Global Configuration Requirements

- Resource Summary for Global Configuration
- Banner Resource
- Hostname Resource
- Domain Name Resource
- Users Resource
- Logging Resource
- Running-Config Resource
- SNMP Server Resource
- TACACS Server Resource
- Syslog Resource
- Reload Resource
- Saving the REST API Configuration
- IPv6 Resource
- Support for Any CLI

Resource Summary for Global Configuration

		HTTP Method			
Resource	**URL (BaseURL)**	**GET**	**POST**	**PUT**	**DELETE**
Banner	/api/v1/global/banner	Y	N	Y	N
Host name	/api/v1/global/host-name	Y	N	Y	N
Domain name	/api/v1/global/domain-name	Y	N	Y	N
Local users	/api/v1/global/local-users	Y	Y	N	N
	/api/v1/global/local-users/{username}	Y	Y	Y	Y

		HTTP Method			
Logging	/api/v1/global/logging	Y	Y	N	N
	/api/v1/global/logging/{ip-address}	N	N	N	Y
	/api/v1/global/logging/{ip-address}_{transport}_{port}	Y	N	N	Y
Global running configuration	/api/v1/global/running-config	Y	N	Y	N
SNMP	/api/v1/global/snmp	Y	Y	N	N
	/api/v1/global/snmp/{ip-address}	Y	N	N	Y
TACACS	/api/v1/global/tacacs	Y	Y	N	N
	/api/v1/global/tacacs/{name}	Y	N	Y	Y
Syslog	/api/v1/global/syslog	Y	N	Y	N
Reload	/api/v1/global/reload	N	N	Y	N
Save configuration	/api/v1/global/save-config	N	N	Y	N
Save configuration autosave timer	/api/v1/global/autosave-timer	Y	N	Y	N
IPv6	/api/v1/global/ipv6/routing	Y	N	Y	N
CLI commands	/api/v1/global/cli	N	N	Y	N

Banner Resource

History

Release	Modification
IOS XE 3.11	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Properties

Property	Type	Required for POST and PUT	Description
kind	string	Not applicable	Object type: “object#banner”
exec	string	Optional	Exec mode message Providing an empty string cancels the property.

login	string	Optional	Login message Providing an empty string cancels the property.
motd	string	Optional	Message of the Day Providing an empty string cancels the property.

JSON Representation

```
{
    "kind"   : "object#banner",
    "exec"   : "{string}",
    "login"  : "{string}",
    "motd"   : "{string}"
}
```

Retrieve Banner

Resource URI

Verb	URI
GET	/api/v1/global/banner

Example

JSON Request

```
GET /api/v1/global/banner
Accept: application/json
```

JSON Response

```
200 OK
Content-Type: application/json
{
    "kind" : "object#banner"
    "exec" : "{string}",
    "login": "{string}",
    "motd" : "{string}"
}
```

Modify Banner

Resource URI

Verb	URI
PUT	/api/v1/global/banner

Example

JSON Request

```
PUT /api/v1/global/banner
Content-Type: application/json

{
    "exec" : "{string}",
    "login": "{string}",
    "motd" : "{string}"
}
```

JSON Response

```
204 No Content
```

Hostname Resource

The hostname resource represents the global configuration hostname property.

History

Release	Modification
IOS XE 3.10	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Properties

Property	Type	Required for POST and PUT	Description
kind	string	Not applicable	Object type. Always “object#hostname”
host-name	string	Mandatory	router name

Retrieve Device Hostname

Resource URI

Verb	URI
GET	/api/v1/global/host-name

Example

JSON Request

```
GET /api/v1/global/host-name
Accept: application/json
```

JSON Response

```
200 Ok

Content-Type: application/json

{
  "kind"     : "object#host-name",
  "host-name": "{string}"
}
```

Modify Device Hostname

Resource URI

Verb	URI
PUT	/api/v1/global/host-name

Example

JSON Request

```
PUT  /api/v1/global/host-name

Content-Type: application/json
Accept: application/json

{
  "host-name": "eng-router"
}
```

JSON Response

```
200 Ok

Content-Type: application/json

{
  "host-name": "eng-router"
}
```

JSON Response with no Response Body

```
204 No Content
```

Domain Name Resource

Represents the domain name property of the global configuration.

