Avaya Aura Conferencing

IPDR Reporting Overview

Release 2.3
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1 Table of Content

2 Overview

The Avaya Aura Conferencing system delivers IPDR statistical data derived from SIP connection information in form of compressed XML flat files, but doesn't provide a reporting environment. The solution described in this document is targeted to provide IPDR historical data within a database to make it available for reporting. In addition IPDR information is enhanced by adding useful AAC administration data and some data post-processing in order to generate concurrent usage information.

The solution involves a customer provided SQL database (preferably Microsoft SQL) in order to store the data and a service application for Microsoft Windows that is responsible for:

- Retrieving compressed IPDR files from AAC system via SFTP
- Unpacking compressed files
- Importing IPDR file content into database
- Generating conference and session concurrent usage information
- Maintaining database size
- Gathering AAC conference owner information via web services.

The data import service can be installed either on Microsoft SQL database server machine itself or any Microsoft Windows remote machine that has network access to the database server. The data import service does not necessarily require a server class Windows operating system.

The solution is a software-only offer to be installed on customer-provided hardware, operating system, and database.

A set of predefined reports for Microsoft SQL Server Reporting Services (SSRS) is available to be installed by the customer in an existing SSRS environment (see section 5). Alternatively, underlying SQL statements can be provided to support customers creating reports using another reporting environment.

3 System Requirements

3.1 Server Requirements

- Windows Server 2003 or newer
- Default OS requirements apply. Available memory should be about 2GB more than OS minimum requirement.
- Virtual machine is supported
- Recommended database: Microsoft SQL Server 2008 or newer
- In case of other SQL database: Corresponding ODBC-Client (32-Bit) needs to be installed

Note: Above minimum requirements apply to the data import application only. If a dedicated database server is provided for the solution, proper sizing with respect to expected concurrent usage for reporting is required.

3.2 Database Space Consumption

Database space consumption is highly dependent on AAC conference traffic conditions, user behavior, network configuration, etc.

As a rough estimate, 1 GB of compressed IPDR files would consume about 6 GB of storage space in an MS SQL database.

Run following commands on AAC application server to get the size of currently available IPDR files:

du -h /var/mcp/oss/acct/AM1/All/MCPV5/AS1_0
du -h /var/mcp/oss/acct/AM1/All/MCPV5/AS1_1

The above directories typically contain files that cover one week. So the formula

file size * 6 * 52 weeks

would give an idea how much database space is required to store IPDR data for one year.

3.3 Firewall Requirements

Following ports need to be available between systems:

Application server <-> AAC server

- SFTP file transfer (SSH); Default port: 22

- Admin web services (HTTPS); Default port: 8443

Application server <-> MS SQL Database server

- SQL database connection; Default port: 1433

The customer's network administrator would need to provide information on which ports are used in their environment.

If a database other than MS SQL is used, the port conditions for the corresponding ODBC service need to be met.

4 Historical Data

The historical data provided by this solution is event-driven detail information about conferences that have been started in the past and associated session information. Data typically becomes available within next hour after a conference has been closed.

This is a rough overview of available information:

- Conference details
  One record per conference including start and end time, conference security code, hosting media server information, and a unique conference ID as a reference to associated detail information

- Conference session details
  One record per conference participant session including session start and end time, user information (if available)

- Cascading information (if applicable)

- Session media, codec, and bandwidth information

- Session Quality of Service measurements

- Session trouble information triggered by thresholds the have been exceeded

- Conference activity information such as mute/unmute, recording, drop user, etc.

- Web conference and web conference session information (if applicable)

- Conference and session concurrent usage information:
  One record per minute showing the number of conferences or conference sessions respectively that were active at the same time.

- List of all configured conferences/users to support reporting on unused conferences

5 Report Examples

Optionally, the solution includes a set of sample reports for Microsoft SQL Server Reporting Services (SSRS). These reports can be deployed to an existing SSRS installation by the customer. Therefore the report definition files as well as the corresponding project file can be provided as is.

Avaya Professional Services can be engaged to customize those reports and create new ones or to support AAC reporting based on a different reporting framework preferred by the customer.

