



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for Configuring X2O Media AvayaMCast Integrated Module with Avaya Aura Contact Center for Real-time Reporting – Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for X2O Media AvayaMCast Integrated Module to interoperate with Avaya Aura Contact Center (AACC) via Real-Time Statistics Multicast.

Xpresenter Player software is a broadcast rendering engine for signage and corporate communications. It loads and displays dynamic, data-driven graphical templates, allowing a mix of elements to be displayed including static image files, video files, PowerPoint presentations, and live data from external sources include databases, RSS feeds, Web services, SharePoint servers, etc.

The AvayaMCast Module is an application periodically receives data points from the AACC database. The data AvayaMCast database is stored on a local PC.

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

# 1. Introduction

These Application Notes describe the configuration steps required for X2O Media AvayaMCast Integrated Module to interoperate with Avaya Aura Contact Center (AACC) via Real-Time Statistics Multicast.

Xpresenter Player software is a broadcast rendering engine for signage and corporate communications. It loads and displays dynamic, data-driven graphical templates, allowing a mix of elements to be displayed including static image files, video files, PowerPoint presentations, and live data from external sources include databases, RSS feeds, Web services, SharePoint servers, etc.

The Xpresenter Player, as indicated above, displays graphical templates that may include dynamically updated data from an external source. The data for such sources is specified within the respective template by listing an MDB data file residing on the local computer and a set of variables whose values are specified within that file. The MDB file is read by Xpresenter Player as the requested template is loaded and displayed. This allows the MDB file to be updated asynchronously by a separate application, which takes responsibility for bringing in external data and saving it to the MDB file.

The X2O Media AvayaMCast Integration Module is a stand-alone application that runs in the background to establish the Real-Time Statistics Multicast connection with the AACC system and receive data from it. The configuration file for the Integration Module allows the installer to specify the receiving ports for the Real-Time Statistics Multicast connection and the path to the MDB file in which to store the received data. On application startup, the Integration Module will listen on the specified ports, wait for the AACC to establish the Real-Time Statistics Multicast connection, and once connected begin saving the data in the MDB file. If at any time the connection or data retrieval fails, the Integration Module will retain the last received data in the MDB file as well as log available error information to indicate the nature of the failure. It will also close its side of the dropped connection(s) and listen for the AACC to reconnect.

## 2. General Test Approach and Test Results

The interoperability compliance testing included feature and serviceability test cases.

The feature test cases focused on verifying the ability of X2O Media AvayaMCast Integrated Module to process and display data for Application, Skill from AACC.

The serviceability testing focused on verifying the ability of X2O Media AvayaMCast Integrated Module to recover from adverse conditions, such as disconnecting the Ethernet cables to PC which run AvayaMCast Integrated Module and to AACC.

## **2.1. Interoperability Compliance Testing**

The feature test cases were performed manually. Incoming calls were made to VDNs, application/skills, and agents to generate data to AACC. Manual call controls and work mode changes from the agent telephones were exercised as necessary to populate specific fields in the reports.

The serviceability test cases were performed manually by disconnecting and reconnecting the LAN cable to X2O Media AvayaMCast Integrated Module and to AACC.

The verification of all the tests included checking for proper display of the data within the X2O Media AvayaMCast database by comparing it with the real-time reports from the AACC Real-Time Reporting.

## **2.2. Test Results**

All test cases were executed and passed.