History

Release	Modification
IOS XE 3.10	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Properties

Property	Type	Description
kind	string	Object type. Always “object#domain-name”
domain-name	string	Domain name

Retrieve Domain Name

Resource URI

Verb	URI
GET	/api/v1/global/domain-name

Example

JSON Request

```
GET /api/v1/global/domain-name
Accept: application/json
```

JSON Response

```
200 Ok

Content-Type: application/json
{
  "kind":     "object#domain-name",
  "domain-name": "cisco.com"
}
```

Modify Domain Name

Resource URI

Verb	URI
PUT	/api/v1/global/domain-name

Example

JSON Request

```
PUT  /api/v1/global/domain-name
Content-Type: application/json
Accept: application/json

{
  "domain-name": cisco.com
}
```

JSON Response

```
204 No Content
```

Users Resource

Users resource represents the collection of local users who are allowed to access the device.

History

Release	Modification
IOS XE 3.10	Introduced for the CSR1000V platform
IOS XE 3.11	Added pw-type property
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Properties

Property	Type	Required for POST and PUT	Description
kind	string	Not applicable	Object type. Has fixed value “object#local-user”
username	string	Mandatory	Name of the user. Once created, cannot be modified.
password	string	Optional	Password.
privilege	number	Optional	Privilege level 0-15.
pw-type	number	Optional	IOS password type. Only type 0 and 7 are supported. For a cleartext password, this argument is either 0 or optional. **Note**: Because only type 0 and 7 are supported, switching from other IOS password types may not be possible. Those credentials may need to be deleted first, and new credentials created.

JSON Representation

```
{
    "kind"      : "object#local-user"
    "username"  : "cisco",
    "password"  : "ladf3434d",
    "pw-type"   : 7,
    "privilege" : "15"
}
```

Create User Name

Resource URI

Verb	URI
POST	/api/v1/global/local-users

Example

JSON Request

```
POST /api/v1/global/local-users
Accept: application/json

Content-Type: application/json

{
   "username":  "jtod",
   "password" :  "re1st2",
   "pw-type"  :  7,
   "privilege":  15
}
```

JSON Response

```
201 Created
Location: http://host/api/v1/global/local-users/jtod
```

Retrieve User Name or Password

Resource URI

Verb	URI
GET	/api/v1/global/local-users/{user-name}

Example

JSON Request

```
GET  /api/v1/global/local-users/cisco
Accept: application/json
```

JSON Response

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

{
    "kind"     : "object#local-user"
    "username" : "cisco",
    "password" : "1adf3434d",
    "pw-type"  :  7,
    "privilege":  15
}
```

Retrieve All User Names

Resource URI

Verb	URI
GET	/api/v1/global/local-users

Properties for Retrieve All

Property	Type	Description
kind	string	Object type. Has fixed value “collection#local-user”
users	string	Array of user objects.

Example

JSON Request

```
GET /api/v1/global/local-users
Accept: application/json
```

JSON Response

```
200 OK

Content-Type: application/json

{
  "kind": "collection#local-user"
  "users": [
             {
               "kind"     : "object#local-user",
               "username" :  "jtod",
               "pw-type"  :  7,
               "privilege":  15
              },
```

```
                {
                 "kind": "object#local-user",
                 "username" :  "marym",
                 "pw-type"  :  7,
                 "privilege":  7
                }
              ]
}
```

Modify User Attributes

Resource URI

Verb	URI
PUT	/api/v1/global/local-users/{user-name}

Example

JSON Request

```
PUT /api/v1/global/local-users/cisco
Content-Type: application/json

{
    "username"    : "cisco",
    "password"    : "ladf3434d",
    "pw-type"     : 7,
    "privilege"   : 15
}
```

JSON Response

```
204 No Content
```

Delete a User Name

Resource URI

Verb	URI
DELETE	/api/v1/global/local-users/{user-name}

Example

JSON Request

```
DELETE /api/v1/global/local-users/marym
```

JSON Response

```
204 No Content
```

Logging Resource

History

Release	Modification
IOS XE 3.11	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Properties

Property	Type	Required for POST and PUT	Description
kind	string	Not applicable	Object type. “object#logging”
ip-address	string	Mandatory	IP Address of the logging host
transport	string	Optional	Object type. “object#logging”
port	string	Optional	port of the logging host

JSON Representation

```
{
    "kind"       : "object#logging",
    "ip-address" : "1.1.1.1",
    "transport"  : "udp",
    "port"       : 514
}
```

Create a Logging Object

Example

JSON Request

