

用于分析终端的DHCP参数请求列表选项55配置示例

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简介

本文档介绍使用DHCP参数请求列表选项55作为配置使用身份服务引擎(ISE)的设备的替代方法。

先决条件

要求

Cisco 建议您：

- DHCP发现过程的基本知识
- 使用ISE配置自定义分析规则的经验

使用的组件

本文档中的信息基于以下软件和硬件版本：

- ISE版本3.0
- Windows 10

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

在生产ISE部署中，一些更常部署的分析探测功能包括RADIUS、HTTP和DHCP。由于URL重定向在ISE工作流的中心，HTTP探测功能被广泛使用，以从用户代理字符串捕获重要终端数据。但是，在某些生产使用案例中，不需要URL重定向，而且首选Dot1x，这使得更难准确分析终端。例如，连接到企业服务集标识符(SSID)的员工PC获得完全访问权，而其个人iDevice(iPhone、iPad、

iPod)仅获得互联网访问权。在这两种情况下，用户都会被分析并动态映射到一个更具体的身份组，以进行授权配置文件匹配，而不依赖用户打开Web浏览器。另一个常用的替代方法是主机名匹配。此解决方案不完美，因为用户可能将终端主机名更改为非标准值。

在这些情况下，DHCP探测功能和DHCP参数请求列表选项55可用作配置这些设备的替代方法。DHCP数据包中的“参数请求列表”字段可用于为终端操作系统(如入侵防御系统(IPS)使用签名来匹配数据包)指纹。当终端操作系统在线路上发送DHCP发现或请求数据包时，制造商通常会包括其打算从DHCP服务器(默认路由器、域名服务器(DNS)、TFTP服务器等)接收的DHCP选项的数字列表。DHCP客户端从服务器请求这些选项的顺序非常独特，可用于为特定源操作系统指纹。“参数请求列表”选项的使用不像HTTP用户代理字符串那样精确，但是，它比主机名和其他静态定义数据的使用受到的控制要多得多。

注意：DHCP参数请求列表选项不是完美的解决方案，因为它生成的数据取决于供应商，并且可以由多种设备类型复制。

在配置ISE分析规则之前，请在ISE上使用终端/交换端口分析器(SPAN)或传输控制协议(TCP)转储捕获的Wireshark捕获，以评估DHCP数据包中的参数请求列表选项（如果存在）。此示例捕获显示Windows 10的DHCP参数请求列表选项。

The screenshot shows a Wireshark capture of a DHCP Discover packet from a Windows 10 client. The packet details pane highlights the 'Parameter Request List' option (Option 55). A red box surrounds the list of items requested by the client:

- (1) Subnet Mask
- (3) Router
- (6) Domain Name Server
- (15) Domain Name
- (31) Perform Router Discover
- (33) Static Route
- (43) Vendor-Specific Information
- (44) NetBIOS over TCP/IP Name Server
- (46) NetBIOS over TCP/IP Node Type
- (47) NetBIOS over TCP/IP Scope
- (119) Domain Search
- (121) Classless Static Route
- (249) Private/Classless Static Route (Microsoft)
- (252) Private/Proxy autodiscovery

结果的“参数请求列表”字符串以逗号分隔格式写入：1、3、6、15、31、33、43、44、46、47、119、121、249、252。在ISE中配置自定义分析条件时使用此格式。

配置部分演示了使用自定义分析条件将Windows 10工作站与Windows 10工作站进行匹配。

配置

1. 登录ISE管理GUI并导航至Policy > Policy Elements > Conditions > Profiling。单击Add以添加新的自定义分析条件。在本示例中，我们使用Windows 10参数请求列表指纹。有关“[参数请求列表](#)”值的完整列表，请参阅Fingerbank.org。

注意：属性值文本框可能不显示所有数字选项，您可能需要用鼠标或键盘滚动才能查看完整列表。

The screenshot shows the 'Profiler Condition List' page with a 'New Profiler Condition' dialog open. The condition being created is named 'Windows10-DHCPOption55_1'. The configuration includes:

- * Name: Windows10-DHCPOption55_1
- * Type: DHCP
- * Attribute Name: dhcp-parameter-request-li
- * Operator: EQUALS
- * Attribute Value: 1, 3, 6, 15, 31, 33, 43, 44

The 'Description' field contains: 'DHCP Option 55 Parameter Request List for Windows 10.'

