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Cloudpath Enrollment System REST API v2 User Guide, 5.7R2

Supporting Cloudpath Software Release 5.7

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Cloudpath REST API v2 Basics

Overview

REST API v2 is a RESTful API designed for external consumer use. It uses Json Web Tokens for authentication, and also requires an API Key. This authentication allows for auditing, and provides greater security than only requiring an API key.

> **NOTE**
> Basic knowledge of REST API v2 and Json format are necessary.

Cloudpath provides REST APIs to enable integration with existing processes or third-party applications. REST APIs allow the system to actively notify external systems (outbound calls) and to be queried and manipulated by external systems (inbound calls).

REST APIs are resource-based, and support the following HTTP verbs:

- GET (to get information about a resource)
- POST (to create a resource)
- PUT (to change the state of a resource)
- DELETE (to delete a resource)

REST APIs also return errors by using HTTP return codes. Refer to Return Codes and Error Response Format on page 10.

Root URI: The root URI is in the form of:

```
<Cloudpath FQDN>/admin/apiv2/{APIKey}
```

Format for Variables

Variables in Cloudpath are in the following format: ${MAC_ADDRESS}, ${USERNAME}, or ${IP_ADDRESS}. See the Enrollment Variables section on the Enrollment Record page in the UI to view available variables, variable syntax, and expected values. Also, navigate to **Configuration > DPSK Pools**, and go to the window to add or edit a pool, and you can view all the available variables from a drop-down list.
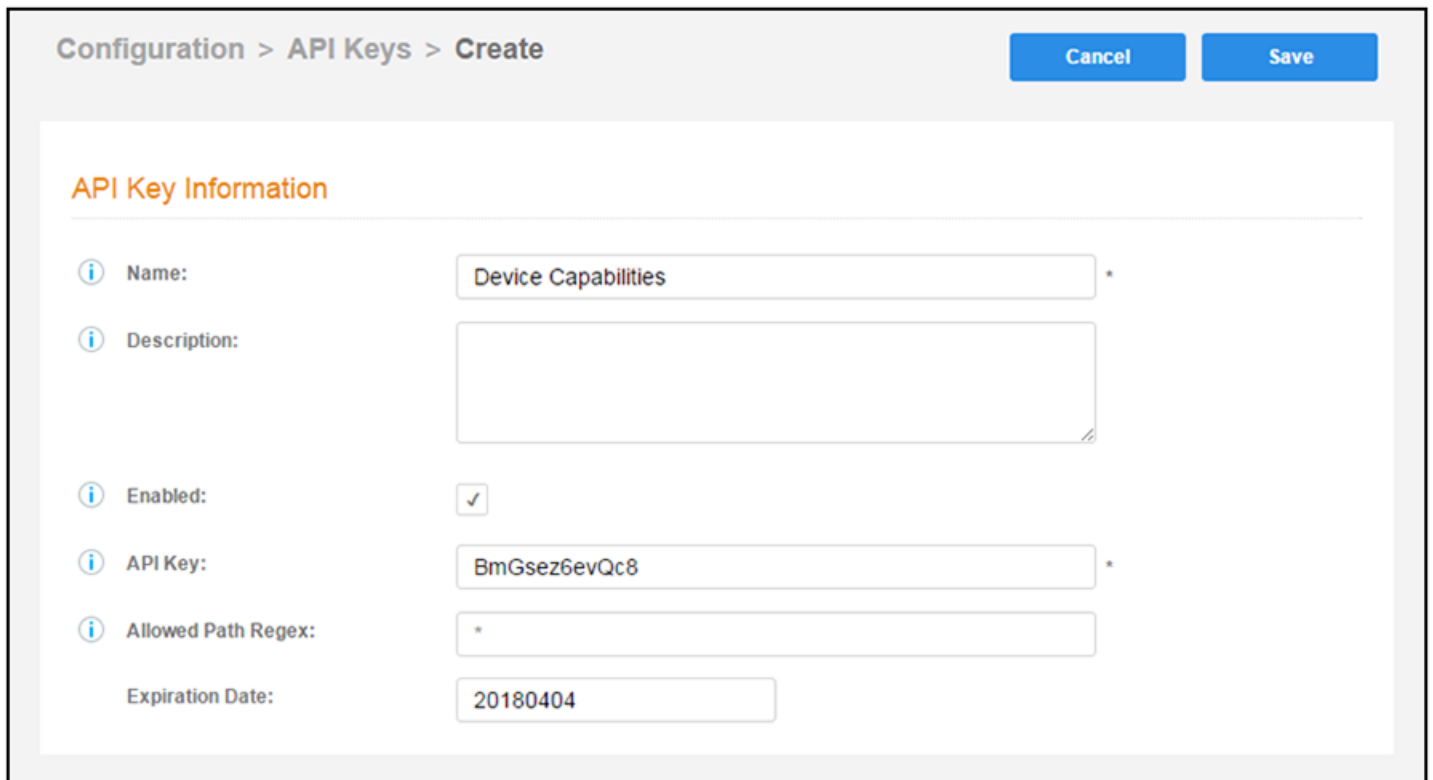
Only variables which are populated at the time of the notification event are sent. MAC addresses and other variables may be populated through events other than onboarding, such as data prompts.

Creating an API Key

For Cloudpath to honor inbound requests from external systems, the external system must authenticate using an API key. The API key is part of the REST API query used to retrieve information from the Cloudpath system. Authentication is a combination of this API key and an authentication with the Token API. To create an API Key, perform the following steps:

1. Go to **Configuration** > **API Keys** .

2. Click **API Keys**

FIGURE 1 Create API Key

Cloudpath provides a generated **APIKey**, or you can specify a custom key. An API key must be URL-safe.

The **Allowed Path Regex** is a regex specifying the paths allowed to be called with this API key. For example,/admin/api/.*/certificate/.* can query anything in the 'certificate' realm. If left blank, there is no restriction.

For the **Expiration Date**, the Cloudpath system defaults to a one-year expiration, but this value can be modified.

Security

The Cloudpath REST v2 APIs use Json Web Tokens (JWT) to secure all endpoints, in addition to using the API key.

The user calls "..../admin/apiv2/*APIKey*/token", with a user name and password, and, if authenticated, a JWT token is returned to the user in the authentication response body.

NOTE

You must include an active JWT token in the "Authorization" HTTP request header of all subsequent requests.

The token has a five-minute timeout and can be refreshed by requesting a new token while the current token is still valid. In addition, the "..../admin/apiv2/*APIKey*/token" endpoint provides basic information about the token's expiration.

NOTE

If you change the API key in the Cloudpath UI, all tokens become invalid, and new authentications are required. In addition, if you disable the API key, all API requests are rejected, even if the token is still valid and the user has already been authenticated.

The following table lists the properties that can be used in the body of a token request and/or are provided in the response body.

TABLE 1 Resource: Token

Property Name	Type	Editable	Filter or Sort	Optional	Description
userName	String	Yes	Neither	Required only on a PUT call request, but always returned in the response to a PUT or a POST.	The username of the person trying to use the API. The user needs to have the account admin role for the account being requested.
password	String	Yes	Neither	Required only for a POST request.	The password for the user. Will never be returned in the response body.
token	String	No	Neither	Yes (Never needed in request body)	The token returned for this user. Will be ignored on a POST and a PUT.
expireDateTime	String < DateTime>	No	Neither	Yes (Never needed in request body)	Expiration time and date for the token returned to the user, given in iso80601 date/time format.

Security URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the actions you can take, and possible return codes you can receive.

TABLE 2 Security URIs and Actions

URI	Action	Description	Return Codes
/token	POST	Authenticates the user and returns a valid security token. The body must include the username and password.	401 - Unauthorized 201 - Created
	PUT	Provides an updated token, without requiring a new login. The body must be empty and the current valid token must be in the "Authorization" header.	422 - Entity cannot be processed (if the body is not empty). 406 - Not Acceptable (token has expired) 401 - Unauthorized

Example of Generating an Authorization Token

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/BmGsez6evQc8/token
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)
- BmGsez6evQc8 is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

Request Headers:

The following table shows the required request header for this URI example:

TABLE 3 Request Header

Key	Value
Content-type	application/json

Request Body:

An example of the request body is shown below (this provides administrative login credentials to the Cloudpath system being used):

```
{"userName":"jeffr@commscope.com",
"password":"test"}
```

Action:

Use the **POST** action to send the request.

Response Body:

Once the request is sent, you will receive the response body that provides the token and its expiration, as shown in the following example:

```
{
    "userName": "jeffr@commscope.com",
    "token":
"eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBhcnJpcy5jb20iLCJyb2xlUGsiOiIyMTAwMCIsImFjY291bnRBZG1pblBrIj
oiMiIsImFwaUtleSI6IkhOV2dNSG93cERCCNCIsImlhdCI6MTU3NTQ4NjExMSwiZXhwIjoxNTc1NDg2NDExfQ.JwBWDgj_K7jP1kDvVU8aq_v
mNulsdx2FD_MUNLAuymQ",
    "expireDateTime": "2019-12-04T12:06:51-07:00[America/Denver]"
}
```

> **NOTE**
> Because each token expires after five minutes, you will need to re-send the request often. You need to use the active token with all other requests, as shown elsewhere in this document.

List Format of Response Body of GET Calls

All GET calls that are not for a specific ID will return a list of items.

The basic Json schema and an example of this schema are shown below.

Json Schema

```
{
  "type": "object",
  "properties": {
    "page": {
      "type": "object",
      "properties": {
```

```
        "pageSize": { "type": "integer" },
        "page": { "type": "integer" },
              "totalCount":{type:"long" }
      },
      "required": [ "pageSize",  "page"]
    },
    "contents": {
      "type": "array",
      "items": [
          {
            "type": "object"
          }
        ]
      }
    },
    "required": [
      "page",
      "contents"
    ]
  }
```

Example of Json Response Body From a GET Call That Provides Lists

Each set of brackets ([ ]) indicates a list, and each entry with curly braces ({ }) is an item in that list.

```
{
  "page": {
    "pageSize": 5,
    "page": 3,
    "totalCount":441
  },
  "contents": [
      {
        "guid": "uniqueId",
        "property1": "propertyValue",
        "property2": "property2Value"
      },
      {
        "guid": "differentUniqueId",
        "property1": "propertyValueForItem2",
        "property2": "property2ValueForItem2"
      }
    ]
  }
```

For an example of the response body that shows all the DPSKs within a specific DPSK pool, see Example of Using GET to Obtain Listings of Multiple DPSKs Within an Existing DPSK Pool on page 39

For an example of changing the Page properties (the first part of the response body shown above), see Example of Changing Page Properties in a GET Call on page 46

Sorting and Filter/Query

GET calls that are not by ID support paging and sorting/filtering as defined by each resource.

Tables that are provided in this document for the various resources (such as DPSKs) provide information about any query and sort operators that are available for each property. You can also combine a query with a sort, as well as with paging, in any request.

Sorting Syntax

To sort by a property, the query parameter is "sortBy". The property name is listed first, followed by a colon and the requested sort order: "desc" for descending or "asc" for ascending. For a multiple sort-order request, the order is implied by the order of the properties listed. Invalid properties are ignored and will not affect the sort order nor generate an error.

```
https://cloudpathServer/admin/apiv2/apiKey/resource?sortBy=prop1:desc,prop2:asc
```

For an example of a sort, including appending the URI with the sort parameter, see Example of Sorting a GET Call on page 53.

Query Operators

The following query operators are supported:

TABLE 4 Supported Query Operators

Operator	Meaning
like	Does a comparison equivalent to a database query of %val% on strings only.
eq	Does a direct comparison where the two values must be equal.
in	Allows a list of equals to be used, like the "in" operator in a database . This is often used with enumerations, so you can get a list with two or more values in a list of enumerations. Value for the in operator must be: 'val1_val2_val3' where _ is the separator between values.

Query Syntax

To query with a GET of all elements, the query parameter is "filter". This is a list of properties and the operator and value to evaluate, in the format: property(operator:value). Invalid properties will be ignored, and valid properties will be processed. They will be ordered as provided on the property list, with the first property added first to the filter query.

