



Pulse Connect Secure/Pulse Policy Secure

REST API Solutions Guide

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REST API Solutions Guide

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Revision History

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8.4	Added the following section for 9.1R7 release - Retrieving Serial Number and Machine ID
8.3	Added the following section for 9.1R6 release - Enabling/Disabling ICE License - Getting the Current Status of ICE License
8.2.1	Added the following section for 9.1R5 release - Fetching Active Number of HTML5 Sessions
8.2	Updated the following section for 9.1R5 release: - Getting License Report from License Server
8.1	Updated Profiler REST APIs URL
8.0	Added/Updated the following sections for 9.1R4 release: - Getting Active Sessions - Getting System Information - Fetching the User Login Statistics - Health Check Status - VIP Failover - Applying License - Deleting License - Getting License Clients - Getting License Report from License Server - Profiler REST APIs
7.1	Removed the unused header "Postman-Token" from the Guide.
7.0	Updated the "PCS/PPS Configuration Using REST APIs" section with: - Export without ESAP and Pulse Client packages API. - Backup/restore binary configuration - Added sample curl commands
6.0	Updated the "PCS/PPS Configuration Using REST APIs" section with IF MAP related REST APIs.
5.1	Updated the "PCS/PPS Configuration Using REST APIs" section with AD and LDAP related REST APIs.
5.0	Updated with "PCS/PPS Configuration Using REST APIs" section.

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Overview

The REST API provides a standardized method for Next-Gen firewalls, NAC devices, and third-party systems to interact with PCS/PPS. **Representational state transfer (REST)** or RESTful Web services are one way of providing interoperability between computer systems on the Internet. REST-compliant Web services allow requesting systems to access and manipulate textual representations of Web resources using a uniform and predefined set of stateless operations. In a RESTful Web service, requests made to a resource's URI will elicit a response that may be in XML, HTML, JSON or some other defined format. PCS/PPS supports JSON format only.

REST methods determine the HTTP method for manipulating the resources defined in the service operation. The kind of operations available include those predefined by the HTTP verbs GET, POST, PUT, DELETE and so on. The response may confirm that some alteration has been made to the stored resource, and it may provide hypertext links to other related resources or collections of resources. By making use of a stateless protocol and standard operations, REST systems aim for fast performance, reliability, and the ability to grow, by re-using components that can be managed and updated without affecting the system as a whole, even while it is running.

 **Note:** REST API Support for PCS/PPS involves only Configuration APIs. Also, PCS/PPS supports only the GET, POST, PUT and DELETE APIs.

The valid and supported values are described in the **Table 1**.

Table 1: Valid and Supported Values

HTTP Verb	Definition
DELETE	Delete an existing resource.
GET	Retrieve a representation of a resource.
POST	Create a new resource
PUT	Create a new resource to a new URL or modify an existing resource to an existing URL.

The error codes supported are described in the **Table 2**.

Table 2: Error Codes Supported

HTTP Verb	Definition
200 OK	Requesting for resource information successful using GET Resource update successful using PUT
201 Created	Resource creation successful using POST
204 No Content	Deletion of resource successful with no body. Even PUT, POST may return 204 if no errors or warnings seen
400 – Bad Request	Any Request (GET/PUT/POST/DELETE, and so on) is invalid. Example: Incorrect JSON format

HTTP Verb	Definition
401 – Unauthorized	Any REST Call with invalid credentials
403 – Forbidden	REST Call with valid credentials but no permission
404 – Not found	Requested resource in URI does not exist
422 – Unprocessable Entity	Any validation/referential integrity errors that would result in failure of PUT/POST/DELETE request
500 Server Error	When PCS/PPS rest server is not responding

Authentication for REST APIs

Basic authentication using the HTTP authorization header is used to authenticate username/password on the Administrators auth. server. It is expected that the user is already configured in the Administrators auth. server. On a successful login, a random token (api_key) is generated **once** and sent back as a JSON response. Further access to APIs can use this api_key value as username and password as empty in their Authorization header for access.

 **Note:** A new random api_key is generated on a successful login. The user can continue to use this key till the administrator:

- Enables/disables the user account
- Enables/disables the Allow REST API feature for that user

Basic Authentication using the HTTP Authorization Header

Configurations for REST APIs

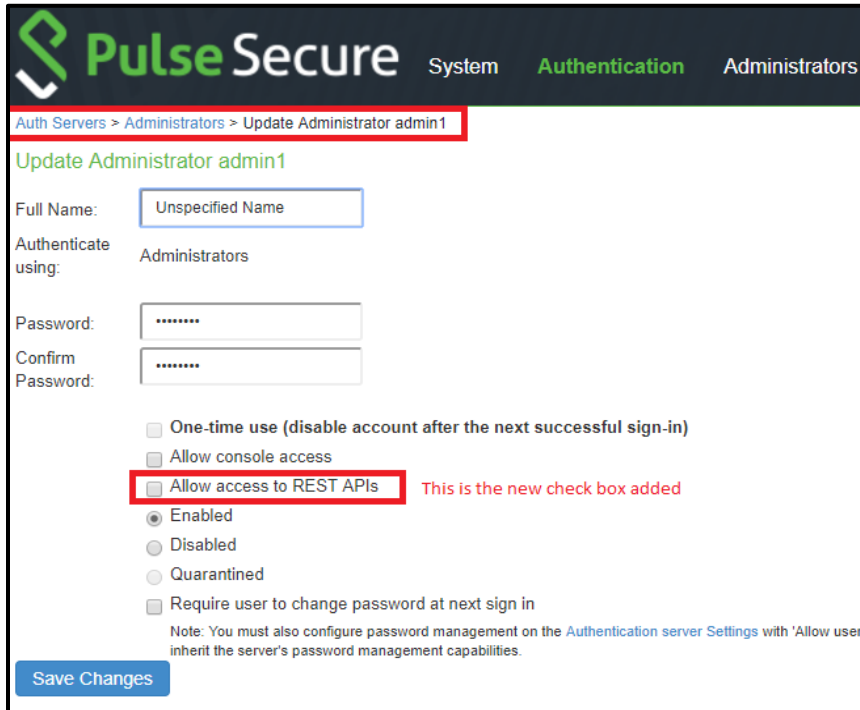
The configuration of PCS/PPS can be accessed using REST APIs. The PCS/PPS configuration is represented in a json form when accessed using REST APIs. The structure of the JSON representation is very similar to the structure of PCS/PPS XML configuration.

A new admin UI option for users under "Administrators" authserver has been added. REST API authentication would be successful only for those users who have this option enabled.

REST API access can be enabled from Pulse Connect Secure Admin console as shown below or from [Pulse Connect Secure serial console](#).

To enable this check box in Pulse Connect Secure Admin Console:

1. Go to Authentication > Auth. Servers > Administrators > Update Administrator admin1.
2. Select the **Allow access to REST APIs** check box. See figure below.
3. Click Save Changes.



Pulse Secure System **Authentication** Administrators

Auth Servers > Administrators > Update Administrator admin1

Update Administrator admin1

Full Name:

Authenticate using: Administrators

Password:

Confirm Password:

☐ One-time use (disable account after the next successful sign-in)
☐ Allow console access
☒ **Allow access to REST APIs** This is the new check box added
☒ Enabled
☐ Disabled
☐ Quarantined
☐ Require user to change password at next sign in

Note: You must also configure password management on the [Authentication server Settings](#) with 'Allow users inherit the server's password management capabilities.'

Save Changes

Enabling REST API Access for an Administrator from the Serial Console

REST API access for an administrator user can be enabled during initial configuration and while creating a new administrator user.

During initial provisioning, there are no administrator accounts configured and the system prompts to create a new administrator user. For the option "Do you want to enable REST API access for this administrator (y/n):", enter **y**.

 **Note:** Any characters other than "y" or "n" are invalid responses.

```

~ — ssh shri@10.243.53.143

Internal port configuration completed, proceeding to next step...

-----

Internal NIC: .[OK]
Currently there are no administrators configured...

Please create an administrator user.
Admin username: admin1b
Password:
Confirm password:
Do you want to enable REST API access for this administrator (y/n): y

The administrator was successfully created.

-----
  
```

When creating a new administrator user from the console using the option “2. Create admin username and password”, for the option “Do you want to enable REST API access for this administrator (y/n):”, enter **y**.

```

~ — ssh shri@10.243.53.143

Current version: 9.0R1 (build 63950)
Rollback version: 8.3R4 (build 60528)
Reset version: 8.1R4.1 (build 37682)

Licensing Hardware ID: 0332MJ0WK0NUP111S
Serial Number: 0332122015100018

Please choose from among the following options:
 0. Start shell
100. mount root rw and start rsync...
101. mount root rw and chpax /home/bin...
102. modify platform code...
103. validate files...
104. Start sshd for debugging ...
105. Manage fault injection scenarios
 1. Network Settings and Tools
 2. Create admin username and password
 3. Display log/status
 4. System Operations
 5. Toggle password protection for the console (Off)
 6. Create a Super Admin session.
 7. System Maintenance
 8. Reset allowed encryption strength for SSL
[Choice: 2

Please create an administrator username and password.
[Admin username: consoleadmin

[Password:
[Confirm password:
[Do you want to enable REST API access for this administrator (y/n): y

The administrator consoleadmin was successfully created.

```

The entire communication is over TLS. An example is explained below:

REQUEST

```

GET /api/v1/auth HTTP/1.1
Host: 10.209.112.106
Authorization: Basic YWRtaW5kYjpkYW5hMTIz
Content-Type: application/json

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Type: application/json
Expires: -1
Keep-Alive: timeout=15
{ "api_key": "p5mM1c7RQu81R2NvssLCCZhP05kf0N2ONFeYeLXX6aU=" }

```

Equivalent Curl Command

Note: While using curl command, ensure appropriate server CA certs is installed in the cert store recognized by curl. The sample curl commands provided in this document assumes you have appropriate server CA certs installed.

COMMAND

```
curl -i -u admindb:dana123 -G https://<hostname>/api/v1/auth
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
Content-Type: application/json
```

```
{"api_key": "p9/h85ytEmkDzvkGSmQ4z77p6Ya7aLIC42vh0F9CGaQ="}
```

api_key received in response to authentication request should be used as Username with EMPTY password in all future requests. Refer to the examples in [Sample GET/POST/PUT/DELETE Request and Responses in PCS](#).

Realm-based Authentication (Recommended)

Pulse Secure recommends realm-based authentication instead of basic authentication using the HTTPS authorization header.

REQUEST

```
POST /api/v1/realm_auth HTTP/1.1
```

```
Host: 10.209.116.214
```

```
Content-Type: application/json
```

```
Authorization: Basic YWRtaW46ZGFuYTEyMw==
```

```
{
  "realm": "adminrealm"
}
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
content-type →application/json
```

```
{
  "api_key": "NjQzOGU0N2I5MDUyMWZhZW0NmZiMTMxY2U3M2YyM2Q="
}
```

Authorization header for all future requests should perform Basic Auth using above api_key value as username and password as empty.

REQUEST

```
GET /api/v1/configuration HTTP/1.1
```

```
Host: 10.209.112.106
```

```
Authorization: Basic
```

```
cDVtTWxjNlJRdTgxUjJOdnNzTENDWmhQMDVrZjBOMk9ORmVZZUxYWDZhVT06
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
Content-Length →283
```

```
Content-Type →application/json
```

```
{  
  "administrators":  
  { "href": "/api/v1/configuration/administrators" }  
  ,  
  "authentication":  
  { "href": "/api/v1/configuration/authentication" }  
  ,  
  "system":  
  { "href": "/api/v1/configuration/system" }  
  ,  
  "users":  
  { "href": "/api/v1/configuration/users" }  
}
```

Sample GET/POST/PUT/DELETE Request and Responses in PCS

Below is a sample of GET/POST/PUT/DELETE request and responses:

GET API Call: Fetch the Specific User under Local Authentication Server

REQUEST

```
GET /api/v1/configuration/authentication/auth-servers/auth-server/Sys-Local/local/users/user/user0001 HTTP/1.1
```

```
Host: 10.209.112.106
```

```
Authorization: Basic
```

```
cDkvaDgleXRFbWtEenZrR1NtUTR6Nzdwn1lhN2FMSUM0MnZoMEY5Q0dhUT06
```

```
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
Content-Length: 309
```

```
Content-Type: application/json
```

```
{
  "change-password-at-signin": "false",
  "console-access": "false",
  "enabled": "true",
  "fullname": "user0001",
  "one-time-use": "false",
  "password-encrypted":
  "3u+UR6n8AgABAAAATjgR3lG4neKag2hxI+wjaNsRRZGD6wMQVkleQv+DPQZdUrQi5IWPuihJf8tnrsBV0XCQly6WgZ79Jvlfyzmssg==",
  "username": "user0001"
}
```

Equivalent Curl Command

COMMAND

```
curl -i -u p9/h85ytEmkDzvkGSmQ4z77p6Ya7aLIC42vh0F9CGaQ=: -X GET
https://<hostname>/api/v1/configuration/authentication/auth-servers/auth-server/System%20Local/local/users/user/user0001
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
Content-Type: application/json
```

```
Content-Length: 303
```

```
{
  "change-password-at-signin": "false",
```

```

    "console-access": "false",
    "enabled": "true",
    "fullname": "user0001",
    "one-time-use": "false",
    "password-encrypted":
"3u+UR6n8AgABAAAAOrKwtwwYUZlizIhEaq54tt550UA39gKEP8AQ7sjr/WTdtPLf36
mpsI5zGWpORVRjEIFAzVOvmxwgXVLBEJnIRQ==",
    "username": "user0001"
}

```

POST API Call: Create User for Existing Local Authentication Server

REQUEST

POST /api/v1/configuration/authentication/auth-servers/auth-server/Sys-Local/local/users/user HTTP/1.1

Host: 10.209.112.106

Authorization: Basic

cDkvaDgleXRFbWtEenZrR1NtUTR6Nzdwn1lhN2FMSUM0MnZoMEY5Q0dhUT06

Content-Type: application/json

```

{
  "change-password-at-signin": "false",
  "console-access": "false",
  "enabled": "true",
  "fullname": "user0001",
  "one-time-use": "false",
  "password-encrypted":
"3u+UR6n8AgABAAAATjgR3lG4neKag2hxI+wjaNsRRZGD6wMQVkleQv+DPQZdUrQi5IWPuihJ
f8tnrsBV0XCQly6WgZ79Jv1fyzmssg==",
  "username": "user0001"
}

```

RESPONSE

HTTP/1.1 200 OK

Content-Length: 122

Content-Type: application/json

```

{
  "result": {
    "info": [
      {
        "message": "Operation succeed without warning or error!"
      }
    ]
  }
}

```

```

    }
  ]
}
}

```

Equivalent Curl Command

COMMAND

```
curl -i -u hv5uaqOWF5kuISVnUiGEabOL8fsczsK98zVwpHYWgKE=: -X POST
https://<hostname>/api/v1/configuration/authentication/auth-servers/auth-
server/System%20Local/local/users/user -H 'Content-Type:
application/json' -d '{"change-password-at-signin": "false", "console-
access": "false", "enabled": "true", "fullname": "user0001", "one-time-
use": "false", "password-cleartext": "abc123", "username": "user0002"}'
```

RESPONSE

HTTP/1.1 201 CREATED

Content-Type: application/json

Content-Length: 128

```

{
  "result": {
    "warnings": [
      {
        "message": "The configuration has been implicitly changed"
      }
    ]
  }
}

```

PUT API Call: Update Full name field of Specific user

REQUEST

```
PUT /api/v1/configuration/authentication/auth-servers/auth-server/Sys-
Local/local/users/user/user0001/fullname HTTP/1.1
```

Host: 10.209.112.106

Authorization: Basic

cDkvaDgleXRFbWtEenZrR1NtUTR6Nzdwn1lhN2FMSUM0MnZoMEY5Q0dhUT06

Content-Type: application/json

Cache-Control: no-cache

```

{
  "fullname": "REST API test for user0001"
}

```

```

}

RESPONSE

HTTP/1.1 200 OK

Content-Length: 122

Content-Type: application/json

{
  "result": {
    "info": [
      {
        "message": "Operation succeed without warning or error!"
      }
    ]
  }
}

```

Equivalent Curl Command

```

COMMAND

curl -i -u hv5uaqOWF5kuISVnUiGEabOL8fsczsK98zVwpHYWgKE=: -X PUT
https://<hostname>/api/v1/configuration/authentication/auth-servers/auth-
server/System%20Local/local/users/user/user0001/fullname -H 'Content-
Type: application/json' -d '{"fullname": "user0001"}'

RESPONSE

HTTP/1.1 200 OK

Content-Type: application/json

Content-Length: 124

{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or error!"
      }
    ]
  }
}

```


After updating, fetch the User details and observe the fullname field updated:

REQUEST

```
GET /api/v1/configuration/authentication/auth-servers/auth-server/Sys-Local/local/users/user/user0001 HTTP/1.1
```

```
Host: 10.209.112.106
```

```
Authorization: Basic
```

```
cDkvaDgleXRFbWtEenZrR1NtUTR6Nzdwn1lhN2FMSUM0MnZoMEY5Q0dhUT06
```

```
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
Content-Length →327
```

```
Content-Type →application/json
```

```
{
  "change-password-at-signin": "false",
  "console-access": "false",
  "enabled": "true",
  "fullname": "REST API test for user0001",
  "one-time-use": "false",
  "password-encrypted":
    "3u+UR6n8AgABAAAATjgR31G4neKag2hxI+wjaNsRRZGD6wMQVkJEQv+DPQZdUrQi5IWPuihJf8tnrsBV0XCQly6WgZ79Jv1fyzmssg==",
  "username": "user0001"
}
```

DELETE API Call: DELETE Specific User**REQUEST**

```
DELETE /api/v1/configuration/authentication/auth-servers/auth-server/Sys-Local/local/users/user/user0001 HTTP/1.1
```

```
Host: 10.209.112.106
```

```
Authorization: Basic
```

```
cDkvaDgleXRFbWtEenZrR1NtUTR6Nzdwn1lhN2FMSUM0MnZoMEY5Q0dhUT06
```

```
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
Content-Length →122
```

```
Content-Type →application/json
```

```
{
```

```

"result": {
  "info": [
    {
      "message": "Operation succeed without warning or error!"
    }
  ]
}
}

```

Equivalent Curl Command

COMMAND

```

curl -i -u hv5uaqOWF5kuISVnUiGEabOL8fsczsK98zVwpHYWgKE=: -X DELETE
https://<hostname>/api/v1/configuration/authentication/auth-servers/auth-
server/System%20Local/local/users/user/user0002/

```

RESPONSE

```

HTTP/1.1 204 NO CONTENT
Content-Type: application/json
Content-Length: 0

```

After deleting, try to fetch the resource and you would observe 404 response.

