

# 使用ERS API收集ISE支持捆绑包

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## 简介

本文档介绍使用PostMan作为REST客户端通过ERS API触发和下载ISE支持捆绑包的流程。

## 先决条件

### 要求

Cisco 建议您了解以下主题：

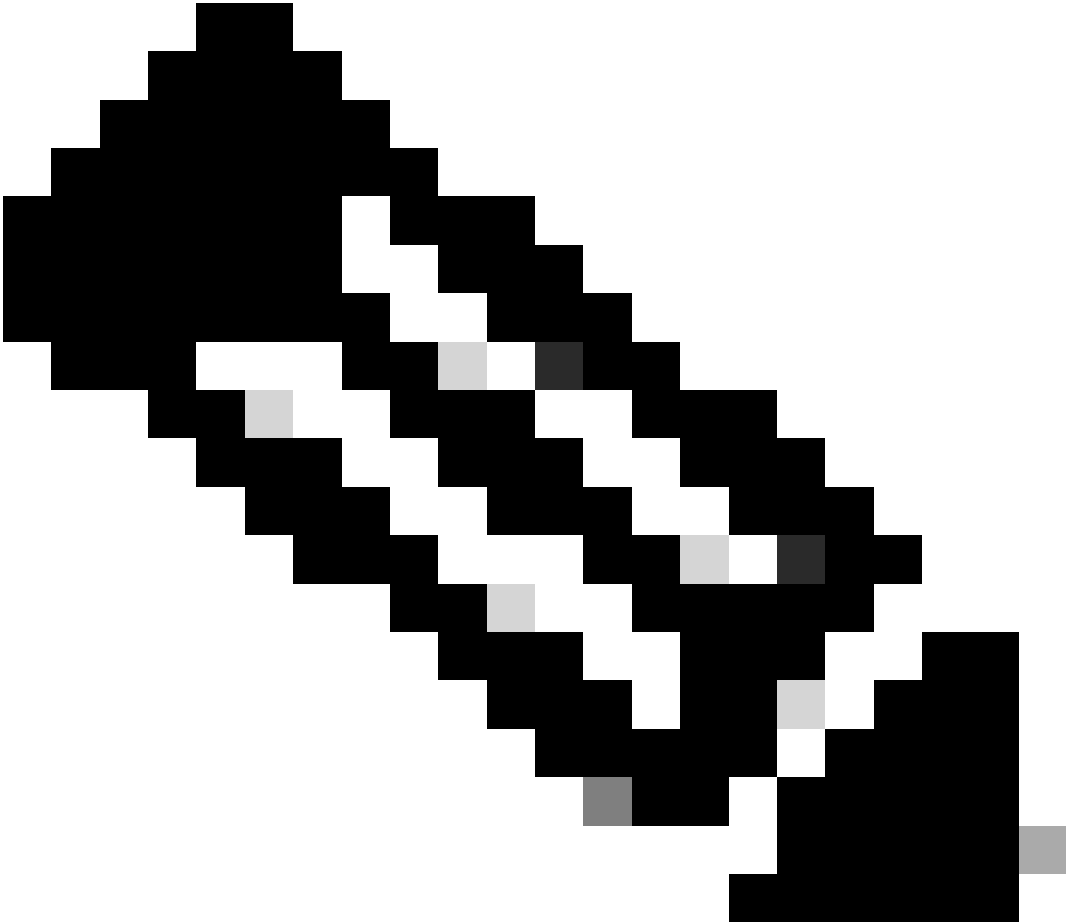
- ISE
- 外部RESTful服务
- REST客户包括Postman、RESTED、Insomnia等。

### 使用的组件

本文档中的信息基于以下软件版本：

- 思科ISE 3.1补丁6
- Postman REST客户端v10.17.4

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注意：其他ISE版本和REST客户端的步骤类似或相同。除非另有说明，您可在所有2.x和3.x ISE软件版本上使用这些步骤。

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本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

## 配置

### 启用ERS（端口9060）

ERS API是只使用HTTPS的REST API，在端口443和端口9060上运行。端口9060默认关闭，因此需要先打开。如果尝试访问此端口的客户端不首先启用ERS，则会出现服务器超时。因此，第一个要求是从Cisco ISE管理员UI启用ERS。

导航到Administration > Settings > API Settings并启用ERS (Read/Write)切换按钮。

- Client Provisioning
- FIPS Mode
- Security Settings
- Alarm Settings
- Feature >
- Profiling
- Protocols >
- Endpoint Scripts >
- Proxy
- SMTP Server
- SMS Gateway
- System Time
- API Settings**
- Network Success Diagnostics >
- DHCP & DNS Services
- Max Sessions
- Light Data Distribution
- Interactive Help
- Enable TAC Support Cases

