

透過Insominia的ISE 3.3中的JSON或XML和API呼叫配置內部使用者

目錄

簡介

本文檔介紹透過將JSON或XML資料格式與API呼叫結合使用，在Cisco ISE中配置內部使用者。

必要條件

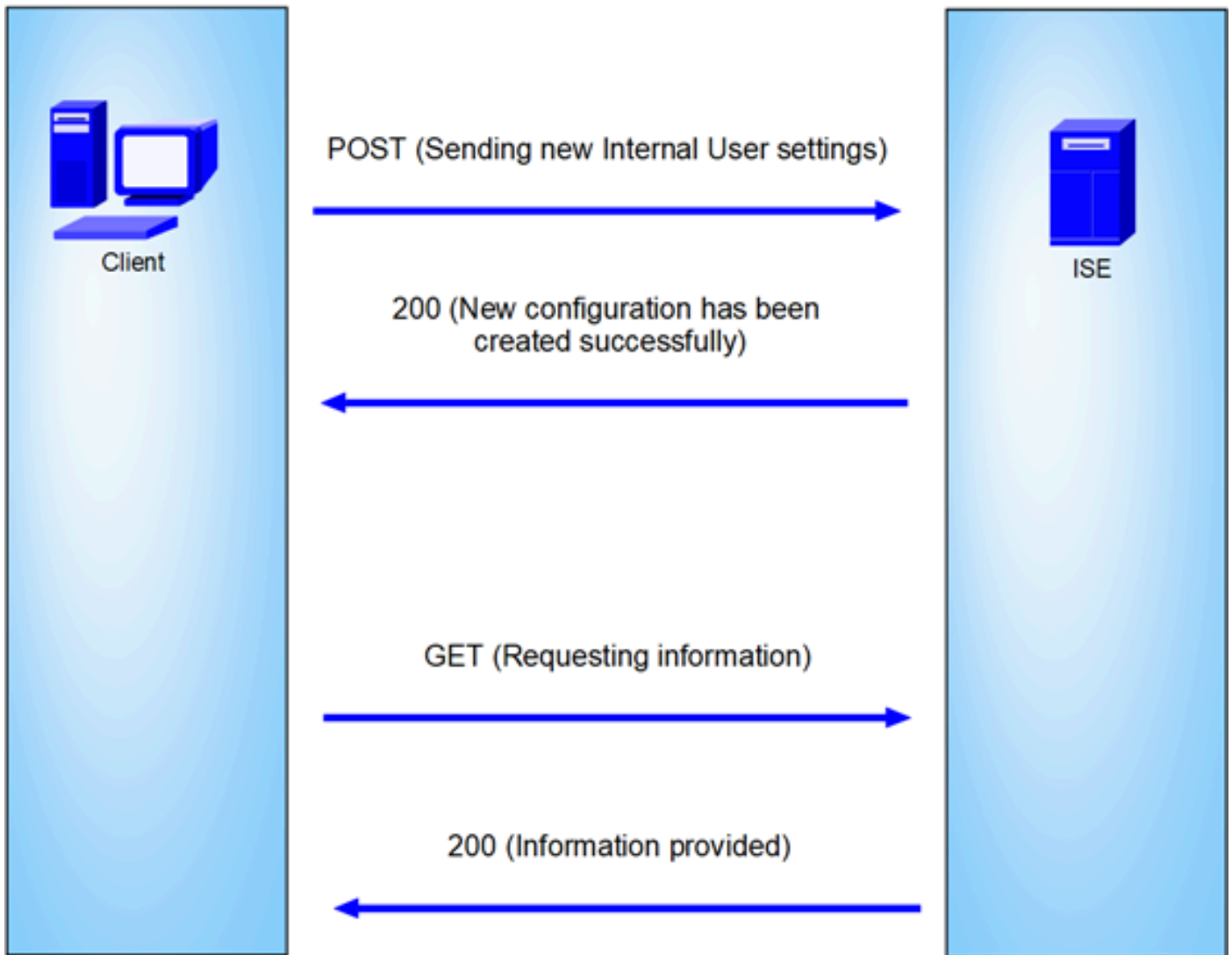
- ISE 3.0或更高版本。
- API客戶端軟體。

採用元件

- ISE 3.3
- Insominia 9.3.2

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

網路圖表



一般拓撲

GET和POST是API（應用程式程式設計介面）呼叫中最常用的兩種HTTP方法。它們用於與伺服器上的資源互動，通常用於檢索資料或提交資料以進行處理。

獲取API呼叫

GET方法用於從指定的資源請求資料。GET請求是API和網站中最常見且廣泛使用的方法。當您訪問網頁時，您的瀏覽器正在向託管該網頁的伺服器發出GET請求。

POST API呼叫

POST方法用於將資料傳送到伺服器以建立或更新資源。提交表單資料或上傳檔案時，經常會使用POST要求。

組態

我們需要從API客戶端軟體向ISE節點傳送確切資訊來建立內部使用者。

ISE配置

啟用ERS功能。

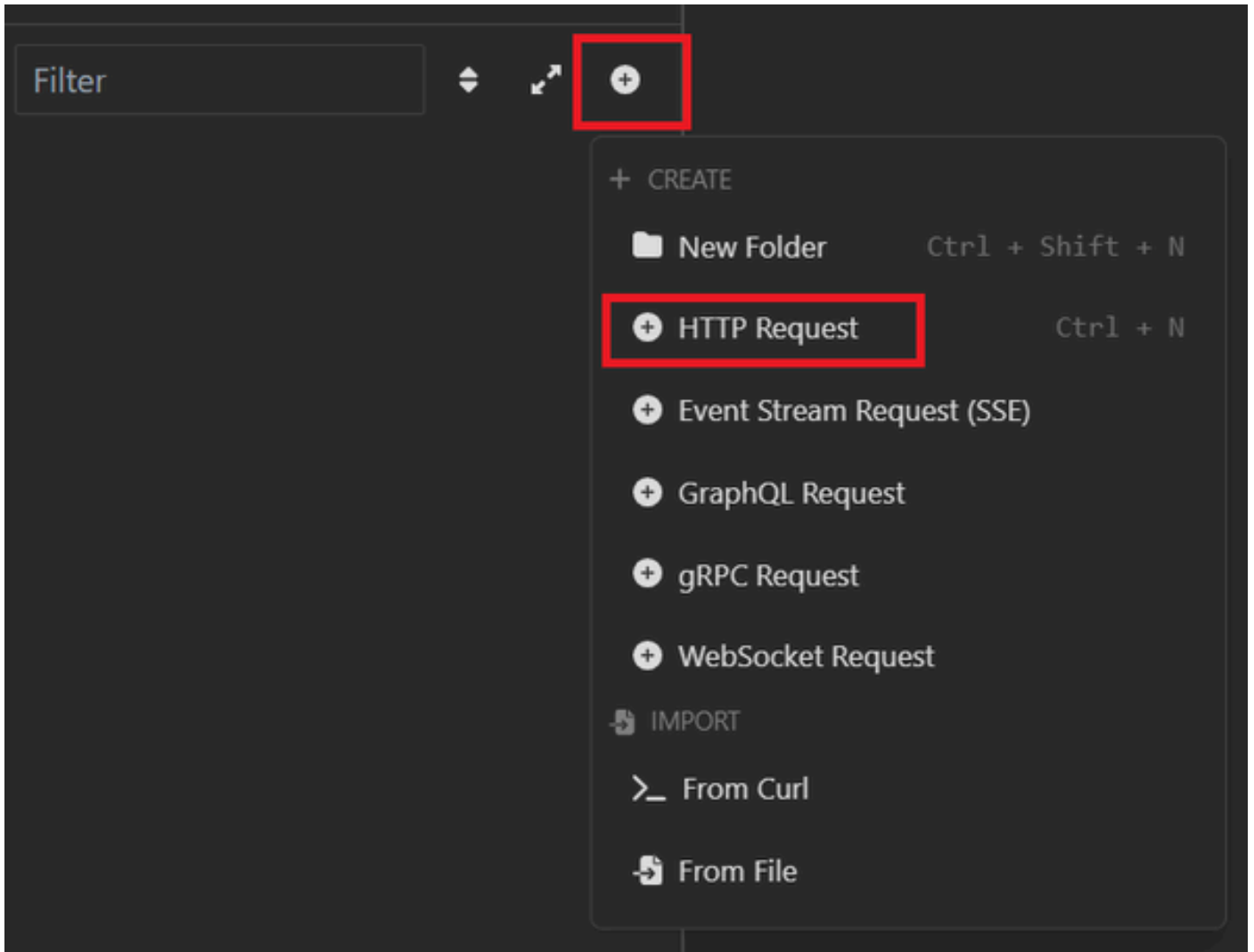
1. 切換作業選項至「管理」>「系統」>「設定」>「API設定」>「API服務設定」。
2. 啟用ERS（讀取/寫入）選項。

The screenshot shows the Cisco Identity Services Engine (ISE) Administration / System interface. The left sidebar contains a navigation menu with categories like Deployment, Licensing, Certificates, Logging, Maintenance, Upgrade, Health Checks, Backup & Restore, Admin Access, and Settings. The main content area is titled 'API Settings' and has three tabs: Overview, API Service Settings (selected), and API Gateway Settings. Under 'API Service Settings for Administration Node', there are two toggle switches: 'ERS (Read/Write)' (which is turned on and highlighted with a red box) and 'Open API (Read/Write)' (which is turned off). Below this, there is a section for 'CSRF Check (only for ERS Settings)' with two radio button options: 'Enable CSRF Check for Enhanced Security (Not compatible with pre ISE 2.3 Clients)' and 'Disable CSRF For ERS Request (compatible with ERS clients older than ISE 2.3)'. At the bottom right, there are 'Reset' and 'Save' buttons, with the 'Save' button highlighted by a red box.

