在ASA上使用客户端证书身份验证为Linux配置AnyConnect安全移动客户端

目录

简介

本文档介绍自适应安全设备(ASA)Cisco AnyConnect安全移动客户端访问的配置示例，该访问使用客户端证书对Linux操作系统(OS)进行身份验证，以便AnyConnect用户成功连接到ASA头端。

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先决条件

要求

本文档假设ASA完全运行且已配置为允许思科自适应安全设备管理器(ASDM)或命令行界面(CLI)进行配置更改。

Cisco 建议您了解以下主题：

ASA CLI和ASDM的基本知识
思科ASA头端上的SSLVPN配置
PKI的基本知识
熟悉Linux操作系统

使用的组件

本文档中的信息基于以下软件和硬件版本：

思科自适应安全设备ASA5585-SSP-20
思科自适应安全设备软件版本9.9(2)36
自适应安全设备管理器版本7.9(1)
AnyConnect版本4.6.03049
Ubuntu操作系统16.04.1 LTS

> **注意：**从思科软件下载（仅限注册客户）站点下载AnyConnect VPN客户端包(anyconnect-linux*.pkg)。将AnyConnect VPN客户端复制到ASA的闪存，然后将闪存下载到远程用户计算机，以便与ASA建立SSL VPN连接。

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。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

背景信息

对于Linux设备上成功的客户端证书身份验证，AnyConnect安全移动客户端支持以下证书存储：

1. Linux OS(PEM)证书存储
2. Firefox(NSS)证书存储区

本文档基于使用Linux OS(PEM)证书存储的客户端证书身份验证。

1.要使用Linux OS证书存储，PEM基于文件的证书将放在这些目录中。

实体	路径	示例
证书颁发机构(CA)证书	/opt/.cisco/certificates/ca	tactest:~$ ls /opt/.cisco/certificates/ca CACERT.pem VeriSignClass3PublicPrimaryCertificationAu y-G5.pem
用户证书	/home/tactest/.cisco/certificates/client	tactest:~$ ls /home/tactest/.cisco/certificates/client myclient.pem
用户私钥[最初用于创建CSR]:	/home/tactest/.cisco/certificates/client/private	tactest:~$ ls /home/tactest/.cisco/certificates/client/privat myclient.key

> **注意：**默认情况下，安装客户端证书和私钥的路径不存在，因此需要使用此命令手动创建。
>
> mkdir -p .cisco/certificates/client/private/

如果您使用Windows证书颁发机构，

1.下载扩展名为.cer的CA证书（Base64编码）
2.下载扩展名为.cer的用户身份证书（Base64编码）
3.将证书的扩展名从.cer更改为.pem扩展名

2.要使用Firefox(NSS)证书存储，用户可以通过Firefox导入其证书。
如果用户通过HTTPS浏览ASA时点击证书安全警告对话框上的“始终连接”(Always Connect)按钮，则AnyConnect客户端可以自动将ASA的CA证书导入NSS证书存储区。

AnyConnect Linux使用Firefox证书存储区(NSS)作为默认值，如果失败，则会转而使用Linux OS证书存储区。

> **注意：**目前，Linux操作系统上的AnyConnect不支持GNOME密钥环，因此AnyConnect将无法使用导入到GNOME密钥环的证书。
> 在导入新的用户证书之前，请确保Linux OS证书存储区和Firefox(NSS)证书存储区中没有相关证书。

确保您的文件满足以下要求：

- 所有证书文件必须以扩展名.pem结尾。
- 所有私钥文件必须以扩展名.key结尾。
- 客户端证书及其相应的私钥必须具有相同的文件名。例如：client.pem和client.key。

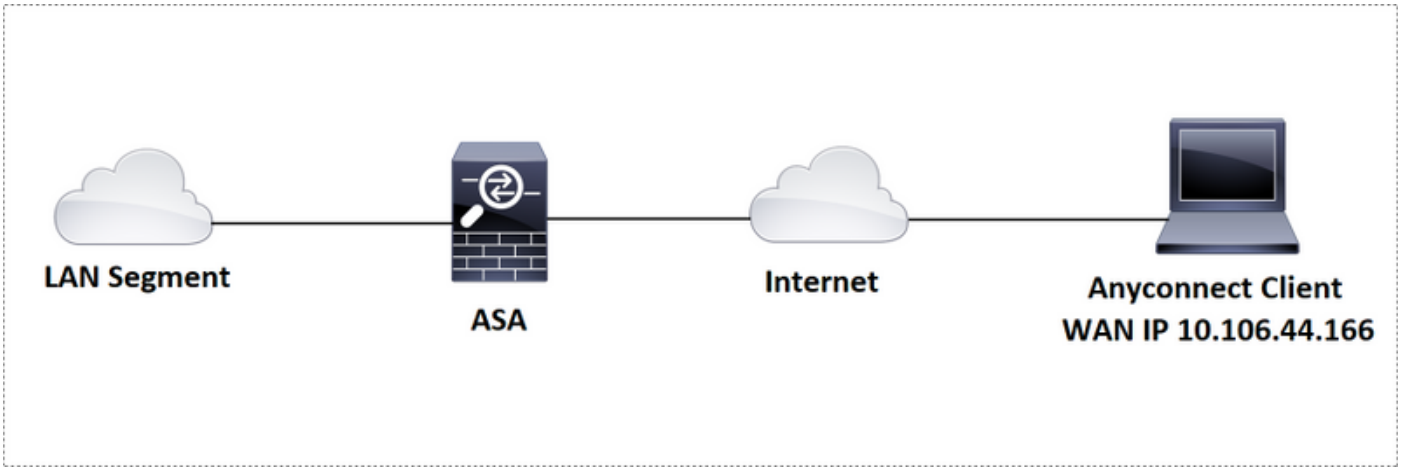
为了获得全新的开始，请考虑以下方法：

- Linux OS(PEM)证书存储：
  答：删除“/opt/.cisco/certificates”下不必要的PEM文件，但保留“/opt/.cisco/certificates/ca/VeriSignClass3PublicPrimaryCertificationAuthority-G5.pem”证书完整无缺。这是AnyConnect用于执行代码签名验证的CA证书。
  B.从路径~/.cisco/certificates中删除不需要的用户证书

- Firefox(NSS)证书存储：
  使用firefox设置检查和删除用户或AnyConnect自身导入的相关证书。

配置

网络图



配置

Linux客户端设置

步骤1.下载Anyconnect软件包，提取内容并在Linux客户端上安装Anyconnect应用。

```
tactest:Documents$ pwd
/home/tactest/Documents
tactest:Documents$ ls
anyconnect-linux64-4.6.03049-predeploy-k9.tar.gz
tactest:Documents$ tar -xvf anyconnect-linux64-4.6.03049-predeploy-k9.tar.gz
tactest:Documents$ ls
anyconnect-linux64-4.6.03049  anyconnect-linux64-4.6.03049-predeploy-k9.tar.gz
tactest:Documents$ cd anyconnect-linux64-4.6.03049/vpn/
tactest:vpn$ sudo su
[sudo] password for tactest:
root:vpn# pwd
/home/tactest/Documents/anyconnect-linux64-4.6.03049/vpn
root:vpn# ./vpn_install.sh
Installing Cisco AnyConnect Secure Mobility Client...
```

步骤2.使用OpenSSL在Linux客户端上为身份证书创建证书签名请求。

```
[dime@localhost ~]$ openssl genrsa -des3 -out server.key 2048
Generating RSA private key, 2048 bit long modulus
..............................+++
.........................................+++
e is 65537 (0x10001)
Enter pass phrase for server.key:
Verifying - Enter pass phrase for server.key:
[dime@localhost ~]$
[dime@localhost ~]$ openssl rsa -in server.key -out server.key.insecure
Enter pass phrase for server.key:
writing RSA key
[dime@localhost ~]$ mv server.key server.key.secure
[dime@localhost ~]$
[dime@localhost ~]$ mv server.key.insecure server.key
[dime@localhost ~]$
[dime@localhost ~]$ !  The insecure key is now named server.key, and you can use this file to
generate the CSR without passphrase.
[dime@localhost ~]$
[dime@localhost ~]$ openssl req -new -key server.key -out server.csr
```

```
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [XX]:US
State or Province Name (full name) []:CA
Locality Name (eg, city) [Default City]:SJ
Organization Name (eg, company) [Default Company Ltd]:Cisco
Organizational Unit Name (eg, section) []:HTTS
Common Name (eg, your name or your server's hostname) []:dimenet
Email Address []:
Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:
An optional company name []:
[dime@localhost ~]$
[dime@localhost ~]$ ls | grep -i server
server.csr  server.key  server.key.secure
[dime@localhost ~]$
[dime@localhost ~]$ cat server.csr
-----BEGIN CERTIFICATE REQUEST-----
MIICvTCCAaUCAQAwYTELMAkGA1UEBhMCVVMxCzAJBgNVBAgMAkNBMQswCQYDVQQH
DAJTSjEOMAwGA1UECgwFQ2lzY28xDTALBgNVBAsMBEhUVFMxGTAXBgNVBAMMEGRp
bWViCG5lCAgICAgICAgwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQC/
0e5PF09y45/+vlfZbuWRaw1vUiJPxy8OdXZhKT7VmDSitdTnPs2Q7cfzVaM1GdIw
c/HoHTL+rmmCn2Ccc9NGoWok3damhhu19xAt2VXz8jS6mV5bqTeBLYEWJ2Tgh7wA
4/0aPGILZCkQNNn3PruTLe8dqfEhFU6nGp7iJKNjlvyd34Di5YL1NhEQGdZ9q7aK
5VE3nBhgELmPOle53Pt/ZYWwji138QN8Qo9bXOZmQmRXgRucFaeN0VJVF+0EnnAJ
Y58+yiImEvqKe8h1OCxT2H/TH+5+XRHmggee/zZvis7JMWWcKACOUjQ9scTrjp+z
TW4CM2Cmox3AEcOJ9yg/AgMBAAGgFzAVBgkqhkiG9w0BCQcxCAwGY2lzY28IMA0G
CSqGSIb3DQEBCwUAA4IBAQC7uRbj+0JxUw7REXc41Ma30WIxhhzvn6QGax8+EPlL
c7wpsMtCSwV7BOgFLKqI7h+dcME+CfBYlcPre2/5LMYo336i9i0tsodV/+EU3NBg
L/RSoH099wBIEo7Xxx30xi38PvnCPnbZZEL2IWrgTyO4ohEOUjEOYnD16kUJvISy
Ky8z/3gGDRuhks2Yv4CTTRcvQAvljsLCOZiyaVVrp2xmsPtHxrd6vLrupoxdNpJy
xG1P/67JMLS3qqpTuvAqXT5uT2OBAC2hBgMGuKZCOC3mR4WlmoED9woFPESUUMQf
mKOksgQfrrxOZKPyhV8J4jByAjLSw6vh41dJHY9qKaGo
-----END CERTIFICATE REQUEST-----
[dime@localhost ~]$
```

步骤3.上面生成的CSR可用于请求CA颁发用户身份证书。

步骤4. CA颁发证书后，将证书复制到Linux客户端。

a.使用命令在“/home/tactest/.cisco/certificates/client”创建.pem文件
touch myclient.pem

b.从CA颁发的客户端身份证书复制Base64编码的证书内容

c.使用

vi **myclientcert.pem** or **nano myclientcert.pem**

d.按“i”在文件中插入文本。

e.粘贴Base64编码的证书

f.按转义，然后键入“：wq！”保存并退出文件编辑。

步骤5.同样，将CA证书放在路径“/opt/.cisco/certificates/ca”中

ASA CLI 配置

本部分提供Cisco AnyConnect安全移动客户端的CLI配置，以供参考。

```
interface GigabitEthernet0/1
 nameif outside
 security-level 0
 ip address 10.106.63.179 255.255.255.0
!
interface GigabitEthernet0/2
 nameif inside
 security-level 100
 ip address 30.30.30.1 255.255.255.0

asdm image disk0:/asdm-791.bin
route outside 0.0.0.0 0.0.0.0 10.106.63.1 1

!--------------------Client pool configuration-----------------

ip local pool ANYCONNECT-POOL 192.168.100.1-192.168.100.254 mask 255.255.255.0


!--------------------Split ACL configuration--------------------

access-list SPLIT-TUNNEL standard permit 10.0.0.0 255.255.255.0


!------Configure Trustpoint containing ASA Identity Certificate ------

crypto ca trustpoint IDENTITY
 enrollment terminal
 subject-name CN=bglanyconnect.cisco.com
 keypair ID_CERT
 crl configure

!-------Apply trustpoint on outside interface------

ssl trust-point IDENTITY outside

!-------Enable AnyConnect and setup AnyConnect Image------

webvpn
 enable outside
 anyconnect image disk0:/anyconnect-linux64-4.6.03049-webdeploy-k9.pkg 1
 anyconnect enable
 tunnel-group-list enable


!--------------------Group Policy configuration--------------------


group-policy GroupPolicy_ANYCONNECT-PROFILE internal
group-policy GroupPolicy_ANYCONNECT-PROFILE attributes
 dns-server value 10.10.10.99
 vpn-tunnel-protocol ssl-client ssl-clientless
 split-tunnel-policy tunnelspecified
 split-tunnel-network-list value SPLIT-TUNNEL
 default-domain value cisco.com

!----------Tunnel-Group (Connection Profile) Configuraiton----------

tunnel-group ANYCONNECT_PROFILE type remote-access
tunnel-group ANYCONNECT_PROFILE general-attributes
 address-pool ANYCONNECT-POOL
```

```
 default-group-policy GroupPolicy_ANYCONNECT-PROFILE
tunnel-group ANYCONNECT_PROFILE webvpn-attributes
 authentication certificate
 group-alias ANYCONNECT-PROFILE enable

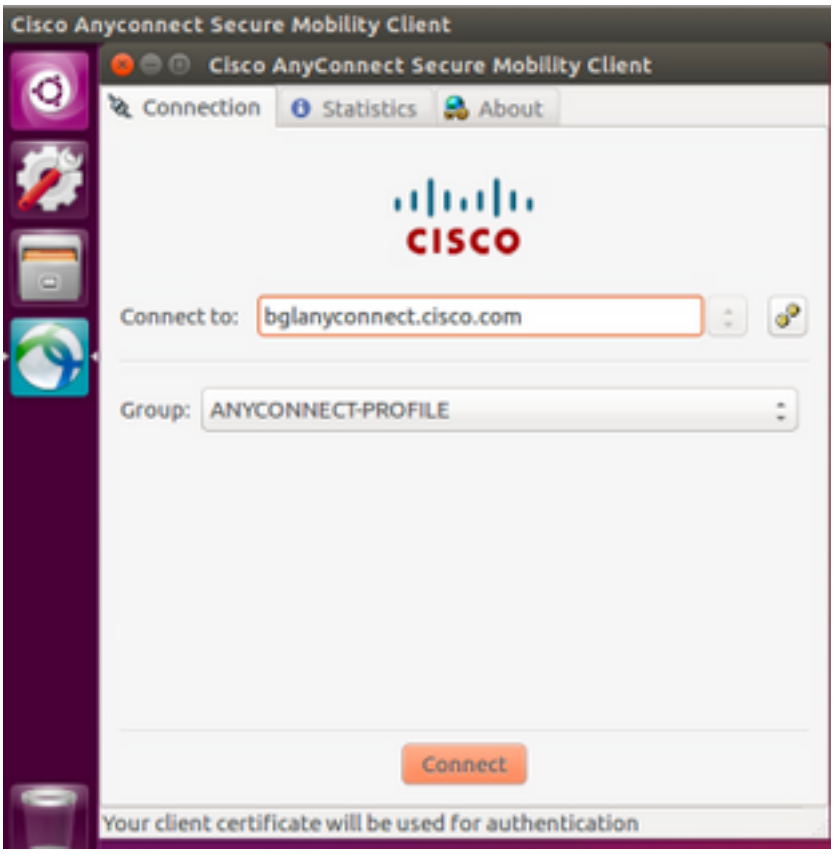
: end
```