## API Settings

Overview **API Service Settings** API Gateway Settings

### API Service Settings for Administration Node

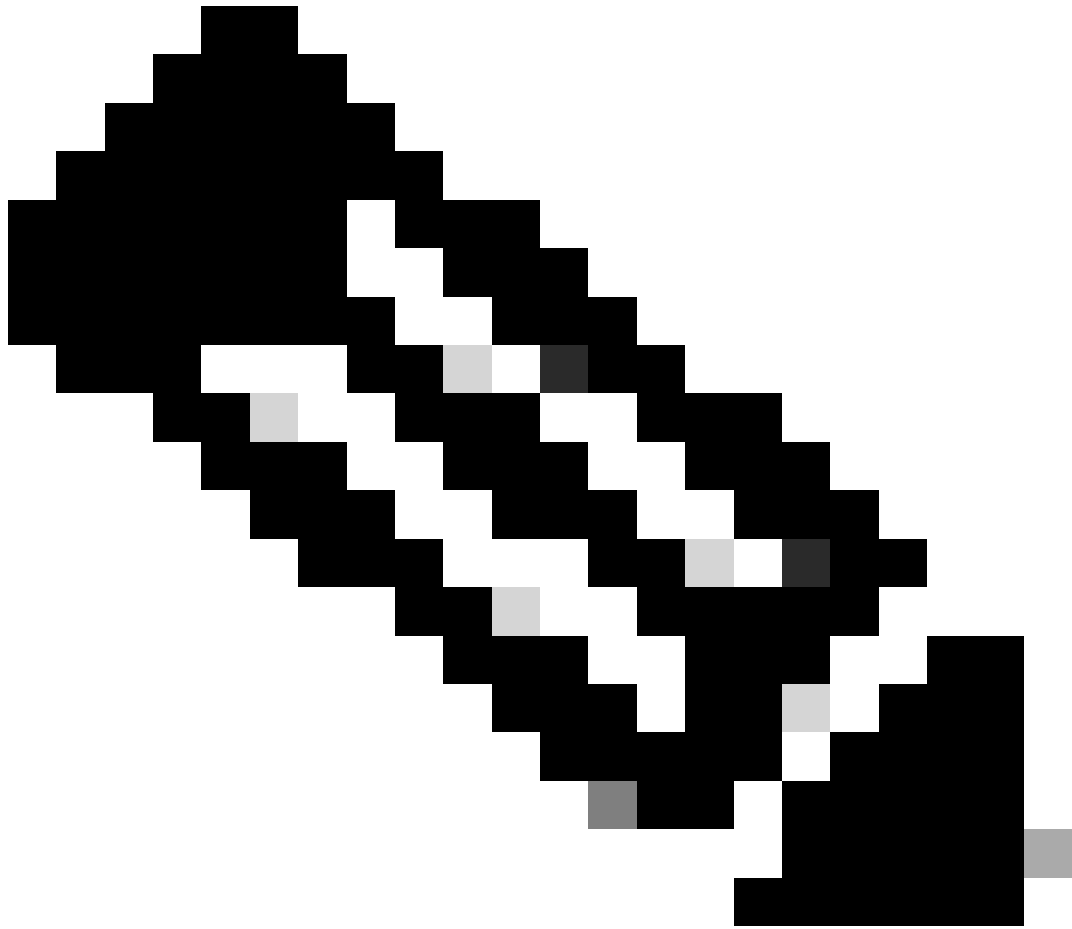
- ERS (Read/Write)** ←
- Open API (Read/Write)

### CSRF Check ( only for ERS Settings )

- Enable CSRF Check for Enhanced Security (Not compatible with pre ISE 2.3 Clients)
- Disable CSRF For ERS Request (compatible with ERS clients older than ISE 2.3)**

Reset

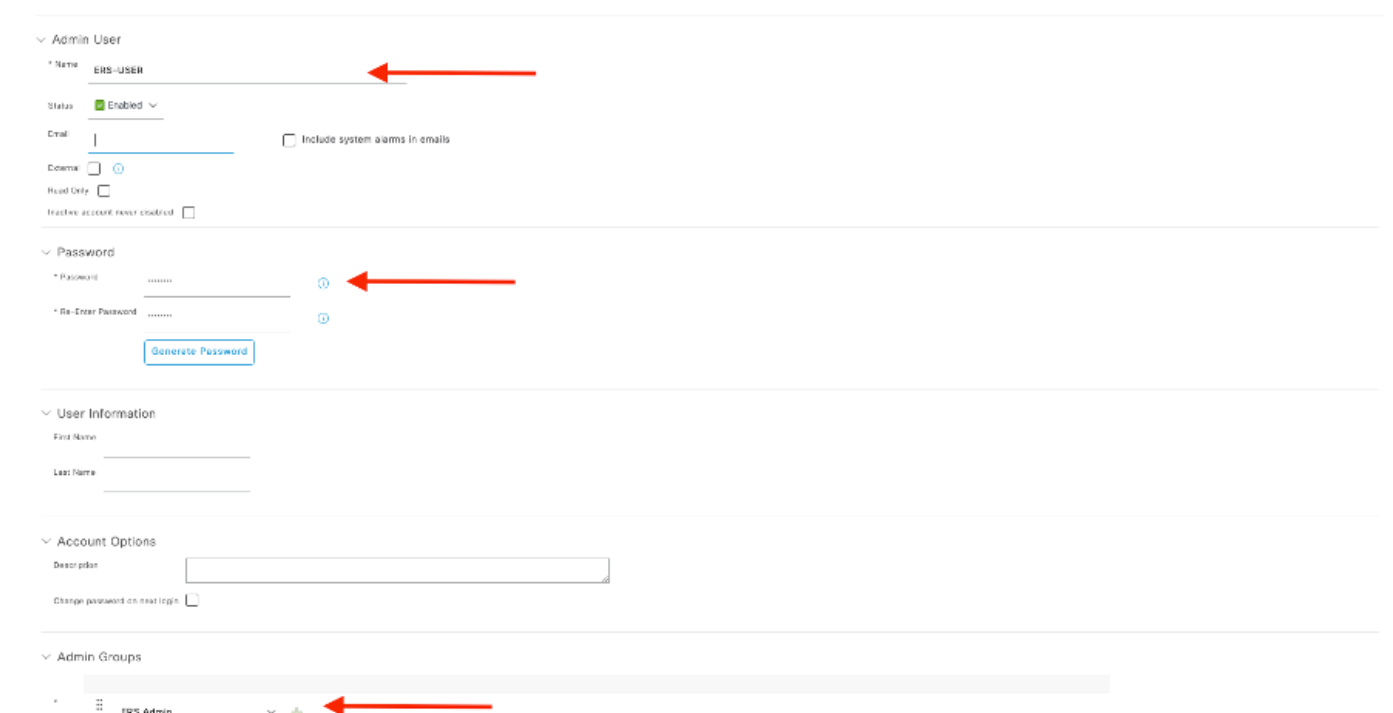
Save



注：ERS API支持TLS 1.1和TLS 1.2。ERS API不支持TLS 1.0，无论在思科ISE GUI的“安全设置”(Security Settings)窗口(管理(Administration) >系统(System) >设置(Settings) >安全设置(Security Settings))中启用TLS 1.0。在Security Settings (安全设置)窗口中启用TLS 1.0仅与EAP协议相关，不会影响ERS API。