2. 定义自定义条件后，导航到Policy > Profiling > Profiling Policies以修改当前分析策略或配置新策略。在本示例中，编辑默认的工作站、Microsoft-Workstation、Windows10-Workstation策略，以包括新的参数请求列表条件。向工作站、Microsoft-Workstation、Windows10-Workstation分析器策略规则添加新的复合条件，如下所示。根据需要修改“确定系数”，以获得所需的分析结果。

The screenshot shows the 'Profiling Policies' tab selected in the navigation bar. A policy named 'Workstation' is being edited. The configuration includes:

- * Name: Workstation
- Policy Enabled: checked
- * Minimum Certainty Factor: 10
- * Exception Action: NONE
- * Network Scan (NMAP) Action: NONE
- Create an Identity Group for the policy: Yes, create matching Identity Group
- Parent Policy: ***NONE***
- * Associated CoA Type: Global Settings
- System Type: Administrator Modified

The 'Rules' section contains two rules, both highlighted with red boxes:

- If Condition: Windows10-DHCPOption55_1 Then Certainty Factor Increases 10
- If Condition: OS_X_MountainLion-WorkstationRule1Check2 Then Certainty Factor Increases 30

The screenshot shows the 'Profiling Policies' tab selected in the top navigation bar. On the left, a tree view lists various device types under 'WYSE-Device', with 'Workstation' expanded. Under 'Workstation', several sub-options are listed: ChromeBook-Workstation, FreeBSD-Workstation, Linux-Workstation, Macintosh-Workstation, Microsoft-Workstation, Vista-Workstation, Windows10-Workstation, Windows7-Workstation, Windows8-Workstation, WindowsXP-Workstation, OpenBSD-Workstation, Sun-Workstation, and Xerox-Device. The 'Microsoft-Workstation' node is highlighted with a red box. The main configuration area on the right shows the following details for the 'Microsoft-Workstation' policy:

- Name:** Microsoft-Workstation
- Policy Enabled:** Checked
- Minimum Certainty Factor:** 10 (Valid Range 1 to 65535)
- Exception Action:** NONE
- Network Scan (NMAP) Action:** NONE
- Create an Identity Group for the policy:** Radio button selected for 'No, use existing Identity Group hierarchy'.
- Parent Policy:** Workstation
- Associated CoA Type:** Global Settings
- System Type:** Cisco Provided
- Rules:** Two rules are defined:
 - If Condition: Windows10-DHCPOption55_1 Then Certainty Factor Increases by 10
 - If Condition: Microsoft-Workstation-Rule4-Check1 Then Certainty Factor Increases by 10

The screenshot shows the 'Profiling Policies' tab selected in the top navigation bar. On the left, a tree view lists various device types under 'WYSE-Device', with 'Workstation' expanded. Under 'Workstation', several sub-options are listed: ChromeBook-Workstation, FreeBSD-Workstation, Linux-Workstation, Macintosh-Workstation, Microsoft-Workstation, Vista-Workstation, Windows10-Workstation, Windows7-Workstation, Windows8-Workstation, WindowsXP-Workstation, OpenBSD-Workstation, Sun-Workstation, Xerox-Device, and Z-Com-Device. The 'Windows10-Workstation' node is highlighted with a red box. The main configuration area on the right shows the following details for the 'Windows10-Workstation' policy:

- Name:** Windows10-Workstation
- Policy Enabled:** Checked
- Minimum Certainty Factor:** 20 (Valid Range 1 to 65535)
- Exception Action:** NONE
- Network Scan (NMAP) Action:** NONE
- Create an Identity Group for the policy:** Radio button selected for 'No, use existing Identity Group hierarchy'.
- Parent Policy:** Microsoft-Workstation
- Associated CoA Type:** Global Settings
- System Type:** Administrator Modified
- Rules:** Two rules are defined:
 - If Condition: Windows10-DHCPOption55_1 Then Certainty Factor Increases by 20
 - If Condition: Windows10-Workstation-Rule4-Check1 Then Certainty Factor Increases by 20