验证

使用本部分可确认配置能否正常运行。

> **注意**：命令输出解释程序工具（仅限注册用户）支持某些 show 命令。使用输出解释器工具来查看 show 命令输出的分析。

1. 在Ubuntu OS 16.04.1 LTS上，通过GUI连接Anyconnect



2. 如果希望通过Linux客户端上的命令行连接Anyconnect，请导航至以下路径：

```
tactest:vpn$ cd /opt/cisco/anyconnect/bin
tactest:vpn$
tactest:bin$ ./vpn
Cisco AnyConnect Secure Mobility Client (version 4.6.03049) .

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  >> state: Disconnected
```

```
  >> state: Disconnected
  >> notice: Ready to connect.
  >> registered with local VPN subsystem.
VPN>
```

3. 验证Anyconnect客户端是否能建立连接：

```
VPN>  connect bglanyconnect.cisco.com
 connect bglanyconnect.cisco.com
  >> contacting host (bglanyconnect.cisco.com) for login information...
  >> notice: Contacting bglanyconnect.cisco.com.

  >> Your client certificate will be used for authentication
Group: ANYCONNECT-PROFILE
  >> state: Connecting
  >> notice: Establishing VPN session...
The AnyConnect Downloader is analyzing this computer. Please wait...
The AnyConnect Downloader is performing update checks...
  >> notice: The AnyConnect Downloader is performing update checks...
  >> notice: Checking for profile updates...
The AnyConnect Downloader updates have been completed.
Please wait while the VPN connection is established...
  >> state: Connecting
  >> notice: Checking for product updates...
  >> notice: Checking for customization updates...
  >> notice: Performing any required updates...
  >> notice: The AnyConnect Downloader updates have been completed.
  >> notice: Establishing VPN session...
  >> notice: Establishing VPN - Initiating connection...
  >> notice: Establishing VPN - Examining system...
  >> notice: Establishing VPN - Activating VPN adapter...
  >> notice: Establishing VPN - Configuring system...
  >> notice: Establishing VPN...
  >> state: Connected
  >> notice: Connected to bglanyconnect.cisco.com.
  >> state: Connected
  >> notice: Connected to bglanyconnect.cisco.com.

VPN> disconnect
disconnect
  >> state: Disconnecting
  >> notice: Disconnect in progress, please wait...
  >> state: Disconnecting
  >> notice: Disconnect in progress, please wait...
  >> state: Disconnecting
  >> state: Disconnected
  >> notice: Ready to connect.
  >> state: Disconnected
  >> notice: Ready to connect.
VPN>
```

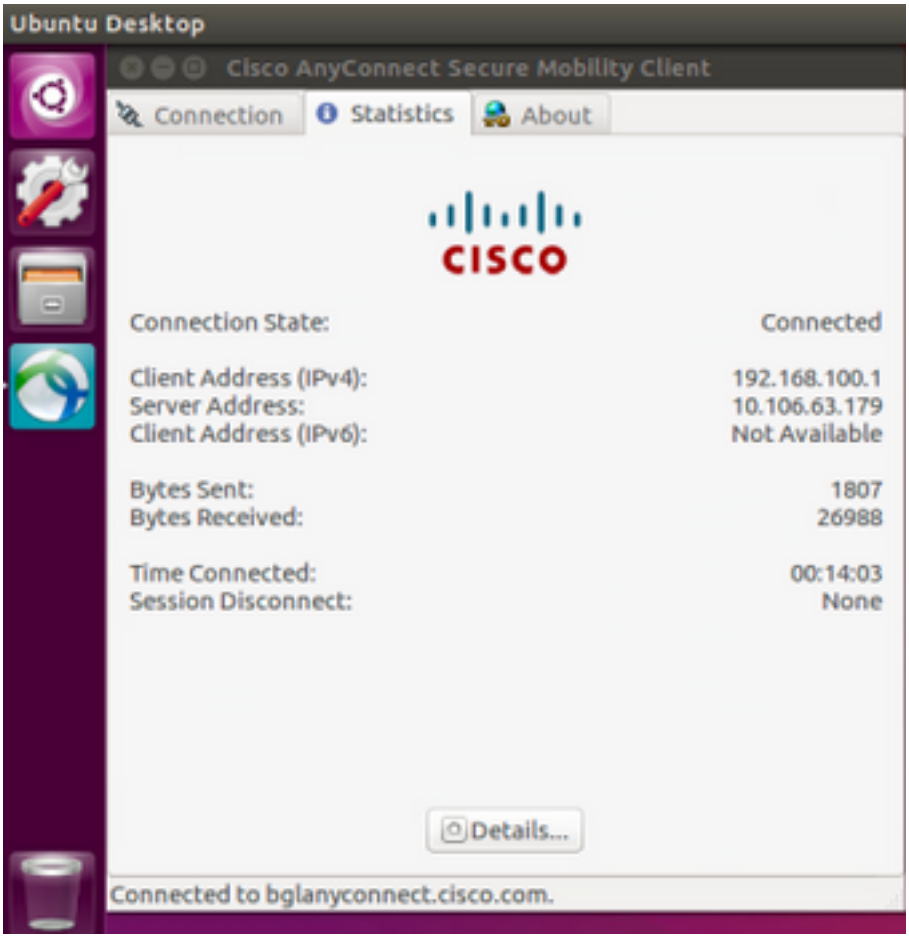
注意：如果Anyconnect GUI客户端已打开，并且您尝试通过CLI连接Anyconnect，则会出现此错误。

```
VPN> connect bglanyconnect.cisco.com
connect bglanyconnect.cisco.com
>> contacting host (bglanyconnect.cisco.com) for login information...
>> state: Disconnected
>> error: Connect not available. Another AnyConnect application is running
or this functionality was not requested by this application.
```

```
VPN>
```

在这种情况下，请关闭Anyconnect GUI客户端，然后通过Anyconnect CLI连接。

4. 成功连接后，可通过导航至Anyconnect GUI客户端中的“统计”(Statistics)选项卡来验证Anyconnect客户**端详细**信息。



5. 此命令用于确认自适应安全设备(ASA)上存在的CA和身份证书。

```
bglanyconnect# show crypto ca certificate
Certificate
  Status: Available
  Certificate Serial Number: 640000004944fa39c42d24c199000000000049
  Certificate Usage: General Purpose
  Public Key Type: RSA (1024 bits)
  Signature Algorithm: SHA256 with RSA Encryption
  Issuer Name:
    cn=SHERLOCK-CA
    dc=calo
    dc=lab
  Subject Name:
    cn=bglanyconnect.cisco.com
  CRL Distribution Points:
    [1]  ldap:///CN=SHERLOCK-
CA,CN=sherlock,CN=CDP,CN=Public%20Key%20Services,CN=Services,CN=Configuration,DC=calo,DC=la
b?certificateRevocationList?base?objectClass=cRLDistributionPoint
  Validity Date:
    start date: 03:00:53 UTC Jun 28 2019
    end   date: 03:00:53 UTC Jun 27 2021
  Storage: config
```

```
  Associated Trustpoints: IDENTITY

CA Certificate
  Status: Available
  Certificate Serial Number: 4a39345869f0e2aa4e8d60143b6d90f7
  Certificate Usage: Signature
  Public Key Type: RSA (2048 bits)
  Signature Algorithm: SHA256 with RSA Encryption
  Issuer Name:
    cn=SHERLOCK-CA
    dc=calo
    dc=lab
  Subject Name:
    cn=SHERLOCK-CA
    dc=calo
    dc=lab
  Validity Date:
    start date: 10:23:28 UTC Sep 22 2017
    end   date: 10:33:28 UTC Sep 22 2037
  Storage: config
  Associated Trustpoints: IDENTITY
```

6. 可以执行*show*命令来确认AnyConnect客户端的状态及其统计信息。

7. 要确认Linux客户端是否具有正确格式的证书(**Base64编码和.pem扩展**)，请浏览到给定路径并使用以下命令：

```
tactest:client$ cd  /home/tactest/.cisco/certificates/client
tactest-client$
tactest:client$ ls
myclient.pem
tactest-client$
tactest:client$ openssl x509 -in myclient.pem -text -noout
Certificate:
    Data:
        Version: 3 (0x2)
        Serial Number:
            64:00:00:00:47:14:e8:bc:85:e5:1d:bf:c4:00:00:00:00:00:00:47
    Signature Algorithm: sha256WithRSAEncryption
        Issuer: DC=lab, DC=calo, CN=SHERLOCK-CA
        Validity
            Not Before: Jun 27 15:02:04 2019 GMT
            Not After : Jun 26 15:02:04 2021 GMT
        Subject: C=US, ST=CA, L=SJ, O=Cisco, OU=HTTS, CN=dimenet
        Subject Public Key Info:
            Public Key Algorithm: rsaEncryption
                Public-Key: (2048 bit)
                Modulus:
                    00:c3:42:18:d8:fc:09:72:92:81:2f:5d:aa:d4:c6:
                    bf:4c:10:b0:f6:ad:21:ae:f9:9c:50:0b:f0:aa:b7:
                    02:a0:11:52:e0:23:68:e0:71:f7:67:b9:9f:bd:0b:
                    9d:88:70:66:d2:26:3d:ac:a9:1a:ad:1f:47:0c:9f:
                    5e:51:09:68:4a:31:f1:ed:86:48:bb:82:24:06:ad:
                    d4:e4:0a:9e:56:f2:7d:f9:bc:11:97:d1:b6:52:3e:
                    4b:a6:fe:99:ff:6b:c3:ab:32:d9:24:ae:15:70:82:
                    d5:1e:62:ef:68:f0:e3:b7:84:29:58:b0:d2:8f:40:
                    60:96:cf:ca:fd:04:72:a4:0a:37:ab:88:2e:59:3b:
                    eb:86:41:6f:da:be:a6:64:b1:6c:be:e5:00:42:af:
                    a8:82:1f:2c:14:78:26:4f:c4:61:19:94:96:df:cc:
                    05:21:e5:12:36:ff:4d:f5:ac:f5:f6:45:1f:4c:16:
                    47:73:9b:84:ad:48:66:04:a9:15:49:ba:cc:d6:58:
                    f9:30:71:c5:46:f9:05:e1:b5:09:3b:ee:3c:ce:f5:
```

```
                    fa:89:54:d3:7f:14:8a:b3:32:1c:3f:19:07:6c:1a:
                    cb:95:23:16:8b:ca:44:c7:d6:0a:3c:35:a3:ec:5d:
                    f9:2b:58:41:11:32:00:53:43:31:70:36:cc:86:04:
                    6d:4b
                Exponent: 65537 (0x10001)
        X509v3 extensions:
            X509v3 Subject Key Identifier:
                45:64:99:B1:5F:A1:7C:5F:4F:77:0D:12:CE:B8:F8:CA:40:4D:FA:A8
            X509v3 Authority Key Identifier:
                keyid:1B:51:FF:8A:71:E7:9C:2B:66:29:28:FD:44:16:BF:44:A4:A1:7D:E1

            X509v3 CRL Distribution Points:

                Full Name:
                  URI:ldap:///CN=SHERLOCK-
CA,CN=sherlock,CN=CDP,CN=Public%20Key%20Services,CN=Services,CN=Configuration,DC=calo,DC=la
b?certificateRevocationList?base?objectClass=cRLDistributionPoint

            Authority Information Access:
                CA Issuers - URI:ldap:///CN=SHERLOCK-
CA,CN=AIA,CN=Public%20Key%20Services,CN=Services,CN=Configuration,DC=calo,DC=lab?cACertific
ate?base?objectClass=certificationAuthority

            X509v3 Key Usage: critical
                Digital Signature, Key Encipherment
            1.3.6.1.4.1.311.21.7:
                0..&+.....7.....E..........U..r.T...V......d...
            X509v3 Extended Key Usage:
                TLS Web Client Authentication
            1.3.6.1.4.1.311.21.10:
                0.0
..+.......
    Signature Algorithm: sha256WithRSAEncryption
         0b:4d:46:fe:dd:0b:78:1a:35:ea:2b:d6:d6:33:ef:5a:86:5a:
         07:63:db:ef:ae:b3:87:e3:4d:c7:e8:d2:39:fe:5a:f2:8b:40:
         1e:f0:92:3f:48:ed:4d:67:e3:a6:44:05:6f:db:d8:96:bb:a6:
         a4:c7:98:fa:40:a5:aa:2d:1f:4b:49:32:1a:86:71:3d:72:69:
         f3:3f:e6:9f:f7:94:56:2e:10:0c:4c:c1:74:f1:ee:0e:28:00:
         bb:84:84:99:4d:07:ba:1b:68:1d:b5:98:f6:b7:96:55:c1:b8:
         5e:14:53:88:82:07:4e:3c:d8:7e:b0:f4:8d:1c:05:fd:8b:20:
         12:a4:94:05:7c:ad:81:63:50:05:8d:44:40:31:7c:e0:a8:33:
         1e:a3:19:c2:cb:bf:c8:03:b3:05:08:52:23:7e:11:ad:45:04:
         bd:0e:5a:8b:26:60:8f:3e:1c:98:41:f9:4d:3e:1a:1f:c8:d5:
         97:e3:0a:40:cb:0b:23:ba:9a:f7:27:d6:a1:c5:fd:91:dc:6d:
         04:ab:b7:d5:1d:54:d7:b3:ab:99:45:df:c1:01:b8:16:6e:40:
         c9:76:9e:36:36:b8:fc:e3:a1:03:86:61:2b:ac:ec:6d:c9:f4:
         91:ff:81:58:30:24:d3:81:8b:f0:20:23:49:7a:84:0f:91:80:
         2b:54:96:4d
```