## 创建ERS管理员

创建思科ISE管理员，分配密码，并将用户作为ERS管理员添加到管理员组。您可以将配置的其余部分留空。



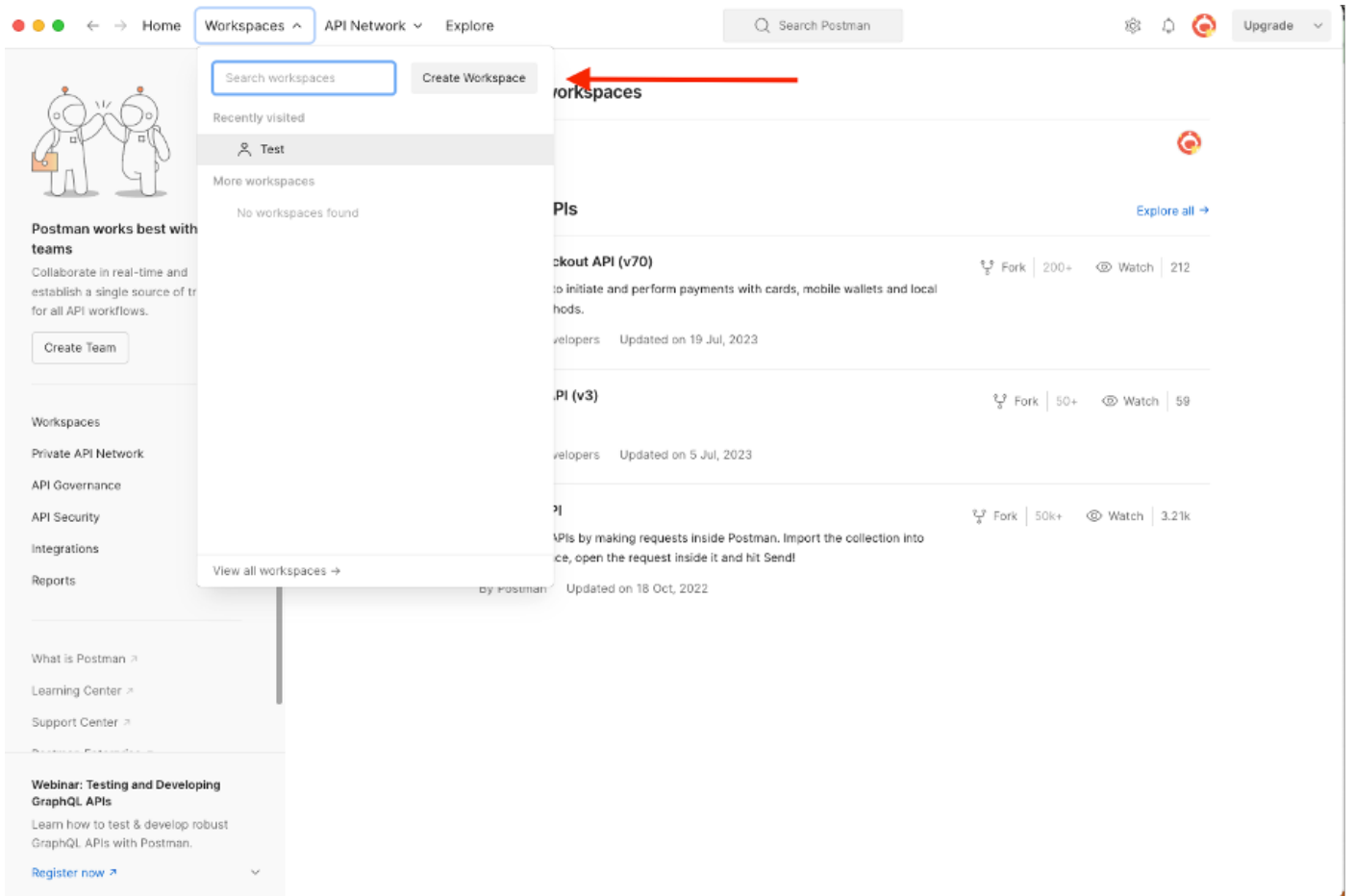
The screenshot displays the configuration page for an Admin User in the Cisco ISE GUI. The page is divided into several sections:

- Admin User:** The Name field is set to "ERS-USER". The Status is "Enabled". There are checkboxes for "Include system alarms in emails", "Create", "Reset Only", and "Inactive account must be created".
- Password:** The Password and Re-Enter Password fields are empty. A "Generate Password" button is present.
- User Information:** Fields for First Name and Last Name are empty.
- Account Options:** The Description field is empty. There is a checkbox for "Change password on next login".
- Admin Groups:** A list of groups is shown, with "ERS Admin" selected and highlighted. A red arrow points to this group.