REQUEST

```

GET /api/v1/configuration/authentication/auth-servers/auth-
server/Sys-Local/local/users/user/user0001 HTTP/1.1

Host: 10.209.112.106

Authorization: Basic
cDkvaDgleXRFbWtEenZrR1NtUTR6Nzdwn1lhN2FMSUM0MnZoMEY5Q0dhUT06

Content-Type: application/json

Cache-Control: no-cache

```

RESPONSE

```

404 NOT FOUND

Content-Length: 105

Content-Type: application/json

{
  "result": {
    "errors": [
      {
        "message": "Resource does not exist."
      }
    ]
  }
}

```

```
    }  
  ]  
}  
}
```

Representing Configuration Resources Using Links

When performing a GET request on a configuration resource, the json response may have "href" attributes to represent smaller resources within.

As an example, "GET /api/v1/configuration" returns:

```
{  
  "users": {  
    "href": "/api/v1/configuration/users"  
  },  
  "system": {  
    "href": "/api/v1/configuration/system"  
  },  
  "authentication": {  
    "href": "/api/v1/configuration/authentication"  
  },  
  "administrators": {  
    "href": "/api/v1/configuration/administrators"  
  }  
}
```

The href values can be used to access smaller resources.

Sample GET/POST/PUT/DELETE Request and Responses in PPS

Below is a sample of GET/POST/PUT/DELETE request and responses:

GET API Call: Fetch the Details under Endpoint Policy

This example shows how to fetch the details under endpoint policy in PPS.

REQUEST

```
GET /api/v1/configuration/uac HTTP/1.1

Host xx.xx.xx.xx

Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06

Content-Type: application/json

{
  "admissionControl": {
    "href": "/api/v1/configuration/uac/admissionControl"
  },
  "host-enforcer": {
    "href": "/api/v1/configuration/uac/host-enforcer"
  },
  "infranet-enforcer": {
    "href": "/api/v1/configuration/uac/infranet-enforcer"
  },
  "mac-address-realms": {
    "href": "/api/v1/configuration/uac/mac-address-realms"
  },
  "network-access": {
    "href": "/api/v1/configuration/uac/network-access"
  },
  "snmpEnforcement": {
    "href": "/api/v1/configuration/uac/snmpEnforcement"
  }
}
```

RESPONSE

```
HTTP/1.1 200 OK

Content-Length: 340

Content-Type: application/json
```

Equivalent Curl Command

COMMAND

```
curl -i -u g4dncT4699c+IWip/+8urgXM0Luy1vQdj9zNxEFWEbM=: -X GET
https://<hostname>/api/v1/configuration/uac
```

RESPONSE

```
HTTP/1.1 200 OK

Content-Type: application/json
```

```

Content-Length: 620

{
  "admissionControl": {
    "href": "/api/v1/configuration/uac/admissionControl"
  },
  "host-enforcer": {
    "href": "/api/v1/configuration/uac/host-enforcer"
  },
  "infranet-enforcer": {
    "href": "/api/v1/configuration/uac/infranet-enforcer"
  },
  "mac-address-realms": {
    "href": "/api/v1/configuration/uac/mac-address-realms"
  },
  "network-access": {
    "href": "/api/v1/configuration/uac/network-access"
  },
  "networkDeviceAdministration": {
    "href": "/api/v1/configuration/uac/networkDeviceAdministration"
  },
  "snmpEnforcement": {
    "href": "/api/v1/configuration/uac/snmpEnforcement"
  }
}

```

POST API Call: Create an SRX Enforcer in Infranet Enforcer Connection

This example shows how to create an SRX Enforcer in Infranet Enforcer connection.

REQUEST

```

POST /api/v1/configuration/uac/infranet-enforcer/connections/infranet-
enforcer/ HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVks5d0t2aXpBNldPZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "idp-for-local-sessions-only": "true",
  "junos": {
    "location-group": "- No 802.1X -",
    "password-encrypted":
"3u+UR6n8AgABAAAOfSnIBrU19vdwUslG5LG4cg1QH6CbXDSmY4ZW0x85HY="
  },
  "name": "SRX",
  "serial-number": [
    "SJFIOQJI4KNM"
  ],
  "severity-filter": "medium",
  "use-idp": "false"
}

```

```

}

RESPONSE
HTTP/1.1 201 OK
Content-Length: 122
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Operation succeed without warning or
error!"
      }
    ]
  }
}

```

Equivalent Curl Command

```

COMMAND

curl -i -u g4dncT4699c+IWip/+8urgXM0Luy1vQdj9zNxEFWEbM=: -X POST
https://<hostname>/api/v1/configuration/uac/infranet-
enforcer/connections/infranet-enforcer -H 'Content-Type:
application/json' -d '{"idp-for-local-sessions-only": "true", "junos": {
"location-group": "-- No 802.1X --", "password-
encrypted": "3u+UR6n8AgABAAAAofSnIBrU19vdwUslG5LG4cg1QH6CbXDSmY4ZW0x85HY="
},"name": "SRX","serial-number": ["SJFIOQJI4KNM"],"severity-filter":
"medium", "use-idp": "false"}'

RESPONSE

HTTP/1.1 201 CREATED

Content-Type: application/json
Content-Length: 124

{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or error!"
      }
    ]
  }
}

```

PUT API Call: Update Existing Configuration Where In Initial Location Group is Configured as Guest

This example updates the existing configuration where in the initial Location Group is configured as "Guest" and then later updated to "Default" Location group.

Before Updating the Location Group

REQUEST

```
GET api/v1/configuration/uac/network-access/radius-clients/radius-
client/Radius%20Client HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldPZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "location-group": "Guest",
  "name": "Radius Client",
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 122
Content-Type: application/json
```

Equivalent Curl Command

COMMAND

```
curl -i -u g4dncT4699c+IWip/+8urgXM0Luy1vQdj9zNxEFWEbM=: -X PUT
https://<hostname>/api/v1/configuration/uac/network-access/radius-
clients/radius-client/Radius%20Client -H 'Content-Type: application/json'
-d '{"location-group": "Default","name": "Radius Client"}'
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: 124
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or error!"
      }
    ]
  }
}
```

After Updating the Location Group

REQUEST

```
PUT api/v1/configuration/uac/network-access/radius-clients/radius-
client/Radius%20Client HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
    "location-group": "Default",
    "name": "Radius Client",
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 122
Content-Type: application/json
{
    "result": {
        "info": [
            {
                "message": "Operation succeed without warning or
error!"
            }
        ]
    }
}
```

DELETE API Call: Delete an SNMP Device

This example shows how to delete SNMP device from PPS.

REQUEST

```
DELETE api/v1/configuration/uac/snmpEnforcement/clients/client/ruckus
HTTP/1.1
Host 10.96.73.37
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json
```


Equivalent Curl Command

COMMAND

```
curl -I -u g4dncT4699c+IWip/+8urgXM0Luy1vQdj9zNxEFWEbM=: -X DELETE  
https://<hostname>/api/v1/configuration/uac/snmpEnforcement/clients/client/ruckus
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT  
Content-Type: application/json  
Content-Length: 0
```

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Getting Active Sessions

REQUEST

GET /api/v1/system/active-users HTTP/1.1

Host: 10.209.114.225

Authorization: Basic

QXNzN1FMN3VYdTJlaHpMZTF5QjRBQTdoM1lNa3Q0NXRkc2dHc0hoNzU3Yz06

Content-Type: application/json

RESPONSE

Content-Type: application/json

```
{
  "active-users": {
    "active-user-records": {
      "active-user-record": [
        {
          "active-user-name": "user1",
          "agent-type": "Windows 8.1 Google Chrome",
          "authentication-realm": "localrealm",
          "endpoint-security-status": "Not Applicable\nPassed
Policies: \nFailed Policies: \nEliminated Roles: ",
          "events": 0,
          "login-node": "localhost2",
          "network-connect-ip": null,
          "network-connect-transport-mode": null,
          "session-id":
"sidb03b1e971b7eb163bb70c966a8ae2b50767aae300000000",
          "pulse-client-version": "9.1.4.1316",
          "user-roles": "localrealm",
          "user-sign-in-time": "2018/08/23 11:45:40"
        },
        {
          "active-user-name": "user2",
          "agent-type": "Windows 7 Google Chrome",
          "authentication-realm": "localrealm",
          "endpoint-security-status": "Not Applicable\nPassed
Policies: \nFailed Policies: \nEliminated Roles: ",
          "events": 0,
          "login-node": "localhost2",
          "network-connect-ip": null,
          "network-connect-transport-mode": null,
```

```

        "session-id":
        "sid68377b6249d24784edfdd07edfe61ee9934b556100000000",
        "user-roles": "localrealm",
        "user-sign-in-time": "2018/08/23 11:46:15"
    }
]
},
"total-matched-record-number": 2,
"total-returned-record-number": 2,
"user-login-permission": true
}
}

```

Getting Particular Active Session Details

REQUEST

```

GET /api/v1/system/active-users?name=user2 HTTP/1.1
Host: 10.209.114.225

Authorization: Basic
QXNzN1FMN3VYdTJlaHpMZTF5QjRBQTdoMllNa3Q0NXRkc2dHc0hoNzU3Yz06

Content-Type: application/json

```

RESPONSE

```

Content-Type: application/json
{
    "active-users": {
        "active-user-records": {
            "active-user-record": [
                {
                    "active-user-name": "user2",
                    "agent-type": "Windows 7 Google Chrome",
                    "authentication-realm": "localrealm",
                    "endpoint-security-status": "Not Applicable\nPassed
Policies: \nFailed Policies: \nEliminated Roles: ",
                    "events": 0,
                    "login-node": "localhost2",
                    "network-connect-ip": null,
                    "network-connect-transport-mode": null,
                    "session-id":
                    "sid68377b6249d24784edfdd07edfe61ee9934b556100000000",

```

```

        "user-roles": "localrealm",
        "user-sign-in-time": "2018/08/23 11:46:15"
    }
]
},
"total-matched-record-number": 1,
"total-returned-record-number": 1,
"user-login-permission": true
}
}

```

Deleting a Particular Active Session

REQUEST

```

DELETE /api/v1/system/active-
users/session/sid68377b6249d24784edfdd07edfe61ee9934b556100000000 HTTP/1.1
Host: 10.209.114.225

Authorization: Basic
QXNzN1FMN3VYdTJlaHpMZTF5QjRBQTdoM1lNa3Q0NXRkc2dHc0hoNzU3Yz06

Content-Type: application/json

```

RESPONSE

```

HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json

```

Deleting All Active Sessions

REQUEST

```

DELETE /api/v1/system/active-users?all HTTP/1.1
Host: 10.209.114.225

Authorization: Basic
QXNzN1FMN3VYdTJlaHpMZTF5QjRBQTdoM1lNa3Q0NXRkc2dHc0hoNzU3Yz06

Content-Type: application/json

```

RESPONSE

```

HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json

```

Querying Set of Leased Licenses in the License Server System

REQUEST

```
GET /api/v1/license/license-server-lease-information HTTP/1.1
Host: 10.209.114.226

Authorization: Basic
c2czWUJmc1lyUjcwN2daSFh6RHdqME1YSnNhddZmcXlaOVZKNFNSdStaZz06

Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 2210
Content-Type: application/json
{
  "leased-license-counts": {
    "features": {
      "feature": [
        {
          "clients": {
            "client-info": [
              {
                "leased-count": 0,
                "name": "client1"
              }
            ]
          },
          "name": "Advanced Mobile License - Onboarding",
          "total-count": 0
        },
        {
          "clients": {
            "client-info": [
              {
                "leased-count": 0,
                "name": "client1"
              }
            ]
          }
        }
      ]
    }
  },
}
```

```

        "name": "Cloud Secure feature",
        "total-count": 0
    },
    {
        "clients": {
            "client-info": [
                {
                    "leased-count": 0,
                    "name": "client1"
                }
            ]
        },
        "name": "Concurrent Meeting Users",
        "total-count": 0
    },
    {
        "clients": {
            "client-info": [
                {
                    "leased-count": 200,
                    "name": "client1"
                },
                {
                    "leased-count": 0,
                    "name": "client2"
                }
            ]
        },
        "name": "Concurrent Users",
        "total-count": 200
    },
    {
        "clients": {
            "client-info": [
                {
                    "leased-count": 0,
                    "name": "client1"
                }
            ]
        }
    }

```

```

        },
        "name": "Named Users",
        "total-count": 0
    },
    {
        "clients": {
            "client-info": [
                {
                    "leased-count": 0,
                    "name": "client1"
                }
            ]
        },
        "name": "Premier Java Remote Desktop Applet",
        "total-count": 0
    }
]
},
"machine-id": "VASPMVKIT1NJNFPPS",
"query-summary": {},
"release-info": {
    "build-number": "10124",
    "version": "9.0"
},
"serial-number": null,
"signature":
"HMx/W0VhDAAABAAApoB/uSUYcwJS1k7HeXVMXK6+KsIPTrJnjXrUci
JEef2EKWyqgbDGoXhzYaGD16Ye29oOw2KRQlyCM/HRpIpujA==",
"time-stamp": "Fri Aug 24 14:43:00 2018"
}
}

```

Pulling State from a License Server on a License Client

REQUEST

```

PUT /api/v1/license/license-client-lease-state HTTP/1.1
Host: 10.209.114.228
Authorization: Basic
OWZBcVNKUkRCcEdjSEVQY3A0aDZ2UnFwdjhXbExiYzUxRS91TVU1VnBnMD06

```



```
Content-Type: application/json
```

```
{
}
```

Note: While using above URL (i.e., license-client-lease-state) by PUT operation, we provide empty JSON body as input, because PUT operation expects JSON body.

