ISE ERS API Examples

Identity Services Engine (...

19727 VIEWS 7 HELPFUL 0 COMMENTS

thomas

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Get Started

Enable the ERS APIs

The ERS APIs are disabled by default for security so you must enable it.

1. **Login** to your ISE PAN
2. Navigate to **Administration > System > Settings** and select **ERS Settings** from the left panel.
3. Enable the ERS APIs by selecting **Enable ERS for Read/Write**
4. Select **Save** to save your changes.

After enabling ERS, it is available for Create, Read, Update, Delete (CRUD) operations on an ISE Policy Administration Node (PAN) and for Read-Only access (GET requests) on any ISE Policy Service Node (PSN).

View the ERS API SDK

1. You may use the default **`admin`** account to *view* the ISE ERS Software Development Kit (SDK) at `https://ise.domain.com:9060/ers/sdk`

Create ERS API Users

You can use the default ISE admin account for ERS APIs since it has SuperUser privileges. However, it is recommended to create separate users with the **ERS Admin** (Read/Write) or **ERS Operator** (Read-Onlly) privileges to use the ERS APIs so you can separately track and audit their activities.

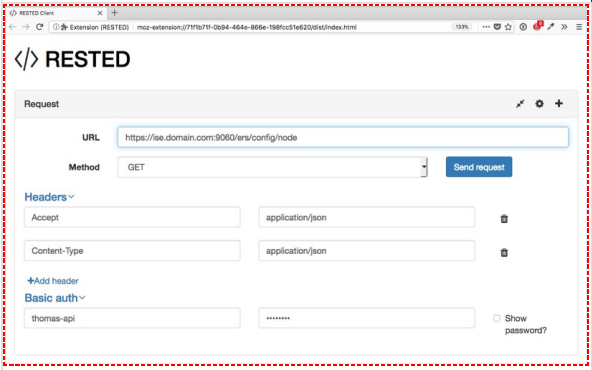
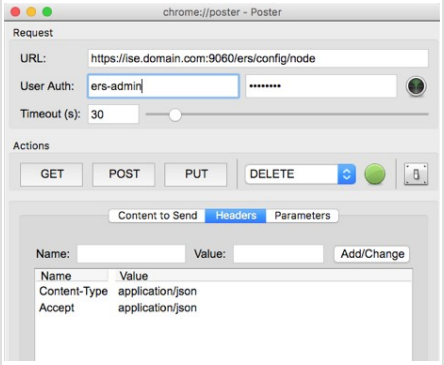
1. Navigate to **Administration > System > Admin Access**
2. Choose **Administrators > Admin Users** from the left pane
3. Choose **+Add > Create an Admin User** to create a new **`ers-admin`** and **`ers-operator`** accounts.

New Administrator		
Name	ers-admin	ers-operator
Status	Enabled	Enabled
Password	******	******
Re-Enter Password	******	******
Admin Groups	ERS Admin	ERS Operator

How to Invoke the REST APIs

Browser Extensions

Probably the easiest and most accessible way for most users to play with REST APIs is via a web browser extensions.

Firefox RESTED Extension	Chrome Poster Extension
	

All extensions have the same basic options.

To get a list of all ISE nodes in your deployment, try the following :

Field	GET
URL	https://198.18.133.27:9060/ers/config/node
Method	GET (Read)
Username	ers-admin
Password	******
Headers	Content-Type: application/json Accept-Type: application/json

cURL

If you prefer to use a command line, the cURL utility is probably the best and easiest choice for doing quick and dirty REST API calls.

To get a list of all ISE nodes in your deployment, try the following :

```
curl --include --header 'Accept: application/json' --user admin:C1sco12345
https://198.18.133.27:9060/ers/config/node
```

cURL Option	Description
-H, --header <header>	Header to include in the request. Use one per header.
-i, --include	Include the HTTP result headers in the output. This is useful after creating (HTTP POST/PUT) an object to get it's Location identifier: `Location: https://198.18.133.27:9060/ers/config/internaluser/75a43806-bd5e-42ef-80a8-c47e759234bd`
-k, --insecure	Accept insecure connections. Useful if you are playing with ISE using a self-signed certificate.
-u, --user <username:password>	Specify the username & password to authenticate the ERS user

Create

Create an Internal User with an XML File

Version : ISE 1.3

Create an `add_internal_user.xml` XML file to create user **`user2`** :

```
<?xml version="1.0" encoding="utf-8" standalone="yes"?>
<ns3:inernaluser xmlns:ns2=“ers.ise.cisco.com” xmlns:ns3=“identity.ers.ise.cisco.com” name=“user2”>
  <changePassword>true</changePassword>
  <customAttribute/>
  <enabled>true</enabled>
  <firstName>first</firstName>
  <lastName>last</lastName>
  <password>C!sco123</password>
</ns3:internaluser>
```

