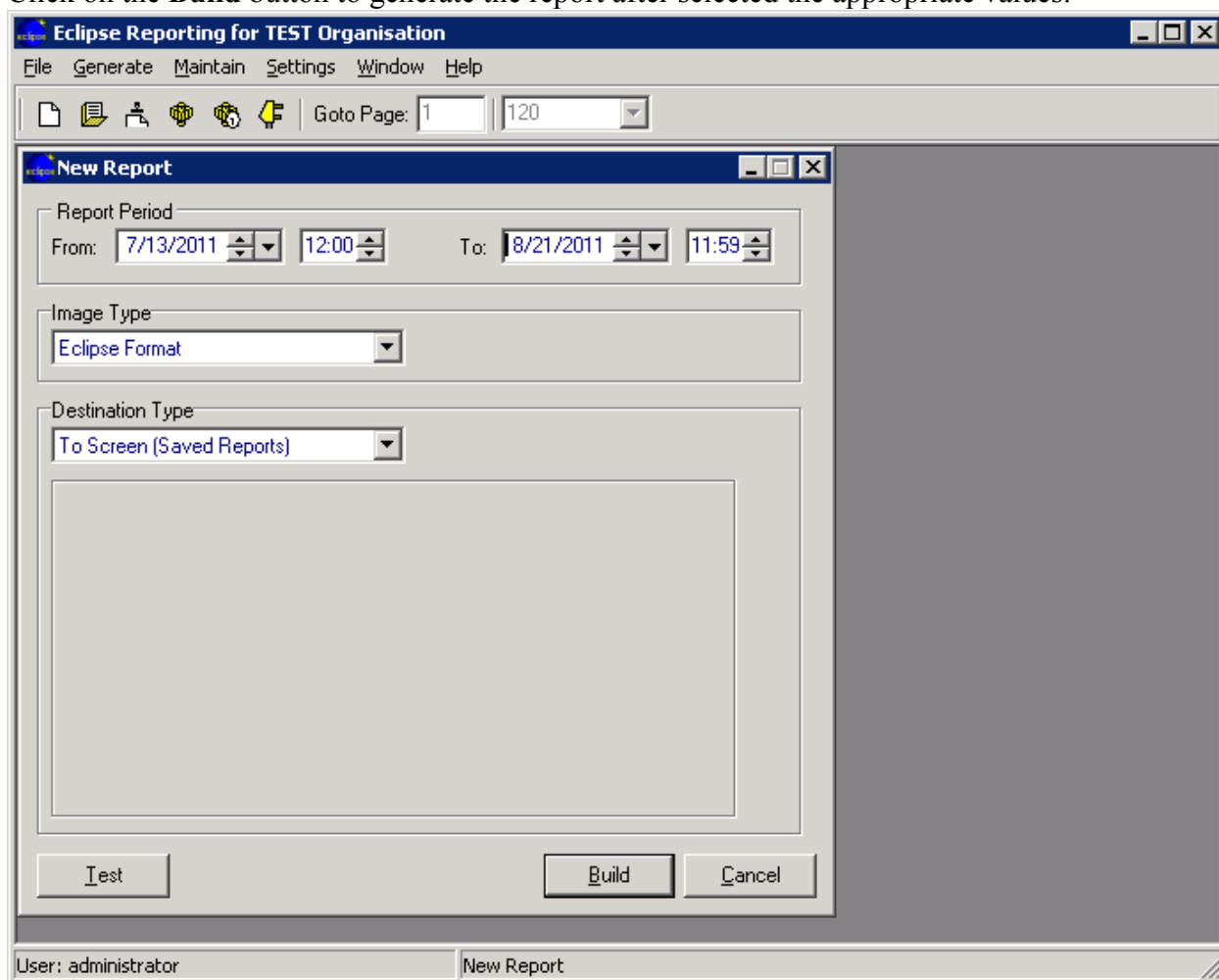


**Figure 29: The New Report window with selecting criteria displayed**



The next window of the **New Report** will allow user to select the **Report Period**, **Image type**, and **Destination Type** as shown in **Figure 30**.

Click on the **Build** button to generate the report after selected the appropriate values.



**Figure 30: The New Report window with selecting criteria displayed (cont)**

Figure 31 below shows the report for every call made from a particular extension.

Eclipse Reporting for TEST Organisation - [New Report-20072011-142751 created 7/20/2011 15:56:14]

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Report period 7/13/2011 0:00:00 to 8/21/2011 23:59:59.

