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Avaya Solution & Interoperability Test Lab

Application Notes for aurenz GmbH UC-Analytics with Avaya Aura® Communication Manager to collect Call Detail Records (CDR) – Issue 1.0

Abstract

These Application Notes describe the configuration steps necessary for provisioning aurenz GmbH's product UC-Analytics v13.0 to successfully interoperate with Avaya Aura® Communication Manager R8.1 to collect CDR.

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.

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1. Introduction

These Application Notes describe the configuration steps necessary for provisioning aurenz GmbH's product UC-Analytics v13.0 to successfully interoperate with Avaya Aura® Communication Manager R8.1 to collect CDR. UC-Analytics from aurenz GmbH is an add on module used specifically to provide additional statistical information based on data, in the form of Call Detail Records (CDR), collected from Avaya Aura® Communication Manager using the Data Collector installed on UC-Analytics. For further information please go to https://www.aurenz.de

Based on the call data generated on Communication Manager and collected into the Data Collector, UC-Analytics offers different evaluation options. Personal reports of corporate communication on the integrated dashboard, peak time reports and analyses to optimize processes. In addition to reports and analyses, the UC-Analytics offers the full scope of a modern call accounting solution. This way additional costs (other than call data) such as working hours, equipment costs (devices) and services can be distributed and charged according to the originator.

Note: UC-Analytics uses a module called Data Collector to process CDR from Communication Manager, this module and its interaction with Communication Manager is the primary focus of these Application Notes. The reports produced by UC-Analytics are used to verify that the data collected by the Data Collector is processed correctly.

Note: UC-Analytics contains the AlwinPro UC-Edition module which is used to display billing and accounting information based on the CDR received into the Data Collector, for more information on AlwinPro UC-Edition please search for *Application Notes for aurenz GmbH AlwinPro UC-Edition with Avaya Aura® Communication Manager to collect Call Detail Records (CDR).*

2. General Test Approach and Test Results

Compliance testing focused on verifying that calls that were made and received by various endpoints on Communication Manager were reported on correctly and that the addition of UC-Analytics did not interfere with the overall operation of Communication Manager. CDR information is transferred via TCP/IP stream, so UC-Analytics (using the Data Collector) is listening on a port awaiting CDR output. Various calls were made to and from Communication Manager endpoints/extensions and the CDR produced examined to ensure all calls were reported on appropriately.

There are some differences in Communication Manager 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.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and UC-Analytics did not include use of any specific encryption features as requested by aurenz GmbH.

2.1. Interoperability Compliance Testing

The objective of Interoperability Compliance Testing is to provide assurance to the potential customers that the tested products operate as specified and can interoperate in an environment similar to the one that will be encountered at a customer's premises. The interoperability compliance testing focused on a Real-Time TCP/IP connection listening on a port awaiting CDR data from Communication Manager.

The testing focused on the following types of calls:
- **Internal calls** – Calls made internally between H.323, SIP and Digital endpoints.
- **Inbound calls** – Test CDR records for inbound calls to the Communication Manager from PSTN callers.
- **Outbound calls** – Test CDR records for outbound calls from the Communication Manager to PSTN callers.
- **Hold/Transferred/ calls** – Test CDR records for calls transferred to PSTN callers.
- **Conference calls -** Test CDR records for calls in conference between the Communication Manager and PSTN callers.
- **Forwarded calls** – Test CDR records for calls made to desk phones that are forwarded to the PSTN.
- **Account Code and Authorization Codes** – Outbound calls were made using Account Codes and Authorization Codes to see how they are reported on.
- **Bridged Appearance and Hunt Groups** – Calls were made using Bridged Appearance and calls were made to Hunt Groups to see how they are reported on.
- **Serviceability** - The behaviour of UC-Analytics under different simulated LAN failures were also observed.

Note: Two PSTN lines were used, ISDN and SIP trunk using a Session Border Controller. Private trunk calls (Inter-Switch calls) are routed via AAR and SIP Trunk based upon the extension dialed instead of the AAR facility access code.

Each CDR record was inspected for the accuracy of specific information shown below:
- Call termination time
- Call duration
- Condition code
- Dialed number
- Calling number
- Access code dialed (outbound)
- Access code used (outbound)
- Outgoing/incoming TAC and circuit ID

2.2. Test Results

Tests were performed to ensure full interoperability of Communication Manager with aurenz GmbH UC-Analytics. Performance and load testing is outside the scope of the compliance testing. All the test cases passed successfully. With the following observations noted.
1. Supervised Transfer, PSTN calls to SIP1, SIP1 then transfers the PSTN caller to SIP2. Specific information on "leg 2" of the transfer is not sent by Communication Manager.
2. Supervised Transfer, SIP1 calls to SIP2, SIP2 then transfers SIP1 to the PSTN. All durations are shown but Communication Manager does not pass on all information on parties on the final leg of the call.
3. Supervised Transfer, SIP calls to H323, H323 then transfers SIP to another H323. Only produces one record and that was for leg 1, that is all Communication Manager sends out.
4. Blind Transfer, SIP calls to H323, H323 then transfers SIP to another H323. Only produces one record for leg 1, that is all Communication Manager sends out.
5. Blind Transfer, H323 calls to H323, H323 then transfers H323 to a SIP. Only produces one record for leg 1, that is all Communication Manager sends out.
6. SIP1 calls out to PSTN, PSTN then transfers SIP1 into SIP2 leaving SIP1 and SIP2 talking to each other. All legs are being sent by Communication Manager on this occasion, but UC Analytics is not displaying leg 2 correctly. For H.323 making the same calls, Phone1 to PSTN number (outbound trunk call) and PSTN number to Phone2 (inbound trunk call) are being reported on. For SIP making the calls, then Phone1 to PSTN number (outbound trunk call) ids reported on but the second leg does not show PSTN number to Phone2, it shows Phone1 and Phone2 instead. aurenz is investigating the issue.

2.3. Support

Information on aurenz GmbH and product support can be obtained through the following:
Phone: +49 (0) 7021 73888-0
Fax: +49 (0) 7021 73888-30
E-Mail: info@aurenz.de

Support-Hotline
Mo.-Fr. 08:00-17:00
Phone: +49 (0) 7021 73888-33
Fax: +49 (0) 7021 73888-30
E-Mail: support@aurenz.de

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, a Media Server and a G430 Media Gateway. Communication Manager is configured to output CDR over a TCP/IP port. CDR is sent in customized format and retrieved by UC-Analytics. A variety of Avaya deskphones were used to generate intra-switch calls (calls between phones on the same system), and outbound/inbound calls to/from the PSTN. Session Manager shown in the diagram is used for SIP telephones and SIP trunks.

Note: UC-Analytics was connected directly to Communication Manager using a direct TCP/IP connection.

Note: Two simulated PSTN lines were used, ISDN and SIP trunk using a Session Border Controller.
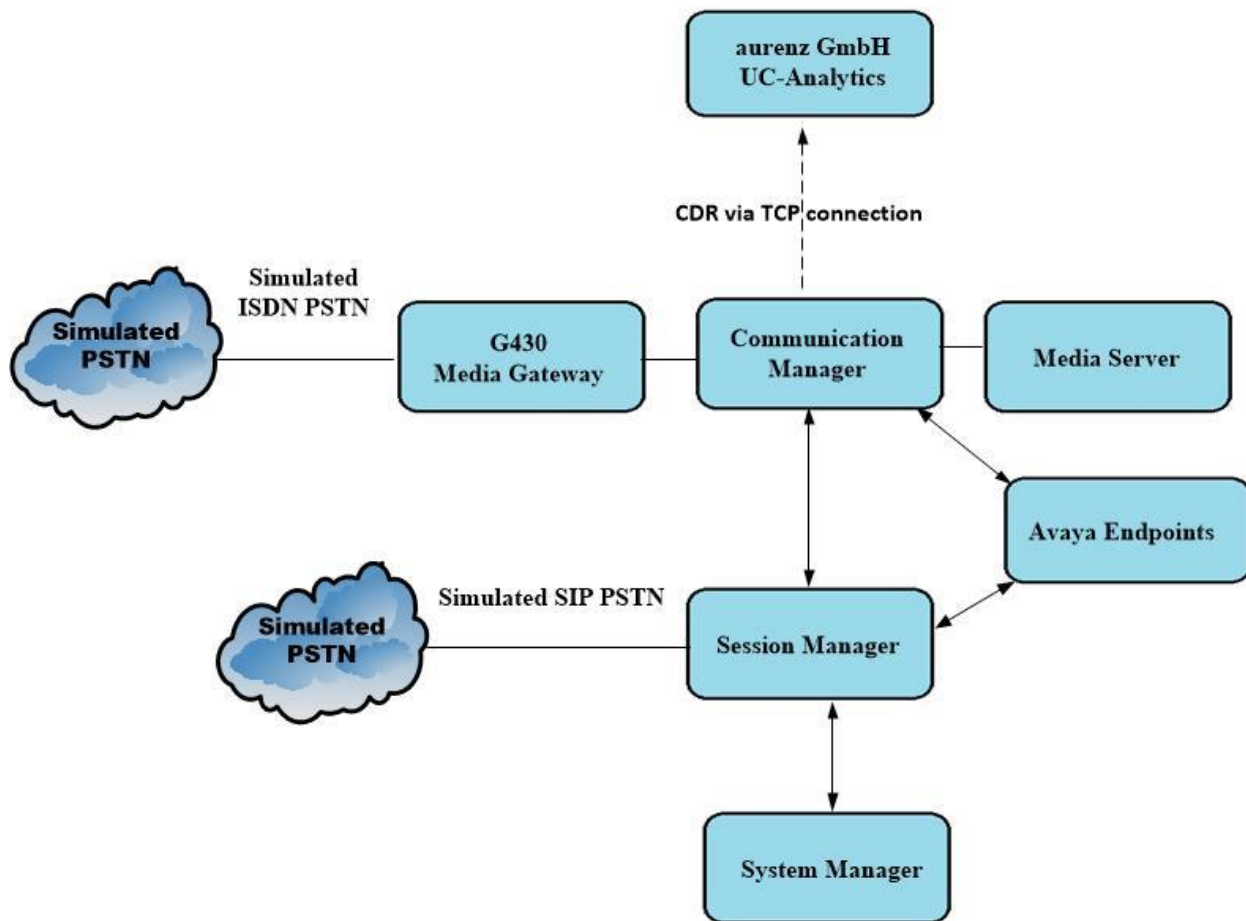
Figure 1: Avaya Aura® Communication Manager and aurenz GmbH reference configuration