API設定

JSON請求。

1. 開放性失眠。
2. 在左側增加新的HTTPS請求。

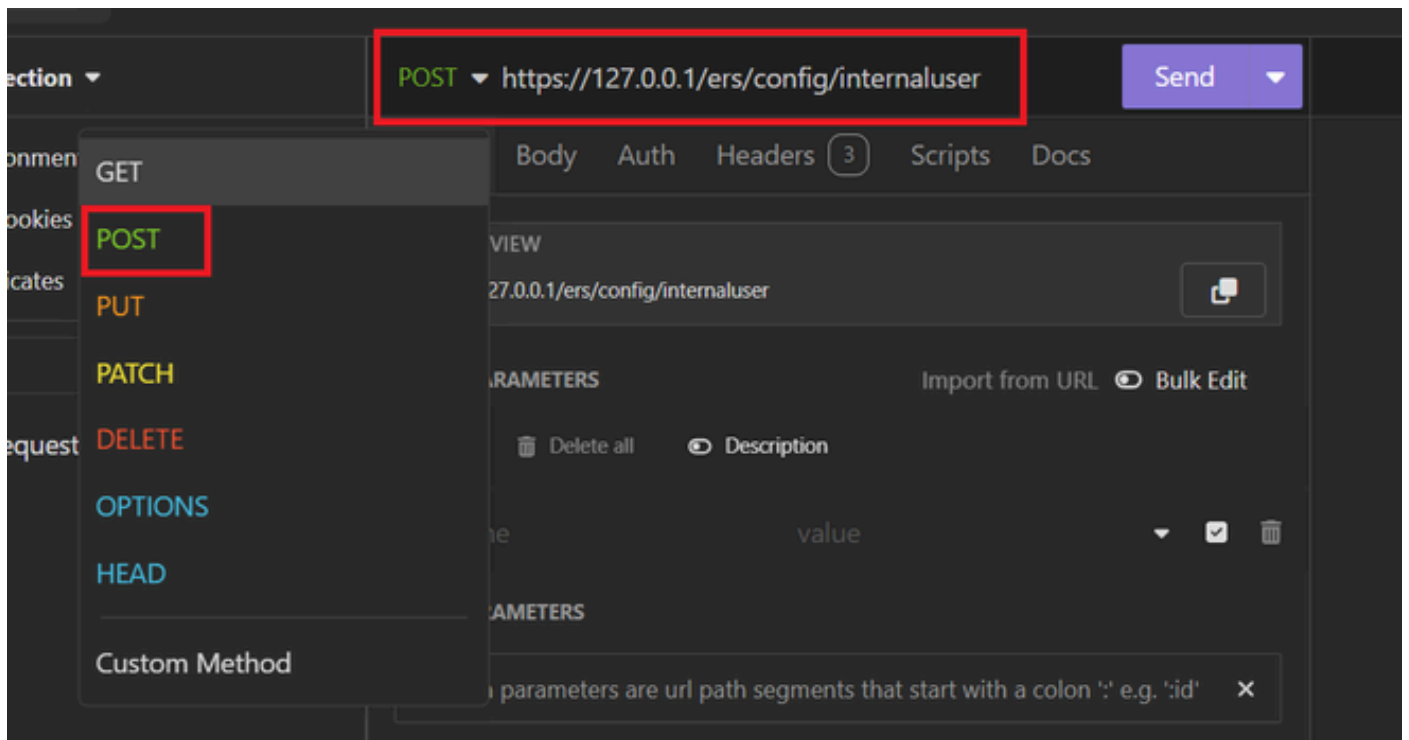


JSON請求

3. 您需要選擇POST以將資訊傳送到ISE節點。

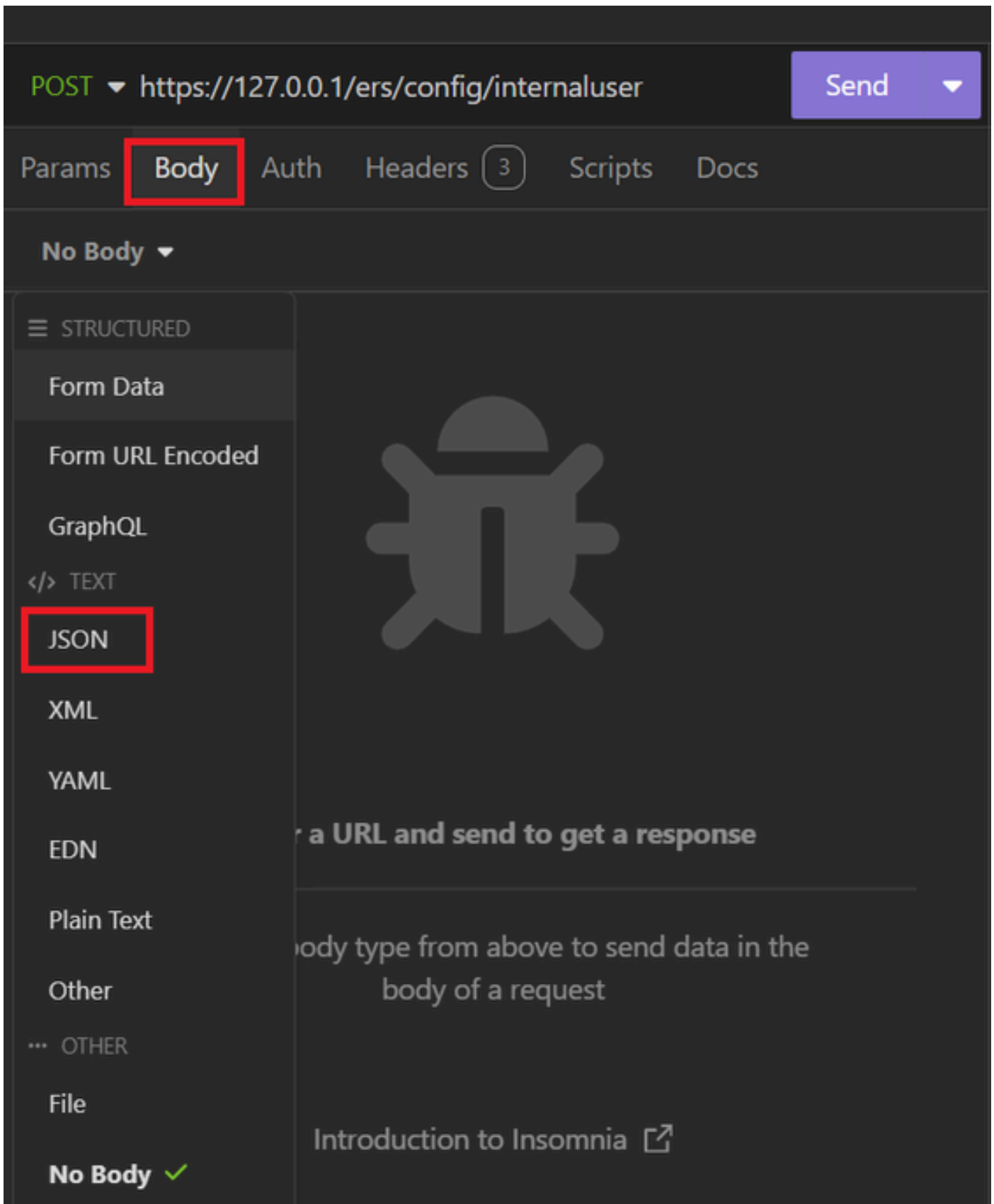
您需要輸入的URL取決於ISE節點的IP地址。

URL : <https://x.x.x.x/ers/config/internaluser>



JSON帖子

4. 然後按一下Body並選擇JSON



JSON本文

5. 您可以貼上語法並根據需要變更引數。

```
POST ▼ https://127.0.0.1/ers/config/internaluser Send ▼
Params Body Auth Headers 4 Scripts Docs
JSON ▼
1
2 ▼ {
3 ▼   "InternalUser": {
4     "name": "User01",
5     "description": "this is the first user account",
6     "enabled": true,
7     "email": "user1@local.com",
8     "accountNameAlias": "User 001",
9     "password": "bWn4hehq8ZCV1rk",
10    "firstName": "User",
11    "lastName": "Cisco",
12    "changePassword": true,
13    "identityGroups": "a1740510-8c01-11e6-996c-525400b48521",
14    "passwordNeverExpires": false,
15    "daysForPasswordExpiration": 60,
16    "expiryDateEnabled": false,
17    "expiryDate": "2026-12-11",
18    "enablePassword": "bWn4hehq8ZCV22k",
19    "dateModified": "2024-7-18",
20    "dateCreated": "2024-7-18",
21    "passwordIDStore": "Internal Users"
22  }
23 }
```

