



Troubleshooting IoT Services: Access Point

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How do I check the gRPC connection status on the access point?

Run the command: **show cloud connector connection detail**

This command returns information about the connection. *Connection State* should be READY. *Connection Url* should be the IP address of the Cisco Spaces: Connector on port 8000. *Certificate Available* should be true. *Controller Ip* should be the controller the AP is associated with.

```
AP# show cloud connector connection detail
Connection State           : READY
Connection Url             : 10.22.243.33:8000
Certificate Available      : true
Controller Ip              : 10.22.243.31
Stream Setup Interval     : 30
Keepalive Interval        : 30
Last Keepalive Rcvd On    : 2020-04-01 00:32:47.891433113 +0000 UTC m=+345985.338898246
Number of Dials            : 2
Number of Tx Pkts         : 2788175
Number of Rx Pkts         : 11341
Number of Dropped Pkts    : 0
Number of Rx Keepalive    : 11341
Number of Tx Keepalive    : 11341
Number of Rx Cfg Request  : 0
Number of Tx AP Cfg Resp  : 0
Number of Tx APP Cfg Resp : 0
Number of Tx APP state pkts : 5
Number of Tx APP data pkts : 2776829
```

How do I check the stream token on the access point?

Run the command: **show cloud connector key access**

How do I view the gRPC server logs on the access point?

This command returns information about the stream token. **Token Valid** should be Yes. The **Last Success on** time should be more recent than the **Last Failure on** time. If there are failures, the **Last Failure reason** field details the reason for the failure.

```
AP# show cloud connector key access
Token Valid : Yes
Token Stats :
    Number of Attempts : 44
    Number of Failures : 27
    Last Failure on : 2020-03-28 02:02:15.649556818 +0000 UTC m=+5753.097022576
    Last Failure reason : curl: SSL connect error
    Last Success on : 2020-04-01 00:48:37.313511596 +0000 UTC m=+346934.760976625
    Expiration time : 2020-04-02 00:48:37 +0000 UTC
Connection Retry Interval : 30
```

Also run the command: **show cloud connector key authentication**.

This command returns the authentication token used initially to set up the connection. **Token Valid** should be Yes. **Token Endpoint** should be the IP address of the Cisco Spaces connector on port 8000. **Token Content** should be the token set on the wireless controller using this configuration command: **ap cisco-dna token 0 token-content**.

```
AP# show cloud connector key authentication
Token Valid : Yes
Token Endpoint : 10.22.243.33:8000
Token Content :
-----
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ0aWQiOiJlYXNpdG9yaW50IiwiaWF0IjoiMj020-04-01T01:36:52Z" level=info msg="[DNAS] spaces conn url 10.22.243.33:8000"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] entering stopDNAspacesTmpTokenRoutine"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] exiting stopDNAspacesTmpTokenRoutine"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] entering startDNAspacesTmpTokenRoutine"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] launching token request cycle"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] exiting startDNAspacesTmpTokenRoutine"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] spaces token expiration time 2020-04-02 01:36:52 +0000 UTC"
time="2020-04-01T01:36:52Z" level=info msg=" Calling startDNAspacesConn routine "
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] Receive Success status"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] Connection not in ready state sleeping for 10 seconds"
time="2020-04-01T01:37:02Z" level=info msg="[DNAS] Setup Stream for the gRPC connection"
time="2020-04-01T01:37:02Z" level=info msg="[DNAS] Connect RPC Succeeded."
time="2020-04-01T01:37:02Z" level=info msg="[DNAS] RX routine got enabled "
time="2020-04-01T01:37:02Z" level=info msg="[DNAS] TX routine got enabled "
```

How do I view the gRPC server logs on the access point?

Run the command: **show grpc server log**

```
AP# show grpc server log
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] spaces conn url 10.22.243.33:8000"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] entering stopDNAspacesTmpTokenRoutine"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] exiting stopDNAspacesTmpTokenRoutine"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] entering startDNAspacesTmpTokenRoutine"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] launching token request cycle"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] exiting startDNAspacesTmpTokenRoutine"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] spaces token expiration time 2020-04-02 01:36:52 +0000 UTC"
time="2020-04-01T01:36:52Z" level=info msg=" Calling startDNAspacesConn routine "
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] Receive Success status"
time="2020-04-01T01:36:52Z" level=info msg="[DNAS] Connection not in ready state sleeping for 10 seconds"
time="2020-04-01T01:37:02Z" level=info msg="[DNAS] Setup Stream for the gRPC connection"
time="2020-04-01T01:37:02Z" level=info msg="[DNAS] Connect RPC Succeeded."
time="2020-04-01T01:37:02Z" level=info msg="[DNAS] RX routine got enabled "
time="2020-04-01T01:37:02Z" level=info msg="[DNAS] TX routine got enabled "
```


How do I view the beacon broadcast setting for an access point running in Native Mode?