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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	8.1.3.2 Build No. – 8.1.0.0.733078 Software Update Revision No: 8.1.3.2.1012646 Service Pack 2
Avaya Aura® Session Manager running on a virtual server	8.1.3.2 Build No. – 8.1.3.2.813207
Avaya Aura® Communication Manager running on a virtual server	8.1.3.2 – FP3SP2 R018x.01.0.890.0 Update ID 01.0.890.0-26989
Avaya Aura® Media Server	8.0.2.184
Avaya G430 Media Gateway	41.16.0/1
Avaya J179 IP Phone (H.323)	6.8502
Avaya J189 IP Phone (SIP)	4.0.10.1.2
Avaya 9404 Digital Phone	2.00
aurenz GmbH UC-Analytics running on Windows 10 PC	13.0.1.02

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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 describes the configuration of the Communication Manager for this solution. It is implied that 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:

- Create Node Name for UC-Analytics
- Define the CDR Link
- Change System Parameters CDR
- Set System Parameters Special Applications
- Set Class of Service
- Configure Trunks for CDR Reporting

5.1. Create Node Name for UC-Analytics

A Node Name needs to be created to associate UC-Analytics with Communication Manager. Use the **change node-names ip** command to configure the following:

- **Name**   Enter an informative name i.e., **UC-Analytics**
- **IP address**   Enter the IP address of the UC-Analytics PC/Server

```
change node-names ip                                       Page   1 of   2
                              IP NODE NAMES
   Name                IP Address
UC-Analytics          10.10.40.182
```

5.2. Define the CDR Link

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

- **Service Type**   Enter **CDR1**
- **Local Node**   Enter **procr**
- **Remote Node**   Enter **UC-Analytics**
- **Remote Port**   Enter **9000**

```
change ip-services                                         Page   1 of   4

                              IP SERVICES
 Service       Enabled    Local     Local     Remote        Remote    TLS
  Type                    Node      Port      Node          Port   Encryption
AESVCS          y         procr     8765
CDR1                      procr     0         UC-Analytics  9000      n
```

TLS Encryption was set to **n**, as encryption was not used.

Navigate to **Page 3** and set the **Reliable Protocol** field to **n**. This will disable Reliable Session Protocol (RSP) for CDR transmission. In this case, the CDR link will use TCP without RSP.

```
change ip-services                                              Page    3 of    4

                           SESSION LAYER TIMERS
   Service      Reliable  Packet Resp   Session Connect   SPDU   Connectivity
    Type        Protocol     Timer        Message Cntr    Cntr      Timer

  CDR1             n          30                3           3         60
```

5.3. Change System Parameters CDR

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

```
change system-parameters cdr                                    Page   1 of   2
                          CDR SYSTEM PARAMETERS
 Node Number (Local PBX ID):                     CDR Date Format: day/month
      Primary Output Format: customized     Primary Output Endpoint: CDR1
    Secondary Output Format:
      CDR Retention (days): 20
           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? y                    Remove # From Called Number? n
Modified Circuit ID Display? n
                     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? y      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? y
Record Agent ID on Incoming? n        Record Agent ID on Outgoing? y
      Inc Trk Call Splitting? y                  Inc Attd Call Record? y
    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: 5
Remove '+' from SIP Numbers? y
```

Navigate to **Page 2** and enter **Data Item** and **Length** as shown in the screen below.

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


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

                          Record length = 147
```

5.4. Set System Parameters Special Applications

There are Special Applications that need to be set to allow for certain CDR conditions such as **Start Time and 4-Digit Year CDR Custom Fields**, this is **SA8201**, and it should be set to y as shown below.

```
change system-parameters special-applications              Page   3 of  11
                       SPECIAL APPLICATIONS


               (SA8141) - LDN Attendant Queue Priority? n
       (SA8143) - Omit Designated Extensions From Displays? n
           (SA8146) - Display Update for Redirected Calls? n
             (SA8156) - Attendant Priority Queuing by COR? n
             (SA8157) - Toll Free Vectoring until Answer? n
  (SA8201) - Start Time and 4-Digit Year CDR Custom Fields? y
                     (SA8202) - Intra-switch CDR by COS? y
             (SA8211) - Prime Appearance Preference? n
               (SA8240) - Station User Admin of FBI? n
                          (SA8312) - Meet-Me Paging? n
             (SA8323) - Idle Call Preference Display? n
                  (SA8339) - PHS X-Station Mobility? n
             (SA8348) - Map NCID to Universal Call ID? n
           (SA8428) - Station User Button Ring Control? n
         (SA8434) - Delay PSTN Connect on Agent Answer? n
                     (SA8439) - Forward Held-Call CPN? n
            (SA8440) - Unmodified QSIG Reroute Number? n

                                 (SA8475) - SOSM? n
```

5.5. Set Class of Service

Intra-switch CDR can be set to **y** as shown below. This was set for COS 1 and can be then assigned to each trunk group or station as required.

```
change cos-group 1                                       Page   1 of   2
CLASS OF SERVICE        COS Group: 1    COS Name: PG Default

                            0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15
 Auto Callback              n  y  y  n  y  n  y  n  y  n  y  n  y  n  y  n
 Call Fwd-All Calls         n  y  n  y  y  n  n  y  y  n  n  y  y  n  n  y
 Data Privacy               n  y  n  n  n  y  y  y  y  n  n  n  n  y  y  y
 Priority Calling           n  y  n  n  n  n  n  n  n  y  y  y  y  y  y  y
 Console Permissions        n  y  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Off-hook Alert             n  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Client Room                n  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Restrict Call Fwd-Off Net  y  y  y  y  y  y  y  y  y  y  y  y  y  y  y  y
 Call Forwarding Busy/DA    n  y  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Personal Station Access (PSA) n n n n  n  n  n  n  n  n  n  n  n  n  n  n
 Extended Forwarding All    n  y  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Extended Forwarding B/DA   n  y  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Trk-to-Trk Transfer Override n y n  n  n  n  n  n  n  n  n  n  n  n  n  n
 QSIG Call Offer Originations n n n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Contact Closure Activation n  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n


 Intra-switch CDR           n  y  n  n  n  n  n  n  n  n  n  n  n  n  n  n
```

5.6. Configure Trunks for CDR Reporting

For each trunk group for which CDRs are desired, verify that CDR reporting is configured to generate CDR's. 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.

Setting the CDR Reports field to r means that CDR records are generated for both incoming and outgoing calls. In addition, the following ringing interval CDR records are generated:

- Abandoned calls: The system creates a record with a condition code of "H" indicating the time until the call was abandoned.
- Answered calls: The system creates a record with a condition code of "G" indicating the interval from start of ring to answer.
- Calls to busy stations: The system creates a record with a condition code of "I" indicating a recorded interval of 0.