5.1 Conferences per Day

This tabular report shows number of conferences, conference sessions, and cascades as well as corresponding durations on a daily basis.

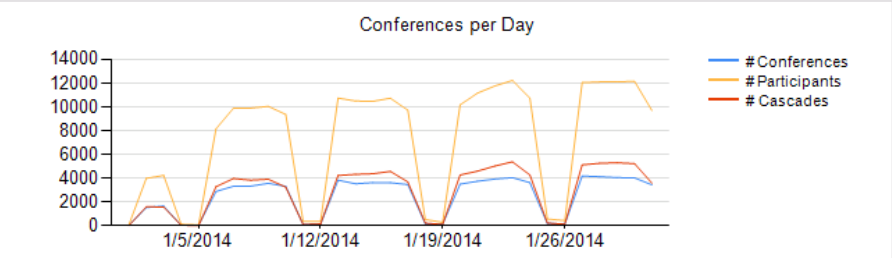
An additional chart presents number of conferences and sessions per day.

Input selection:

- Start date,
- End date,
- Host location (multiple values)

Number of Conferences per Day

Selected Locations: BaskingRidgeNJ_AAC, BillericaMA_AAC, DuesseldorfDE_AAC, FrankfurtDE_AAC, HamburgDE_AAC, LebanonOH, SantaClaraCA_AAC, SingaporeDC_AAC, StuttgartDE_AAC, WestminsterCO_AAC



Date	# Conferences	Conference Duration (min)	# Participants	Session Duration (min)	# Cascades	Cascading Duration (min)
1/1/2014	46	1182	66	2090	21	911
1/2/2014	1535	50604	3995	125714	1604	49506
1/3/2014	1668	68772	4243	149226	1588	58746
1/4/2014	49	2838	137	6951	60	2689

5.2 Concurrent Conferences per Hour

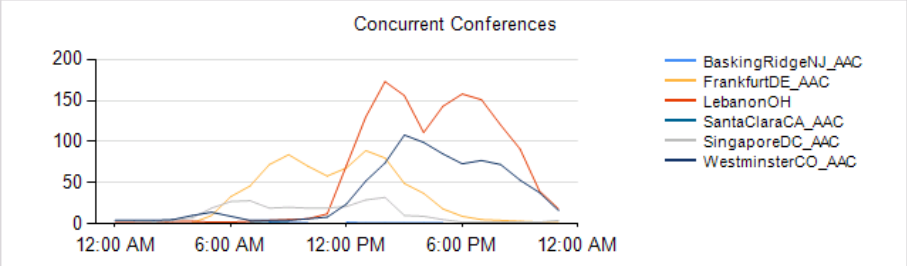
This tabular and chart report shows the maximum number of conferences that were active in parallel per hour, detailed by hosting media server location.

Input selection:

- Date,
- Host location (multiple values)

Concurrent Conferences

Date: 5/5/2015



Hour	Location	Concurrent Conferences
5/5/2015 12:00:00 AM	LebanonOH	1
	WestminsterCO_AAC	4
5/5/2015 1:00:00 AM	LebanonOH	1
	SingaporeDC_AAC	1
	WestminsterCO_AAC	4
5/5/2015 2:00:00 AM	LebanonOH	2

5.3 Concurrent Conference Sessions per Hour

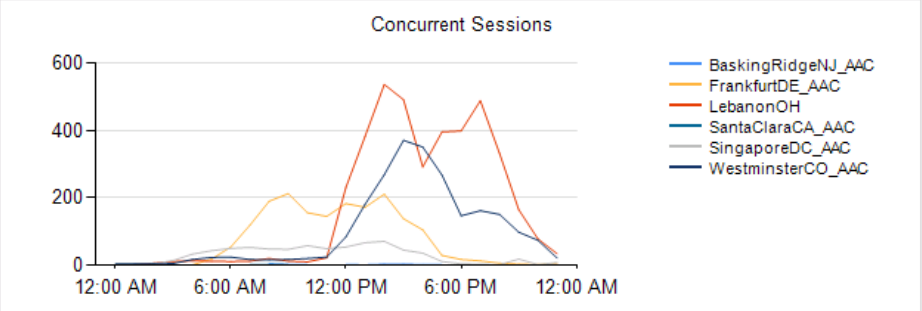
This tabular and chart report shows the maximum number of conference participant sessions that were active in parallel per hour, detailed by hosting media server location.

