在统一无线网络中配置接入点授权

目录

简介

本文档介绍如何配置WLC以根据AP的MAC地址授权接入点(AP)。

先决条件

要求

Cisco 建议您了解以下主题：

- 有关如何配置思科身份服务引擎(ISE)的基本知识
- 了解Cisco AP和Cisco WLC的配置
- Cisco Unified无线安全解决方法知识

使用的组件

本文档中的信息基于以下软件和硬件版本：

- 运行AireOS 8.8.111.0软件的WLCWave1 AP:1700/2700/3700和3500（仍然支持1600/2600/3600，但AireOS支持终止于版本8.5.x）Wave2 AP:1800/2800/3800/4800、1540和1560 ISE版本 2.3.0.298

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

轻量AP授权

在AP注册过程中，AP和WLC使用X.509证书相互进行身份验证。Cisco在工厂将X.509证书烧录到AP和WLC上的受保护闪存中。

在AP上，出厂安装的证书称为制造安装的证书(MIC)。 所有在2005年7月18日之后生产的思科AP都具有MIC。

除了在注册过程中发生的这种相互身份验证外，WLC还可以根据AP的MAC地址限制向其注册的AP。

使用AP MAC地址时缺少强密码不是问题，因为控制器在通过RADIUS服务器授权AP之前使用MIC对AP进行身份验证。使用MIC提供强大的身份验证。

AP授权可通过两种方式执行：

- 使用WLC上的内部授权列表
- 在AAA服务器上使用MAC地址数据库

AP的行为因使用的证书而异：

- 带SSC的AP - WLC仅使用内部授权列表，不会向这些AP的RADIUS服务器转发请求
- 带MIC的AP - WLC可以使用在WLC上配置的内部授权列表或使用RADIUS服务器授权AP

