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Enhanced CDR Reporting & Wallboards

Frequently asked Question "can it do this report with X Y Z"?

The phone system itself has a basic CDR reporting system and people always ask for a report with very specific items in. There are a number of ways to achieve this on most systems, but they are almost always using external or plug-in reporting severs or CDR loggers. As with all other PBX solutions IC-talk HC can also interact with those reporting solutions too. Here are some things our customers do;

In-Built Basic Reporting / Data Obtaining

CDR Reports

There is a 'basic' reporting system built-in which can show the full CDR records, this will include 'every' action of the system including every handset that rings.

WARNING be careful in just using this for a report, it is not a report this is a CDR record that can be used to generate a report and a marketing department will have a filed day producing reports that could be utter garbage (i.e. you had 300 missed calls... no the phones were called 300 times and not picked up but there may have only been 20 calls in to you.. you just had lots of call distributions and extensions in ring groups).

Use the record search criteria to narrow down your results and then choose to output as CDR search;

From here you can see call flows and also pick up any call recordings and details, this will show all calls to any device.

You can also select Call Graph;

This just shows basic activity levels for those days.

OR;

You can select CSV output and this to a file that you can open in Excel and then apply filters and output to graphs and other reports or indeed read directly into other reporting engines. This is the most common way people get the reports they want and need from the CRD records as this would turn them into more understandable outputs.

Queue Reports

These are part of the call centre addition and you build a queue report template and includes the items you want, this system then uses the advanced data from the queue application to provide a more useful set of quick reports like the one below;

Call Detail List

Export as:

Date	Queue	Caller	Agent	Disc. Cause	Wait	Talk	Call	Orig. Pos.	Abnd. Pos.
2017 Nov 10 10:24:32	Support		Kyle Parkinson	Agent	4s	48m 50s	48m 54s	1	
2017 Nov 10 10:26:02	Support		Wayne	Caller	21s	56s	1m 17s	1	
2017 Nov 10 10:28:53	Support		Wayne	Agent	17s	17s	34s	1	
2017 Nov 10 10:29:26	Support		Adam	Agent	10s	59s	1m 9s	1	
2017 Nov 10 10:30:17	Sales		Georgia Jones	Agent	3s	26s	29s	1	
2017 Nov 10 10:46:02	Support		Adam	Caller	6s	42s	48s	1	

A really common item asked for is to show what calls you have missed, here is an example where a call was missed and they 'abandoned the call' but actually we did not entirely miss the call as they called straight back in and were answered this time, still bad but not totally lost.

| 2017 Sep 12 10:33:39 | Sales | 121 | | Abandon | 2m 3s | 0s | 2m 3s | 1 | 1 |
| 2017 Sep 12 10:44:33 | Sales | 121 | Anna | Caller | 4s | 4m 2s | 4m 6s | 1 | |

In building your report template(s) pick from;

All Call Distribution by Queue
Ans. Call Distribution by Queue
Unans. Call Distribution by Queue
Ans. Call Distribution by Agent
All Call Distribution by Day
All Call Distribution by Hour
All Call Distribution by Day of Week
All Service Level
Answered Service Level
Unanswered Service Level
Call Disconnection Cause
Call Detail List
Answered Call Detail
Unanswered Call Detail
Agent Availability Detail
Agent Missed Calls Detail
Custom - ACD by Queue
Custom - ACD by Day

And then select the fields to report on;

Table 1

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| Report Type: | All Call Distribution by Queue ⌄ | Title: | All Call Distribution by Queue |

Columns:

Queue Name | Total Time Waiting | Maximum Wait Time
Number of Calls | Average Wait Time | Percent of Time Waiting
Percent of Calls | Minimum Wait Time

In many cases most management questions for reporting can be answered by using a queue and the associated queue reports.

Custom Reports / Advanced Reporting

You can extract the call data from the system in the Reports section using module CDR Reports, and select CSV File for the report type and then you can use any analytics systems from Excel to Crystal and produce any stats and details you require.