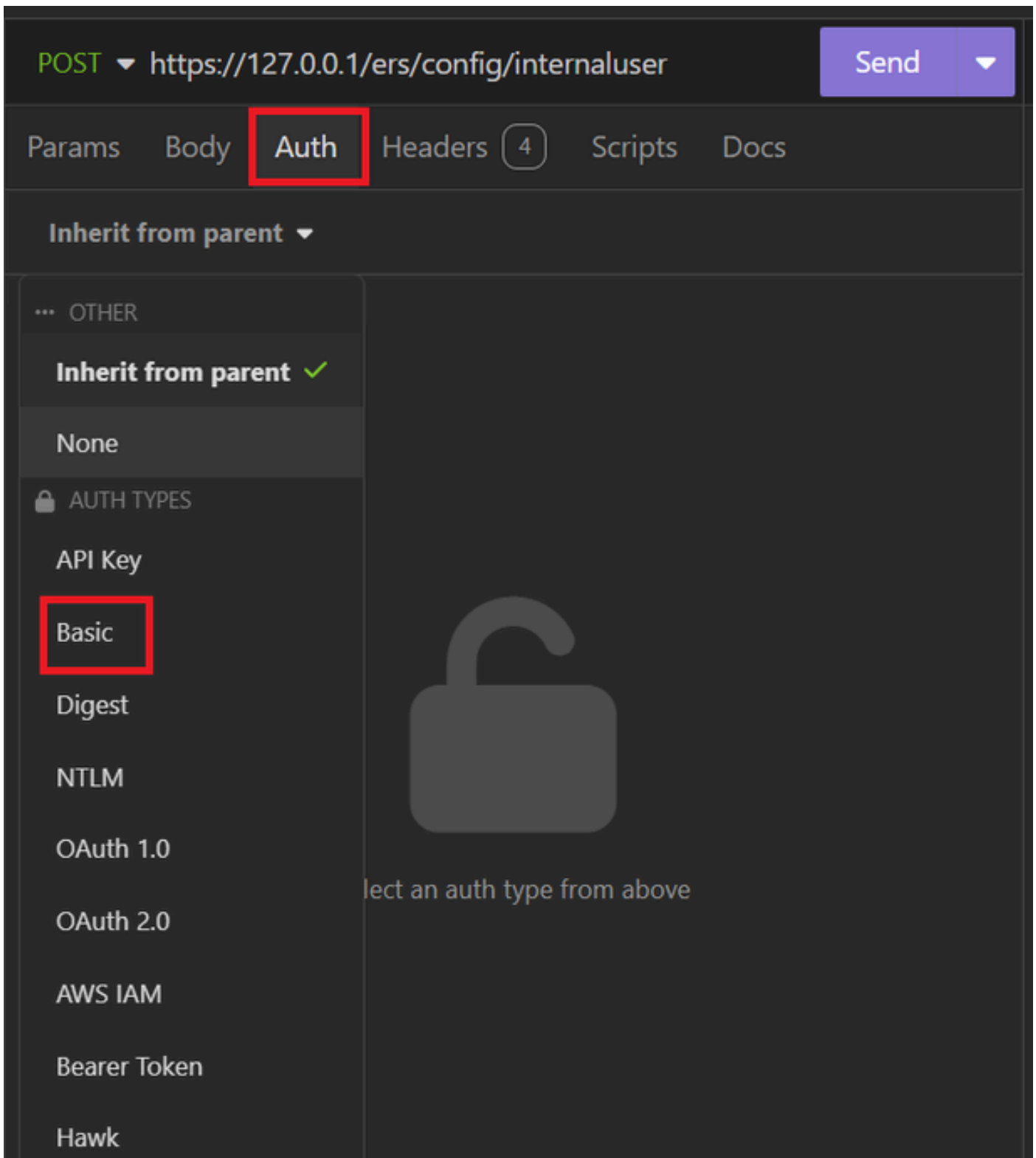
JSON語法

JSON語法

```
{
  "InternalUser": {
    "name": "name",
    "description": "description",
    "enabled": true,
    "email": "email@domain.com",
    "accountNameAlias": "accountNameAlias",
```

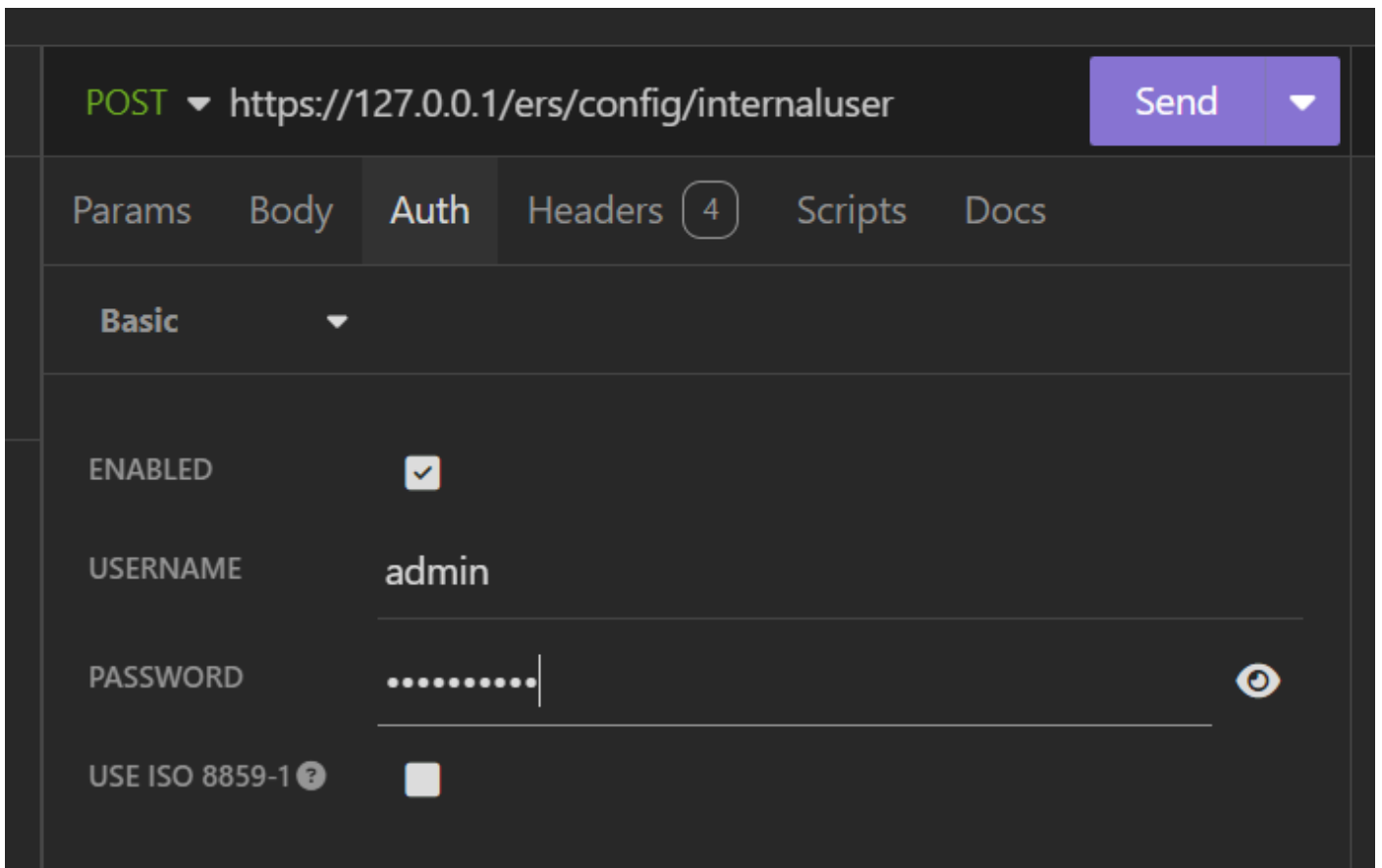
```
"password": "password",
"firstName": "firstName",
"lastName": "lastName",
"changePassword": true,
"identityGroups": "identityGroups",
"passwordNeverExpires": false,
"daysForPasswordExpiration": 60,
"expiryDateEnabled": false,
"expiryDate": "2016-12-11",
"enablePassword": "enablePassword",
"dateModified": "2015-12-20",
"dateCreated": "2015-12-15",
"customAttributes": {
  "key1": "value1",
  "key2": "value3"
},
"passwordIDStore": "Internal Users"
}
}
```