**Data Track**

**New Report-20072011-142751**

Site	Date	Time	From	To	Duration	Ring	Access	Digits
<b>TEST\TEST\1002 * Unknown extension *</b>								
TEST	7/13/2011	14:11:58	E TEST/1002	T TEST/002014	0:00:26	00:00	8002	6139655505
TEST	7/13/2011	14:29:05	E TEST/1002	T TEST/002013	0:00:30	00:00	8002	6139655505
TEST	7/13/2011	16:34:30	E TEST/1002	E TEST/54048	0:00:00	00:17		
TEST	7/14/2011	13:34:31	E TEST/1002	T TEST/002005	0:01:02	00:00	8002	6139655505
TEST	7/14/2011	13:46:14	E TEST/1002	E TEST/54000	0:00:00	00:05		
TEST	7/14/2011	13:47:08	E TEST/1002	E TEST/54000	0:00:00	00:06		
TEST	7/14/2011	13:47:27	E TEST/1002	E TEST/54002	0:10:46	00:08		
TEST	7/14/2011	14:12:41	E TEST/1002	E TEST/54331	0:00:20	00:13		
TEST	7/14/2011	14:16:33	E TEST/1002	E TEST/54002	0:10:52	00:14		
TEST	7/18/2011	18:45:47	E TEST/54331	E TEST/1002	0:00:20	00:00		
Total			9 made	1 received	0:24:16			
<b>TEST\TEST\54000 * Unknown extension *</b>								
TEST	7/13/2011	9:36:45	E TEST/54000	T TEST/001032	0:00:04	00:00	8001	28005
TEST	7/13/2011	9:39:18	E TEST/54000	T TEST/001032	0:00:14	00:00	8001	28004
TEST	7/13/2011	10:04:19	E TEST/54000	T TEST/001032	0:00:04	00:00	8001	28005
TEST	7/13/2011	10:04:36	E TEST/54000	T TEST/001032	0:00:04	00:00	8001	28004
TEST	7/13/2011	10:06:47	E TEST/54000	T TEST/001032	0:00:04	00:00	8001	203
TEST	7/13/2011	10:11:14	E TEST/54000	T TEST/001032	0:00:10	00:00	8001	203
TEST	7/13/2011	10:11:49	E TEST/54000	T TEST/001032	0:00:26	00:00	8001	203
TEST	7/13/2011	10:12:32	E TEST/54000	T TEST/001032	0:00:10	00:00	8001	203
TEST	7/13/2011	10:13:51	E TEST/54000	T TEST/001032	0:00:26	00:00	8001	203
TEST	7/13/2011	10:16:40	E TEST/54000	T TEST/001032	0:06:40	00:00	8001	203
TEST	7/13/2011	10:25:11	T TEST/001001	E TEST/54000	0:00:12	00:04	CLI	54002
TEST	7/13/2011	10:29:47	E TEST/54000	T TEST/001032	0:01:40	00:00	8001	203
TEST	7/13/2011	10:34:08	E TEST/54000	T TEST/001032	0:00:08	00:00	8001	203
TEST	7/13/2011	10:34:50	E TEST/54000	T TEST/001032	0:00:10	00:00	8001	203

User: administrator New Report-20072011-142751 created 7/20/2011 15:56:14 Page 1 of 1

Figure 31: Sample of call report based on the extension

Figure 32 below shows the report for every call made from specific account code.

Eclipse Reporting for TEST Organisation - [New Report-20072011-160304 created 7/20/2011 16:03:15]

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Report period 7/13/2011 0:00:00 to 8/21/2011 23:59:59.

**Data Track**

**New Report-20072011-160304**

Site	Date	Time	From	To	Duration	Ring	Access	Digits
<u>TEST\1234 Account code 1234</u>								
TEST	7/13/2011	14:32:20	E TEST/54048	T TEST/002011	0:00:40	00:00	8002	613965550
TEST	7/14/2011	13:47:27	E TEST/1002	E TEST/54002	0:10:46	00:00		
TEST	7/19/2011	10:48:58	E TEST/54048	T TEST/002023	0:00:16	00:00	8002	613965550
Total					3 calls	0:11:42		
<u>TEST\1235 Account code 1235</u>								
TEST	7/14/2011	13:43:36	E TEST/54048	E TEST/54331	0:01:24	00:00		
TEST	7/14/2011	14:12:41	E TEST/1002	E TEST/54331	0:00:20	00:00		
TEST	7/14/2011	14:16:33	E TEST/1002	E TEST/54002	0:10:52	00:00		
Total					3 calls	0:12:36		
Grand Total					6 calls	0:24:18		

User: administrator New Report-20072011-160304 created 7/20/2011 16:03:15 Page 1 of 1

Figure 32: Sample of call report based on the Account Code

Similarly, **Figure 33** below shows the report for every call made from specific authorisation code.