如果出现以下错误，则表示您正尝试查看DER编码的证书，但该证书不是PEM编码的证书

```
unable to load certificate
12626:error:0906D06C:PEM routines:PEM_read_bio:no start line:pem_lib.c:647:Expecting:
TRUSTED CERTIFICATE
```

故障排除

本节提供可用于排除配置故障的信息。

注意：使用 debug 命令之前，请参阅有关 Debug 命令的重要信息。

警告：在ASA上，可以设置各种调试级别；默认情况下，使用1级。如果更改调试级别，调试的详细程度可能会增加。请谨慎执行此操作，尤其是在生产环境中。

要排除从Linux OS客户端传入的AnyConnect客户端连接故障，可以使用以下命令：

- **对于ASA上的AnyConnect进程**

debug webvpn anyconnect 255

以下是在工作场景中对ASA执行的调试示例：

```
%ASA-7-609001: Built local-host outside:10.106.44.166
%ASA-6-302013: Built inbound TCP connection 13540 for outside:10.106.44.166/58944
(10.106.44.166/58944) to identity:10.106.63.179/443 (10.106.63.179/443)
%ASA-6-725001: Starting SSL handshake with client outside:10.106.44.166/58944 to
10.106.63.179/443 for TLS session
%ASA-7-725010: Device supports the following 20 cipher(s)
%ASA-7-725011: Cipher[1] : ECDHE-ECDSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[2] : ECDHE-RSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[3] : DHE-RSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[4] : AES256-GCM-SHA384
%ASA-7-725011: Cipher[5] : ECDHE-ECDSA-AES256-SHA384
%ASA-7-725011: Cipher[6] : ECDHE-RSA-AES256-SHA384
%ASA-7-725011: Cipher[7] : DHE-RSA-AES256-SHA256
%ASA-7-725011: Cipher[8] : AES256-SHA256
%ASA-7-725011: Cipher[9] : ECDHE-ECDSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[10] : ECDHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[11] : DHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[12] : AES128-GCM-SHA256
%ASA-7-725011: Cipher[13] : ECDHE-ECDSA-AES128-SHA256
%ASA-7-725011: Cipher[14] : ECDHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[15] : DHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[16] : AES128-SHA256
%ASA-7-725011: Cipher[17] : DHE-RSA-AES256-SHA
%ASA-7-725011: Cipher[18] : AES256-SHA
%ASA-7-725011: Cipher[19] : DHE-RSA-AES128-SHA
%ASA-7-725011: Cipher[20] : AES128-SHA
%ASA-7-725008: SSL client outside:10.106.44.166/58944 to 10.106.63.179/443 proposes the
following 21 cipher(s)
%ASA-7-725011: Cipher[1] : ECDHE-ECDSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[2] : ECDHE-RSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[3] : DHE-RSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[4] : AES256-GCM-SHA384
%ASA-7-725011: Cipher[5] : ECDHE-ECDSA-AES256-SHA384
%ASA-7-725011: Cipher[6] : ECDHE-RSA-AES256-SHA384
%ASA-7-725011: Cipher[7] : DHE-RSA-AES256-SHA256
%ASA-7-725011: Cipher[8] : AES256-SHA256
%ASA-7-725011: Cipher[9] : ECDHE-ECDSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[10] : ECDHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[11] : DHE-RSA-AES128-GCM-SHA256
```

%ASA-7-725011: Cipher[12] : AES128-GCM-SHA256
%ASA-7-725011: Cipher[13] : ECDHE-ECDSA-AES128-SHA256
%ASA-7-725011: Cipher[14] : ECDHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[15] : DHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[16] : AES128-SHA256
%ASA-7-725011: Cipher[17] : DHE-RSA-AES256-SHA
%ASA-7-725011: Cipher[18] : AES256-SHA
%ASA-7-725011: Cipher[19] : DHE-RSA-AES128-SHA
%ASA-7-725011: Cipher[20] : AES128-SHA
%ASA-7-725011: Cipher[21] : DES-CBC3-SHA
%ASA-7-725012: Device chooses cipher ECDHE-RSA-AES256-GCM-SHA384 for the SSL session with client outside:10.106.44.166/58944 to 10.106.63.179/443
%ASA-6-725016: Device selects trust-point IDENTITY for client outside:10.106.44.166/58944 to 10.106.63.179/443
%ASA-6-725002: Device completed SSL handshake with client outside:10.106.44.166/58944 to 10.106.63.179/443 for TLSv1.2 session
%ASA-6-725007: SSL session with client outside:10.106.44.166/58944 to 10.106.63.179/443 terminated
%ASA-6-302014: Teardown TCP connection 13540 for outside:10.106.44.166/58944 to identity:10.106.63.179/443 duration 0:00:00 bytes 2948 TCP Reset-I from identity
%ASA-7-609002: Teardown local-host outside:10.106.44.166 duration 0:00:00
%ASA-7-609001: Built local-host outside:10.106.44.166
%ASA-6-302013: Built inbound TCP connection 13541 for outside:10.106.44.166/58946 (10.106.44.166/58946) to identity:10.106.63.179/443 (10.106.63.179/443)
%ASA-6-725001: Starting SSL handshake with client outside:10.106.44.166/58946 to 10.106.63.179/443 for TLS session %ASA-7-725010: Device supports the following 20 cipher(s) %ASA-7-725011: Cipher[1] : ECDHE-ECDSA-AES256-GCM-SHA384 %ASA-7-725011: Cipher[2] : ECDHE-RSA-AES256-GCM-SHA384 %ASA-7-725011: Cipher[3] : DHE-RSA-AES256-GCM-SHA384 %ASA-7-725011: Cipher[4] : AES256-GCM-SHA384 %ASA-7-725011: Cipher[5] : ECDHE-ECDSA-AES256-SHA384 %ASA-7-725011: Cipher[6] : ECDHE-RSA-AES256-SHA384 %ASA-7-725011: Cipher[7] : DHE-RSA-AES256-SHA256 %ASA-7-725011: Cipher[8] : AES256-SHA256 http_parse_cstp_method() ...input: 'CONNECT /CSCOSSLC/tunnel HTTP/1.1' webvpn_cstp_parse_request_field() ...input: 'Host: bglanyconnect.cisco.com' Processing CSTP header line: 'Host: bglanyconnect.cisco.com' webvpn_cstp_parse_request_field() ...input: 'User-Agent: Cisco AnyConnect VPN Agent for Linux 4.6.03049' Processing CSTP header line: 'User-Agent: Cisco AnyConnect VPN Agent for Linux 4.6.03049' Setting user-agent to: 'Cisco AnyConnect VPN Agent for Linux 4.6.03049' webvpn_cstp_parse_request_field() ...input: 'Cookie: webvpn=05B9EB@192512@A755@0A99DF461C27977CA12A0EAB41F5D7CD46AD8162' Processing CSTP header line: 'Cookie: webvpn=05B9EB@192512@A755@0A99DF461C27977CA12A0EAB41F5D7CD46AD8162' Found WebVPN cookie: 'webvpn=05B9EB@192512@A755@0A99DF461C27977CA12A0EAB41F5D7CD46AD8162' WebVPN Cookie: 'webvpn=05B9EB@192512@A755@0A99DF461C27977CA12A0EAB41F5D7CD46AD8162'
webvpn_cstp_parse_request_field() ...input: 'X-CSTP-Version: 1' Processing CSTP header line: 'X-CSTP-Version: 1' webvpn_cstp_parse_request_field() ...input: 'X-CSTP-Hostname: tactest-virtual-machine' Processing CSTP header line: 'X-CSTP-Hostname: tactest-virtual-machine' Setting hostname to: 'tactest-virtual-machine' webvpn_cstp_parse_request_field() ...input: 'X-CSTP-MTU: 1399' Processing CSTP header line: 'X-CSTP-MTU: 1399' webvpn_cstp_parse_request_field() ...input: 'X-CSTP-Address-Type: IPv6,IPv4' Processing CSTP header line: 'X-CSTP-Address-Type: IPv6,IPv4' webvpn_cstp_parse_request_field() ...input: 'X-CSTP-Local-Address-IP4: 10.106.44.166' Processing CSTP header line: 'X-CSTP-Local-Address-IP4: 10.106.44.166'
webvpn_cstp_parse_request_field() ...input: 'X-CSTP-Base-MTU: 1500' Processing CSTP header line: 'X-CSTP-Base-MTU: 1500' webvpn_cstp_parse_request_field() ...input: 'X-CSTP-Remote-Address-IP4: 10.106.63.179' Processing CSTP header line: 'X-CSTP-Remote-Address-IP4: 10.106.63.179'
webvpn_cstp_parse_request_field() ...input: 'X-CSTP-Full-IPv6-Capability: true' Processing CSTP header line: 'X-CSTP-Full-IPv6-Capability: true' webvpn_cstp_parse_request_field() ...input: 'X-DTLS-Master-Secret: F731F1B9371EC4E34DF4FF3FE230D5150B621C30F45D44D9579918C0CFF03BC7EEA7AEA1A59D247F6B70FC8B24237639' Processing CSTP header line: 'X-DTLS-Master-Secret: F731F1B9371EC4E34DF4FF3FE230D5150B621C30F45D44D9579918C0CFF03BC7EEA7AEA1A59D247F6B70FC8B24237639' webvpn_cstp_parse_request_field() ...input: 'X-DTLS-CipherSuite: DHE-RSA-AES256-GCM-SHA384:DHE-RSA-AES256-SHA256:DHE-RSA-AES256-SHA:DHE-RSA-AES128-GCM-SHA256:DHE-RSA-AES128-SHA256:DHE-RSA-AES128-SHA:AES256-SHA:AES128-SHA:DES-CBC3-SHA' Processing CSTP header line: 'X-DTLS-CipherSuite: DHE-RSA-AES256-GCM-SHA384:DHE-RSA-AES256-SHA256:DHE-RSA-AES256-SHA:DHE-RSA-AES128-GCM-SHA256:DHE-RSA-AES128-SHA256:DHE-RSA-AES128-SHA:AES256-SHA:AES128-SHA:DES-CBC3-SHA' webvpn_cstp_parse_request_field() ...input: 'X-DTLS-Accept-Encoding: lzs' Processing CSTL header line: 'X-DTLS-Accept-Encoding: lzs' webvpn_cstp_parse_request_field() ...input: 'X-DTLS-Header-

```
Pad-Length: 0' webvpn_cstp_parse_request_field() ...input: 'X-CSTP-Accept-Encoding: lzs'
Processing CSTP header line: 'X-CSTP-Accept-Encoding: lzs' webvpn_cstp_parse_request_field()
...input: 'X-CSTP-Protocol: Copyright (c) 2004 Cisco Systems, Inc.' Processing CSTP header line:
'X-CSTP-Protocol: Copyright (c) 2004 Cisco Systems, Inc.' cstp_util_address_ipv4_accept: address
asigned: 192.168.100.1
cstp_util_address_ipv6_accept: No IPv6 Address
np_svc_create_session(0x2F000, 0x00007f884ad8fb00, TRUE)
webvpn_svc_np_setup
SVC ACL Name: NULL
SVC ACL ID: -1
vpn_put_uauth success for ip 192.168.100.1!
No SVC ACL
Iphdr=20 base-mtu=1500 def-mtu=1500 conf-mtu=1406
tcp-mss = 1460
path-mtu = 1460(mss)
TLS Block size = 16, version = 0x303
mtu = 1460(path-mtu) - 12(opts) - 5(ssl) - 16(iv) = 1427
mod-mtu = 1427(mtu) & 0xfff0(complement) = 1424
tls-mtu = 1424(mod-mtu) - 8(cstp) - 48(mac) - 1(pad) = 1367
DTLS Block size = 16
mtu = 1500(base-mtu) - 20(ip) - 8(udp) - 13(dtlshdr) - 16(dtlsiv) = 1443
mod-mtu = 1443(mtu) & 0xfff0(complement) = 1440
dtls-mtu = 1440(mod-mtu) - 1(cdtp) - 20(mac) - 1(pad) = 1418
computed tls-mtu=1367 dtls-mtu=1418 conf-mtu=1406
DTLS enabled for intf=3 (outside)
overide computed dtls-mtu=1418 with conf-mtu=1406
tls-mtu=1367 dtls-mtu=1406
SVC: adding to sessmgmt
Sending X-CSTP-DNS: 10.10.10.99
Sending X-CSTP-Split-Include msgs: for ACL - SPLIT-TUNNEL: Start
    Sending X-CSTP-Split-Include: 10.0.0.0/255.255.255.0
Sending X-CSTP-MTU: 1367
Sending X-DTLS-MTU: 1406
Sending X-CSTP-FW-RULE msgs: Start
Sending X-CSTP-FW-RULE msgs: Done
Sending X-CSTP-Quarantine: false
Sending X-CSTP-Disable-Always-On-VPN: false
Sending X-CSTP-Client-Bypass-Protocol: false
%ASA-7-725011: Cipher[9] : ECDHE-ECDSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[10] : ECDHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[11] : DHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[12] : AES128-GCM-SHA256
%ASA-7-725011: Cipher[13] : ECDHE-ECDSA-AES128-SHA256
%ASA-7-725011: Cipher[14] : ECDHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[15] : DHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[16] : AES128-SHA256
%ASA-7-725011: Cipher[17] : DHE-RSA-AES256-SHA
%ASA-7-725011: Cipher[18] : AES256-SHA
%ASA-7-725011: Cipher[19] : DHE-RSA-AES128-SHA
%ASA-7-725011: Cipher[20] : AES128-SHA
%ASA-7-725008: SSL client outside:10.106.44.166/58946 to 10.106.63.179/443 proposes the
following 21 cipher(s)
%ASA-7-725011: Cipher[1] : ECDHE-ECDSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[2] : ECDHE-RSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[3] : DHE-RSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[4] : AES256-GCM-SHA384
%ASA-7-725011: Cipher[5] : ECDHE-ECDSA-AES256-SHA384
%ASA-7-725011: Cipher[6] : ECDHE-RSA-AES256-SHA384
%ASA-7-725011: Cipher[7] : DHE-RSA-AES256-SHA256
%ASA-7-725011: Cipher[8] : AES256-SHA256
%ASA-7-725011: Cipher[9] : ECDHE-ECDSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[10] : ECDHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[11] : DHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[12] : AES128-GCM-SHA256
```