6. 按一下「驗證」並選擇「基本」。



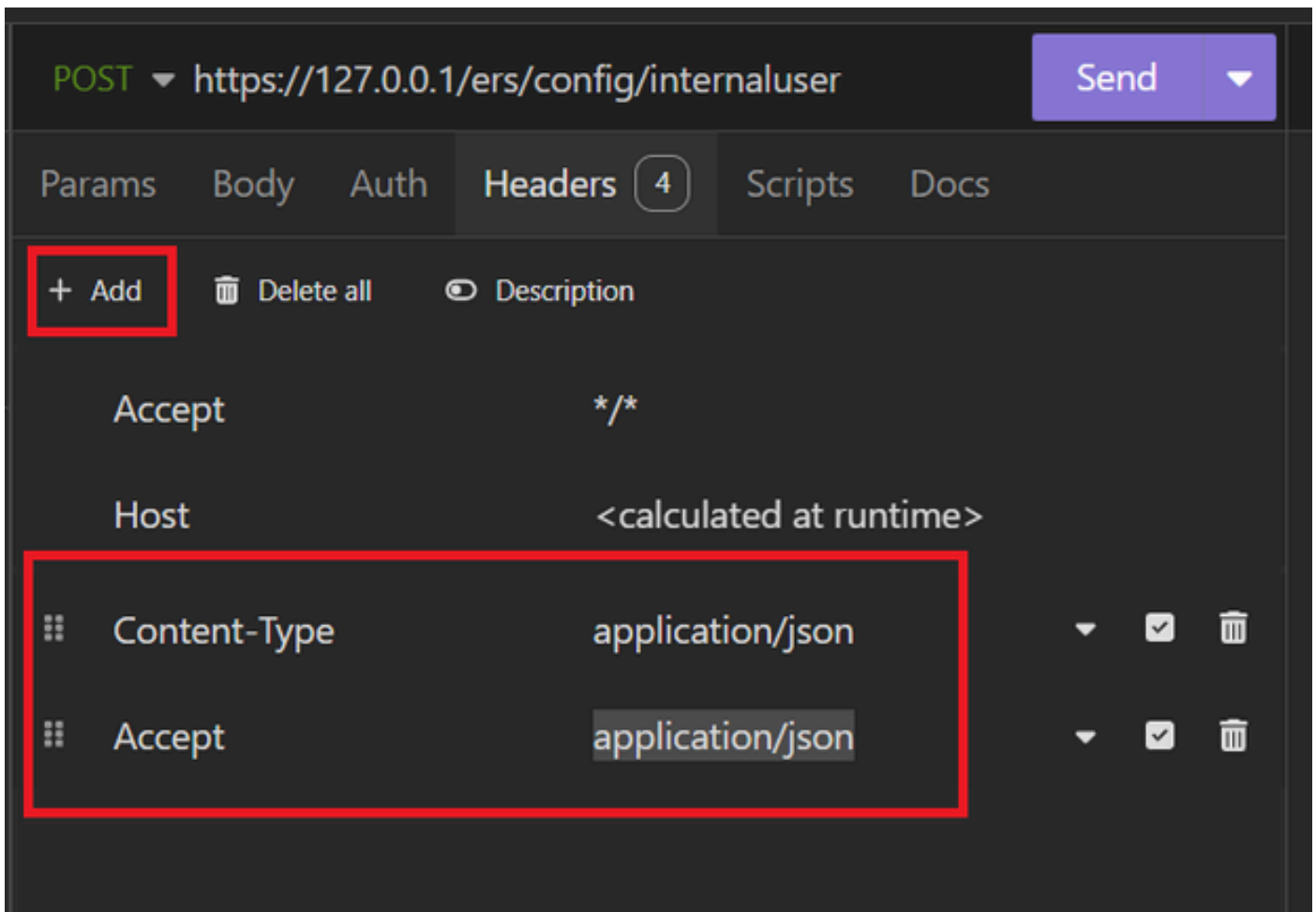
JSON身份驗證

7. 輸入ISE GUI憑證。



管理員JSON憑證

8. 按一下標頭以新增下列方法：
 - 內容型別：application/json
 - 接受：application/json



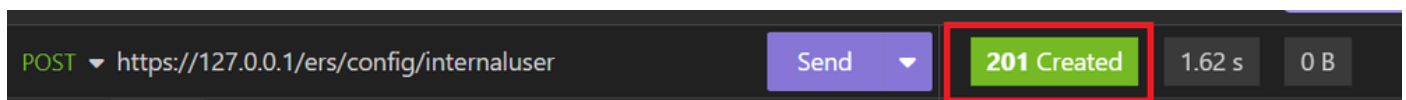
JSON標頭

9. 最後，按一下「傳送」。

注意：如果要將身份組分配給新使用者帳戶，需要使用身份組的ID。有關詳細資訊，請檢視故障排除部分。

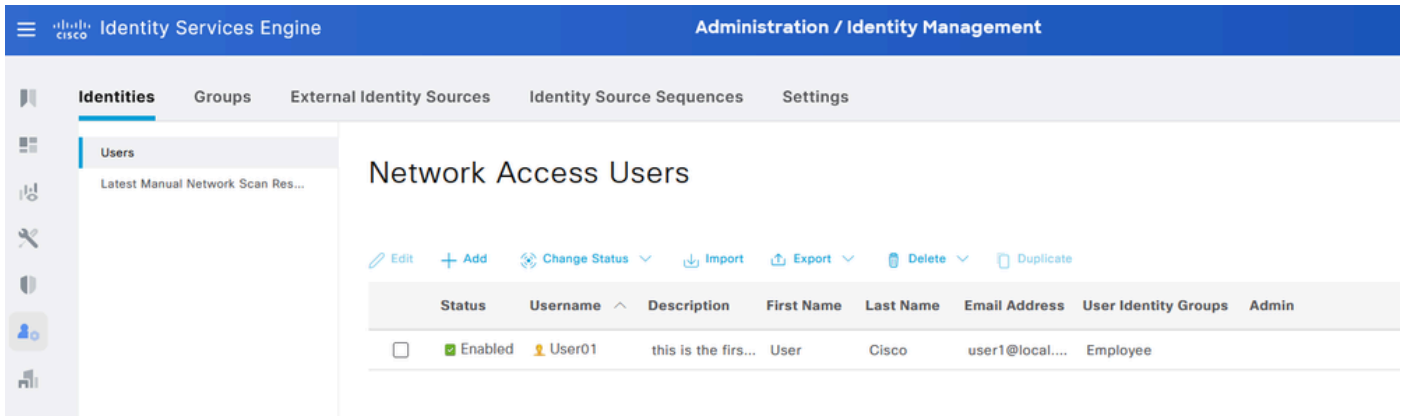
驗證

1. 傳送POST請求後，您將看到「201已建立」狀態。這表示程式已順利完成。



成功的JSON請求

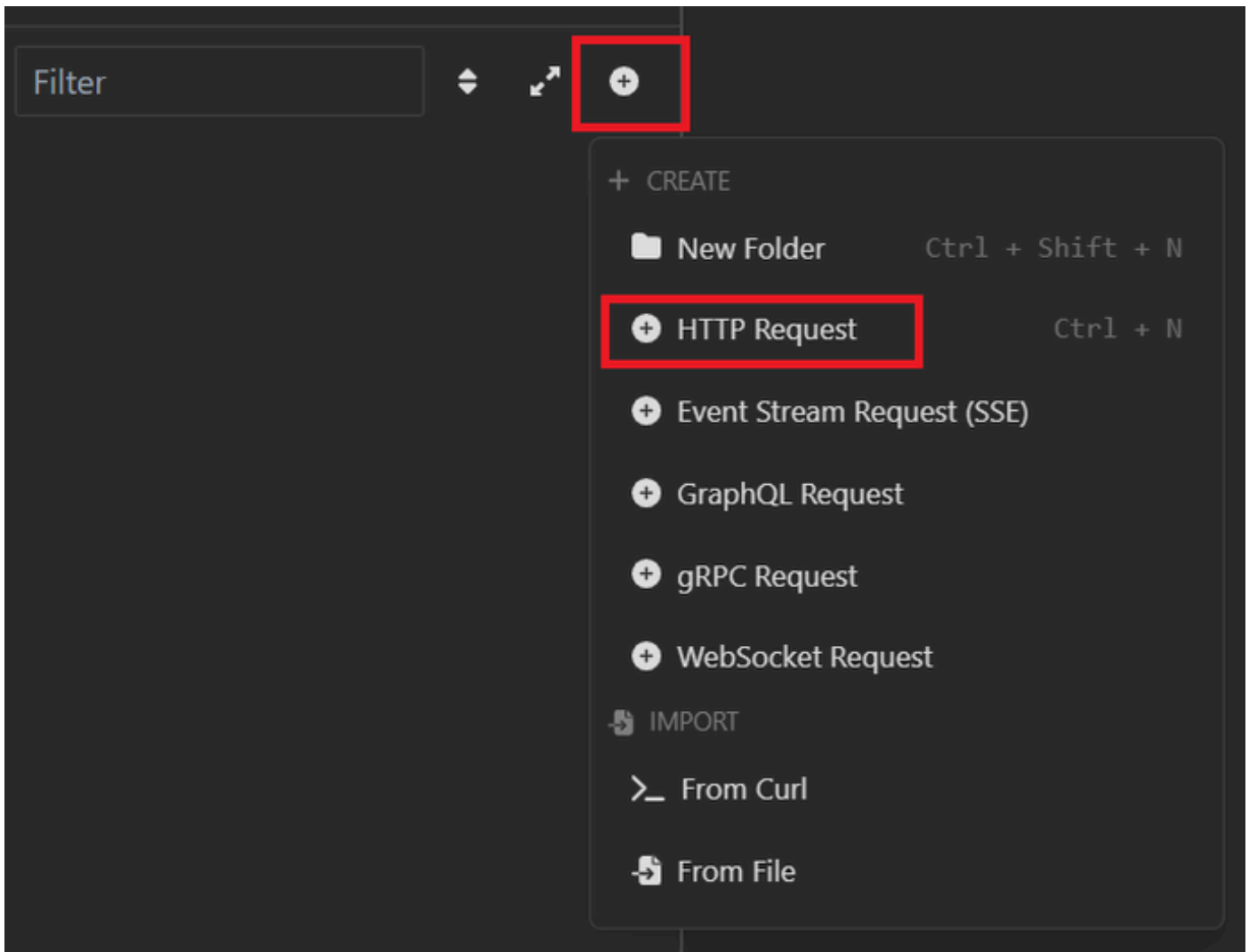
2. 打開ISE GUI並導航到Administration > Identity Management > Identities > Users > Network Access Users