The following example syntax of filtering on a property called *prop1*, using the "like' operator with *value* denoting the value you provide, and also sorting on a property called *prop2*, using the "eq" parameter and a value for *val2*:

```
https://cloudpathServer/admin/apiv2/apiKey/resource?filter=prop1(like:value),prop2(eq:val2)
```

For an example of a query, including appending the URI with the filter parameter, see Example of Filtering a GET Call on page 49.

Return Codes and Error Response Format

The API returns an error response code if something has gone wrong with the request.

The following tables provide the basic components of an error message and the meaning of the various codes.

Basic Parts of an Error Message

TABLE 5 Error Message Components

Property Name	Type	Description
message	String	A message providing additional details about the error.
code	String	The HTTP return code. The response will return this code, but you can also obtain this code from the resource.
uri	String	The URI that made the request that generated the error.

Common Return Codes and Their Meaning

TABLE 6 Codes and Meaning

Code	Meaning
200	"OK" - The response for almost all successful GET requests, and most PUT requests.
201	"Created" - The response for a POST if the resource requested was created.
204	No Content - This will only occur after the deletion of a resource.
400	"Bad Request" - Occurs when the parameters or body required in the method were not correctly provided. This includes missing headers (such as ContentType=application/json) on a POST and PUT.
401	"Not Authorized" - Occurs If the token is invalid (not expired) or has not been provided. This can also occur if the user does not have an Admin role on the account that is associated with the API key. In addition, providing incorrect credentials on the POST **/token** will generate this error.
404-	"Not Found" - Occurs If the item requested or any resource identified in the URI does not exist in the Cloudpath account.
406 -	"Not Acceptable" - Occurs if the token has expired. This error is possible on any endpoint, except the POST on **/token**.
409-	"Conflict" - Occurs when the request itself is valid, but the data in the request causes a conflict with existing data. An common example is if the name is not unique.
415	"Unsupported Media Type" - the REST v2 APIs support only JSON.
4***, 500, 503	Several other errors might occur. The error response should provide additional details as to the issue.

RADIUS Attribute Groups

You can use REST API v2 calls to obtain information about existing RADIUS attribute groups, to create or edit RADIUS attribute groups, and to delete RADIUS attribute groups.

The following table lists the properties that can be used in the body of a RADIUS attribute groups-related request and/or are provided in the response body. (In the "Optional" column, if a default value is applicable, it is listed in angle brackets (**< >**)).

TABLE 7 Resource: RadiusAttributeGroup

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
guid	String	No	Neither	Optional on create only, but not on any subsequent uses	The unique identifier for this attribute group.
name	String	Yes	Filter	No	The display name for this attribute group; must be unique.
description	String	Yes	Neither	Yes	A description for this attribute group.
vlanid	String	Yes	Neither	Yes	The VLAN to use. If not specified, the device receives the default VLAN that is configured on the controller.
classid	String	Yes	Neither	Yes	The device class ID to use. If not specified, the device is not assigned a class ID.
filterid	String	Yes	Neither	Yes	Filter ID for the device in the attribute group. If not specified, the device is not assigned a filter ID.
sessionTimeout	Long	Yes		No	The reauthentication period, in seconds, that is included in the RADIUS reply for successful authentications. If the device stays connected for longer than this period, the WLAN or switch requires that the device be reauthenticated (unbeknownst to the user). If no value is specified, the sessionTimeout is not applied, which means that the device is not required to reauthenticate as long as it remains associated to the WLAN or switch.
policyCount	Integer	No	Yes	Yes	The number of policies that are currently using this attribute group. This number cannot be altered, and any attempt to do so is ignored.
additionalAttributes	List <Attribute>	Yes		Yes	A list of additional attributes to apply to RADIUS configurations. In the **Configuration > Policies > Radius Attribute Groups** portion of the UI, if you add or modify a RADIUS attribute group, you can click **+** at the bottom of the Attributes section to invoke a drop-down of all the additional attributes that are available. Also, see the "Resource: Attribute" table below for more information.
links	Link	No	No	No	A self reference href link is created that can be used in other API calls where a reference to a specific RADIUS attribute group is needed, such as in a POST to create a new policy.

Additional Attributes:

The following table lists the additional-attribute properties to apply to RADIUS configurations that can be used in the body of a DPSK-pool-related request and/or are provided in the response body.

TABLE 8 Resource: Attribute

Property Name	Type	Editable	Filter or Sort	Optional?	Description
name	String	Yes	No	No	The RADIUS attribute to use.
action	String <Enum>	Yes	No	No	The action to take must be one of the following: ADD, ADD_OR_REPLACE, or ADD_MULTIPLE.
value	String	Yes	No	No	The value to substitute.

RADIUS Attribute Groups URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the actions you can take, and possible return codes you can receive.

TABLE 9 RADIUS Attribute Groups URIs and Actions

URI	Action	Description	Return Codes
/radiusAttributeGroups	GET	Returns the list of RADIUS attribute groups defined.	401 - Unauthorized 200 - OK
	POST	Creates a RADIUS attribute group.	401 - Unauthorized 201 - Created
/radiusAttributeGroups/{id}	GET	Returns the specific RADIUS attribute group.	404 - Not Found 401 - Unauthorized 200 - OK
	DELETE	Deletes the RADIUS attribute group specified. If the attribute group is assigned to one or more policies, and a request to delete the group is sent, the response will be a "409" message.	409 - Conflict 401 - Unauthorized 204 - No content 200 - OK
	PUT	Updates a RADIUS attribute group. See the "Resource: RADIUS Attribute Groups" table for the properties that can be edited.	409 - Conflict 401 - Unauthorized 204 - No content 200 - OK

Example of Using POST to Create a RADIUS Attribute Group

This example demonstrates how to create a new RADIUS attribute group in your Cloudpath system by using the REST API POST call.

URI:

This example uses the following URI:

        https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/radiusAttributeGroups

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)
- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 10 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5QayI6ljliLCJhcGlLZXkiOiJaV2NjTGpQZUdZ1MGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCl6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

The following is an example of a request body for creating a RADIUS attribute group. You can refer to the preceding Resource tables for a list and descriptions of properties you can use to define your RADIUS attribute group. For instance, in this example, a RADIUS attribute group called "RadGroup22" is being created with the values provided in the body.

```
{
          "name": "RadGroup22",
          "description": "test group",
          "vlanid": "10",
          "filterid": 15,
          "sessionTimeout": 333
          }
```

Action:

Use the **POST** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 201 Created" if the POST is successful. You can see that a "guid" (a unique identifier for the newly created RADIUS attribute group) is included in the response body.

```
{
    "guid": "1",
    "name": "RadGroup22",
    "description": "test group",
    "vlanid": "10",
    "filterid": "15",
    "classid": null,
    "sessionTimeout": "333",
    "policyCount": 0,
    "additionalAttributes": [],
    "links": [
        {
            "rel": "self",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/radiusAttributeGroups/1",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        }
    ]
}
```

Verifying the Newly Created RADIUS Attribute Group in the Cloudpath UI:

You can go to the **Configuration > Policies > RADIUS Attribute Groups** area of the UI, and the newly created group (RadGroup22 in this example) should be included in the list. You may have to refresh your screen there. You can click the edit icon to go to the configuration screen for that group, and the values there should reflect the values in the Response body from the POST, as demonstrated in the following illustration:

RADIUS Attribute Groups
Example of Using POST to Create a RADIUS Attribute Group

FIGURE 2 Newly Created RADIUS Attribute Group

RADIUS Clients

You can use REST API v2 calls to obtain information about existing RADIUS clients.

The following table lists the properties that can be used in the body of a RADIUS client-related request and/or are provided in the response body. (In the "Optional" column, if a default value is applicable, it is listed in angle brackets (**< >**)).

TABLE 11 Resource: RADIUS Clients

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
guid	String	No	Neither	Optional on create only, but not on any subsequent uses	The unique identifier for this RADIUS client.
referenceName	String	Yes	Neither	No	The display name for this RADIUS client, must be unique
ipAddress	String	Yes	Neither	No	IP address of the RADIUS client.
enabled	Boolean	Yes	Neither	No (true by default)	If enabled, the client is available for use. If disabled, the client is not available for use.
sharedSecret	String	Yes	Neither	NO	The shared secret for this RADIUS client.
changeOfAuthority	<Object> Embedded	Yes	Neither	Yes	Change of Authority embedded object. If not present, COA has not been enabled; if present COA is enabled.
links	Link	No	No	No	A self reference href link is created. This link can be used in other API calls, such as within the "rule" section of a POST call to create a policy.

TABLE 12 Resource:ChangeOfAuthority

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
port	Long	No	Neither	Optional on create only, but not on any subsequent uses	COA usually uses port 3799 in typical configurations and 2083 in RADSEC configurations. Some Cisco equipment uses port 1700.
macAddressFormat	Enum	Yes	Filter	No	COA MAC Address Format - MAC Addresses within attributes such as value of 'Calling-Station-Id' will be sent in this format. Enumeration values accepted are: • COLON_6_GROUPS (XX:XX:XX:XX:XX:XX) • HYPHEN_2_GROUPS (XXXXXX-XXXXXX) • HYPHEN_6_GROUPS (XX-XX-XX-XX-XX-XX) • DOT (XXXX.XXXX.XXXX) • NONE(XXXXXXXXXXXX)
disconnectAttributes	List	Yes	Neither	Yes	A list of additional attributes to apply to radius configurations during the disconnect from the RADIUS client. Refer to Table 8 on page 14.
enabled	Boolean	Yes	Neither	No (true by default)	If enabled, the RADIUS client is available for use. If disabled, the RADIUS client is not available for use.
sharedSecret	String	Yes	Neither	NO	The shared secret for this RADIUS client.

TABLE 12 Resource:ChangeOfAuthority (continued)

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
changeOfAuthority	\<Object\> Embedded	Yes	Neither	Yes	Change of Authority embedded object. If not present, COA has not been enabled, if present COA is enabled.
portForwardList	List	Yes	Neither	Yes	This list should only be provided if port forwarding is required to reach the switches or controllers. By default, the system sends COA requests to the switch or controller on the default port (3799).You can enable this option by providing at least one value in the portForward list. Refer to the "Resource: portForward" table that follows.

TABLE 13 Resource:portForward

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
nasIpAddress	String	Yes	Neither	No	The NAS Ip address for forwarding.
port	Long	Yes	Neither	No	The port number for forwarding
sharedSecret	String	Yes	Neither	No	The shared secret to use for this NAS IP.

RADIUS Clients URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the actions you can take, and possible return codes you can receive.

TABLE 14 RADIUS Clients

URI	Action	Description	Return Codes
/radius/clients	GET	Returns the list of RADIUS clients that are defined.	401 - Unauthorized
/radius/clients/{id}	GET	Returns the specific RADIUS client.	404 - Not Found 401 - Unauthorized

Example of Using GET to Retrieve RADIUS Client Information

This example demonstrates how to obtain information about all RADIUS clients in your Cloudpath system by using the REST API GET call.

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/radius/clients/
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)
- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 15 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NjTGppZ.QZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

No request body is needed for this request. All the necessary information is in the URI.

Action:

Use the **GET** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the GET is successful. The example response body below lists information for the specified RADIUS client.

```
{
    "page": {
        "page": 1,
        "pageSize": 1,
        "totalCount": 1
    },
    "contents": [
        {
            "guid": "1",
            "referenceName": "Rad Client 12",
            "ipAddress": "10.0.0.1",
            "enabled": true,
            "sharedSecret": "testtest",
            "changeOfAuthority": {
                "port": 3799,
                "macAddressFormat": "COLON_6_GROUPS",
                "disconnectAttributes": [],
                "portForwardList": []
            },
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/api3v2/5XcTc6SjkHDL/radius/clients/1",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        }
    ]
}
```

Policies

You can use REST API v2 calls to obtain information about existing policies, to create or editpolicies, and to delete policies

The following table lists the properties that can be used in the body of a policy request and/or are provided in the response body. (In the "Optional" column, if a default value is applicable, it is listed in angle brackets (**< >**).