```
POST /api/v1/global/logging
Content-Type: application/json

{
    "ip-address": "10.1.1.1",
    "transport": "tcp",
    "port": 1024
}
```

JSON Response

```
201 Created
Location: https://host/api/v1/global/logging/10.1.1.1_tcp_1024
```

Retrieve a Logging Object

Example

JSON Request

```
GET /api/v1/global/logging/10.1.1.1
Accept: application/json
```

JSON Response

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

{
    "kind"       : "object#logging",
    "ip-address" : "10.1.1.1",
    "transport"  : "udp",
    "port"       : 514
}
```

Retrieve All Logging Objects

Properties

Property	Type	Required for POST and PUT	Description
kind	string	Not applicable	Object type. Always “collection#logging”
items	array	Mandatory	Array of object#logging

JSON Representation

```
{
    "kind"   : "collection#logging",
    "items"  : [ {object#logging} ]
}
```

Example

JSON Request

```
GET /api/v1/global/logging
Accept: application/json
```

JSON Response

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

{
    "kind"    : "collection#logging",
    "items"   : [
        {
        "kind"       : "object#logging",
        "ip-address" : "10.1.1.1",
        "transport"  : "udp",
        "port"       : 514
    },
    {
        "kind"       : "object#logging",
        "ip-address" : "10.1.1.2",
        "transport"  : "tcp",
        "port"       : 1024
    }
}
```

Deleting a Logging Object

Example

JSON Request

```
DELETE /api/v1/global/logging/10.1.1.1
```

JSON Response

```
204 No Content
```

Running-Config Resource

The Running-Config resource represents the Cisco IOS running configuration. Using this operation, you invoke a PUT operation by passing the snapshot of the running configuration as the request body.

Note There is no JSON representation for this resource. It supports only a text/plain representation that corresponds to IOS text configuration. GET and PUT operations correspond to Export and Import IOS actions.

History

Release	Modification
IOS XE 3.10	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Retrieving or Exporting the Running Configuration

Resource URI

Verb	URI
GET	/api/v1/global/running-config

Example

JSON Request

```
GET /api/v1/global/running-config
Accept: application/json
```

JSON Response

```
200 OK

Content-Type: "text/plain"


!
! Last configuration change at 16:07:15 IST Fri Jun 15 2012
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Router
!
```

Import the Running Configuration

Note The running configuration file cannot contain a self-signed certificate. If the CSR already has a self-signed certificate, then the configuration file being imported cannot have a self-signed certificate unless the self-signed certificate is removed from CSR first.

Resource URI

Verb	URI
PUT	/api/v1/global/running-config

Example

JSON Request

```
PUT /api/v1/global/running-config

Content-Type: "text/plain"


!
! Last configuration change at 16:07:15 IST Fri Jun 15 2012
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Router
!
```

JSON Response

```
204 No Content
```

SNMP Server Resource

History

Release	Modification
IOS XE 3.11	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Properties

Property	Type	Required for POST and PUT	Description
kind	string	Not applicable	Object type. “object#snmp”
ip-address	string	Mandatory	IP Address of the SNMP server
community-string	string	Mandatory	SNMPv1/v2 community-string or SNMPv3 user name

JSON Representation

```
{
    "kind"             : "object#snmp",
    "ip-address"       : {string},
    "community-string" : {string}
}
```

Create SNMP Object

Example

JSON Request

```
POST /api/v1/global/snmp
Content-Type: application/json

{
    "ip-address" : "10.1.1.1",
    "community-string" : "cisco123"
}
```

JSON Response

```
201 Created
Location: https://host/api/v1/global/snmp/10.1.1.1_cisco123
```

Retrieve SNMP Object

Example

JSON Request

```
GET /api/v1/global/snmp/10.1.1.1_abc123
Accept: application/json
```

JSON Response

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

{
    "kind"             : "object#snmp",
    "ip-address"       : "10.1.1.1",
    "community-string" : "abc123"
}
```

Retrieve All SNMP Objects

Properties for Retrieve All

Property	Type	Description
kind	string	Object type. Always “collection#snmp”
items	array	Array of object#snmp

JSON Representation

```
{
    "kind"  : "collection#snmp",
    "items" : [ {object#snmp} ]
}
```