```
change trunk-group 22                                    Page   1 of   5
                          TRUNK GROUP

Group Number: 22                  Group Type: sip       CDR Reports: r
  Group Name: To Simulated PSTN        COR: 1      TN: 1       TAC: *822
   Direction: two-way      Outgoing Display? n
 Dial Access? n                                   Night Service:
Queue Length: 0
```

6. Configuration of aurenz GmbH UC-Analytics

This section outlines the steps to configure the UC-Analytics to collect CDR data. UC-Analytics can be installed on a server or desktop PC. Installation is carried out using software provide by aurenz GmbH. Installation instructions are outside the scope of this document but information on installation of UC-Analytics can be found in **Section 9** of this document.
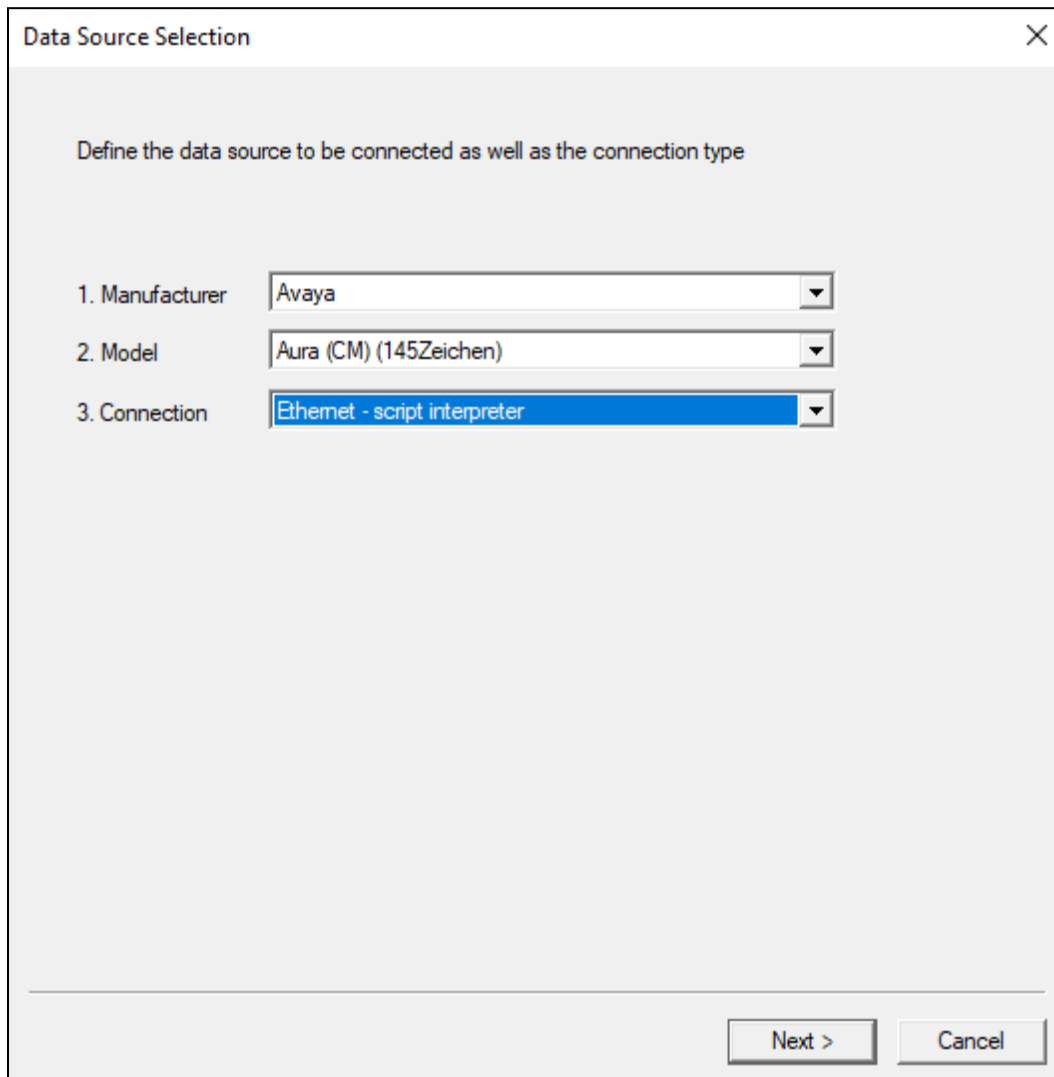
Once the software is installed the connection to Communication Manager can be created by accessing the Data Collector wizard. The Data Collector is running in the system tray at the bottom of the screen, once opened the following screen is displayed where a new Data Source can be created by navigating to **Data Sources → Setup**.

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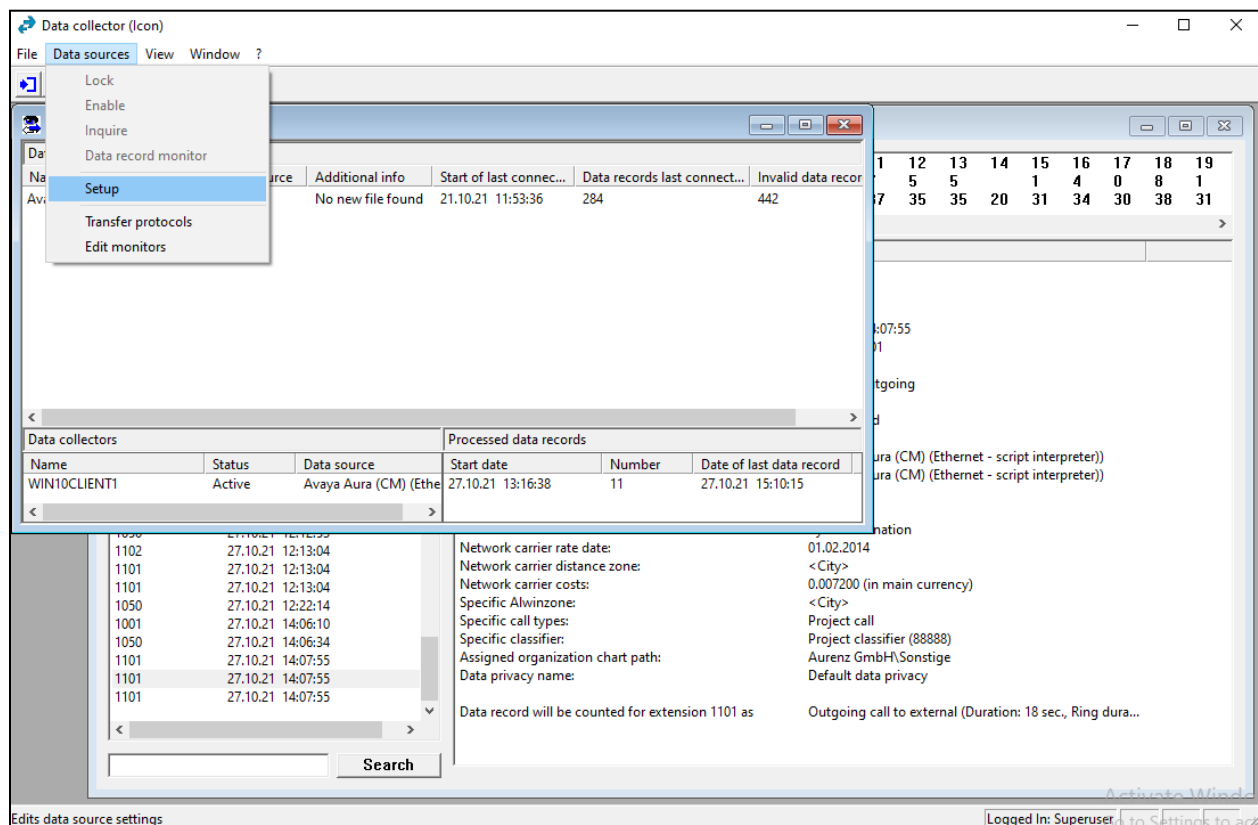
Click on **New** from the screen shown below.

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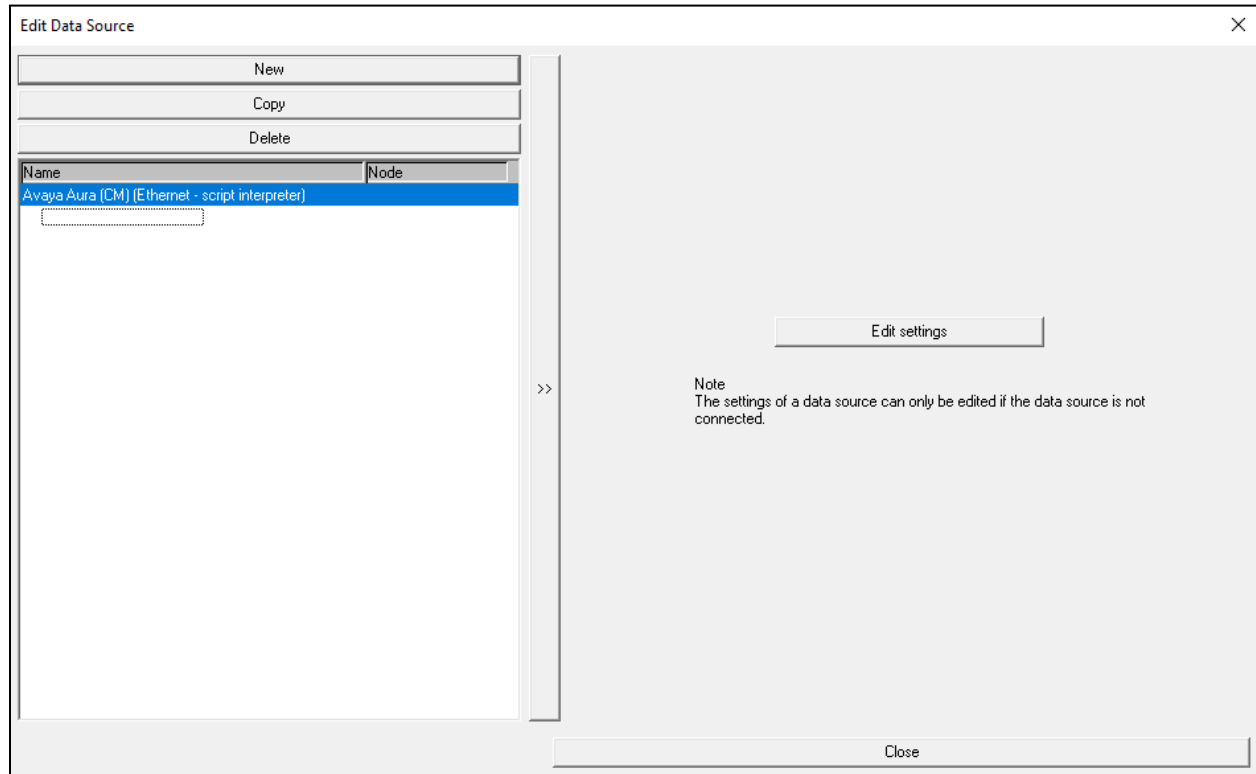