本文档讨论使用内部授权列表和AAA服务器的AP授权。

配置

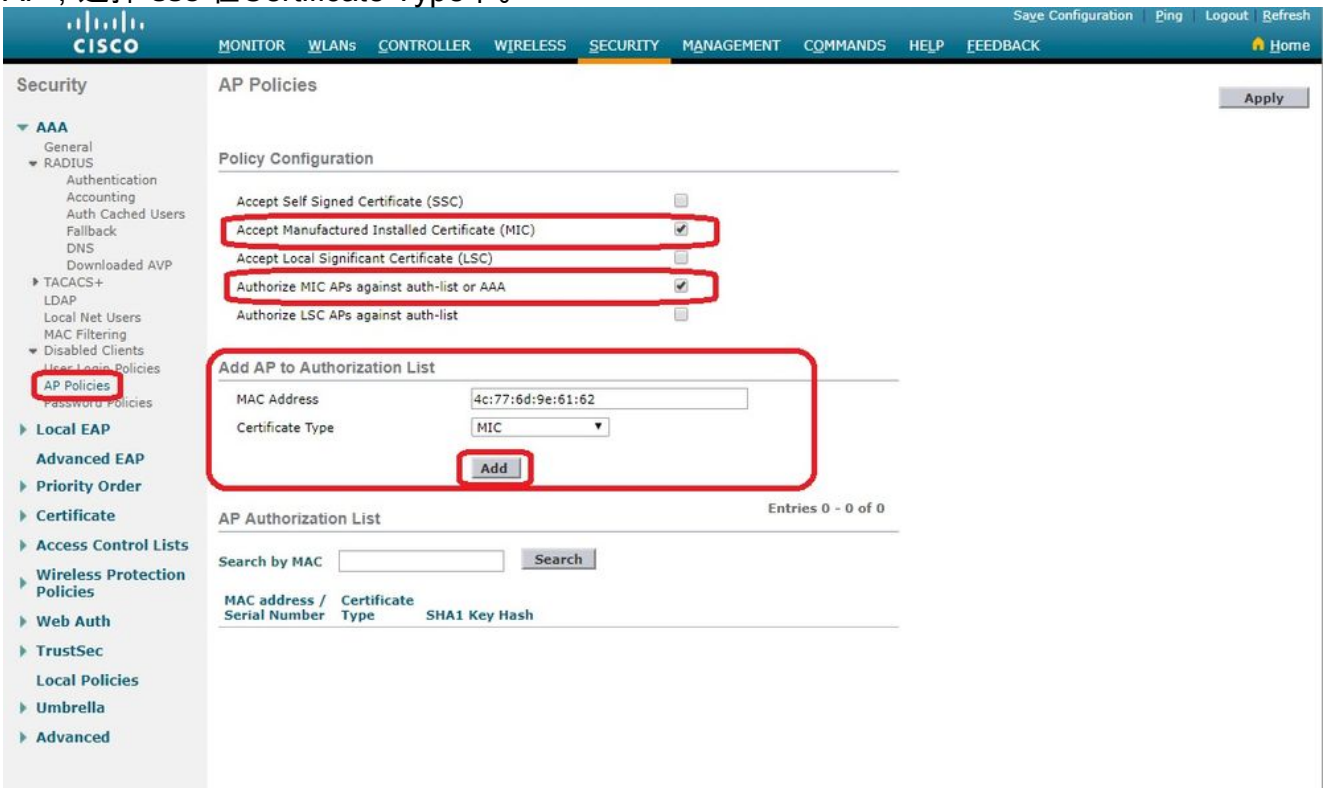
使用WLC上的内部授权列表进行配置

在WLC上，使用AP授权列表根据其MAC地址限制AP。AP授权列表位于 **Security > AP Policies** 在WLC GUI中。

此示例显示如何添加具有MAC地址的AP **4c:77:6d:9e:61:62**.

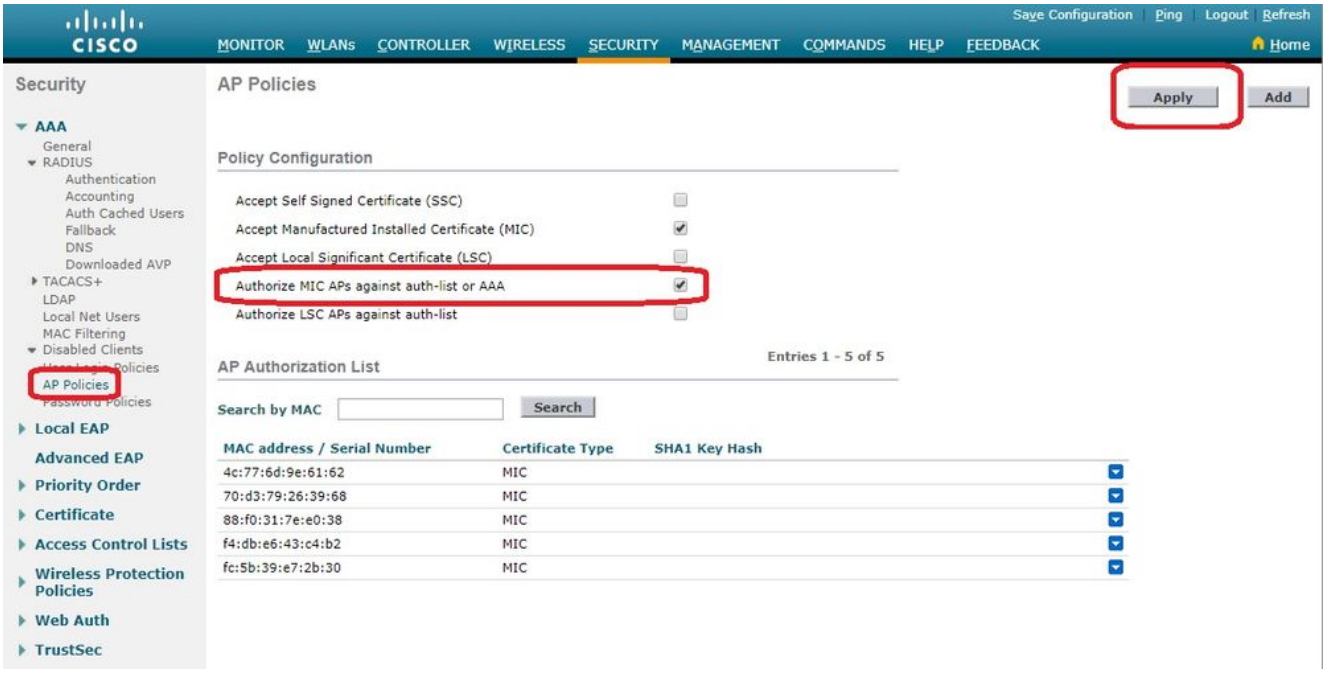
1. 在WLC控制器GUI中，单击 **Security > AP Policies** 系统将显示AP Policies页面。
2. 单击 **Add** 按钮。