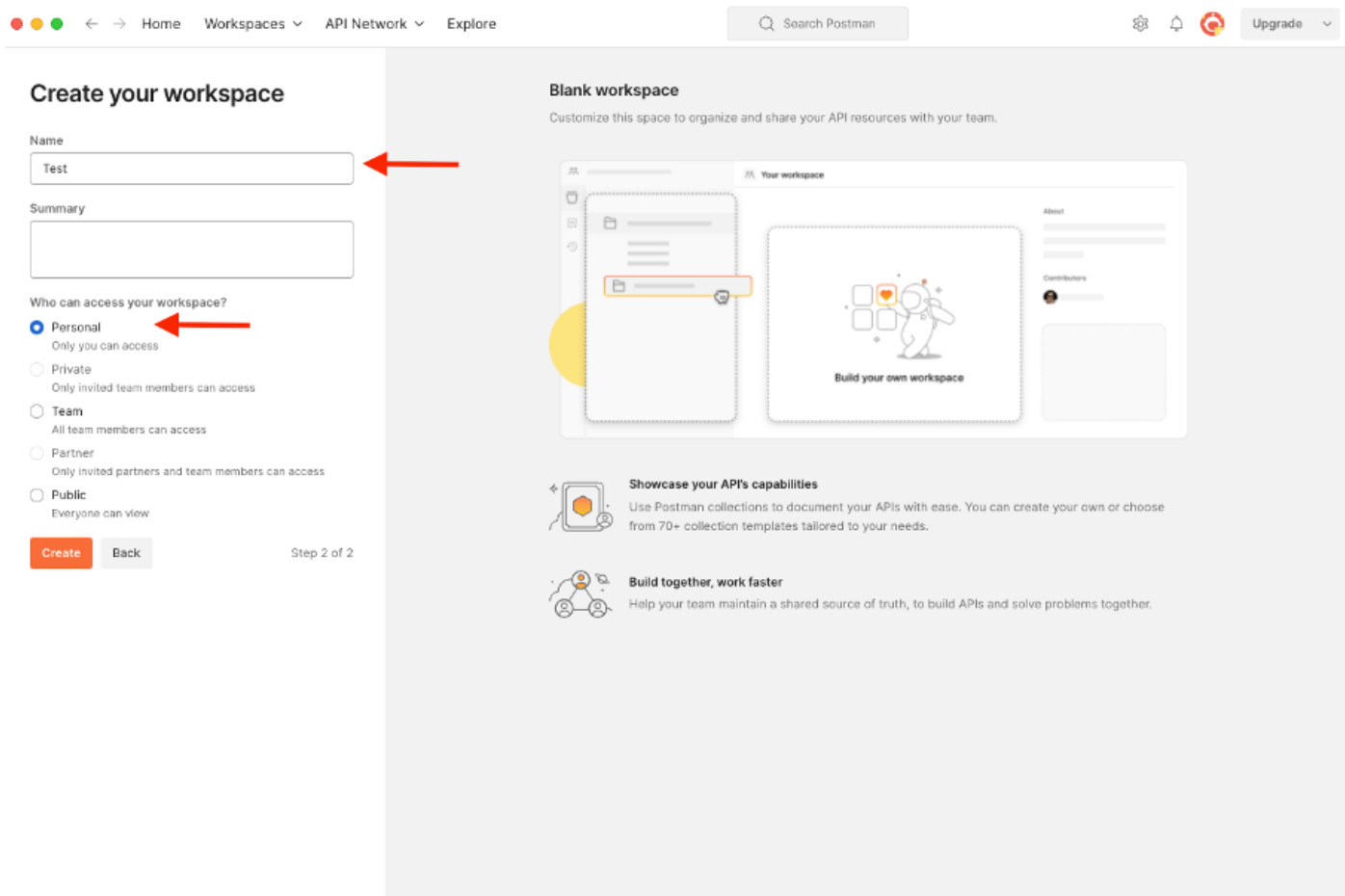
## 设置Postman

下载或使用在线版Postman。

1. 通过点击“工作区”选项卡下的“创建工作区”创建用户和工作区。



2. 选择空白工作区并为工作区指定名称。您可以添加说明并将其公开。在本示例中选择了“Personalis”。



创建工作空间后，您现在可以配置我们的API调用。

## 触发器支持捆绑包

要配置任何呼叫，请首先访问ISE ERS SDK（软件开发套件）。此工具编译ISE可以执行的API调用的完整列表：

1. 访问<https://{ise-ip}/ers/sdk>
2. 使用您的ISE管理员凭证登录。
3. 展开API文档
4. 向下滚动直至找到Support Bundle Trigger Configuration，然后单击。
5. 在此选项下，您现在可以在ISE上找到您可以为此选项执行的所有可用操作。选择创建。

External RESTful Services (ERS) Online SDK

Quick Reference

API Documentation

- Identity Group
- Identity Sequence
- Internal User
- My Device Portal
- Native Supplicant Profile
- Network Device
- Network Device Group
- Node Details
- PSN Node Details with Radius Se
- Portal
- Portal Theme
- Profiler Profile
- Pull Deployment Info
- Pxgrid Node
- Pxgrid Settings
- Radius Server Sequence
- RestID Store
- SMS Server
- SXP Connections
- SXP Local Bindings
- SXP Vpms
- Security Groups
- Security Groups ACLs
- Security Groups to Virtual Netwo
- Self Registered Portal
- Sponsor Group
- Sponsor Group Member
- Sponsor Portal
- Sponsored Guest Portal
- Support Bundle Download
- Support Bundle Status
- Support Bundle Trigger Configur
- System Certificate
- Tacacs Command Sets
- Tacacs External Servers
- Tacacs Profile
- Tacacs Server Sequence
- Telemetry Information
- Global Operations

Support Bundle Trigger Configuration

- Overview
- Resource definition
- Revision History
- Create
- Get Version

Overview

Support Bundle Trigger API allows clients to trigger support bundle provided the log settings are given using which the support needs to be generated.

*Please note that these examples are not meant to be used as is because they have references to DB data. You should treat it as a basic template and edit it before sending to server.*