注意：使用[命令查找工具（仅限注册用户）](#)可获取有关本部分所使用命令的详细信息。

验证

步骤 1-

导航至ISE > Operations > Live Logs。第1个身份验证与未知授权策略匹配，并向ISE提供有限访问权限。分析设备后，ISE触发CoA，在ISE上收到另一个身份验证请求并匹配新配置文件—Windows10工作站。

Live Logs Live Sessions

Misconfigured Suplicants	Misconfigured Network Devices	RADIUS Drops	Client Stopped Responding	Repeat Co...					
Refresh Never Show Latest 20 records Within Last 5 min Filter Export To Reset Repeat Counts Refresh									
Time	Status	Details	Repeat ...	Identity	Endpoint ID	Identity Gro...	Endpoint Profile	Authorization Policy	Authorization Profiles
Dec 29, 2020 06:35:43.472 AM	●	●	0	dot1xuser	B4:96:91:26:EB:9F	Windows10-Workstation	Switch >> Microsoft_workstation	PermitAccess	
Dec 29, 2020 06:35:42.059 AM	■	■	0	dot1xuser	B4:96:91:26:EB:9F	Workstation	Windows10-Workstation	Switch >> Microsoft_workstation	PermitAccess
Dec 29, 2020 06:35:41.948 AM	■	■	0		B4:96:91:26:EB:9F				
Dec 29, 2020 06:35:19.473 AM	■	■	0	dot1xuser	B4:96:91:26:EB:9F	Profiled	Intel-Device	Switch >> Unknown_Profile	Unknown_profile_limited_access

步骤 2-

使用本部分可确认配置能否正常运行。

- 导航至Context Visibility > Endpoints，搜索终端，单击编辑。
- 确认EndPointPolicy是Window10-Workstation，并且dhcp-parameter-request-list值与之前配置的条件值匹配。

Endpoints > B4:96:91:26:EB:9F

B4:96:91:26:EB:9F

MAC Address: B4:96:91:26:EB:9F
 Username: dot1xuser
Endpoint Profile: Windows10-Workstation
 Current IP Address:
 Location: Location → All Locations

Applications	Attributes	Authentication	Threats	Vulnerabilities
General Attributes				
<p>Description</p> <p>Static Assignment false</p> <p>Endpoint Policy Windows10-Workstation</p> <p>Static Group Assignment false</p> <p>Identity Group Assignment Workstation</p>				
<p>User-Fetch-User-Name dot1xuser</p> <p>User-Name dot1xuser</p> <p>UserType User</p> <p>allowEasyWiredSession false</p> <p>dhcp-parameter-request-list 1, 3, 6, 15, 31, 33, 43, 44, 46, 47, 119, 121, 249, 252</p>				

故障排除

本节提供可用于排除配置故障的信息。

- 验证DHCP数据包已到达执行分析功能的ISE策略节点（使用帮助地址或SPAN）。
- 使用Operations > Troubleshoot > Diagnostic Tools > General Tools > TCP Dump工具？从ISE管理GUI本地运行TCP转储捕获。
- 在ISE PSN节点上启用以下调试 — -nsf-nsf-session— 轻量会话目录-profiler-runtime-AAA
- Profiler.log、prrt-server.log和lsd.log显示相关信息。
- 有关“参数请求列表”选项的当前列表，请参阅Fingerbank.org DHCP指纹数据库。
- 确保在ISE分析条件中配置了正确的参数请求列表值。一些更常用的字符串包括：