3. 低于 **Add AP to Authorization List**，输入 **AP MAC** 地址（不是AP无线电mac地址）。 然后，选择证书类型并单击 **Add**.在本示例中，添加了一个具有MIC证书的AP。**注意**：对于具有SSC的AP，选择 ssc 在Certificate Type下。



AP将添加到AP授权列表，并列在 **AP Authorization List.**

4. 在Policy Configuration（策略配置）下，选中 **Authorize MIC APs against auth-list or AAA**.选择该参数时，WLC首先检查本地授权列表。如果AP MAC不存在，它会检查RADIUS服务器。



验证

要验证此配置，您需要使用MAC地址连接AP **4c:77:6d:9e:61:62** 连接到网络和监控器。请使用 **debug capwap events/errors enable** 和 **debug aaa all enable** 命令。

此输出显示当AP MAC地址不存在于AP授权列表时的调试：

注意：由于空间限制，输出中的某些行已移至第二行。

```
(Cisco Controller) >debug capwap events enable
(Cisco Controller) >debug capwap errors enable
(Cisco Controller) >debug aaa all enable

*spamApTask4: Feb 27 10:15:25.592: 70:69:5a:51:4e:c0 Join Request from 192.168.79.151:5256

*spamApTask4: Feb 27 10:15:25.592: 70:69:5a:51:4e:c0 Unable to get Ap mode in Join request

*spamApTask4: Feb 27 10:15:25.592: 70:69:5a:51:4e:c0 Allocate database entry for AP
192.168.79.151:5256, already allocated index 277

*spamApTask4: Feb 27 10:15:25.592: 70:69:5a:51:4e:c0 AP Allocate request at index 277 (reserved)
*spamApTask4: Feb 27 10:15:25.593: 24:7e:12:19:41:ef Deleting AP entry 192.168.79.151:5256 from
temporary database.
*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 AP group received default-group is found in
ap group configured in wlc.

*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Dropping request or response packet to AP
:192.168.79.151 (5256) by Controller: 10.48.71.20 (5246), message Capwap_wtp_event_response,
state Capwap_no_state

*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 In AAA state 'Idle' for AP
70:69:5a:51:4e:c0
*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Join Request failed!
```

*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 State machine handler: Failed to process msg type = 3 state = 0 from 192.168.79.151:5256

*aaaQueueReader: Feb 27 10:15:25.593: **Unable to find requested user entry for 4c776d9e6162**
*aaaQueueReader: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Normal Response code for AAA Authentication : -9
*aaaQueueReader: Feb 27 10:15:25.593: ReProcessAuthentication previous proto 8, next proto 40000001
*aaaQueueReader: Feb 27 10:15:25.593: AuthenticationRequest: 0x7f01b4083638

*aaaQueueReader: Feb 27 10:15:25.593: Callback.....0xd6cef02166

*aaaQueueReader: Feb 27 10:15:25.593: protocolType.....0x40000001

*aaaQueueReader: Feb 27 10:15:25.593:
proxyState.....70:69:5A:51:4E:C0-00:00

*aaaQueueReader: Feb 27 10:15:25.593: Packet contains 9 AVPs:

*aaaQueueReader: Feb 27 10:15:25.593: AVP[01] User-Name.....4c776d9e6162 (12 bytes)

*aaaQueueReader: Feb 27 10:15:25.593: AVP[02] Called-Station-Id.....70-69-5a-51-4e-c0 (17 bytes)

*aaaQueueReader: Feb 27 10:15:25.593: AVP[03] Calling-Station-Id.....4c-77-6d-9e-61-62 (17 bytes)

*aaaQueueReader: Feb 27 10:15:25.593: AVP[04] Nas-Port.....0x00000001 (1) (4 bytes)

*aaaQueueReader: Feb 27 10:15:25.593: AVP[05] Nas-Ip-Address.....0x0a304714 (170936084) (4 bytes)

*aaaQueueReader: Feb 27 10:15:25.593: AVP[06] NAS-Identifier.....0x6e6f (28271) (2 bytes)

*aaaQueueReader: Feb 27 10:15:25.593: AVP[07] User-Password.....[...]

