使用OpenAPI检索ISE 3.3上的ISE部署信息

目录
<u>背景</u>
先决条件
<u>要求</u>
使用的组件
配置
<u>网络图</u>
<u>ISE上的配置</u>
Python示例
检索集群中部署的所有节点的列表
<u>检索已部署节点的详细信息</u>
故障排除

简介

本文档介绍使用openAPI管理思科身份服务引擎(ISE)部署的步骤。

背景

在现代企业网络中,安全和管理变得越来越复杂和重要。为了应对这些挑战,从Cisco ISE 3.1开始 ,OpenAPI格式提供较新的API,可提供强大的网络访问控制和策略管理功能。管理员现在可以通 过OpenAPI更有效地检查ISE部署,并主动采取行动,而不是等待最终用户提交问题报告。

先决条件

要求

Cisco 建议您了解以下主题:

- 思科身份服务引擎(ISE)
- REST API
- Python

使用的组件

- ISE 3.3
- Python 3.10.0

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

网络图



拓扑

ISE上的配置

第1步:添加Open API admin帐户

要添加API管理员,请导航到管理->系统->管理->管理员->管理员用户->添加。

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API管理员

第2步:在ISE上启用开放式API

默认情况下,在ISE上禁用开放式API。要启用它,请导航到管理>System > API设置> API服务设置 。切换Open API选项。Click Save.

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启用OpenAPI

第3步:探索ISE开放式API

导航到管理>系统> API设置>概述。点击打开API访问链接。

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访问OpenAPI

Python示例

检索集群中部署的所有节点的列表

API列出集群中部署的所有节点。

第1步:API调用的必需信息。

方法 GET

URL	https:// <ise-pan-ip>/api/v1/deployment/node</ise-pan-ip>
凭证	使用Open API帐户凭证
信头	接受:application/json 内容类型:application/json

第2步:查找用于检索部署信息的URL。

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	Node Deployment			^	
L L	GET /api/v1/deployment/node Retrieve the list of all the nodes that are deployed in the cluster.			∧ ≜	

API URI

第3步:以下是Python代码示例。复制并粘贴内容。替换ISE IP、用户名和密码。另存为要执行的 python文件。

确保ISE与运行python代码的设备之间保持良好的连接。

<#root>

from requests.auth import HTTPBasicAuth

```
import requests
requests.packages.urllib3.disable_warnings()
if __name__ == "__main__":
    url = "
    https://10.106.33.92/api/v1/deployment/node
"
    headers = {
    "Accept": "application/json", "Content-Type": "application/json"
    basicAuth = HTTPBasicAuth(
    "ApiAdmin", "Admin123"
)
    response = requests.get(url=url, auth=basicAuth, headers=headers, verify=False)
    print("Return Code:")
```

print(response.status_code)
print("Expected Outputs:")
print(response.json())

以下是预期输出的示例。

Return Code: 200 Expected Outputs: {'response': [{'hostname': 'ISE-BGL-CFME01-PAN', 'fqdn': 'ISE-BGL-CFME01-PAN.cisco.com', 'ipAddress': '192.168.20.240', 'roles': ['PrimaryAdmin'],

检索已部署节点的详细信息

此API检索特定ISE节点的详细信息。

第1步:API调用的必需信息。

方法	GET
URL	https:// <ise-pan-ip>/api/v1/deployment/node/<ise- Node-Hostname></ise- </ise-pan-ip>
凭证	使用Open API帐户凭证
信头	接受:application/json 内容类型:application/json

第2步:查找用于检索特定ISE节点信息的URL。

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profile-api-controller the profile API			~	
Node Deployment			^	
GET /api/vl/deployment/node Retrieve the list of all the nodes that are deployed in the cluster.			✓ ≜	
POST /api/vl/deployment/node Register a standalone node to the cluster			✓ ≜	
OET /api/vl/deployment/node/{hostname} Retrieve details of a deployed node.			^ ≜	
This API retrieves detailed information of the deployed node.				

第三步:以下是Python代码的示例。复制并粘贴内容。替换ISE IP、用户名和密码。另存为要执行 的python文件。

确保ISE与运行python代码的设备之间保持良好的连接。

<#root>

```
from requests.auth import HTTPBasicAuth import requests
```

```
requests.packages.urllib3.disable_warnings()
```

```
if__name__ == "__main__":
    url = "
https://10.106.33.92/api/v1/deployment/node/ISE-DLC-CFME02-PSN
"
    headers = {
    "Accept": "application/json", "Content-Type": "application/json"
    }
    basicAuth = HTTPBasicAuth(
    "ApiAdmin", "Admin123"
)
    response = requests.get(url=url, auth=basicAuth, headers=headers, verify=False)
    print("Return Code:")
    print(response.status_code)
    print("Expected Outputs:")
    print(response.json())
```

以下是预期输出的示例。

Return Code: 200 Expected Outputs: {'response': {'hostname': 'ISE-DLC-CFME02-PSN', 'fqdn': 'ISE-DLC-CFME02-PSN.cisco.com', 'ipAddress': '192.168.41.240', 'roles': [], 'services': ['Sessio

故障排除

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theapiservicecomponent 的日志级别 设置为DEBUG。

要启用调试,请导航到操作->故障排除->调试向导->调试日志配置-> ISE节点-> apiservice。

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API服务调试

要下载调试日志,请导航到操作->故障排除->下载日志-> ISE PAN节点->调试日志。

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下载调试日志

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