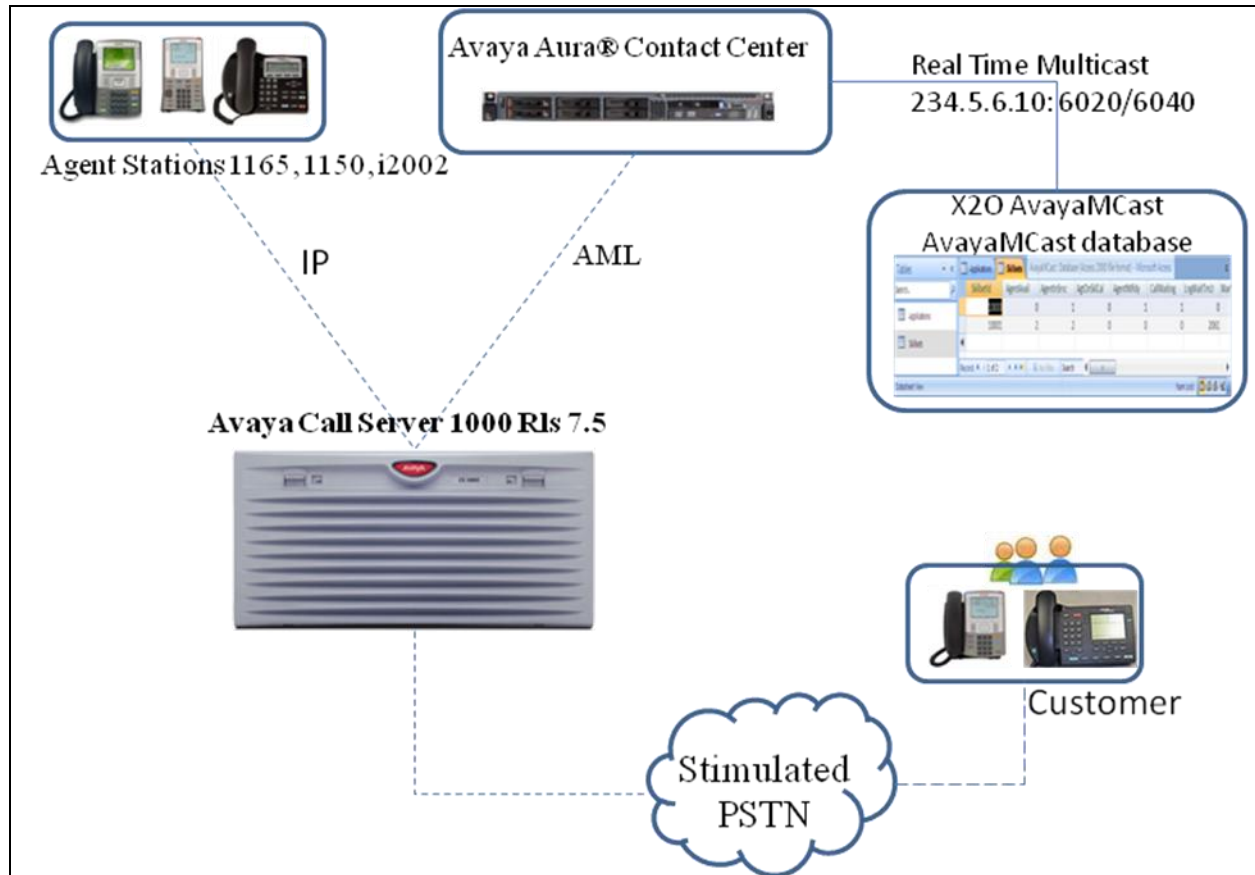
## **2.3. Support**

For technical support on the X2O Media AvayaMCast Integrated Module Platform, contact X2O Media at:

- Web: <http://support.x2omedia.com/>
- Phone: 888-987-7557 x247

### 3. Reference Configuration

**Figure 1** below shows the configuration used during compliance testing.



**Figure 1: X2O Media AvayaMCast with Avaya Aura Contact Center**

## 4. Equipment and Software Validated

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

Equipment	Software
Avaya S8800 Server	Avaya Aura® Contact Center 6.2
Avaya Call Server 1000	Release 7.5
Avaya UNISTim Phones I2002 1165 1150	FW 0604DCN FW 0626C8J FW0627C8J
UNISTim Phone I2004	FW 0602B76
SIP Phone 1140	SIP1140 firmware Load 04.03.12.00
X2O Media AvayaMCast Integrated Module-AvayaMCast	2.3

## 5. Configure Avaya Call Server 1000 Release 7.5

The detailed administration of contact center objects and connectivity between Avaya Aura® Contact Center and Avaya Call Server 1000 are not the focus of these Application Notes and will not be described. For administration of contact center objects and connectivity to AACC, refer to the appropriate documentation listed in **Section 10**.

