

## Power On Auto Provisioning (POAP)

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### Status

The following table details the API Response code, status and, the HTTPS methods.

Status Code	Status	API's HTTPS Method or HTTPS Method
200	OK	GET
202	Accepted	POST PUT DELETE
400	Bad Request	GET POST PUT DELETE

<b>Status Code</b>	<b>Status</b>	<b>API's HTTPS Method or HTTPS Method</b>
401	Unauthorized	GET POST PUT DELETE
403	Forbidden	GET POST PUT DELETE
404	Not Found	GET POST PUT DELETE
405	Method Not Allowed	GET POST PUT DELETE
500	Internal Server Error	GET POST PUT DELETE

## List Servers

**Resource Name** /poap/servers

**Description** List POAP image/config servers

**https Method** GET

**URL** https://dcnm-ip/rest/poap/servers  
https://dcnm-ip/rest/poap/servers?detail=true

**Parameter**

Parameter	Type	Description

**Return Value** Format: JSON  
Type: Object

Attribute Name	Type	Description
poap-servers		By default, a list of POAP image/config server names is displayed. If "detail=true" a list of POAP image/config server-objects including server-name and URI is displayed.

## Create a Server

**Resource Name** /poap/servers

**Description** Create a new POAP image/config server

**https Method** POST

**URL** https://dcnm-ip/rest/poap/servers

### Parameter

Parameter	Type	Description
poap-servers		POAP image/config server-object including server-name, URI, hostname/ipaddress, path, username and password.

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description
poap-server-name		POAP image/config server name.

## Get Servers

**Resource Name** /poap/servers/server-name

**Description** Get the POAP image/config servers

**https Method** GET

**URL** https://dcnm-ip/rest/poap/servers/server-name

**Parameter**

Parameter	Type	Description

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description
poap-server		POAP image/config server-object including server-name and URI.

## Update Servers

**Resource Name** /poap/servers/server-name

**Description** Update the POAP image/config servers

**https Method** PUT

**URL** https://dcnm-ip/rest/poap/servers/server-name

**Parameter**

Parameter	Type	Description
poap-server		POAP image/config-server-object including server-name,hostname/ipaddress, path,username and password.

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description

## Delete Servers

**Resource Name** /poap/servers/server-name

**Description** Delete the POAP image/config servers

**https Method** DELETE

**URL** https://dcnm-ip/rest/poap/servers/server-name

**Parameter**

Parameter	Type	Description

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description

## List Switch Definitions

**Resource Name** /poap/switch-definitions

**Description** List the POAP switch definitions

**https Method** GET

**URL** https://dcnm-ip/rest/poap/switch-definitions  
 https://dcnm-ip/rest/poap/switch-definitions?detail=true  
 https://dcnm-ip/rest/poap/switch-definitions?search-string=<search-string>&start-index=<start-index>&size=<size>

**Parameter**

Parameter	Type	Description

**Return Value** Format: JSON  
 Type: Object

Attribute Name	Type	Description
Switch-definitions		By default, a list of serial- numbers is displayed. If "detail=true", then a list of switch-definition objects including serial-numbers, status(saved and publish later/published/saved and publishing/error), system-image, kick-start-image, image-server-uri, config-server-uri, template-name, parameter-values with a list of name, type, value corresponding to the template is displayed.



## Create Switch Definitions

**Resource Name** /poap/switch-definitions

**Description** Create POAP switch definitions

**https Method** POST

**URL** https://dcnm-ip/rest/poap/switch-definitions

**Parameter**

Parameter	Type	Description
Switch-definitions		Displays a list of serial-numbers, system-image, kick-start-image, image-server-uri, config-server-uri, template-name, poap-settings-name, parameter-values with a list of name, type, value corresponding to the template , and publish=true/false.

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description
switch-numbers		List of serial numbers.

## Publish Switch Definitions

**Resource Name** /poap/published-switch-definitions/{serial-number}

**Description** Publish list of switch-definitions to the Repository server.

**https Method** POST

**URL** https://dcnm-ip/rest/poap/published-switch-definitions/{serial-number}

**Parameter**

Parameter	Type	Description

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description

## Get a Switch Definition

**Resource Name** /poap/switch-definitions/{serial-number}

**Description** Get a switch definition.

**https Method** GET

**URL** https://dcnm-ip/rest/poap/switch-definitions/{serial-number}

**Parameter**

Parameter	Type	Description

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description
switch-definition		Displays a list of serial-numbers, system-image, kick-start-image, image-server-uri, config-server-uri, template-name and parameter-values with a list of name, type, value corresponding to the template .