TABLE 16 Resource: Policies

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
guid	String	No	Neither	Optional on create only, but not on any subsequent uses .	The unique identifier for this policy.
name	String	Yes	sortBy, like	No	The display name for this policy; must be unique.
description	String	Yes	sortBy, like	Yes	A string that can be used by third-party consumers. The string can be referenced using RADIUS attribute variables such as: DPSK_THIRD_PARTY_ID
rule	<Object> embedded	Yes	Neither	Optional on create only, but not on any subsequent uses .	The rules that are defined for this policy. Refer to the "Resource: rule" table below.
links[]	Link array	Yes	No	No	This is an href link to the RADIUS attribute group property (attributeGroup) being used by the policy. This href can then be used in other API calls. **NOTE** You can change the attribute group of a policy by using a PUT request and including the href link to the new attribute group.

TABLE 17 Resource: rule

Property Name	Type	Editable	Filter or Sort	Optional?	Description
userNameRegex	String	Yes	Neither	Yes	The regex for a user name that will be applied with this policy.
nasIdRegex	String	Yes	Neither	Yes	The regex for the NAS Identifier that will be applied with this policy.
realmRegex	String	Yes	Neither	Yes	The regex for the realm that will be applied with this policy. The realm is defined as "@***" following the user name. For example, with joe.smith@company.com the realm is company.com
dpskRefNameRegex	String	Yes	Neither	Yes	The regex for the DPSK reference name that will be applied with this policy. This value is valid only for eDPSK Pools and is ignored for all other uses.
authGroupRegex	String	Yes	Neither	Yes	The regex for the authentication groups that will be applied with this policy.
timeRange	<Object> embedded	Yes	Neither	Yes	The regex for the time range that will be applied with this policy.

TABLE 17 Resource: rule (continued)

Property Name	Type	Editable	Filter or Sort	Optional?	Description

links	Link <Object>	Yes	Neither	Yes	This is an href link to the RADIUS client property (radiusClient) if this property is being used by the policy. This href can then be used in the "rule" portion of a request body as in this example (where "234" is the ID of the RADIUS client):
					
					``"links": [
					        {
					            "rel": "radiusClient",
					            "href": "https://somehost.cp.com/radius/client/234"
					        }
					    ]```
					
					Also, refer to RADIUS Clients on page 17.

TABLE 18 Resource: timeRange

Property Name	Type	Editable	Filter or Sort	Optional?	Description
when	Enum <String>	Yes	Neither	No	When the policy will be applied:WEEKDAY, WEEKEND, ALL
start	String <Time>	Yes	Neither	No	The time specified for this policy to allow access, in ISO 8601 formatted time.
end	String <Time>	Yes	Neither	No	The time specified for this policy to prevent access, in ISO 8601 formatted time.

Policies URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the actions you can take, and possible return codes you can receive.

TABLE 19 Policies URIs and Actions

URI	Action	Description	Return Codes
/policies	GET	Returns the list of policies.	401 - Unauthorized 200 - OK
	POST	Creates a policy.	401 - Unauthorized 201 - Created

TABLE 19 Policies URIs and Actions (continued)

URI	Action	Description	Return Codes
/policies/{id}	GET	Returns the specific policy.	404 - Not Found
			401 - Unauthorized
			200 - OK
	DELETE	Deletes the specified policy. If the policy has been assigned to an eDPSK pool or PEAP, you will receive a "conflict" message when trying to delete the policy.	409 - Conflict
			401 - Unauthorized
			204 - No content
			200 - OK
	PUT	Updates the specified policy. See the "Resource: Policies" table for the properties that can be edited.	409 - Conflict
			401 - Unauthorized
			204 - No content
			200 - OK

Example of Using POST to Create a Policy

This example demonstrates how to create a new policy in your Cloudpath system by using the REST API POST call.

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/policies
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)
- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 20 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2vdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NjTGpQZUdZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

The following is an example of a request body for creating a policy. You can refer to the preceding Resource tables for a list and descriptions of properties you can use to define your policy. For instance, in this example, a policy called "policy2" is being created with the values provided in the body.

Policies
Example of Using POST to Create a Policy

NOTE

The href link near the end of the request body shown below is the link to the RADIUS attribute group (with its ID, which is 1 in the example link) to be associated with the policy.

```
{
    "name":"Policy2",
    "description":"Test Policy2 using Attribute1 and with userNameRegex and timeRange",
    "rule":{
            "userNameRegex":"user*",
            "nasIdRegex":"Using Attribute",
            "realmRegex":"",
            "dpskRefNameRegex":"",
            "authGroupRegex":"","links":[],
            "timeRange": {
                                "when": "WEEKEND",
                                "startTime": "07:45:00",
                                "endTime": "16:15:00"
             },
             "links": []
    },
    "links":[
            {
                 "rel":"attributeGroup",
                 "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/radiusAttributeGroups/1"
            }
    ]
}
```

Action:

Use the **POST** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 201 Created" if the POST is successful. You can see that a "guid" (a unique identifier for the newly created policy) is included in the response body.

```
{
    "guid": "2",
    "name": "Policy2",
    "description": "Test Policy2 using Attribute1 and with userNameRegex and timeRange",
    "rule": {
        "userNameRegex": "user*",
        "nasIdRegex": "Using Attribute",
        "realmRegex": "",
        "dpskRefNameRegex": "",
        "authGroupRegex": "",
        "timeRange": {
            "when": "WEEKEND",
            "startTime": "07:45:00",
            "endTime": "16:15:00"
        },
        "links": []
    },
    "links": [
        {
            "rel": "self",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/policies/2",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        },
        {
            "rel": "attributeGroup",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/radiusAttributeGroups/1",
            "hreflang": null,
            "media": null,
            "title": null,
```

```
            "type": null,
            "deprecation": null
        }
    ]
}
```

Verifying the Newly Created Policy in the Cloudpath UI:

You can go to the **Configuration > Policies** area of the UI, and the newly created policy (Policy2 in this example) should be included in the list. You may have to refresh your screen there. You can click the edit icon to go to the configuration screen for that group, and the values there should reflect the values in the Response body from the POST.

DSPK Resources and URIs

DPSK Pools

You can use REST API v2 calls to obtain information about existing DPSK pools, to create or edit pools, and to delete pools.

The following table lists the properties that can be used in the body of a DPSK-pool-related request and/or are provided in the response body. (In the "Optional" column, if a default value is applicable, it is listed in angle brackets (**< >**).

TABLE 21 Resource: DPSK Pools

Property Name	Type	Editable	Sort/Filter	Optional in Request/Response Body?	Description
guid	String	No	Neither	Optional on create only, but not on any subsequent uses	The unique identifier for this DPSK pool.
additionalAttributes	List <Attribute>	Yes	No	Yes	For Cloudpath releases greater than initial 5.7 release, this propety is ignored for this resource. Instead, this property can be specified in a Radius Attributes Group resource. For more information, refer to Table 7 on page 13 .
classid	String	Yes	Neither	Yes	For Cloudpath releases greater than initial 5.7 release, this propety is ignored for this resource. Instead, this property can be specified in a Radius Attributes Group resource. For more information, refer to Table 7 on page 13 .
description	String	Yes	Neither	No	A description for this pool.
deviceCountLimit	Int	Yes	Neither	No <1>	If you set the enforceDeviceCountLimit parameter to *true*, you can specify the number of devices that are allowed to utilize the DPSK pool you are creating.
displayName	String	Yes	Filter	No	The display name for this pool; must be unique.
enabled	Boolean	Yes	Filter	No<true>	Indicates if this DPSK pool is enabled. Switching from true to false disables the pool.
enforceDeviceCountLimit	Boolean	Yes	Neither	No<false>	If true, each DPSK is assigned a maximum device count as specified in the deviceCountLimit parameter. If false, an unlimited number of devices can utilize the DPSK.
enforceExpirationDate	Boolean	Yes	Neither	No <false>	If true, newly generated DPSKs are assigned an expiration date that is based on the creation date and the defined offset.
expirationDateType	String	Yes	Neither	No <END_OF_MONTH >	A Specific date in format YYYYMMDD, or a type of: MINUTES_AFTER_TIME, HOURS_AFTER_TIME, DAYS_AFTER_TIME, WEEKS_AFTER_TIME, MONTHS_AFTER_TIME, QUARTERS_AFTER_TIME , YEARS_AFTER_TIME , END_OF_HOUR , END_OF_DAY , END_OF_WEEK , END_OF_MONTH , END_OF_QUARTER , END_OF_HALF , END_OF_YEAR

TABLE 21 Resource: DPSK Pools (continued)

Property Name	Type	Editable	Sort/Filter	Optional in Request/Response Body?	Description
expirationDateValue	Int	Yes	Neither	No <1>	Will be used if HOURS_AFTER_TIME is provided in the expirationDataType
filterid	String	Yes	Neither	Yes	For Cloudpath releases greater than initial 5.7 release, this propety is ignored for this resource. Instead, this property can be specified in a Radius Attributes Group resource. For more information, refer to Table 7 on page 13 .
phraseDefaultLength	int	Yes	Neither	No<12>	The pass phrase default length.
phraseRandomCharactersType	Enum <String>	Yes	Filter	No	An enum that indicates the characters to be included in the passphrase. ALPHANUMERIC_UPPER, ALPHANUMERIC_LOWER, ALPHANUMERIC_MIXED, ALPHABETIC_UPPER, ALPHABETIC_LOWER, ALPHABETIC_MIXED, NUMERIC, ASCII
sessionTimeout	Long	Yes	Neither	No	For Cloudpath releases greater than initial 5.7 release, this propety is ignored for this resource. Instead, this property can be specified in a Radius Attributes Group resource. For more information, refer to Table 7 on page 13 .
ssidList	List <String>	Yes	Neither	No	A list of SSIDs as strings for this DPSK pool.
vlanid	String	Yes	Neither	Yes	For Cloudpath releases greater than initial 5.7 release, this propety is ignored for this resource. Instead, this property can be specified in a Radius Attributes Group resource. For more information, refer to Table 7 on page 13 .

TABLE 21 Resource: DPSK Pools (continued)

Property Name	Type	Editable	Sort/Filter	Optional in Request/Response Body?	Description
isUsePolicies	Boolean (true)	Yes	No	Optional on create only, but not on any subsequent uses.	This is a new property beginning with with releases later than the initial 5.7 release. This property cannot be set using an API to create a new DPSK pool, but a "true" value for this property allows you to convert pre-5.7 DPSK pools to pools where you apply a configured policy. Once you make this change, it cannot be undone and the vlanId, classid, filterid, sessionTimeout, and additionalAttributes properties are all removed from a resource response. From that point going forward, these properties will not be updated in a PUT request and will be ignored in a POST request. **NOTE** If you created a DPSK pool via an API call in the initial 5.7 release, it is still in the older format without an attached policy. However, if you created a DPSK pool via the UI in the initial 5.7 release, it already will be in the new, policy-applied format. **NOTE** To complete the conversion of the DPSK pool to the policy-applied pool type, refer to the following steps: 1. Create one or more RADIUS attributes group to assign to a policy: RADIUS Attribute Groups on page 13 2. Create one or more policies: Policies on page 21 3. Assign one or more policies to the DPSK pool: Assigned Policies for DPSK Pools on page 63
links	Link	No	No	No	Contains the following link as hrefs for use in other API calls: • Self referencing link • Policies link • Links to dpsks that belong to this pool

DPSK Pool URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the actions you can take, and possible return codes you can receive.