RESPONSE

```
HTTP/1.1 200 OK
```

```
Content-Length: 86
```

```
Content-Type: application/json
```

```
{
  "result": {
    "info": [
      {
        "message": "Success"
      }
    ]
  }
}
```

Configuring Certificates based on CSR Workflow

REQUEST

```
POST /api/v1/system/certificates/device-certificates HTTP/1.1
```

```
Host: 10.209.114.228
```

```
Authorization: Basic
```

```
aWZuM2VmZVZTRU9YNVZkVVZ3eFpiYWdob3VCTndxZEkyExubUcyVU5ibz06
```

```
Content-Type: application/json
```

```
{
  "cert" : "MIINzgIBAzCCDYOGCSqGSIB3DQEHAaCCDXsEgg13MIINczCCBg
QGCSqGSIB3DQEHAaCCBfUEggXxMIIF7TCBekGCyqGSIB
3DQEMCgECOIIE9jCCBPIwHAYKKoZIhvcNAQwBAzA0BAjp
YgwUOJOweAICB9AEggTQFjak4T3ftSlkdoiOtc/xvh
Sfrrkezs109tN6tqyuVYWFQUZkpUIg4v2pU1zOvFOTPlno
VCmeiL2HX7OzuLPALcnSvGmaq61I+Y5dBWMmXMo+bs8s
U36p6YS4D9Bq3VIMecAHwzc/30hPf
+gaaoySQiMuLa34CnNeFxFfxMlH0sXi1QeqaLAtMno5AMQW"
```

1/nHSAyJPwa5OWrJ5mkfHKh4kog893diYwo1mlIqlp7Qseza
 4+uosWAtih/jac1iDmlb03kjr+OQAukXFQ19ejvyrmMhcjhoz
 ARqwMgEj6I+JpdJPUxvwVytQ20Nj4lNDRnAb5sp1oAi0u5aN
 49afY6kRjNuKUeUkEmrpmumNJJufkDkKx1eqYOBQqQ50K1w
 9qFhEOaOLivGQa1IjzNyc+Bbs2TMw8RJWDsA7TVJhQKBcVjt
 IOSFzsVjyWJeI9VzB+iUbi
 +XCHYRQP0W6el6HWg2b31iNhMID5Lt2GWQOzT6iUVNls
 ZFoofyfXsZBY0JC6nsbvZVMRNBGXE2fEFA/qIga8Gn5E
 9zcIqibnXXW0jAOa+m3d+KRR49XaoAjgzpJ3ErqLVz1l/nGTix
 9W3H4mSHd9xX43h6Pbz0tGmu6l9nnWP/52y6/TMQQB
 5v0RHe0klj+uX00ZuezmmeYEapX+SObQrMqmnvTgWApf
 7FzulcvAIHomQ184MJzarNnhOpO1AQGESaa6tABtk
 2Yzpbm+g5SAgnjwxH0IjeF/kwapQttIYc1TM3qQ9EsPKqbpaQna
 4qETIRLI3R6GVNTBnG/g9M9MQh2MtnvonS0lpjDs+Tt
 LoO+BtY
 9J2XSMK0wtXyONb67xjTRRsC1ulfAvP4RdyHpmM
 4JO3+VW1F4n8Vzl+RYrRj0sKja/jHm1ElZvhxJHbwEMFDSv
 FIqAvfQGQKyliJWSjalNeO2TEPVJOf2o+TofnYDq4hk0t
 ABVdWLRfmn3byi91+xioIOLputEGG8Zto
 AdlPkag/lKBnWa37z3eHnfQC9qWU8dcONBQo/HFxupj
 482jQa7lUg3fp7apM4CuDQEgJWYNS4/Z+5+zEqq9q+/w
 9ke5Y/a/5ukeP9HRS3xpeEe56qb98qPx3dXSSDgXtD1L
 6r48Dl+4ISYmLEl0yFwXtJ3vuYk5NiUjmZsuI1tnLQoxim5z6NUZ
 5/7G04mG/BzAX3qT74MlRzVda7uZdJPYJLyTGUtIdn
 562HvYnrGtO9P+08OH6c2Dp4eOgNQCrhPP51ZHd9VNO0nyqt
 ZmZ0E4oHN4G7ud+6fwIvaSF9gpwl1TWAF5122dr111Ae3ZFPs
 5bzbv7jrFY7LGuTh+1003MshmtYZAiW8nM1ODm4HstQsSx
 HWVb+WK4uiorvhq2cplJ
 +71rGQI/kCM8hdZJOUYzsrnQXQUn/rs100w9VAP88SG9mJi
 QynoX4+BKYtnn4XE4D3tEFUygD2RmG2GdeGBjOeHh/Ke
 MrXk2z9oLEn7CaDeZQCp/7wGdDLfb/nAkmyiO6DWkPZzDAz
 GdSDd0gRTkY4LdtyjPTkeADN
 +wXvjh6tutjgWgHEHI3xnvMan1/rzZV80SGpbqWFECk1
 58YuprYqVRN2CmJCILoVbUaay6Vq9jaHkIkT3lxzU
 6UkNTKxqo3Rhad9StfxCRqlrYxgd8wEwYJKoZIhvc
 NAQkVMQYEBAAAAAwXQYJKoZIhvcNAQkUMVAeTgBs
 AGUALQA2AGMANQA0AGUAMABjADQALQAyAGYANQBkAC0ANABj
 AGYAMAAAtAGEAYwBiAGUALQBhADAAAYgBjAGUAZgA4AGIAYg
 A4AGEAMzBpBgkrBgEEAYI3EQExXB5aAE0AaQBJAHIAbwBzAG

8AZgB0ACAAUgBTAEAIABTAEMAaABhAG4AbgBlAGw
 AIABDAHIAeQBwAHQABwBnAHIAyQBwAGgAaQBjACAAUABYAG
 8AdgBpAGQAZQByMI IHZwYJKoZIHvcNAQcGoIIHWDCCB
 1QCAQAwggdNBgkqhkiG9w0BBwEwHAYKKoZIHvcNAQw
 BBjAOBAGQOOB7+SpClQICB9CAggcgKOhImrEmUqPOG
 8XR59tFV0HodvnlfzxI7aM6PnAgwPiMSxa6e69kZ/DCeY
 5V5XZkfW+nYAZvgGuZw26oLgVz14T/j0Z3kYTKcn1Mx
 +gvj5coadwFR21HirvwyndeXKJ6w1Yh4omK/x4891AFgv
 KizeeOewczIGmWCqQh81HUGiR8aAfLU2neKxcLoGOfhQnN
 5k/SSKsBTuUBQ80zGiXh+48xS4CTzE8vEyDXyQQe09sqxoDt
 WTW7U5cV8qXwpgy+FSb4c/Y/RCggTqmCL+NwSMCvhEGf
 KSq9ZwJvniEpsQ1mHzK/e4ZRQH/C
 +eNCccV/6zR5onNbZ0fpVTGDCCG0Z9705zzGur5z83CGy
 53fcHS2fdoQP6kqps7VeKbym2NBBT6tx9ZD4Ue988EQwk
 M0dw/7/9resv6VnL+T9prJJq7pEPKyl8ocTSTPbINsSJ
 8f6z+R01/cxOnpyZ3pe2kWneC0xVUeTCsfip5DEbOfga
 Cy4omJstlx57Z5GQrVfs01V21NjY6i0Ev7e2AGyn
 +Kq2ZcrTBzizjQpoA0djljaFodkBVPwROkXCEjScfV/YjURTSgVcv
 1F1k/OyVf3EDcTXzjtOEuvkLrYsBANzAtcchE7tMlJdVlDv
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 61AFTeEOCgKluDoRtac
 +TtgzrAyQGpUwQ/j/CFzy2yhQzSg2+nOFDA4D2I2Bw
 3SyMVAw45NtPPYnoplY9j0iRPfSOUzbHqULI8PvRyICY
 3EhIv7MVzG812TMD1WOvZzaNonSB4plj+rq+aL6YH15O3/AQ
 5v/n3b/ebrKDSSTYROClNVfxxwF+nLTMeCPumAfb8JWd
 AmOvsUmyd8j8b6CgE2fMsR6yzZMmTcdispYe1r
 +at4hd7v57K2JKcTKffs23zU9QZ6w30+soSr4dKhXVKo
 Fny8pGZkgA5Dd5ksytKJgKJHM5Z6yRij8cc0WwPrqK
 9jZvFxq0+t8rAFUA1QRbM6nnwF4g6z2vMdEtUYtn
 NXIZIWe5E6YJlmxzn26dFat2AnM8MelPSNVaxVqho
 CZAZOdRmhYXg4uT
 +4rMazBXJ7txtCNsQd/sW4WpOp9jzRoANfhxK2uKkFRS
 62216u6hCoVCMj5D7UjB/4S80NZIwa67cikY/89t4v
 EZbwvS0dLQ2CMiQVeeUFTto4Hq32RaVRPhIJql0MH/fy
 MIvSfqEoMUnY/D/26rKnivVp9XZdyd2ZKMV5nNFtbw
 C6UhHQ76PwKRG5GsOuDjUxHzy0DXIgTcSuZWUeu
 DNM0iyVZ2LVCRPyTWAiur0nepcn1nVcehlxdddqGSu
 1AWSqmOODMmwytm6mDKAvLnN8qjpL742bTIHkmt
 UvoNxrgT4i+0jwGWLGNy6sx3JAXIYZv85xt+cV5KDvm

```

F822w6CtUs5l8lWvBdAC6WD
+wmnQzGsqvSbj9jLLKFxOtLYs863dDDtENDZiYtrCKjEKNlo
Y8X0flNlfczguZ8ssBa6XWQ4hjpgwanpjBsvReJZcWogUFq
YuXtZUB/mIUSZyNSIFwCO4cWa4vqE4PlPjl56jnIdpqwgqalj
HTm7WsCEIbgdBfyJp75/vJR/A4PAJcsZmFfiayNwM/zePFh
Zp0UdxrnoptZfsF4XspgZEPbHyxmfQG7f8sfAQq0iQlH0kpa
BD3VuTrudgOfFbVfrjim8UXUNhKpYSgy3GWeHXadrOHs
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76igIUHHiJz0jqHfIoxqAak+72Iv706QtVMYI+Cpe
4FLRqhoNUJpHAT7+5EOq2WqWXB+KXk5/Wh
7/CIO6pZsAuEAU0elDDz/mex2oUfigYvtywFPBo0f
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9/OoVElg0rrQ5nxzKQRrTbtekZSJ5j66p107ux2R+Q
7MpRsmwT8ERgW8CexPHOAikAWSBpWaT6ogh
1MletHIK++ShXSIRa3NbDjrwkU8q0E9wlCUyAfXnQv
4pTQaGHadF/j2F2foMBAW2Jgh1KP9UGB54K+KLRjoIFc
EUqqh+j42bh2/c0jAppJtWNgn2jFQzuK2I3E0MVVNOEPJm
EvpDXM1DZzhFNxeL8D
+LfMn1B4zNTdngE0arUOspr72Rm0Rx43OcU0w/nkL6DckhvIZdco
4PSLLXJeBW/fBc2Ws04/qxEKwreGwCr3fM17X4HZtCRJOsVj0Bg
6JAp3f30Os55bjQanFubM9YFZrC6rGnKshyiUIFutMPwzbuI
WCWQP29TnlSJWk9lC0jb2oy6/209o7U78grLvGllSyynqehN
8TLxP9MDswHzAHBgUrDgMCGgQU9XDxDBt/loGEHzU/DE
0xAa6823YEFFmEIfAiPtILVXcDNuDn0rU1xc24AgIH0A=="
    "password": "juniper",
    "internal-interfaces": { },
    "external-interfaces": { },
    "management-interface": true
}

```

RESPONSE

```

HTTP/1.1 201 OK
Content-Length: 112
Content-Type: application/json
{
    "result": {
        "info": [
            {

```

```

        "message": "Operation successfully completed."
    }
]
}
}

```

Creating a CSR for a Device Certificate

REQUEST

POST /api/v1/system/certificates/device-certificate-csrs HTTP/1.1

Host: 10.209.114.228

Authorization: Basic

aWZuM2VmZVZTRU9YNVZkVVZ3eFpiYWdob3VCTndxZEkyExubUcyVU5ibz06

Content-Type: application/json

```

{
  "subject-common-name": "QA.pcs.company.com",
  "key-type": "ECDSA",
  "ecc-curve": "P-384"
}

```

RESPONSE

HTTP/1.1 201 OK

Content-Length: 266

Content-Type: application/json

```

{
  "result": {
    "info": [
      {
        "message": "Created CSR 'CSR_164' successfully"
      },
      {
        "message": "Use POST
/api/v1/system/certificates/device-certificate-
csrs/CSR_164/certificate to upload the signed certificate"
      }
    ]
  }
}

```

Deleting Device Certificate by Its Subject Name

REQUEST

```
DELETE /api/v1/system/certificates/device-  
certificates/srikrsa.test.saqacertserv.com HTTP/1.1
```

```
Host: 10.209.114.228
```

```
Authorization: Basic
```

```
aWZuM2VmZVZTRU9YNVZkVVZ3eFpiYWdob3VCTndxZEkyExubUcyVU5ibz06
```

```
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
```

```
Content-Length: 0
```

```
Content-Type: application/json
```

Getting System Information

REQUEST

```
GET /api/v1/system/system-information HTTP/1.1
```

```
Host: 10.209.114.228
```

```
Authorization: Basic
```

```
aWZuM2VmZVZTRU9YNVZkVVZ3eFpiYWdob3VCTndxZEkyExubUcyVU5ibz06
```

```
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
Content-Length: 193
```

```
Content-Type: application/json
```

```
{  
  "rollback-partition-information": {  
    "build": "2330",  
    "os-name": "ive-sa",  
    "os-version": "9.1R2"  
  },  
  "software-inventory": {  
    "software": {  
      "build": "4520",  
      "name": "IVE-OS",  
      "type": "operating-system",  
      "version": "9.1R4"
```

```

    }
  },
  "system-information": {
    "hardware-model": "PSA5000-V",
    "host-name": "localhost2",
    "os-name": "ive-sa",
    "os-version": "9.1R4",
    "serial-number": "VASPHJPEG824R1U0S"
  }
}

```

Retrieving Serial Number and Machine ID

REQUEST

```

GET /api/v1/system/system-information HTTP/1.1
Host: 10.96.116.30

Authorization: Basic
czM3MzVDTFVYbnFobFR5NHdNSTFES3piSDhrMTVwR0pLV2gwOTlMYmxhYz06

Content-Type: application/json

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Length: 193
Content-Type: application/json
{
  "rollback-partition-information": {
    "build": "5801",
    "os-name": "ive-sa",
    "os-version": "9.1R6"
  },
  "software-inventory": {
    "software": {
      "build": "6087",
      "name": "IVE-OS",
      "type": "operating-system",
      "version": "9.1R7"
    }
  },
  "system-information": {

```

```

    "cluster-node": {},
    "hardware-model": "PSA-3000",
    "host-name": "node1",
    "machine-id": "0312MB24A0EZ504VS",
    "os-name": "ive-sa",
    "os-version": "9.1R7",
    "serial-number": "0312022017100103"
  }
}

```

Realm-based Administrator User Using Administrator Local Authentication Server

REQUEST

```

POST /api/v1/realm_auth HTTP/1.1
Host: 10.209.114.228
Authorization: Basic YWRtaW4xOmRhbmExMjM=
Content-Type: application/json
{
  "realm": "<realm-name>"
}

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Type: application/json
{
  "api_key": "MjUwOGQyNzAyOWU3MWQ2MzNiMTM2Njg2MzAwNDg3MjU="
}

```

Realm-based Administrator User Using AD Authentication Server

REQUEST

```

POST /api/v1/realm_auth HTTP/1.1
Host: 10.209.114.228
Authorization: Basic bmF6ZWVyOlBzZWV1cmUxMjMk
Content-Type: application/json
{
  "realm": "AdminADRealm"
}

```



```

}

RESPONSE

HTTP/1.1 200 OK
Content-Type: application/json
{
    "api_key": "ODRjOTcxOTY5ZTlmYTcwY2QwYzk1ZDBjMWQ5N2RmN2Q="
}

```

Realm-based Administrator User Using LDAP Authentication Server

```

REQUEST

POST /api/v1/realm_auth HTTP/1.1
Host: 10.209.114.228
Authorization: Basic bmF6ZWVyOlBzZWN1cmUxMjMk
Content-Type: application/json
{
    "realm": "LDAPRealm"
}

RESPONSE

HTTP/1.1 200 OK
Content-Type: application/json
{
    "api_key": "ZTQxNTIxOTJhNmUwMjg3MWI5MjZkYmE1MGM0MzdiMDI="
}

```

Realm-based Administrator User Using Radius Authentication Server

```

REQUEST

POST /api/v1/realm_auth HTTP/1.1
Host: 10.209.114.225
Authorization: Basic amFjazpqdW5pcGVy
Content-Type: application/json
{
    "realm": "RadiusAdminRealm"
}

RESPONSE

HTTP/1.1 200 OK

```

```
Content-Type: application/json
{
  "api_key": "MGMzZjJkZDZlYmRlYzg0MDE5NzkwYzE1ZGM5MmQyYTQ="
}
```

Realm-based Administrator User from a Particular Source IP

REQUEST

```
PUT /api/v1/configuration/administrators/admin-
realms/realm/AdminLocalAuthRealm/authentication-policy/source-
ip/customized HTTP/1.1
Host: 10.209.114.228
Authorization: Basic
T1dFM056VTBPVE15T0dFeU16WXpOakU0WVRFek9EWXhOamRoTVdVNFpqYz06
Content-Type: application/json
{
  "customized": "selected-ip"
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 124
Content-Type →application/json
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

REQUEST

```
POST /api/v1/configuration/administrators/admin-
realms/realm/AdminLocalAuthRealm/authentication-policy/source-
ip/ips/ip HTTP/1.1
Host: 10.209.114.228
Authorization: Basic
T1dFM056VTBPVE15T0dFeU16WXpOakU0WVRFek9EWXhOamRoTVdVNFpqYz06
Content-Type: application/json
```