## Update a Switch Definition

**Resource Name** /poap/switch-definitions/serial-number

**Description** Update a switch-definition.

**https Method** PUT

**URL** https://dcnm-ip/rest/poap/switch-definitions/{ serial-number }

**Parameter**

Parameter	Type	Description
switch-definition		Displays a list of serial-numbers, system-image, kick-start-image, image-server-uri, config-server-uri, template-name and parameter-values with a list of name, type, value corresponding to the template , and publish=true/false.

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description

## Delete a Switch Definition

**Resource Name** /poap/switch-definitions/serial-number

**Description** Delete a switch-definition.

**https Method** DELETE

**URL** https://dcnm-ip/rest/poap/switch-definitions/{serial-number}

**Parameter**

Parameter	Type	Description

**Return Value**

Format: JSON

Type: Object

Attribute Name	Type	Description

## Get a POAP Template

**Resource Name** /poap/templates/{template-name}

**Description** Get a POAP template.

**https Method** GET

**URL** https://dcnm-ip/rest/poap/templates/{template-name}

### Parameter

Parameter	Type	Description
Serial-number	S	Device serial-number

**Return Value** Format: JSON  
Type: Object

Attribute Name	Type	Description
Poap-template	O	Poap template object

## Create a POAP Template

**Resource Name** /poap/templates

**Description** Create a POAP template.

**https Method** POST

**URL** https://dcnm-ip/rest/poap/templates

**Parameter**

Parameter	Type	Description
Poap-template	O	Poap template object

**Return Value**

Format: JSON

Type: Object

Attribute Name	Type	Description
Poap-template-name	O	Poap template name

## Update a POAP Template

**Resource Name** /poap/templates/{template-name}

**Description** Update a POAP template.

**https Method** PUT

**URL** https://dcnm-ip/rest/poap/templates/{template-name}

**Parameter**

Parameter	Type	Description
Poap-template	O	Poap template object

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description



## Delete a POAP Template

**Resource Name** /poap/templates/{template-name}

**Description** Delete a POAP template.

**https Method** POST

**URL** https://dcnm-ip/rest/poap/templates/{template-name}

**Parameter**

Parameter	Type	Description
Poap-template-name	S	Poap template name

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description

## Get All Published Templates

**Resource Name** /poap/templates?published=true

**Description** Get all the published templates.

**https Method** GET

**URL** https://dcnm-ip/rest/templates?published=true

**Parameter**

Parameter	Type	Description

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description
templates	O	Returns all the published template names, if published=true. Returns all the templates if published=false.

## Generate Template Startup Config

<b>Resource Name</b>	/templates/populate-template/{template-name}
<b>Description</b>	Generates template for startup config.
<b>https Method</b>	POST
<b>URL</b>	https://dcnm-ip/rest/templates/populate-template/{template-name}

### Example

#### Request Body:

```
{
  "templateParams":{
    "SWITCH_NAME":"r-123",
    "ADMIN_USERNAME":"admin",
    "ADMIN_PASSWORD":"test123",
    "MGMT_IP":"10.0.0.0",
    "MGMT_PREFIX":"24",
    "DEFAULT_GATEWAY":"10.0.0.1",
    "CONSOLE_TIMEOUT":"0",
    "CONSOLE_SPEED":"9600"
  }
}
```

#### Response Body:

```
{
  "startupConfig":"hostname r-123\nno password strength-check\nusername admin password
test123 role network-admin\nnsnmp-server user admin network-admin auth md5 test123 priv
test123 \n\nvrf context management\n ip route 0.0.0.0/0 10.0.0.1\n\ninterface mgmt0\n vrf
member management\n no cdp enable\n no lldp transmit \n no lldp receive \n ip address
10.0.0.0/24\n no shutdown\n\nline console\n\n exec-timeout 0\n"
}
```

