AVAYA

DevConnect Program

Application Notes for Comstice Quartz Reporting and Analytics with Avaya Aura® Communication Manager and Avaya Call Management System using Call History Interface – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate Comstice Quartz Reporting Version 20230105 and Analytics with Avaya Call Management System Release 19.2 using the Open Database Connectivity (ODBC) Interface to capture ACD contact center data from Avaya Aura® Communication Manager. The Call History Interface is used to obtain historical splits/skills, Vector Directory Numbers (VDNs), and agent data periodically.

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.

KP; Reviewed:
SPOC 6/16/2023

Avaya DevConnect Application Notes
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Comstice_CMS19

1. Introduction

These Application Notes describe the configuration steps required to integrate Comstice Quartz Reporting and Analytics (Comstice Quartz) with Avaya Call Management System (CMS) using the ODBC interface to capture ACD contact center data from Avaya Aura® Communication Manager (Communication Manager). The ODBC interface is used to obtain historical splits/skills, Vector Directory Numbers (VDNs), and agent data periodically.

The Comstice Quartz application is windows services that will be installed in the customer's environment to enable data collection via ODBC from one or many Avaya CMS servers. These services are installed and supported by the Comstice support team.

Comstice Quartz Reporting and Analytics for Avaya CMS helps companies to better report & analyze contact center activity, set thresholds & receive daily emails about the performance, design visual scorecards, & receive daily, weekly monthly scorecards by email, repetitive call analysis, customer patience analysis, call result analysis, weekly heatmaps, year on year charts, visual report designer, omnichannel customer journey maps & visual cradle to grave reports.

2. General Test Approach and Test Results

The feature test cases were performed manually. Incoming calls were made to the monitored ACD/Skill and VDN groups to enable data streams to be sent to Avaya CMS.

The serviceability test cases were performed manually by stopping and restarting the Comstice service, and by disconnecting and reconnecting the LAN cable to the Comstice server.

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 this DevConnect Application Note included the enablement of supported encryption capabilities in the Avaya products only (private network side). 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 this Application Note, the interface between Avaya systems and the Comstice did not include use of any specific encryption features.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing focused on verifying Comstice Quartz obtaining the call data and displaying different types of call report that includes ACD/Skill, VDN, and Agent information from Avaya CMS via the ODBC interface.

The serviceability testing focused on verifying the ability of Comstice server to recover from adverse conditions, such as restarting Comstice services and interfaces.

2.2. Test Results

The test objectives listed in **Section 2.1** were verified and all test cases were executed and passed.
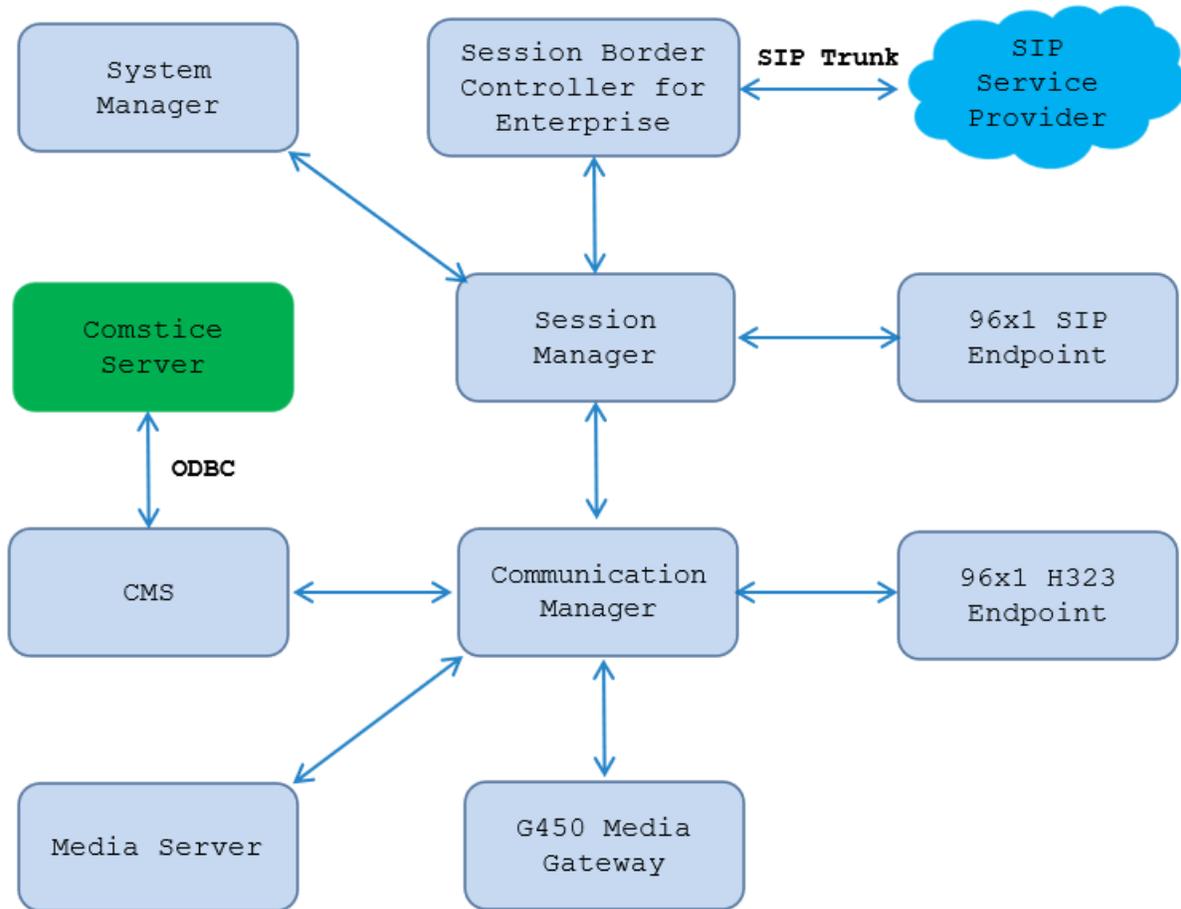
2.3. Support