Live Reporting

The systems support API access in a variety of ways and the easiest way would be to create a connection to the system on the Asterisk Manager port, you create a user as per;

Modules | Basic Mode | Dashboard | UCP

Asterisk Manager

Add Manager

General | Permissions

Manager name ❓

Manager secret ❓ ●●●●●●●●●●●●●●●●●●●●●●●●● 👁

Deny ❓ 0.0.0.0/0.0.0.0

Permit ❓ 127.0.0.1/255.255.255.0

Write Timeout ❓ 100 milliseconds

Please remember to lock this down with suitably complex passwords and also explicitly permit the accepted IP range or preferably single IP for the system accessing this. Then select what information you would like to be sent over the connection for your reporting system;

> NOTE: ONLY select the permissions you need to and be very careful with write, remember to air on the side of caution to keep your system as secure as possible at all times and also LOCK IT DOWN to only the IP addresses you need.

It is possible that you will need CDR Events to be enabled also and you can check the status of these as follows;

Look for;

If this file is missing or no contents are in it please contact IC to have this added to your system.

For IC employees - SSH to the box, and type the below commands

Type the command "cd /etc/asterisk/"

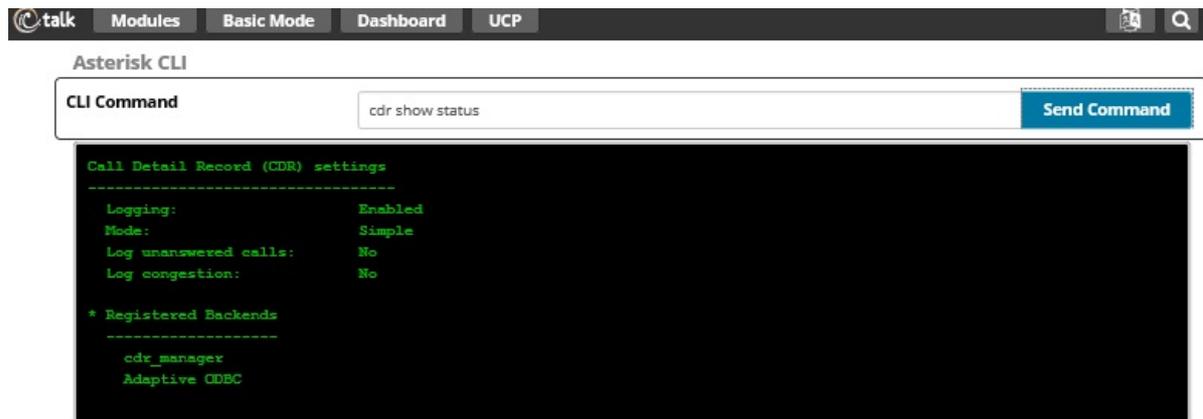Type the command "nano cdr_manager.conf"

Add in "[general]" on line 1

Add in "enabled=yes" on line 2

Write the file and exit

Then type the command "chown asterisk:asterisk cdr_manager.conf"

And lastly "chmod 664 cdr_manager.conf"

Providing the file is present you can check the status of the system with;

You are looking to see cdr_manager registered. To reload the module following changes do

module reload cdr_manager.so

if it is not then load it with;

module load cdr_manager.so

3rd Party Reporting, Logging and Wallboards

Alternatively you could use a plug-in 3rd party solution (most popular option) and we would recommend you obtain a trial version or access to a live demo to ensure that the reports you require are either present or can be built. Most reporting systems will have 100's of variants for reports but we often hear people say that the report they want is not there so flexibility for creating reports within any chosen system is key.

Here are a couple of systems that could start you off in the right direction but many reporting solutions will work you, just need to check compatibility. For reference the call engine is Asterisk and it's the worlds largest telephony engine of it's kind and you are looking for compatibility with; Asterisk, FreePBX, PBXact or even our previous solutions IC-talk Media Manager (MM16, MM50 or MM150) or indeed most Asterisk compatible systems.

Asternic Call Center Stats
https://www.asternic.net/ (https://www.asternic.net/)
This seems to be pretty popular and inexpensive, requires a Linux server.
Runs on Linux, very asterisk friendly.

Star2Billing's CDR-Stats
http://www.star2billing.com/products/cdr-stats/ (http://www.star2billing.com/products/cdr-stats/)
We have been advised some people are using this, runs on Linux, very asterisk friendly.

Tri-Line TIM
http://www.tri-line.com/products/ (http://www.tri-line.com/products/)
A full commercial solution, reporting, wall boards and billing. We have used this previously for re-billing projects for a science park and also have customers with quite detailed wall board requirements using this solution.
Runs on Windows,

If you do implement solutions please do provide some comments to this article to help guide others with the same question and even rate your experience with your solutions.