%ASA-7-725011: Cipher[13] : ECDHE-ECDSA-AES128-SHA256
%ASA-7-725011: Cipher[14] : ECDHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[15] : DHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[16] : AES128-SHA256
%ASA-7-725011: Cipher[17] : DHE-RSA-AES256-SHA
%ASA-7-725011: Cipher[18] : AES256-SHA
%ASA-7-725011: Cipher[19] : DHE-RSA-AES128-SHA
%ASA-7-725011: Cipher[20] : AES128-SHA
%ASA-7-725011: Cipher[21] : DES-CBC3-SHA
%ASA-7-725012: Device chooses cipher ECDHE-RSA-AES256-GCM-SHA384 for the SSL session with client outside:10.106.44.166/58946 to 10.106.63.179/443
%ASA-6-725016: Device selects trust-point IDENTITY for client outside:10.106.44.166/58946 to 10.106.63.179/443
%ASA-7-717025: Validating certificate chain containing 1 certificate(s).
%ASA-7-717029: Identified client certificate within certificate chain. serial number: 640000004714E8BC85E51DBFC4000000000047, subject name: cn=dimenet,ou=HTTS,o=Cisco,l=SJ,st=CA,c=US.
%ASA-7-717030: Found a suitable trustpoint IDCERT to validate certificate.
%ASA-6-717022: Certificate was successfully validated. serial number: 640000004714E8BC85E51DBFC4000000000047, subject name: cn=dimenet,ou=HTTS,o=Cisco,l=SJ,st=CA,c=US.
%ASA-6-717028: Certificate chain was successfully validated with warning, revocation status was not checked.
%ASA-6-725002: Device completed SSL handshake with client outside:10.106.44.166/58946 to 10.106.63.179/443 for TLSv1.2 session
%ASA-7-717036: Looking for a tunnel group match based on certificate maps for peer certificate with serial number: 640000004714E8BC85E51DBFC4000000000047, subject name: cn=dimenet,ou=HTTS,o=Cisco,l=SJ,st=CA,c=US, issuer_name: cn=SHERLOCK-CA,dc=calo,dc=lab.
%ASA-4-717037: Tunnel group search using certificate maps failed for peer certificate: serial number: 640000004714E8BC85E51DBFC4000000000047, subject name: cn=dimenet,ou=HTTS,o=Cisco,l=SJ,st=CA,c=US, issuer_name: cn=SHERLOCK-CA,dc=calo,dc=lab.
%ASA-7-113028: Extraction of username from VPN client certificate has been requested. [Request 36]
%ASA-7-113028: Extraction of username from VPN client certificate has started. [Request 36]
%ASA-7-113028: Extraction of username from VPN client certificate has finished successfully. [Request 36]
%ASA-7-113028: Extraction of username from VPN client certificate has completed. [Request 36]
%ASA-6-113009: AAA retrieved default group policy (GroupPolicy_ANYCONNECT-PROFILE) for user = dimenet
%ASA-7-734003: DAP: User dimenet, Addr 10.106.44.166: Session Attribute aaa.cisco.grouppolicy = GroupPolicy_ANYCONNECT-PROFILE
%ASA-7-734003: DAP: User dimenet, Addr 10.106.44.166: Session Attribute aaa.cisco.username = dimenet
%ASA-7-734003: DAP: User dimenet, Addr 10.106.44.166: Session Attribute aaa.cisco.username1 = dimenet
%ASA-7-734003: DAP: User dimenet, Addr 10.106.44.166: Session Attribute aaa.cisco.username2 =
%ASA-7-734003: DAP: User dimenet, Addr 10.106.44.166: Session Attribute aaa.cisco.tunnelgroup = ANYCONNECT_PROFILE
%ASA-6-734001: DAP: User dimenet, Addr 10.106.44.166, Connection AnyConnect: The following DAP records were selected for this connection: DfltAccessPolicy
%ASA-6-113039: Group

%ASA-6-725016: Device selects trust-point IDENTITY for client outside:10.106.44.166/58946 to 10.106.63.179/443
%ASA-6-302013: Built inbound TCP connection 13542 for outside:10.106.44.166/58952 (10.106.44.166/58952) to identity:10.106.63.179/443 (10.106.63.179/443)
%ASA-6-725001: Starting SSL handshake with client outside:10.106.44.166/58952 to 10.106.63.179/443 for TLS session
%ASA-7-725010: Device supports the following 20 cipher(s)
%ASA-7-725011: Cipher[1] : ECDHE-ECDSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[2] : ECDHE-RSA-AES256-GCM-SHA384

```
%ASA-7-725011: Cipher[3] : DHE-RSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[4] : AES256-GCM-SHA384
%ASA-7-725011: Cipher[5] : ECDHE-ECDSA-AES256-SHA384
%ASA-7-725011: Cipher[6] : ECDHE-RSA-AES256-SHA384
%ASA-7-725011: Cipher[7] : DHE-RSA-AES256-SHA256
%ASA-7-725011: Cipher[8] : AES256-SHA256
%ASA-7-725011: Cipher[9] : ECDHE-ECDSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[10] : ECDHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[11] : DHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[12] : AES128-GCM-SHA256
%ASA-7-725011: Cipher[13] : ECDHE-ECDSA-AES128-SHA256
%ASA-7-725011: Cipher[14] : ECDHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[15] : DHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[16] : AES128-SHA256
%ASA-7-725011: Cipher[17] : DHE-RSA-AES256-SHA
%ASA-7-725011: Cipher[18] : AES256-SHA
%ASA-7-725011: Cipher[19] : DHE-RSA-AES128-SHA
%ASA-7-725011: Cipher[20] : AES128-SHA
%ASA-7-725008: SSL client outside:10.106.44.166/58952 to 10.106.63.179/443 proposes the
following 21 cipher(s)
%ASA-7-725011: Cipher[1] : ECDHE-RSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[2] : ECDHE-ECDSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[3] : ECDHE-RSA-AES256-SHA384
%ASA-7-725011: Cipher[4] : ECDHE-ECDSA-AES256-SHA384
%ASA-7-725011: Cipher[5] : DHE-RSA-AES256-GCM-SHA384
%ASA-7-725011: Cipher[6] : DHE-RSA-AES256-SHA256
%ASA-7-725011: Cipher[7] : DHE-RSA-AES256-SHA
%ASA-7-725011: Cipher[8] : AES256-GCM-SHA384
%ASA-7-725011: Cipher[9] : AES256-SHA256
%ASA-7-725011: Cipher[10] : AES256-SHA
%ASA-7-725011: Cipher[11] : ECDHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[12] : ECDHE-ECDSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[13] : ECDHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[14] : ECDHE-ECDSA-AES128-SHA256
%ASA-7-725011: Cipher[15] : DHE-RSA-AES128-GCM-SHA256
%ASA-7-725011: Cipher[16] : DHE-RSA-AES128-SHA256
%ASA-7-725011: Cipher[17] : DHE-RSA-AES128-SHA
%ASA-7-725011: Cipher[18] : AES128-GCM-SHA256
%ASA-7-725011: Cipher[19] : AES128-SHA256
%ASA-7-725011: Cipher[20] : AES128-SHA
%ASA-7-725011: Cipher[21] : DES-CBC3-SHA
%ASA-7-725012: Device chooses cipher ECDHE-RSA-AES256-GCM-SHA384 for the SSL session with client
outside:10.106.44.166/58952 to 10.106.63.179/443
%ASA-6-725016: Device selects trust-point IDENTITY for client outside:10.106.44.166/58952 to
10.106.63.179/443
%ASA-7-725017: No certificates received during the handshake with client
outside:10.106.44.166/58952 to 10.106.63.179/443 for DTLSv1 session
%ASA-6-725002: Device completed SSL handshake with client outside:10.106.44.166/58952 to
10.106.63.179/443 for TLSv1.2 session
%ASA-7-737035: IPAA: Session=0x0002f000, 'IPv4 address request' message queued
%ASA-7-737035: IPAA: Session=0x0002f000, 'IPv6 address request' message queued
%ASA-7-737001: IPAA: Session=0x0002f000, Received message 'IPv4 address request'
%ASA-5-737003: IPAA: Session=0x0002f000, DHCP configured, no viable servers found for tunnel-
group 'ANYCONNECT_PROFILE'
%ASA-6-737026: IPAA: Session=0x0002f000, Client assigned 192.168.100.1 from local pool
%ASA-6-737006: IPAA: Session=0x0002f000, Local pool request succeeded for tunnel-group
'ANYCONNECT_PROFILE'
%ASA-7-737001: IPAA: Session=0x0002f000, Received message 'IPv6 address request'
%ASA-5-737034: IPAA: Session=0x0002f000, IPv6 address: no IPv6 address available from local
pools
%ASA-5-737034: IPAA: Session=0x0002f000, IPv6 address: callback failed during IPv6 request
%ASA-4-722041: TunnelGroup <ANYCONNECT_PROFILE> GroupPolicy <GroupPolicy_ANYCONNECT-PROFILE>
User <dimenet> IP <10.106.44.166> No IPv6 address available for SVC connection
%ASA-7-609001: Built local-host outside:192.168.100.1
```

```
%ASA-5-722033: Group <GroupPolicy_ANYCONNECT-PROFILE> User <dimenet> IP <10.106.44.166> First
TCP SVC connection established for SVC session.
%ASA-6-722022: Group
```

```
        %ASA-7-746012: user-identity: Add IP-User mapping 192.168.100.1 - LOCAL\dimenet
Succeeded - VPN user
%ASA-6-722055: Group <GroupPolicy_ANYCONNECT-PROFILE> User <dimenet> IP <10.106.44.166> Client
Type: Cisco AnyConnect VPN Agent for Linux 4.6.03049
%ASA-4-722051: Group <GroupPolicy_ANYCONNECT-PROFILE> User <dimenet> IP <10.106.44.166> IPv4
Address <192.168.100.1> IPv6 address <::> assigned to session
%ASA-6-302015: Built inbound UDP connection 13543 for outside:10.106.44.166/42354
(10.106.44.166/42354) to identity:10.106.63.179/443 (10.106.63.179/443)
%ASA-6-725001: Starting SSL handshake with client outside:10.106.44.166/42354 to
10.106.63.179/443 for DTLS session
%ASA-7-609001: Built local-host outside:10.10.10.99
%ASA-6-302016: Teardown UDP connection 13544 for outside:192.168.100.1/60514(LOCAL\dimenet) to
outside:10.10.10.99/53 duration 0:00:00 bytes 0 (dimenet)
%ASA-7-609002: Teardown local-host outside:10.10.10.99 duration 0:00:00
%ASA-6-302016: Teardown UDP connection 13543 for outside:10.106.44.166/42354 to
identity:10.106.63.179/443 duration 0:00:00 bytes 147
%ASA-6-302015: Built inbound UDP connection 13545 for outside:10.106.44.166/42354
(10.106.44.166/42354) to identity:10.106.63.179/443 (10.106.63.179/443)
%ASA-6-725001: Starting SSL handshake with client outside:10.106.44.166/42354 to
10.106.63.179/443 for DTLS session
%ASA-6-725003: SSL client outside:10.106.44.166/42354 to 10.106.63.179/443 request to resume
previous session
%ASA-6-725002: Device completed SSL handshake with client outside:10.106.44.166/42354 to
10.106.63.179/443 for DTLSv0.9 session
%ASA-5-722033: Group <GroupPolicy_ANYCONNECT-PROFILE> User <dimenet> IP <10.106.44.166> First
UDP SVC connection established for SVC session.
%ASA-6-722022: Group <GroupPolicy_ANYCONNECT-PROFILE> User <dimenet> IP <10.106.44.166> UDP SVC
connection established without compression
%ASA-6-725007: SSL session with client outside:10.106.44.166/58946 to 10.106.63.179/443
terminated
```

- **用于ASA上的客户端证书身份验证**

  debug crypto ca 255
  debug crypto ca messages 255
  debug crypto ca transactions 255