TABLE 22 DPSK Pool URIs and Actions

URI	Action	Description	Return Codes
/dpskPools	GET	Returns the list of all eDPSK pools that are in the system.	401 - Unauthorized 200 - OK
	POST	Creates an eDPSK pool.	401 - Unauthorized 201 - Created

TABLE 22 DPSK Pool URIs and Actions (continued)

URI	Action	Description	Return Codes
/dpskPools/{guid}	GET	Returns the specific eDPSK pool.	404 - Not Found 401 - Unauthorized 200 - OK
	DELETE	Deletes the pool specified and all its child resources, including DPSKs, devices, and associated enrollments.	500 - Internal Server Error (such as " Pool in use") 401 - Unauthorized 204 - No content 200 - OK
	PUT	Updates an eDPSK pool. See the Table 21 and Table 8 on page 14 for which properties can be edited.	404 - Not Found 401 - Unauthorized 200 - OK

Example of Using GET for DPSK Pools

This example demonstrates how to obtain information about a DPSK pool that has already been created in the Cloudpath UI. (Instructions on creating DPSK pools in the UI are located in the *Cloudpath Enrollment System Ruckus External Dynamic Pre-Shared Key (eDPSK) Configuration Guide*.) The following figure shows information about a DPSK pool called DPSK Pool 1 that has been created in the UI.

FIGURE 3 DPSK Pool 1 Created in the UI
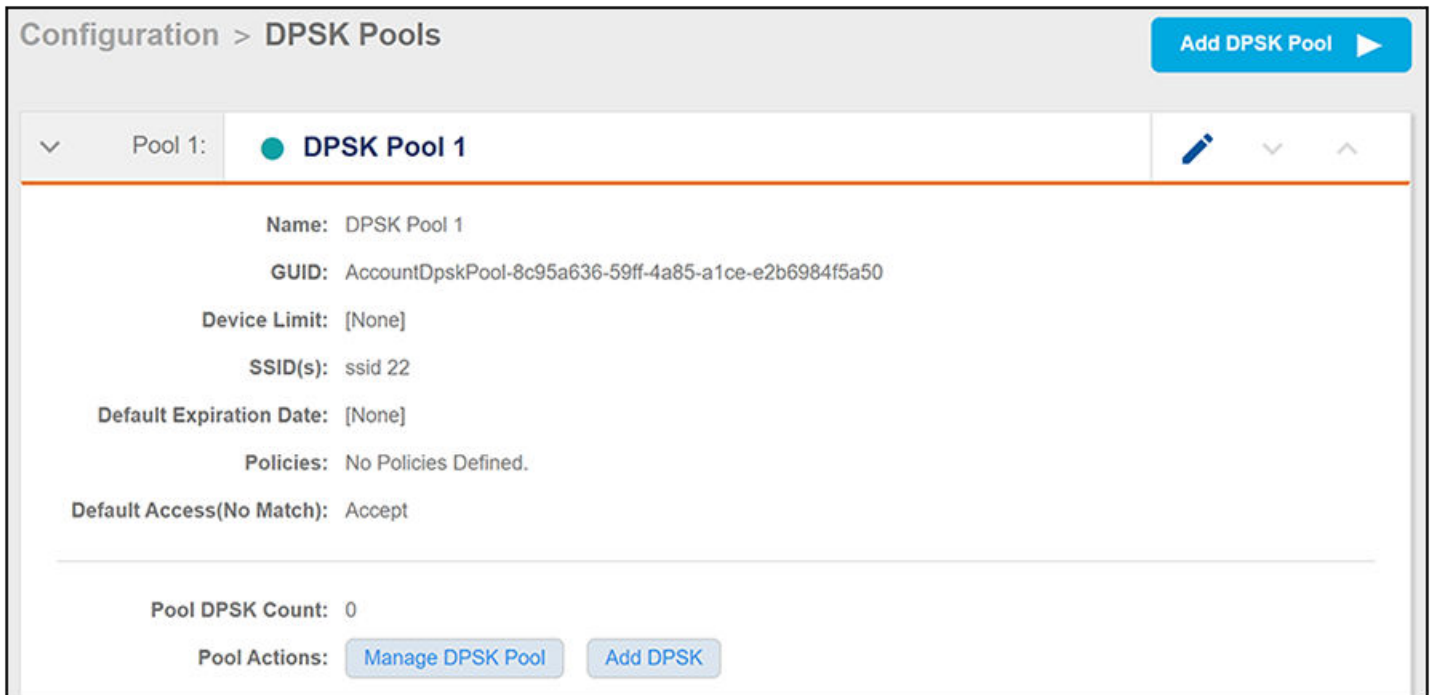
URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/BmGsez6evQc8/dpskPools
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)
- BmGsez6evQc8 is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 23 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NTGppQZUdMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

None required.

Action:

Use the **GET** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the GET is successful. The response body provides information about all existing DPSK pools in your Cloudpath system. In this example, DPSK Pool 1 is the only existing pool. You can see that the information in the response body matches the configuration of DPSK Pool 1 as specified in the UI (for example, the "guid" values are the same in each place, the SSID list is the same, and so on). Any values that were not specified in the UI are the default values:

```
{
    "page": {
        "page": 1,
        "pageSize": 1,
        "totalCount": 1
    },
    "contents": [
        {
            "guid": "AccountDpskPool-8c95a636-59ff-4a85-a1ce-e2b6984f5a50",
            "displayName": "DPSK Pool 1",
            "description": "",
            "enabled": true,
            "phraseDefaultLength": 12,
            "phraseRandomCharactersType": "ALPHABETIC_LOWER",
            "ssidList": [
                "ssid 22"
            ],
            "enforceExpirationDate": false,
            "expirationDateType": "MONTHS_AFTER_TIME",
            "expirationDateValue": "1",
            "enforceDeviceCountLimit": false,
            "deviceCountLimit": 1,
            "supportsPolicies": true,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/BmGsez6evQc8/dpskPools/
AccountDpskPool-8c95a636-59ff-4a85-a1ce-e2b6984f5a50",
```

```
                            "hreflang": null,
                            "media": null,
                            "title": null,
                            "type": null,
                            "deprecation": null
                    },
                    {
                            "rel": "dpsks",
                            "href": "https://jeff243.cloudpath.net/admin/apiv2/BmGsez6evQc8/dpskPools/
    AccountDpskPool-8c95a636-59ff-4a85-a1ce-e2b6984f5a50/dpsks?page=1&pageSize=10{&filter,orderBy}",
                            "hreflang": null,
                            "media": null,
                            "title": null,
                            "type": null,
                            "deprecation": null
                    },
                    {
                            "rel": "policy",
                            "href": "https://jeff243.cloudpath.net/admin/apiv2/BmGsez6evQc8/dpskPools/
    AccountDpskPool-8c95a636-59ff-4a85-a1ce-e2b6984f5a50/policies?page=1&pageSize=100{&filter,orderBy}",
                            "hreflang": null,
                            "media": null,
                            "title": null,
                            "type": null,
                            "deprecation": null
                    }
            ]
        }
    ]
}
```

Example of Using POST to Create a DPSK Pool

This example demonstrates how to create a new DPSK pool in your Cloudpath system by using the REST API POST call.

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/BmGsez6evQc8/dpskPools
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- BmGsez6evQc8 is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 24 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NjTGpQZZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

The following is an example of a request body for creating a DPSK pool. You can refer to the preceding Resource tables for a list and descriptions of properties you can use to define your pool. For instance, in this example, a pool called "DPSK Pool 20" is being created with the values provided in the body.

```
{
"displayName": "DPSK Pool 20",
"description": "",
"enabled": true,
"phraseDefaultLength": 11,
"phraseRandomCharactersType": "ALPHABETIC_LOWER",
"ssidList": [
"SSID19",
"SSID20"
],
"enforceExpirationDate": false,
"expirationDateType": "MONTHS_AFTER_TIME",
"expirationDateValue": "1",
"enforceDeviceCountLimit": true,
"deviceCountLimit": 4
}
```

Action:

Use the **POST** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 201 Created" if the POST is successful. You can see that a "guid" (a unique identifier for the newly created pool) is included in the response body.

```
{
    "guid": "AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
    "displayName": "DPSK Pool 20",
    "description": "",
    "enabled": true,
    "phraseDefaultLength": 11,
    "phraseRandomCharactersType": "ALPHABETIC_LOWER",
    "ssidList": [
        "SSID19",
        "SSID20"
    ],
    "enforceExpirationDate": false,
    "expirationDateType": "MONTHS_AFTER_TIME",
    "expirationDateValue": "1",
    "enforceDeviceCountLimit": true,
    "deviceCountLimit": 4,
    "supportsPolicies": true,
    "links": [
        {
            "rel": "self",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/BmGsez6evQc8/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        },
        {
            "rel": "dpsks",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/BmGsez6evQc8/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks?page=1&pageSize=10{&filter,orderBy}",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        },
        {
            "rel": "policy",
```

```
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
    AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/policies?page=1&pageSize=100{&filter,orderBy}",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        }
    ]
}
```

Verifying the Newly Created DPSK Pool in the Cloudpath UI:

You can go to the **Configuration > DPSK Pools** area of the UI, and expand the pool to confirm that the pool was created correctly. The values should match those in the Response body from the POST. For example, in this expanded view, you can see that the GUID matches the one provided in the Response body.

FIGURE 4 Expanded View in UI of Pool Created With an API Post Call
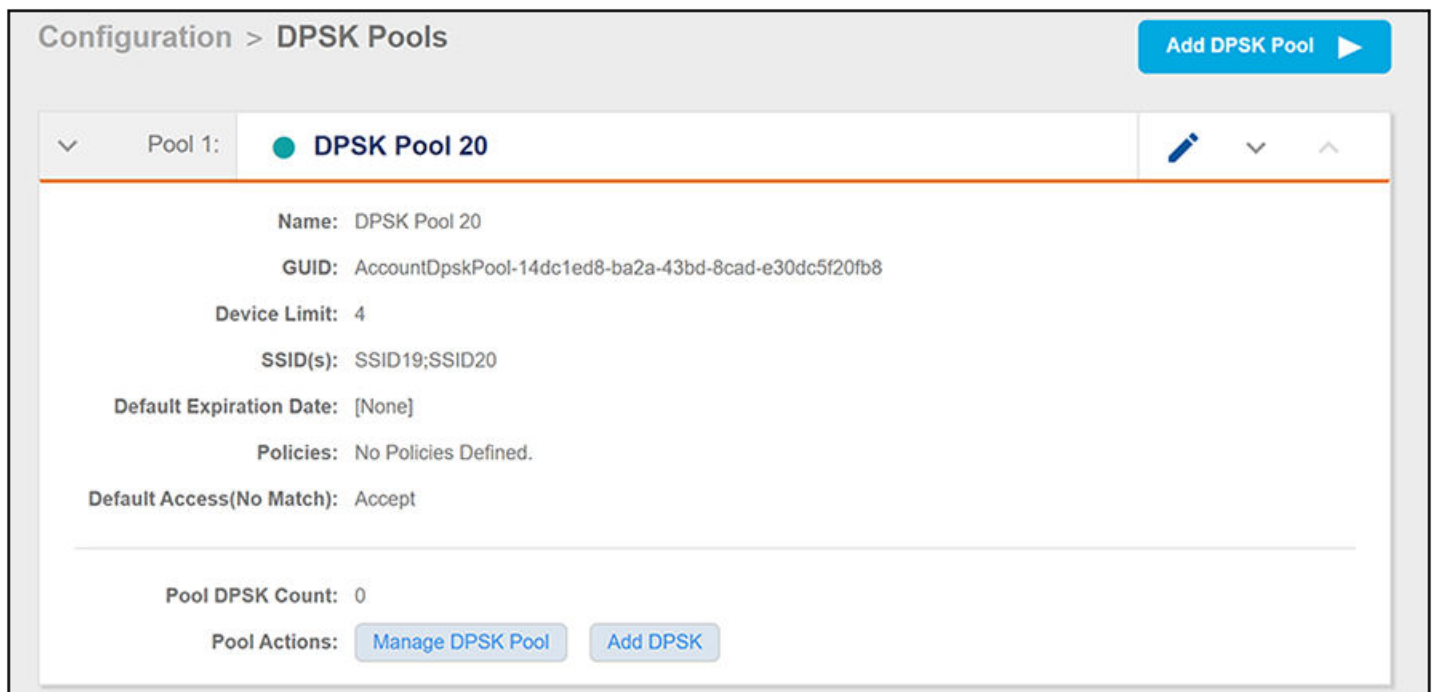
DPSKs

You can use REST API v2 calls to obtain information about existing DPSKs, to create or edit DPSKs, and to delete DPSKs.