Select **Avaya** as the **Manufacturer** and the **Model** should be set to **Aura (CM) (145Zeichen)** as shown below, the **Connection** is set to **Ethernet – script interpreter**. Click on **Next** to continue.

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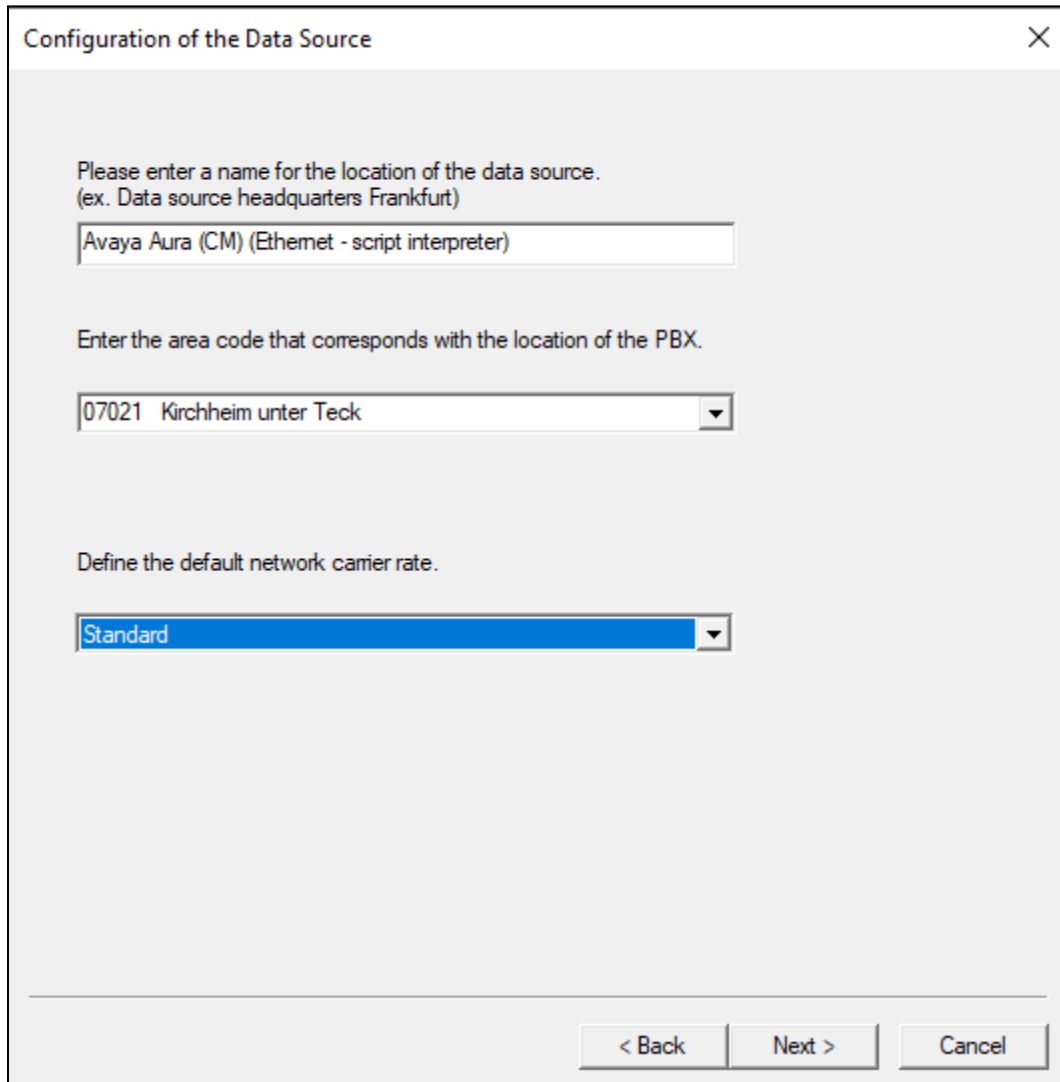
Click on **No** for the following, or if a description of the connection is required, then click on yes.
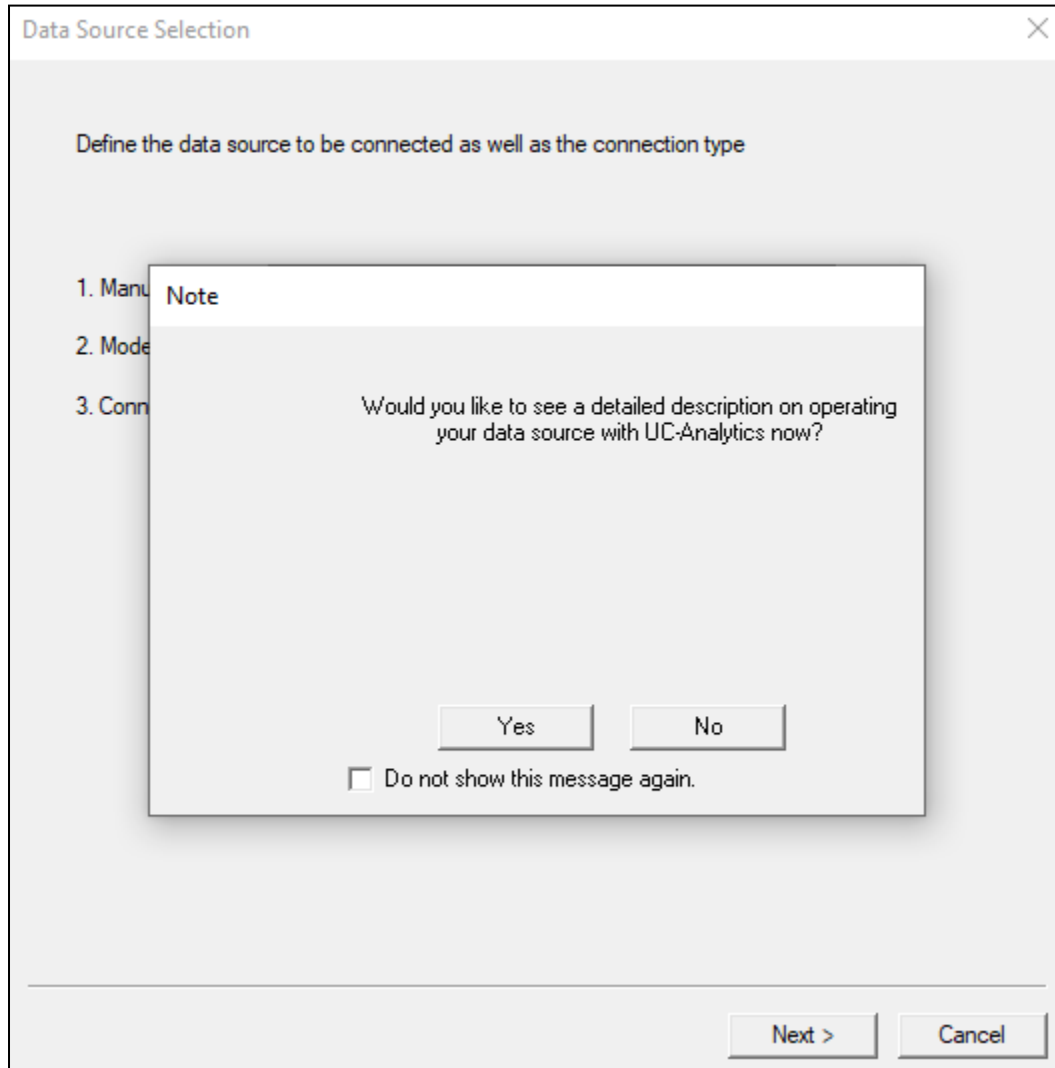
From the drop-down menu, select the local postcode and the **Default network carrier rate** was set to **Standard**. Click on **Next** to continue.
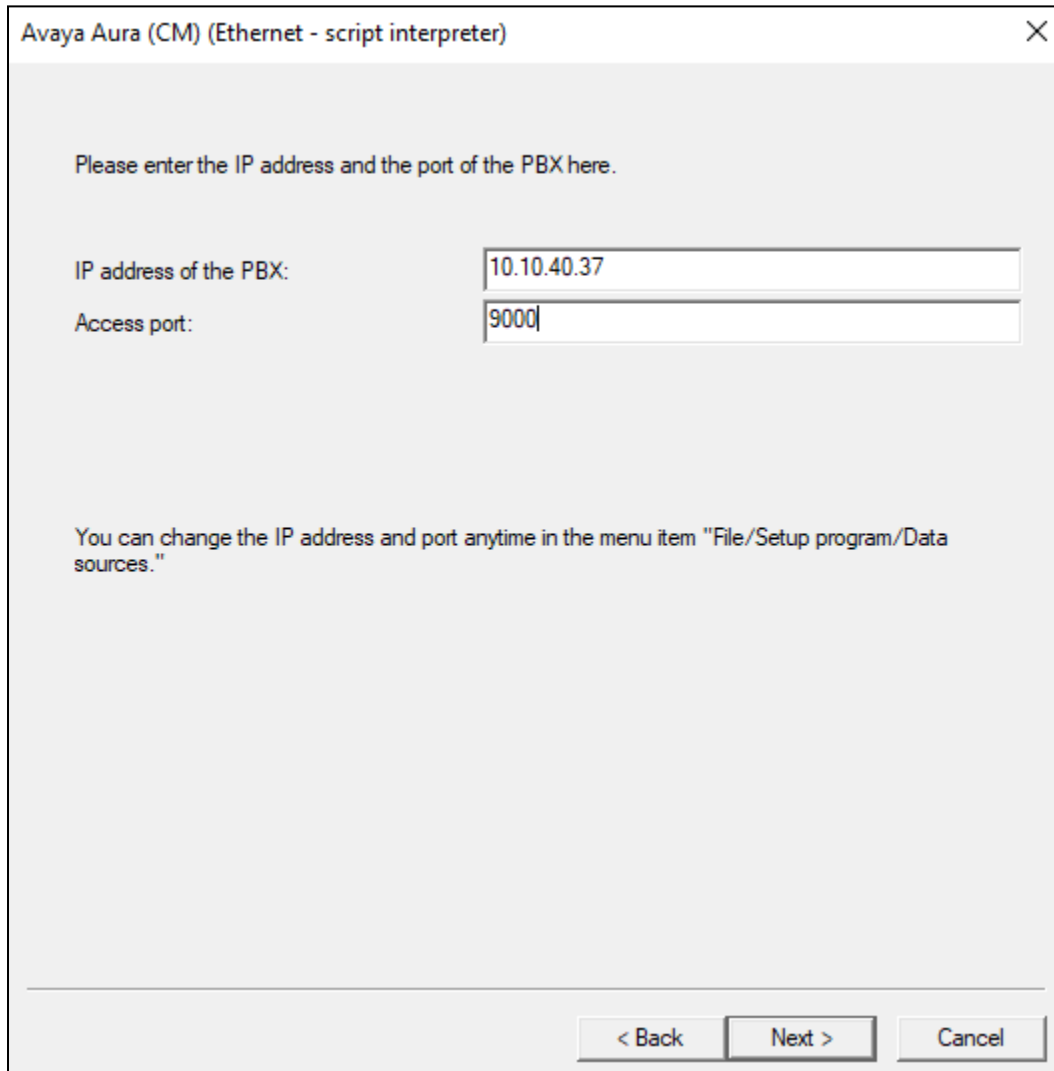
Enter the **IP address** of Communication Manager and the **Access port** as defined in **Section 5.2**.

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The **Script file** was automatically populated and was not changed, click on **Finish** to complete.

Avaya Aura (CM) (Ethernet - script interpreter)

Define the following parameters to configure the chosen data source.

Script file:

`x86)\Aurenz\UC-Analytics\PbxSkripts\Avaya\Aura (CM).145Zeichen.pbx`   `...`

You can change your selection anytime in DataCollector in the menu "File/Program setup/Data sources."

[< Back]   [Finish]   [Cancel]
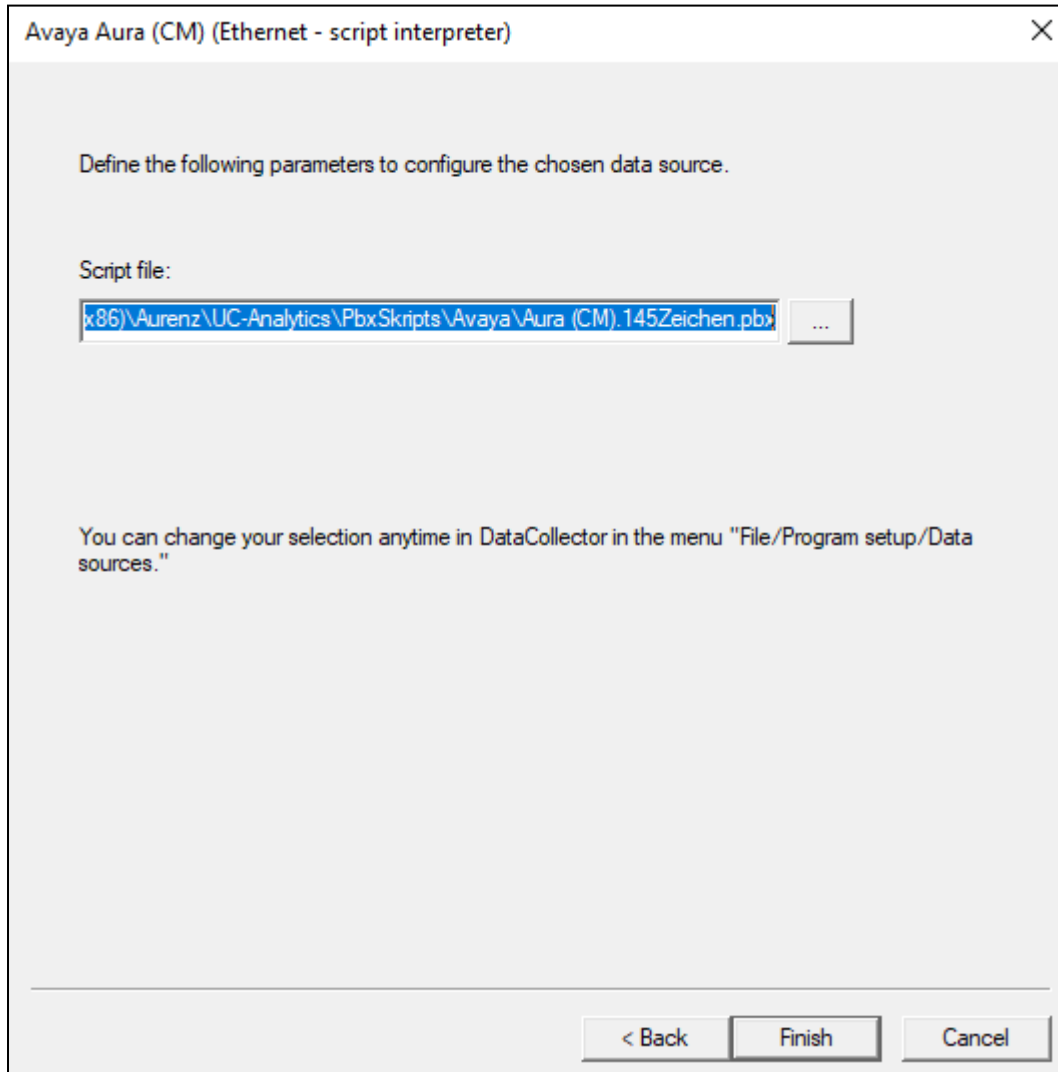
Once the new Data Source is added, it is visible in the left window as shown below. Clicking on the **Data Source** in question will allow the settings to be changed, should this be required. Clicking on the **Avaya ACM** tab allows the extension length to be specified as **4** and the outside line number added as **9**.