Run the curl command:

```
curl -v -X POST -k --tlsv1 -H "Content-Type:
application/vnd.com.cisco.ise.identity.internaluser.1.0+xml"
https://ers-admin:ers-password@ise.domain.com:9060/ers/config/internaluser -d
@add_internal_user.xml
```

Create an Internal User with cURL and JSON

Create and enable the user 'thomas' in the default Internal Users database and do not require him to change his password upon login:

```
curl --include --header 'Content-Type:application/json' --header 'Accept:
application/json' --user admin:C1sco12345 --request POST
https://198.18.133.27:9060/ers/config/internaluser  --data '
{
  "InternalUser" : {
    "name" : "thomas",
    "password" : "C1sco12345",
    "changePassword" : false
  }
}'
```

Response:

```
HTTP/1.1 201 Created

Set-Cookie: JSESSIONIDSSO=D4C830896B06B529CECCA61640B0193D; Path=/; Secure; HttpOnly

Set-Cookie: APPSESSIONID=C93E2BE40459768481F24D6DFA10B29D; Path=/ers; Secure; HttpOnly

Cache-Control: no-cache, no-store, must-revalidate

Pragma: no-cache

Expires: Thu, 01 Jan 1970 00:00:00 GMT

Location: https://198.18.133.27:9060/ers/config/internaluser/75a43806-bd5e-42ef-80a8-c47e759234bd

Date: Sat, 17 Mar 2018 20:32:31 GMT

Content-Type: application/json;charset=utf-8

Content-Length: 0

Server:
```

Read

Get All ISE Administrators Using cURL and JSON

```
curl  --header  'Accept: application/json'  --user admin:C1sco12345 https://198.18.133.27:9060/ers/config/adminuser
```

Response:

```
{
  "SearchResult" : {
    "total" : 1,
    "resources" : [ {
      "id" : "55c1b32f-9a89-4969-9ba2-151c8b03d3f1",
      "name" : "admin",
      "description" : "Default Admin User",
      "link" : {
        "rel" : "self",
        "href" : "
https://198.18.133.27:9060/ers/config/adminuser/55c1b32f-9a89-4969-9ba2-151c8b03d3f1",
        "type" : "application/xml"
      }
    } ]
  }
}
```


Get Endpoints by Endpoint GroupID

Version : ISE 1.3

Get endpoints per endpoint group and perform appropriate action.

```
curl  --header  'Accept: application/json' --user admin:C1sco12345
https://ise-pan.domain.com:9060/ers/config/endpoint?
filter=groupId.EQ.210d87c0-c260-11e2-9e10-0050568e01f0
```

Get Endpoint ID Group by Name

Version : ISE 1.2

Find the endpoint id group with a group name (e.g. GL-0)

```
curl -k -H 'Accept:
application/vnd.com.cisco.ise.identity.endpointgroup.1.0+xml' --user
admin:C1sco12345 '
https://ise-pan.domain.com:9060/ers/config/endpointgroup?filter=name.EQ.GL-0
'
```

Response :

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>

<ns2:searchResult xmlns:ns2="ers.ise.cisco.com" total="1">

<resources>

<resource name="GL-0" id="d27edfa0-889d-11e3-b246-000c2916b229" description="">

<link type="application/xml" href="
https://ise-pan.domain.com:9060/ers/config/endpointgroup/d27edfa0-889d-11e3-b246-000c2916b229
" rel="self"/>

</resource>

</resources>

</ns2:searchResult>

Get Endpoint by MAC

Find the endpoint id using the MAC address :

```
curl -k -H 'Accept:
application/vnd.com.cisco.ise.identity.endpointgroup.1.0+xml' --user
admin:C1sco12345  '
https://ers-username:ers-password@ise-
pan.domain.com:9060/ers/config/endpoint?filter=mac.EQ.11:22:33:44:55:66
'
```

Response :

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>

<ns2:searchResult xmlns:ns2="ers.ise.cisco.com" total="1">

<resources>

<resource id="046f1250-bc6e-11e4-9baf-000c2916b229">

<link type="application/xml" href="
https://ise-pan.domain.com:9060/ers/config/endpoint/046f1250-bc6e-11e4-9baf-000c2916b229"
rel="self"/>

</resource>

</resources>

</ns2:searchResult>

Get Endpoint Info by Resource ID

Get endpoint info by its Resource ID

```
curl -k '
https://ers-admin:ers-
password@ise.domain.com:9060/ers/config/endpoint/046f1250-bc6e-11e4-9baf-
000c2916b229
' -H 'Accept: application/vnd.com.cisco.ise.identity.endpoint.1.0+xml'
```