以下是ASA上成功进行客户端证书身份验证的调试示例：

```
CERT_API: PKI session 0x05ba525b open Successful with type SSL
CERT_API: Authenticate session 0x05ba525b, non-blocking cb=0x00007f88839daf00
CERT API thread wakes up!
CERT_API: process msg cmd=0, session=0x05ba525b
CERT_API: Async locked for session 0x05ba525b

CRYPTO_PKI: Begin sorted cert chain
---------Certificate--------:
Serial:  640000004714E8BC85E51DBFC4000000000047
Subject: cn=dimenet,ou=HTTS,o=Cisco,l=SJ,st=CA,c=US
Issuer:  cn=SHERLOCK-CA,dc=calo,dc=lab

CRYPTO_PKI: End sorted cert chain
CRYPTO_PKI: Cert chain pre-processing: List size is 1, trustpool is not in use
CRYPTO_PKI: List pruning is not necessary.
```

```
CRYPTO_PKI: Sorted chain size is: 1
CRYPTO_PKI: Found ID cert. serial number: 640000004714E8BC85E51DBFC4000000000047, subject name:
cn=dimenet,ou=HTTS,o=Cisco,l=SJ,st=CA,c=US
CRYPTO_PKI: Verifying certificate with serial number: 640000004714E8BC85E51DBFC4000000000047,
subject name: cn=dimenet,ou=HTTS,o=Cisco,l=SJ,st=CA,c=US, issuer_name: cn=SHERLOCK-
CA,dc=calo,dc=lab, signature alg: SHA256/RSA.

CRYPTO_PKI: Checking to see if an identical cert is
 already in the database...

CRYPTO_PKI(Cert Lookup) issuer="cn=SHERLOCK-CA,dc=calo,dc=lab" serial number=64 00 00 00 47 14
e8 bc 85 e5 1d bf c4 00 00 00    |  d...G...........
00 00 47                                          |  ..G

CRYPTO_PKI: looking for cert in handle=0x00007f8825ce6c90, digest=
9c 05 9b 71 14 9a 6b 35 35 9f f3 4f c5 eb d8 2a    |  ...q..k55..O...*

CRYPTO_PKI: Cert record not found, returning E_NOT_FOUND
CRYPTO_PKI: Cert not found in database.

CRYPTO_PKI: Looking for suitable trustpoints for connection type SSL

CRYPTO_PKI: Found suitable tp: IDCERT
CRYPTO_PKI: Storage context locked by thread CERT API

CRYPTO_PKI: Found a suitable authenticated trustpoint IDCERT.
CRYPTO_PKI: ExtendedKeyUsage OID = 1.3.6.1.5.5.7.3.2 acceptable for usage type: SSL VPN Peer
CRYPTO_PKI:check_key_usage:Key Usage check OK

CRYPTO_PKI: Certificate validation: Successful, status: 0
CRYPTO_PKI: bypassing revocation checking based on policy configuration
CRYPTO_PKI:Certificate validated. serial number: 640000004714E8BC85E51DBFC4000000000047, subject
name:  cn=dimenet,ou=HTTS,o=Cisco,l=SJ,st=CA,c=US.

CRYPTO_PKI: Storage context released by thread CERT API

CRYPTO_PKI: Certificate validated without revocation check

CRYPTO_PKI: valid cert with warning.

CRYPTO_PKI: valid cert status.
CERT_API: calling user callback=0x00007f88839daf00 with status=0(Success)
CERT_API: Close session 0x05ba525b asynchronously
CERT_API: Async unlocked for session 0x05ba525b
CERT_API: process msg cmd=1, session=0x05ba525b
CERT_API: Async locked for session 0x05ba525b
CERT_API: Async unlocked for session 0x05ba525b
CERT API thread sleeps!
```

- **对于Linux客户端上的AnyConnect进程**

在Linux设备上，Anyconnect日志可以在名为“syslog”的文件中找到，该文**件位**于路径：**/var/log/**以下是从Linux客户端获取的工作日志示例。**可以运行以下命令来收集Anyconnect客户端连接的实时日志。**

```
tactest:client$ tail -f /var/log/syslog

Jul  1 08:42:48 machine acvpnui[11774]: An SSL VPN connection to bglanyconnect.cisco.com has
been requested by the user.
```

Jul 1 08:42:48 machine acvpnui[11774]: Function: getProfileNameFromHost File: ../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.
Jul 1 08:42:48 machine acvpnui[11774]: Function: getHostInitSettings File: ../../vpn/Api/ProfileMgr.cpp Line: 1334 Profile () not found. Using default settings.
Jul 1 08:42:48 machine acvpnui[11774]: Function: loadProfiles File: ../../vpn/Api/ProfileMgr.cpp Line: 189 No profile is available.
Jul 1 08:42:48 machine acvpnui[11774]: Function: getProfileNameFromHost File: ../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.
Jul 1 08:42:48 machine acvpnui[11774]: Using default preferences. Some settings (e.g. certificate matching) may not function as expected if a local profile is expected to be used. Verify that the selected host is in the server list section of the profile and that the profile is configured on the secure gateway.
Jul 1 08:42:48 machine acvpnui[11774]: Function: setConnectionData File: ../../vpn/Api/ConnectMgr.cpp Line: 2015 Resetting certificate list.
Jul 1 08:42:48 machine acvpnui[11774]: Function: getProfileNameFromHost File: ../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.
Jul 1 08:42:48 machine acvpnui[11774]: Function: getHostInitSettings File: ../../vpn/Api/ProfileMgr.cpp Line: 1334 Profile () not found. Using default settings.
Jul 1 08:42:48 machine acvpnui[11774]: Function: getCertList File: ../../vpn/Api/ApiCert.cpp Line: 497 Number of certificates found: 1
Jul 1 08:42:48 machine acvpnui[11774]: Function: getProfileNameFromHost File: ../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.
Jul 1 08:42:48 machine acvpnui[11774]: Function: getHostInitSettings File: ../../vpn/Api/ProfileMgr.cpp Line: 1334 Profile () not found. Using default settings.
Jul 1 08:42:48 machine acvpnui[11774]: Function: setConnectionData File: ../../vpn/Api/ConnectMgr.cpp Line: 2148 Using certificate which matched stored preferences
Jul 1 08:42:48 machine acvpnui[11774]: Function: setConnectionData File: ../../vpn/Api/ConnectMgr.cpp Line: 2287 Certificate retrieved from preferences: Subject Name: C=US, ST=CA, L=SJ, O=Cisco, OU=HTTS, CN=dimenet Issuer Name : DC=lab, DC=calo, CN=SHERLOCK-CA Store : PEM File User
Jul 1 08:42:48 machine acvpnui[11774]: Message type information sent to the user: Contacting bglanyconnect.cisco.com.
Jul 1 08:42:48 machine acvpnui[11774]: Initiating VPN connection to the secure gateway https://bglanyconnect.cisco.com
Jul 1 08:42:48 machine acvpnagent[1785]: Using default preferences. Some settings (e.g. certificate matching) may not function as expected if a local profile is expected to be used. Verify that the selected host is in the server list section of the profile and that the profile is configured on the secure gateway.
Jul 1 08:42:48 machine acvpnagent[1785]: Function: processConnectNotification File: ../../vpn/Agent/MainThread.cpp Line: 13590 Received connect notification (host bglanyconnect.cisco.com, profile N/A)
Jul 1 08:42:48 machine acvpnagent[1785]: Function: getDnsConfiguration File: ../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for interface ens32.
Jul 1 08:42:48 machine acvpnagent[1785]: message repeated 2 times: [Function: getDnsConfiguration File: ../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for interface ens32.]
Jul 1 08:42:48 machine acvpnagent[1785]: Function: resolveHostName File: ../../vpn/Common/Utility/HostLocator.cpp Line: 721 Invoked Function: CHostLocator::resolveHostNameAlt Return Code: -29229035 (0xFE420015) Description: DNSREQUEST_ERROR_EMPTY_RESPONSE
Jul 1 08:42:48 machine acvpnagent[1785]: Function: getHostIPAddrByName File: ../../vpn/Common/IPC/SocketSupport.cpp Line: 344 Invoked Function: ::getaddrinfo Return Code: 11 (0x0000000B) Description: unknown
Jul 1 08:42:48 machine acvpnagent[1785]: Function: resolveHostName File: ../../vpn/Common/Utility/HostLocator.cpp Line: 733 Invoked Function: CSocketSupport::getHostIPAddrByName Return Code: -31129588 (0xFE25000C) Description: SOCKETSUPPORT_ERROR_GETADDRINFO
Jul 1 08:42:48 machine acvpnagent[1785]: Function: ResolveHostname File: ../../vpn/Common/Utility/HostLocator.cpp Line: 843 Invoked Function: CHostLocator::resolveHostName Return Code: -31129588 (0xFE25000C) Description: SOCKETSUPPORT_ERROR_GETADDRINFO failed to resolve host name bglanyconnect.cisco.com to IPv6 address
Jul 1 08:42:48 machine acvpnagent[1785]: Function: logResolutionResult File:

../../vpn/Common/Utility/HostLocator.cpp Line: 927 Host bglanyconnect.cisco.com has been resolved to IP address 10.106.63.179
Jul 1 08:42:48 machine acvpnagent[1785]: Writing to hosts file: 10.106.63.179#011bglanyconnect.cisco.com ###Cisco AnyConnect VPN client modified this file. Please do not modify contents until this comment is removed.
Jul 1 08:42:48 machine acvpnagent[1785]: Function: respondToConnectNotification File: ../../vpn/Agent/MainThread.cpp Line: 5831 The requested VPN connection to bglanyconnect.cisco.com will target the following IP protocols and addresses: primary - IPv4 (address 10.106.63.179), secondary - N/A.
Jul 1 08:42:48 machine acvpnagent[1785]: Function: determineAcidexMacAddrMapForTlv File: ../../vpn/Agent/MainThread.cpp Line: 6143 [ACIDEX] Determined public interface MAC address 00-50-56-bd-87-1f (interface IPv4 address: 10.106.44.166)
Jul 1 08:42:48 machine acvpnui[11774]: Function: getUserName File: ../../vpn/Api/CTransportCurlStatic.cpp Line: 2249 PasswordEntry username is tactest
Jul 1 08:42:48 machine acvpnui[11774]: Function: findProfile File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 666 NSS Profile directory: /home/tactest/.mozilla/firefox/6ai2dwqd.default
Jul 1 08:42:48 machine acvpnui[11774]: Function: InitNSS File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 408 Invoked Function: NSS_Initialize Return Code: -8015 (0xFFFFE0B1) Description: unknown Unknown
Jul 1 08:42:48 machine acvpnui[11774]: Function: CNSSCertStore File: ../../vpn/CommonCrypt/Certificates/NSSCertStore.cpp Line: 76 Invoked Function: CNSSCertUtils::InitNSS Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:48 machine acvpnui[11774]: Function: addNSSStore File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 1874 Invoked Function: CNSSCertStore::CNSSCertStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:48 machine acvpnui[11774]: Function: OpenStores File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 449 Invoked Function: CCollectiveCertStore::addNSSStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:48 machine acvpnui[11774]: Function: verify_callback File: ../../vpn/CommonCrypt/Certificates/FileCertificate.cpp Line: 417 Invoked Function: X509_verify_cert Return Code: 0 (0x00000000) Description: ok
Jul 1 08:42:48 machine acvpnui[11774]: Function: verify_callback File: ../../vpn/CommonCrypt/Certificates/FileCertificate.cpp Line: 417 Invoked Function: X509_verify_cert Return Code: 0 (0x00000000) Description: ok
Jul 1 08:42:48 machine acvpnui[11774]: Function: PeerCertVerifyCB File: ../../vpn/Api/CTransportCurlStatic.cpp Line: 959 Return success from VerifyServerCertificate
Jul 1 08:42:48 machine acvpnui[11774]: Function: processResponseStringFromSG File: ../../vpn/Api/ConnectMgr.cpp Line: 11991 Client certificate requested by peer (via AggAuth)
Jul 1 08:42:48 machine acvpnui[11774]: Function: getUserName File: ../../vpn/Api/CTransportCurlStatic.cpp Line: 2249 PasswordEntry username is tactest
Jul 1 08:42:48 machine acvpnui[11774]: Function: findProfile File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 666 NSS Profile directory: /home/tactest/.mozilla/firefox/6ai2dwqd.default
Jul 1 08:42:48 machine acvpnui[11774]: Function: InitNSS File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 408 Invoked Function: NSS_Initialize Return Code: -8015 (0xFFFFE0B1) Description: unknown Unknown
Jul 1 08:42:48 machine acvpnui[11774]: Function: CNSSCertStore File: ../../vpn/CommonCrypt/Certificates/NSSCertStore.cpp Line: 76 Invoked Function: CNSSCertUtils::InitNSS Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:48 machine acvpnui[11774]: Function: addNSSStore File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 1874 Invoked Function: CNSSCertStore::CNSSCertStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:48 machine acvpnui[11774]: Function: OpenStores File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 449 Invoked Function: CCollectiveCertStore::addNSSStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:48 machine acvpnui[11774]: Function: verify_callback File: ../../vpn/CommonCrypt/Certificates/FileCertificate.cpp Line: 417 Invoked Function:

```
X509_verify_cert Return Code: 0 (0x00000000) Description: ok
Jul  1 08:42:48 machine acvpnui[11774]: Function: verify_callback File:
../../vpn/CommonCrypt/Certificates/FileCertificate.cpp Line: 417 Invoked Function:
X509_verify_cert Return Code: 0 (0x00000000) Description: ok
Jul  1 08:42:48 machine acvpnui[11774]: Function: PeerCertVerifyCB File:
../../vpn/Api/CTransportCurlStatic.cpp Line: 959 Return success from VerifyServerCertificate
Jul  1 08:42:48 machine acvpnui[11774]: Function: ClientCertSetCB File:
../../vpn/Api/CTransportCurlStatic.cpp Line: 1063 Client certificate requested by peer
Jul  1 08:42:48 machine acvpnui[11774]: Function: getUserName File:
../../vpn/Api/CTransportCurlStatic.cpp Line: 2249 PasswordEntry username is tactest
Jul  1 08:42:48 machine acvpnui[11774]: Function: findProfile File:
../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 666 NSS Profile directory:
/home/tactest/.mozilla/firefox/6ai2dwqd.default
Jul  1 08:42:48 machine acvpnui[11774]: Function: InitNSS File:
../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 408 Invoked Function: NSS_Initialize
Return Code: -8015 (0xFFFFE0B1) Description: unknown Unknown
Jul  1 08:42:48 machine acvpnui[11774]: Function: CNSSCertStore File:
../../vpn/CommonCrypt/Certificates/NSSCertStore.cpp Line: 76 Invoked Function:
CNSSCertUtils::InitNSS Return Code: -31457269 (0xFE20000B) Description:
CERTSTORE_ERROR_PROVIDER_ERROR
Jul  1 08:42:48 machine acvpnui[11774]: Function: addNSSStore File:
../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 1874 Invoked Function:
CNSSCertStore::CNSSCertStore Return Code: -31457269 (0xFE20000B) Description:
CERTSTORE_ERROR_PROVIDER_ERROR
Jul  1 08:42:48 machine acvpnui[11774]: Function: OpenStores File:
../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 449 Invoked Function:
CCollectiveCertStore::addNSSStore Return Code: -31457269 (0xFE20000B) Description:
CERTSTORE_ERROR_PROVIDER_ERROR
Jul  1 08:42:48 machine acvpnui[11774]: Function: GetCertChain File:
../../vpn/CommonCrypt/Certificates/FileCertStore.cpp Line: 618 Invoked Function: enumerateCert
Return Code: -31457266 (0xFE20000E) Description: CERTSTORE_ERROR_CERT_NOT_FOUND
Jul  1 08:42:48 machine acvpnui[11774]: Function: ProcessPromptData File:
../../vpn/Api/SDIMgr.cpp Line: 336 Authentication is not token based (OTP).
Jul  1 08:42:48 machine acvpnui[11774]: Function: getProfileNameFromHost File:
../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.
Jul  1 08:42:48 machine acvpnui[11774]: Function: getHostInitSettings File:
../../vpn/Api/ProfileMgr.cpp Line: 1334 Profile () not found. Using default settings.
Jul  1 08:42:48 machine acvpnui[11774]: Message type prompt sent to the user: Your client
certificate will be used for authentication
Jul  1 08:42:50 machine acvpnui[11774]: Function: userResponse File:
../../vpn/Api/ConnectMgr.cpp Line: 1606 Processing user response.
Jul  1 08:42:50 machine acvpnui[11774]: Function: processIfcData File:
../../vpn/Api/ConnectMgr.cpp Line: 3650 Authentication succeeded
Jul  1 08:42:50 machine acvpnui[11774]: VPN state: Connecting Network state: Network Accessible
Network control state: Network Access: Available Network type: Undefined
Jul  1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Establishing
VPN session...
Jul  1 08:42:50 machine acvpnui[11774]: Function: getProfileConfiguredOnSG File:
../../vpn/Api/ConnectMgr.cpp Line: 10896 VPN Profile Manifest entry not present
Jul  1 08:42:50 machine acvpnui[11774]: Function: initiateTunnel File:
../../vpn/Api/ConnectMgr.cpp Line: 11279 Invoked Function: ConnectMgr::getProfileConfiguredOnSG
Return Code: -29556727 (0xFE3D0009) Description: CONNECTMGR_ERROR_UNEXPECTED
Jul  1 08:42:50 machine acvpnui[11774]: Function: launchCachedDownloader File:
../../vpn/Api/ConnectMgr.cpp Line: 8228 Launching Cached Downloader: path:
'/opt/cisco/anyconnect/bin/vpndownloader' cmd:  '"-ipc#011gc#011-cd"'
Jul  1 08:42:50 machine acvpnui[11774]: Function: IsValid File:
../../vpn/CommonCrypt/VerifyFileSignatureOpenSSL.cpp Line: 280 Not validating original name for
file (/opt/cisco/anyconnect/bin/vpndownloader)
Jul  1 08:42:50 machine acvpnui[11774]: Function: findProfile File:
../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 666 NSS Profile directory:
/home/tactest/.mozilla/firefox/6ai2dwqd.default
Jul  1 08:42:50 machine acvpnui[11774]: Function: InitNSS File:
../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 408 Invoked Function: NSS_Initialize
Return Code: -8015 (0xFFFFE0B1) Description: unknown Unknown
```