Back to top

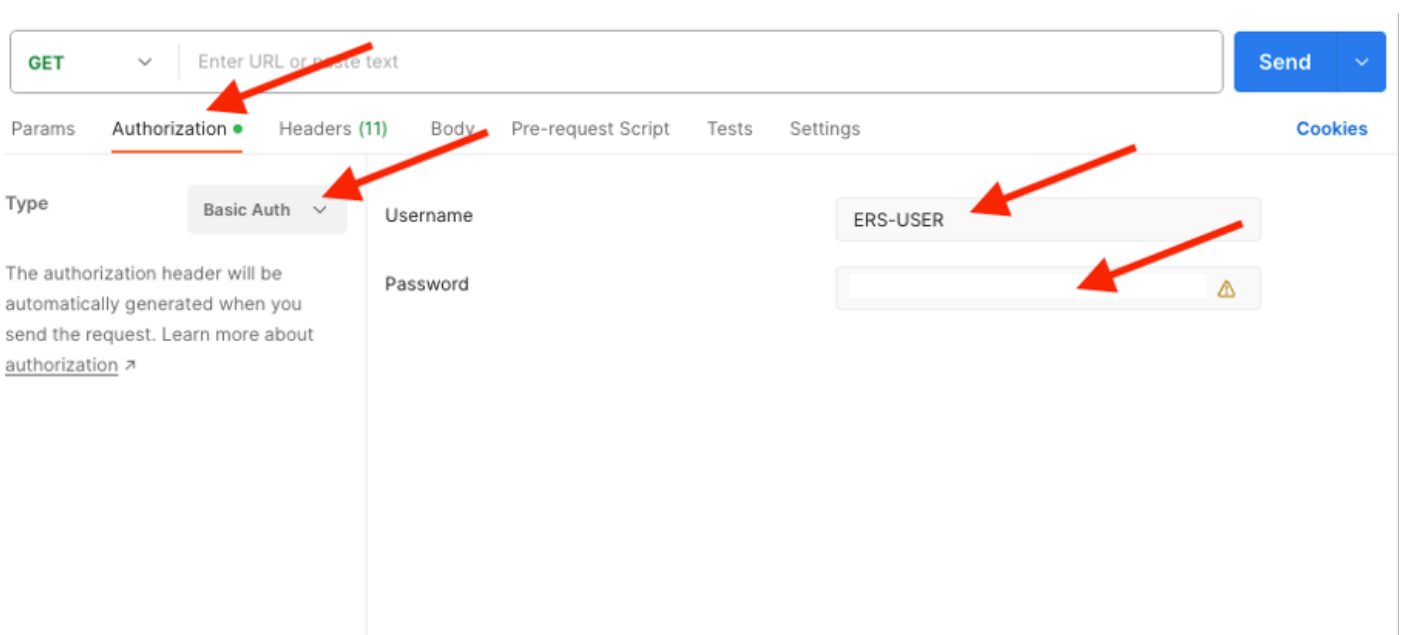
Resource definition

Attribute	Type	Required	Default value	Description
name	String	Yes		Resource name
id	String	No		Resource UUID, mandatory for update
description	String	No		
hostName	String	Yes		This parameter is hostName only, xxxx of xxxx.yyy.zz
supportBundleOptions	SupportBundleOptions	Yes		
includeConfigDB	Boolean	Yes	false	Set to include Config DB in Support Bundle
includeDebugLogs	Boolean	Yes	false	Set to include Debug logs in Support Bundle
includeLocalLogs	Boolean	Yes	false	Set to include Local logs in Support Bundle

6. 现在，您可以看到在任何Rest客户端上使用XML或JSON执行API调用所需的配置以及预期的响应示例。

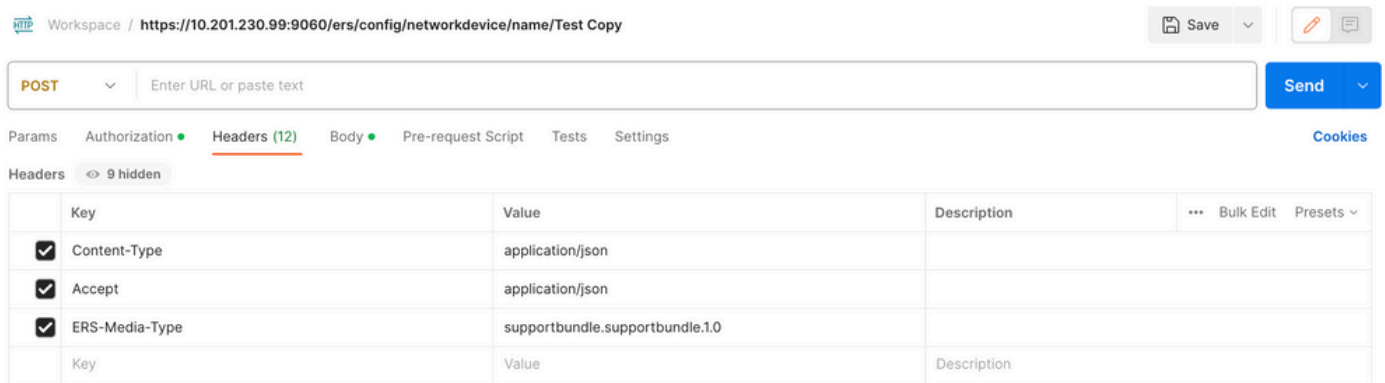
7. 返回到Postman可配置对ISE的基本身份验证。在授权选项卡下，选择基本身份验证作为身份验证类型，并添加之前在ISE中创建的ISE ERS用户凭证。

注意：除非在Postman上配置了变量，否则密码显示为明文

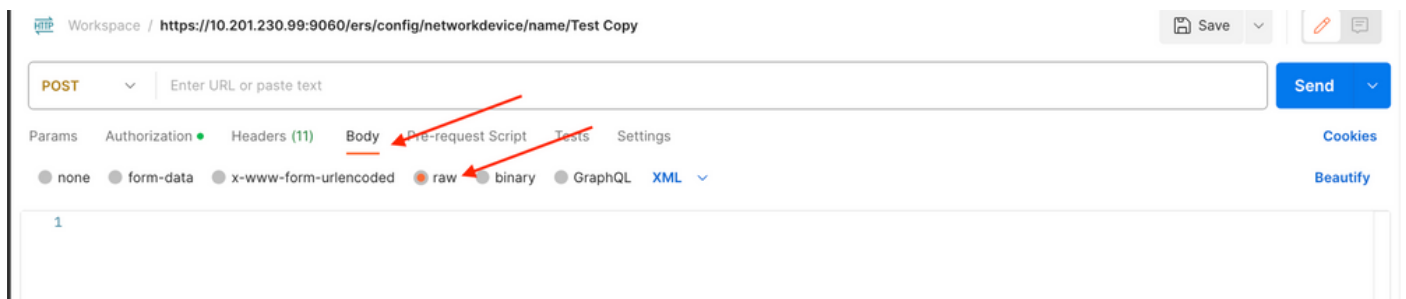




8. 在Postman中，转到Headers选项卡，使用XML或JSON配置API调用所需的报头，如SDK中所示。本例使用JSON。报头配置必须如下所示：



9. 移至正文题头，然后选择原始。这允许我们粘贴触发支持捆绑包所需的XML或JSON模板。



10. 将XML或JSON模板粘贴到正文部分，根据需要更改值：

XML：

```
<?xml version="1.0" encoding="UTF-8"?> <ns0:supportbundle xmlns:ns0="supportbundle.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="Support Bundle
Generation" name="supportBundle"> <hostName>Node hostname the SB is being collected from </hostName>
<supportBundleIncludeOptions> <fromDate>mm/dd/yyyy</fromDate> <includeConfigDB>true|false</includeConfigDB>
<includeCoreFiles>true|false</includeCoreFiles> <includeDebugLogs>true|false</includeDebugLogs>
<includeLocalLogs>true|false</includeLocalLogs> <includeSystemLogs>true|false</includeSystemLogs> <mntLogs>true|false</mntLogs>
<policyXml>true|false</policyXml> <toDate>mm/dd/yyyy</toDate> </supportBundleIncludeOptions> </ns0:supportbundle>
```