The following table lists the properties that can be used in the body of a DPSK-related request and/or are provided in the response body. (In the "Optional" column, if a default value is applicable, it is listed in angle brackets (**< >**).)

TABLE 25 Resource: DPSKs

Property Name	Type	Editable	Sort/Filter	Optional in Request/ Response Body?	Description
guid	String	No	Neither	Optional on create only, but not on any subsequent uses	The unique identifier for this PSK.
name	String	Yes	sortBy, like	No	The reference name of the item.
thirdPartyId	String	Yes	sortBy , like	No	A string that can be used by third-party consumers. This can be referenced using attribute variables in RADIUS attributes as: DPSK_THIRD_PARTY_ID
passphrase	String	Yes	Neither	Optional on create only, but not on any subsequent uses	The pre-shared key for this PSK, which will be automatically assigned if not provided in a POST. This string will always be returned with the resource. **NOTE** This property cannot be edited when devices are associated with the DPSK (deviceCount > 0). If this field is edited while deviceCount > 0, then a "409 Conflict" message will be returned.
status	Enum <String>	Yes	in, eq	No	The status of the PSK. Options are: ACTIVE, EXPIRED, or REVOKED. A change to REVOKED or ACTIVE can be requested but only for a DPSK whose state is not EXPIRED.
ssidList	List <String>	Yes	Neither	No	If not null, this is the list of SSIDs on which the DPSK can be used. This value must be a subset of the SSIDs assigned to the corresponding DPSK pool. If the ssidList property is not specified, the DPSK can be used on any SSID contained in the "ssids" field of the corresponding DPSK pool. **NOTE** This field cannot be edited when devices are associated with the DPSK (deviceCount > 0). If this field is edited while deviceCount > 0, then a "409 Conflict" message will be returned.
expirationDateTime	String < DateTime>	Yes	sortBy	Yes	The DPSK (and the devices registered to the DPSK) will no longer be usable after the date and time specified. ISO 8601 formatted date is used for this property.
useExpirationDate	boolean	Yes	Neither	No <true>	Indicates if expiration date time should be used.
useDeviceCountLimit	boolean	Yes	Neither	No <false>	Indicates that the system will enforce the device count limit for this specific DPSK.
deviceCountLimit	Long	Yes	Neither	Yes	If specified, this DPSK will have its own device count limit enforced independently of the corresponding DPSK pool.
deviceCount	Integer	No	Neither	Yes	The number of devices currently associated with the DPSK. This is provided for information only and cannot be changed. If a different number is given in a POST or PUT, the number is ignored.
revokedDateTime	String < DateTime>	No	Neither	Yes	The date time (in ISO 8601 date time format) that the DPSK was revoked.
revocationReason	String	Yes	Neither	Yes	If the status is changed to REVOKED, this is the "reason for the revocation."

TABLE 25 Resource: DPSKs (continued)

Property Name	Type	Editable	Sort/Filter	Optional in Request/ Response Body?	Description
vlanId	String	Yes	Neither	No	If specified, this VLAN ID will override the VLAN ID specified within the corresponding DPSK pool.
overrideReauthentication	String	Yes	Neither	Yes	If specified, this Reauthentication value will override the value specified within the DPSK pool.
link	Link	No	No	No	The following links are included as hrefs for use in other API calls: • self-referencing link • link to parent eDPSK pool • link to devices associated with the DPSk

DPSK URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the actions you can take, and possible return codes you can receive.

TABLE 26 DPSK URIs and Actions

URI	Action	Description	Return Codes
dpskPools /{poolGuid}/dpsks	GET	Returns the list of PSKs that are part of the identified pool.	200 - OK 404 -Not Found
	POST	Creates a PSK in the identified pool.	201- Created 404 - Not Found
/dpskPools/{poolGuid}/dpsks/{guid}	GET	Returns the specified PSK.	200 - OK 404 - Not Found
	DELETE	Deletes the specified PSK.	200 - OK 204 - No content 401-Unauthorized
	PUT	Updates a PSK. See Table 25 for which properties can be edited.	200 - OK 401-Unauthorized 404 -Not Found 409 - Conflict

Example of Using PUT to Edit a DPSK Within an Existing DPSK Pool

This example demonstrates how to edit a DPSK that has already been created either by using the UI or by using a REST API POST call. In Example of Using POST to Create a DPSK Pool on page 32, an example shows the creation of a pool called DPSK Pool 20. Suppose that a DPSK called DPSK15 was then created within that pool. The following figure shows the properties of DPSK15 from the UI:

FIGURE 5 DPSK15 Information in UI Before API PUT Call
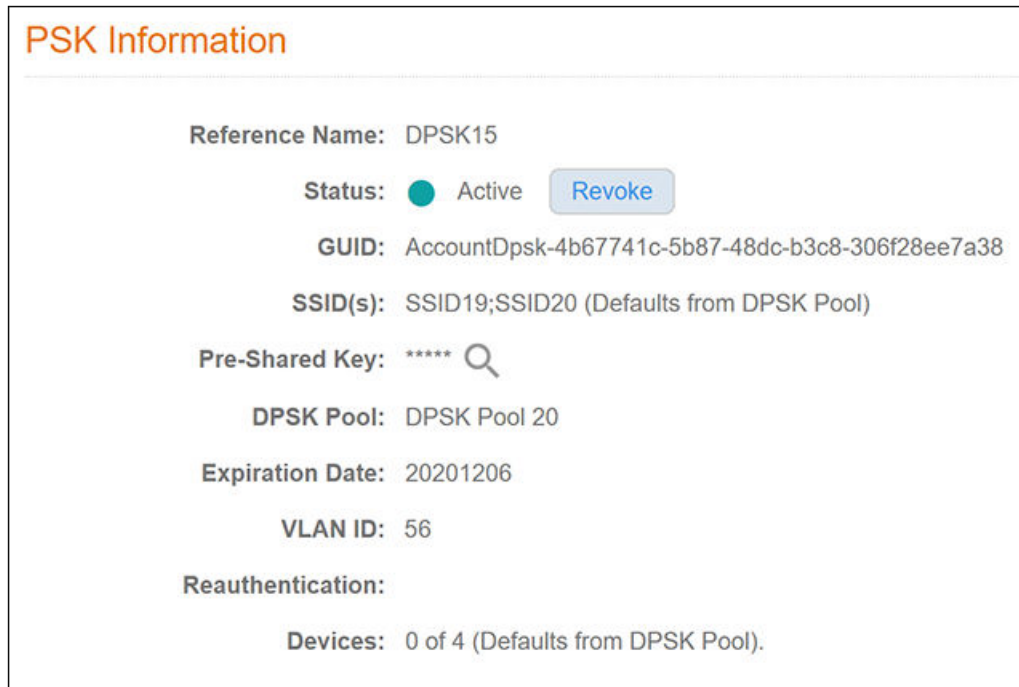
URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-
e30dc5f20fb8
/dpsks/AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

- AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8 is the GUID of the DPSK pool to which this DPSK belongs

- AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38 is the GUID of this specific DPSK that will be edited (see the figure above for this GUID)

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 27 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2vdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NjTGpQZZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

The following is an example of a request body for editing the DPSK called DPSK.

> **NOTE**
> To create the body of a PUT request, you can start by first doing a GET request on the DPSK that you want to edit. After a successful GET request, copy and paste the entire response body into the request body of your GET. Then, edit the values you want to change. In the example shown below, the ssidList has been changed to null, and the vlanID has been changed to 44.

.

```
{
    "guid": "AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38",
    "name": "DPSK15",
    "passphrase": "cemqwzmzgit",
    "status": "ACTIVE",
    "ssidList": [],
    "expirationDateTime": "2020-12-06T00:00-07:00[America/Denver]",
    "useDeviceCountLimit": false,
    "deviceCountLimit": 0,
    "vlanid": "44"
}
```

Action:

Use the **PUT** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the PUT is successful. You can see that the response body below matches what was requested in the request body above. The response body also includes the href links that are listed in Table 25.

```
{
    "guid": "AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38",
    "name": "DPSK15",
    "passphrase": "cemqwzmzgit",
    "status": "ACTIVE",
    "ssidList": [],
    "expirationDateTime": "2020-12-06T07:00:00Z",
    "useDeviceCountLimit": false,
    "deviceCountLimit": 0,
    "deviceCount": 0,
    "vlanid": "44",
    "links": [
        {
            "rel": "self",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-
b3c8-306f28ee7a38",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        },
        {
            "rel": "parent",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        },
        {
            "rel": "devices",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38/
devices?page=1&pageSize=10{&filter,orderBy}",
            "hreflang": null,
```

```
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        }
    ]
}
```

Verifying the Edited DPSK in the Cloudpath UI:

You can go to the **Configuration > DPSK Pools** area of the UI, and click the view icon of the desired DPSK in the "DPSKs" section of the window to confirm that the DPSK was edited correctly. The values should match those in the Response body from the PUT. For example, you can see that the SSID list no longer has any restrictions, and that the VLAN ID has been changed to 44.

FIGURE 6 DPSK15 Information in UI After API PUT Call

Example of Using GET to Obtain Listings of Multiple DPSKs Within an Existing DPSK Pool

This example demonstrates how to use a GET call to obtain a full list of DPSKs. In this example, six DPSKs have been created in the pool called DPSK Pool 20, as shown in the following figure:

FIGURE 7 Listing of Multiple DPSKs Within a Pool

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-
e30dc5f20fb8/dpsks
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)
- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI
- AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8 is the GUID of the DPSK pool from which you want a listing of all its DPSKs and their respective properties.

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 28 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NjTGpQZQUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

No request body is needed for this request. All the necessary information is in the URI.

Action:

Use the **GET** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the GET is successful. The response body below lists information for each of the six DPSKs within the corresponding pool. The first part of the output shows the page information: All the information is on page 1, the page size is currently 6 (meaning there are six items on page 1), and the total number of DPSKs listed is 6.

```
{
    "page": {
        "page": 1,
        "pageSize": 6,
        "totalCount": 6
    },
    "contents": [
        {
            "guid": "AccountDpsk-e45f6b14-2cff-4c8d-b44e-102fd67fe02c",
            "name": "DPSK23",
            "passphrase": "xzhjmjzdaoo",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e45f6b14-2cff-4c8d-
b44e-102fd67fe02c",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e45f6b14-2cff-4c8d-b44e-102fd67fe02c/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-bc993a37-05f4-4a39-8fe3-6a888b35f2c1",
            "name": "DPSK30",
            "passphrase": "uoosztyuoel",
            "status": "ACTIVE",
```

```
              "ssidList": [],
              "expirationDateTime": "2020-07-27T06:00:00Z",
              "useDeviceCountLimit": false,
              "deviceCountLimit": 0,
              "deviceCount": 0,
              "links": [
                  {
                      "rel": "self",
                      "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
bc993a37-05f4-4a39-8fe3-6a888b35f2c1",
                      "hreflang": null,
                      "media": null,
                      "title": null,
                      "type": null,
                      "deprecation": null
                  },
                  {
                      "rel": "parent",
                      "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                      "hreflang": null,
                      "media": null,
                      "title": null,
                      "type": null,
                      "deprecation": null
                  },
                  {
                      "rel": "devices",
                      "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-bc993a37-05f4-4a39-8fe3-6a888b35f2c1/
devices?page=1&pageSize=10{&filter,orderBy}",
                      "hreflang": null,
                      "media": null,
                      "title": null,
                      "type": null,
                      "deprecation": null
                  }
              ]
          },
          {
              "guid": "AccountDpsk-5ed29464-d571-48be-a0d0-7574ab87b93d",
              "name": "DPSK31",
              "passphrase": "jekgqviayiv",
              "status": "ACTIVE",
              "ssidList": [],
              "expirationDateTime": "2020-07-27T06:00:00Z",
              "useDeviceCountLimit": false,
              "deviceCountLimit": 0,
              "deviceCount": 0,
              "links": [
                  {
                      "rel": "self",
                      "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-5ed29464-d571-48be-
a0d0-7574ab87b93d",
                      "hreflang": null,
                      "media": null,
                      "title": null,
                      "type": null,
                      "deprecation": null
                  },
                  {
                      "rel": "parent",
                      "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                      "hreflang": null,
                      "media": null,
                      "title": null,
                      "type": null,
                      "deprecation": null
                  },
```

```
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-5ed29464-d571-48be-a0d0-7574ab87b93d/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-e7e2fe17-912d-4826-8010-05f3263f8fe8",
            "name": "DPSK32",
            "passphrase": "wilfyhhumqc",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
e7e2fe17-912d-4826-8010-05f3263f8fe8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e7e2fe17-912d-4826-8010-05f3263f8fe8/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-fce6d0e6-19a1-464c-850c-31bde9472c52",
            "name": "DPSK33",
            "passphrase": "zygrjkezfry",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
```

```
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
fce6d0e6-19a1-464c-850c-31bde9472c52",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-fce6d0e6-19a1-464c-850c-31bde9472c52/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38",
            "name": "DPSK15",
            "passphrase": "cemqwzmzgit",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-12-06T07:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "vlanid": "44",
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-
b3c8-306f28ee7a38",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
```

```
                    "type": null,
                    "deprecation": null
                }
            ]
        }
    ]
}
```

Example of Creating a DPSK In an Existing DPSK Pool By Using a POST call

This example shows how to use a POST to create a new DPSK in an existing pool.