Jul 1 08:42:50 machine acvpnui[11774]: Function: CNSSCertStore File:
../../vpn/CommonCrypt/Certificates/NSSCertStore.cpp Line: 76 Invoked Function:
CNSSCertUtils::InitNSS Return Code: -31457269 (0xFE20000B) Description:
CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnui[11774]: Function: addNSSStore File:
../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 1874 Invoked Function:
CNSSCertStore::CNSSCertStore Return Code: -31457269 (0xFE20000B) Description:
CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnui[11774]: Function: OpenStores File:
../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 449 Invoked Function:
CCollectiveCertStore::addNSSStore Return Code: -31457269 (0xFE20000B) Description:
CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnui[11774]: Function: verify_callback File:
../../vpn/CommonCrypt/Certificates/FileCertificate.cpp Line: 417 Invoked Function:
X509_verify_cert Return Code: 0 (0x00000000) Description: ok
Jul 1 08:42:50 machine acvpnui[11774]: message repeated 2 times: [Function: verify_callback
File: ../../vpn/CommonCrypt/Certificates/FileCertificate.cpp Line: 417 Invoked Function:
X509_verify_cert Return Code: 0 (0x00000000) Description: ok]
Jul 1 08:42:50 machine acvpnui[11774]: Server certificate validation was successful
Jul 1 08:42:50 machine acvpnui[11774]: Function: launchCachedDownloader File:
../../vpn/Api/ConnectMgr.cpp Line: 8247 Invoked Function: ConnectMgr::launchCachedDownloader
Return Code: 0 (0x00000000) Description: Successfully launched the cached downloader Jul 1
08:42:50 machine acvpndownloader[13609]: Cisco AnyConnect Secure Mobility Client Downloader
(VPN) started, version 4.6.03049 Jul 1 08:42:50 machine acvpndownloader[13609]: Function:
handleInvalidPid File: ../../vpn/Common/FirstInstance.cpp Line: 524 PID file does not exist. Jul
1 08:42:50 machine acvpndownloader[13609]: Function: init File:
../../vpn/Common/i18n/MsgCatalog.cpp Line: 373 initialized catalog: AnyConnect with locale: Jul
1 08:42:50 machine acvpndownloader[13609]: Function: loadProfiles File:
../../vpn/Api/ProfileMgr.cpp Line: 189 No profile is available. Jul 1 08:42:50 machine
acvpndownloader[13609]: Function: invokePreferenceUpdateCBs File:
../../vpn/Api/PreferenceMgr.cpp Line: 1512 Callback interface address is NULL. Jul 1 08:42:50
machine acvpndownloader[13609]: Current Preference Settings: ServiceDisable: false
ShowPreConnectMessage: false AutoConnectOnStart: false MinimizeOnConnect: true LocalLanAccess:
false DisableCaptivePortalDetection: false AutoReconnect: true AutoUpdate: true ProxySettings:
Native AllowLocalProxyConnections: true PPPExclusion: Disable PPPExclusionServerIP:
AutomaticVPNPolicy: false TrustedNetworkPolicy: Disconnect UntrustedNetworkPolicy: Connect
TrustedDNSDomains: TrustedDNSServers: TrustedHttpsServerList: EnableScripting: false
TerminateScriptOnNextEvent: false EnableAutomaticServerSelection: false AuthenticationTimeout:
12 IPProtocolSupport: IPv4,IPv6 AllowManualHostInput: true BlockUntrustedServers: false
PublicProxyServerAddress: CertificatePinning: false Jul 1 08:42:50 machine
acvpndownloader[13609]: The AnyConnect Downloader is performing update checks... Jul 1 08:42:50
machine acvpnui[11774]: Message type information sent to the user: The AnyConnect Downloader is
performing update checks... Jul 1 08:42:50 machine acvpnui[11774]: Function:
processDnldrArgsRequest File: ../../vpn/Api/ConnectMgr.cpp Line: 15162 Determine proxy: false
Jul 1 08:42:50 machine acvpnui[11774]: Function: findProfile File:
../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 666 NSS Profile directory:
/home/tactest/.mozilla/firefox/6ai2dwqd.default Jul 1 08:42:50 machine acvpnui[11774]: Function:
InitNSS File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 408 Invoked Function:
NSS_Initialize Return Code: -8015 (0xFFFFE0B1) Description: unknown Unknown Jul 1 08:42:50
machine acvpnui[11774]: Function: CNSSCertStore File:
../../vpn/CommonCrypt/Certificates/NSSCertStore.cpp Line: 76 Invoked Function:
CNSSCertUtils::InitNSS Return Code: -31457269 (0xFE20000B) Description:
CERTSTORE_ERROR_PROVIDER_ERROR Jul 1 08:42:50 machine acvpnui[11774]: Function: addNSSStore
File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 1874 Invoked Function:
CNSSCertStore::CNSSCertStore Return Code: -31457269 (0xFE20000B) Description:
CERTSTORE_ERROR_PROVIDER_ERROR Jul 1 08:42:50 machine acvpnui[11774]: Function: OpenStores File:
../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 449 Invoked Function:
CCollectiveCertStore::addNSSStore Return Code: -31457269 (0xFE20000B) Description:
CERTSTORE_ERROR_PROVIDER_ERROR Jul 1 08:42:50 machine acvpnui[11774]: Function: GetCertChain
File: ../../vpn/CommonCrypt/Certificates/FileCertStore.cpp Line: 618 Invoked Function:
enumerateCert Return Code: -31457266 (0xFE20000E) Description: CERTSTORE_ERROR_CERT_NOT_FOUND
Jul 1 08:42:50 machine acvpndownloader[13609]: Function: getManifestFromConfigXml File:
../../../vpn/Downloader/DownloaderArgs.cpp Line: 657 Language manifest not present Jul 1
08:42:50 machine acvpndownloader[13609]: Function: getManifestFromConfigXml File:

../../../vpn/Downloader/DownloaderArgs.cpp Line: 666 Customization manifest not present Jul 1 08:42:50 machine acvpndownloader[13609]: Function: getManifestFromConfigXml File: ../../../vpn/Downloader/DownloaderArgs.cpp Line: 675 Profile manifest not present Jul 1 08:42:50 machine acvpndownloader[13609]: Function: parseBaseConfig File: ../../../vpn/Downloader/DownloaderArgs.cpp Line: 872 No optional modules in aggregate config xml. Jul 1 08:42:50 machine acvpndownloader[13609]: Function: parseMiscInfo File: ../../../vpn/Downloader/DownloaderArgs.cpp Line: 898 VPN Profile Manifest entry not present Jul 1 08:42:50 machine acvpndownloader[13609]: Function: parseCustomAttributes File: ../../../vpn/Downloader/DownloaderArgs.cpp Line: 937 Custom attribute entry not present Jul 1 08:42:50 machine acvpndownloader[13609]: Function: setHostnameAndPort File: ../../../vpn/Downloader/DownloaderArgs.cpp Line: 545 Defaulting to port 443 Jul 1 08:42:50 machine acvpndownloader[13609]: Connecting to bglanyconnect.cisco.com. Jul 1 08:42:50 machine acvpndownloader[13609]: Authorized Server List is not defined in local policy. Treating bglanyconnect.cisco.com as authorized. Any configured local policy software and profile locks do not apply. Jul 1 08:42:50 machine acvpndownloader[13609]: Checking for profile updates... Jul 1 08:42:50 machine acvpndownloader[13609]: Checking for product updates... **Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Checking for profile updates...**
Jul 1 08:42:50 machine acvpndownloader[13609]: Skipping update of AnyConnect Secure Mobility Client 4.6.03049 because an up-to-date version is already installed.
Jul 1 08:42:50 machine acvpndownloader[13609]: Skipping update of AnyConnect DART 4.6.03049 because an up-to-date version is already installed.
Jul 1 08:42:50 machine acvpndownloader[13609]: Checking for customization updates...
Jul 1 08:42:50 machine acvpndownloader[13609]: Performing any required updates...
Jul 1 08:42:50 machine acvpndownloader[13609]: The AnyConnect Downloader updates have been completed.
Jul 1 08:42:50 machine acvpnagent[1785]: Function: OnIpcMessageReceived File: ../../vpn/Common/IPC/IPCDepot.cpp Line: 1115 Invoked Function: CIpcTransport::OnSocketReadComplete Return Code: -33292279 (0xFE040009) Description: IPCTRANSPORT_ERROR_UNEXPECTED
Jul 1 08:42:50 machine acvpndownloader[13609]: Function: Serialize File: ../../vpn/Common/TLV/CertificateInfoTlv.cpp Line: 799 Data to serialize is empty
Jul 1 08:42:50 machine acvpndownloader[13609]: Function: Assign File: ../../vpn/Common/TLV/CertificateInfoTlv.cpp Line: 87 Invoked Function: CCertificateInfoTlv::Serialize Return Code: -21954549 (0xFEB1000B) Description: CERTIFICATEINFO_ERROR_NO_DATA:No certificate data was found
Jul 1 08:42:50 machine acvpndownloader[13609]: Function: GetAggAuthCertificateInfo File: ../../../vpn/Downloader/DownloaderArgs.cpp Line: 1828 Invoked Function: CCertificateInfoTlv::Assign Return Code: -21954549 (0xFEB1000B) Description: CERTIFICATEINFO_ERROR_NO_DATA:No certificate data was found
Jul 1 08:42:50 machine acvpnagent[1785]: Function: GetAggAuthCertificateInfo File: ../../vpn/Common/TLV/startparameters.cpp Line: 1365 Invoked Function: CStartParameters::GetInfoByType Return Code: -32440304 (0xFE110010) Description: TLV_ERROR_NO_ATTRIBUTE
Jul 1 08:42:50 machine acvpnagent[1785]: Tunnel initiated by GUI Client.
Jul 1 08:42:50 machine acvpnagent[1785]: Using default preferences. Some settings (e.g. certificate matching) may not function as expected if a local profile is expected to be used. Verify that the selected host is in the server list section of the profile and that the profile is configured on the secure gateway.
Jul 1 08:42:50 machine acvpnagent[1785]: Function: GetAggAuthCertificateInfo File: ../../vpn/Common/TLV/startparameters.cpp Line: 1365 Invoked Function: CStartParameters::GetInfoByType Return Code: -32440304 (0xFE110010) Description: TLV_ERROR_NO_ATTRIBUTE
Jul 1 08:42:50 machine acvpnagent[1785]: Function: Serialize File: ../../vpn/Common/TLV/CertificateInfoTlv.cpp Line: 799 Data to serialize is empty
Jul 1 08:42:50 machine acvpnagent[1785]: Function: Assign File: ../../vpn/Common/TLV/CertificateInfoTlv.cpp Line: 87 Invoked Function: CCertificateInfoTlv::Serialize Return Code: -21954549 (0xFEB1000B) Description: CERTIFICATEINFO_ERROR_NO_DATA:No certificate data was found
Jul 1 08:42:50 machine acvpnagent[1785]: Function: SetAggAuthCertificateInfo File: ../../vpn/AgentUtilities/vpnparam.cpp Line: 1165 Invoked Function: CCertificateInfoTlv::Assign Return Code: -21954549 (0xFEB1000B) Description: CERTIFICATEINFO_ERROR_NO_DATA:No certificate data was found
Jul 1 08:42:50 machine acvpnagent[1785]: Secure Gateway Parameters: Primary IP Address: 10.106.63.179 Secondary IP Address: N/A Domain name: bglanyconnect.cisco.com Port: 443 URL:

"https://bglanyconnect.cisco.com:443/CACHE/stc/2/" Auth method: SSL Proxy Server: ""
Jul 1 08:42:50 machine acvpnagent[1785]: Initiating Cisco AnyConnect Secure Mobility Client connection, version 4.6.03049
Jul 1 08:42:50 machine acvpnagent[1785]: Function: OnTunnelStateChange File: ../../vpn/Agent/TND.cpp Line: 2030 tunnel state change notification (new 0, old 4)
Jul 1 08:42:50 machine acvpnagent[1785]: Function: STLoadLibrary File: ../../vpn/Common/Utility/Win/HModuleMgr.cpp Line: 148 Invoked Function: dlopen Return Code: 0 (0x00000000) Description: libz.so: cannot open shared object file: No such file or directory
Jul 1 08:42:50 machine acvpnagent[1785]: Function: LoadLibrary File: ../../vpn/Agent/CZLib.cpp Line: 246 Invoked Function: CHModuleMgr::STLoadLibrary Return Code: -33554425 (0xFE000007) Description: GLOBAL_ERROR_NOT_INITIALIZED
Jul 1 08:42:50 machine acvpnagent[1785]: Function: CCstpProtocol File: ../../vpn/Agent/CstpProtocol.cpp Line: 327 Invoked Function: CZLib Return Code: -31981557 (0xFE18000B) Description: CZLIB_ERROR_LOAD_LIBRARY
Jul 1 08:42:50 machine acvpnagent[1785]: Function: findProfile File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 666 NSS Profile directory: /home/tactest/.mozilla/firefox/6ai2dwqd.default
Jul 1 08:42:50 machine acvpnagent[1785]: Function: InitNSS File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 408 Invoked Function: NSS_Initialize Return Code: -8015 (0xFFFFE0B1) Description: unknown Unknown
Jul 1 08:42:50 machine acvpnagent[1785]: Function: CNSSCertStore File: ../../vpn/CommonCrypt/Certificates/NSSCertStore.cpp Line: 76 Invoked Function: CNSSCertUtils::InitNSS Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnagent[1785]: Function: addNSSStore File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 1874 Invoked Function: CNSSCertStore::CNSSCertStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnagent[1785]: Function: OpenStores File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 449 Invoked Function: CCollectiveCertStore::addNSSStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnagent[1785]: The Primary SSL connection to the secure gateway is being established.
Jul 1 08:42:50 machine acvpnagent[1785]: Function: OnTunnelStateChange File: ../../vpn/Agent/TND.cpp Line: 2030 tunnel state change notification (new 0, old 0)
Jul 1 08:42:50 machine acvpnagent[1785]: Function: postSocketConnectProcessing File: ../../vpn/Agent/SslTunnelTransport.cpp Line: 1421 Opened SSL socket from [10.106.44.166]:58980 to [10.106.63.179]:443
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.2702] manager: (cscotun0): new Tun device (/org/freedesktop/NetworkManager/Devices/16)
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.2730] devices added (path: /sys/devices/virtual/net/cscotun0, iface: cscotun0)
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.2730] device added (path: /sys/devices/virtual/net/cscotun0, iface: cscotun0): no ifupdown configuration found.
Jul 1 08:42:50 machine acvpnagent[13620]: Function: findProfile File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 666 NSS Profile directory: /home/tactest/.mozilla/firefox/6ai2dwqd.default
Jul 1 08:42:50 machine acvpnagent[13620]: Function: InitNSS File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 408 Invoked Function: NSS_Initialize Return Code: -8015 (0xFFFFE0B1) Description: unknown Unknown
Jul 1 08:42:50 machine acvpnagent[13620]: Function: CNSSCertStore File: ../../vpn/CommonCrypt/Certificates/NSSCertStore.cpp Line: 76 Invoked Function: CNSSCertUtils::InitNSS Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnagent[13620]: Function: addNSSStore File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 1874 Invoked Function: CNSSCertStore::CNSSCertStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnagent[13620]: Function: OpenStores File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 449 Invoked Function: CCollectiveCertStore::addNSSStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnagent[13620]: Function: findProfile File:

../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 666 NSS Profile directory: /home/tactest/.mozilla/firefox/6ai2dwqd.default
Jul 1 08:42:50 machine acvpnagent[13620]: Function: InitNSS File: ../../vpn/CommonCrypt/Certificates/NSSCertUtils.cpp Line: 408 Invoked Function: NSS_Initialize Return Code: -8015 (0xFFFFE0B1) Description: unknown Unknown
Jul 1 08:42:50 machine acvpnagent[13620]: Function: CNSSCertStore File: ../../vpn/CommonCrypt/Certificates/NSSCertStore.cpp Line: 76 Invoked Function: CNSSCertUtils::InitNSS Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnagent[13620]: Function: addNSSStore File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 1874 Invoked Function: CNSSCertStore::CNSSCertStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnagent[13620]: Function: OpenStores File: ../../vpn/CommonCrypt/Certificates/CollectiveCertStore.cpp Line: 449 Invoked Function: CCollectiveCertStore::addNSSStore Return Code: -31457269 (0xFE20000B) Description: CERTSTORE_ERROR_PROVIDER_ERROR
Jul 1 08:42:50 machine acvpnagent[13620]: Function: init File: ../../vpn/Common/i18n/MsgCatalog.cpp Line: 373 initialized catalog: AnyConnect with locale:
Jul 1 08:42:50 machine acvpnagent[13620]: Function: loadProfiles File: ../../vpn/Api/ProfileMgr.cpp Line: 189 No profile is available.
Jul 1 08:42:50 machine acvpnagent[13620]: Function: invokePreferenceUpdateCBs File: ../../vpn/Api/PreferenceMgr.cpp Line: 1512 Callback interface address is NULL.
Jul 1 08:42:50 machine acvpnagent[13620]: Current Preference Settings: ServiceDisable: false ShowPreConnectMessage: false AutoConnectOnStart: false MinimizeOnConnect: true LocalLanAccess: false DisableCaptivePortalDetection: false AutoReconnect: true AutoUpdate: true ProxySettings: Native AllowLocalProxyConnections: true PPPExclusion: Disable PPPExclusionServerIP: AutomaticVPNPolicy: false TrustedNetworkPolicy: Disconnect UntrustedNetworkPolicy: Connect TrustedDNSDomains: TrustedDNSServers: TrustedHttpsServerList: EnableScripting: false TerminateScriptOnNextEvent: false EnableAutomaticServerSelection: false AuthenticationTimeout: 12 IPProtocolSupport: IPv4,IPv6 AllowManualHostInput: true BlockUntrustedServers: false PublicProxyServerAddress: CertificatePinning: false
Jul 1 08:42:50 machine acvpnagent[13620]: Using default preferences. Some settings (e.g. certificate matching) may not function as expected if a local profile is expected to be used. Verify that the selected host is in the server list section of the profile and that the profile is configured on the secure gateway.
Jul 1 08:42:50 machine acvpnagent[13620]: Function: GetCertificatePins File: ../../vpn/Api/PreferenceMgr.cpp Line: 1795 Invoked Function: ProfileMgr::GetProfileNameFromAddress Return Code: -26083317 (0xFE72000B) Description: PROFILEMGR_ERROR_HOST_ADDRESS_NOT_FOUND_IN_ANY_PROFILE Server address bglanyconnect.cisco.com not found in any profile.
Jul 1 08:42:50 machine acvpnagent[13620]: Function: verify_callback File: ../../vpn/CommonCrypt/Certificates/FileCertificate.cpp Line: 417 Invoked Function: X509_verify_cert Return Code: 0 (0x00000000) Description: ok
Jul 1 08:42:50 machine acvpnagent[13620]: Function: verify_callback File: ../../vpn/CommonCrypt/Certificates/FileCertificate.cpp Line: 417 Invoked Function: X509_verify_cert Return Code: 0 (0x00000000) Description: ok
Jul 1 08:42:50 machine acvpnagent[1785]: Function: verifyServerCertificate File: ../../vpn/Agent/CertOpenSSLAdapter.cpp Line: 834 certificate confirmation reason=0x0
Jul 1 08:42:50 machine acvpnagent[1785]: A SSL connection has been established using cipher ECDHE-RSA-AES256-GCM-SHA384
Jul 1 08:42:50 machine acvpnagent[1785]: Function: calculateTunnelMTU File: ../../vpn/Agent/CstpProtocol.cpp Line: 2846 The candidate MTU (1399) is derived from the physical interface MTU.
Jul 1 08:42:50 machine acvpnagent[1785]: Function: startHTTPNegotiation File: ../../vpn/Agent/CstpProtocol.cpp Line: 1018 Proposed base MTU is 1500.
Jul 1 08:42:50 machine acvpnagent[1785]: Current Profile: none Received VPN Session Configuration Settings: Keep Installed: enabled Rekey Method: disabled Proxy Setting: do not modify Proxy Server: none Proxy PAC URL: none Proxy Exceptions: none Proxy Lockdown: enabled IPv4 Split Exclude: disabled IPv6 Split Exclude: disabled IPv4 Dynamic Split Exclude: disabled IPv6 Dynamic Split Exclude: disabled IPv4 Split Include: 1 IPv4 private networks IPv6 Split Include: disabled IPv4 Dynamic Split Include: disabled IPv6 Dynamic Split Include: disabled IPv4 Split DNS: disabled IPv6 Split DNS: disabled Tunnel all DNS: disabled IPv4 Local LAN Wildcard: local LAN access preference is disabled IPv6 Local LAN Wildcard: local LAN access

preference is disabled Firewall Rules: none Client Address: 192.168.100.1 Client Mask: 255.255.255.0 Client IPv6 Address: FE80:0:0:0:72F5:2CAF:BCCC:5145 (auto-generated) Client IPv6 Mask: FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFC TLS MTU: 1367 TLS Compression: disabled TLS Keep Alive: 20 seconds TLS Rekey Interval: none TLS DPD: 30 seconds DTLS: enabled DTLS MTU: 1406 DTLS Compression: disabled DTLS Keep Alive: 20 seconds DTLS Rekey Interval: none DTLS DPD: 30 seconds Session Timeout: none Session Timeout Alert Interval: 60 seconds Session Timeout Remaining: none Disconnect Timeout: 1800 seconds Idle Timeout: 1800 seconds Server: ASA (9.9(2)36) MUS Host: unknown DAP User Message: none Quarantine State: disabled Always On VPN: not disabled Lease Duration: 1209600 seconds Default Domain: cisco.com Home page: unknown Smart Card Removal Disconnect: enabled License Response: unknown SG TCP Keep Alive: enabled Peer's Local IPv4 Address: N/A Peer's Local IPv6 Address: N/A Peer's Remote IPv4 Address: N/A Peer's Remote IPv6 Address: N/A Peer's host name: bglanyconnect.cisco.com Client Protocol Bypass: false
Jul 1 08:42:50 machine acvpnagent[1785]: The Primary SSL connection to the secure gateway has been established.
Jul 1 08:42:50 machine acvpnagent[1785]: Function: OnTunnelStateChange File: ../../vpn/Agent/TND.cpp Line: 2030 tunnel state change notification (new 0, old 0)
Jul 1 08:42:50 machine acvpnagent[1785]: Function: addSplitIncludeNetworksForTunnelDnsServers File: ../../vpn/Agent/VpnMgr.cpp Line: 1108 Added split-include network for tunnel DNS server 10.10.10.99
Jul 1 08:42:50 machine acvpnagent[1785]: VPN Adapter Configuration: IPv4 address: 192.168.100.1/24 IPv6 address: FE80:0:0:0:72F5:2CAF:BCCC:5145/126 (auto-generated) Default domain: cisco.com DNS suffixes: N/A DNS servers: 10.10.10.99 WINS servers: N/A MTU: 1406
Jul 1 08:42:50 machine acvpnagent[1785]: Host Configuration: Public address: 10.106.44.166/24 Potential public addresses: 10.106.44.166 Private Address: 192.168.100.1/24 Private IPv6 Address: FE80:0:0:0:72F5:2CAF:BCCC:5145/126 (auto-generated) Remote Peers: 10.106.63.179 (TCP port 443, UDP port 443, source address 10.106.44.166) Private Networks: 2 (10.0.0.0/24, 10.10.10.99/32) Private IPv6 Networks: none Public Networks: none Public IPv6 Networks: none Tunnel Mode: yes Tunnel all DNS: no
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.3025] device (cscotun0): state change: unmanaged -> unavailable (reason 'connection-assumed') [10 20 41]
Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Checking for product updates...
Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Checking for customization updates...
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.3046] keyfile: add connection in-memory (c9f1c86e-5e5c-4966-8260-be7e751b642d,"cscotun0")
Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Performing any required updates...
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.3051] device (cscotun0): state change: unavailable -> disconnected (reason 'connection-assumed') [20 30 41]
Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: The AnyConnect Downloader updates have been completed.
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.3058] device (cscotun0): Activation: starting connection 'cscotun0' (c9f1c86e-5e5c-4966-8260-be7e751b642d)
Jul 1 08:42:50 machine acvpnui[11774]: VPN state: Connecting Network state: Network Accessible Network control state: Network Access: Available Network type: Undefined
Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Establishing VPN session...
Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Establishing VPN - Initiating connection...
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.3064] device (cscotun0): state change: disconnected -> prepare (reason 'none') [30 40 0]
Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Establishing VPN - Examining system...
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.3067] device (cscotun0): state change: prepare -> config (reason 'none') [40 50 0]
Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Establishing VPN - Activating VPN adapter...
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.3068] device (cscotun0): state change: config -> ip-config (reason 'none') [50 70 0]
Jul 1 08:42:50 machine acvpnui[11774]: Message type information sent to the user: Establishing VPN - Configuring system...
Jul 1 08:42:50 machine NetworkManager[940]: <info> [1561984970.3070] device (cscotun0): state