Eclipse Reporting for TEST Organisation - [New Report-20072011-160541 created 7/20/2011 16:05:52]

File Generate Zoom Page Maintain Settings Window Help

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Report period 7/13/2011 0:00:00 to 8/21/2011 23:59:59.

**Data Track**

**New Report-20072011-160541**

Site	Date	Time	From	To	Duration	Ring	Access	Digits
<u>For Auth 7575</u>								
TEST	7/13/2011	14:10:26	E TEST/54048	T TEST/002015	0:00:30	00:00	8002	6139655505
TEST	7/13/2011	14:11:58	E TEST/1002	T TEST/002014	0:00:26	00:00	8002	6139655505
TEST	7/13/2011	14:29:05	E TEST/1002	T TEST/002013	0:00:30	00:00	8002	6139655505
TEST	7/13/2011	14:30:50	E TEST/54048	T TEST/002012	0:00:04	00:00	8002	6139655505
TEST	7/13/2011	14:32:20	E TEST/54048	T TEST/002011	0:00:40	00:00	8002	6139655505
TEST	7/13/2011	14:51:09	E TEST/54048	T TEST/002010	0:01:02	00:00	8002	6139655505
TEST	7/13/2011	14:53:02	E TEST/54048	T TEST/002008	0:00:10	00:00	8002	6139655505
TEST	7/14/2011	14:15:54	E TEST/54048	T TEST/002019	0:01:08	00:00	8002	6139655505
TEST	7/19/2011	10:48:58	E TEST/54048	T TEST/002023	0:00:16	00:00	8002	6139655505
Total					9 calls	0:04:46		
<u>For Auth 7576</u>								
TEST	7/14/2011	13:34:31	E TEST/1002	T TEST/002005	0:01:02	00:00	8002	6139655505
TEST	7/14/2011	14:05:07	E TEST/54048	T TEST/002023	0:01:36	00:00	8002	6139655505
TEST	7/14/2011	14:22:42	E TEST/54331	T TEST/002018	0:02:54	00:00	8002	6139655570
TEST	7/15/2011	10:36:25	E TEST/54331	T TEST/002016	2:49:34	00:00	8002	6139655505
Total					4 calls	2:55:06		

User: administrator New Report-20072011-160541 created 7/20/2011 16:05:52 Page 1 of 1

**Figure 33: Sample of call report based on the Authorisation Code**

## 8. Verification Steps

The following are typical steps used to verify the interoperability between the Eclipse CMS application and the Avaya CS 1000.

- Connect the DBA Toolkit application to the CS 1000 system.
- Configure the Eclipse CMS to retrieve call records from the DBA Toolkit application.
- Place various call types such as internal, outgoing, incoming, PSTN and tandem calls from/to the CS 1000 system which has the CDR feature enabled and verify that call records are outputted to the DBA Toolkit.
- After each call has been completed, observe on the DBA Toolkit application whether the call was correctly outputted.
- From the Eclipse CMS application, generate reports based on report types, report templates, user-defined criteria for the report such as Time Period, Image types, and destination types and then generate reports as shown in **Figure 31** to **33**. Verify the report

that it shows correct information of call records such as Site, Date, Time, From, To, Duration, Ring, Digits, Place Name, Cost, etc.

## 9. Conclusion

All of the executed test cases were passed and met the objectives outlined in **Section 2**. The Eclipse Call Management System version 1.32.2.3 is considered compliant with the Avaya Communication Server Release 7.5.

## 10. Additional Reference

Product documentation for the Avaya CS 1000 products may be found at:

<https://support.avaya.com/css/Products/>

Data Buffering Toolkit is available at: <http://www.avaya.com/DevConnect>

Product documentation for the Eclipse Call Management System product may be found at:

<http://www.datatrackplc.com>

[1] Avaya CS1000 Documents:

- [Avaya Communication Server 1000E Installation and Commissioning](#)
- [Avaya CS 1000 Co-resident Call Server and Signaling Server Fundamentals](#)
- [Avaya CS 1000 Element Manager System Reference – Administration](#)
- [Avaya Call Detail Recording Fundamentals Communication Server 1000](#)

[2] Data Track Eclipse CMS Documents:

- [Eclipse CMS 1.32 Configuration Guide](#)
- [Eclipse CMS 1.32.2 Reporting Guide](#)
- [Eclipse CMS v1.32 Installation & Upgrade Guide](#)
- [Eclipse CMS 1.32 Overview](#)

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