## 6. Configure Avaya Aura Contact Center

The configuration of the AACC Terminal Emulator is assumed to be in place and will not be described. In addition, these Application Notes assume Agents, ACD Queue, CDN, Skillsets and Script have been created.

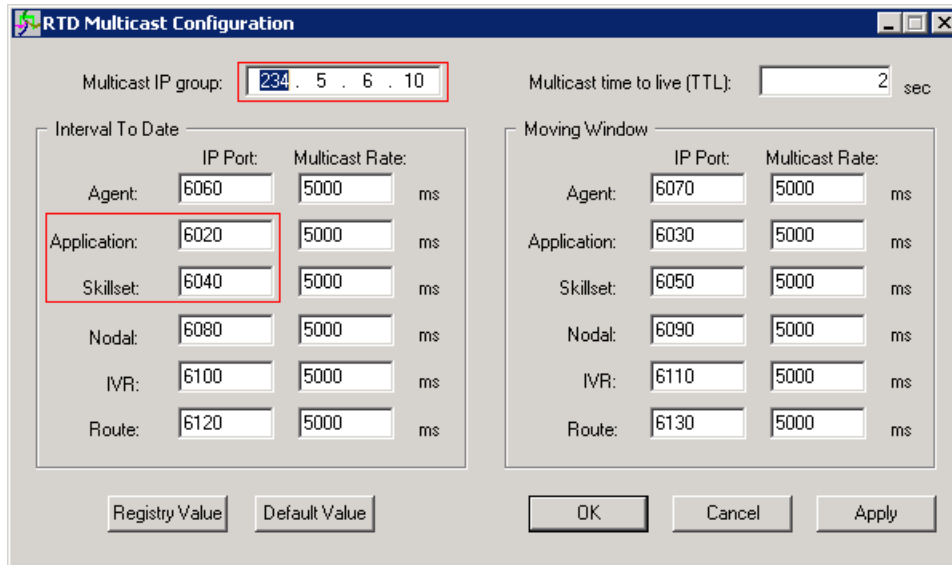
This section provides the additional configuration as required for X2O Media AvayaMCast Integrated Module, which includes the following area:

- Verify RTD Multicast Configuration.
- Verify Contact Center Server Configuration
- Create Private Real-Time Reporting.

### 6.1. Verify RTD Multicast Configuration.

Select **Start → All Programs → Avaya → Manager Server → Multicast Address and Port Configuration**. Verify the configuration show as below:

- **Multicast IP group** is set to 234.5.6.10
- **Interval To Date – Application** is set to 6020 (default value).
- **Interval To Date – Skillset** is set to 6040 (default value).



**RTD Multicast Configuration**

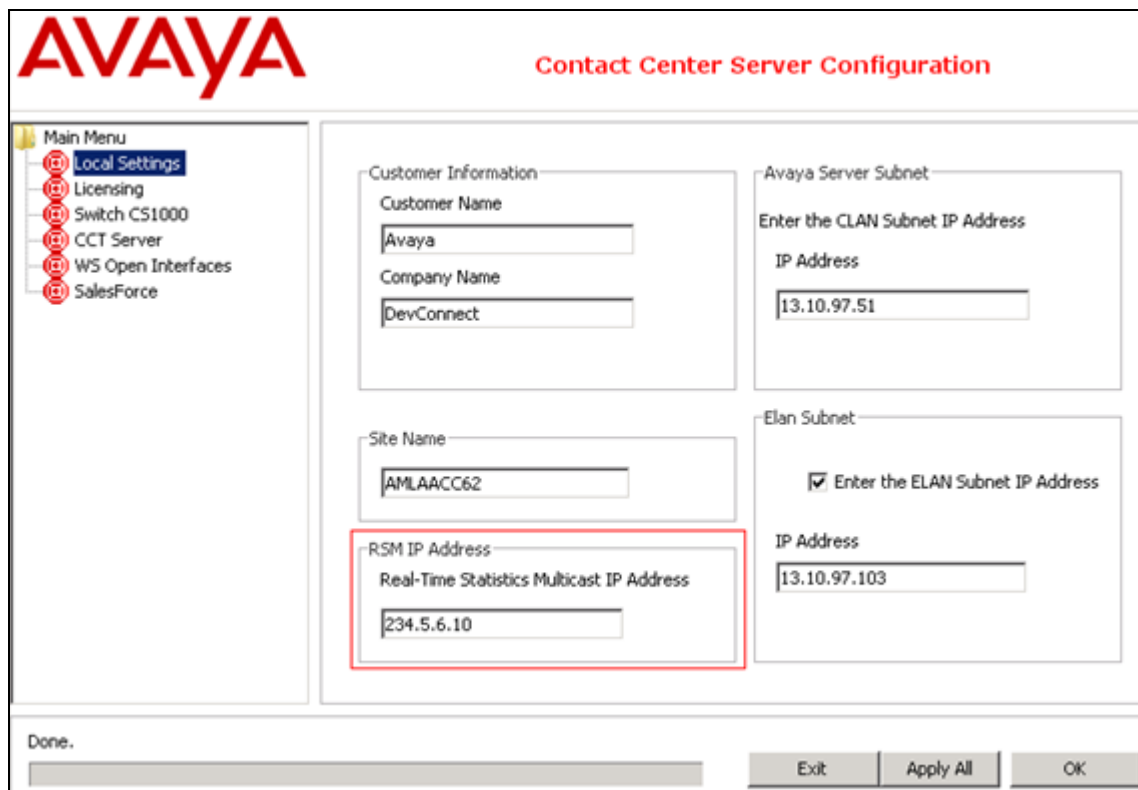
Multicast IP group: **234 . 5 . 6 . 10**      Multicast time to live (TTL): **2** sec