```
{
  "access": "allow",
  "address": "10.96.158.3",
  "netmask": "255.255.255.255"
}

RESPONSE
HTTP/1.1 201 CREATED
Content-Length: 124
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

Realm-based Administrator Authorization Role Mapping to .Administrator Role

```
REQUEST

PUT /api/v1/configuration/administrators/admin-
realms/realm/AdminADRealm/role-mapping-rules HTTP/1.1
Host: 10.209.114.228
Authorization: Basic
TldVNF16TmtOVEZqTkRFek1EUXdPVGRoTlRrMk9UWTBaR0l3TkRnM1ptST06
Content-Type: application/json
{
  "user-selects-role": "false",
  "rule": [
    {
      "roles": [
        ".Administrators"
      ],
      "stop-rules-processing": "true",
      "group": {
        "group-names": [
```

```

        "PCS-QA/systems"
    ],
    {
        "name": "AdminADRoleMapping"
    }
],
"user-selects-roleset": "false"
}

```

RESPONSE

HTTP/1.1 200 OK

Content-Length: 124

Content-Type: application/json

```

{
    "result": {
        "info": [
            {
                "message": "Operation succeeded without warning or
error!"
            }
        ]
    }
}

```

Specifying Session Validity for REST Admin Session

REQUEST

PUT /api/v1/configuration/administrators/admin-roles/admin-role/%2EAdministrators/general/session-options HTTP/1.1

Host: 10.209.114.228

Authorization: Basic TldVNF16TmtOVEZqTkRFek1EUxdPVGRoTlRrMk9UWTBaR013TkRnM1ptST06

Content-Type: application/json

```

{
    "idle-timeout": "5"
}

```

RESPONSE

HTTP/1.1 200 OK

Content-Length: 124

Content-Type: application/json

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without
warning or error!"
      }
    ]
  }
}
```

Getting Active Directory Search Groups

REQUEST

```
GET /api/v1/configuration/authentication/auth-servers/auth-
server/ADServer/ad/server-catalog/groups HTTP/1.1
Host: 10.209.116.192
Authorization: Basic
RU9jaHYwdmlqVnJibDBqeE9obTlYZDVOdHhVS2FMesttVzBqL1pKUXh6bz06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 294
Content-Type: application/json
{
  "ad-group": [
    {
      "group": "PCS-QA/core",
      "name": "PCS-QA/core",
      "sid": "S-1-5-21-3875260349-1888520165-453808128-1112"
    },
    {
      "group": "PCS-QA/systems",
      "name": "PCS-QA/systems",
      "sid": "S-1-5-21-3875260349-1888520165-453808128-1108"
    }
  ]
}
```

Adding Search Group to Active Directory

REQUEST

```
PUT /api/v1/configuration/authentication/auth-servers/auth-
server/ADServer/ad/server-catalog/groups HTTP/1.1
Host: 10.209.116.192
Authorization: Basic
RU9jaHYwdmlqVnJibDBqeE9obTlYZDVOdHhVS2FMeSttVzBqLlpKUXh6bz06
Content-Type: application/json
{
  "ad-group": [
    {
      "group": "PCS-QA/systems",
      "name": "PCS-QA/systems"
    },
    {
      "group": "PCS-QA/core",
      "name": "PCS-QA/core"
    }
  ]
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 124
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or error!"
      }
    ]
  }
}
```

Updating Active Directory Group

NOTE: To update a group, first get already available list using GET operation and append new group to it before PUT.

REQUEST

```
PUT /api/v1/configuration/authentication/auth-servers/auth-
server/ADServer/ad/server-catalog/groups HTTP/1.1
Host: 10.209.116.192
Authorization: Basic
RU9jaHYwdmlqVnJibDBqeE9obTlYZDVodHhVS2FMeSttVzBqL1pKUXh6bz06
Content-Type: application/json
{
  "ad-group": [
    {
      "group": "PCS-QA/core",
      "name": "PCS-QA/core",
      "sid": "S-1-5-21-3875260349-1888520165-453808128-1112"
    },
    {
      "group": "PCS-QA/systems",
      "name": "PCS-QA/systems",
      "sid": "S-1-5-21-3875260349-1888520165-453808128-1108"
    },
    {
      "group": "PCS-QA/client",
      "name": "PCS-QA/client",
      "sid": "S-1-5-21-3875260349-1888520165-453808128-1113"
    }
  ]
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 124
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

```

    }
  ]
}
}

```

Deleting Active Directory Groups

REQUEST

```

PUT /api/v1/configuration/authentication/auth-servers/auth-
server/ADServer/ad/server-catalog/groups HTTP/1.1
Host: 10.209.116.192
Authorization: Basic
RU9jaHYwdmlqVnJibDBqeE9obTlYZDVOdHhVS2FMeSttVzBqL1pKUXh6bz06
Content-Type: application/json
{
  "ad-group": [
  ]
}

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Length: 124
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}

```

Getting All LDAP Group List

REQUEST

```

GET /api/v1/configuration/authentication/auth-servers/auth-
server/LDAPServer/ldap/server-catalog/groups HTTP/1.1
Host: 10.209.116.192

```



```

Authorization: Basic
RU9jaHYwdmlqVnJibDBqeE9obTlYZDVOdHhVS2FMeSttVzBqLlpKUXh6bz06
Content-Type: application/json

```

Adding Groups to LDAP

REQUEST

```

PUT /api/v1/configuration/authentication/auth-servers/auth-
server/LDAPServer/ldap/server-catalog/groups HTTP/1.1
Host: 10.209.116.192
Authorization: Basic
RU9jaHYwdmlqVnJibDBqeE9obTlYZDVOdHhVS2FMeSttVzBqLlpKUXh6bz06
Content-Type: application/json
{
  "user-group": [
    {
      "dn": "CN=Administrators,CN=Builtin,DC=pcs-
qa,DC=blrlab,DC=net",
      "group-type": "static",
      "name": "Administrators"
    },
    {
      "dn": "CN=Users,CN=Builtin,DC=pcs-qa,DC=blrlab,DC=net",
      "group-type": "static",
      "name": "Users"
    }
  ]
}

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Length: 124
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}

```

}

Updating LDAP Source Group

NOTE: To update a group, first get already available list using GET operation and append new group to it and then perform PUT operation.

REQUEST

```
PUT /api/v1/configuration/authentication/auth-servers/auth-
server/LDAPServer/ldap/server-catalog/groups HTTP/1.1
Host: 10.209.116.192
Authorization: Basic
RU9jaHYwdmlqVnJibDBqeE9obTlYZDVODhVS2FMeSttVzBqL1pKUXh6bz06
Content-Type: application/json
{
  "user-group": [
    {
      "dn": "CN=Administrators,CN=Builtin,DC=pcs-
qa,DC=blrlab,DC=net",
      "group-type": "static",
      "name": "Administrators"
    },
    {
      "dn": "CN=Users,CN=Builtin,DC=pcs-qa,DC=blrlab,DC=net",
      "group-type": "static",
      "name": "Users"
    },
    {
      "dn": "CN=Guests,CN=Builtin,DC=pcs-qa,DC=blrlab,DC=net",
      "group-type": "static",
      "name": "Guests"
    }
  ]
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 124
Content-Type: application/json
{
  "result": {
```

```

        "info": [
            {
                "message": "Operation succeeded without warning or
error!"
            }
        ]
    }
}

```

Deleting LDAP Source Group

REQUEST

```

PUT /api/v1/configuration/authentication/auth-servers/auth-
server/LDAPServer/ldap/server-catalog/groups HTTP/1.1
Host: 10.209.116.192
Authorization: Basic
RU9jaHYwdmlqVnJibDBqeE9obTlYZDVOdHhVS2FMeSttVzBqL1pKUXh6bz06
Content-Type: application/json
{
    "user-group": [
    ]
}

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Length: 124
Content-Type: application/json
{
    "result": {
        "info": [
            {
                "message": "Operation succeeded without warning or
error!"
            }
        ]
    }
}

```

Creating a Cluster

REQUEST

```
PUT /api/v1/cluster HTTP/1.1
Host: 10.209.114.228
Authorization: Basic
TldVNF16TmtOVEZqTkRFek1EUXdPVGRoTlRrMk9UWTBaR0l3TkRnM1ptST06
Content-Type: application/json
{
  "cluster-name": "cluster1",
  "cluster-password": "dana123",
  "member-name": "nodeA",
  "action": "create"
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 118
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Created cluster
'cluster1' successfully"
      }
    ]
  }
}
```

Adding a Member to Cluster

REQUEST

```
POST /api/v1/cluster/members HTTP/1.1
Host: 10.209.116.214
Authorization: Basic
THI5bmXreU50UE04MWJ6OHRhbjhFMWlPYTVuV3V5MG5XN0oyNmNWcTRhbz06
Content-Type: application/json
{
  "member-name" : "node225",
```

```

    "member-ip" : "3.209.114.225",
    "member-netmask" : "255.0.0.0",
    "member-gateway" : "3.0.0.1",
    "member-external-ip" : "2.209.114.225",
    "member-external-netmask" : "255.0.0.0",
    "member-external-gateway" : "2.0.0.1"
  }
}

RESPONSE
HTTP/1.1 200 OK
Content-Length: 125
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Added member 'node225' to cluster successfully"
      }
    ]
  }
}

```

Getting Cluster Status

```

REQUEST
GET /api/v1/cluster HTTP/1.1
Host: 10.209.114.228
Authorization: Basic
TWN2cUEzbFRYQXcySjBSbGpKWTazdk1oa2RiTDFLUVJDUjNNdlQ0U1RJdz06
Content-Type: application/json

RESPONSE
HTTP/1.1 200 OK
Content-Length: 619
Content-Type: application/json
{
  "members": [
    {
      "enabled": true,
      "external-ip": "",

```

```

        "external-network": "",
        "internal-ip": "3.209.114.225",
        "internal-netmask": "255.0.0.0",
        "name": "node225",
        "notes": "Enabled, Unreachable",
        "status-code": "0x18"
    },
    {
        "enabled": true,
        "external-ip": "10.209.114.194",
        "external-network": "255.255.240.0",
        "internal-ip": "3.209.114.228",
        "internal-netmask": "255.0.0.0",
        "name": "nodeA",
        "notes": "Leader",
        "status-code": "0x19004"
    }
],
"mode": "Active/Active",
"name": "cluster1"
}
{
    "external-vip-ipv4": "10.204.56.76",
    "external-vip-owner": "node-51-39",
    "internal-vip-ipv4": "10.204.56.75",
    "internal-vip-owner": "node-51-39",
    "members": [
        {
            "enabled": true,
            "external-ip": "10.204.56.82",
            "external-netmask": "255.255.240.0",
            "internal-ip": "10.204.51.39",
            "internal-netmask": "255.255.240.0",
            "name": "node-51-39",
            "notes": "Leader",
            "status-code": "0x1b004"
        },
        {
            "enabled": true,

```

```

        "external-ip": "10.204.56.87",
        "external-netmask": "255.255.240.0",
        "internal-ip": "10.204.56.88",
        "internal-netmask": "255.255.240.0",
        "name": "Node-something",
        "notes": "Enabled, Unreachable",
        "status-code": "0x18"
    }
],
"mode": "Active/Passive",
"name": "TEST-CLUSTER"
}

```

Deleting Cluster Member

REQUEST

```

DELETE /api/v1/cluster/members/node225 HTTP/1.1
Host: 10.209.114.228
Authorization: Basic
TWN2cUEzbFRyQXcySjBSbGpKWTazdkloa2RiTDFLUVJDUjNNdlQ0U1RJdz06
Content-Type: application/json

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Length: 129
Content-Type: application/json
{
    "result": {
        "info": [
            {
                "message": "Removed member 'node225'
from cluster successfully"
            }
        ]
    }
}

```

Getting Health Check Status

REQUEST

```
GET /api/v1/system/healthcheck
Host: 10.209.114.228
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Type: application/json
{
  "message": "Security Gateway is accessible."
}
```

REQUEST

```
GET /api/v1/system/healthcheck?status=all HTTP/1.1
Host: 10.209.114.228
Content-Type: application/json
```

RESPONSE

```
Content-Type: application/json
{
  "CPU-UTILIZATION4": 8,
  "SSL-CONNECTION-COUNT": 0,
  "MAX-LICENSED-USERS-REACHED": "NO",
  "SWAP-UTILIZATION": 1,
  "DISK-UTILIZATION": -1,
  "USER-COUNT": 0,
  "VPN-TUNNEL-COUNT": 0
}
```

REQUEST

```
GET /api/v1/system/healthcheck?status=sbr HTTP/1.1
Host: 10.209.114.228
Content-Type: application/json
```

RESPONSE

```
Content-Type: application/json
{
  "SBR-AVAILABLE": 1
}
```


Joining a Cluster

REQUEST

```
PUT /api/v1/cluster HTTP/1.1
Host: 10.209.114.228
Authorization: Basic
SkUyVlBaVjRjcGxleElRMnNiZXpYajE2dEVIUm9Oa05WWDdRWHh3MmpJZz06
Content-Type: application/json
{
  "cluster-name": "cluster",
  "cluster-password": "dana123",
  "member-address": "3.209.114.225",
  "action": "join"
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 116
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Joined cluster 'cluster' successfully"
      }
    ]
  }
}
```

VIP Failover

REQUEST

```
PUT /api/v1/cluster
Host: 10.209.114.228
Authorization: Basic
SkUyVlBaVjRjcGxleElRMnNiZXpYajE2dEVIUm9Oa05WWDdRWHh3MmpJZz06
Content-Type: application/json
{
  "action": "vip-failover"
}
```

RESPONSE

In case of active-passive cluster:

```
{
  "result": {
    "info": [
      {
        "message": "VIP fail-over initiated"
      }
    ]
  }
}
```

In case of active-active cluster:

```
{
  "result": {
    "info": [
      {
        "message": "Node not part of an Active-Passive cluster.
Invalid operation."
      }
    ]
  }
}
```

Configuring IF MAP Server

REQUEST

PUT /api/v1/configuration/system/ifmap/overview/ifmap-config/

Host: xx.xxx.xxx.xxx

Authorization: Basic

SkUyVlBaVjRjcGxleElRMnNiZXpYajE2dEVIUm9Oa05WWDdRWWh3MmpJZz06

Content-Type: application/json

```
{
  "ifmap-config": " server "
}
```

RESPONSE

HTTP/1.1 200 OK

Content-Length: 116

Content-Type: application/json

```
{
```

```

    "result": {
      "info": [
        {
          "message": ": "Operation succeeded without warning or
error!"
        }
      ]
    }
  }
}

```

Configuring IF MAP Client

REQUEST

```

PUT /api/v1/configuration/system/ifmap/overview/ifmap-config/
Host: xx.xxx.xxx.xxx
Authorization: Basic
SkUyVlBaVjRjcGxleElRMnNiZXpYajE2dEVIUm9Oa05WWDdRWWh3MmpJZz06
Content-Type: application/json
{
  "auth-type": "basic",
    "cert": "None",
    "ifmap-config": "client",
    "password-encrypted":
"3u+UR6n8AgABAAAAe9Px2XELrbvvAZACcoOJXBM1051lgG8QQLNr4hcLNrE=",
    "server-url": "https://<PPS-IP-Address>/dana-ws/soap/dsifmap",
    "username": "admin1"
  }
  {
    "auth-type": "cert",
    "cert": "xx.xxx.xx.xx",
    "ifmap-config": "client",
    "password-encrypted":
"3u+UR6n8AgABAAAAe9Px2XELrbvvAZACcoOJXBM1051lgG8QQLNr4hcLNrE=",
    "server-url": "https://<PPS-IP_Address>/dana-ws/soap/dsifmap",
    "username": "admin1"
  }
}

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Length: 116

```

```

Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": ": "Operation succeeded without warning or
error!"
      }
    ]
  }
}

```

Configuring No IF MAP Server

REQUEST

```

PUT /api/v1/configuration/system/ifmap/overview/ifmap-config/
Host: xx.xxx.xxx.xxx
Authorization: Basic
SkUyVlBaVjRjcGxleElRMnNiZXpYajE2dEVIUm9Oa05WWDdRWWh3MmpJZz06
Content-Type: application/json
{
  "ifmap-config": "no-ifmap"
}

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Length: 116
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": ": "Operation succeeded without warning or
error!"
      }
    ]
  }
}

```

Getting Config Without Pulse Packages (ESAP and Pulse Client Packages)

REQUEST

```
GET /api/v1/configuration/authentication/endpoint/host-
checker/esaps?expand=&&excludePulsePackages HTTP/1.1
Host: 10.209.125.139
Authorization: Basic
dS9UOURJRWswZzVyMTdieUJqVnhaQnExZUpTTW9ndCtIdGZzMnczMmlzRT06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Length: 561
Content-Type: application/json
{
  "active-version": "3.3.5",
  "default-version": "3.3.5",
  "esap": [
    {
      "esap-version": "3.3.5",
      "last-activated-time": "Sun 17 Mar 2019 23:54:12
PDT",
      "upload-time": "Sun 17 Mar 2019 23:53:35 PDT"
    },
    {
      "esap-version": "3.3.6",
      "last-activated-time": "Never",
      "upload-time": "Mon 18 Mar 2019 21:45:31 PDT"
    },
    {
      "esap-version": "3.3.7",
      "last-activated-time": "Never",
      "upload-time": "Mon 18 Mar 2019 21:46:12 PDT"
    }
  ],
  "force-same-esap": "false",
  "opswat-sdk-version": "4"
}
```

Backing Up Binary Configuration

REQUEST

```
GET /api/v1/system/binary-configuration HTTP/1.1
Host: 10.204.51.39
Authorization: Basic
dS9UOURJRWswZzVyMTdieUJqVnhaQnExZUpTTW9ndCtIdGZzMnczMmlzRT06
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=utf-8
Content-Length: 50753630
UESDBBQAAAAIAE9VmU4J1asqz3cDAKx3AwAKABwAc3lzdGVtLmNmZ1VUCQADvUHB
XL1BwVx1eAsAAQQAAAAABAAAAAAC4D0fwnTma1OLV2XgACOdWMAINEfP2AuIVXV
B1FhtptLC259gyNPT7WwhtQKbp2Y2+dlh1MTflQis8wbHytXP19D+SM+amX5UKeO
GDUggxgbrEQMXmwOSv8YBrvXIBShmGO5BVqfUemvdNK3OB+S/g8+LIPG5i2c3LVm
W8hY3PLQ9CJHMrFSBftgyTX2at85MGCsupxd2gOQQ9e138KrI2hBoywDzCJiRUSU
...
```

Restoring Binary Configuration (import=normal)

The import normal mode will import the binary configuration excluding the IP, network configurations and cluster configuration. The normal mode is similar to default option in binary import.