Contact Comstice for technical support.

- **Web:** https://comstice.com/support
- **Phone:** +44 203 051 7796
- **Email: support@comstice.com**

3. Reference Configuration

Figure 1 illustrates the configuration used for compliance testing. The network consisted of Communication Manager, Avaya CMS and Comstice server running on a virtualized environment.

Figure 1: Test Configuration Diagram

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya	
Avaya Aura® System Manager	10.1.0.2 Build No. – 10.1.0.0.537353 Software Update Revision No: 10.1.0.2.0715434 – Service Pack 2 Hotfix - 1010215434
Avaya Aura® Session Manager	10.1.0.2.1010219
Avaya Aura® Communication Manager	10.1 Service Pack 2 - 27607
Avaya Session Border Controller for Enterprise	10.1.0.0-32-21432
Avaya G430 Media Gateway	42.8.0
Avaya Aura® Media Server	v.8.0.2.SP9
Avaya Call Management System	19.2
Avaya 96x1 IP Deskphone (H.323)	6.8.5
Avaya 9611 IP Deskphone (SIP)	7.1.15
Avaya J189 IP Deskphone (SIP)	4.0.14
Avaya one–X® Communicator (H.323 & SIP)	6.2.14.17 -SP14-Patch 8
Avaya Workplace for Windows (SIP)	3.31.2
Comstice	
	Quartz 20230105

5. Configure Avaya Aura® Communication Manager

This section describes the steps required for Communication Manager to support the configuration in **Figure 1**. The following pages provide step-by-step instructions on how to administer parameters specific to the Call Management System solution only. The assumption is that the appropriate license and authentication files have been installed on the servers and that login and password credentials are available and that the reader has a basic understanding of the administration of Communication Manager. It is assumed that all other connections, (e.g., to PSTN, to LAN) are configured and will not be covered in this document. The reader will need access to the System Access Terminal (SAT). For detailed information on the installation, maintenance, and configuration of Communication Manager, please refer to **Error! Reference source not found.**.

This section provides the procedures for configuring Communication Manager. The procedures include the following areas:

- Verify Communication Manager Options
- Administer adjunct CMS release
- Administer processor interface channel
- Administer measured VDN
- Administer measured Skill

The detailed administration of contact center devices such as ACD/Skill, VDN, Vector, and Agents are assumed to be in place. These Application Notes will only cover how to enable ACD/Skill, VDN, and Agent data to be sent to Avaya CMS.

5.1. Verify Avaya Aura® Communication Manager Software Options

Log into the System Access Terminal (SAT) to verify that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the "display system-parameters customer-options" command to verify that the **G3 Version** field is set to "V20" on **Page 1**, as shown below.

```
display system-parameters customer-options                    Page   1 of  12
                             OPTIONAL FEATURES

       G3 Version: V20                         Software Package: Enterprise
         Location: 2                           System ID (SID): 1
         Platform: 28                          Module ID (MID): 1

                                                        USED
                          Platform Maximum Ports: 81000   124
                                Maximum Stations: 41000    61
                          Maximum XMOBILE Stations: 41000    0
                Maximum Off-PBX Telephones - EC500: 41000    0
                Maximum Off-PBX Telephones -  OPS: 41000    21
                Maximum Off-PBX Telephones - PBFMC: 41000    0
                Maximum Off-PBX Telephones - PVFMC: 41000    0
                Maximum Off-PBX Telephones - SCCAN:     0    0
                Maximum Off-PBX Telephones -  EMX: 41000    0
                    Maximum Survivable Processors: 313      1



         (NOTE: You must logoff & login to effect the permission changes.)
```