JSON使用者帳戶

XML請求

1. 開放性失眠。
2. 在左側增加新的HTTPS請求。

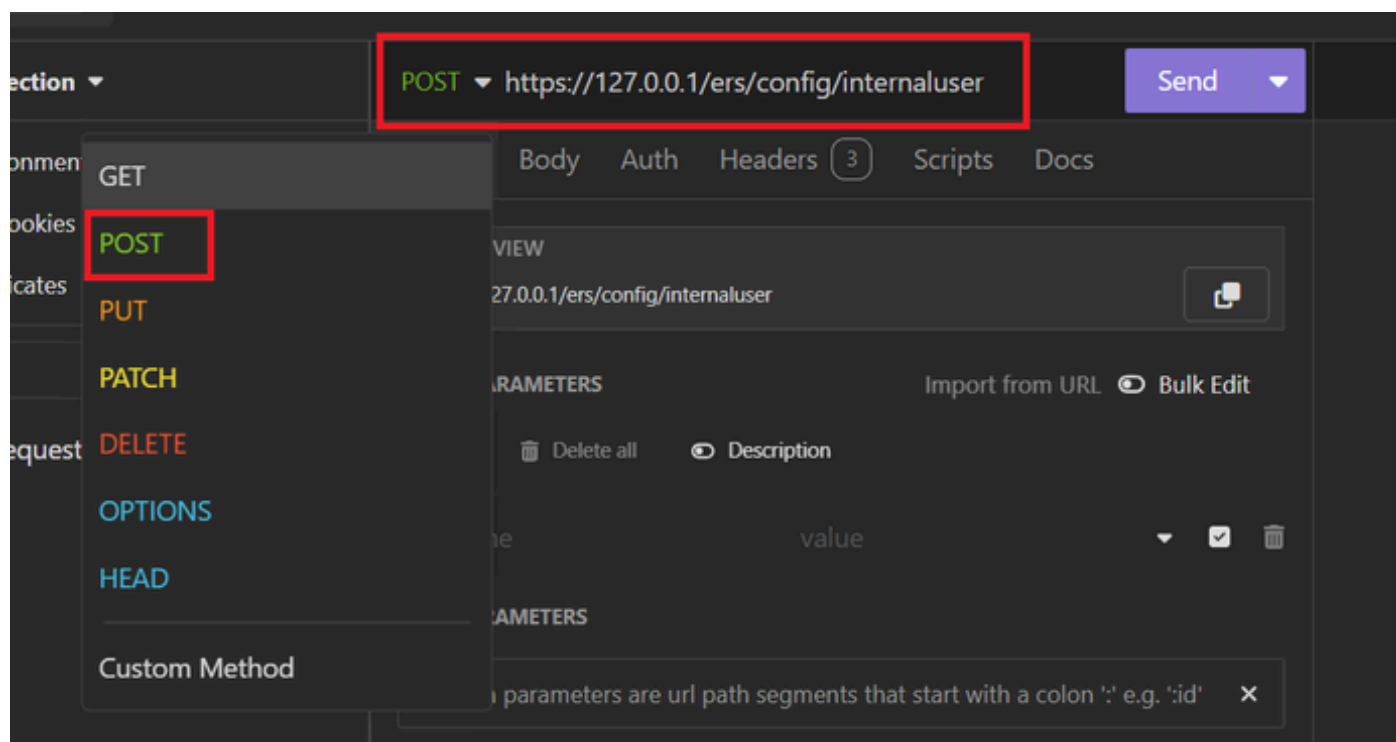


XML請求

3. 您需要選擇POST以將資訊傳送到ISE節點。

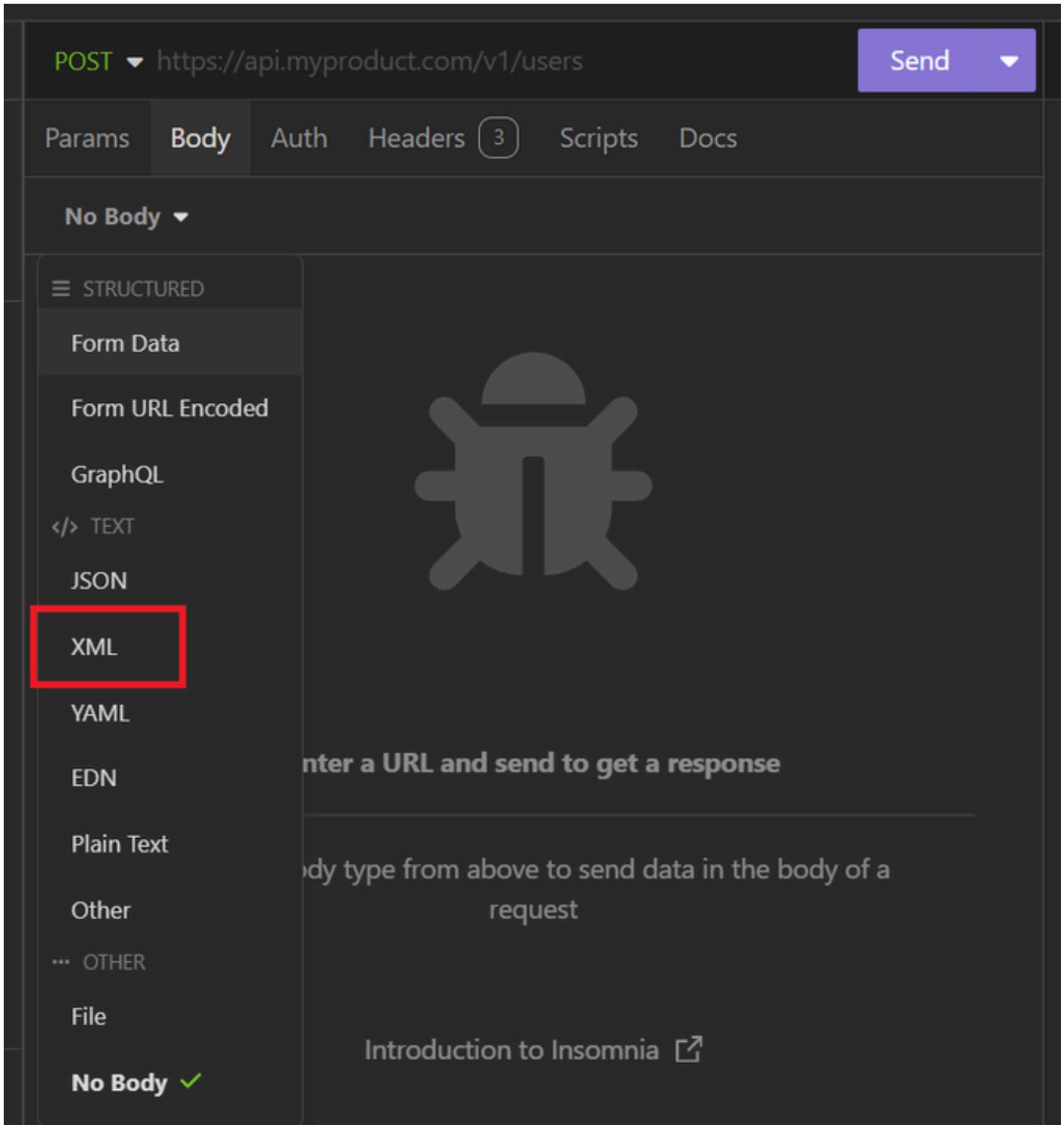
您需要輸入的URL取決於ISE節點的IP地址。

URL : <https://x.x.x.x/ers/config/internaluser>



XML文章

4. 然後按一下「正文」並選擇「XML」。



XML正文

5. 您可以貼上語法並根據需要變更引數。

POST ▼ https://127.0.0.1:44421/ers/config/internaluser Send ▼

Params Body Auth Headers 4 Scripts Docs

XML ▼

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <ns0:internaluser xmlns:ns0="identity.ers.ise.cisco.com"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:ns1="ers.ise.cisco.com" xmlns:ers="ers.ise.cisco.com"
  description="description" name="User02">
3   <accountNameAlias>User02</accountNameAlias>
4   <changePassword>true</changePassword>
5   <customAttributes>
6   </customAttributes>
7   <dateCreated>2024-7-18</dateCreated>
8   <dateModified>2024-7-18</dateModified>
9   <daysForPasswordExpiration>700</daysForPasswordExpiration>
10  <email>user2@local.com</email>
11  <enablePassword>bWn4hehq8ZCV22k</enablePassword>
12  <enabled>true</enabled>
13  <expiryDate>2026-12-11</expiryDate>
14  <expiryDateEnabled>false</expiryDateEnabled>
15  <firstName>User2</firstName>
16  <identityGroups>a1740510-8c01-11e6-996c-
    525400b48521</identityGroups>
17  <lastName>Cisco</lastName>
18  <password>bWn4hehq8ZCV1rk</password>
19  <passwordIDStore>Internal Users</passwordIDStore>
20  <passwordNeverExpires>false</passwordNeverExpires>
21 </ns0:internaluser>
```

XML文章

XML語法

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

```
<ns0:internaluser xmlns:ns0="identity.ers.ise.cisco.com" xmlns:xs="http://www.w3.org/2001/XMLSchema" xm
```

```
  <accountNameAlias>accountNameAlias</accountNameAlias>
```

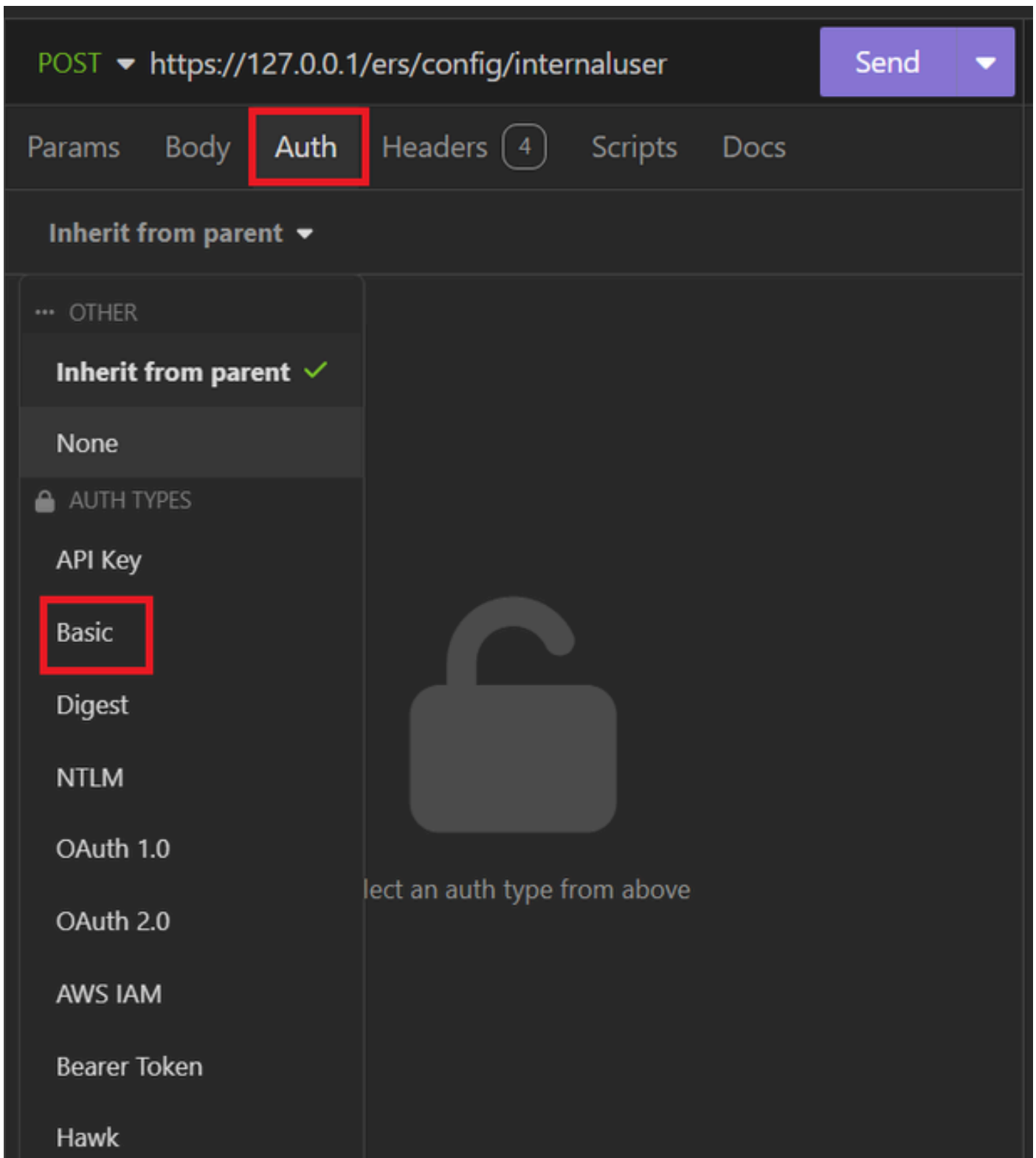
```
  <changePassword>true</changePassword>
```