JSON：

```
{ "SupportBundle": { "name": "supportBundle", "description": "Support Bundle Generation", "hostName": "node hostname the SB is being
collected from", "supportBundleIncludeOptions": { "includeConfigDB": true|false, "includeDebugLogs": true|false, "includeLocalLogs":
true|false, "includeCoreFiles": true|false, "mntLogs": true|false, "includeSystemLogs": true|false, "policyXml": true|false, "fromDate":
"mm/dd/yyyy", "toDate": "mm/dd/yyyy" } } }
```

11. 选择POST作为方法，粘贴[https://\[ISE-ip\]/ers/config/supportbundle](https://[ISE-ip]/ers/config/supportbundle)并单击Send。如果所有内容都配置正确，您必须看到“201 Created”消息，且结果为空。

The screenshot shows a REST client interface with the following details:

- Workspace:** `https://10.201.230.99:9060/ers/config/networkdevice/name/Test Copy`
- Method:** `POST`
- URL:** `https://10.201.230.99/ers/config/supportbundle`
- Body:** A JSON object representing a support bundle configuration:

```
2  supportbundle : {
3  ..... "name": "test",
4  ..... "description": "Support Bundle Generation",
5  ..... "hostName": "ise3-1test",
6  ..... "supportBundleIncludeOptions": {
7  .....   "includeConfigDB": true,
8  .....   "includeDebugLogs": true,
9  .....   "includeLocalLogs": true,
10 .....   "includeCoreFiles": true,
11 .....   "mntLogs": true,
12 .....   "includeSystemLogs": true,
13 .....   "policyXml": true,
14 .....   "fromDate": "09/25/2023",
15 .....   "toDate": "09/25/2023"
16 ..... }
17 ..... }
18 }
```
- Status:** `201 Created` (indicated by a green checkmark icon)
- Time:** `2.06 s`
- Size:** `1.19 KB`
- Response Body:** The response is empty, indicated by a vertical bar on line 1.

### 检查支持捆绑包状态

您可以通过运行一系列GET呼叫来确认支持捆绑包是已触发还是已完成。



注意：支持捆绑包必须在5-20分钟内完成，具体取决于从日志收集的信息量。

- 
- 在SDK上的支持捆绑包状态选项卡selectGet-All下。您想获取ID，以便运行下一个GET呼叫。如前所述，下面是执行呼叫所需的报头以及预期响应。

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- Pxgrid Settings
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- RestID Store
- SMS Server
- SXP Connections
- SXP Local Bindings
- SXP Vpns
- Security Groups
- Security Groups ACLs
- Security Groups to Virtual Netwo
- Self Registered Portal
- Sponsor Group
- Sponsor Group Member
- Sponsor Portal
- Sponsored Guest Portal
- Support Bundle Download
- Support Bundle Status
- Support Bundle Trigger Configur
- System Certificate
- Threats Command Set

Support Bundle Status

Get-All

Request:

Method: GET

URI: https://10.201.230.99/ers/config/supportbundlestatus

HTTP 'Content-Type' Header: application/xml | application/json

HTTP 'Accept' Header: application/xml | application/json

HTTP 'ERS-Media-Type' Header (Not Mandatory): supportbundle.supportbundlestatus.1.0

HTTP 'X-CSRF-TOKEN' Header (Required Only if Enabled from GUI): fetch

Request Content: N/A

Response: (SearchResult)

HTTP Status: 200 (OK)

Content:

```
XML
<?xml version="1.0" encoding="UTF-8"?>
<ns0:searchResult xmlns:ns0="v2.ers.ise.cisco.com" xmlns:ns1="ers.ise.cisco.com" xmlns:ers-v2="ers-v2" total="2">
  <ns0:nextPage rel="next" href="link-to-next-page" type="application/xml"/>
  <ns0:previousPage rel="previous" href="link-to-previous-page" type="application/xml"/>
  <ns0:resources>
    <ns1:resource description="description1" id="id1" name="name1">
      <link rel="self" href="url to resource name1" type="application/xml"/>
    </ns1:resource>
  </ns0:resources>
</ns0:searchResult>
```

2. 转到**Headers**选项卡并为API调用配置所需的报头，如SDK中所示。本例使用JSON。报头配置必须如下所示：

Workspace / https://10.201.230.99:9060/ers/config/networkdevice/name/Test Copy

Save

GET Enter URL or paste text Send

Params Authorization Headers (12) Body Pre-request Script Tests Settings Cookies

Headers 9 hidden

Key	Value	Description	Bulk Edit	Presets
<input checked="" type="checkbox"/> Content-Type	application/json			
<input checked="" type="checkbox"/> Accept	application/json			
<input checked="" type="checkbox"/> ERS-Media-Type	supportbundle.supportbundlestatus.1.0			
Key	Value	Description		

3. 选择**GET** 作为方法，粘贴<https://{ISE-ip}/ers/config/supportbundlestatus>并单击**Send**。如果所有内容都配置正确，您必须看到一条“200 OK”消息以及触发的最后一个支持捆绑包的相关信息。此呼叫不会让我们知道支持捆绑包是否成功完成。从此呼叫收集ID，以便您能够在下次GET呼叫中使用该ID。

Workspace / <https://10.201.230.99:9060/ers/config/networkdevice/name/Test Copy> Save Send

GET <https://10.201.230.99/ers/config/supportbundlestatus> Send

Params Authorization Headers (13) Body Pre-request Script Tests Settings Cookies

Headers 10 hidden

Key	Value	Description	Bulk Edit	Presets
<input checked="" type="checkbox"/> Content-Type	application/json			
<input checked="" type="checkbox"/> Accept	application/json			
<input checked="" type="checkbox"/> ERS-Media-Type	supportbundle.supportbundlestatus.1.0			
Key	Value	Description		

Body Cookies (2) Headers (18) Test Results Status: 200 OK Time: 4.21 s Size: 1.48 KB Save as Example

Pretty Raw Preview Visualize JSON

```

1  {
2    "SearchResult": {
3      "total": 1,
4      "resources": [
5        {
6          "id": "ise3-1test",
7          "name": "ise3-1test",
8          "description": "Support Bundle Status api",
9          "link": {
10           "rel": "self",
11           "href": "https://10.201.230.99/ers/config/supportbundlestatus/ise3-1test",
12           "type": "application/json"
13         }
14       }
15     ]
16   }
17 }