Navigate to **Page 7** and verify that the **Call Center Release** field is set to "10.1", as shown below.

```
display system-parameters customer-options                   Page    7 of  12
                         CALL CENTER OPTIONAL FEATURES


                        Call Center Release: 10.1

                                ACD? y                         Reason Codes? y
                      BCMS (Basic)? y              Service Level Maximizer? n
          BCMS/VuStats Service Level? y            Service Observing (Basic)? y
 BSR Local Treatment for IP & ISDN? y      Service Observing (Remote/By FAC)? y
                   Business Advocate? n             Service Observing (VDNs)? y
                    Call Work Codes? y                            Timed ACW? y
       DTMF Feedback Signals For VRU? y                     Vectoring (Basic)? y
                   Dynamic Advocate? n                 Vectoring (Prompting)? y
        Expert Agent Selection (EAS)? y            Vectoring (G3V4 Enhanced)? y
                            EAS-PHD? y              Vectoring (3.0 Enhanced)? y
                   Forced ACD Calls? n    Vectoring (ANI/II-Digits Routing)? y
               Least Occupied Agent? y    Vectoring (G3V4 Advanced Routing)? y
           Lookahead Interflow (LAI)? y                    Vectoring (CINFO)? y
 Multiple Call Handling (On Request)? y    Vectoring (Best Service Routing)? y
    Multiple Call Handling (Forced)? y                 Vectoring (Holidays)? y
   PASTE (Display PBX Data on Phone)? y                 Vectoring (Variable
```

Note: Values used were specific to this Compliance Test. When integrating with other releases please use the Version information provided for that release.

5.2. Administer Adjunct CMS Release

Use the "change system-parameters features" command and navigate to **Page 12**. Set the **Reporting Adjunct Release** field for **CMS** to the software release of the Avaya CMS. In this case, "R18.1/19.0" is used to correspond to Avaya CMS software release R19.0.

```
change system-parameters features                            Page  12 of  19
                       FEATURE-RELATED SYSTEM PARAMETERS
 AGENT AND CALL SELECTION
                        MIA Across Splits or Skills? n
                          ACW Agents Considered Idle? y
                  AUX Agents Considered Idle (MIA)? n
                     AUX Agent Remains in LOA Queue? n
                          Call Selection Measurement: current-wait-time
   Service Level Supervisor Call Selection Override? n
                              Auto Reserve Agents: none
      Block Hang-up by Logged-in Auto-Answer Agents? n
 CALL MANAGEMENT SYSTEM
    REPORTING ADJUNCT RELEASE (determines protocol used by appl link)
                                 CMS (appl mis): R18.1/R19.0
                               AAPC/IQ (appl ccr):

                       BCMS/VuStats LoginIDs? y
               BCMS/VuStats Measurement Interval: hour
        BCMS/VuStats Abandon Call Timer (seconds):
                   Validate BCMS/VuStats Login IDs? n
                          Clear VuStats Shift Data: on-login
                 Remove Inactive BCMS/VuStats Agents? n
```

5.3. Administer Node Name

Add an IP Address entry in the node names forum with the "change node-names ip" command.

```
change node-names ip                                    Page   1 of   2
                             IP NODE NAMES
    Name                 IP Address
AMS1                 10.33.1.30
interopcms           10.33.1.19
RDTT                 10.33.100.16
default              0.0.0.0
SM10                 10.33.1.42
procr                10.33.1.43
```

5.4. Administer Processor Interface Channel

Assign a new processor interface channel with the "change communication-interface processor-channels" command. Add an entry with the following values, and submit these changes.

- **Enable:** "y"
- **Appl.:** "mis"
- **Mode:** "s" for server mode.
- **Interface Link:** "pv4"
- **Interface Chan:** TCP channel number for Avaya CMS. In this case "5001".
- **Destination Node:** The node name configured in previous section
- **Destination Port:** "0"
- **Session Local:** **Local Session ID** for the connection to CMS. In this case "1"
- **Session Remote:** **Remote Session ID** for the connection to CMS. In this case "1"

The **Interface Chan** field contains the Avaya CMS TCP channel number, which is defined as part of the Avaya CMS installation. For the compliance testing, the TCP channel number of **"5001"** was used.

```
change communication-interface processor-channels          Page   1 of  24
                     PROCESSOR CHANNEL ASSIGNMENT

Proc               Gtwy      Interface         Destination     Session   Mach
Chan Enable   Appl.  To  Mode Link/Chan       Node      Port  Local/Remote ID
  1:   y     mis           s    pv4 5001   interopcms      0      1     1
```