注意：使用 debug 命令之前，请参阅有关 Debug 命令的重要信息。

日志分析

++在ISE PSN节点上启用以下调试 —

-nsf

-nsf-session

— 轻量会话目录

-profiler

-runtime-AAA

++初始身份验证

++prrt-server.log

++在ISE节点上收到的访问请求

Radius , 2020-12-29 06:35:19,377,DEBUG , 0x7f1cd8d2700,cntx=0001348461,sesn=isee30-primary/397791910/625,CallingStationID=B4-96-91-26-EB-9F,RADIUS数据包
: Code=1(AccessRequest)Identifier=182 Length=285

++ISE匹配Unknown_profile

AcsLogs , 2020-12-29 06:35:19,473,DEBUG , 0x7f1cdc7ce700,cntx=0001348476,sesn=isee30-primary/397791910/625,CPMSessionID=0A6A270B00000018B44013AC , user=dot1xuser , CallingStationID=B4-96-91-26-EB-9F,AuthorizationPolicyMatchedRule=Unknown_Profile, EapTunnel=EAP-FAST , EapAuthentication=EAP-MSCHAPv2,UserType=User , CPMSID=0Asession6a270B00000018B44013AC , EndPointMACAddress=B4-96-91-26-EB-9F,

++ISE发送访问接受，限制访问

Radius , 2020-12-29 06:35:19,474,DEBUG , 0x7f1cdc7ce700,cntx=0001348476,sesn=isee30-primary/397791910/625,CPMSessionID=0A6A270B00000018B44013AC , user=dot1xuser , CallingStationID=B4-96-91-26-EB-9F,RADIUS数据包 : Code=2(AccessAccept)Identifier=186 Length=331

++ISE收到包含DHCP信息的记帐更新

Radius , 2020-12-29 06:35:41,464,DEBUG , 0x7f1cdcad1700,cntx=0001348601,sesn=isee30-primary/397791910/627,CPMSessionID=0A6A270B00000018B44013AC , CallingStationID=B4-96-91-26-EB-9F,RADIUS数据包 : Code=4(AccountingRequest)Identifier=45 Length=381

[1]用户名 — 值 : [dot1xuser]

[87] NAS-Port-Id — 值 : [千兆以太网1/0/13]

[26] cisco-av-pair — 值 : [dhcp-option=

[26] cisco-av-pair — 值 : [audit-session-id=0A6A270B00000018B44013AC]

++ISE发回记帐响应

Radius , 2020-12-29 06:35:41,472,DEBUG , 0x7f1cdc5cc700,cntx=0001348601,sesn=isee30-primary/397791910/627,CPMSessionID=0A6A270B00000018B44013AC , user=dot1xuser , CallingStationID=B4-96-91-26-EB-9F,RADIUS数据包 : Code=5(AccountingResponse)Identifier=45 Length=20,RADIUSHandler.cpp:2216

++Profiler.log

++收到记帐更新后 , DHCP选项dhcp-parameter-request-list (DHCP选项) , ISE开始分析设备

2020-12-29 06:35:41,470 DEBUG [SyslogListenerThread][]
cisco.profiler.probes.radius.SyslogDefragmenter -:::- parseHeader inBuffer=<181>Dec 29
06:35:41 isee30-primary CISE_RADIUS_Accounting 0000000655 2 0 2020-12-29 0 06:35:41 .467
+00:00 0000234376 3002通知Radius-Accounting:RADIUS记帐监视器更新,
ConfigVersionId=99 , 设备IP地址=10.106.39.11 , 用户名=dot1xuser , 请求延迟=6 , 网络设备名称
=软件 , 用户名=dot1xuser , NAS-IP — 地址=10.106.39.11 , NAS-Port=50113,
Class=CACS:0A6A270B00000018B44013AC:isee30-primary/397791910/625, Called-Station-
ID=A0-EC-F9-3C-82-0D , Calling-Station-ID=B4-96-91-26-EB-9F, NAS-Identifier=Switch , acct-
Status-Type=Interim-Update , acct-Delay-Time=0, acct-Input-octets=174, acct-output-oct=0,
octets=0, act , act-act-act , act-act会话ID=0000000b , Acct-authentic=Remote , Acct-Input-
Packets=1, Acct-Output-Packets=0, Event-Timestamp=1609341899, NAS-Port-
Id=GigabitEthernet1/0/13, cisco-av-pair=dhcp-option=parameter-request-list=lister=list1\、3\、6\、
15\、31\、33\、43\、44\、46\、47\、119\、121\、249\、252, cisco-av-pair=audit-session-
id=0A6A270B00000018B44013AC , cisco-av-pair=method=dot1x ,