REQUEST

```
PUT /api/v1/system/binary-configuration?import=normal HTTP/1.1
Or
PUT /api/v1/system/binary-configuration HTTP/1.1
Host: 10.204.51.39
Authorization: Basic
dS9UOURJRWswZzVyMTdieUJqVnhaQnExZUpTTW9ndCtIdGZzMnczMmlzRT06
Content-Type: text/html; charset=utf-8
```

RESPONSE

```
HTTP/1.1 200 OK
{
  "result": {
    "info": [
      {
        "message": "Operation successfully completed."
      }
    ]
  }
}
```

```

    }
  }
Error Cases:
import mode specified is incorrect (other than normal or full)
Content-Length: 100
Content-Type: application/json
{
  "result": {
    "errors": [
      {
        "message": "Invalid import mode"
      }
    ]
  }
}
Content type is not a base 64 encoded binary configuration string
Content-Length: 126
Content-Type: application/json
{
  "result": {
    "errors": [
      {
        "message": "Error - Failed to extract configuration files"
      }
    ]
  }
}

```

Restoring Binary Configuration (import=full)

The import full mode will import everything from the binary configuration provided in the body. This is similar to full binary import.

REQUEST

```

PUT /api/v1/system/binary-configuration?import=full HTTP/1.1
Host: 10.204.51.39
Authorization: Basic
dS9UOURJRWswZzVyMTdieUJqVnhaQnExZUpTTW9ndCtIdGZzMnczMmlzRT06
Content-Type: text/html; charset=utf-8
Body data:
Base64 configuration string as received in GET request)

```

```
UESDBBQAAAAIAE9VmU4J1asqz3cDAKx3AwAKABwAc3lzdGVtLmNmZ1VUCQADvUHB
XL1BwVx1eAsAAQQAAAAABAAAAAAC4D0fwnTMa1OLV2XgACOdwMAINEfP2AuIVXV
B1FhtptLC259gyNPT7WwhtQKbp2Y2+dlh1MTflQis8wbHytXP19D+SM+amX5UKeO
GDUggxgbrEQMXmwOSv8YBrvXIBShmGO5BVqfUemvdNK3OB+S/g8+LIPG5i2c3LVm
```

.....

RESPONSE

HTTP/1.1 200 OK

Content-Length: 112

Content-Type: application/json

```
{
  "result": {
    "info": [
      {
        "message": "Operation successfully completed."
      }
    ]
  }
}
```

Error Cases:

import mode specified is incorrect (other than normal or full)

Content-Length: 100

Content-Type: application/json

```
{
  "result": {
    "errors": [
      {
        "message": "Invalid import mode"
      }
    ]
  }
}
```

Content type is not a base 64 encoded binary configuration string

Content-Length: 126

Content-Type: application/json

```
{
  "result": {
    "errors": [
      {
        "message": "Error - Failed to extract configuration files"
      }
    ]
  }
}
```



```
    ]  
  }  
}
```

PCS-Specific Configurations Using REST APIs

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Creating a VLAN

To create a VLAN on a cluster node:

REQUEST

POST /api/v1/configuration/system/network/vlans/Node88/vlan/ HTTP/1.1

Host: 10.209.113.88

Authorization: Basic

MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

Content-Type: application/json

```
{
  "arp-cache": {
    "arp-entry": []
  },
  "name": "vlan-int-1",
  "routes": {
    "route": []
  },
  "settings": {
    "default-gateway": "2.0.0.1",
    "default-vlan-interface": "false",
    "enable-ipv6": "enabled",
    "ip-address": "2.2.2.2",
    "ipv6-address": "fc00:7777:5678:5678::222",
    "ipv6-default-gateway": "fc00:7777:5678:5678::3",
    "ipv6-prefix-length": "64",
    "is-enabled": "enabled",
    "netmask": "255.0.0.0",
    "vlan-id": "2",
    "vlan-parent": "0"
  },
  "virtual-ports": {
    "virtual-port": []
  }
}
```

RESPONSE

```

HTTP/1.1 201 CREATED
Content-Length: 128
Content-Type: application/json
{
  "result": {
    "warnings": [
      {
        "message": "The configuration has been implicitly changed"
      }
    ]
  }
}

```

Deleting a VLAN

To delete a VLAN from cluster node:

REQUEST

```

DELETE /api/v1/configuration/system/network/vlans/Node88/vlan/vlan-int-1
HTTP/1.1

Host: 10.209.113.88

Authorization: Basic
MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

Content-Type: application/json

```

RESPONSE

```

HTTP/1.1 204 NO CONTENT

Content-Length: 0

Content-Type: application/json

```

Creating a User Role

To create a user role:

REQUEST

```

POST /api/v1/configuration/users/user-roles/user-role/ HTTP/1.1

Host: 10.209.113.88

Authorization: Basic

```

```
MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06
```

```
Content-Type: application/json
```

```
{
  "name": "rest-userrole-4",
  "web": {
    "web-bookmarks": {
      "bookmark": [
        {
          "auto-allow": "disable",
          "description": "",
          "name": "web-bm-1",
          "new-window": "false",
          "no-address-bar": "false",
          "no-tool-bar": "false",
          "parent": "--none--",
          "standard": {
            "url": "http://www.msn.com"
          }
        }
      ]
    },
    "web-options": {
      "browsing-untrusted-sslsites": "true",
      "flash-content": "false",
      "hpxproxy-connection-timeout": "1800",
      "http-connection-timeout": "240",
      "java-applets": "true",
      "mask-hostname": "false",
      "persistent-cookies": "false",
      "rewrite-file-urls": "false",
      "rewrite-links-pdf": "false",
      "unrewritten-page-newwindow": "false",
      "user-add-bookmarks": "false",
```

```

        "user-enter-url": "false",
        "users-bypass-warnings": "false",
        "warn-certificate-issues": "true",
        "websocket-connection-timeout": "900"
    }
}
}

```

RESPONSE

HTTP/1.1 201 CREATED

Content-Length: 122

Content-Type: application/json

```

{
    "result": {
        "info": [
            {
                "message": "Operation succeed without
warning or error!"
            }
        ]
    }
}

```

Fetching the User Login Statistics

To fetch the user login statistics:

REQUEST

GET /api/v1/system/user-stats HTTP/1.1

Host: 10.209.113.88

Authorization: Basic
MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

Content-Type: application/json

RESPONSE

HTTP/1.1 200 OK

Content-Length: 169

Content-Type: application/json

```

{
    "user-stats": {

```

```

        "allocated-user-count": "25",
        "current-user-count": "0",
        "max-active-user-count-24hrs": "1",
        "min-active-user-count-24hrs": "0"
    }
}

```

Updating the User Role Settings

To update the user role settings:

REQUEST

```

PUT /api/v1/configuration/users/user-roles/user-role/rest-userrole-4
HTTP/1.1

```

Host: 10.209.113.88

Authorization: Basic

MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

Content-Type: application/json

```

{
    "name": "rest-userrole-4",
    "web": {
        "web-bookmarks": {
            "bookmark": [
                {
                    "auto-allow": "disable",
                    "description": "",
                    "name": "web-bm-1",
                    "new-window": "false",
                    "no-address-bar": "false",
                    "no-tool-bar": "false",
                    "parent": "--none--",
                    "standard": {
                        "url": "http://www.yahoo.com"
                    }
                }
            ]
        }
    }
}

```

```

    },
    "web-options": {
        "browsing-untrusted-sslsites": "true",
        "flash-content": "false",
        "hpxproxy-connection-timeout": "1800",
        "http-connection-timeout": "240",
        "java-applets": "true",
        "mask-hostname": "false",
        "persistent-cookies": "false",
        "rewrite-file-urls": "false",
        "rewrite-links-pdf": "false",
        "unrewritten-page-newwindow": "false",
        "user-add-bookmarks": "false",
        "user-enter-url": "false",
        "users-bypass-warnings": "false",
        "warn-certificate-issues": "true",
        "websocket-connection-timeout": "900"
    }
}
}
}
}
}
}
}

```

RESPONSE

HTTP/1.1 200 OK

Content-Length: 122

Content-Type: application/json

```

{
    "result": {
        "info": [
            {
                "message": "Operation succeed without warning or
error!"
            }
        ]
    }
}

```



```

    }
}

```

Deleting a User Role

To delete a user role:

REQUEST

```
DELETE /api/v1/configuration/users/user-roles/user-role/rest-userrole-4
HTTP/1.1
```

Host: 10.209.113.88

Authorization: Basic

MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

Content-Type: application/json

RESPONSE

HTTP/1.1 204 NO CONTENT

Content-Length: 0

Content-Type: application/json

Creating a User Realm

To create a user realm:

REQUEST

```
POST /api/v1/configuration/users/user-realms/realm/ HTTP/1.1
```

Host: 10.209.113.88

Authorization: Basic

MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

Content-Type: application/json

```

{
  "accounting-server": "None",
  "authentication-group": "",
  "authentication-policy": {
    "browser": {
      "customized": "any-user-agent",
      "user-agent-patterns": {
        "user-agent-pattern": []
      }
    }
  }
}

```

```

    },
    "certificate": {
        "cert-key-value-pairs": {
            "cert-key-value-pair": []
        },
        "customized": "allow-all-users"
    },
    "host-checker": {
        "enforce-all-policies": "false",
        "enforce-policy-list": null,
        "evaluate-all-policies": "false",
        "evaluate-logic": "all-policies-must-succeed",
        "evaluate-policy-list": null
    },
    "limits": {
        "guaranteed-minimum": null,
        "limit-concurrent-users": "false",
        "max-sessions-per-user": "1",
        "maximum": null
    },
    "password": {
        "primary-password-expiration-warning-days": "14",
        "primary-password-management": "true",
        "primary-password-minimum-length": "4",
        "primary-password-restricted": "allow-passwords-of-minimum-
length",
        "secondary-password-expiration-warning-days": "14",
        "secondary-password-management": "false",
        "secondary-password-minimum-length": "4",
        "secondary-password-restricted": "allow-passwords-of-minimum-
length"
    },
    "source-ip": {
        "customized": "any-ip",

```

```

        "ips": {
            "ip": []
        }
    },
    "authentication-server": "AD server",
    "description": "",
    "device-server": "None",
    "directory-server": "AD server",
    "dynamic-policy": {
        "dynamic-policy-evaluation": "false",
        "refresh-interval": "60",
        "refresh-policies": "false",
        "refresh-roles": "false"
    },
    "editing-description": "false",
    "inbound-ifmap-attributes": "false",
    "migration-sharing-type": "enable-session-migration",
    "name": "rest-user-realm",
    "role-mapping-rules": {
        "rule": [
            {
                "name": "rest-admin-rule",
                "roles": [
                    "test1"
                ],
                "stop-rules-processing": "false",
                "user-name": {
                    "test": "is",
                    "user-names": [
                        "user1"
                    ]
                }
            }
        ]
    }
}

```

```

        }
    ],
    "user-selects-role": "false",
    "user-selects-roleset": "false"
},
"secondary-authentication-settings": {
    "authentication-must-succeed": "true",
    "name": "-",
    "password-input": "user",
    "predefined-password": "",
    "predefined-user-name": "",
    "user-name-input": "user"
},
"session-migration": "false"
}

```

RESPONSE

HTTP/1.1 201 CREATED

Content-Length: 122

Content-Type: application/json

```

{
    "result": {
        "info": [
            {
                "message": "Operation succeed without warning or error!"
            }
        ]
    }
}

```

Deleting a User Realm

To delete a user realm:

REQUEST

```
DELETE /api/v1/configuration/users/user-realms/realm/rest-user-realm
HTTP/1.1
```

```
Host: 10.209.113.88
```

```
Authorization: Basic
```

```
MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06
```

```
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
```

```
Content-Length: 0
```

```
Content-Type: application/json
```

Creating a Resource Profile

To create a web resource profile:

REQUEST

```
POST /api/v1/configuration/users/resource-profiles/web-profiles/web-
profile/ HTTP/1.1
```

```
Host: 10.209.113.88
```

```
Authorization: Basic
```

```
MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06
```

```
Content-Type: application/json
```

```
{
  "custom": {
    "bookmarks": {
      "bookmark": [
        {
          "apply": "all",
          "description": "",
          "name": "web-resourceprofile",
          "new-window": "false",
          "no-address-bar": "false",
          "no-tool-bar": "false",
```

```

        "roles": null,
        "url": "http://www.google.com"
    }
]
},
"client-authentication": [],
"java-acl": [],
"rewriting-options": {
    "ptp": [],
    "selective-rewriting": "false",
    "use-jsam": [],
    "use-wsam": []
},
"sso-basic-ntlm-kerberos": [],
"sso-header": [],
"sso-post": [],
"url": "http://www.google.com",
"web-compression": [],
"webacl": [
    {
        "rules": {
            "rule": [
                {
                    "action": "allow",
                    "name": "Allow http://www.google.com:80/*",
                    "resource": "http://www.google.com:80/*"
                }
            ]
        }
    }
],
"webcaching": []
},

```

```

    "description": "",
    "name": "web-resourceprofile",
    "roles": [
        "rest-userrole-3"
    ]
}

```

RESPONSE

HTTP/1.1 201 CREATED

Content-Length: 128

Content-Type: application/json

```

{
    "result": {
        "warnings": [
            {
                "message": "The configuration has been implicitly changed"
            }
        ]
    }
}

```

Deleting a Resource Profile

To delete a web resource profile:

REQUEST

DELETE /api/v1/configuration/users/resource-profiles/web-profiles/web-profile/web-resourceprofile HTTP/1.1

Host: 10.209.113.88

Authorization: Basic
MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

Content-Type: application/json

RESPONSE

HTTP/1.1 204 NO CONTENT

Content-Length: 0

Content-Type: application/json

Creating a Resource Policy

To create a web resource policy:

REQUEST

```
POST /api/v1/configuration/users/resource-policies/web-policies/web-acls/web-acl/ HTTP/1.1
```

```
Host: 10.209.113.88
```

```
Authorization: Basic
```

```
MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06
```

```
Content-Type: application/json
```

```
{
  "action": "allow",
  "apply": "selected",
  "description": "",
  "name": "web-acl-policy",
  "parent-type": "none",
  "resources": [
    "1.1.1.1:80,443/*"
  ],
  "roles": [
    "rest-userrole-1"
  ],
  "rules": {
    "rule": []
  }
}
```

RESPONSE

```
HTTP/1.1 201 CREATED
```

```
Content-Length: 122
```

```
Content-Type: application/json
```

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeed without warning or error!"
      }
    ]
  }
}
```



```

    }
  ]
}
}

```

Fetching a Resource Policy

To fetch a web resource policy:

REQUEST

```
GET /api/v1/configuration/users/resource-policies/web-policies/web-
acls/web-acl/name=web-acl-policy,parent-type=none HTTP/1.1
```

Host: 10.209.113.88

Authorization: Basic

MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

Content-Type: application/json

RESPONSE

HTTP/1.1 200 OK

Content-Length: 245

Content-Type: application/json