5.5. Administer Measured VDN

Use the "change vdn n" command, where "n" is the extension of the VDN to be measured by Avaya CMS. Set the **Measured** field to "external" or "both" to enable measurement data on the VDN to be sent to Avaya CMS. Repeat this step for all VDNs that will be monitored by Avaya CMS.

```
change vdn 3340                                                 Page   1 of   3
                          VECTOR DIRECTORY NUMBER

                         Extension: 3340                    Unicode Name? n
                             Name*: Contact Center 1
                       Destination: Vector Number       1
                Attendant Vectoring? n
                Meet-me Conferencing? n
                 Allow VDN Override? n
                               COR: 1
                               TN*: 1
                          Measured: both    Report Adjunct Calls as ACD*? n
        Acceptable Service Level (sec): 20

        VDN of Origin Annc. Extension*:
                         1st Skill*:
                         2nd Skill*:
                         3rd Skill*:


SIP URI:


* Follows VDN Override Rules
```

5.6. Administer Measured Skill

Use the "change hunt-group n" command, where "n" is the extension of the ACD/Skill group number to be measured by Avaya CMS. On **Page 2** set the **Measured** field to "external" or "both" to enable real-time measurement data on the ACD/Skill group and the associated agents to be sent to Avaya CMS. Repeat this step for all ACD/Skill groups that will be measured by Avaya CMS.

```
change hunt-group 1                                         Page   2 of   4
                             HUNT GROUP

                  Skill? y        Expected Call Handling Time (sec): 180
                    AAS? n          Service Level Target (% in sec): 80 in 20
              Measured: both
    Supervisor Extension:


     Controlling Adjunct: none


      VuStats Objective:

  Multiple Call Handling: none


 Timed ACW Interval (sec):         After Xfer or Held Call Drops? n
```

5.7. Administer Agent

To add an **Agent LoginID**, use the command "**add agent-loginID <agent ID>**" for each agent. In the compliance test, three agent login IDs 1000, 1001 and 1002 were created.

```
add agent-loginID 1000                                         Page   1 of   2
                              AGENT LOGINID

               Login ID: 1000                                        AAS? n
                   Name: Agent 1000                                AUDIX? n
                     TN: 1
                    COR: 1
          Coverage Path:                            LWC Reception: spe
          Security Code: 1234                LWC Log External Calls? n
              Attribute:                     AUDIX Name for Messaging:

                                            LoginID for ISDN/SIP Display? n
                                                             Password:
                                             Password (enter again):
                                                          Auto Answer: station
                                                 MIA Across Skills: system
 AUX Agent Considered Idle (MIA)? system   ACW Agent Considered Idle: system
                                            Aux Work Reason Code Type: system
                                               Logout Reason Code Type: system
                   Maximum time agent in ACW before logout (sec): system
                                              Forced Agent Logout Time:   :
     WARNING:  Agent must log in again before changes take effect
```

On **Page 2** of the **Agent LoginID** form, set the skill number (**SN**) to hunt group 1, which is the hunt group (skill) that the agents will log into.

```
add agent-loginID 1000                                         Page   2 of   2
                              AGENT LOGINID
      Direct Agent Skill:                              Service Objective? n
Call Handling Preference: skill-level           Local Call Preference? n

    SN   RL SL          SN   RL SL
 1: 1        1     16:
 2:               17:
 3:               18:
 4:               19:
 5:               20:
 6:
 7:
 8:
 9:
10:
11:
12:
13:
14:
15:
```

6. Configure Avaya Call Management System

This section shows the basic configuration in Avaya CMS to work with Comstice Quartz application. Comstice Quartz application uses the synonym table to query historical call data from the CMS ODBC database therefore the agent name, agent group, skill group, and VDN need to be configured in the synonym table in the CMS Dictionary.

6.1. Verify ODBC and JDBC License

To verify the ODBC and JDBC license, log in to the web license manager by entering the link https://<IP address or FQDN>:52233/WebLM/ LicenseServer, which the host name or FQDN is the license manager. Enter a proper username and its password to login (not shown), the WebLM Home displays. Navigate to **CMS → CMS → View license capacity**, verify the ODBC/JDBC session has enough subscriptions.

Note that Comstice Quartz reporting and analytics solution requires two CMS ODBC licenses.