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-
e30dc5f20fb8/dpsks
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

- AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8 is the GUID of the pool to which you are adding the new DPSK

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 29 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5Qayl6Ij IiLCJhcGlLZXkiOiJaV2NjTGpQQZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

The following is an example of a request body for creating a DPSK. You can refer to the preceding Resource tables for a list and descriptions of properties you can use to define your pool. For instance, in this example, a DPSK called "dpsk51" is being created with the values provided in the body.

```
{
    "name":"dpsk51",
    "passphrase":"qsrmxldiecca",
    "status":"ACTIVE",
    "ssidList":[],
    "expirationDateTime":"2019-12-21T00:00-07:00[America/Denver]",
    "useDeviceCountLimit":true,
    "deviceCountLimit":7,
    "vlanid":"2",
    "overrideReauthentication":86400
}
```

Action:

Use the **POST** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 201 Created" if the POST is successful. You can see that a "guid" (a unique identifier for the newly created DPSK) is included in the response body.

```
{
    "guid": "AccountDpsk-0d37afce-84c5-4d42-9fc8-43c4f1d19b65",
    "name": "dpsk51",
    "passphrase": "qsrmxldiecca",
    "status": "ACTIVE",
    "ssidList": [],
    "expirationDateTime": "2020-12-21T07:00:00Z",
    "useDeviceCountLimit": true,
    "deviceCountLimit": 7,
    "deviceCount": 0,
    "vlanid": "2",
    "overrideReauthentication": 86400,
    "links": [
        {
            "rel": "self",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/
AccountDpsk-0d37afce-84c5-4d42-9fc8-43c4f1d19b65",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        },
        {
            "rel": "parent",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        },
        {
            "rel": "devices",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-0d37afce-84c5-4d42-9fc8-43c4f1d19b65/
devices?page=1&pageSize=10{&filter,orderBy}",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        }
    ]
}
```

You can go to the **Configuration > DPSK Pools** area of the UI, and expand the pool to confirm that the DPSK was created correctly.

Example of Changing Page Properties in a GET Call

This example demonstrates how to change the page properties to display the response body of a GET call (where you are getting a complete list of items) as you choose. In the previous GET example, six DPSKs were listed on one page. The page information was displayed as the following:

```
"page": {
        "page": 1,
        "pageSize": 6,
        "totalCount": 6
```

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-
e30dc5f20fb8/dpsks/?pageSize=3&page=2
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

- AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8 is the GUID of the DPSK pool from which you got a listing of all its DPSKs and their respective properties.

- ?pageSize=3&page=2 denotes that you want three items per page in the GET response body, and you want only the page-2 information.

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 30 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NTTGpQZZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

No request body is needed

Action:

Use the **GET** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the GET is successful. The response body below lists the information based on how you used the page filters. As shown below, the page information reflects how it was specified in the URI, and the three Page 2 DPSKs are listed:

> **NOTE**
> One DPSK has been added to the pool since the original six DPSKs were shown earlier; this is reflected in the total count below showing as 7.

```
{
    "page": {
        "page": 2,
        "pageSize": 3,
        "totalCount": 7
    },
    "contents": [
        {
            "guid": "AccountDpsk-5ed29464-d571-48be-a0d0-7574ab87b93d",
            "name": "DPSK31",
            "passphrase": "jekgqviayiv",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
```

```
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-5ed29464-d571-48be-
a0d0-7574ab87b93d",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-5ed29464-d571-48be-a0d0-7574ab87b93d/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-e7e2fe17-912d-4826-8010-05f3263f8fe8",
            "name": "DPSK32",
            "passphrase": "wilfyhhumqc",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
e7e2fe17-912d-4826-8010-05f3263f8fe8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e7e2fe17-912d-4826-8010-05f3263f8fe8/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
```

```
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-fce6d0e6-19a1-464c-850c-31bde9472c52",
            "name": "DPSK33",
            "passphrase": "zygrjkezfry",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
fce6d0e6-19a1-464c-850c-31bde9472c52",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-fce6d0e6-19a1-464c-850c-31bde9472c52/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        }
    ]
}
```

Example of Filtering a GET Call

This example demonstrates how to filter a GET call by using a filter parameter. For a list of properties that support filters, and the filter operators that can be used on these properties, refer to Table 25. Suppose you want to use "like" with the value of "3" to filter on only the DPSKs that have a "3" as part of their *name* property. You would add the following string to the URI: ?filter=name(like:3)

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-
e30dc5f20fb8/dpsks/?filter=name(like:3)
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

- AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8 is the GUID of the DPSK pool from which you want a listing of the DPSKs that match the filter criteria that you append to the URI.

- ?filter=name(like:3) is the filter criteria that denotes that you want to display only those DPSKs that contain the numeral "3" in their name.

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 31 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NTTGppQZUdMZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

No request body is needed

Action:

Use the **GET** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the GET is successful. The response body below lists the information based on how you used the filters. As shown below, all the DPSKs listed contain the numeral "3" in their name:

```
{
    "page": {
        "page": 1,
        "pageSize": 5,
        "totalCount": 5
    },
    "contents": [
        {
            "guid": "AccountDpsk-e45f6b14-2cff-4c8d-b44e-102fd67fe02c",
            "name": "DPSK23",
            "passphrase": "xzhjmjzdaoo",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e45f6b14-2cff-4c8d-
b44e-102fd67fe02c",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
```

```
                {
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                },
                {
                        "rel": "devices",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e45f6b14-2cff-4c8d-b44e-102fd67fe02c/
devices?page=1&pageSize=10{&filter,orderBy}",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-bc993a37-05f4-4a39-8fe3-6a888b35f2c1",
            "name": "DPSK30",
            "passphrase": "uoosztyuoel",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                        "rel": "self",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
bc993a37-05f4-4a39-8fe3-6a888b35f2c1",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                },
                {
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                },
                {
                        "rel": "devices",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-bc993a37-05f4-4a39-8fe3-6a888b35f2c1/
devices?page=1&pageSize=10{&filter,orderBy}",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-5ed29464-d571-48be-a0d0-7574ab87b93d",
            "name": "DPSK31",
            "passphrase": "jekgqviayiv",
```

```
                "status": "ACTIVE",
                "ssidList": [],
                "expirationDateTime": "2020-07-27T06:00:00Z",
                "useDeviceCountLimit": false,
                "deviceCountLimit": 0,
                "deviceCount": 0,
                "links": [
                    {
                        "rel": "self",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-5ed29464-d571-48be-
a0d0-7574ab87b93d",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    },
                    {
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    },
                    {
                        "rel": "devices",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-5ed29464-d571-48be-a0d0-7574ab87b93d/
devices?page=1&pageSize=10{&filter,orderBy}",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    }
                ]
            },
            {
                "guid": "AccountDpsk-e7e2fe17-912d-4826-8010-05f3263f8fe8",
                "name": "DPSK32",
                "passphrase": "wilfyhhumqc",
                "status": "ACTIVE",
                "ssidList": [],
                "expirationDateTime": "2020-07-27T06:00:00Z",
                "useDeviceCountLimit": false,
                "deviceCountLimit": 0,
                "deviceCount": 0,
                "links": [
                    {
                        "rel": "self",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
e7e2fe17-912d-4826-8010-05f3263f8fe8",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    },
                    {
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
```

```
            },
            {
                "rel": "devices",
                "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e7e2fe17-912d-4826-8010-05f3263f8fe8/
devices?page=1&pageSize=10{&filter,orderBy}",
                "hreflang": null,
                "media": null,
                "title": null,
                "type": null,
                "deprecation": null
            }
        ]
    },
    {
        "guid": "AccountDpsk-fce6d0e6-19a1-464c-850c-31bde9472c52",
        "name": "DPSK33",
        "passphrase": "zygrjkezfry",
        "status": "ACTIVE",
        "ssidList": [],
        "expirationDateTime": "2020-07-27T06:00:00Z",
        "useDeviceCountLimit": false,
        "deviceCountLimit": 0,
        "deviceCount": 0,
        "links": [
            {
                "rel": "self",
                "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
fce6d0e6-19a1-464c-850c-31bde9472c52",
                "hreflang": null,
                "media": null,
                "title": null,
                "type": null,
                "deprecation": null
            },
            {
                "rel": "parent",
                "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                "hreflang": null,
                "media": null,
                "title": null,
                "type": null,
                "deprecation": null
            },
            {
                "rel": "devices",
                "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-fce6d0e6-19a1-464c-850c-31bde9472c52/
devices?page=1&pageSize=10{&filter,orderBy}",
                "hreflang": null,
                "media": null,
                "title": null,
                "type": null,
                "deprecation": null
            }
        ]
    }
  ]
}
```

Example of Sorting a GET Call

This example demonstrates how to sort a GET call by using the *sortBy* parameter. For a list of properties that support sorting, refer to Table 25.
Suppose you want to sort on the name of the DPSK, in descending order. You would add the following string to the URI: ?sortBy=name:desc

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-
e30dc5f20fb8/dpsks/?sortBy=name:desc
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

- AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8 is the GUID of the DPSK pool from which you want to sort the DPSKs by adding sorting criteria to the URI.

- ?sortBy=name:desc is the sorting criteria that denotes that you want to display DPSKs by name, in descending order.

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 32 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NjTGppQZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

No request body is needed

Action:

Use the **GET** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the GET is successful. The response body below lists the information based on how you used the *sortBy* parameter. As shown below, the DPSKs have been sorting by name in descending order.