2020-12-29 06:35:41,471 DEBUG [RADIUSParser-1-thread-2][]

cisco.profiler.probes.radius.RadiusParser -::: — 已解析IOS传感器1:dhcp-parameter-request-
list=[1, 3, 6, 15, 31, 33, 43, 44, 46, 47, 119, 121, 249, 252]

属性 : cisco-av-pair value:dhcp-option=dhcp-parameter-request-list=1\、3\、6\、15\、31\、33\、43\、
44\、46\、47\、119\、121\、249\、252, audit-session-id=0A6A270B00000018B44013AC , 方法=dot1x

属性 : dhcp-parameter-request-list值 : 1、3、6、15、31、33、43、44、46、47、119、121、
249、252

2020-12-29 06:35:41,479 DEBUG [RMQforwarder-4][]

cisco.profiler.infrastructure.cache.AbstractEndpointCache -:B4:96:91:26:EB:9F:12413370-49a0-
11eb-b713-1a99022ed3c5:ProfilerCollection:-所有者对于此Mac:B4:96:91:26:EB:9F is ise30-
primary.anhsinh.local

2020-12-29 06:35:41,479 DEBUG [RMQforwarder-4]
cisco.profiler.infrastructure.probemgr.Forwarder -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:ProfilerCollection: — 终端的当前所有者B4:96:91:26:EB:9Fis ise30-primary.anshsinh.local和消息代码为3002

2020-12-29 06:35:41,479 DEBUG [RMQforwarder-4]
cisco.profiler.infrastructure.probemgr.Forwarder -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:Profiler收集： — 是终端源真

++新属性

2020-12-29 06:35:41,480 DEBUG [RMQforwarder-4]
cisco.profiler.infrastructure.probemgr.Forwarder -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:ProfilerCollection:-**新属性** : dhcp-parameter-request-list

2020-12-29 06:35:41,482 DEBUG [RMQforwarder-4]
cisco.profiler.infrastructure.probemgr.Forwarder -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:ProfilerCollection: — 终端已修改但已设置属性：

2020-12-29 06:35:41,482 DEBUG [RMQforwarder-4]
cisco.profiler.infrastructure.probemgr.Forwarder -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:ProfilerCollection:---parameter-request列表，

++不同的规则与不同的确定性因素匹配

2020-12-29 06:35:41,484 调试[RMQforwarder-4]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:分析： — 策略Intel-Device匹配B4:96:91:26:EB:9F (确定性5)

2020-12-29 06:35:41,485 DEBUG [RMQforwarder-4]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:分析： — 策略工作站匹配B4:96:91:26:EB:9F (确定性10)

2020-12-29 06:35:41,486 DEBUG [RMQforwarder-4]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:分析： — 策略Microsoft — 工作站B4:96:91:26:EB:9F (确定性10)

2020-12-29 06:35:41,487 调试[RMQforwarder-4]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5 : 分析： — 策略Windows10工作站与B4:96:91:26:EB:9F匹配 (确定性20)

++Windows10-Workstation根据配置具有最高的确定系数40，因此它选择作为设备的终端配置文件

2020-12-29 06:35:41,487 DEBUG [RMQforwarder-4]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5 : 分析策略层次结构后：终端：B4:96:91:26:EB:9F
EndpointPolicy:Windows10-Workstation for:40 ExceptionRuleMatched:false

2020-12-29 06:35:41,487 调试[RMQforwarder-4]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:分析： — 终端B4:96:91:26:ENDPOINTEB:9F匹配策略已更改。

2020-12-29 06:35:41,489 调试[RMQforwarder-4]

cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:分析：— 终端B4:96:91:26:EB:9F IdentityGroup已更改。