**Parameter**

Parameter	Type	Description
templateParams	O	<p>Template parameters with values. You will get the templateParams in get template data API response. It returns the template parameters with default values.</p> <p>The object should contain key-value pairs whose keys align with the Parameters field in the Get Configuration Template method.</p>

**Return Value**

Format: JSON

Type: Object

Attribute Name	Type	Description
startupConfig	S	Return startup config

## Get Group Navigation

**Resource Name** /templates/groups

**Description** Get all the groups.

**https Method** GET

**URL** https://dcnm-ip/rest/templates/groups

**Parameter**

Parameter	Type	Description

**Return Value**

Format: JSON

Type: Object

Attribute Name	Type	Description
memDbId, name, navType	S	Return group/scope details

## Perform Shallow Discovery

**Resource Name** /templates/perform-shallow-discovery

**Description** All the devices provided in payload will be discovered into DCNM.

**https Method** POST

**URL** https://dcnm-ip/rest/templates/perform-shallow-discovery

**Parameter**

Parameter	Type	Description
POAP	A <i>sushs: needs review</i>	Serial Number, Management IP, Lan Group, User Name and Password need to provide in payload.

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description

## Create Multiple POAP Definitions

**Resource Name** /poap/definitions

**Description** Simple and Single API to create multiple POAP definitions w/ discovery.

if you use this single API, the following separate APIs are not required.

- Create the switch definition without template— /rest/poap/switch-definitions (POST)
- Generate the startup configuration— /rest/templates/populate-template/<template-name> (POST)
- Associate the template and startup configuration with the switch definition— /rest/poap/templates (POST)
- Publish the switch definition— /rest/poap/published-switch-definitions/<serial-number> (POST)
- Discover the switch in Cisco DCNM— /rest/templates/perform-shallow-discovery (POST)

**https Method** POST

**URL** https://dcnm-ip/rest/poap/definitions

**Parameter**

Parameter	Type	Description
Request Payload	A	Array of switchDetails and templateDetails.

**Return Value** Format: JSON

Type: Object

Attribute Name	Type	Description
Response Object	O	POAP Device Serial Number and the Status

**Example**

The following example shows how to create two POAP definitions using this API:

```
Request: {
  "switchDetails": [
    {
      "serialNumber": "SerialNo1",
      "switchName": "Switch-1",
      "systemImageName": "sys.bin",
      "kickstartImageName": "kick.bin",
      "imageServerId": 1,
    }
  ]
}
```

```

        "configServerId":1,
        "deviceType":"N9K",
        "mgmtIp":"80.0.0.10",
        "username":"admin",
        "password":"cisco123",
        "lanGroup":2,
        "publish":"true"
    },
    {
        "serialNumber":"SerialNo2",
        "switchName":"Switch-2",
        "systemImageName":"sys.bin",
        "kickstartImageName":"kick.bin",
        "imageServerId":1,
        "configServerId":1,
        "deviceType":"N9K",
        "mgmtIp":"80.0.0.11",
        "username":"admin",
        "password":"cisco123",
        "lanGroup":2,
        "publish":"true"
    }
],
"templateDetails":[
    {
        "templateParams":{
            "SWITCH_NAME":"Switch-1",
            "ADMIN_USERNAME":"admin",
            "ADMIN_PASSWORD":"cisco123",
            "MGMT_IP":"80.0.0.10",
            "MGMT_PREFIX":"24",
            "DEFAULT_GATEWAY":"80.0.0.1",
            "CONSOLE_TIMEOUT":"0",
            "CONSOLE_SPEED":"9600"
        },
        "templateName":"Example_Simple_v6"
    },
    {
        "templateParams":{
            "SWITCH_NAME":"Switch-2",
            "ADMIN_USERNAME":"admin",
            "ADMIN_PASSWORD":"cisco123",
            "MGMT_IP":"80.0.0.11",
            "MGMT_PREFIX":"24",
            "DEFAULT_GATEWAY":"80.0.0.1",
            "CONSOLE_TIMEOUT":"0",
            "CONSOLE_SPEED":"9600"
        },
        "templateName":"Example_Simple_v6"
    }
]
}

```

**Response:**

```

{
    "SerialNo2": "Success",
    "SerialNo1": "Success"
}

```