Call Management System - Release: 19 - SID: 14130300			Standard

You are here: Licensed Products > CMS > View License Capacity

License installed on: March 15, 2021 11:34:57 AM -06:00

License File Host IDs:	V7-4E-7C-A2-79-68-02

Licensed Features

10 Items   Show All

Feature (License Keyword)	Expiration date	Licensed capacity	Currently Used
Maximum number of CMS CLInt sessions for external use VALUE_CMS_CLINT_EXT	permanent	1000	0
Maximum number of CMS agents VALUE_CMS_AGENTS	permanent	1000	2
Maximum number of HA/Survivable CMS ACDs VALUE_CMS_HA_SURV_ACD_CONNECTIONS	permanent	100	0
Support Centralized Licensing FEAT_WLM_CENTRALIZED	permanent	off	Not counted
Maximum number of CMS ACDs VALUE_CMS_ACD_CONNECTIONS	permanent	100	1
Maximum number of CMS ODBC/JDBC sessions VALUE_CMS_ODBC_JDBC_SUBSCRIPTIONS	permanent	1000	1
Maximum number of HA/Survivable CMS agents VALUE_CMS_HA_SURV_AGENTS	permanent	1000	0
Maximum number of CMS CLInt sessions for internal use VALUE_CMS_CLINT_INT	permanent	1000	0
Maximum number of HA/Survivable CMS supervisor sessions VALUE_CMS_HA_SURV_SUPERVISORS	permanent	1000	0
Maximum number of CMS supervisor sessions VALUE_CMS_SUPERVISORS	permanent	1000	0

WebLM Home
Install license
Licensed products
APS_CMS_Connectors
▶APS_CMS_Connectors
  Configure Centralized Licensing
CMS
  ▾ CMS
    View license capacity
    View peak usage
  Configure Centralized Licensing
Uninstall license
Server properties
Manage users

Shortcuts
Help for Licensed products

6.2. Administer Database User

A user needs to be created with a read privilege and assigned to the Informix "dbaccess" group in the CMS, this user will be used later by the Comstice Quartz application to access the ODBC database. To create a new user, from CMS menu, navigate to **User Permission → User Data**.

```
5/ 8/23  11:34  Avaya(TM) CMS
Windows: 0 of 10   ^

  lMainMenuqqqqqqqqqqqqqqqqqqqqqk
  x Reports>                    x
  x Dictionary>                 x
  x Exceptions>                 x
  x Agent Administration>       x
  x Call Center Administration> x
  x Custom Reportlqqqqqqqqqqqqqqqqqqqqqqqqqqk
  x User Permissix User Data              x
  x System Setup>x Feature Access         x
  x Maintenance> x Main Menu Addition Access x
  x CALA-RTA>    x Split/Skill Access     x
  x Generic-RTA> x Trunk Group Access     x
  x RT_Socket>   x ACD Access             x
  x Calabrio>    x Vector Access          x
  x ECH Handler> x VDN Access             x
  x Logout        mqqqqqqqqqqqqqqqqqqqqqqqqqqj
  x ;                           x
  mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj
```

The **User Permission: User Data** window displays, enter a desired user id in the **User ID** field, a username in the **User name** field, leave other fields at default and select **Add**.

```
User Permissions: User Data                      ALL ACDs
                              User ID: comstice             x Add
                              User name: comstice           x Delete
                              Room number:                  x Find one
                              Telephone number:             x List all
                              Default printer name:         x Modify
                                                            x Next
                              Login type (select only one) : x Previous
                               <x>  Normal user             mqqqqqqqqqq
                               < >  Administrator

                              Maximum user window count (1-12): 4
                              Minimum refresh rate (seconds): 30
                              Login ACD: 1
```

Go to the CMS command line to set a password for the new username "**comstice**" above.

```
[root@interopcms cms]# passwd comstice
Changing password for user comstice.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
```

Add the new username "comstice" to the "dbaccess" database group.

```
[root@interopcms cms]# usermod -G dbaccess comstice
```

Update the Informix database in the "**cmsadm**" menu by selecting the option **"10) dbaccess"**.
This change will grant the access permission to the requested user "comstice".

```
[root@interopcms cms]# cmsadm


 Avaya(TM) Call Management System Administration Menu

Select a command from the list below.
   1) acd_create   Define a new ACD
   2) acd_remove   Remove all administration and data for an ACD
   3) backup       Filesystem backup
   4) pkg_install  Install a feature package
   5) pkg_remove   Remove a feature package
   6) run_pkg      Turn a feature package on or off
   7) run_ids      Turn Informix Database on or off
   8) run_cms      Turn Avaya CMS on or off
   9) passwd_age   Set password aging options
  10) dbaccess     Change Informix DB access permissions
  11) config_pkg   Configure a feature
Enter choice (1-11) or q to quit: 10
Begin CMS DB Access Permissions changes
Please wait while connect permissions are granted for requested users
grant connect to "comstice";
grant connect to "cms";
grant connect to "sale";
Changes to CMS DB Access Permissions finished.
```