```
  <customAttributes>
```



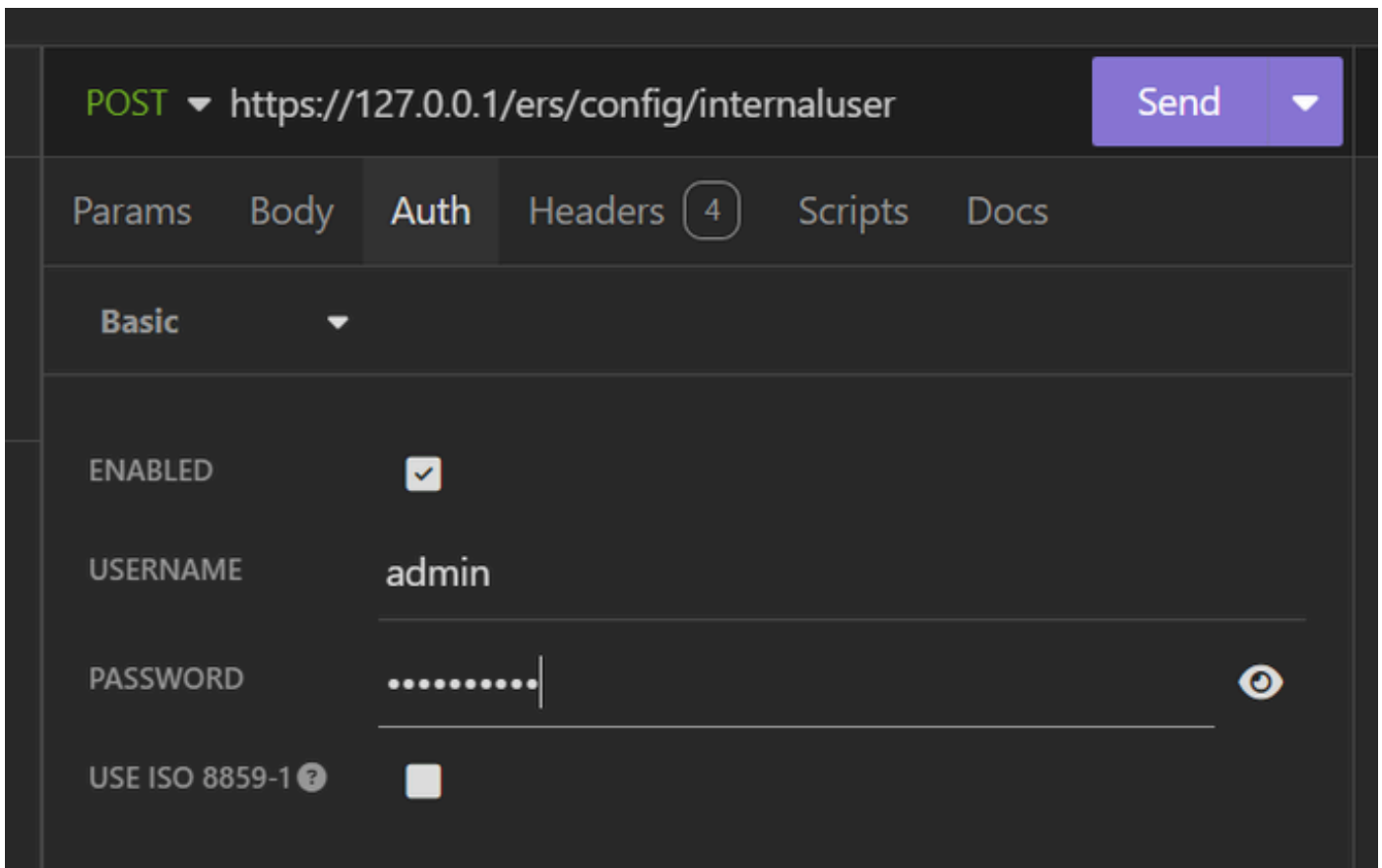
```
<entry>
  <key>key1</key>
  <value>value1</value>
</entry>
<entry>
  <key>key2</key>
  <value>value3</value>
</entry>
</customAttributes>
<dateCreated>2015-12-15</dateCreated>
<dateModified>2015-12-20</dateModified>
<daysForPasswordExpiration>60</daysForPasswordExpiration>
<email>email@domain.com</email>
<enablePassword>enablePassword</enablePassword>
<enabled>true</enabled>
<expiryDate>2016-12-11</expiryDate>
<expiryDateEnabled>false</expiryDateEnabled>
<firstName>firstName</firstName>
<identityGroups>identityGroups</identityGroups>
<lastName>lastName</lastName>
<password>password</password>
<passwordIDStore>Internal Users</passwordIDStore>
<passwordNeverExpires>false</passwordNeverExpires>
</ns0:internaluser>
```

6. 按一下「驗證」並選擇「基本」



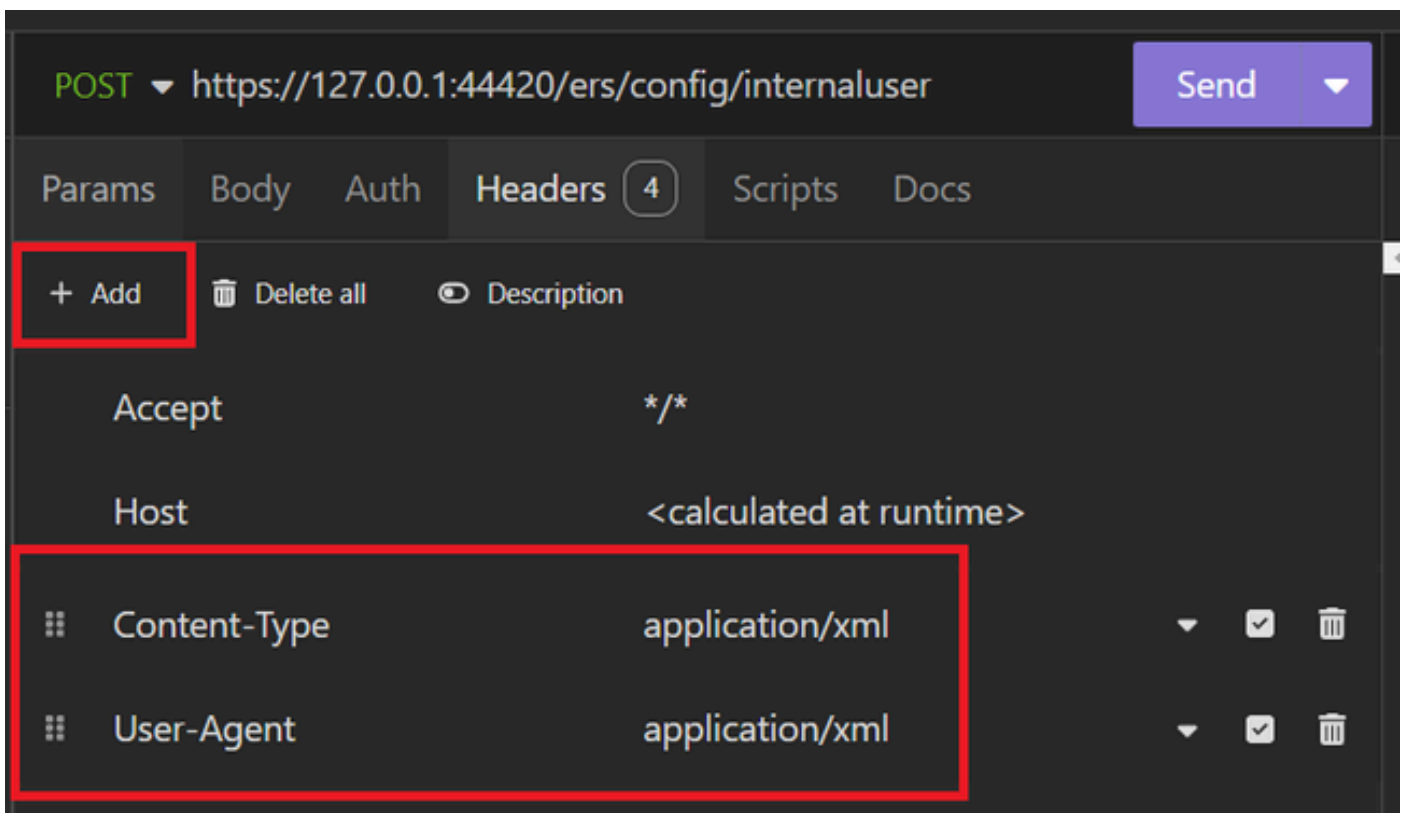
XML身份驗證

7. 輸入ISE GUI憑證。



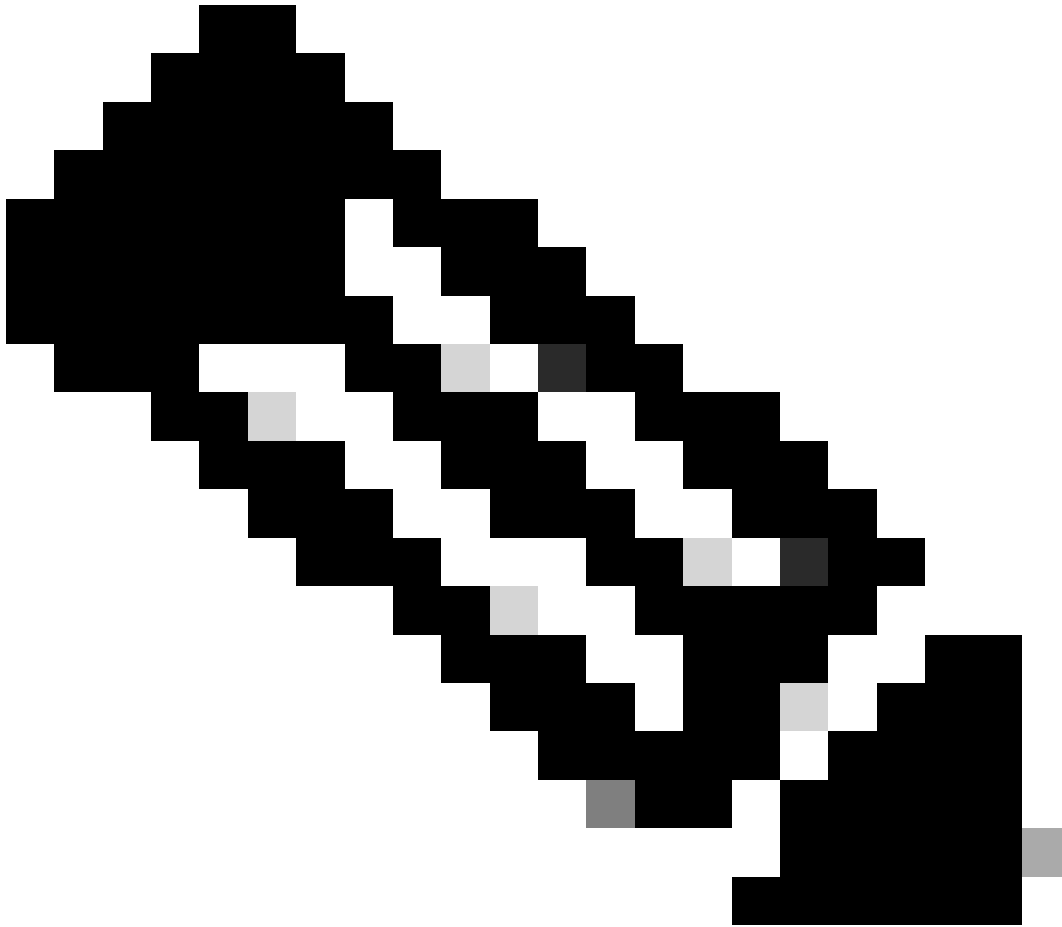
XML憑據

8. 按一下標頭以新增下列方法：
- Content-Type : application/xml
 - 接受 : application/xml



XML標頭

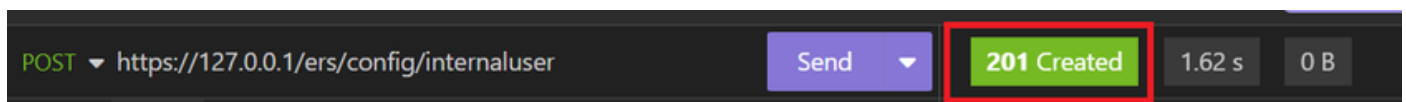
9. 最後，按一下「傳送」。



注意：如果要將身份組分配給新使用者帳戶，需要使用身份組的ID。有關詳細資訊，請檢視故障排除部分。

驗證



1. 傳送POST請求後，您將看到「201已建立」狀態。這表示程式已順利完成。














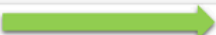



成功的XML請求

2. 打開ISE GUI並導航到Administration > Identity Management > Identities > Users > Network Access Users

Network Access Users

Selected 0 Total 2  

 Edit  + Add  Change Status  Import  Export  Delete  Duplicate  All 

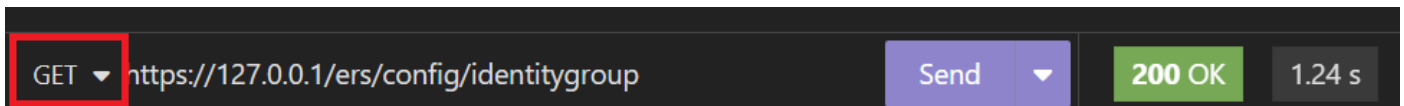
| Status | Username | Description | First Name | Last Name | Email Address | User Identity Groups | Admin |
|--------------------------|--|---------------------|------------|-----------|----------------|----------------------|---|
| <input type="checkbox"/> |  Enabled  User01 | this is the firs... | User | Cisco | user1@local... | Employee |  User Account created by JSON |
| <input type="checkbox"/> |  Enabled  User02 | description | User2 | Cisco | user2@local... | Employee |  User Account created by XML |

驗證使用者帳戶

疑難排解

1. 辨識身份群組的ID。

使用GET和<https://X.X.X.X/ers/config/identitygroup>查詢。



GET選項

JSON輸出。

辨識說明旁邊的ID。