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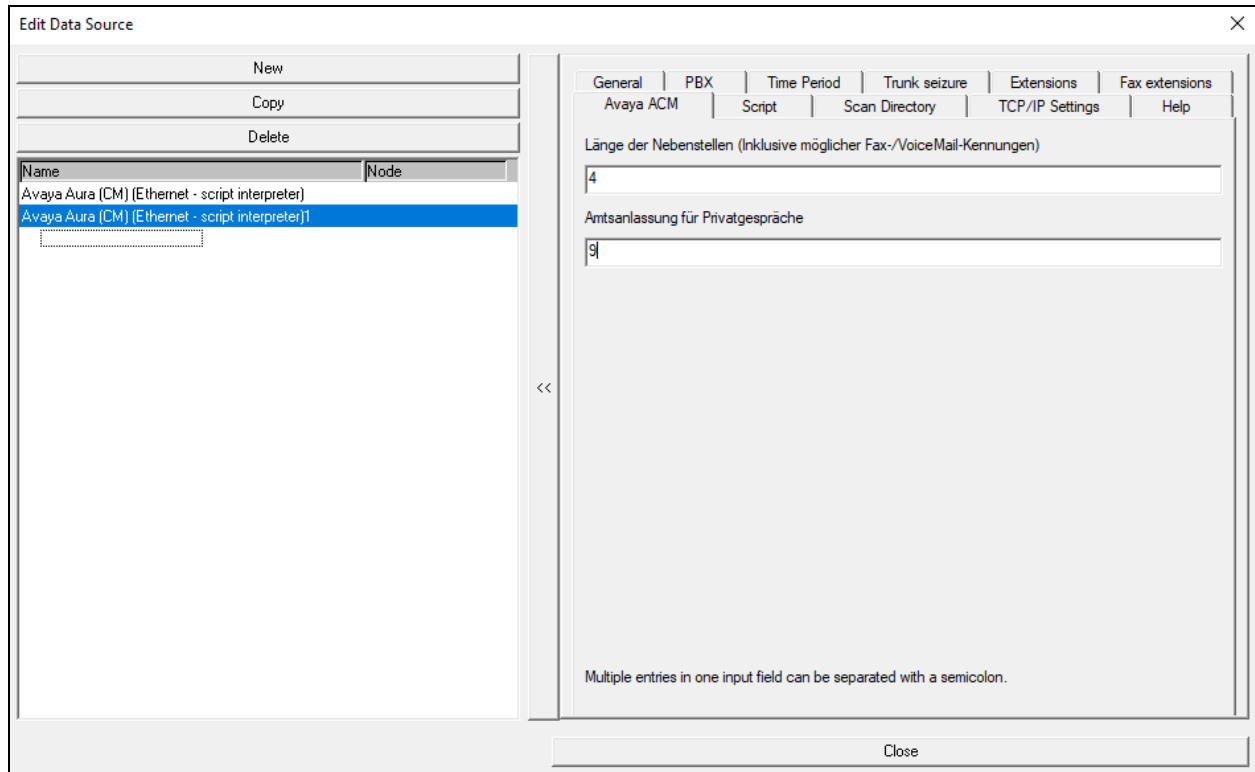
Communication Manager is configured to send the data to the UC-Analytics. Therefore, the data source must be configured to listen for an incoming connection. On the tab **TCP/IP Settings** the **Type of connection** must be set to **Passive** and the **Access port** must be the same as configured on Communication Manager.

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Clicking on the **Time Period** tab allows the period of operation to be set.

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7. Verification Steps

This section provides tests that can be performed to verify correct configuration of the Avaya and aurenz GmbH solution.

7.1. Verify Avaya Aura® Communication Manager CDR Link

Use the **status cdr-link** command to verify that the link between Communication Manager and UC-Analytics 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: 2021/01/28 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 CDR data is being sent from Avaya Aura® Communication Manager

Setup a port listening tool on a PC and set it to listen on port 9000. Once connected make an incoming and outgoing call and on completion of the calls CDR data should be visible on the port listening tool. An example is shown below.