```

{
  "action": "allow",
  "apply": "selected",
  "description": "",
  "name": "web-acl-policy",
  "parent-type": "none",
  "resources": [
    "1.1.1.1:80,443/*"
  ],
  "roles": [
    "rest-userrole-1"
  ],
  "rules": {
    "rule": []
  }
}

```

Deleting a Resource Policy

To delete a web resource policy:

REQUEST

```
DELETE /api/v1/configuration/users/resource-policies/web-policies/web-acls/web-acl/name=web-acl-policy,parent-type=none HTTP/1.1
```

Host: 10.209.113.88

Authorization: Basic

MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

Content-Type: application/json

RESPONSE

HTTP/1.1 204 NO CONTENT

Content-Length: 0

Content-Type: application/json

Creating an AD Authentication Server

REQUEST

```
POST /api/v1/configuration/authentication/auth-servers/auth-server HTTP/1.1
```

Host: 10.209.114.152

Authorization: Basic

QmJYZlZ6eER2Tzhodjh4NzhlU28vU1NNZ0tHelJUUHhsbC9pdjcrZlRxcz06

Content-Type: application/json

```
{
  "ad": {
    "server-catalog": {
      "custom-variables": {
        "custom-variable": []
      },
      "expressions": {
        "custom-expression": []
      },
      "groups": {
        "ad-group": []
      }
    },
    "settings": {
```

```

        "additional-options": {
            "allow-trusted-domains": "false",
            "change-machine-password-after-every": "0",
            "enable-ntlm-protocol": "true",
            "enable-periodic-password-change-of-machine-account":
"false",
            "kerberos": "true",
            "max-domain-connections": "5",
            "ntlm-protocol": "ntlmv2"
        },
        "container-name": "Computers",
        "domain": "TEST",
        "kerberos-realm": "TEST.SAQACERTSERV.COM",
        "nodenames": [
            {
                "computer-name": "0332MWK0NRP111",
                "machine-hardware-id": "0332MOGWK0NRP111S",
                "node": "localhost2"
            }
        ],
        "password-encrypted":
"3u+UR6n8AgABAAAyCaUPKhCg3J/y46bhB4wz6mnupQH0oTHOTfTexJxP2k=",
        "save-credentials": "true",
        "username": "Administrator"
    }
},
    "logical-name": "",
    "name": "AD-Server",
    "user-record-sync": "false"
}

```

RESPONSE

HTTP/1.1 201 CREATED

Content-Length: 128

Content-Type: application/json

```

{
  "result": {
    "warnings": [
      {
        "message": "The configuration has been implicitly changed"
      }
    ]
  }
}

```

```

    }
}

```

Deleting an AD Authentication Server

REQUEST

```
DELETE /api/v1/configuration/authentication/auth-servers/auth-server/AD-Server HTTP/1.1
```

```
Host: 10.209.114.152
```

```
Authorization: Basic
```

```
QmJYZlZ6eER2Tzhodjh4NzhlU28vU1NNZ0tHelJJUHhsbC9pdjcrZlRxcz06
```

```
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
```

```
Content-Length: 0
```

```
Content-Type: application/json
```

Creating an LDAP Authentication Server

REQUEST

```
POST /api/v1/configuration/authentication/auth-servers/auth-server HTTP/1.1
```

```
Host: 10.209.114.152
```

```
Authorization: Basic
```

```
QmJYZlZ6eER2Tzhodjh4NzhlU28vU1NNZ0tHelJJUHhsbC9pdjcrZlRxcz06
```

```
Content-Type: application/json
```

```

{
  "ldap": {
    "server-catalog": {
      "attributes": {
        "user-attribute": [
          {
            "name": "cn"
          },
          {
            "name": "department"
          },

```

```

        {
            "name": "departmentNumber"
        },
        {
            "name": "employeeNumber"
        },
        {
            "name": "o"
        },
        {
            "name": "ou"
        },
        {
            "name": "sAMAccountName"
        },
        {
            "name": "uid"
        },
        {
            "name": "homeDirectory"
        },
        {
            "name": "homeDrive"
        },
        {
            "name": "wWWHomePage"
        }
    ]
},
"custom-variables": {
    "custom-variable": []
},

```

```

    "expressions": {
        "custom-expression": []
    },
    "groups": {
        "user-group": []
    }
},
"settings": {
    "admin-dn":
"CN=Administrator,CN=Users,DC=test,DC=saqacertserv,DC=com",
    "admin-password-encrypted":
"3u+UR6n8AgABAAAQkYh+Te/ebXL7gSn+W6IEPOV2YFsaaikH2SVxkb8lTKzWhS1EPFlsNXBpuQP5sW
XfeOYfjmhQRSZ5DP/z9UhQ/l16DDne9/u7Lw67HyE/8Q=",
    "attribute-to-update-at-server": "",
    "attribute-type": "type-integer",
    "attribute-value-to-update-at-server": "<LOGINTIMELDAP>",
    "authentication-required-to-search-ldap": "true",
    "backup-port-1": null,
    "backup-port-2": null,
    "backup-server-1": "",
    "backup-server-2": "",
    "connection-timeout": "15",
    "connection-type": "plain",
    "enable-attribute-update-at-server": "false",
    "group-base-dn": "",
    "group-filter": "",
    "ldap-server-type": "active-directory",
    "meetings": {
        "email-address": "mail",
        "full-name": "displayname",
        "name-attribute-mapping": "",
        "user-name": "samaccountname"
    },
    "member-attribute": "",
    "nested-group-level": "0",
    "port": "389",
    "query-attribute": "",

```

```

        "reverse-group-search": "false",
        "search-timeout": "60",
        "server": "10.209.124.88",
        "server-catalog": "catalog",
        "test-user-dn": "",
        "user-base-dn": "DC=test,DC=saqacertserv,DC=com",
        "user-filter": "samaccountname=<USER>",
        "validate-referral-cert": "verifyserverconfigured",
        "validate-server-cert": "false"
    }
},
"logical-name": "",
"name": "LDAP-Server",
"user-record-sync": "false"
}

```

RESPONSE

HTTP/1.1 201 CREATED

Content-Length: 128

Content-Type: application/json

```

{
  "result": {
    "warnings": [
      {
        "message": "The configuration has been implicitly changed"
      }
    ]
  }
}

```

Creating a Radius Server

REQUEST

```

POST /api/v1/configuration/authentication/auth-servers/auth-server
HTTP/1.1
Host: 10.209.114.152
Authorization: Basic
QmJYZlZ6eER2Tzhodjh4NzhlU28vU1NNZ0tHelJJUHhsbC9pdjcrZlRxcz06
Content-Type: application/json
{
  "logical-name": "",

```

```

"name": "Radius-Server",
"radius": {
  "server-catalog": {
    "attributes": {
      "user-attribute": []
    },
    "custom-variables": {
      "custom-variable": []
    },
    "expressions": {
      "custom-expression": []
    }
  },
  "settings": {
    "accounting-port": "1813",
    "authenticate-with-tokens-onetimepassword": "false",
    "authentication-port": "1812",
    "backup-accounting-port": "1813",
    "backup-authentication-port": "1812",
    "backup-server": "10.209.126.179",
    "backup-shared-secret-encrypted":
"3u+UR6n8AgABAAAA2Th1sUV9vXDS9gRdMt1yCB4Ol6tacMTwhWsTlIFd7Q4=",
    "custom-radius-rules": {
      "custom-radius-rule": []
    },
    "interim-update-interval": null,
    "load-balance-auth": "false",
    "nasid": "",
    "nasipaddr": "10.209.113.88",
    "process-radius-disconnect": "false",
    "retries": "0",
    "server": "10.209.126.179",
    "shared-secret-encrypted":
"3u+UR6n8AgABAAAA2Th1sUV9vXDS9gRdMt1yCB4Ol6tacMTwhWsTlIFd7Q4=",
    "timeout": "30",
    "use-nc-assigned-ip": "false",
    "use-subsession-interim-update": "false",
    "user-name": "<USER>(<REALM>)[<ROLE SEP=\\\",\\>]"
  }
},

```



```

    "user-record-sync": "false"
  }
}

RESPONSE
HTTP/1.1 201 CREATED
Content-Length: 128
Content-Type: application/json
{
  "result": {
    "warnings": [
      {
        "message": "The configuration has been implicitly changed"
      }
    ]
  }
}

```

Modifying Radius Server Details

```

REQUEST
PUT /api/v1/configuration/authentication/auth-servers/auth-
server/Radius-Server HTTP/1.1
Host: 10.209.114.152
Authorization: Basic
QmJYZlZ6eER2Tzhodjh4NzhlU28vU1NNZ0tHelJJUHhsbC9pdjcrZlRxcz06
Content-Type: application/json
{
  "name": "Radius-Server",
  "radius": {
    "settings": {
      "backup-accounting-port": "1814",
      "backup-authentication-port": "1816",
      "backup-server": "2.2.2.2"
    }
  }
}

RESPONSE
HTTP/1.1 200 OK
Content-Length: 128
Content-Type: application/json

```

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

Creating Sign-In-Policy

REQUEST

POST /api/v1/configuration/authentication/signin/urls/access-
urls/access-url/ HTTP/1.1

Host: 10.209.113.89

Authorization: Basic

MEthMXM0MmJraHpjYms0WFZCZ29Xb3k1Nk5NL3JqaDBwQ05iTmFhUlh5ST06

Content-Type: application/json

```
{
  "description": "",
  "enabled": "true",
  "page": "Default Sign-In Page",
  "realm-select": "pick-list",
  "url-pattern": "test/url3/",
  "user": {
    "enable-new-ux-pages": "false",
    "meeting-url": "*/meeting/",
    "post-authentication-signin-notification-id": "None",
    "post-authentication-signin-notification-skip": "false",
    "pre-authentication-signin-notification-id": "None",
    "realms": [
      "Users"
    ]
  }
}
```

RESPONSE

HTTP/1.1 201 CREATED

Content-Length: 128

Content-Type: application/json

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

Deleting Sign-in-Policy

REQUEST

DELETE /api/v1/configuration/authentication/signin/urls/access-
urls/access-url/test%5C%2Furl3%5C%2F HTTP/1.1

Host: 10.209.113.89

Authorization: Basic

MEthMXM0MmJraHpjYms0WFZCZ29Xb3k1Nk5NL3JqaDBwQ05iTmFhUlh5ST06

Cache-Control: no-cache

RESPONSE

HTTP/1.1 204 NO CONTENT

Content-Length: 0

Content-Type: application/json

Disabling Sign-in-URL

REQUEST

PUT /api/v1/configuration/authentication/signin/urls/access-urls/access-
url/test%5C%2Furl1%5C%2F/enabled HTTP/1.1

Host: 10.209.113.89

Authorization: Basic

MEthMXM0MmJraHpjYms0WFZCZ29Xb3k1Nk5NL3JqaDBwQ05iTmFhUlh5ST06

```
Content-Type: application/json
```

```
{
  "enabled": "false"
}
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
Content-Length: 128
```

```
Content-Type: application/json
```

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

Creating a Web Bookmark for a Role

To create a web bookmark for a role:

REQUEST

```
POST /api/v1/configuration/users/user-roles/user-role/rest-userrole-
1/web/web-bookmarks/bookmark HTTP/1.1
```

```
Host: 10.209.113.88
```

```
Authorization: Basic
```

```
MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06
```

```
Content-Type: application/json
```

```
Cache-Control: no-cache
```

```
{
  "auto-allow": "disable",
  "description": "",
  "name": "webbm",
  "new-window": "false",
  "no-address-bar": "false",
  "no-tool-bar": "false",
```

```

    "parent": "--none--",
    "standard": {
        "url": "http://www.yahoo.com"
    }
}

```

RESPONSE

```

HTTP/1.1 201 CREATED
Content-Length: 122
Content-Type: application/json
{
    "result": {
        "info": [
            {
                "message": "Operation succeed without warning or error!"
            }
        ]
    }
}

```

Reordering

For re-ordering existing ordered elements in the configuration, a PUT API can be used with an 'order' suffix. This API can be used to reorder any ordered element in the configuration including role-mapping-rules, resource policies and ACLs.

Example: Reorder existing role-mapping-rules in a specific realm.

REQUEST

```

PUT /api/v1/configuration/users/user-realms/realm/testRealm/role-
mapping-rules/rule/order HTTP/1.1
Host: 10.209.112.106
Authorization: Basic
Y1VPZE1XZ1ZubVEvVnIrcWwrd3lJY3F0Y05WTGhDVkx1M0wrkd5YR3hzVT06
Content-Type: application/json
{
    "rule": [
        {
            "href": "/api/v1/configuration/users/user-

```

```
realms/realm/testRealm/role-mapping-rules/rule/rule3"

    },
    {
        "href": "/api/v1/configuration/users/user-
realms/realm/testRealm/role-mapping-rules/rule/rule1"
    }
]
}
```

RESPONSE

HTTP/1.1 200 OK

content-length: 122

content-type: application/json

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeed without warning or error!"
      }
    ]
  }
}
```

Fetching the Resource with Multiple Identifiers

Example: Retrieve one of SNMP Trap server configured on PCS device

REQUEST

GET /api/v1/configuration/system/log/snmp/localhost2/trap-servers/trap-server/ip=1.1.1.1,port=162 HTTP/1.1

Host: 10.209.112.106

Authorization: Basic

T0o1dzVpK3g4U0dKV0d1TkJCdWlwVzREaUc0SjZvbkeXmVljc0RtNU14bz06

RESPONSE

HTTP/1.1 200 OK

content-length: 65

content-type: application/json

```
{
  "community": "public",
  "ip": "1.1.1.1",
  "port": "162"
}
```

Updating Resource Identified Using Multiple Identifiers

Example: Updating the community string for specific SNMP trap server identified by IP and port

REQUEST

```
PUT /api/v1/configuration/system/log/snmp/localhost2/trap-servers/trap-server/ip=1.1.1.1,port=162/community HTTP/1.1
```

```
Host: 10.209.112.106
```

```
Authorization: Basic
```

```
T0o1dzVpK3g4U0dKV0d1TkJCdWlwVzREaUc0SjZvbkeXmVljc0RtNU14bz06
```

```
Content-Type: application/json
```

```
{
  "community": "pulsesecure"
}
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
content-length: 122
```

```
content-type: application/json
```

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeed without warning or error!"
      }
    ]
  }
}
```

Fetching Active Number of HTML5 Sessions

REQUEST

```
GET /api/v1/stats/active-html5-sessions HTTP/1.1
```

```
Host: 10.96.116.40
```

```
Authorization: Basic
```

```
b1hBV3FaTktKQzhaOU5MNTNsLzJGQXZmNWZ1TGhFSUUyUlVJVDlaRnFVYz06
```

```
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
content-length: 32
```

```
content-type: application/json
```

```
{  
  "active-html5-sessions": 3  
}
```

Updating Password in Clear Text

Example: Updating password of System Local User.

REQUEST

```
PUT /api/v1/configuration/authentication/auth-servers/auth-server/System%20Local/local/users/user/user0001/password-cleartext HTTP/1.1
```

```
Host: 10.209.112.106
```

```
Authorization: Basic
```

```
T0o1dzVpK3g4U0dKV0d1TkJCdWlwVzREaUc0SjZvbKExMVljc0RtNU14bz06
```

```
Content-Type: application/json
```

```
{  
  "password-cleartext": "Psecure"  
}
```

RESPONSE

```
HTTP/1.1 200 OK
```



```

content-length: 128

content-type: application/json

{
  "result": {
    "warnings": [
      {
        "message": "The configuration has been implicitly changed"
      }
    ]
  }
}

```

Applying Authcode and Downloading Licenses from PCLS on VA-SPE|PSA-V

In PCS 8.3R4|PPS 5.4R4, this REST API can be used to download the license key from PCLS and install on the Virtual Appliance.

REQUEST

```

PUT /api/v1/license/auth-code HTTP/1.1
Host: 10.209.125.7
Authorization: Basic
TnBDUk1veFFFQTJKZjM0S2ZxV2JKUlhRaDJJaWGFrYnkvWVpTR3hhNTdmbz0=
Content-Length: 35
Content-Type: application/json
{
  "auth-code": "<auth-code-to-apply>"
}

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: 191
{
  "result": {
    "info": [

```

```

    {"message": "Installed new license key \"landmark utility
prestige trip mayor diesel faucet summer prestige income heritage\""}
  ]
}
}

```

Applying License

REQUEST

```

PUT /api/v1/license/license-key?action=install HTTP/1.1
Host: 10.209.125.7
Authorization: Basic
TnBDUklveFFFQTKKZjM0S2ZxV2JKUlhRaDJJaWGFrYnkvWVpTR3hhNTdmbz0=
Content-Type: application/json

```

```

{
  "keys": [
    "key1",
    "key2",
    ...
  ]
}

```

Example:

```

{
  "keys": [
    "operation tree crayon holiday kingdom lasso doorway square
dish modem gecko",
    "buffalo safety inch topaz banquet nitrogen garnish step
recital wedge trace"
  ]
}

```

RESPONSE