ISE Response :

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>

<ns3:endpoint xmlns:ns2="ers.ise.cisco.com" xmlns:ns3="identity.ers.ise.cisco.com" id="046f1250-
bc6e-11e4-9baf-000c2916b229">

<link type="application/xml" href="
https://ise-pan.domain.com:9060/ers/config/endpoint/046f1250-bc6e-11e4-9baf-000c2916b229"
rel="self"/>

<groupId>04f15020-f42f-11e2-bd54-005056bf2f0a</groupId>

<identityStore></identityStore>

<identityStoreId></identityStoreId>

<mac>11:22:33:44:55:66</mac><portalUser></portalUser>

<profileId>36c0ee30-f42f-11e2-bd54-005056bf2f0a</profileId>

<staticGroupAssignment>false</staticGroupAssignment>

<staticProfileAssignment>false</staticProfileAssignment>

</ns3:endpoint>

Update

Update Endpoint : Statically Assign to an Identity Group

Create an XML file named `endpoint.xml` with the endpoint changes :

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns3:endpoint xmlns:ns2="ers.ise.cisco.com" xmlns:ns3="identity.ers.ise.cisco.com">
  <groupId>d27edfa0-889d-11e3-b246-000c2916b229</groupId>
  <identityStore></identityStore>
  <identityStoreId></identityStoreId>
  <mac>11:22:33:44:55:66</mac>
  <portalUser></portalUser>
  <profileId>36c0ee30-f42f-11e2-bd54-005056bf2f0a</profileId>
  <staticGroupAssignment>true</staticGroupAssignment>
  <staticProfileAssignment>false</staticProfileAssignment>
</ns3:endpoint>
```

Note: To *remove* an endpoint from an ID group, simply change `staticGroupAssignment` to **`false`**.

Update ISE using the XML file above :

curl -k -X PUT '
https://ers-username:ers-password@ise-pan.domain.com:9060/ers/config/endpoint/046f1250-bc6e-11e4-9baf-000c2916b229
' -H 'Content-Type: application/vnd.com.cisco.ise.identity.endpoint.1.0+xml; charset=utf-8' -d
@endpoint.xml

ISE Response :

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
  <ns2:updatedFields xmlns:ns2="ers.ise.cisco.com">
  <updatedField field="groupId">
    <newValue>d27edfa0-889d-11e3-b246-000c2916b229</newValue>
    <oldValue>04ea7250-f42f-11e2-bd54-005056bf2f0a</oldValue>
  </updatedField>
  <updatedField field="staticGroupAssignment">
```

```
    <newValue>true</newValue>
    <oldValue>false</oldValue>
  </updatedField>
</ns2:updatedFields>
```

Delete

We don't have any examples, yet.

Resources

- Guest & Sponsor API

Tags: api endpoint ERS example examples hack ise rest script

7 Helpful

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Latest Contents

FTD site to site VPN to ASA and IOS

0 0

Created by tonypearce1 on 09-30-2018 06:55 PM

I would like to configure a VPN between an FTD appliance and another Cisco appliance, specifically an ASA and an IOS router. Usually I use VTI tunnels so I can create a tunnel per-internet connection. I'm a bit unsure on the capabili ty of FTD at the momen... view more

ASA-X to FTD with Anyconnect SSL

0 0

Created by tonypearce1 on 09-30-2018 06:34 PM

I attended a webinar a couple of weeks ago surrounding FTD migration. How do I migrate my Anyconnect SSL licen ses over to FTD? I'm unable to find out any information about it. I have an ASA 5515-X with 50 SSL licenses which give clientless web VPN as well... view more

FlexVPN with local address pool but no static route added

0 0

Created by Difan Zhao on 09-30-2018 03:08 PM

I am playing with the FlexVPN and I am testing with assigning the spoke with the address from a pool. The tunnel co mes up and the address is assigned to the spoke. The EIGRP adj comes up too if I put on some EIGRP config. Howe ver I don't have the /32 stat... view more

Cisco DMVPN - EIGRP Neighbor Issue

1 0

Created by josiah138 on 09-30-2018 02:11 PM

Hi; I have two Cisco 1921 Routers setup with a DMVPN. The tunnel comes up no problem and the routers exchang e a new adjacency. However, the adjacency they form is for the tunnel network (172.16.0.0). On both routers, I hav e used the following netwo... view more

Community feedback

Cisco ASA 5505 Client VPN No LAN Access

1 0

Created by hiaxis on 09-30-2018 01:14 PM

Hi all. I'm having trouble with a VPN connection to a Cisco 5505 8.0 using the Cisco VPN Client. Users can connect to the VPN just fine but cannot ping any hosts on the local network or the inside interface. They also cannot access any local hosts by name... view more

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