```
270115 1614 00007 O      701              1003     1003              007       0   0          8888
270115 1614 00007 C                       1003     3005  710   015             0   0
270115 1623 00004 9                       710      1003  701   001             0   0          8888
270115 1623 00004 7     9  710            3005     1003        001 009         0   0          8888
270115 1623 00002 7     9  710            3005     1016            010         0   0
270115 1632 00004 C                       1003     1016
270115 1632 00004 O      701              1003     1003              008       0   0          8888
270115 1633 00004 C                       1003     1016
270115 1633 00004 O      701              1003     1003              009       0   0          8888
270115 1633 00004 C                       1003     1016
270115 1633 00004 O      701              1003     1003              010       0   0          8888
270115 1635 00006 C                       1003     1016
270115 1635 00006 O      701              1003     1003              011       0   0          8888
270115 1637 00004 9                       710      1003  701   001             0   0          8888
270115 1637 00004 7     9  710            3005     1003        001 011         0   0          8888
270115 1638 00003 9                       1015     1003  701   001             0   0          8888
270115 1639 00002 C                       1003     1016
```

7.3. Verify CDR data is being received by the UC-Analytics
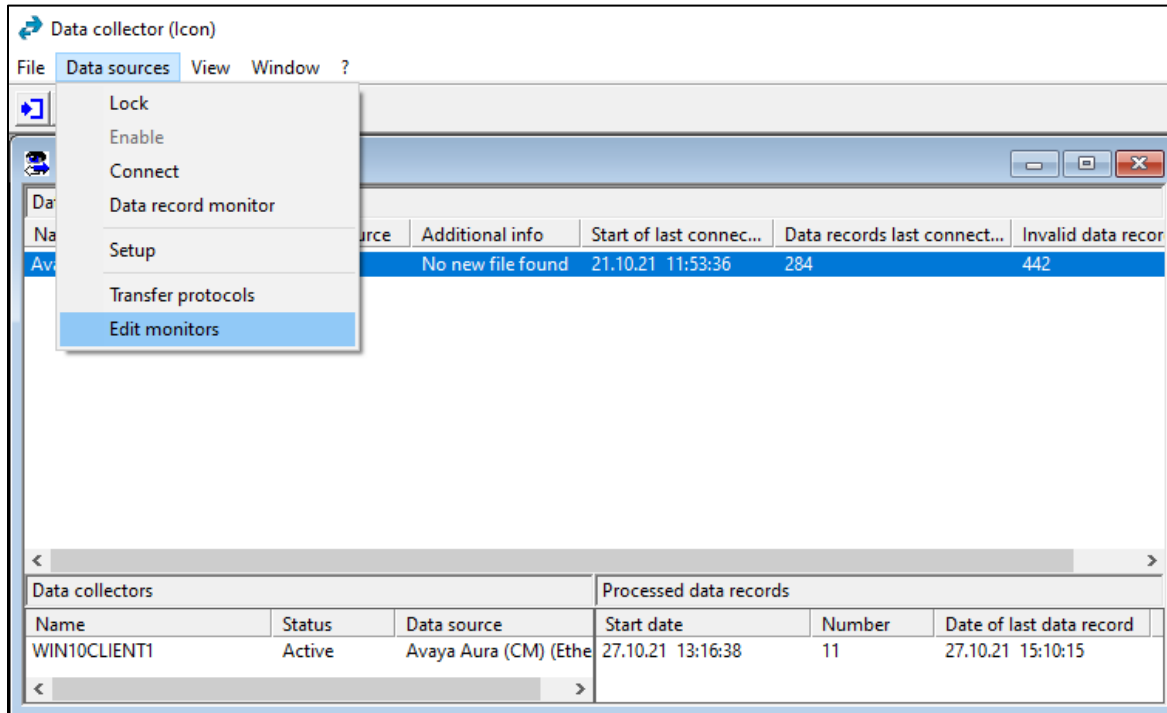
Before the application is run the services can be checked to ensure that they are in the **Running** state as shown below for the **UC-Analytics** services.
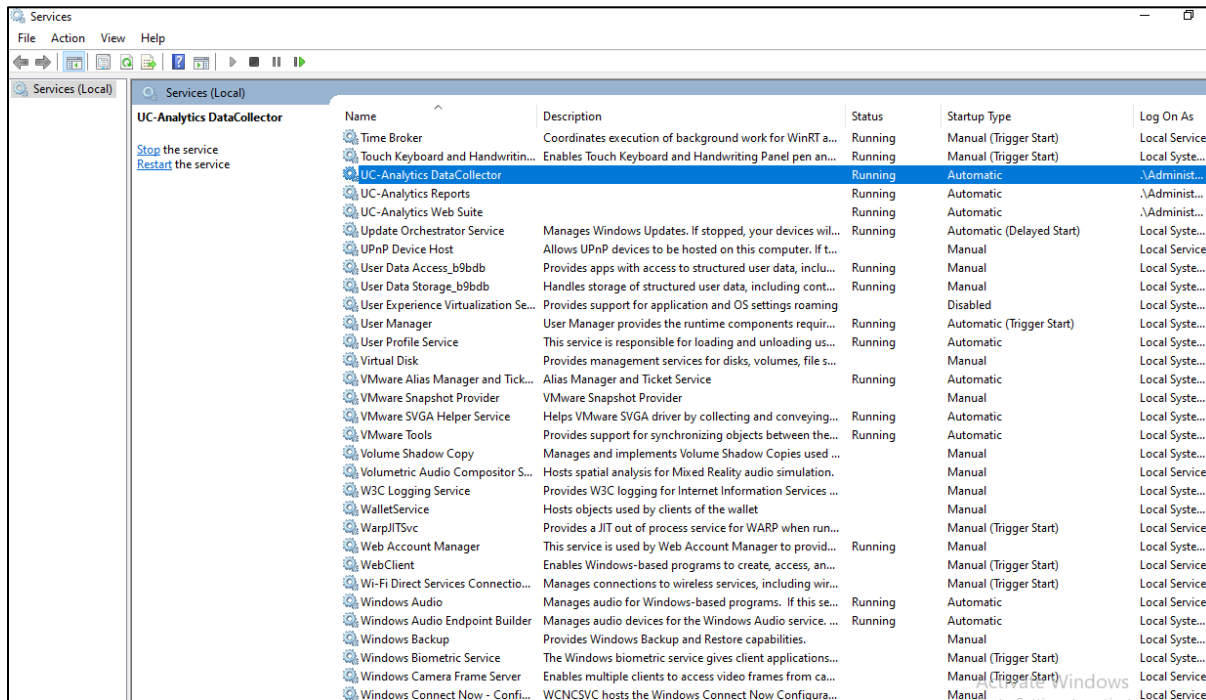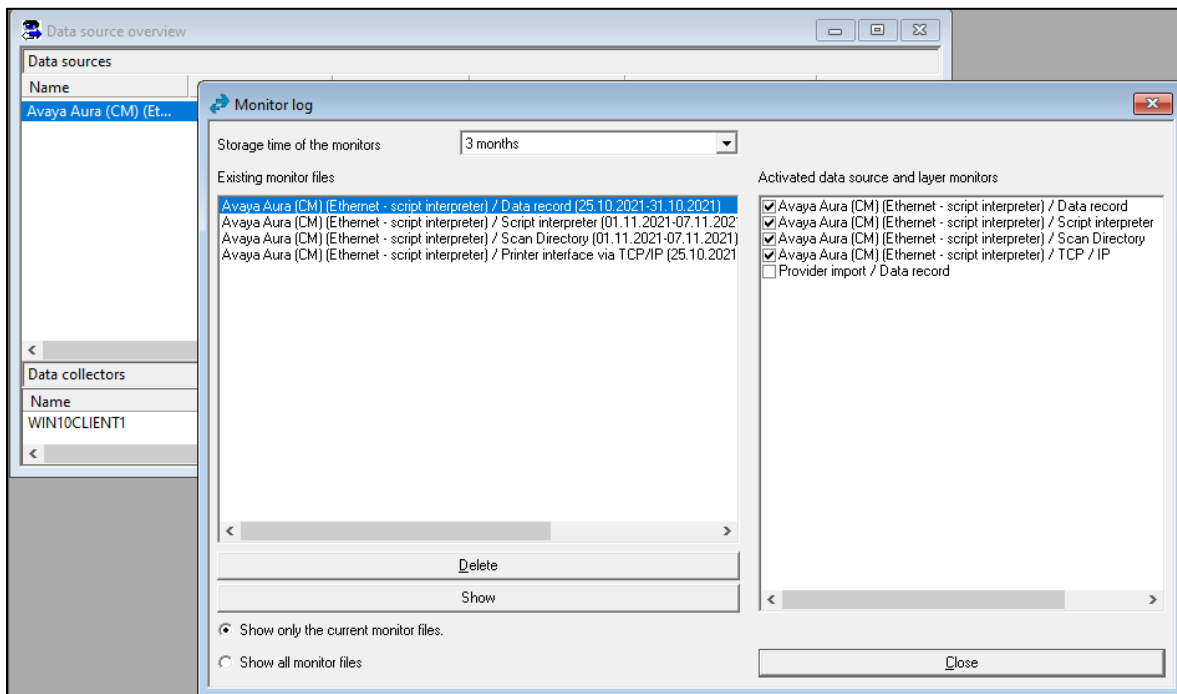

From the task bar at the bottom right of the screen, click on the icon highlighted, this will open the window shown. Enter the appropriate credentials and click on **OK**.

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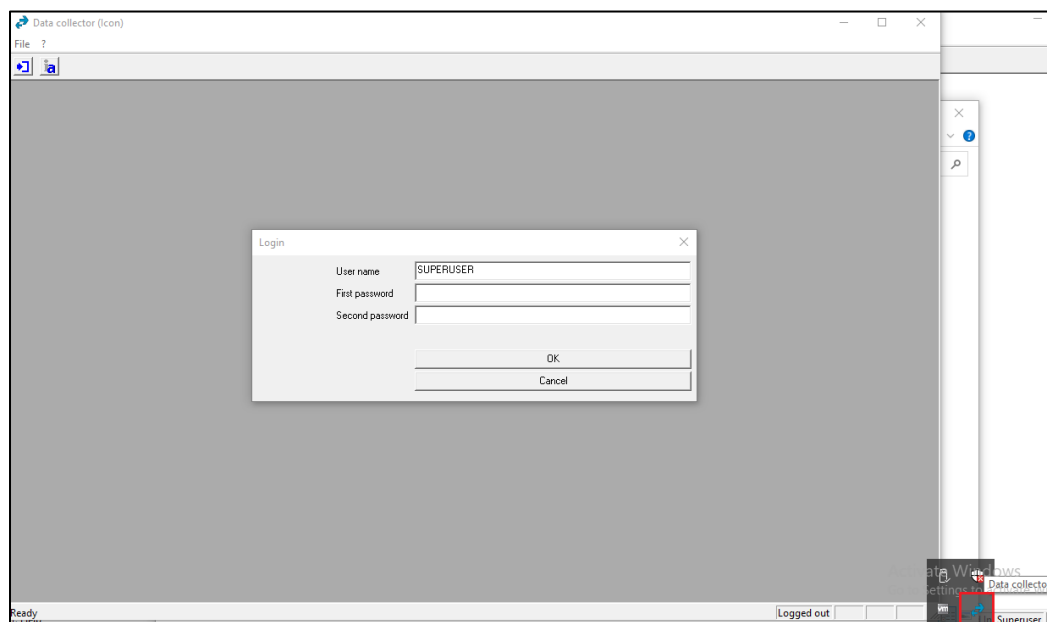
From the menu, navigate to **Data sources → Edit monitors**.

Click on the **Data record** line as shown below with the various monitors ticked as shown and click on **Show** at the bottom of the screen.

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The list of calls made appear in the left window and clicking on them reveal information about that call such as shown below for a call to **35391847001**.

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7.4. Verify UC-Analytics Call Data Reports

Open a web browser to the IP address of the UC-Analytics server as shown below and enter the appropriate credentials.
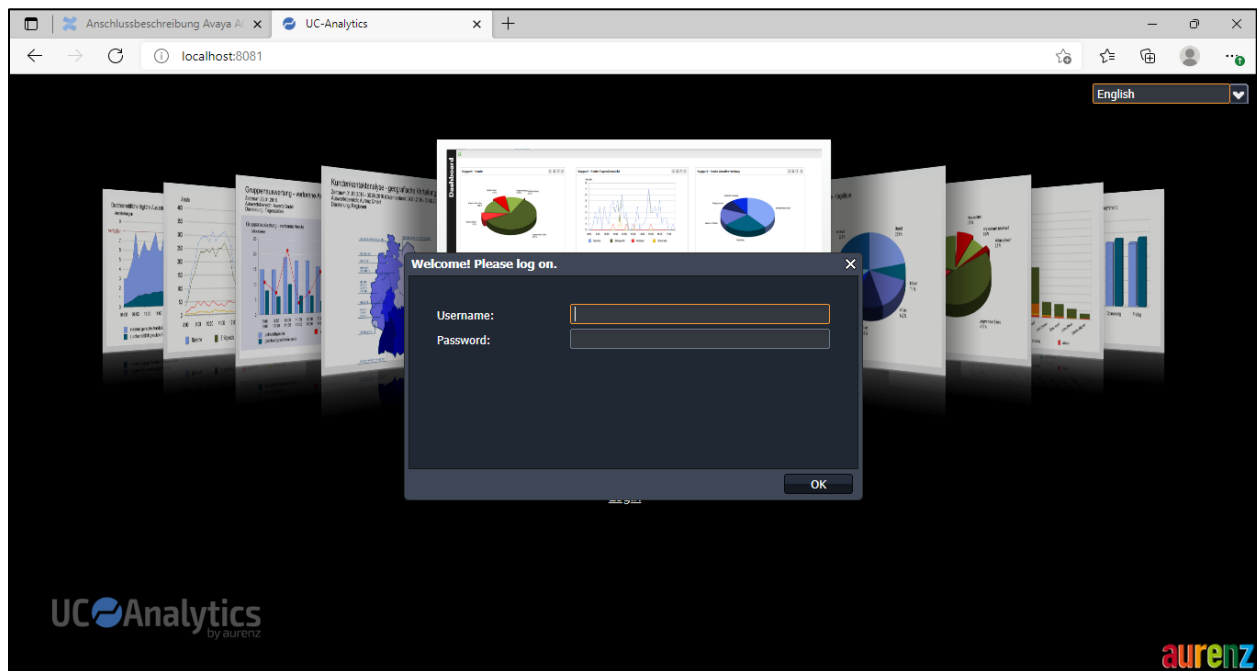
From the main data from the **Call Data Explorer** can be displayed for example, **Today's data**.

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The report should give back call data, an example of this call Data is shown below.
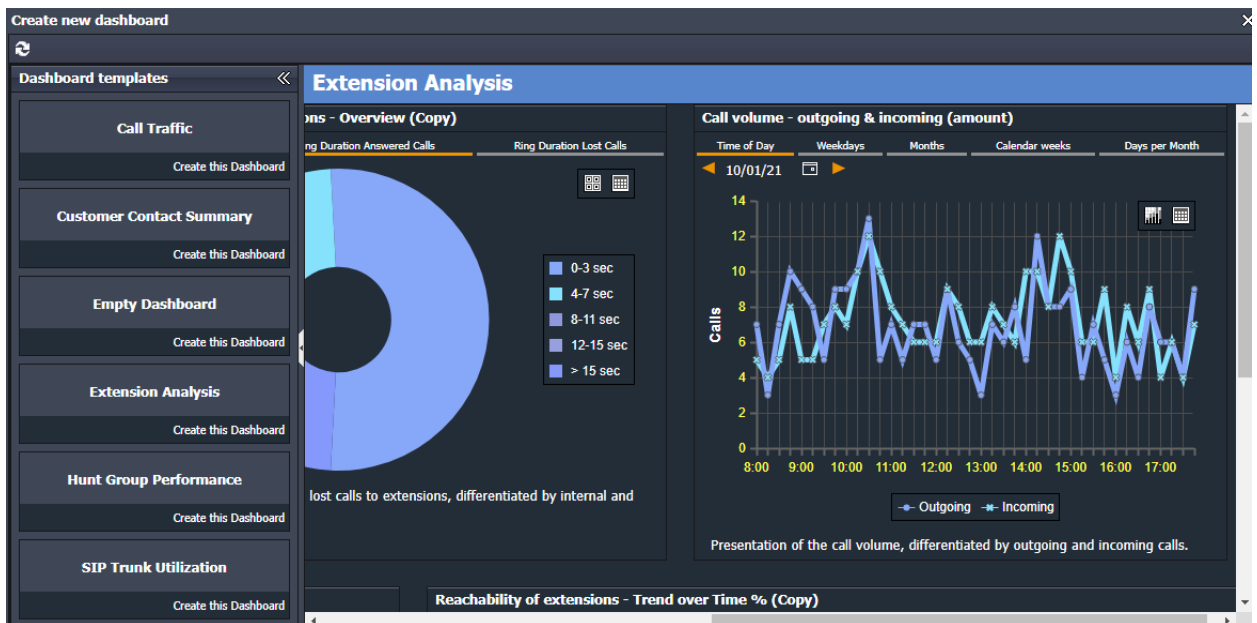

7.5. Verify UC-Analytics Reports