```

4. 收集ID后，转至支持捆绑包状态选项卡下的 SDK，然后选择Get-By-Id。如前所述，以下是执行呼叫所需的标头以及预期的响应。

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- Pxgrid Node
- Pxgrid Settings
- Radius Server Sequence
- RestID Store
- SMS Server
- SXP Connections
- SXP Local Bindings
- SXP Vpms
- Security Groups
- Security Groups ACLs
- Security Groups to Virtual Netwo
- Self Registered Portal
- Sponsor Group
- Sponsor Group Member
- Sponsor Portal
- Sponsored Guest Portal
- Support Bundle Download
- Support Bundle Status
- Support Bundle Trigger Configur.
- System Certificate
- Taraze Command Gate

Support Bundle Status

Get-By-Id

Request:

Method: GET

URI: <https://10.201.230.99/ers/config/supportbundlestatus/{id}>

HTTP 'Content-Type' Header: application/xml | application/json

HTTP 'Accept' Header: application/xml | application/json

HTTP 'ERS-Media-Type' Header (Not Mandatory): supportbundle.supportbundlestatus.1.0

HTTP 'X-CSRF-TOKEN' Header (Required Only if Enabled from GUI): fetch

Request Content: N/A

Response: (SBStatus)

HTTP Status: 200 (OK)

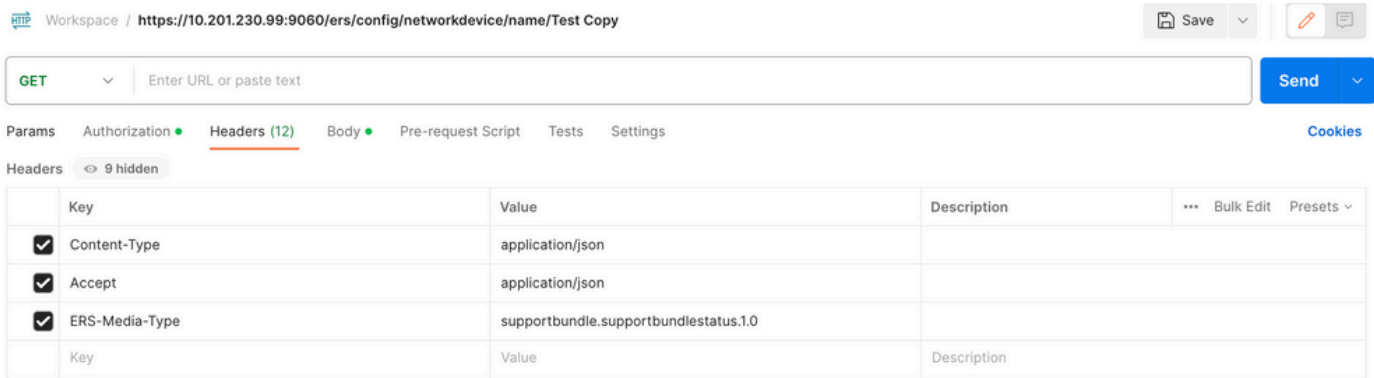
Content:

```

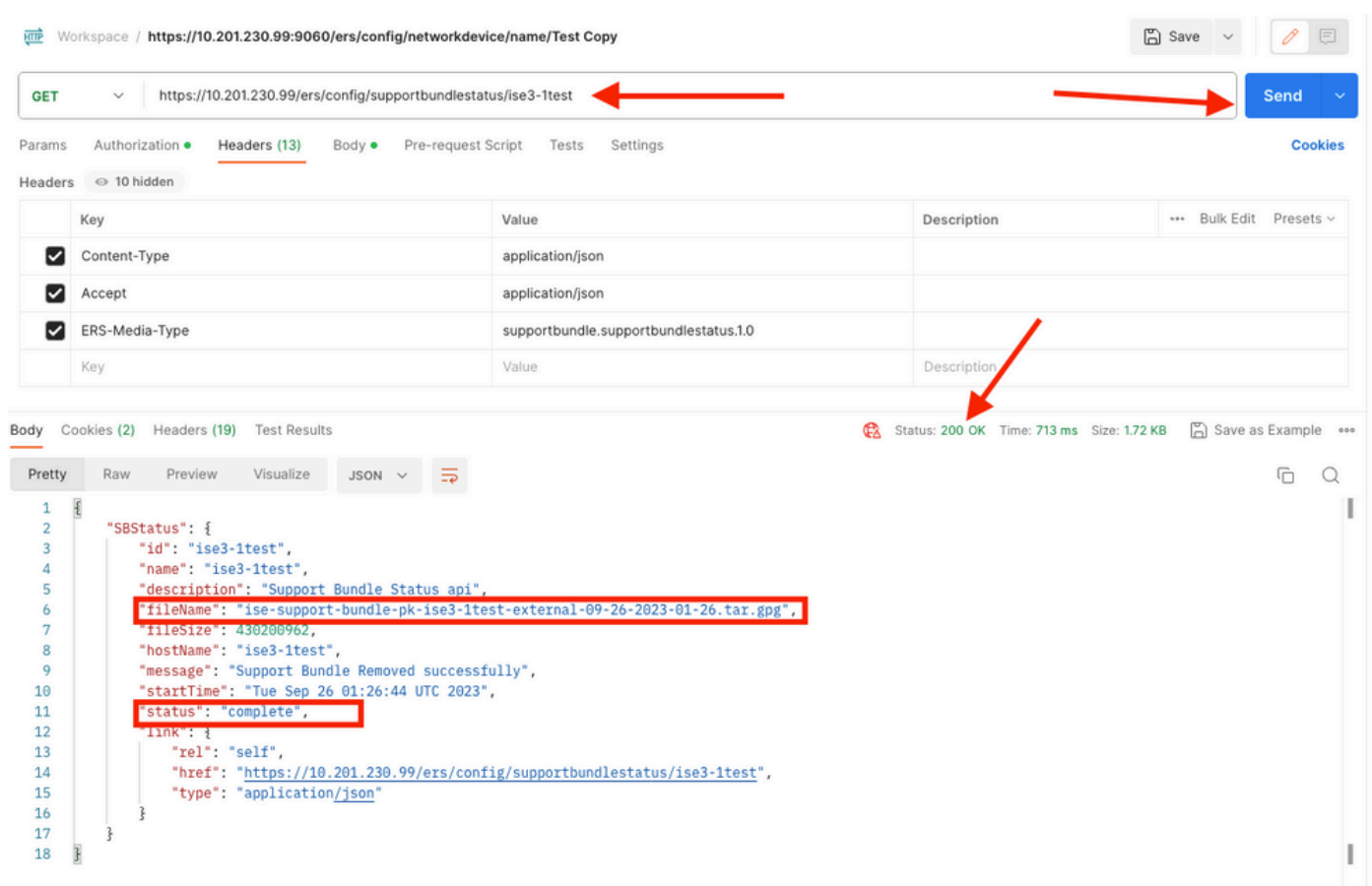
XML
<?xml version="1.0" encoding="UTF-8"?>
<ns0:sbstatus xmlns:ns0="supportbundle.ers.ise.cisco.com" xmlns:x="http://www.w3.org/2001/XMLSchema" xmlns:ns1="ers.ise.cisco.com" xmlns:ers="ers.ise.cisco.com" id="ise3-1test" >
  <fileName>ise-support-bundle-pk-TestNode-admin-05-31-2019-06-37.tar.gpg</fileName>
  <fileSize>535703</fileSize>
  <hostName>TestNode</hostName>
  <message>Support Bundle generation completed</message>
  <startTime>Fri May 31 06:37:31 UTC 2019</startTime>
  <status>complete</status>
</ns0:sbstatus>