```

HTTP/1.1 200 OK
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Installed licenses"
      }
    ]
  }
}

```

Deleting License

REQUEST

```
PUT /api/v1/license/license-key?action=delete HTTP/1.1
Host: 10.209.125.7
Authorization: Basic
TnBDUklveFFFQTJKZjM0S2ZxV2JKUlhRaDJJaWGFrYnkvWVpTR3hhNTdmbz0=
Content-Type: application/json
{
  "keys": [
    "key1",
    "key2",
    ...
  ]
}
```

Example:

```
{
  "keys": [
    "operation tree crayon holiday kingdom lasso doorway square
dish modem gecko",
    "buffalo safety inch topaz banquet nitrogen garnish step
recital wedge trace"
  ]
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Deleted <number> licenses"
      }
    ]
  }
}
```

Getting License Clients

REQUEST

```
GET /api/v1/license/license-clients HTTP/1.1
Host: 10.209.125.7

Authorization: Basic
TnBDUklveFFFQTJKZjM0S2ZxV2JKUlhRaDJJaWGFrYnkvWVpTR3hhNTdmbz0=

Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Type: application/json

{
  "license_clients": [
    {
      "feature_capacities": [
        {
          "feature_name": "add_user_count",
          "leased_value": 25
        },
        {
          "feature_name": "onboard",
          "leased_value": 0
        },
        {
          "feature_name": "embeddedrdpapplet",
          "leased_value": 0
        },
        {
          "feature_name": "vm_cores_leasable",
          "leased_value": 4
        },
        {
          "feature_name": "add_meeting_user_count",
          "leased_value": 0
        },
        {
          "feature_name": "cloudsecure_count",
          "leased_value": 0
        },
        {
          "feature_name": "named_user_count",
          "leased_value": 0
        }
      ]
    }
  ]
}
```

```

        "feature_name": "ueba",
        "leased_value": 0
    },
    ],
    "last_renewal": "Wed, 04 Dec 2019 06:32:26 GMT",
    "machine_id": "VASPH3944M9D8551S",
    "name": "va_spe_3_3_125_4"
},
{
    "feature_capacities": [
        {
            "feature_name": "add_user_count",
            "leased_value": 25
        },
        {
            "feature_name": "onboard",
            "leased_value": 0
        },
        {
            "feature_name": "embeddedrdpapplet",
            "leased_value": 0
        },
        {
            "feature_name": "vm_cores_leasable",
            "leased_value": 4
        },
        {
            "feature_name": "add_meeting_user_count",
            "leased_value": 0
        },
        {
            "feature_name": "cloudsecure_count",
            "leased_value": 0
        },
        {
            "feature_name": "named_user_count",
            "leased_value": 0
        },
        {
            "feature_name": "ueba",
            "leased_value": 0
        }
    ],
    "last_renewal": "Thu, 05 Dec 2019 13:45:31 GMT",
    "machine_id": "VASPHXVK2E117PM8S",
    "name": "va_spe_3_3_125_8"
},
]

```

}

Getting License Report from License Server

REQUEST

```
GET /api/v1/license/report HTTP/1.1
Host: 10.209.125.7
Authorization: Basic
TnBDUklveFFFQTJKZjM0S2ZxV2JKUlhRaDJaWGFrYnkvWVpTR3hhNTdmbz0=
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Type: application/json
```

License Usage Report

```
{
  "LicenseUsageReport": {
    "MachineID": "VASPMMXXXXXXXX",
    "build-number": "4762",
    "cumulative-report": {...},
    "granular-report": {...},
    "cluster-granular-report": {...},
    "time-stamp": "Mon Jan 13 20:04:40 2020",
    "version": "9.1"
  }
}
```

Cumulative Report

<https://<license-server>/api/v1/license/report/cumulative-report>

```
{
  "cumulative-report": {
    "add-meeting-user-count": {
      "Year": [
        {
          "Month": [
            {
              "Date": [
                {
                  "Leased": "0",
                  "Maximum": "30",
                  "id": "06"
                }
              ],
              {...},
              {...},
              {...},
              {...}
            }
          ]
        }
      ]
    }
  }
}
```

```

        ]
        "Leased": "0",
        "Maximum": "30",
        "id": "Jan",
    }
    {...}
]
    "id": "2020"
}
{...}
]
}
}

```

Granular Report

<https://<license-server>/api/v1/license/report/granular-report>

```

{
  "license-client": [
    {
      "add-user-count": {
        "Year": [
          {
            "Month": [
              {
                "Date": [
                  {...},
                  {...},
                  {...},
                  {...}
                ]
                "Leased": "0",
                "Maximum": "0",
                "id": "Jan"
              }
            ],
            "id": "2020"
          }
        ],
        "name": "PSA_V_10_209_125_101",
        "software-version": "7.4"
      },
      {...}
    }
  ]
}

```

Cluster Granular Report

<https://<license-server>/api/v1/license/report/cluster-granular-report>

```

{
  "add-user-count": {

```

```

    "Year": [
      {
        "Month": [
          {
            "Date": [
              {
                "Leased": "40",
                "Maximum": "21",
                "client-node": "node63lc,node66lc",
                "id": "24"
              },
              {
                "Leased": "40",
                "Maximum": "1",
                "client-node": "node63lc,node66lc",
                "id": "25"
              },
              {
                "Leased": "40",
                "Maximum": "1",
                "client-node": "node63lc,node66lc",
                "id": "26"
              }
            ],
            "Leased": "40",
            "Maximum": "21",
            "id": "Feb"
          }
        ],
        "id": "2020"
      }
    ],
    "cluster-name": "liccluster"
  }
}

```

The following extensions of the API are supported:

1. /api/v1/license/report - entire license report in JSON
2. /api/v1/license/report/cumulative-report - The cumulative report.
 - Following trace-down options available here
 - i. /api/v1/license/report/cumulative-report/<license-feature-type>
 - ii. /api/v1/license/report/cumulative-report/<license-feature-type>/<year>
 - iii. /api/v1/license/report/cumulative-report/<license-feature-type>/<year>/<month>
 - iv. /api/v1/license/report/cumulative-report/<license-feature-type>/<year>/<month>/<day>
3. /api/v1/license/report/granular-report - License usage report per license client.
 - Following trace-down options available here
 - i. /api/v1/license/report/granular-report/<license-client>
 - ii. /api/v1/license/report/granular-report/<license-


```

client>/<add-user-count>
iii.    /api/v1/license/report/granular-report/<license-
client>/<add-user-count>/<year>
iv.     /api/v1/license/report/granular-report/<license-
client>/<add-user-count>/<year>/<month>
v.      /api/v1/license/report/granular-report/<license-
client>/<add-user-count>/<year>/<month>/<day>

```

Example:

API - /api/v1/license/report/granular-report/node63lc/add-user-count/2020/Mar/20

```

{
  "Leased": 40,
  "Maximum": 14,
  "id": "20"
}

```

4. /api/v1/license/report/cluster-granular-report - License usage report per license client cluster.

- Following trace-down options available here

```

i.      /api/v1/license/report/cluster-granular-
report/<license-client>
ii.     /api/v1/license/report/cluster-granular-
report/<license-client>/<add-user-count>
iii.    /api/v1/license/report/cluster-granular-
report/<license-client>/<add-user-count>/<year>
iv.     /api/v1/license/report/cluster-granular-
report/<license-client>/<add-user-count>/<year>/<month>
v.      /api/v1/license/report/cluster-granular-
report/<license-client>/<add-user-
count>/<year>/<month>/<day>

```

Example:

API - /api/v1/license/report/cluster-granular-report/liccluster/add-user-count/2020/Mar/22

```

{
  "Leased": 40,
  "Maximum": 16,
  "cluster-member": [
    "node63lc",
    "node66lc"
  ],
  "id": "22"
}

```

Enabling/Disabling ICE License

Enabling ICE License

Content of ice_enable.json file:

```
more ice_enable.json
```

```
{
  "mode": "enabled"
}
```

REQUEST

```
curl -k -u TVGJ9xV9XvuA1JDB1nPkJC5BilAQAhUMn2dPHLZgP/o=:
https://10.209.125.4/api/v1/license/ice -X PUT -H "Content-Type:
application/json" -d @ice_enable.json
```

RESPONSE

HTTP/1.1 200 OK

Content-Type: application/json

```
{
  "result": {
    "info": [
      {
        "message": "ICE license is enabled"
      }
    ]
  }
}
```

Disabling ICE License

Content of ice_disable.json file:

```
more ice_disable.json
```

```
{
  "mode" : "disabled"
}
```

REQUEST

```
curl -k -u TVGJ9xV9XvuA1JDB1nPkJC5BilAQAhUMn2dPHLZgP/o=:
https://10.209.125.4/api/v1/license/ice -X PUT -H "Content-Type:
application/json" -d @ice_disable.json
```

RESPONSE

HTTP/1.1 200 OK

Content-Type: application/json

```
{
  "result": {
    "info": [
      {
        "message": "ICE license is disabled"
      }
    ]
  }
}
```

Getting the Current Status of ICE License

REQUEST

```
curl -k -u TVGJ9xV9XvuA1JDB1nPkJC5BilAQAhUMn2dPHLZgP/o=:  
https://10.209.125.4/api/v1/license/ice
```

RESPONSE

ICE License Enabled

```
HTTP/1.1 200 OK  
Content-Type: application/json  
{  
  "mode": "enabled"  
}
```

ICE License Disabled

```
HTTP/1.1 200 OK  
Content-Type: application/json  
{  
  "mode": "disabled"  
}
```

Exporting TOTP Users from One Device to Another Device

REQUEST

```
GET /api/v1/totp/Google TOTP Auth Server/users HTTP/1.1  
Host: 10.209.115.19  
Authorization: Basic ZzBPeVdDVmtDT3FoSjBwcVUyRTdzK3hyeHo0OFpzMGtFRjM4WndFNDE1ST06
```

RESPONSE

```
HTTP/1.1 200 OK  
Content-Length: 191  
Content-Type: application/json  
{  
  "users": "21ubWxSvAwABAAAA1x9igwcQok9s+MV0zg/b+oer3z  
7Kj0iXbVzJ+qDMiguTtWZaxnGHGTGQEChD7BTMGjz1QYbO00z  
BF+6DGp2y/9pj+8Wf4SXTQbYIeDomT4w2Kl4oc1EZhfFruWLW  
n1l+58x2b0kxsURCb+P0It8K+msqFXBhOEDY7l0W4+P+A8UZ  
az6In/gMq8Qd766i7RN1oZ+hzHUMYJUB72tzIQ+CiA8tTv6awe  
C6TGy9/a9C6vVbLY0+ZUgGTffWzJxcoZbEbdwiCFoZyex5  
UWTUFIj0Z4XAPoZ4HTWZsxP5YwXcJpsnbOzCqW/dTB6Wp  
YWYp6R+MUn2yu/hZeu7z1qVhXlr8bK5LifH/u6J76SpErL1eELh1b  
YF17DWPfo6xspG7rffhs2k9vPVB1oq2kud+42hPo6vZaMfcwaz9l  
KRrftIgAu2o3JBjfdNHrUTOu2+Y6Qmc0in6MfIBNNrVr9D6hdWmIdr  
Nr7PXA4uJoP+CAuOp3OamTox2sgmvE7YNjC0SlSPgyFfx0kfzCb2  
K3Mrcq1UuJUJLhK7L3lne4f1QiWkoZ8q8zluaV+eRSJHBez9Pjo+Lz
```

```

BpYwoXStduOC20FVY4+KCHDasufdAOCD/Lga4mFFE5ItAui18ObOf
RtxLvoZUIuGS8w019mbRaNDlVa52sUzuZBClqx+4lueBCQYEUNrDr
HVG0AzqUBbAeL+WV8VRJrxVW8sIlArqY8n29pD66BozsGKoxBq
XSe/fZxEdu9ZqI4xfzSCCsfgTiv0LAM4p+cZekhcjvRwtuImNjX+qj7A=="
}

```

Importing TOTP Users from One Device to Another Device

REQUEST

```

POST /api/v1/totp/Google TOTP Auth Server/users HTTP/1.1
Host: 10.209.115.19
Authorization: Basic
ZzBPeVdVmtDT3FoSjBwcVUyRTdzK3hyeHo0OfpzMGtFRjM4WndFNDE1ST06
Content-Type: application/json
{
  "users": "2lubWxSvAwABAAAAlx9igwcQok
9s+MV0zg/b+oer3z7Kj0iXbVzJ+qDMiguTtWZ
axnGHGTGQEcHD7BTMGjz1QYbO00zBF+6DG
p2y/9pj+8Wf4SXTQbYIeDomT4w2Kl4oc1EZhfRu
WLWnll+58x2b0kxsURCb+P0It8K+msqFXBh
OEDY7l0W4+P+A8UZaz6In/gMq8Qd766i7
RNl0Z+hzHUMYJUB72tzIQ+CiA8tTv6aweC6
TGy9/a9C6vVbLY0+ZUGTffWzJxcoZbEbdwiCFo
Zyex5UWTUFIj0Z4XAPoZ4HTWZsxP5YwXcJpsnb
OzCqW/dTB6WpYWYp6R+MUn2yu/hZeu7z1qVhXlr8b
K5LifH/u6J76SpErLleELh1bYF17DWPfo6xspG7rffhs2
k9vPVBloq2kud+42hPo6vZaMfcwaz9lKRrftIgAu2o3
JBJfdNhrUTOu2+Y6Qmc0in6MfIBNNrVr9D6hdWmIdr
Nr7PXHa4uJoP+CAuOp3OamTox2sgmvE7YNjC0SlSP
gyFfx0kfzCb2K3Mrcq1UuJUJLhK7L3lne4f1QiWKoZ8q
8zluaV+eRSJHBez9Pjo+LzBpYwoXStduOC20FVY4+KCHD
asufdAOCD/Lga4mFFE5ItAui18ObOfRtxLvoZUIuGS8w019mb
RaNDlVa52sUzuZBClqx+4lueBCQYEUNrDrHVG0AzqUBb
AeL+WV8VRJrxVW8sIlArqY8n29pD66BozsGKoxBqXSe/f
ZxEdu9ZqI4xfzSCCsfgTiv0LAM4p+cZekhcjvRwtuImNjX+qj7A=="
}

```

RESPONSE

```

HTTP/1.1 200 OK
content-length →47
Content-Type: application/json
{
  "message" => 'Successfully imported user data'
}

```

Sample Error Responses

400 BAD REQUEST

REQUEST

```
PUT /api/v1/configuration/users/user-realms/realm/testRealm/role-mapping-rules/rule/rule1 HTTP/1.1
```

```
Host: 10.209.112.106
```

```
Authorization: Basic
```

```
Y1VPZE1XZ1ZubVEvVnIrcWwrd3lJY3F0Y05WTGhDVkx1M0wrdk5YR3hzVT06
```

```
Content-Type: application/json
```

```
{
  "name": "rule1",
  "roles": [
    "Users"
  ],
  "stop-rules-processing": "false",
  "user-name": {
    "test": "is",
    "user-names": [
      "*"
    ]
  }
}
```

RESPONSE

```
HTTP/1.1 400 BAD REQUEST
```

```
content-length: 92
```

```
content-type: application/json
```

```
{
  "message": "The browser (or proxy) sent a request that this server
could not understand."
}
```

Solution: Invalid JSON body content in Request. Please check if JSON is valid.

REQUEST

PUT /api/v1/configuration/users/user-roles/user-role/rest-userrole-1
HTTP/1.1

Host: 10.209.113.88

Authorization: Basic

MVhDbDJTSUhkV3ZjUkd6WXM1T1V3MU5wbHNmemJPbTJxSHI2NVZCdXp5bz06

```
{
  "name": "rest-userrole-1",
  "web": {
    "web-bookmarks": {
      "bookmark": [
        {
          "auto-allow": "disable",
          "description": "",
          "name": "web-bm-1",
          "new-window": "false",
          "no-address-bar": "false",
          "no-tool-bar": "false",
          "parent": "--none--",
          "standard": {
            "url": "http://www.yahoo.com"
          }
        }
      ]
    },
    "web-options": {
      "browsing-untrusted-sslsites": "true",
      "flash-content": "false",
      "hpxproxy-connection-timeout": "1800",
      "http-connection-timeout": "240",
      "java-applets": "true",
      "mask-hostname": "false",
      "persistent-cookies": "false",
      "rewrite-file-urls": "false",
```

```

        "rewrite-links-pdf": "false",
        "unrewritten-page-newwindow": "false",
        "user-add-bookmarks": "false",
        "user-enter-url": "false",
        "users-bypass-warnings": "false",
        "warn-certificate-issues": "true",
        "websocket-connection-timeout": "900"
    }
}

```

RESPONSE

HTTP/1.1 400 BAD REQUEST


Content-Length: 99

Content-Type: application/json