2020-12-29 06:35:41,489 DEBUG [RMQforwarder-4][]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:Profiling: — 设置身份组IN终端B4:96:91:26:EB:9F - 3b76f840-8c00-11e6-996c-525400b48521

2020-12-29 06:35:41,489 DEBUG [RMQforwarder-4][]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:Profiling:- 调用终端缓存点B4:96:91:26:EB:9F , 策略Windows10-Workstation , 匹配策略Windows10-Workstation

2020-12-29 06:35:41,489 DEBUG [RMQforwarder-4][]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5: — 将事件发送到永久端点b4:96:91:26:EB:9F和ep消息代码= 3002

2020-12-29 06:35:41,489 调试[RMQforwarder-4][]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5:分析：— 终端B4:96:91:26:EB:9F身份组/逻辑配置文件已更改。发出条件CoA

2020-12-29 06:35:41,489 调试[RMQforwarder-4][]
cisco.profiler.infrastructure.profiling.ProfilerManager -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5 : 分析：- ConditionCoAE包含终端详细信息的事件：EndPoint[id=ff19ca00-499f-11eb-b713-1a99022ed3c5,name=<null>]

MAC :B4:96:91:26:EB:9F

属性：Calling-Station-ID值：B4-96-91-26-EB-9F

属性：EndPointMACAddress值：B4-96-91-26-EB-9F

属性：MAC地址值：B4:96:91:26:EB:9F

++将数据发送到轻量会话目录

2020-12-29 06:35:41,489 DEBUG [RMQforwarder-4][]
cisco.profiler.infrastructure.probemgr.LSDForwarderHelper -::: Endpoint.B4:96:91:26:EB:9F与Windows10-Workstation匹配

2020-12-29 06:35:41,489 DEBUG [RMQforwarder-4][]
cisco.profiler.infrastructure.probemgr.LSDForwarderHelper -::: — 发送事件以在为转发器、defaultradus、defaultad B4:96:91:26:EB:9F添加LSD终端

++全局CoA被选为Reauth

2020-12-29 06:35:41,489 调试[CoAHandler-52-thread-1][]
cisco.profiler.infrastructure.profiling.CoAHandler -:B4:96:91:26:EB:9F:9fe38b30-43ea-11eb-b713-1a99022 ed3c5:ProfilerCoA: — 已配置全局CoA命令类型= Reauth

2020-12-29 06:35:41,490 调试[RMQforwarder-4][]
cisco.profiler.infrastructure.cache.AbstractEndpointCache -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5::: 更新终端 — EP来自传入：B4:96:91:26:EB:9FepSource:RADIUS探测

SGA:falseSG:工作站

2020-12-29 06:35:41,490 调试[RMQforwarder-4][]
cisco.profiler.infrastructure.cache.AbstractEndpointCache -:B4:96:91:26:EB:9F:12413370-49a0-11eb-b713-1a99022ed3c5::- 更新终端 — EP合并后 : B4:96:91:26:EB:9FepSource:RADIUS探测
SGA:falseSG:Windows10-Workstation

++ISE匹配策略以检查是否需要发送CoA。ISE仅在CoA具有与配置文件更改匹配的任何策略时才会触发

2020-12-29 06:35:41,701 调试[CoAHandler-52-thread-1][]
cisco.profiler.infrastructure.profiling.CoAHandler -:B4:96:91:26:EB:9F:9fe38b30-43ea-11eb-b713-1a99022Ed3c5:ProfilerCoA: — 处理本地异常策略集交换机中的所有可用策略
, policystatus=ENABLED

2020-12-29 06:35:41,701 调试[CoAHandler-52-thread-1][]
cisco.profiler.infrastructure.profiling.CoAHandler -:B4:96:91:26:EB:9F:9fe38b30-43ea-11eb-b713-1a99022 ed3c5:ProfilerCoA:-策略名称 : 交换机策略状态 : 启用