6.3. Administer Agent Name

To add an agent name, from the CMS menu, navigate to **Dictionary → Login Identifications**.

```
5/ 4/23  14:58  Avaya(TM) CMS
Windows: 0 of 10    ^

  lMainMenuqqqqqqqqqqqqqqqqqqqqqk
  x Reports>     lqqqqqqqqqqqqqqqqqqqqqqqqqk
  x Dictionary>  x Login Identifications x
  x Exceptions>  x Agent Groups         x
  x Agent Adminisx Calculations         x
  x Call Center Ax Constants            x
  x Custom Reportx Database Items>       x
  x User Permissix ACDs                 x
  x System Setup>x ACD Groups           x
  x Maintenance> x Splits/Skills        x
  x CALA-RTA>    x Trunk Groups         x
  x Generic-RTA> x Global Search        x
  x RT_Socket>   x Report               x
  x Calabrio>    x AUX Reason Codes     x
  x ECH Handler> x Logout Reason Codes  x
  x Logout       x Location IDs         x
  x ;            x Announcements        x
  mqqqqqqqqqqqqqqx Call Work Codes      x
                 x VDNs                 x
                 x Vectors              x
                 mqqqqqqqqqqqqqqqqqqqqqqqqqj
```

In the **Dictionary: Login Identifications** window, enter a desired name in the **Agent Name** field, agent login ID as defined in **Section 5.7** in the **Login ID** field and select the **Add** button in the left menu. Repeat the procedure to add another agent name if necessary.

```
Dictionary: Login Identifications                    cm10
                                                          x Add
                      Agent Name: Agent 1000              x Delete
                        Login ID: 1000                    x Find one
                     Description: Agent Login ID 1002     x List all
                                                          x Modify
                                                          x Next
                                                          x Previous
```

6.4. Administer Agent Group

To configure agent group, from the CMS menu, navigate to **Dictionary → Agent Groups** (Not Shown). The **Dictionary: Agent Groups** window displays, enter a description name in the **Agent group name** field and select **Add**.

```
Dictionary: Agent Groups                                    cm10
                                                       x Add
                         Agent group name: AgentGroup1   x Copy
                                                       x Delete
                                                       x Find one
                                                       x Get contents
                                                       x List all
                                                       x Next
                                                       x Previous
                                                       mqqqqqqqqqqqqq
```

The new agent group needs to add the agent in the group, to add the agent name as defined in **Section 6.1** to the agent group. Select **Get contents**, the **Dictionary: Agent Groups: Get contents** window displays, enter login ID in the **Login IDs** filed and select **Add**.

```
Dictionary: Agent Groups: Get contents                      cm10
                                                       x Add
              Login IDs: 1000                          x Delete
                                                       x List all
                                                       mqqqqqqqqq
```

6.5. Administer Skills/Splits Group

To configure a skill group, from the CMS menu, navigate to **Dictionary → Splits/Skills**.

```
5/ 7/23  13:51  Avaya(TM) CMS
Windows: 0 of 10   ^

 lMainMenuqqqqqqqqqqqqqqqqqqqqqqk
 x Reports>     lqqqqqqqqqqqqqqqqqqqqqqqqk
 x Dictionary>  x Login Identifications x
 x Exceptions>  x Agent Groups          x
 x Agent Adminisx Calculations          x
 x Call Center Ax Constants             x
 x Custom Reportx Database Items>        x
 x User Permissix ACDs                  x
 x System Setup>x ACD Groups            x
 x Maintenance> x Splits/Skills         x
 x CALA-RTA>    x Trunk Groups          x
 x Generic-RTA> x Global Search         x
 x RT_Socket>   x Report                x
 x Calabrio>    x AUX Reason Codes      x
 x ECH Handler> x Logout Reason Codes   x
 x Logout       x Location IDs          x
 x ;            x Announcements         x
 mqqqqqqqqqqqqqqx Call Work Codes       x
                x VDNs                  x
                x Vectors               x
```

The **Dictionary: Splits/Skills** window displays, enter a desired skill name in the **Split/Skill name** field, a skill number as defined in **Section 5.6** in the **Split/Skill number** field and select **Add**.

```
Dictionary: Splits/Skills                              cm10
                                                            x Add
                         Split/Skill name: Skill_1          x Delete
                         Split/Skill number:                x Find one
                         Description:                       x List all
                                                            x Modify
                                                            x Next
                                                            x Previous
                                                            mqqqqqqqqqq
                              Successful
```