```
11 <ns5:resource description="Default Employee User Group"
    id="a1740510-8c01-11e6-996c-525400b48521" name="Employee">
12   <link rel="self"
    href="https://127.0.0.1:44421/ers/config/identitygroup/a1740
    510-8c01-11e6-996c-525400b48521" type="application/xml"/>
13 </ns5:resource>
```

ID身份組01

XML輸出。

辨識說明旁邊的ID。

```
15  {
16    "id": "a1740510-8c01-11e6-996c-525400b48521",
17    "name": "Employee",
18    "description": "Default Employee User Group",
19    "link": {
20      "rel": "self",
21      "href":
    "https://127.0.0.1:44421/ers/config/identitygroup/a1740510-8c01-11e6-996c-525400b48521",
```

ID身份組02

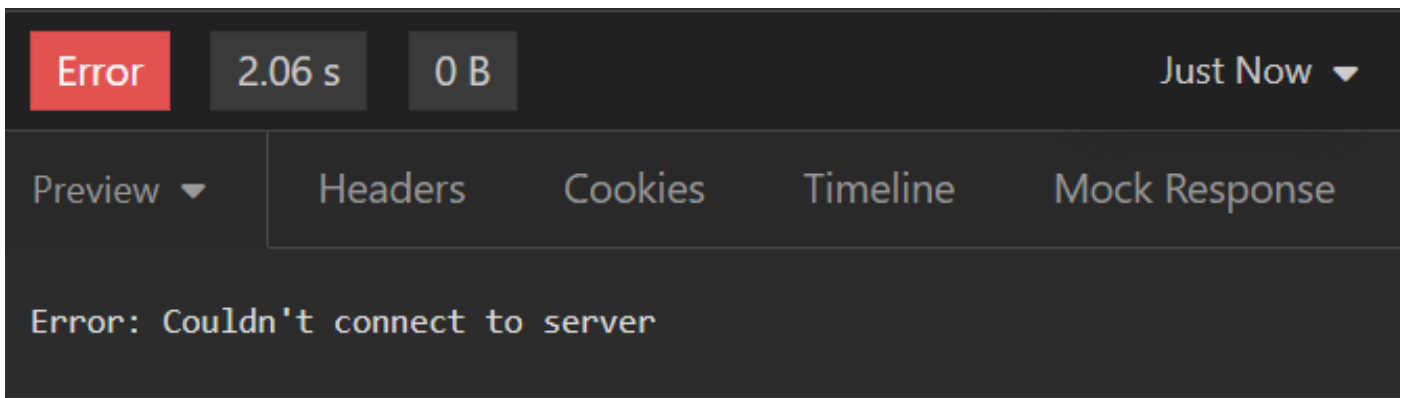
2. 401未經授權的錯誤。



401錯誤

解決方案：檢查身份驗證部分中配置的訪問憑證

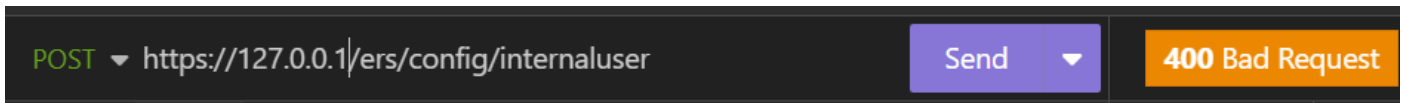
3. 錯誤：無法連線至伺服器



連線錯誤

解決方案：檢查在失眠中配置的ISE節點的IP地址或驗證連線。

4. 400錯誤請求。

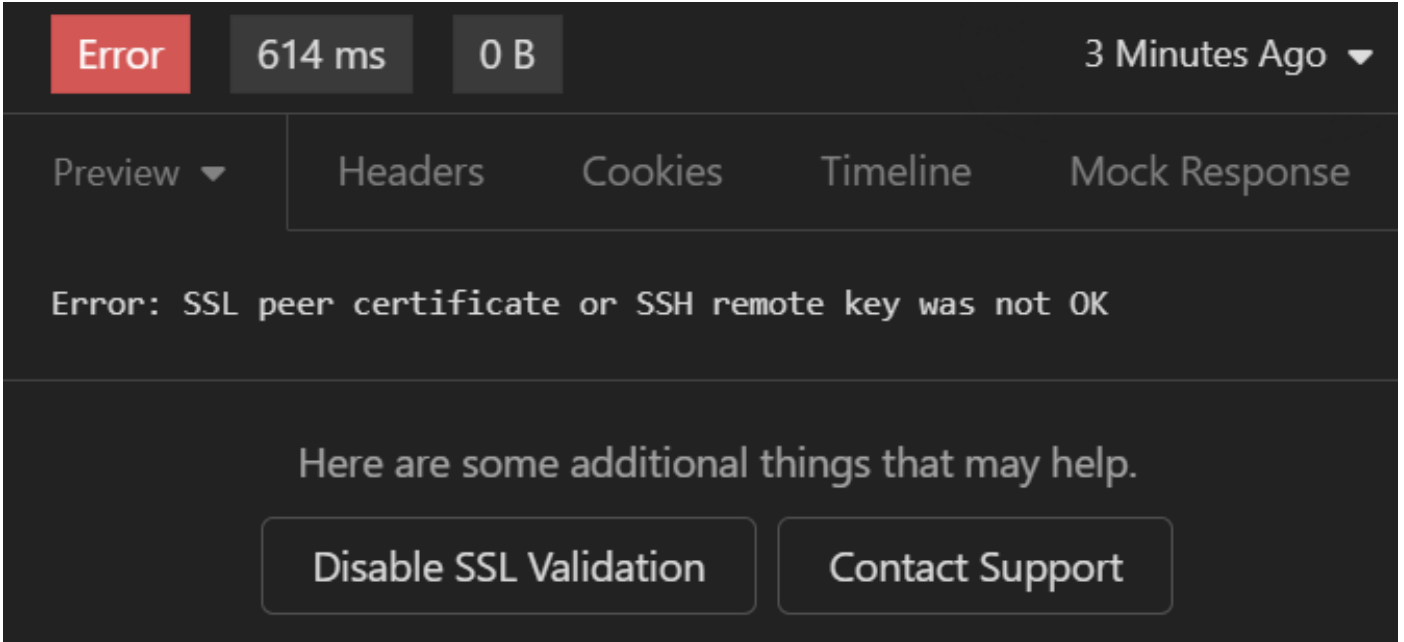


400錯誤

面臨此錯誤的原因有多種，最常見的是：

- 與安全密碼策略不匹配
- 某些引數配置錯誤。
- Sintaxis錯誤。
- 資訊重複。

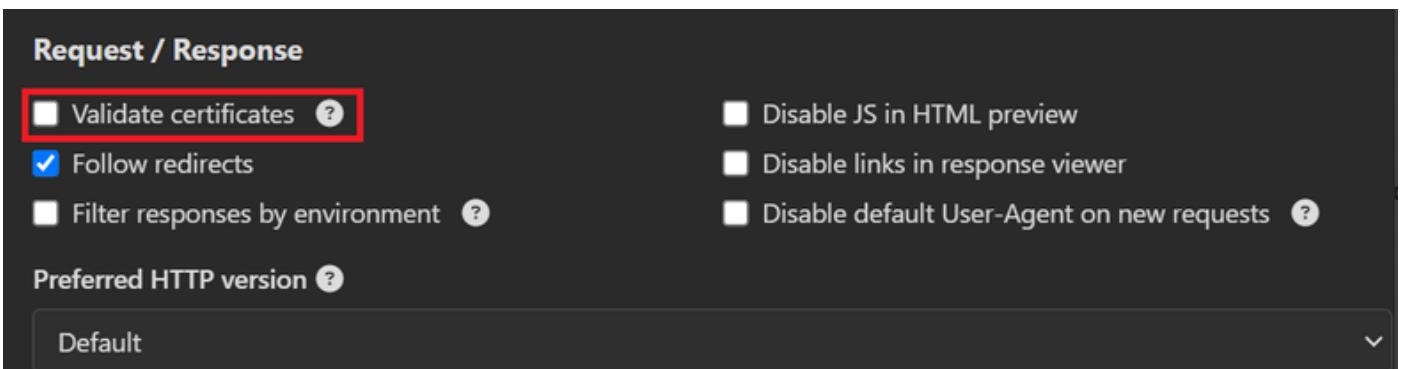
5. 錯誤：SSL對等憑證或SSH遠端金鑰不正常



SSL證書錯誤

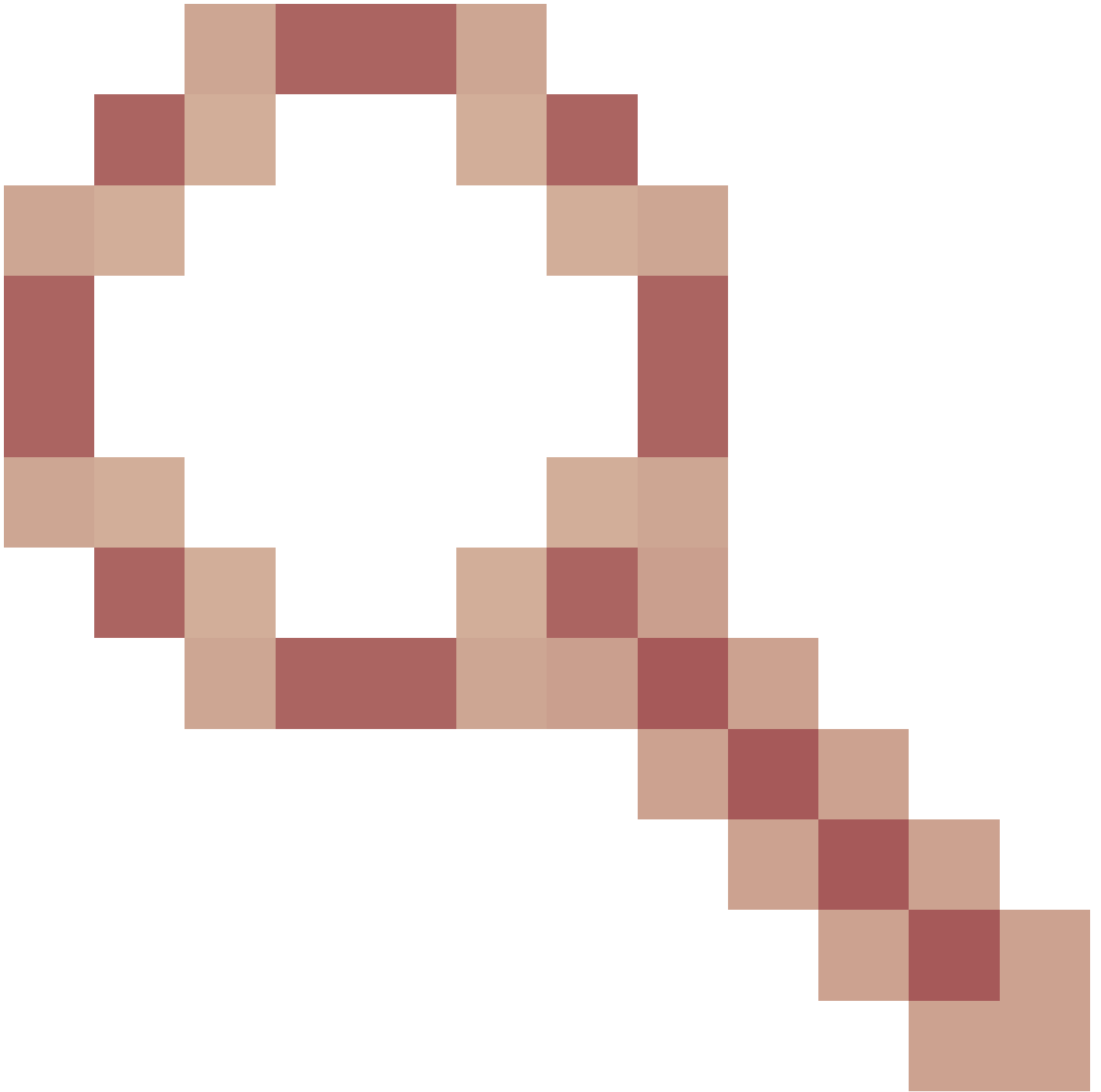
解決方案：

1. 按一下「停用SSL驗證」。
2. 在「請求/響應」下，停用「驗證證書」選項。



驗證憑證選項

6. [CSCwh71435](#)



缺陷。

啟用密碼是隨機配置的，但您尚未配置它。當啟用密碼語法被刪除或保留為空值時，會發生此行為。如需詳細資訊，請檢視下一個連結：

<https://bst.cloudapps.cisco.com/bugsearch/bug/CSCwh71435>

API呼叫引用。

您可以檢視ISE支援的API呼叫的所有資訊。

1. 切換作業選項至「管理」>「系統」>「設定」>「API設定」。
2. 按一下ERS API資訊連結。

Identity Services Engine Administration / System

Deployment Licensing Certificates Logging Maintenance Upgrade Health Checks Backup & Restore Admin Access **Settings**

Security Settings
Alarm Settings
General MDM / UEM Settings
Posture
Profiling
Protocols
Endpoint Scripts
Proxy
SMTP Server
SMS Gateway
System Time
API Settings
Data Connect
Network Success Diagnostics

API Settings

Overview API Service Settings API Gateway Settings

API Services Overview