2020-12-29 06:35:41,702 调试[CoAHandler-52-thread-1][]
cisco.profiler.infrastructure.profiling.CoAHandler -:B4:96:91:26:EB:9F:9fe38b30-43ea-11eb-b713-1a99022 ed3c5:ProfilerCoA:- lhsvalue name 6d954800-8bff-11e6-996c-525400b48521 rhsID 42706690-8c00-11e6-996c-525400b48521 rhsvalue工作站 : Microsoft-Workstation:Windows10工作站

2020-12-29 06:35:41,933 DEBUG [CoAHandler-52-thread-1][] com.cisco.profiler.api.Util - :B4:96:91:26:EB:9F:9fe38b30-43ea-11eb-b713-1a99022ed3c5:ProfilerCoA: — 授权策略中可用的指定条件

2020-12-29 06:35:41,933 DEBUG [CoAHandler-52-thread-1][] com.cisco.profiler.api.Util - :B4:96:91:26:EB:9F:9fe38b30-43ea-11eb-b713-1a99022ed3c5:ProfilerCoA: — 授权策略 HAVING策略 : 42706690-8c00-11e6-996c-525400b48521

++授权策略匹配此条件，并触发CoA

2020-12-29 06:35:41,935 DEBUG [CoAHandler-52-thread-1][]
cisco.profiler.infrastructure.profiling.CoAHandler -:B4:96:91:26:EB:9F:9fe38b30-43ea-11eb-b713-1a99022 ed3c5:ProfilerCoA:- applyCoa:根据终端RADIUS属性创建描述符 :

MAC :[B4:96:91:26:EB:9F]

会话 ID:[0A6A270B00000018B44013AC]

AAA 服务器:[isee30-primary] IP:[10.106.32.119]

AAA接口 : [10.106.32.119]

NAD IP地址 : [10.106.39.11]

NAS端口ID:[千兆以太网1/0/13]

NAS端口类型 : [以太网]

服务类型 : [帧]

是无线 : [false]

是VPN:[false]

是MAB:[false]

2020-12-29 06:35:41,938 DEBUG [CoAHandler-52-thread-1][]
cisco.profiler.infrastructure.profiling.CoAHandler -:B4:96:91:26:EB:9F:9fe38b30-43ea-11eb-b713-
1a99022 ed3c5:ProfilerCoA: — 将要为和IP调用CoA:10.106.39.11 (适用于终端
) : B4:96:91:26:EB:9F CoA命令 : 重新授权

2020-12-29 06:35:41,938 DEBUG [CoAHandler-52-thread-1][]
cisco.profiler.infrastructure.profiling.CoAHandler -:B4:96:91:26:EB:9F:9fe38b30-43ea-11eb-b713-
1a99022 ed3c5:ProfilerCoA: — 通过AAA服务器应用CoA-REAUTH:10.106.32.119 (通过接口
) : 10.106.32.119到NAD:10.106.39.11

2020-12-29 06:35:41,949 DEBUG [SyslogListenerThread][]
cisco.profiler.probes.radius.SyslogDefragmenter -::::- parseHeader inBuffer=<181>Dec 29
06:35:41 isee30-primary CISE_Passe_Asse_Ad_Ad_Authenticationse0000000656 2 1 Stada=2 1
Ste=2 Data=2=2=2(port=2=2=2=2(p)= 1700 \, 类型= Cisco CoA),
CoASourceComponent=Profiler , CoAReason=在授权策略中使用的终端身份组/策略/逻辑配置文
件中的更改 , CoAType=Reauthentication — 最后 , 网络设备配置文件=Cisco ,

++prrt-server.log

AcsLogs , 2020-12-29
06:35:41,938,DEBUG , 0x7f1c6ffcb700,cntx=0001348611,Log_Message=[2020-12-29
06:35:41.938 +00:00 0000234379 80006INFO Profiler:分析器正在触发授权请求更改
, ConfigVersionId=99,EndpointCoA=Reauth , EndpointMacAddress=B4:96:91:26:EB:9F , Endpoi
ntNADAddress=10.106.39.11,EndpointPolicy=Windows10-
Workstation , EndpointProperty=Service-
Type=Framed\,MessageCode=3002\,EndPointPolicyID=42706690-8c00-11e6-996c-
525400b48521\,UseCase=\,NAS-Caseport-id=GigabitEthernet1/0/13\,NAS-Port-
Type=Ethernet\,Response=\{User-Name=dot1xuser\};