6.6. Administer VDN

To add VDN, from the CMS menu, navigate to **Dictionary** → **VDNs**.

```
5/ 7/23  14:21  Avaya(TM) CMS
Windows: 0 of 10   ^

  lMainMenuqqqqqqqqqqqqqqqqqqqqqqqk
 x Reports>      lqqqqqqqqqqqqqqqqqqqqqqqqk
 x Dictionary>  x Login Identifications x
 x Exceptions>  x Agent Groups         x
 x Agent Adminisx Calculations         x
 x Call Center Ax Constants            x
 x Custom Reportx Database Items>       x
 x User Permissix ACDs                 x
 x System Setup>x ACD Groups           x
 x Maintenance> x Splits/Skills        x
 x CALA-RTA>    x Trunk Groups         x
 x Generic-RTA> x Global Search        x
 x RT_Socket>   x Report               x
 x Calabrio>    x AUX Reason Codes     x
 x ECH Handler> x Logout Reason Codes  x
 x Logout       x Location IDs         x
 x ;            x Announcements        x
 mqqqqqqqqqqqqqqqx Call Work Codes     x
                x VDNs                 x
                x Vectors              x
                mqqqqqqqqqqqqqqqqqqqqqqqqj
```

The **Dictionary: VDNs** window displays, enter a desired name in the **VDN name** field and VDN number as defined in **Section 5.5** in the **VDN field** and select **Add**.

```
Dictionary: VDNs                                       cm10
                                                            x Add
                         VDN name: VDN 3340                 x Delete
                              VDN: 3340                     x Find one
                         Description:                       x List all
                                                            x Modify
                                                            x Next
                                                            x Previous
```

7. Configure Comstice

Comstice Professional Services will login to the data collection server (a windows server) installed in the customer's environment to configure the "Comstice – Avaya CMS Historical Adapter" service. This will include installing the necessary MSSQL database for data to be stored in, setting data retention sizing, configuring ODBC and testing data migration.

8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager, Avaya Call Management System, and Comstice.

8.1. Verify Avaya Aura® Communication Manager

Verify the status of the processor interface channel by using the "status processor-channels n" command, where "n" is the processor channel number from **Section 5.4.** Verify that the **Session Layer Status** is "In Service", and that the **Socket Status** is "TCP connected", as shown below.

```
status processor-channels 1
                    PROCESSOR-CHANNEL STATUS

        Channel Number: 1
  Session Layer Status: In Service
         Socket Status: TCP connected
           Link Number: pv4
             Link Type: processor ethernet
 Message Buffer Number: 0

          Last Failure: None
                    At:
```

8.2. Verify Avaya Call Management System

8.2.1. Connection Status

From the CMS **MainMenu**, verify the status of the connection to Communication Manager by selecting **Maintenance → Connection Status**, as shown below.

```
4/27/23  11:24  Avaya(TM) CMS                                      Windows: 0
of 10

  lMainMenuqqqqqqqqqqqqqqqqqqqqqqqk
 x Reports>                     x
 x Dictionary>                  x
 x Exceptions>                  x
 x Agent Administration>        x
 x Call Center Administration> x
 x Custom Reports>              x
 x User Permissions>            x
 x System Setup>lqqqqqqqqqqqqqqqqqqqqqqqk
 x Maintenance> x Back Up Data            x
 x CALA-RTA>    x Restore Data            x
 x Generic-RTA> x Backup/Restore Devices x
 x RT_Socket>   x Printer Administration x
 x Calabrio>    x Report Administration   x
 x ECH Handler> x Connection Status      x
 x Logout       x ACD Status              x
 x ;            x Archiving Status        x
 mqqqqqqqqqqqqqqx ACD Admin Log Report    x
                x Error Log Report        x
                x Firewall Status         x
                x License Status          x
                mqqqqqqqqqqqqqqqqqqqqqqqqqj
```

Enter the corresponding **ACD(s)** number, for the compliance testing, the corresponding switch connection is ACD system "1". Tab over to **Find one** and press **Enter**. The switch connection status is displayed. Check the status in the Session and Connection fields, as shown below.

```
Maintenance: Connection Status                              All ACDs
                                                            x Find one
                    ACD(s): cm10                            x List all
                    Application: data transfer             x Next
                    Session: data transfer       normal    x Previous
                    Connection: operational                mqqqqqqqqqq
                    Date/Time: 5/ 7/23  2:59 PM
                    Errors:


                    1 matches found
```
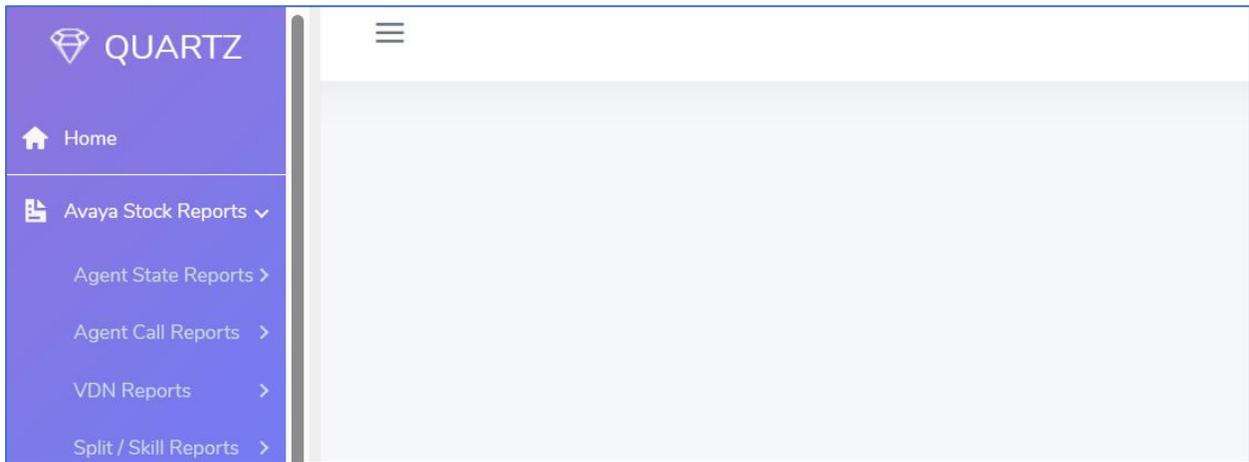
8.3. Verify Comstice