You can manage Cisco ISE nodes through two sets of API formats—External Restful Services (ERS) and OpenAPI. Starting Cisco ISE Release 3.1, new APIs are available in the OpenAPI format. The ERS and OpenAPI services are HTTPS-only REST APIs that operate over port 443. Currently, ERS APIs also operate over port 9060. However, port 9060 might not be supported for ERS APIs in later Cisco ISE releases. We recommend that you only use port 443 for ERS APIs. Both the API services are disabled by default. Enable the API services by clicking the corresponding toggle buttons in the **API Service Settings** tab. To use either API service, you must have the ERS-Admin or ERS-Operator user group assignment.

For more information on ISE ERS API, please visit:
<https://127.0.0.1:44421/ers/sdk>

For openapi documentation for ERS, click below:
[ERS_V1](#)

For more information on ISE Open API, please visit:
<https://127.0.0.1:44421/api/swagger-ui/index.html>

API設定

3. 然後按一下API檔案。

External RESTful Services (ERS) Online SDK

Quick Reference
API Documentation

- ISE 2.0 Release Notes
- ISE 2.1 Release Notes
- ISE 2.2 Release Notes
- ISE 2.3 Release Notes
- ISE 2.4 Release Notes
- ISE 2.6 Release Notes
- ISE 2.7 Release Notes
- ISE 3.0 Release Notes
- ISE 3.1 Release Notes
- ISE 3.2 Release Notes
- ISE 3.3 Release Notes**
- ANC Endpoint
- ANC Policy
- Act Bindings
- Act Settings
- Active Directory

ISE 3.3 Release Notes

New / Modified Resources

| Resource Name | ISE Version | Resource Version | Description |
|----------------|-------------|------------------|---|
| InternalUser | 3.3 | 1.5 | Added user creation date and last modification date attributes |
| Ldap | 3.3 | 2.0 | Ldap API allows clients to create, get, update and delete Ldaps and get rootca certificates, get issuerca certificates, get hosts, test Connection |
| Guest Type | 3.3 | 2.0 | Added the dynamic group option for LDAP groups |
| Network Device | 3.3 | 1.4 | The password (Show Password in Plaintext) of the network device shared secret and second shared secret will be either in plain text or will be masked depending on the settings in Security Settings page |

API檔案

關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。