Example

JSON Request

```
GET /api/v1/global/snmp
Accept: application/json
```

JSON Response

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

{
    "kind"    : "collection#snmp",
    "items"   : [
        {
            "kind": "object#snmp",
            "ip-address": "10.1.1.1",
            "community-string": "abc123"
        },
        {
            "kind": "object#snmp",
            "ip-address": "10.1.1.2",
            "community-string": "abc123"
        }
}
```

Delete SNMP Object

Example

JSON Request

```
DELETE /api/v1/global/snmp/10.1.1.1_abc123
```

JSON Response

```
204 No Content
```

TACACS Server Resource

History

Release	Modification
IOS XE 3.11	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Properties

Property	Type	Required for POST and PUT	Description
kind	string	Not applicable	Object type. “object#tacacs”
name	string	Mandatory	Name of TACAS server
ip-address	string	Mandatory	IP Address of the TACACS server
key	String	Optional	key **Note**: This key will not be returned in the GET API for security reasons.

JSON Representation

```
{
    "kind"      : "object#tacacs",
    "name"      : {string},
    "ip-address": {string},
    "key": {string}
}
```

Create TACACS Server

Example

JSON Request

```
POST /api/v1/global/tacacs
Content-Type: application/json

{
    "name"       : "primary",
    "ip-address" : "10.1.1.1",
    "key"        : "cisco123"
}
```

JSON Response

```
201 Created
Location: https://host/api/v1/global/tacacs/primary
```

Retrieve TACACS Server

Example

JSON Request

```
GET /api/v1/global/tacacs/primary
Accept: application/json
```

JSON Response

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

{
    "kind"      : "object#tacacs",
    "name"      : "primary",
    "ip-address": "10.1.1.1"
}
```

Retrieve All TACACS Servers

Properties for Retrieve All

Property	Type	Description
kind	string	Object type. Always “collection#tacacs”
items	array	Array of object#tacacs

JSON Representation for Retrieve All

```
{
    "kind"   : "collection#tacacs",
    "items"  : [ {object#tacacs} ]
}
```

Example

JSON Request

```
GET /api/v1/global/tacacs
Accept: application/json
```

JSON Response

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

{
    "kind"        : "collection#tacacs",
    "items"       :  [
          {
                "kind"      : "object#tacacs",
                "name"      : "primary",
                "ip-address": "10.1.1.1"
          },
          {
                "kind"      : "object#tacacs",
                "name"      : "secondary",
                "ip-address": "10.1.1.2"
          }
                     ]
}
```

Modify TACACS Server

Example

JSON Request

```
PUT /api/v1/global/tacacs/primary
Content-Type: application/json

{
    "ip-address"  : "10.1.1.1",
    "key"         : "cisco123"
}
```

JSON Response

```
204 No Content
```

Delete TACACS Server

Example

JSON Request

```
DELETE /api/v1/global/tacacs/primary
```

JSON Response

```
204 No Content
```

Syslog Resource

This resource is used to retrieve the CSR logs. The Properties table describes the fields in the show processes cpu output.

History

Release	Modification
IOS XE 3.10	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Properties

Field	Type	Description
kind	string	Must be “object#syslog-buffer”
messages	string	Syslog messages

JSON Representation

```
{
  "kind": "object#syslog-buffer",
  "messages": "{string}"
}
```

Retrieve the Syslog

Example

JSON Request

```
GET  /api/v1/global/syslog

Accept: application/json
```

JSON Response

```
200 OK

Content-Type: application/json

{
  "kind"    : "object#syslog-buffer",
  "messages": "{string}"
}
```

Reload Resource

Reloads/reboots the router after a specified interval, up to 60 minutes.

History

Release	Modification
IOS XE 3.12	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms

Properties

Property	Type	Required for POST and PUT	Description
minutes	number	Mandatory	Reloads after the specified interval in minutes. Range: 0 to 60 A value of 0 indicates an immediate reload and will terminate the REST HTTP session.

JSON Representation

```
{
    "minutes": {number}
}
```

Reload Router

Resource URI

Verb	URI
PUT	/api/v1/global/reload

Example

JSON Request