To verify Comstice report, login to the Comstice web interface with a proper username and password.
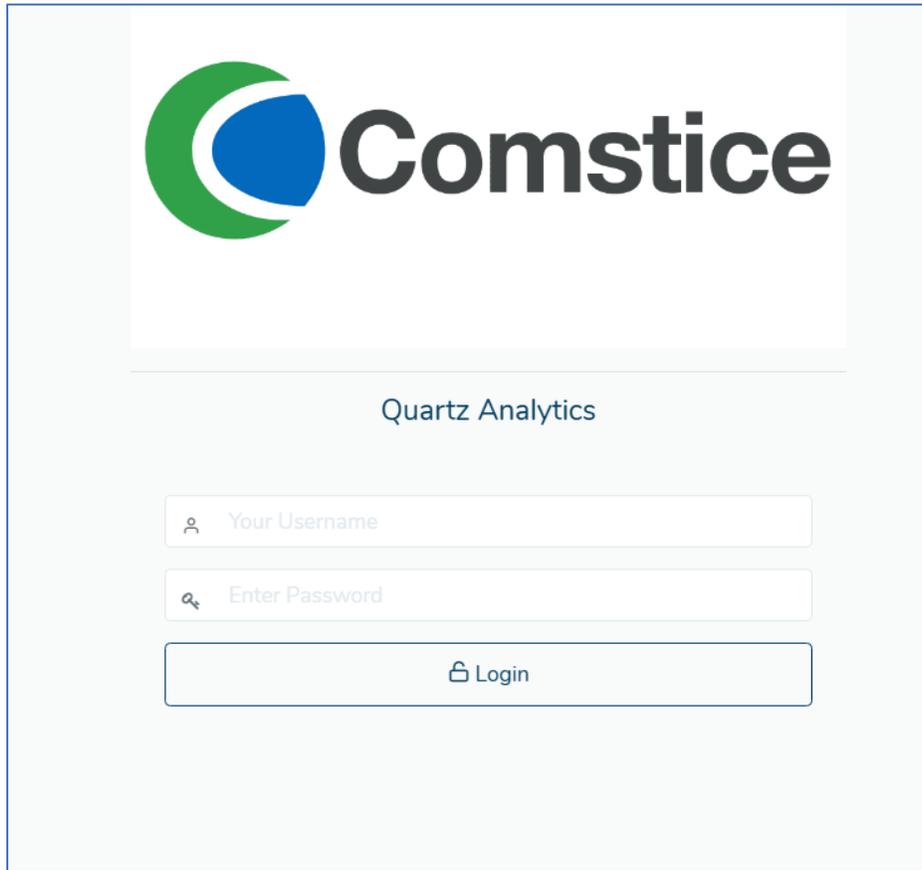
All types of call data report locates in the left navigation pane under **Avaya Stock Reports**.

The sample below shows the **Agent Attendant** report under **Agent Call Reports**.

The report can be displayed on the web interface or exported to an excel file.

9. Conclusion

These Application Notes describe the configuration steps required for Comstice Quartz Reporting and Analytics to successfully interoperate with Avaya Aura® Communication Manager using the Avaya ODBC interface of Avaya Call Management System. All feature and serviceability test cases were completed successfully.

10. References

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

[1] Administering Avaya Call Management System, Release 19.2, March 2021
[2] Avaya Call Management System Call History Interface, Release 19.2, March 2021
[3] Avaya Call Management System Custom Reports, Release 19.2, March 2021
[4] Avaya Call Management System and Communication Manager Connections, Administration, and Troubleshooting, Release 19.2, March 2021