```

{
  "result": {
    "errors": [
      {
        "message": "Accepts only JSON."
      }
    ]
  }
}

```

 **Note:** Include the “Content-Type” header in the request with a value “application/json” as used in the examples above.

403 Forbidden

REQUEST

GET /api/v1/auth HTTP/1.1

Host: 10.209.112.106

Authorization: Basic YWRtaW5kYjpkYW5hMTIz

Content-Type: application/json

RESPONSE

```

HTTP/1.1 403 Forbidden
cache-control: no-store
connection: Keep-Alive
content-type: text/html; charset=utf-8
expires:-1
keep-alive: timeout=15
strict-transport-security max-age=31536000
transfer-encoding: chunked

```

Solutions:

1. Make sure admin user used for authentication has "Allow access to REST APIs" option enabled from admin UI
2. Admin Username and Password passed in Authorization header are correct
3. If api_key is available, use api_key value as username and password as empty in authorization header

404 NOT FOUND**REQUEST**

```

GET /api/v1/configuration/users/user-realms/realm/testRealm/role-
mapping-rules/rule HTTP/1.1

```

```
Host: 10.209.112.106
```

```
Authorization: Basic
```

```
Y1VPZE1XZ1ZubVEvVnIrcWrd3lJY3F0Y05WTGhDVkx1M0wrdk5YR3hzVT06
```

RESPONSE

```
HTTP/1.1 404 NOT FOUND
```

```
content-length: 213
```

```
content-type: application/json
```

```

{
  "result": {
    "errors": [
      {
        "message": "Invalid resource path; use \"users/user-
realms/realm/testRealm/role-mapping-rules/rule/<resource-id>\" to access
a specific resource"
      }
    ]
  }
}

```



```

    }
}

```

Solution: Resource-id should be passed in Resource path as shown in example below.

REQUEST

```
GET /api/v1/configuration/users/user-realms/realm/testRealm/role-
mapping-rules/rule/rule1 HTTP/1.1
```

```
Host: 10.209.112.106
```

```
Authorization: Basic
```

```
Y1VPZE1XZ1ZubVEvVnIrcWwrd3lJY3F0Y05WTGhDVkx1M0wrdk5YR3hzVT06
```

RESPONSE

```
HTTP/1.1 200 OK
```

```
content-length: 167
```

```
content-type: application/json
```

```

{
  "name": "rule1",
  "roles": [
    "Users"
  ],
  "stop-rules-processing": "false",
  "user-name": {
    "test": "is",
    "user-names": [
      "*"
    ]
  }
}

```

Solution: Invalid JSON body content in Request. Please check if JSON is valid.

422 UNPROCESSABLE ENTITY

REQUEST

POST /api/v1/configuration/users/user-realms/realm/testRealm/role-mapping-rules/rule/ HTTP/1.1

Host: 10.209.112.106

Authorization: Basic

Y1VPZE1XZ1ZubVEvVnIrcWwrd3lJY3F0Y05WTGhDVkx1M0wrdk5YR3hzVT06

Content-Type: application/json

```
{
  "name": "rule2",
  "roles": [
    "Users",
    "testRole1"
  ],
  "stop-rules-processing": "false",
  "user-name": {
    "test": "is",
    "user-names": [
      "user1"
    ]
  }
}
```

RESPONSE

HTTP/1.1 422 UNPROCESSABLE ENTITY

content-length: 368

content-type: application/json

```
{
  "result": {
    "errors": [
      {
        "message": "[/users/user-realms/realm[name=testRealm]/role-mapping-rules/rule[name=rule2]/roles] Invalid reference: no 'User Roles' object found with identifier 'testRole1'."
      },
    ],
  }
}
```

```
{
  {
    "message": "Failed to resolve path references"
  },
  {
    "message": "Commit failed"
  }
]
}
```

Solution: Make sure to have all the referenced resources are created first using POST call and then repeat.

Limitations

1. Configuration of large data objects is not qualified- ESAP, Pulse Client package, Custom Sign-in page, applets, and so on.
2. Resource names similar to resource tags e.g. vlans, roles, etc. should be avoided while creating new resources.

PPS-Specific Configurations Using REST APIs

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Creating the HC Policy

REQUEST

```

POST api/v1/configuration/authentication/endpoint/host-
checker/policies/policy HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "policy-name": "HC",
  "regular": {
    "platforms": {
      "chromeos": {
        "dashboard": {
          "consider-for-reporting": "true"
        },
        "remediation": {
          "custom-instructions": "",
          "enable-custom-instructions": "false",
          "send-reason-strings": "true"
        }
      },
      "windows": {
        "dashboard": {
          "consider-for-reporting": "true"
        },
        "remediation": {
          "custom-instructions": "",
          "delete-files": "false",
          "enable-custom-instructions": "false",
          "files": null,
          "kill-processes": "false",
          "processes": null,
          "send-reason-strings": "true"
        },
        "rule-expression": {
          "custom-expression": "",
          "requirement": "all"
        },
        "rules": {
          "advancedRule": [],
          "firewall-rules": {
            "firewall-rule": [
              {
                "needs-monitoring": "false",
                "product-list": null,
                "product-selection-option":
"specific",
                "rule-name": "rule1",
                "select-specific-product": "false",
                "select-specific-vendor": "true",
                "selected-product-list": {
                  "product-info": [
                    {
                      "product-name":
"Windows Firewall (10.x)",
                      "turn-on-firewall":
"true"

```

```

    },
    {
      "product-name":
        "Windows Firewall (6.x)",
      "turn-on-firewall":
        "false"
    }
  ],
  "turn-on-firewall-all": "false",
  "vendor-list": [
    "Microsoft Corporation"
  ]
}
]
}
}
}
}
}
}
}
}
}

RESPONSE
{
  "result": {
    "warnings": [
      {
        "message": "The configuration has been implicitly
changed"
      }
    ]
  }
}
}
```

Deleting the HC Policy

```

REQUEST
DELETE api/v1/configuration/authentication/endpoint/host-
checker/policies/policy/HC HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qStlGTzNrYVks5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json

RESPONSE
HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json

```

Creating the Infranet Enforcer

REQUEST

```
POST api/v1/configuration/uac/infranet-
enforcer/connections/infranet-enforcer HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVks5d0t2aXpBNldpZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "idp-for-local-sessions-only": "true",
  "junos": {
    "location-group": "- No 802.1X -",
    "password-encrypted":
"3u+UR6n8AgABAAAAofSnIBrU19vdwUslG5LG4cg1QH6CbXDSmY4ZW0x85HY="
  },
  "name": "SRX",
  "serial-number": [
    "ABCNWPWFS"
  ],
  "severity-filter": "medium",
  "use-idp": "false"
}
```

RESPONSE

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

Deleting the Infranet Enforcer

REQUEST

```
DELETE api/v1/configuration/uac/infranet-
enforcer/connections/infranet-enforcer/SRX HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVks5d0t2aXpBNldpZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json
```

Creating a Resource Policy

REQUEST

```
POST api/v1/configuration/uac/infranet-enforcer/resource-access-
policies/resource-access-policy/ HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "action": "allow-access",
  "apply": "all-roles",
  "apply-ie-options": "all-options",
  "deny-message": "",
  "description": "",
  "ie-options": [],
  "infranet-enforcer": [
    "(all)"
  ],
  "name": "Resource Policy",
  "resources": [
    "10.25.15.0/24:*"
  ],
  "roles": null,
  "vsys": ""
}
```

RESPONSE

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

Deleting a Resource Policy

REQUEST

```
DELETE api/v1/configuration/uac/infranet-enforcer/resource-access-
policies/resource-access-policy/Resource%20Policy HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json
```


Creating a RADIUS Client

REQUEST

```
POST /api/v1/configuration/uac/network-access/radius-clients/radius-
client HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "coa-support": "false",
  "description": "",
  "disconnect-support": "true",
  "dynamic-auth-port": "3799",
  "enable": "true",
  "gatewayid": "",
  "ip-address": "10.204.88.12",
  "ip-address-range": "1",
  "kek-encrypted": "",
  "key-wrap-format": "HEX",
  "key-wrap-support": "false",
  "location-group": "Default",
  "mack-encrypted": "",
  "make-model": "Ruckus Wireless",
  "name": "Ruckus",
  "ruckus-certificate-verification": "false",
  "ruckus-password-encrypted": "",
  "shared-secret-encrypted":
"3u+UR6n8AgABAAAOfSnIBrU19vdwUslG5LG4cg1QH6CbXDSmY4ZW0x85HY="
}
```

RESPONSE

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

Deleting a RADIUS Client

REQUEST

```
Delete /api/v1/configuration/uac/network-access/radius-clients/radius-
client/Ruckus HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json
```

Creating a RADIUS Attribute Policy

REQUEST

```
POST /api/v1/configuration/uac/network-access/radius-attribute/radius-attributes-policies/radius-attribute-policy HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "apply": "all",
  "description": "",
  "location-group": [
    "Guest"
  ],
  "name": "Return Attribute policy",
  "network-interface": "automatic",
  "open-port": "false",
  "return-attribute-flag": "false",
  "return-attributes": {
    "return-attribute": []
  },
  "roles": null,
  "send-session-timeout-by-default": "false",
  "send-termination-action-by-default": "false",
  "vlan": "65",
  "vlan-check": "true"
}
```

RESPONSE

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or error!"
      }
    ]
  }
}
```

Deleting a RADIUS Attribute Policy

REQUEST

```
DELETE /api/v1/configuration/uac/network-access/radius-attribute/radius-attributes-policies/radius-attribute-policy/Return%20Attribute%20policy/HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
```

```
Content-Length: 0
Content-Type: application/json
```

Creating SNMP Device

REQUEST

```
POST /api/v1/configuration/uac/snmpEnforcement/clients/client HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "default-vlan": "0",
  "description": "",
  "enable": "true",
  "ip-address": "10.204.88.12",
  "location-group": "none",
  "model": "Ruckus Wireless",
  "name": "ruckus",
  "read-auth-password-encrypted": "",
  "read-auth-protocol": "md5",
  "read-priv-password-encrypted": "",
  "read-priv-protocol": "",
  "read-security-level": "auth",
  "read-username": "public",
  "snmp-enforcement": "false",
  "snmp-version": "V2",
  "ssh-passphrase-encrypted": "",
  "ssh-port-number": "22",
  "ssh-private-key-encrypted": "",
  "ssh-user-name": "",
  "ssh-user-password-encrypted": "",
  "sys-contact": "https://support.ruckuswireless.com/contact_us",
  "sys-description": "Ruckus Wireless ZD1200",
  "sys-location": "350 West Java Dr. Sunnyvale, CA 94089 US",
  "sys-name": "ruckus",
  "trap-auth-password-encrypted": "",
  "trap-auth-protocol": "md5",
  "trap-priv-password-encrypted": "",
  "trap-priv-protocol": "",
  "trap-security-level": "auth",
  "trap-username": "public",
  "use-samecredential": "true",
  "write-auth-password-encrypted": "",
  "write-auth-protocol": "md5",
  "write-priv-password-encrypted": "",
  "write-priv-protocol": "",
  "write-security-level": "auth",
  "write-username": "public"
}
```

RESPONSE

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
```

```
error!"
    }
  ]
}
}
```

Deleting SNMP Device

REQUEST

```
DELETE
/api/v1/configuration/uac/snmpEnforcement/clients/client/ruckus/HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBN1dPZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json
```

Creating SNMP Policy

REQUEST

```
POST /api/v1/configuration/uac/snmpEnforcement/snmpPolicies/policy
HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBN1dPZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

```
{
  "apply-to-roles": "selected",
  "description": "",
  "location-group": "Guest Wired",
  "name": "SNMP policy",
  "roles": [
    "Guest Wired Restricted"
  ],
  "vlan": "65"
}
```

RESPONSE

```
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBN1dPZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or
error!"
      }
    ]
  }
}
```

```
}
```

Deleting SNMP Policy

REQUEST

```
DELETE
/api/v1/configuration/uac/snmpEnforcement/snmpPolicies/policy/SNMP%20policy
HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBN1dPZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json
```

Creating Device Group - TACACS+

REQUEST

```
POST /api/v1/configuration/uac/networkDeviceAdministration/groups/group/
HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBN1dPZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

```
{
  "admin-realm": "Admin Users",
  "description": "",
  "name": "Device Group"
}
```

RESPONSE

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or error!"
      }
    ]
  }
}
```

Deleting Device Group- TACACS+

REQUEST

```
DELETE
/api/v1/configuration/uac/networkDeviceAdministration/groups/group/Device%20Group
HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBN1dPZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

RESPONSE

```

HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json

```

Creating TACACS+ Client

REQUEST

```

POST api/v1/configuration/uac/networkDeviceAdministration/clients/client
HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldPZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "description": "",
  "deviceGroup": "Device Group",
  "enable": "true",
  "ipAddress": "10.204.88.244",
  "ipAddressRange": "1",
  "name": "TACACS client",
  "shared-secret-encrypted":
"3u+UR6n8AgABAAAOfSnIBrU19vdwUslG5LG4cg1QH6CbXDSmY4ZW0x85HY="
}

```

RESPONSE

```

{
  "result": {
    "warnings": [
      {
        "message": "The configuration has been implicitly changed"
      }
    ]
  }
}

```

Deleting TACACS+ Client

REQUEST

```

DELETE
/api/v1/configuration/uac/networkDeviceAdministration/clients/client/TACACS
%20client HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldPZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json

```

RESPONSE

```

HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json

```

Creating Shell Policies

REQUEST

```
POST /api/v1/configuration/uac/networkDeviceAdministration/policies/policy
HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBN1dPZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "apply-action": "deny",
  "apply-groups": "all",
  "apply-roles": "all",
  "commandSets": {
    "command-set": []
  },
  "defaultPrivilege": "1",
  "description": "",
  "groups": null,
  "maxPrivilege": "1",
  "name": "TACACS policy",
  "roles": null
}
```

RESPONSE

```
{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or error!"
      }
    ]
  }
}
```

Deleting Shell Policies

REQUEST

```
DELETE
/api/v1/configuration/uac/networkDeviceAdministration/policies/policy/TACACS%20policy
HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBN1dPZ0FyZlN1S3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
```

RESPONSE

```
HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json
```

RESPONSE

```
{
  "result": {
    "warnings": [
      {

```



```

        "message": "The configuration has been implicitly changed"
    }
  ]
}
}

```

Creating Admission Control Client

REQUEST

```

POST /api/v1/configuration/uac/admissionControl/clients/client HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "description": "",
  "enable": "true",
  "ipAddress": "10.204.88.12",
  "name": "FORTINET",
  "templateID": "fortigate-text.itmpl"
}

```

RESPONSE

```

{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or error!"
      }
    ]
  }
}

```

Deleting Admission Control Client

REQUEST

```

DELETE /api/v1/configuration/uac/admissionControl/clients/client/FORTINET HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldpZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json

```

RESPONSE

```

HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json

```

Creating Admission Control Policy

REQUEST

```

POST /api/v1/configuration/uac/admissionControl/policies/policy/ HTTP/1.1
Host xx.xx.xx.xx

```

```

Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldPZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "action": "ignore",
  "apply": "selected",
  "count": "1",
  "event": "utm:ips",
  "name": "policy1",
  "replacementRole": null,
  "replacementType": "Permanent",
  "roles": null,
  "severity": "critical",
  "templateID": "fortigate-text.itmpl"
}

```

RESPONSE

```

{
  "result": {
    "info": [
      {
        "message": "Operation succeeded without warning or error!"
      }
    ]
  }
}

```

Deleting Admission Control Policy

REQUEST

```

DELETE /api/v1/configuration/uac/admissionControl/policies/policy/policy1 HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic
VU9qSTlGTzNrYVk5d0t2aXpBNldPZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json

```

RESPONSE

```

HTTP/1.1 204 NO CONTENT
Content-Length: 0
Content-Type: application/json

```

Profiler REST APIs

Approving Devices

REQUEST

```

PUT api/v1/profiler/endpoints/simplified/xx:xx:xx:xx:xx:xx HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic VU9qSTlGTzNrYVk5d0t2aXpBNldPZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "status": "approved"
}

```

RESPONSE

```

HTTP/1.1 200 OK

```

```
Content-Type: application/json
{
  "Successfully updated."
}
```

Updating Device Attributes

REQUEST

```
PUT api/v1/profiler/endpoints/simplified/xx:xx:xx:xx:xx:xx HTTP/1.1
Host xx.xx.xx.xx
Authorization: Basic VU9qSTlGTzNrYVk5d0t2aXpBNldPZ0FyZlNlS3FmTkNnQUh0R0ZuR0xSbz06
Content-Type: application/json
{
  "manufacturer": "Windows",
  "os": "Windows"
}
```

RESPONSE

```
HTTP/1.1 200 OK
Content-Type: application/json
{
  "Successfully updated."
}
```