Interval To Date			Moving Window		
	IP Port:	Multicast Rate:		IP Port:	Multicast Rate:
Agent:	6060	5000 ms	Agent:	6070	5000 ms
Application:	6020	5000 ms	Application:	6030	5000 ms
Skillset:	6040	5000 ms	Skillset:	6050	5000 ms
Nodal:	6080	5000 ms	Nodal:	6090	5000 ms
IVR:	6100	5000 ms	IVR:	6110	5000 ms
Route:	6120	5000 ms	Route:	6130	5000 ms

Registry Value    Default Value    OK    Cancel    Apply

## 6.2. Verify Contact Center Server Configuration

Select **Start** → **All Programs** → **Avaya** → **Manager Server** → **Server Configuration**. Verify the RSM IP Address is match with the one that configured in **Section 6.1** as show below:



**AVAYA**      **Contact Center Server Configuration**

Main Menu

- Local Settings
- Licensing
- Switch CS1000
- CCT Server
- WS Open Interfaces
- SalesForce

Customer Information

Customer Name: **Avaya**

Company Name: **DevConnect**

Avaya Server Subnet

Enter the CLAN Subnet IP Address

IP Address: **13.10.97.51**

Site Name

**AMLACC62**

Elan Subnet

☒ Enter the ELAN Subnet IP Address

IP Address: **13.10.97.103**

RSM IP Address

Real-Time Statistics Multicast IP Address

**234.5.6.10**

Done.

Exit    Apply All    OK

## 6.3. Create Private Real-Time Report.

This section will instruct the user how to modify predefined real-time report.

Open Contact Center Manager on the web browser, in the launch pad, selects Real-Time Reporting.

### 6.3.1. Make a copy of private application report from public report.

Skip this section if you already have a copy of private application real-time report and move to the next section.

Select **Public Tabular Display** → **Standard\_Application\_Display**, on the right panel type in preferred name for report and click on the **Make Private Copy**. Example shown below:

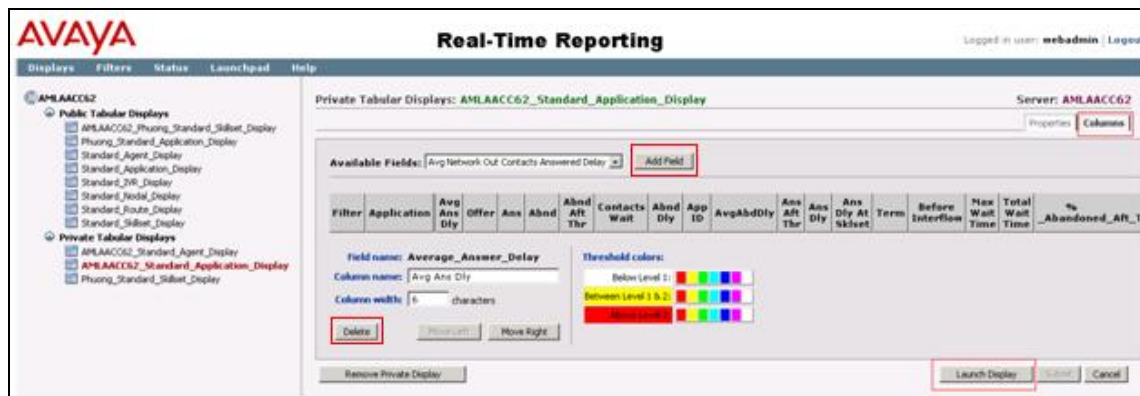
The screenshot shows a web interface for managing displays. On the left, a tree view under 'AMLAACC62' shows 'Public Tabular Displays' with 'Standard\_Application\_Display' selected. The right panel, titled 'Public Tabular Displays: Standard\_Application\_Display', contains a 'Launch Display' button, the instruction 'Launch the Standard\_Application\_Display.', a 'Make Private Copy' button, and a text input field for naming the private display. The input field contains 'AMLAACC62\_Standard\_Application\_Display' and is highlighted with a red box. A note below the field states: '(Note: Each of your private displays must have a unique name.)'

### 6.3.2. Modify a private application Real-Time Report

Select **Private Tabular Displays** and select the private application report the user wants to modify. During the compliance test the **AMLACC62\_Standard\_Application\_Display** was used.

Modify the column of the report, click on the Column tab.

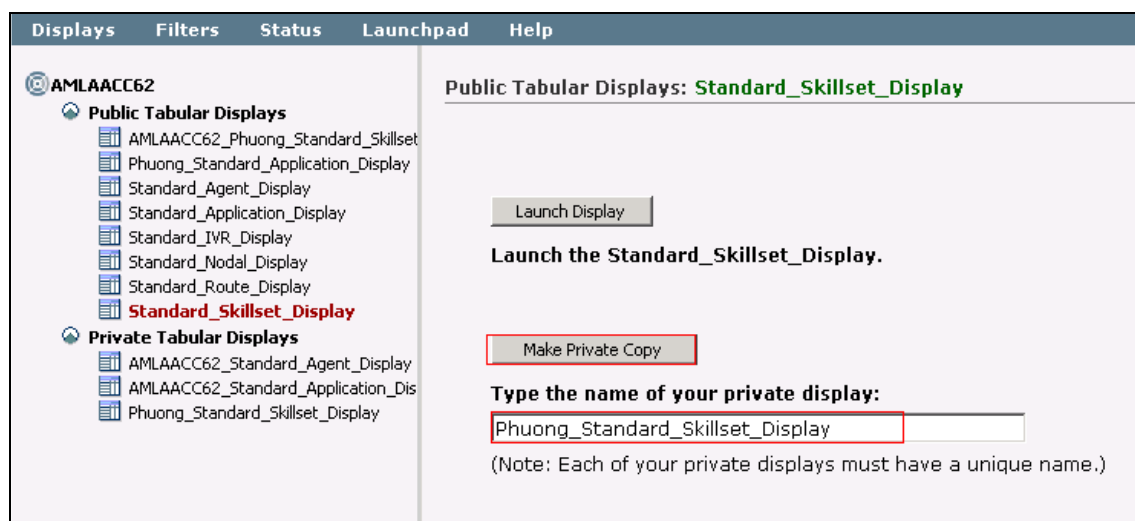
- Click on **Add Field** to add new column into the report.
- Click on **Delete** button to remove the column out the report.
- The user can organize the order of column by using the **Move Left** and **Move Right** buttons.
- Click on **Launch Display** to view the report.



### 6.3.3. Make a copy of private skillsets report from public report

Skip this section if you already have a copy of private application real-time report and move to the next section.