DynamicAuthorizationFlow,2020-12-29

06:35:41,939,DEBUG , 0x7f1cdc3ca700,cntx=0001348614,[DynamicAuthorizationFlow::onLocalH
ttpEvent]已接收传入CoA命令 :

```
<Reauthenticate id="39c74088-52fd-430f-95d9-a8fe78eaa1f1" type="last">  
  
<session serverAddress="10.106.39.11">  
  
<identifierAttribute name="UseInterface">10.106.32.119</identifierAttribute>  
  
<identifierAttribute name="Calling-Station-ID">B4:96:91:26:EB:9F</identifierAttribute>  
  
<identifierAttribute name="NAS-Port-Id">GigabitEthernet1/0/13</identifierAttribute>  
  
<identifierAttribute name="cisco-av-pair">audit-session-  
id=0A6A270B00000018B44013AC</identifierAttribute>
```

```
<identifierAttribute name="ACS-Instance">COA-IP-TARGET:10.106.32.119</identifierAttribute>
</session>
```

```
</Reauthenticate>
```

++CoA已发送 —

RadiusClient , 2020-12-29
06:35:41,943,DEBUG , 0x7f1ccb3f3700,cntx=0001348614,sesn=39c74088-52fd-430f-95d9-a8fe78eaa1f1,CallingStationID=B4:96:91:26:EB:9F , RADIUS数据包 : **代码=43(CoARequest)标识符=27长度=225**

[4] NAS-IP-Address — 值 : [10.106.39.11]

[31]呼叫站ID — 值 : [B4:96:91:26:EB:9F]

[87] NAS-Port-Id — 值 : [千兆以太网1/0/13]

[26] cisco-av-pair — 值 : [用户 : 命令=重新验证]

[26] cisco-av-pair — 值 : [audit-session-id=0A6A270B00000018B44013AC]

RadiusClient , 2020-12-29
06:35:41,947,DEBUG , 0x7f1cdcad1700,cntx=0001348614,sesn=39c74088-52fd-430f-95d9-a8fe78eaa1f1,CallingStationID=B4:96:91:26:EB:9F , RADIUS数据包 : **代码=44(CoAACK)标识符=27**

++新访问请求

Radius , 2020-12-29 06:35:41,970,DEBUG , 0x7f1cdc6cd700,cntx=0001348621,sesn=isee30-primary/397791910/628,CallingStationID=B4-96-91-26-EB-9F,RADIUS数据包 : **Code=1(AccessRequest)Identifier=187 Length=285**

++ISE匹配与终端设备的终端策略匹配的新授权配置文件

AcsLogs , 2020-12-29 06:35:42,060,DEBUG , 0x7f1cdcad1700,cntx=0001348636,sesn=isee30-primary/397791910/628,CPMSessionID=0A6A270B00000018B44013AC , 用户=dot1xuser , CallingStationID=B4-96-91-26-EB-9FIdentityPolicyMatchedRule=Default , AuthorizationPolicyMatchedRule=Microsoft_workstation , EapTunnel=EAP-FAST , EapAuthentication=EAP-MSCHAPv2,UserType=User , CPPMSESSIONID=0A6A270B00000018B44013AC、EndPointMACAddress=B4-96-91-26-EB-9F、PostureAssessmentStatus=NotApplicable、EndPointMatchedProfile=Windows10-Workstation,

++接入已发送 —

Radius , 2020-12-29 06:35:42,061,DEBUG , 0x7f1cdcad1700,cntx=0001348636,sesn=isee30-primary/397791910/628,CPMSessionID=0A6A270B00000018B44013AC , user=dot1xuser , CallingStationID=B4-96-91-26-EB-9F,RADIUS数据包 : **Code=2(AccessAccept)Identifier=191 Length=340**

相关信息

- [Fingerbank.org DHCP指纹数据库](#)
- [技术支持和文档 - Cisco Systems](#)