```
PUT /api/v1/global/reload
Content-Type: application/json

{
   "minutes" : 5
}
```

JSON Response

```
204 No Content
```

Saving the REST API Configuration

This resource saves the REST API configuration file.

History

Release	Modification
IOS XE 3.13	Introduced for the CSR1000V platform
IOS XE 3.14	Introduced for ASR1001-X and ASR1002-X platforms The following API is not supported: /api/v1/global/autosave-timer

Saving the REST API configuration file (IOS write memory CLI command) introduces a delay of a few seconds, depending on the size of the configuration file. To reduce the impact that the write memory command has on the REST API performance, the configuration is saved at a fixed time interval.

- save-config API

  Save the REST API configuration file. See Save REST API Configuration File, page 4-23.

- autosave-timer API

  Configure or retrieve the autosave interval. See Configure the Autosave Timer Interval, page 4-23.

The time interval is also configurable using a new CLI based on the restful-api CLI command.

Save REST API Configuration File

Resource URI

Verb	URI
PUT	/api/v1/global/save-config

Example

JSON Request

```
PUT /api/v1/global/save-config
Content-Type: application/json
```

JSON Response

```
204 No Content
```

Configure the Autosave Timer Interval

Properties

Property	Type	Required for POST and PUT	Description
timeout	integer	Mandatory	Interval setting from 30 to 300 seconds

JSON Representation

```
{
    "timeout": {integer}
}
```

Resource URI

Verb	URI
PUT	/api/v1/global/autosave-timer
See Historyfor platform limitations.	

Example

JSON Request

```
PUT /api/v1/global/autosave-timer
Content-Type: application/json

{
   "timeout": 30
}
```

JSON Response

```
204 No Content
```

Retrieve the Autosave Timer Interval

Resource URI

Verb	URI
GET	/api/v1/global/autosave-timer
See Historyfor platform limitations.	

Example

JSON Request

```
GET /api/v1/global/autosave-timer
```

JSON Response

```
200 ok

Content-type: application/json

{ "timeout" : 30}
```

IPv6 Resource

History

Release	Modification
IOS XE 3.16	Introduced for the CSR1000V platform

Properties

Property	Type	Required for POST and PUT	Description
kind	string	Not applicable	Object type: "object#ipv6-routing"
unicast	boolean	Optional	Enables the forwarding of IPv6 unicast datagrams
multicast	boolean	Optional	Enables the forwarding of IPv6 multicast datagrams

JSON Representation

```
{
  "kind": "object#ipv6-routing",
  "unicast": {boolean},
  "multicast": {boolean}
}
```

Support for Any CLI

This resource can be used to configure any CLI through the REST API.

History

Release	Modification
IOS XE 3.16	Introduced for the CSR1000V platform

Properties

Property	Type	Required for POST and PUT	Description
config	string	Optional	CLI to be applied in the config mode
exec	string	Optional	CLI to be applied in the exec mode
show	string	Optional	CLI to be run to show the results

JSON Representation

```
{
  "config":"string",
  "exec":"string",
  "show":"string"
}
```

Configure a CLI in "config" Mode

Resource URI

Verb	URI
PUT	/api/v1/global/cli

Example

JSON Request

```
PUT /api/v1/global/cli
Content-Type: application/json

{
   "config": "interface lisp0"
}
```

JSON Response

```
204 No Content
```

Configure Multiple CLIs in "config" Mode

Separate multiple CLIs with **\n**.

Resource URI

Verb	URI
PUT	/api/v1/global/cli

Example

JSON Request

```
PUT /api/v1/global/cli
Content-Type: application/json

{
   "config": "crypto ssl proposal SSL_PROP \n protection rsa-aes128-sha1"
}
```

JSON Response

```
204 No Content
```

Configure a CLI to Show Output

Resource URI

Verb	URI
PUT	/api/v1/global/cli

Example

JSON Request

```
PUT /api/v1/global/cli
Content-Type: application/json

{
   "show": " privilege"
}
```

JSON Response

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

{
   "kind": "object# cli-results",
   "results": "Current privilege level is 15"
}
```

Configure Multiple CLIs in "exec" Mode

Separate multiple CLIs with **\n**.

Resource URI

Verb	URI
PUT	/api/v1/global/cli

Example

JSON Request

```
PUT /api/v1/global/cli
Content-Type: application/json

{
   "exec": " ping 1.1.1.1"
}
```

JSON Response

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

{
  "kind": "object# cli-results",
  "results":  "Type escape sequence to abort.\nSending 5, 100-byte ICMP Echos to 1.1.1.1,
timeout is 2 seconds:\n.....\nSuccess rate is 0 percent (0/5)"
}
```