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change: ip-config -> ip-check (reason 'none') [70 80 0]
Jul  1 08:42:50 machine NetworkManager[940]: <info>  [1561984970.3073] device (cscotun0): state
change: ip-check -> secondaries (reason 'none') [80 90 0]
Jul  1 08:42:50 machine NetworkManager[940]: <info>  [1561984970.3075] device (cscotun0): state
change: secondaries -> activated (reason 'none') [90 100 0]
Jul  1 08:42:50 machine NetworkManager[940]: <info>  [1561984970.3111] device (cscotun0):
Activation: successful, device activated.
Jul  1 08:42:50 machine dbus[935]: [system] Activating via systemd: service
name='org.freedesktop.nm_dispatcher' unit='dbus-org.freedesktop.nm-dispatcher.service'
Jul  1 08:42:50 machine systemd[1]: Starting Network Manager Script Dispatcher Service...
Jul  1 08:42:50 machine dbus[935]: [system] Successfully activated service
'org.freedesktop.nm_dispatcher'
Jul  1 08:42:50 machine systemd[1]: Started Network Manager Script Dispatcher Service.
Jul  1 08:42:50 machine nm-dispatcher: req:1 'up' [cscotun0]: new request (1 scripts)
Jul  1 08:42:50 machine nm-dispatcher: req:1 'up' [cscotun0]: start running ordered scripts...
Jul  1 08:42:50 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface ens32.
Jul  1 08:42:50 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface cscotun0.
Jul  1 08:42:50 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface ens32.
Jul  1 08:42:50 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface ens32.
Jul  1 08:42:50 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface cscotun0.
Jul  1 08:42:50 machine NetworkManager[940]: <info>  [1561984970.6920] policy: set 'cscotun0'
(cscotun0) as default for IPv6 routing and DNS
Jul  1 08:42:51 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface ens32.
Jul  1 08:42:51 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface cscotun0.
Jul  1 08:42:51 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface ens32.
Jul  1 08:42:51 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface ens32.
Jul  1 08:42:51 machine systemd[1]: Reloading OpenBSD Secure Shell server.
Jul  1 08:42:51 machine systemd[1]: Reloaded OpenBSD Secure Shell server.
Jul  1 08:42:51 machine acvpnagent[1785]: Function: getDnsConfiguration File:
../../vpn/Common/Utility/NetInterface_unix.cpp Line: 1247 Unable to get domain list for
interface cscotun0.
Jul  1 08:42:52 machine acvpnagent[1785]: Function: applyFirewallConfiguration File:
../../vpn/AgentUtilities/HostConfigMgr.cpp Line: 1187 No Firewall Rules to configure
Jul  1 08:42:52 machine acvpnagent[1785]: The network control state changed to restricted.
Jul  1 08:42:52 machine acvpnui[11774]: Message type information sent to the user: Establishing
VPN...
Jul  1 08:42:52 machine acvpnui[11774]: Function: setSessionInfo File:
../../vpn/Api/VPNStatsBase.cpp Line: 1097 Invoked Function:
CSessionInfoTlv::GetAppliedSecureRouteCount Return Code: -32440304 (0xFE110010) Description:
TLV_ERROR_NO_ATTRIBUTE
Jul  1 08:42:52 machine acvpnui[11774]: Function: setSessionInfo File:
../../vpn/Api/VPNStatsBase.cpp Line: 1204 Invoked Function:
CSessionInfoTlv::GetAppliedNonsecureRouteCount Return Code: -32440304 (0xFE110010) Description:
TLV_ERROR_NO_ATTRIBUTE
Jul  1 08:42:52 machine acvpnui[11774]: VPN state: Connected Network state: Network Accessible
Network control state: Network Access: Restricted Network type: Undefined
```

Jul 1 08:42:52 machine acvpnui[11774]: Using default preferences. Some settings (e.g. certificate matching) may not function as expected if a local profile is expected to be used. Verify that the selected host is in the server list section of the profile and that the profile is configured on the secure gateway.
Jul 1 08:42:52 machine acvpnui[11774]: Function: getProfileNameFromHost File: ../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.
Jul 1 08:42:52 machine acvpnui[11774]: Function: getHostInitSettings File: ../../vpn/Api/ProfileMgr.cpp Line: 1334 Profile () not found. Using default settings.
Jul 1 08:42:52 machine acvpnui[11774]: Message type information sent to the user: Connected to bglanyconnect.cisco.com.
Jul 1 08:42:52 machine acvpnagent[1785]: Function: OnTunnelStateChange File: ../../vpn/Agent/TND.cpp Line: 2030 tunnel state change notification (new 1, old 0)
Jul 1 08:42:52 machine acvpnagent[1785]: The VPN connection has been established and can now pass data.
Jul 1 08:42:52 machine acvpnagent[1785]: The Primary DTLS connection to the secure gateway is being established.
Jul 1 08:42:52 machine acvpnagent[1785]: Function: OnTunnelStateChange File: ../../vpn/Agent/TND.cpp Line: 2030 tunnel state change notification (new 1, old 1)
Jul 1 08:42:52 machine acvpnagent[1785]: Function: initiateTransport File: ../../vpn/Agent/DtlsTunnelTransport.cpp Line: 238 Opened DTLS socket from [10.106.44.166]:35312 to [10.106.63.179]:443
Jul 1 08:42:52 machine acvpndownloader[13609]: Function: WaitForCompletion File: ../../vpn/Common/Utility/Thread.cpp Line: 311 The thread has successfully completed execution.
Jul 1 08:42:52 machine acvpndownloader[13609]: Cisco AnyConnect Secure Mobility Client Downloader (VPN) exiting, version 4.6.03049 , return code 0 [0x00000000]
Jul 1 08:42:52 machine acvpnagent[1785]: A routing table change notification has been received. Starting automatic correction of the routing table.
Jul 1 08:42:52 machine acvpnagent[1785]: Automatic correction of the routing table has been successful.
Jul 1 08:42:52 machine acvpnagent[1785]: Function: OnIpcMessageReceived File: ../../vpn/Common/IPC/IPCDepot.cpp Line: 1115 Invoked Function: CIpcTransport::OnSocketReadComplete Return Code: -33292279 (0xFE040009) Description: IPCTRANSPORT_ERROR_UNEXPECTED
Jul 1 08:42:52 machine acvpnagent[1785]: Function: writeSocketBlocking File: ../../vpn/Common/IPC/UdpTcpTransports_unix.cpp Line: 429 Invoked Function: ::write Return Code: 32 (0x00000020) Description: unknown
Jul 1 08:42:52 machine acvpnagent[1785]: Function: terminateIpcConnection File: ../../vpn/Common/IPC/IPCTransport.cpp Line: 459 Invoked Function: CSocketTransport::writeSocketBlocking Return Code: -31588341 (0xFE1E000B) Description: SOCKETTRANSPORT_ERROR_WRITE
Jul 1 08:42:52 machine acvpnagent[1785]: A DTLS connection has been established using cipher DHE-RSA-AES256-SHA
Jul 1 08:42:52 machine acvpnagent[1785]: The Primary DTLS connection to the secure gateway has been established.
Jul 1 08:42:52 machine acvpnui[11774]: Function: launchCachedDownloader File: ../../vpn/Api/ConnectMgr.cpp Line: 8274 Invoked Function: ConnectMgr::launchCachedDownloader Return Code: 0 (0x00000000) Description: Cached Downloader terminated normally
Jul 1 08:42:52 machine acvpnui[11774]: Using default preferences. Some settings (e.g. certificate matching) may not function as expected if a local profile is expected to be used. Verify that the selected host is in the server list section of the profile and that the profile is configured on the secure gateway.
Jul 1 08:42:52 machine acvpnui[11774]: Function: getProfileNameFromHost File: ../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.
Jul 1 08:42:52 machine acvpnui[11774]: message repeated 2 times: [Function: getProfileNameFromHost File: ../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.]
Jul 1 08:42:52 machine acvpnui[11774]: Function: reloadPreferencesAfterUpdates File: ../../vpn/Api/ConnectMgr.cpp Line: 10859 Secure gateway (bglanyconnect.cisco.com) was not found in profile .
Jul 1 08:42:52 machine acvpnui[11774]: Function: getProfileNameFromHost File: ../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.
Jul 1 08:42:52 machine acvpnui[11774]: Function: getHostInitSettings File: ../../vpn/Api/ProfileMgr.cpp Line: 1334 Profile () not found. Using default settings.
Jul 1 08:42:52 machine acvpnui[11774]: Function: getProfileNameFromHost File:

```
../../vpn/Api/ProfileMgr.cpp Line: 1250 No profile available for host bglanyconnect.cisco.com.
Jul  1 08:42:52 machine acvpnui[11774]: Function: getHostInitSettings File:
../../vpn/Api/ProfileMgr.cpp Line: 1334 Profile () not found. Using default settings.
Jul  1 08:42:52 machine acvpnui[11774]: VPN state: Connected Network state: Network Accessible
Network control state: Network Access: Restricted Network type: Undefined
Jul  1 08:42:52 machine acvpnagent[1785]: Function: OnTunnelStateChange File:
../../vpn/Agent/TND.cpp Line: 2030 tunnel state change notification (new 1, old 1)
Jul  1 08:42:53 machine systemd[1]: Reloading OpenBSD Secure Shell server.
Jul  1 08:42:53 machine systemd[1]: Reloaded OpenBSD Secure Shell server.
Jul  1 08:42:53 machine acvpnui[11774]: Message type information sent to the user: Connected to
bglanyconnect.cisco.com.
```

- **Linux客户端上的DART（诊断和报告工具）**

与Windows和MAC类似，Linux客户端也具有DART 功能。可以使用GUI和CLI。
请注意，DART需要以管理员用户身份运行，以收集Linux客户端上的完整日志。

步骤1.通过导航至以下路径，可以从命令行执行DART:

```
tactest:bin$ cd /opt/cisco/anyconnect/dart
tactest:dart$ ls
anyconnect-linux64-4.6.03049-dart-webdeploy-k9-20190627095410.log  dartui     xml
dartcli                                                            resources
tactest:dart$ ./dartcli

Cisco AnyConnect Diagnostic and Reporting Tool 4.6.03049 .

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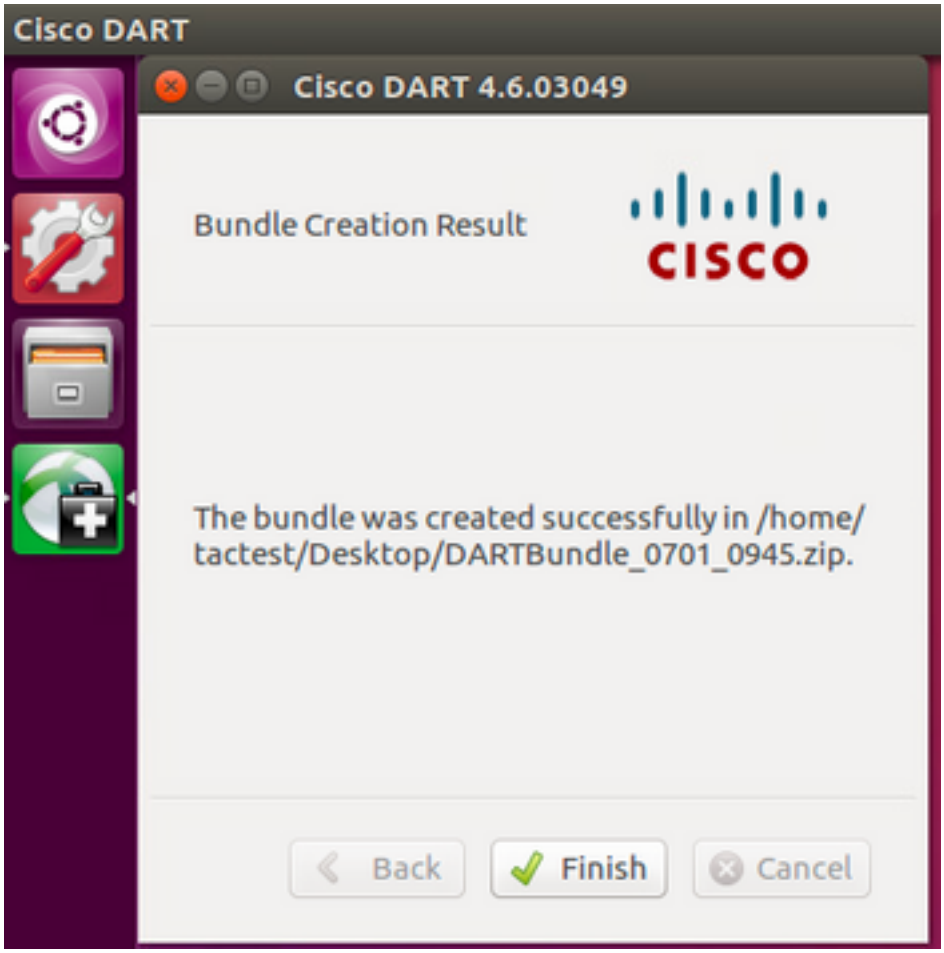
Bundle option selected: default
Bundle location: /home/tactest/Desktop/DARTBundle_0701_0933.zip

Parsing request and configuration XMLs...            1%iptables v1.6.0: can't initialize
iptables table `filter': Permission denied (you must be root)
Perhaps iptables or your kernel needs to be upgraded.
ip6tables v1.6.0: can't initialize ip6tables table `filter': Permission denied (you must be
root)
Perhaps ip6tables or your kernel needs to be upgraded.
Processing Posture application logs...              76%sh: 1:
/home/tactest/.cisco/hostscan/lib/wadiagnose: not found
sh: 1: /opt/cisco/hostscan/lib/wadiagnose: not found
DART has finished...                                100%
```

步骤2.要从GUI执行DART，请在Linux GUI上搜索“anyconnect”，然后单击**Cisco DART**并按照说明操作。收集的DART捆绑包存储在桌面上。



步骤3.要将DART捆绑包从Linux客户端复制到工作站，请使用命令

scp username@10.106.44.166:/home/<username>/Desktop/DARTBundle_0701_0945.zip /users/dmoudgil/Desktop/Ubuntu/

以下文档用于参考不同操作系统上的DART:https://community.cisco.com/t5/security-documents/how-to-collect-the-dart-bundle-for-anyconnect/ta-p/3156025

- 如果出现任何未知问题，可通过命令行重新启动vpnclient

```
tactest:bin$ sudo /etc/init.d/vpnagentd restart
[sudo] password for tactest:
[ ok ] Restarting vpnagentd (via systemctl): vpnagentd.service.
tactest:bin$
```