Input selection:

- Date,
- Host location (multiple values)

Concurrent Sessions

Date: 5/5/2015



Date / Time	Hosting Media Server Location	Concurrent Sessions
5/5/2015 12:00:00 AM	LebanonOH	1
	WestminsterCO_AAC	4
5/5/2015 1:00:00 AM	LebanonOH	1
	SingaporeDC_AAC	1
	WestminsterCO_AAC	4
5/5/2015 2:00:00 AM	LebanonOH	6

5.4 Conference Search

This drill-through detail report allows investigation of details of a conference and its sessions to be selected via date and security code. It is especially helpful when there is a need to investigate all details of a specific conference, e.g. when there were quality issues or customer complaints.

The report first provides a list of all conferences that meet search criteria. By clicking at the a drill-through link, the corresponding Quality of Service or Device detail report opens, presenting details of all conference and web conference sessions involved. See next page.

Input selection:

- Start date,
- End date,
- Partial search string for conference security code or owner name (optional)

Conferences

Search Criteria: drown Time Zone: US Central

Security Code	Owner	Conference Start Time	Conference End Time	Duration	Max Participants On Call	Detail Drill Through Links		Web Conference?
921308	Drown, Avaya - Scott	12/2/2015 4:28:47 PM	12/2/2015 4:34:35 PM	00:05:48	1	Quality	Devices	False
921308	Drown, Avaya - Scott	12/3/2015 8:12:25 AM	12/3/2015 8:12:55 AM	00:00:30	1	Quality	Devices	False
921308	Drown, Avaya - Scott	12/3/2015 11:52:35 AM	12/3/2015 12:54:37 PM	01:02:02	7	Quality	Devices	False
921308	Drown, Avaya - Scott	12/22/2015 8:15:12 PM	12/22/2015 8:15:19 PM	00:00:07	0	Quality	Devices	False
921308	Drown, Avaya - Scott	12/22/2015 8:15:33 PM	12/22/2015 9:13:41 PM	00:58:07	7	Quality	Devices	True

Conference details child report (Quality)

Conference Details

Conference ID: 38db6d78_151cc9ebafb Time Zone: US Central

Security Code	Owner	Start Time	End Time	Hosting Media Server Location
921308	Drown, Avaya - Scott	12/22/2015 8:15:33 PM	12/22/2015 9:13:41 PM	USDC2

Conference Session Information

							Quality of Service Information					Bandwidth Information (max values)		
Participant	Dialed Number	Session Start Time	Session Stop Time	Cascading Location	Session End Reason	Mode-rator?	rFactor	Jitter	Delay	Audio Packet Loss	Video Packet Loss	Audio	Video Rx	Video Tx
Drown, Avaya - Scott	5132285820	12/22/2015 8:15:38 PM	12/22/2015 9:11:38 PM		NORMAL	True	100	2	90	0	0	170	1152	512
9193520805	5132285820	12/22/2015 8:16:01 PM	12/22/2015 8:29:13 PM		NORMAL	False	93	0	0	0	0	166	0	0
Bocchino, Avaya - Justin	5132285820	12/22/2015 8:16:02 PM	12/22/2015 9:11:36 PM		NORMAL	False	100	5	94	0	0	170	1152	512
19786713470	5132285820	12/22/2015 8:16:19 PM	12/22/2015 8:29:09 PM		NORMAL	False	93	0	0	0	0	166	0	0
19089532720	5132285820	12/22/2015 8:20:02 PM	12/22/2015 8:25:18 PM		NORMAL	False	93	0	0	0	0	166	0	0
Drown, Avaya - Scott	5132285820	12/22/2015 8:22:26 PM	12/22/2015 8:23:24 PM		NORMAL	False	100	3	0	0	0	166	0	0
Bocchino, Avaya - Justin	5132285820	12/22/2015 8:23:29 PM	12/22/2015 9:13:41 PM		NORMAL	False	100	0	0	0	0	166	128	128
Drown, Avaya - Scott	5132285820	12/22/2015 8:23:32 PM	12/22/2015 8:31:30 PM		NORMAL	False	100	5	63	0	0	166	128	128
Isley, Avaya - Rhett	5132285820	12/22/2015 8:26:36 PM	12/22/2015 9:11:40 PM		NORMAL	False	98	3	74	0	0	166	128	128
9083306782	5132285820	12/22/2015 8:53:50 PM	12/22/2015 8:53:56 PM		NORMAL	False	0	0	0	0	0	166	0	0

