

Catalyst 9800 event history quick reference guide

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Introduction

This document is a quick reference guide on listing historical events of various sorts with the Catalyst 9800. By leveraging the always-on logging capabilities of the 9800 platform, you can list events of a particular kind quickly and easily, provided that you know how the specific log lines looks like.

Structure

This article revolves around the use of the "**show logging profile wireless**" command mostly which goes through all the wireless related binary logs (that are always-on, even without enabling any form of active debugging).

The "start last <time period>" allows to go back until a certain period in the logs.

The command will output a lot of data on the terminal if you don't use the pipe to restrict your search, this is why all the examples below use the pipe with specific events.

Client

Listing clients that authenticated successfully:

```
myc9800-CL#show logging profile wireless start last 10 days | i Authentication Success
2020/09/26 16:41:21.397677 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [19680]: (note): Authentication
Success. Resolved Policy bitmap:11 for client 02c0.2901.34c8 2020/09/26 17:04:33.523999
{wncd_x_R0-0}{1}: [ewlc-infra-evq] [19680]: (note): Authentication Success. Resolved Policy
bitmap:11 for client d280.eb73.6044 2020/09/26 17:21:59.892585 {wncd_x_R0-0}{1}: [ewlc-infra-
evq] [19680]: (note): Authentication Success. Resolved Policy bitmap:11 for client
02c0.2901.34c8 2020/09/26 17:32:09.289109 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [19680]: (note):
Authentication Success. Resolved Policy bitmap:11 for client 02c0.2901.34c8 2020/09/26
17:41:58.123180 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [19680]: (note): Authentication Success.
Resolved Policy bitmap:11 for client 64b5.c66d.13ac
```

Listing clients that got a successful IP address:

```
myc9800-CL#show logging profile wireless start last 10 days | i IP learn successful 2020/09/26
16:41:30.621520 {wncd_x_R0-0}{1}: [client-iplearn] [19680]: (note): MAC: 02c0.2901.34c8 Client
IP learn successful. Method: DHCP IP: 192.168.1.13 2020/09/26 17:04:37.622905 {wncd_x_R0-0}{1}:
[client-iplearn] [19680]: (note): MAC: d280.eb73.6044 Client IP learn successful. Method: IP
Snooping IP: 192.168.1.36 2020/09/26 17:22:03.830465 {wncd_x_R0-0}{1}: [client-iplearn] [19680]:
(note): MAC: 02c0.2901.34c8 Client IP learn successful. Method: IP Snooping IP: 192.168.1.13
2020/09/26 17:32:09.966598 {wncd_x_R0-0}{1}: [client-iplearn] [19680]: (note): MAC:
02c0.2901.34c8 Client IP learn successful. Method: IP Snooping IP: 192.168.1.13 2020/09/26
17:33:30.236544 {wncd_x_R0-0}{1}: [client-iplearn] [19680]: (note): MAC: 3cf7.a4ae.f607 Client
IP learn successful. Method: IP Snooping IP: 192.168.1.49
```

RRM

Channel changes

```
9800# show logging profile wireless | include history-channel
```

```
2020/02/13 10:50:03.297 {wncd_x_R0-0}{2}: [radio-history-channel] [24955]: (note): Channel
change for AP5c83.8f6e.4250 Slot:1 Band:802.11a Previous Chan:100 Current Chan:132 chan width:
40 Reason: DCA Algorithm
```

Noise and interference values

The below would require to set "set platform software trace wireless chassis active r0 rrm rrm-client-dca info" in order to display the info in logs:

```
9800#show logging profile wireless start last x hours| include rrm-client-dca
```

```
2020/06/26 15:44:08.636988 {wncd_x_R0-0}{1}: [rrm-client-dca] [9853]: (info): f4bd.9e38.4200
(Radio: 802.11a) Channel set request: on cell to channel 40 from 40 (width 20) to reduce co-
channel interference (noise/interference/rssi) from (-128,-128,127) to (-128,-128,127) Reason:
0x1 for slot id: 1
2020/06/26 15:44:08.640828 {wncd_x_R0-0}{1}: [rrm-client-dca] [9853]: (info): f4bd.9e38.4200
(Radio: 802.11bg) Channel set request: on cell to channel 6 from 1 (width 20) to reduce co-
channel interference (noise/interference/rssi) from (-77,-35,-35) to (-66,-58,-57) Reason: 0x4
for slot id: 0
2020/06/26 15:54:18.671638 {wncd_x_R0-0}{1}: [rrm-client-dca] [9853]: (info): f4bd.9e38.4200
(Radio: 802.11a) Channel set request: on cell to channel 40 from 40 (width 20) to reduce co-
channel interference (noise/interference/rssi) from (-128,-128,127) to (-128,-128,127) Reason:
0x1 for slot id: 1
2020/06/26 15:54:18.673055 {wncd_x_R0-0}{1}: [rrm-client-dca] [9853]: (info): f4bd.9e38.4200
(Radio: 802.11bg) Channel set request: on cell to channel 6 from 6 (width 20) to reduce co-
channel interference (noise/interference/rssi) from (-128,-128,-58) to (-128,-128,-58) Reason:
0x1 for slot id: 0
```

DCA algorithm running

```
9800-17#show logging profile wireless start last boot | i Running DCA Algo
```

```
2020/02/14 16:23:09.177 {rrm_bg_R0-0}{1}: [rrm-mgr-dca] [22117]: (note): (Radio: 802.11a)
Running DCA Algorithm
```