> **NOTE**
> One DPSK has been added to the pool since the original six DPSKs were shown earlier; this is reflected in the total count below showing as 7.

```
{
    "page": {
        "page": 1,
        "pageSize": 7,
        "totalCount": 7
    },
    "contents": [
        {
            "guid": "AccountDpsk-0d37afce-84c5-4d42-9fc8-43c4f1d19b65",
            "name": "dpsk51",
            "passphrase": "qsrmxldiecca",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-12-21T07:00:00Z",
            "useDeviceCountLimit": true,
            "deviceCountLimit": 7,
            "deviceCount": 0,
            "vlanid": "2",
            "overrideReauthentication": 86400,
            "links": [
```

```
                {
                        "rel": "self",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/
AccountDpsk-0d37afce-84c5-4d42-9fc8-43c4f1d19b65",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                },
                {
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                },
                {
                        "rel": "devices",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-0d37afce-84c5-4d42-9fc8-43c4f1d19b65/
devices?page=1&pageSize=10{&filter,orderBy}",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-e45f6b14-2cff-4c8d-b44e-102fd67fe02c",
            "name": "DPSK23",
            "passphrase": "xzhjmjzdaoo",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                        "rel": "self",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e45f6b14-2cff-4c8d-
b44e-102fd67fe02c",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                },
                {
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                },
                {
                        "rel": "devices",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e45f6b14-2cff-4c8d-b44e-102fd67fe02c/
devices?page=1&pageSize=10{&filter,orderBy}",
                        "hreflang": null,
```

```
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-bc993a37-05f4-4a39-8fe3-6a888b35f2c1",
            "name": "DPSK30",
            "passphrase": "uoosztyuoel",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
bc993a37-05f4-4a39-8fe3-6a888b35f2c1",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-bc993a37-05f4-4a39-8fe3-6a888b35f2c1/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-5ed29464-d571-48be-a0d0-7574ab87b93d",
            "name": "DPSK31",
            "passphrase": "jekgqviayiv",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-5ed29464-d571-48be-
a0d0-7574ab87b93d",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
```

```
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-5ed29464-d571-48be-a0d0-7574ab87b93d/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-e7e2fe17-912d-4826-8010-05f3263f8fe8",
            "name": "DPSK32",
            "passphrase": "wilfyhhumqc",
            "status": "ACTIVE",
            "ssidList": [],
            "expirationDateTime": "2020-07-27T06:00:00Z",
            "useDeviceCountLimit": false,
            "deviceCountLimit": 0,
            "deviceCount": 0,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
e7e2fe17-912d-4826-8010-05f3263f8fe8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-e7e2fe17-912d-4826-8010-05f3263f8fe8/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpsk-fce6d0e6-19a1-464c-850c-31bde9472c52",
```

```
                "name": "DPSK33",
                "passphrase": "zygrjkezfry",
                "status": "ACTIVE",
                "ssidList": [],
                "expirationDateTime": "2020-07-27T06:00:00Z",
                "useDeviceCountLimit": false,
                "deviceCountLimit": 0,
                "deviceCount": 0,
                "links": [
                    {
                        "rel": "self",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-
fce6d0e6-19a1-464c-850c-31bde9472c52",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    },
                    {
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    },
                    {
                        "rel": "devices",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-fce6d0e6-19a1-464c-850c-31bde9472c52/
devices?page=1&pageSize=10{&filter,orderBy}",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    }
                ]
            },
            {
                "guid": "AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38",
                "name": "DPSK15",
                "passphrase": "cemqwzmzgit",
                "status": "ACTIVE",
                "ssidList": [],
                "expirationDateTime": "2020-12-06T07:00:00Z",
                "useDeviceCountLimit": false,
                "deviceCountLimit": 0,
                "deviceCount": 0,
                "vlanid": "44",
                "links": [
                    {
                        "rel": "self",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-
b3c8-306f28ee7a38",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    },
                    {
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
                        "hreflang": null,
                        "media": null,
```

```
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "devices",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38/
devices?page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        }
    ]
}
```

DPSK Devices

You can use REST API v2 calls to obtain information about all devices that are connected to a specific DPSK.

The following table lists the properties that can be used in the body of a DPSK device-related request and/or are provided in the response body.

TABLE 33 Resource: DPSK Devices

Property Name	Type	Editable	Filter or Sort	Optional in Request/ Response Body?	Description
guid	String	No	Neither	Yes (No device guid needs to be given because the GET call on devices is only for *all* devices associated with a specific DPSK.)	The unique identifier for this device
displayName	String	No	sortBy, like	Yes	The display name for this device
macAddress	String	No	sortBy, like	No	The MAC address for this device
pmk	String	No	Neither	No	The pmk assigned to this device.
ssid	String	No	sortBy, like	No	The SSID this device is connected to
createdDate	String <date>	No	sortBy	No	The date that this device was created

DPSK Devices URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the action you can take, and possible return codes you can receive.

TABLE 34 DPSK Devices URIs and Actions

URI	Action	Description	Return Codes
/dpskPools/{poolId}/dpsks / {dpskGuid}/devices	GET	Returns the list of devices that are on the specified DPSK.	200 - OK 401 - Unauthorized 404 -Not Found
	POST	Creates a device in the identified dpsks.	200 - OK 401 - Unauthorized 404 -Not Found
/dpskPools/{poolId}/dpsks/{dpskId}/ devices/{Guid}	GET	Returns the specified device.	200 - OK 401 - Unauthorized 404 -Not Found
	PUT	Updates the specified device.	200 - OK 401 - Unauthorized 404 -Not Found
	DELETE	Deletes the specified device.	200 - OK 204 - No content 401 - Unauthorized 404 -Not Found

Example of Using GET to Obtain Information About Devices Connected to a Specific DPSK

This example demonstrates how to use a GET call to obtain a list of devices connected to a DPSK. In this example, two devices exist on DPSK15, as shown at the bottom of the following figure:

FIGURE 8 DPSK Device Information

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-
e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38/devices
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

- AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8 is the GUID of the DPSK pool that the DPSK belongs to.

- AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38 is the GUID of DPSK15, which is the DPSK whose devices will be displayed upon a successful GET request.

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 35 Request Headers

Key	Value
Content-type	application/json

TABLE 35 Request Headers (continued)

Key	Value
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5Qayl6IjIiLCJhcGlLZXkiOiJaV2NjTGpQZZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

No request body is needed for this request. All the necessary information is in the URI.

Action:

Use the **GET** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the GET is successful. The response body below lists information for the two devices connected to the DPSK. You can check the output against what is shown in the UI (see figure above).

```
{
    "page": {
        "page": 1,
        "pageSize": 2,
        "totalCount": 2
    },
    "contents": [
        {
            "guid": "AccountDpskDevice-fd0227e1-9364-4e70-a78d-3e6657ee615b",
            "displayName": "Device2",
            "macAddress": "112233445567",
            "pmk": "",
            "ssid": "Jeff eDPSK2",
            "createdDate": "2020-07-27T23:37:11Z",
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38/
devices/AccountDpskDevice-fd0227e1-9364-4e70-a78d-3e6657ee615b",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-
b3c8-306f28ee7a38",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "AccountDpskDevice-38bc954e-6c5a-4324-8bde-77b3180bda93",
            "displayName": "Device1",
            "macAddress": "112233445566",
            "pmk": "",
            "ssid": "Jeff eDPSK",
            "createdDate": "2020-07-27T23:35:32Z",
            "links": [
                {
                    "rel": "self",
```

```
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-b3c8-306f28ee7a38/
devices/AccountDpskDevice-38bc954e-6c5a-4324-8bde-77b3180bda93",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/dpsks/AccountDpsk-4b67741c-5b87-48dc-
b3c8-306f28ee7a38",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        }
    ]
}
```

Assigned Policies for DPSK Pools

You can use REST API v2 calls to assign policies to DPSK pools.

The following table lists the properties that can be used in the body of an assigned-policy-related request and/or are provided in the response body. (In the "Optional" column, if a default value is applicable, it is listed in angle brackets (**< >**)).

TABLE 36 Resource: AssignedPolicy

Property Name	Type	Editable	Sort/Filter	Optional in Request/Response Body?	Description
priority	Long	Yes	No	Optional on create only, but not on any subsequent uses	The priority, within the list of assigned policies, that this policy should be evaluated.
useCount	Long	Yes (can only be edited to 0)	No	No	The number of times this policy has been assigned, or reassigned, to the pool. Can be reset to 0.
links	Link	No	No	Yes	This includes three href links that can be used in other API calls: • self: This link includes both the ID of the DPSK pool (the parent of the assigned policy) and the ID of the assigned policy. • policy: This link contains the ID of the assigned policy. • parent: This link contains the ID of the parent of the assigned policy, which in this case is the DPSK pool.

Assigned Policies for DPSK Pools URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the actions you can take, and possible return codes you can receive.

TABLE 37 Assigned Policies for DPSK Pools URIs and Actions

URI	Action	Description	Return Codes
/dpskPools/{dpskPoolId}/policies	GET	Returns the list of policies assigned to this DPSK pool, and includes the use count for each policy and its priority in the list of policies.	200 - OK 401 - Unauthorized 404 -Not Found
/dpskPools/{dpskPoolId}/policies/{policyId}	GET	Returns information about the specified policy assigned to this DPSK pool, including the use count for this policy, its priority in the list, and all its href links.	200 - OK 401 - Unauthorized 404 - Not Found
	DELETE	Removes the policy from the list of assigned policies and reorders the list accordingly.	200 - OK 201 - No Content 401-Unauthorized 404 - Not Found
	PUT	Adds the policy to the list of assigned policies. If the policy is already in the list, you can use the allowed properties to reset the use count to 0 and to re-prioritize this policy in the list. This policy can also be the first one assigned to the pool. **NOTE** You can perform a GET request on policies to obtain the ID of the policy you want to assign to the pool. Refer to Table 19 on page 22.	200 - OK 401-Unauthorized 404 -Not Found

Example of Using PUT to Assign a Policy to a DPSK Pool

This example demonstrates how to assign an existing policy to a DPSK pool by using a REST API PUT call.

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-
e30dc5f20fb8/policies/2
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

- AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8 is the GUID of the DPSK pool to which this policy is being assigned.

- 2 is the ID of the policy being assigned.

NOTE
You can perform a GET request on policies to obtain the ID of the policy you want to assign to the pool. Refer to on page 22.

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 38 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5Qayl6IjIiLCJhcGlGlLZXkiOiJaV2NjTGpQZQZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCl6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

The following is an example of a request body for assigning a policy to a DPSK pool.

```
{
        "useCount": 0,
        "priority": 0

}
```

Action:
Use the **PUT** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the PUT is successful. You can see that the response body below matches what was requested in the request body above.

```
{
    "useCount": 0,
    "priority": 0,
    "links": [
        {
            "rel": "self",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8/policies/2",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        },
        {
            "rel": "policy",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/policies/2",
            "hreflang": null,
            "media": null,
            "title": null,
            "type": null,
            "deprecation": null
        },
        {
            "rel": "parent",
            "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/dpskPools/
AccountDpskPool-14dc1ed8-ba2a-43bd-8cad-e30dc5f20fb8",
            "hreflang": null,
            "media": null,
```

```
            "title": null,
            "type": null,
            "deprecation": null
        }
    ]
}
```

Verifying the Edited DPSK in the Cloudpath UI:

You can go to the **Configuration > DPSK Pools** area of the UI and click the **Policies** tab to confirm that the policy has been assigned as expected.

Registration Lists

You can use REST API v2 calls to obtain information about existing registration lists

The following table lists the properties that can be used in the body of a RADIUS attribute groups-related request and/or are provided in the response body. (In the "Optional" column, if a default value is applicable, it is listed in angle brackets (**< >**)).

TABLE 39 Resource: RegistrationList

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
guid	String	No	Neither	Optional on create only, but not on any subsequent uses	The unique identifier for this list.
name	String	No	Neither	No	The unique reference name for the list.
description	String	No	Neither	Yes	A description for this list.
ssidRegex	String	No	Neither	Yes	A regex to determine which SSIDs can access this registration list.
expirationDateRule	<Object>	No	Neither	Yes	The object containing the attributes that describe the registration validity date. See the "Resource: expirationDateRule" table below.
behavior	String <Enum>	No	Neither	Yes	An enum describing the behavior of the plugin. Possible options are: • PROMPT_WHEN_NO_MAC • ALWAYS_PROMPT • REDIRECT_WHEN_NO_MAC • ALWAYS_REDIRECT • DO_NOTHING_WHEN_NO_MAC
redirectInfo	Object	No	Neither	default <null>	If the "behavior" property is either REDIRECT_WHEN_NO_MAC or ALWAYS_REDIRECT, then this object provides the additional details for the redirect. See the "Resource: redirectInfo" table below.
promptInfo	Object	No	Neither	default <null>	If the "behavior" property is either PROMPT_WHEN_NO_MAC or ALWAYS_PROMPT, then this object provides the additional details for the prompt. See the "Resource: promptInfo" table below.
autoCleanup	boolean	No	Neither	default <false>	A boolean value that determines if MAC registrations that are 24 hours past the expirationDateRule will be automatically removed from the list.
link	Link	No	No	Yes	This includes the following two href links: • self: a self-referencing link • A linked list of child macRegistrations .

TABLE 40 Resource: redirectInfo

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
redirectUrl	String	No	Neither	Yes	The URL where the user is redirected.