Web Conference

Meeting ID	Web Conference Start Time	Web Conference End Time	Web Conference Server	Web Conference Owner	End Reason
12066	12/22/2015 8:15:33 PM	12/22/2015 9:13:41 PM	https://tryaacwcs.avaya.com	Drown, Avaya - Scott	NORMAL

Web Conference Session Details

Paticipant	Communication Address	Session Start Time	Session End Time	Session End Reason
Guest2	-1000019385@avaya.com	12/22/2015 8:16:00 PM	12/22/2015 8:22:37 PM	NORMAL
Drown, Avaya - Scott	drown@avaya.com	12/22/2015 8:16:13 PM	12/22/2015 9:11:38 PM	NORMAL
Justin - iphone	-1000019386@avaya.com	12/22/2015 8:16:13 PM	12/22/2015 8:27:15 PM	NORMAL
Bocchino, Avaya - Justin	jbocchino@avaya.com	12/22/2015 8:16:13 PM	12/22/2015 9:11:38 PM	NORMAL
Isley, Avaya - Rhett	risley@avaya.com	12/22/2015 8:16:34 PM	12/22/2015 8:36:19 PM	NORMAL
guestiOS Justin	-1000020425@avaya.com	12/22/2015 8:18:04 PM	12/22/2015 8:36:23 PM	NORMAL
Scott g4	-1000019387@avaya.com	12/22/2015 8:18:24 PM	12/22/2015 8:20:37 PM	NORMAL
Isley, Avaya - Rhett	risley@avaya.com	12/22/2015 8:19:35 PM	12/22/2015 8:21:02 PM	NORMAL
Drown, Avaya - Scott	drown@avaya.com	12/22/2015 8:21:15 PM	12/22/2015 8:31:30 PM	NORMAL
Isley, Avaya - Rhett	risley@avaya.com	12/22/2015 8:22:36 PM	12/22/2015 8:23:46 PM	NORMAL

Endpoint details child report (Devices)

Endpoint Details

Conference ID: 38db6d78_151cc9ebafb Time Zone: US Central

Security Code	Owner	Start Time	End Time	Hosting Media Server Location
921308	Drown, Avaya - Scott	12/22/2015 8:15:33 PM	12/22/2015 9:13:41 PM	USDC2

Conference Session Information

Participant	Device	Session Start Time	Session Stop Time	Session End Reason	Moderator?
Drown, Avaya - Scott	Avaya eAViCA 18.1.1.01	12/22/2015 8:15:38 PM	12/22/2015 9:11:38 PM	NORMAL	True
9193520805	AVAYA-SM-7.0.0.0.700007	12/22/2015 8:16:01 PM	12/22/2015 8:29:13 PM	NORMAL	False
Bocchino, Avaya - Justin	Avaya eAViCA 18.1.1.01	12/22/2015 8:16:02 PM	12/22/2015 9:11:36 PM	NORMAL	False
19786713470	AVAYA-SM-7.0.0.0.700007	12/22/2015 8:16:19 PM	12/22/2015 8:29:09 PM	NORMAL	False
19089532720	AVAYA-SM-7.0.0.0.700007	12/22/2015 8:20:02 PM	12/22/2015 8:25:18 PM	NORMAL	False
Drown, Avaya - Scott	AvayaCollaborationApp_Android	12/22/2015 8:22:26 PM	12/22/2015 8:23:24 PM	NORMAL	False
Bocchino, Avaya - Justin	AvayaCollaborationApp_Android	12/22/2015 8:23:29 PM	12/22/2015 9:13:41 PM	NORMAL	False
Drown, Avaya - Scott	AvayaCollaborationApp_Android	12/22/2015 8:23:32 PM	12/22/2015 8:31:30 PM	NORMAL	False
Isley, Avaya - Rhett	AvayaCollaborationApp_Android	12/22/2015 8:26:36 PM	12/22/2015 9:11:40 PM	NORMAL	False
9083306782	AVAYA-SM-7.0.0.0.700007	12/22/2015 8:53:50 PM	12/22/2015 8:53:56 PM	NORMAL	False

5.5 Top Participants

The Report shows the heavy users of the AAC system. For the purpose of this document the last four digits of the participant's number have been replaced for data privacy reasons.