From the main page select **Dashboard** as shown below, where a new Dashboard or Widget can be created, or a default Dashboard opened.
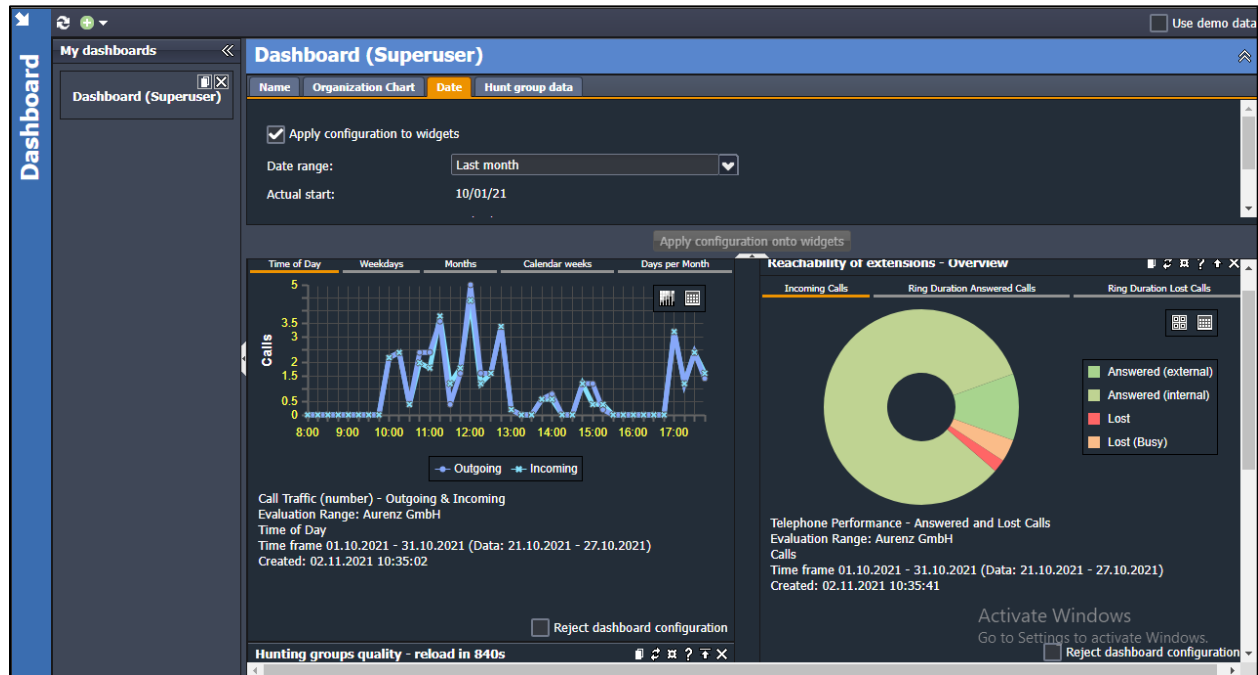
To create a new Dashboard, select **Create dashboard** from the drop-down as shown.
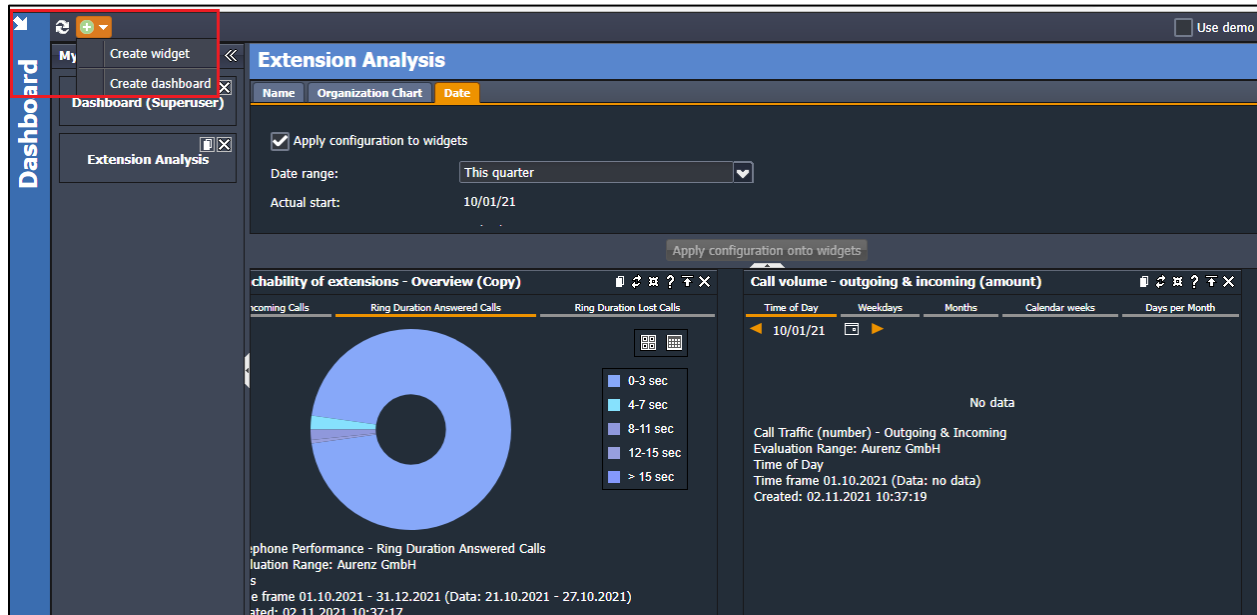
The type of Dashboard required can be selected from the left window.

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Below shows some information on calls over the period of a month, displaying various statistics on the overall site.

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8. Conclusion

A full and comprehensive set of feature functional test cases were performed during compliance testing. aurenz GmbH UC-Analytics v13.0 is considered compliant with Avaya Aura® Communication Manager R8.1. All test cases have passed with all observations noted 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] *Administering Avaya Aura® Communication Manager,* Release 8.1.x, Issue 12, Jul 2021
[2] *Administering Avaya Aura® Session Manager,* Release 8.1.x, Issue 8, Feb 2021
[3] *Avaya Aura® Communication Manager Screen Reference,* Release 8.1.x Issue 12 September 2021
[4] *Avaya Aura® Communication Manager Feature Description and Implementation*, Release 8.1.x Issue 17 August 2021
[5] *Avaya Aura® Communication Manager Special Application Features*, October 2020

Information on the installation and configuration of UC-Analytics can be found at https://www.aurenz.de.

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