```

5. 转到Headers选项卡并为API调用配置所需的报头，如SDK中所示。本例使用JSON。报头配置必须如下所示：



6. 选择GET 作为方法，粘贴<https://{ISE-ip}/ers/config/supportbundlestatus/{id}> 以及第3步中收集的ID，最后单击Send。如果所有内容都配置正确，您必须看到一条“200 OK”消息，并且结果显示与是否完成上一个支持捆绑包相关的信息已触发。记下此呼叫中的fileName，因为您需要PUT呼叫。



## 下载支持捆绑包

确认支持捆绑包处于completed状态后，您可以继续下载。

- 在SDK上的Support Bundle Downloadtab 下，选择Download SupportBundle。如前所述，以下是执行呼叫所需的报头、XML和JSON模板，以及预期响应。

External RESTful Services (ERS) Online SDK

Support Bundle Download

Method: PUT

URI: https://10.201.230.99/ers/config/supportbundledownload

HTTP 'Content-Type' Header: application/xml | application/json

HTTP 'Accept' Header: application/xml | application/json

HTTP 'ERS-Media-Type' Header (Not Mandatory): supportbundle.supportbundledownload.1.0

HTTP 'X-CSRF-TOKEN' Header (Required Only if Enabled from GUI): The Token value from the GET X-CSRF-TOKEN fetch request

Request Content:

```

XML
<?xml version="1.0" encoding="UTF-8"?>
<ns0:supportbundle xmlns:ns0="supportbundle.ers.ise.cisco.com" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:ns1="ers.ise.cisco.com" xmlns:ers="ers.ise.cisco.com">
  <fileName>Support bundle file name to be picked for download</fileName>
</ns0:supportbundle>
JSON
{
  "ErsSupportBundleDownload" : {
    "fileName" : "Support bundle file name to be picked for download"
  }
}

```

Response: (N/A)

HTTP Status: 200 (OK)

Content: [Response is returned as an Octet Stream representing a TAR.GPG file.]

2. 转到Headers选项卡并为API调用配置所需的报头，如SDK中所示。本例使用JSON。报头配置必须如下所示：

Workspace / https://10.201.230.99:9060/ers/config/networkdevice/name/Test Copy

GET Enter URL or paste text Send

Params Authorization Headers (12) Body Pre-request Script Tests Settings Cookies

Headers 9 hidden

Key	Value	Description	Bulk Edit	Presets
<input checked="" type="checkbox"/> Content-Type	application/json			
<input checked="" type="checkbox"/> Accept	application/json			
<input checked="" type="checkbox"/> ERS-Media-Type	supportbundle.supportbundledownload.1.0			
Key	Value	Description		

3. 移至正文题头，然后选择原始。这允许我们粘贴下载支持捆绑包所需的XML或JSON模板。

Workspace / https://10.201.230.99:9060/ers/config/networkdevice/name/Test Copy

POST Enter URL or paste text Send

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL XML

1

4. 将XML或JSON模板粘贴到正文部分中，根据需要更改值。文件名是从第6步收集的文件名(ise-support-bundle-pk-ise3-1test-external-09-26-2023-01-26.tar.gpg)：

XML

```

<?xml version="1.0" encoding="UTF-8"?> <ns0:supportbundle xmlns:ns0="supportbundle.ers.ise.cisco.com"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:ns1="ers.ise.cisco.com" xmlns:ers="ers.ise.cisco.com"> <fileName>Support bundle
file name to be picked for download</fileName> </ns0:supportbundle>

```

JSON :

```

{ "ErsSupportBundleDownload" : { "fileName" : "Support bundle file name to be picked for download" } }

```

5. 选择PUT 作为方法，粘贴<https://{ISE-ip}/ers/config/supportbundledownload> 并单击Send。如果一切配置正确，您应该看到“200 OK”消息并且文件已下载。

## 验证

如果能够访问API服务GUI页面(例如<https://{iseip} : {port}/api/swagger-ui/index.html>或<https://{iseip} : 9060/ers/sdk>)，则表示API服务按照预期工作。

## 故障排除

- 所有REST操作都经过审核，并且日志记录在系统日志中。
- 要排除与开放式API相关的问题，请在调试日志配置窗口中将apiservice组件的日志级别设置为调试。
- 要排除与ERS API相关的问题，请在调试日志配置窗口中将ers组件的日志级别设置为调试。要查看此窗口，请导航到Cisco ISE GUI，单击菜单图标并选择**Operations > Troubleshoot > Debug Wizard > Debug Log Configuration**。
- 您可以从下载日志窗口下载日志。要查看此窗口，请导航到Cisco ISE GUI，单击菜单图标并选择**Operations > Troubleshoot > Download Logs**。
- 您可以选择从“支持捆绑包”选项卡中下载支持捆绑包(通过点击选项卡下的下载按钮)，也可以通过点击api服务调试日志的日志文件(Log File)值，从“调试日志”(Debug Logs)选项卡中下载api服务调试日志。



## 关于此翻译

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