Note: When no internal name or phone number is available, the participant column shows an internal ID only.

Input selection:

- Start date,
- End date,
- Minimum session duration (shorter sessions will be ignored),
- Number of top users to display

Top 10 Participants

Timeframe: 2/1/2016 to 2/29/2016, Min. Session Duration: 5 Minutes (Short sessions have been ignored)

By Total Session Duration

Rank	Participant	Total Duration	# Conf's joined
1	Zucchetto, John	7:44:50	14
2	Sharma, Pranav	3:12:03	5
3	Mac	2:30:39	2
4	J Lenovo	2:14:40	1
5	PC	1:51:57	1
6	Pranav	1:26:40	4
7	Jim Wilson	1:22:11	1
8	trymobility	1:18:52	3
9	JZ 2 PC	1:14:57	1
10	Justin	1:05:36	2

By Number of Conferences Joined

Rank	Participant	# Conf's joined	Total Duration
1	Zucchetto, John	14	7:44:50
2	Sharma, Pranav	5	3:12:03
3	Pranav	4	1:26:40
4	trymobility	3	1:18:52
5	Mac	2	2:30:39
6	Justin	2	1:05:36
7	Soares, Paulo	2	0:49:33
8	2245214375	2	0:27:30
9	Drown, Avaya - Scott	2	0:21:13
10	J Lenovo	1	2:14:40

5.6 Conference Usage

The report shows conference usage in terms of total conference duration and number of conferences started by security code.

Input selection:

- Start date,
- End date

Conference Usage

Date input from: 2/1/2016 to: 2/29/2016

Conference Security Code	Owner Name	Date From	To	Total Duration (min.)	Number of Conferences
756307	Whitacre, Mark	2/9/2016	2/9/2016	20.00	2
1111	1, u	2/2/2016	2/2/2016	0.23	1
556726	Cowles, Jason	2/2/2016	2/2/2016	0.95	1
143332	Booth, Kevin	2/2/2016	2/2/2016	0.13	1
392301	Try Mobility, Avaya	2/2/2016	2/26/2016	149.33	7
921308	Drown, Avaya - Scott	2/11/2016	2/29/2016	51.38	27
982685	Wells, Matthew	2/24/2016	2/24/2016	0.58	1
355067	Henley, Nick	2/19/2016	2/19/2016	11.70	2
415933	Kanashiro, Newton	2/9/2016	2/9/2016	6.70	2
969127	Ruiz, Cesar	2/15/2016	2/15/2016	0.38	1

5.7 Non-Usage Report

This report uses the administered conferences information in combination with historical conference data to list those conferences that haven't been after a certain date. This information allows customer to better maintain their AAC product licenses.

Note: When no usage information can be found in historical data at all, the last usage column shows <unknown>. Report header shows the time stamp of the oldest available data in the database.

Input selection criteria:

- Date

Unused Conferences

Conferences not used after 1/1/2016 Oldest data in database: 3/4/2015 4:18:58 AM

Security Code	Owner Name	Last Usage
100468	Morales, Severo	<unknown>
101010	Nguyen, Tri 1	<unknown>
101374	Lopez, Miguel	<unknown>
101376	Carvalho, Cristina	<unknown>
101897	Shifrin, Roger	<unknown>
106296	Salas, Danilo	<unknown>
106988	Thum, Mike	<unknown>
109134	ozturk, ozkan	<unknown>
1111	1, u	12/23/2015 2:54:25 PM
11111	user1, user1	3/11/2015 8:00:10 AM
111764	Hernandez, David	<unknown>