TABLE 40 Resource: redirectInfo (continued)

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
usePost	Boolean	No	Neither	Yes (default is false)	If the value is set to true, a POST will be used for the redirect; if the value is set to false, a GET will be used.
postParameters	List <string>	No	Neither	Yes	If the value of the "usePost" poperty is true, this contains a list of string POST parameters that are supplied with the redirect request. The parameters are provided in the format: key=value
allowContinuation	Boolean	No	Neither	Yes (default is true)	If true, the submit-redirect call is processed; if false, the submit-redirect call is ignored.
killSession	Boolean	No	Neither	Yes (default is false)	If true, the user's session ends and they are redirected. If they return, they are forced to start over.

TABLE 41 Resource: promptInfo

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
title	String	No	Neither	Yes	The title of the prompt content.
promptText	String	No	Neither	Yes	The message that appears in the prompt.
macAddressLabel	String	No	Neither	Yes	The label next to the MAC address text box.
helpLinkCaption	String	No	Neither	Yes	The text used as the help link.
helpLinkUrl	String	No	Neither	Yes	The URL for the help link.
continueButtonLabel	String	No	Neither	Yes	The label displayed on the Continue button.
invalidMacErrorMessage	String	No	Neither	Yes	The error message displayed to the user if the MAC address is not properly formatted.

TABLE 42 Resource: expirationDateRule

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
type	String <Enum>	No	Neither	Yes	The type of expiration date rule. The full expiration date rule is determined by paring the type with either an offset or date. Possible options are: - SPECIFIED_DATE - MINUTES_AFTER_TIME - HOURS_AFTER_TIME - DAYS_AFTER_TIME - WEEKS_AFTER_TIME - MONTHS_AFTER_TIME - QUARTERS_AFTER_TIME - YEARS_AFTER_TIME - END_OF_HOUR - END_OF_DAY - END_OF_WEEK - END_OF_MONTH - END_OF_QUARTER - END_OF_HALF - END_OF_YEAR
date	String <date>	No	Neither	Yes	If the "type" property is SPECIFIED_DATE, then this field is the related date in the format of: YYYY-MM-DD
offSet	integer	No	Neither	Yes	If the "type" property is not SPECIFIED_DATE, then this field is the offset amount

Registration Lists URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the actions you can take, and possible return codes you can receive.

TABLE 43 Registration Lists URIs and Actions

URI	Action	Description	Return Codes
/registrationLists/	GET	Returns all MAC registration lists.	401 - Unauthorized 200 - OK
/registrationLists/{listGuid}	GET	Returns a specific MAC registration list.	404 - Not Found 401 - Unauthorized 200 - OK

Example of Using GET to Obtain All Registration Lists

This example demonstrates how to obtain all registration lists in your Cloudpath system by using the REST API GET call.

URI:

Registration Lists
Example of Using GET to Obtain All Registration Lists

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 44 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2NvdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NTGppQZZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

No request body is needed.

Action:

Use the **GET** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the GET is successful.

```
{
    "page": {
        "page": 1,
        "pageSize": 2,
        "totalCount": 2
    },
    "contents": [
        {
            "guid": "WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1",
            "name": "Mac reg 12",
            "description": "",
            "ssidRegex": "ssid12",
            "expirationDateRule": {
                "type": "DAYS_AFTER_TIME",
                "offset": 1
            },
            "behavior": "ALWAYS_REDIRECT",
            "redirectInfo": {
                "redirectUrl": "https://wlan.cloudpath.net",
                "usePost": true,
                "postParameters": [
                    "username=bob"
                ],
                "allowContinuation": true,
                "killSession": false
            },
            "autoCleanup": false,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1",
                    "hreflang": null,
```

```
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "macRegistrations",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1/macRegistrations?
page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        },
        {
            "guid": "WorkflowRegistration-3802eb98-7c97-4949-80b4-6ec9901e1a4a",
            "name": "Mac reg 13",
            "description": "",
            "ssidRegex": "ssid13",
            "expirationDateRule": {
                "type": "DAYS_AFTER_TIME",
                "offset": 1
            },
            "behavior": "ALWAYS_REDIRECT",
            "redirectInfo": {
                "redirectUrl": "https://cloudpath.com.net",
                "usePost": false,
                "allowContinuation": true,
                "killSession": false
            },
            "autoCleanup": false,
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
WorkflowRegistration-3802eb98-7c97-4949-80b4-6ec9901e1a4a",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
                    "rel": "macRegistrations",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
WorkflowRegistration-3802eb98-7c97-4949-80b4-6ec9901e1a4a/macRegistrations?
page=1&pageSize=10{&filter,orderBy}",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        }
    ]
}
```

MAC Registrations

You can use REST API v2 calls to obtain information about existing MAC-registration lists and specific MAC registrations as well as to add a registration.

The following table lists the properties that can be used in the body of a MAC-registration request and/or are provided in the response body. (In the "Optional" column, if a default value is applicable, it is listed in angle brackets (< >)).

TABLE 45 Resource: MacRegistration

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
guid	String	No	Neither	Optional on create only, but not on any subsequent uses	The unique identifier for this MAC registration.
macAddress	String	No	sortBy, like	No	The MAC address for this registration. Must be provided on a POST, and may not be changed.
status	Enum	Yes	sortBy, eq, in	No	Status of the registration, either ACTIVE, REVOKED or EXPIRED. If not provided, the status defaults to "Active". The status can only be set to REVOKED or ACTIVE. EXPIRED is dependent on the expired date of this registration.
username	String	No	sortBy, like	Yes	A username for this device; it does not reflect an authenticated user that has gone through an actual authentication process.
email	String	No	sortBy, like	Yes	The email address to associate with this device.
location	String	No	sortBy, like	Yes	Location of the device.
deviceName	String	No	sortBy, like	Yes	The device name assigned to this registration .
expirationDate	String <date>	Yes	sortBy, like	Yes	The ISO 8601 date time that indicates when this registration expires. If not provided in the request body of a POST, this value defaults to 24 hours from the creation of this registration.
lastSeenDate	String <date>	No	sortBy, like	Yes	The ISO 8601 date time that this MAC address was authenticated in Cloudpath. Will be ignored on POST but will always be returned.
revokeInfo	RevokeInfo	Yes	See the "Resource: revokeInfo " table below.	Yes if the status is chaned to REVOKED.	Information about a revoke. A "Conflict" will occur if this property is not provided on a PUT/POST with a status of REVOKED.
links	Links [] <array>	No	No	Yes	This includes the following href links that can be used in other API calls: • self: links for each registration within the registration list • parent: link to the registration list

TABLE 46 Resource: revokeInfo

Property Name	Type	Editable	Filter/Sort	Optional in Request/Response Body?	Description
date	String <date>	Yes	sortBy, like	No	The ISO 8601 date time that this registration was revoked.
reason	String	No	sortBy, like	No	The reason that the registration was revoked.
status	Enum	Yes	sortBy, like	No	Status of the registration, either ACTIVE, REVOKED or EXPIRED. If not provided, the status defaults to "Active". The status can only be set to REVOKED or ACTIVE. EXPIRED is dependent on the expired date of this registration.

MAC Registration URIs and Actions

The following table indicates the URIs that you can append to the root URI, along with the actions you can take, and possible return codes you can receive.

TABLE 47 MAC Registration URIs and Actions

URI	Action	Description	Return Codes
/registrationLists/{listGuid}/ macRegistrations	GET	Returns the set of registrations assigned to this list.	401 - Unauthorized 200 - OK 404 - Not found
	POST	Adds a registration to this list. If the MAC address provided already exists, a new MAC registration will be created and the existing one will be revoked.	422 - Unprocessable Entity (invalid format) 404 - Not found 401 - Unauthorized 201 - Created
/registrationLists/{listGuid}/ macRegistrations/{guid}	GET	Returns the specified registration that belongs to this list.	404 - Not Found 401 - Unauthorized 200 - OK
	PUT	Changes the properties in the specified MAC registration. You may change the status to ACTIVE or REVOKED, but EXPIRED is based on the expiration date. If REVOKED is requested, but no RevokeInfo is provided, a "422, Unprocessable Entity" response code is returned.	422 - Unprocessable entity 404 - Not found 401 - Unauthorized 200 - OK

Example of Using GET to Obtain Information About a Specific MAC-Registration List

This example demonstrates how to obtain information about a specific MAC-registration list in your Cloudpath system by using the REST API GET call.

URI:

This example uses the following URI:

```
https://Jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/WorkflowRegistration-2de79119-
f1da-4b7e-84b8-b0482911cae1/macRegistrations
```

where:

- https://Jeff243.cloudpath.net/admin/apiv2 is the root URI of the Cloudpath system being used (must include https, as shown)

- 5XcTc6SjkHDL is an example of an API key generated from the **Configuration > API Keys** section of the Cloudpath UI

- WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1 is the GUID of the MAC registration list. This GUID can be found by doing a GET request on all the registration lists in the Cloudpath system. For more information, refer to Table 43 on page 69.

Request Headers:

The following table shows the required request headers for this URI example, with an example value of an active token that must be pasted into the Authorization header value:

TABLE 48 Request Headers

Key	Value
Content-type	application/json
Authorization	eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJqZWZmLnJob2RpZUBjb21tc2NvcGUuY29tIiwicm9sZVBrIjoiMjEwMDAiLCJhY2vdW50QWRtaW5QayI6IjIiLCJhcGlLZXkiOiJaV2NjTGpQZZUdZMGUiLCJpYXQiOjE1NzU1NzUxNTcsImV4cCI6MTU3NTU3NTQ1N30.2q4KTyDUevkAAz7mJyp529Be1-ip3EC8P06Xarmz5ao

Request Body:

No request body is required.

Action:

Use the **GET** action to send the request.

Response Body:

Once the request is sent, you will receive a "Status: 200 OK" if the GET is successful.

```
{
    "page": {
        "page": 1,
        "pageSize": 3,
        "totalCount": 3
    },
    "contents": [
        {
            "guid": "5",
            "macAddress": "AB:BC:DD:EE:FF:DC",
            "status": "ACTIVE",
            "username": "",
            "deviceName": "",
            "location": "",
            "email": "",
            "expirationDate": "2020-07-28T22:07:52Z",
            "links": [
                {
                    "rel": "self",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1/macRegistrations/5",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                },
                {
```

Example of Using GET to Obtain Information About a Specific MAC-Registration List

```
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
    WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    }
                ]
            },
            {
                "guid": "2",
                "macAddress": "AA:BB:CC:DD:EE:FF",
                "status": "REVOKED",
                "username": "",
                "deviceName": "",
                "location": "",
                "email": "",
                "expirationDate": "2020-07-28T22:05:39Z",
                "revokeInfo": {
                    "date": "2020-07-27T22:06:54Z",
                    "reason": "Updated MAC registration for same MAC address was imported",
                    "user": null
                },
                "links": [
                    {
                        "rel": "self",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
    WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1/macRegistrations/2",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    },
                    {
                        "rel": "parent",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
    WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
                    }
                ]
            },
            {
                "guid": "1",
                "macAddress": "AA:BB:CC:DD:EE:FF",
                "status": "REVOKED",
                "username": "",
                "deviceName": "",
                "location": "",
                "email": "",
                "expirationDate": "2020-07-28T21:33:06Z",
                "revokeInfo": {
                    "date": "2020-07-27T22:05:46Z",
                    "reason": "Updated MAC registration for same MAC address was imported",
                    "user": null
                },
                "links": [
                    {
                        "rel": "self",
                        "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
    WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1/macRegistrations/1",
                        "hreflang": null,
                        "media": null,
                        "title": null,
                        "type": null,
                        "deprecation": null
```

```
                },
                {
                    "rel": "parent",
                    "href": "https://jeff243.cloudpath.net/admin/apiv2/5XcTc6SjkHDL/registrationLists/
        WorkflowRegistration-2de79119-f1da-4b7e-84b8-b0482911cae1",
                    "hreflang": null,
                    "media": null,
                    "title": null,
                    "type": null,
                    "deprecation": null
                }
            ]
        }
    ]
}
```

```
                    "rel": "parent",
```

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