Select **Public Tabular Display** → **Standard\_Skillset\_Display**, on the right panel type in preferred name for report and click on the **Make Private Copy**. Example shown below:





### 6.3.4. Modify a private skillsets Real-Time report

Select **Private Tabular Displays** and select the private application report the user wants to modify. During the compliance test the **Phuong\_Standard\_Skillset\_Display** was used. Modify the column of the report, click on the Column tab.

- Click on **Add Field** to add new column into the report.
- Click on **Delete** button to remove the column out the report.
- The user can organize the order of column by using the **Move Left** and **Move Right** buttons.
- Click on **Launch Display** to view the report.

Private Tabular Displays: **Phuong\_Standard\_Skillset\_Display** Server: **ANLAACC62**

Properties **Columns**

Available Fields: **ASService Level for Ans Contacts** **Add Field**

Filter	Skillset	Skillset ID	Agt Not Rdy	Wait	Long Wait Last Contact	Max Wait Time	Agt on DN	Skillset State	Agt Unavail	Long Wait Login	Ntwk In Wtg	Ntwk In Ans	Ntwk In Offer	Agt on ACD	Offer	Skillset Abnd	Agt Idle	Agt Active	Agt on Ntwk Skillset	Agt on NAED	Agt on Other

Field name: **Agent Not Ready**  
Column name: **Agent Not Rdy**  
Column width: **10** characters

**Delete** **Move Left** **Move Right**

Threshold colors:  
Below Level 1: [Color swatches]  
Between Level 1 & 2: [Color swatches]  
Above Level 2: [Color swatches]

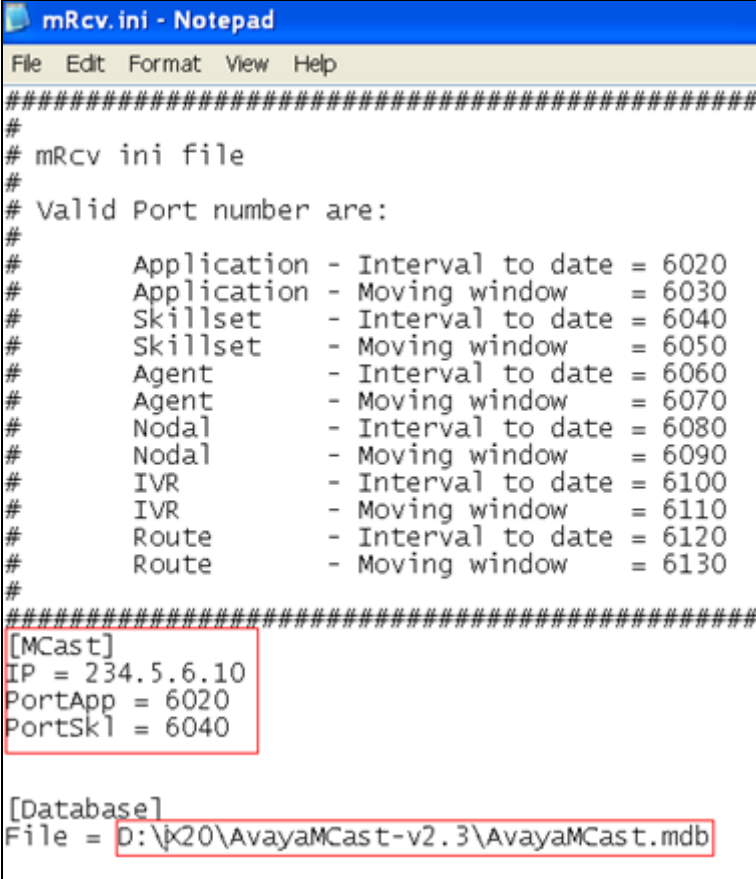
**Remove Private Display** **Launch Display** **Submit** **Cancel**

## 7. Configure X2O Media AvayaMCast Integrated Module

On the X2O Media AvayaMCast Integrated Module PC, navigate to **mRcv.ini** file for the AACC Integration Module. This file resides in the same folder as the AvayaMCast-v2.3 Integration Module executable (D:\X2OMedia\AvayaMCast-v2.3). Edit the file to specify the receiving ports for the Multicast connections and the path to the MDB file in which to store the received data. During this compliance test, X2O Media AvayaMCast Integrated Module uses Interval-to-date mode — Statistics are collected only for the current interval. When the interval ends, data fields initialize to 0 and collection begins for the next interval.

The example below shows the values used during compliance testing.

- **IP:** an IP address configured in Section 6.1.
- **PortApp:** port for application (interval to date), configured in Section 6.1
- **PortSkl:** port for skillset (interval to date), configured in Section 6.1



```
mRcv.ini - Notepad
File Edit Format View Help
#####
#
# mRcv ini file
#
# Valid Port number are:
#
# Application - Interval to date = 6020
# Application - Moving window = 6030
# Skillset - Interval to date = 6040
# Skillset - Moving window = 6050
# Agent - Interval to date = 6060
# Agent - Moving window = 6070
# Nodal - Interval to date = 6080
# Nodal - Moving window = 6090
# IVR - Interval to date = 6100
# IVR - Moving window = 6110
# Route - Interval to date = 6120
# Route - Moving window = 6130
#
#####
[MCast]
IP = 234.5.6.10
PortApp = 6020
PortSkl = 6040

[Database]
File = D:\x20\AvayaMCast-v2.3\AvayaMCast.mdb
```

## 8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Aura Contact Center and X2O Media AvayaMCast Integrated Module.

### 8.1. Verify X2O Media AvayaMCast Integrated Module

On the X20 AvayaMCast database, verify the data value matches the same value shown in the Avaya Real-Time reporting.

In this example verify the value for each skillset:

**Agt Not Rdy** (Avaya RTReport) = **AgentNtRdy** (X20AvayaMCast)

**Long Wait Last Contact** (Avaya RTReport) = **LngWaitTmLt** (X20AvayaMCast)

▼ Header

Phuong Standard Skillset Display (AMLAACC62)

AMLAACC62 Summary Non-Staffed Skillsets Export Print Close Help

Skillset	Skillset ID	Agt Not Rdy	Wait	Long Wait Last Contact	Max Wait Time	Agt on DN	Sklset State	Agt Unavail	Long Wait Login
Default Skillset	10000	0	0	10150	00:00	0	In Service	0	9450
Voice_SK1	10001	1	0	73	00:00	0	In Service	1	7

Interval-to-Date, refreshing every 2 seconds  
Page 1 of 1

Table Tools AvayaMCast : Database (Access 2000 file format) - Microsoft Access

Home Create External Data Database Tools Datasheet

Tables Skillsets Applications

Search...

SkillsetId	AgentAvail	AgentInSrv	AgtOnSklCal	AgentNtRdy	CallWaiting	LngWaitTmLt
10000	1	1	0	0	0	10150
10001	1	2	0	1	0	73

## 9. Conclusion

These Application Notes describe the configuration steps required for X20 Media AvayaMCast Integrated Module to interoperate with Avaya Aura Contact Center (AACC) via Real-Time Statistics Multicast. All feature and serviceability test cases were completed successfully.

## 10. Additional References

This section provides references to the product documentation relevant to these Application Notes. Avaya product documentation may be found at <http://support.avaya.com>.

- [1] NN44400-117\_04.01\_Performance\_Management\_Data\_Dictionary\_15\_November\_2012.pdf
- [2] Avaya Aura® Contact Center Configuration – Avaya Communication Server 1000 Integration (NN44400-512).
- [3] Avaya Aura® Contact Center Administration (NN44400-610).
- [4] Avaya Aura® Contact Center Commissioning (NN44400-312).
- [5] Avaya Aura® Agent Desktop (NN44400-114).
- [6] Avaya Aura® Contact Center Administration – Client Administration (NN44000-611).
- [7] Software Input Output Reference – Administration Avaya Communication Server 1000 (NN43001-611).
- [8] Software Input Output Reference – Maintenance Avaya Communication Server 1000 (NN43001-711).
- [9] Application Notes for Configuring Avaya Aura® Contact Center R6.2 with Avaya Communication Server 1000E R7.5 via the Application Module Link interface

X2O Media AvayaMCast Integrated Module documentation can be obtained from X2O Media by using the contact information provided in **Section 2.3**.

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