*aaaQueueReader: Feb 27 10:15:25.593: AVP[08] Service-Type.....0x0000000a (10) (4 bytes)

*aaaQueueReader: Feb 27 10:15:25.593: AVP[09] Message-Authenticator.....DATA (16 bytes)

*aaaQueueReader: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Error Response code for AAA Authentication : -7
*aaaQueueReader: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Returning AAA Error 'No Server' (-7) for mobile 70:69:5a:51:4e:c0 serverIdx 0
*aaaQueueReader: Feb 27 10:15:25.593: AuthorizationResponse: 0x7f017adf5770

*aaaQueueReader: Feb 27 10:15:25.593: RadiusIndexSet(0), Index(0)
*aaaQueueReader: Feb 27 10:15:25.593: resultCode.....-7

*aaaQueueReader: Feb 27 10:15:25.593: protocolUsed.....0xffffffff

*aaaQueueReader: Feb 27 10:15:25.593:
proxyState.....70:69:5A:51:4E:C0-00:00

*aaaQueueReader: Feb 27 10:15:25.593: Packet contains 0 AVPs:

*aaaQueueReader: Feb 27 10:15:25.593: **70:69:5a:51:4e:c0 User entry not found in the Local FileDB for the client.**

```
*spamApTask0: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Join Version: = 134770432

*spamApTask0: Feb 27 10:15:25.593: 00:00:00:00:00:00 apType = 54 apModel: AIR-AP4800-E-K

*spamApTask0: Feb 27 10:15:25.593: 00:00:00:00:00:00 apType: Ox36 bundleApImageVer: 8.8.111.0
*spamApTask0: Feb 27 10:15:25.593: 00:00:00:00:00:00 version:8 release:8 maint:111 build:0
*spamApTask0: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Join resp: CAPWAP Maximum Msg element len =
79

*spamApTask0: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Join Failure Response sent to 0.0.0.0:5256

*spamApTask0: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Radius Authentication failed. Closing dtls
Connection.
*spamApTask0: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Disconnecting DTLS Capwap-Ctrl session
0xd6f0724fd8 for AP (192:168:79:151/5256). Notify(true)
*spamApTask0: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 CAPWAP State: Dtls tear down

*spamApTask0: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 acDtlsPlumbControlPlaneKeys:
lrad:192.168.79.151(5256) mwar:10.48.71.20(5246)

*spamApTask0: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 DTLS keys for Control Plane deleted
successfully for AP 192.168.79.151

*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 DTLS connection closed event receivedserver
(10.48.71.20/5246) client (192.168.79.151/5256)
*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Entry exists for AP (192.168.79.151/5256)
*spamApTask0: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 AP Delete request
*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 AP Delete request
*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 Unable to find AP 70:69:5a:51:4e:c0
*spamApTask4: Feb 27 10:15:25.593: 70:69:5a:51:4e:c0 No AP entry exist in temporary database for
192.168.79.151:5256
```

此输出显示将LAP MAC地址添加到AP授权列表时的调试：

注意：由于空间限制，输出中的某些行已移至第二行。

```
(Cisco Controller) >debug capwap events enable
(Cisco Controller) >debug capwap errors enable
(Cisco Controller) >debug aaa all enable

*spamApTask4: Feb 27 09:50:25.393: 70:69:5a:51:4e:c0 Join Request from 192.168.79.151:5256

*spamApTask4: Feb 27 09:50:25.393: 70:69:5a:51:4e:c0 using already alloced index 274
*spamApTask4: Feb 27 09:50:25.393: 70:69:5a:51:4e:c0 Unable to get Ap mode in Join request

*spamApTask4: Feb 27 09:50:25.393: 70:69:5a:51:4e:c0 Allocate database entry for AP
192.168.79.151:5256, already allocated index 274

*spamApTask4: Feb 27 09:50:25.393: 70:69:5a:51:4e:c0 AP Allocate request at index 274 (reserved)
*spamApTask4: Feb 27 09:50:25.393: 24:7e:12:19:41:ef Deleting AP entry 192.168.79.151:5256 from
temporary database.
*spamApTask4: Feb 27 09:50:25.393: 70:69:5a:51:4e:c0 AP group received default-group is found in
ap group configured in wlc.

*spamApTask4: Feb 27 09:50:25.393: 70:69:5a:51:4e:c0 Dropping request or response packet to AP
:192.168.79.151 (5256) by Controller: 10.48.71.20 (5246), message Capwap_wtp_event_response,
state Capwap_no_state

*spamApTask4: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 Message type Capwap_wtp_event_response is
not allowed to send in state Capwap_no_state for AP 192.168.79.151
```

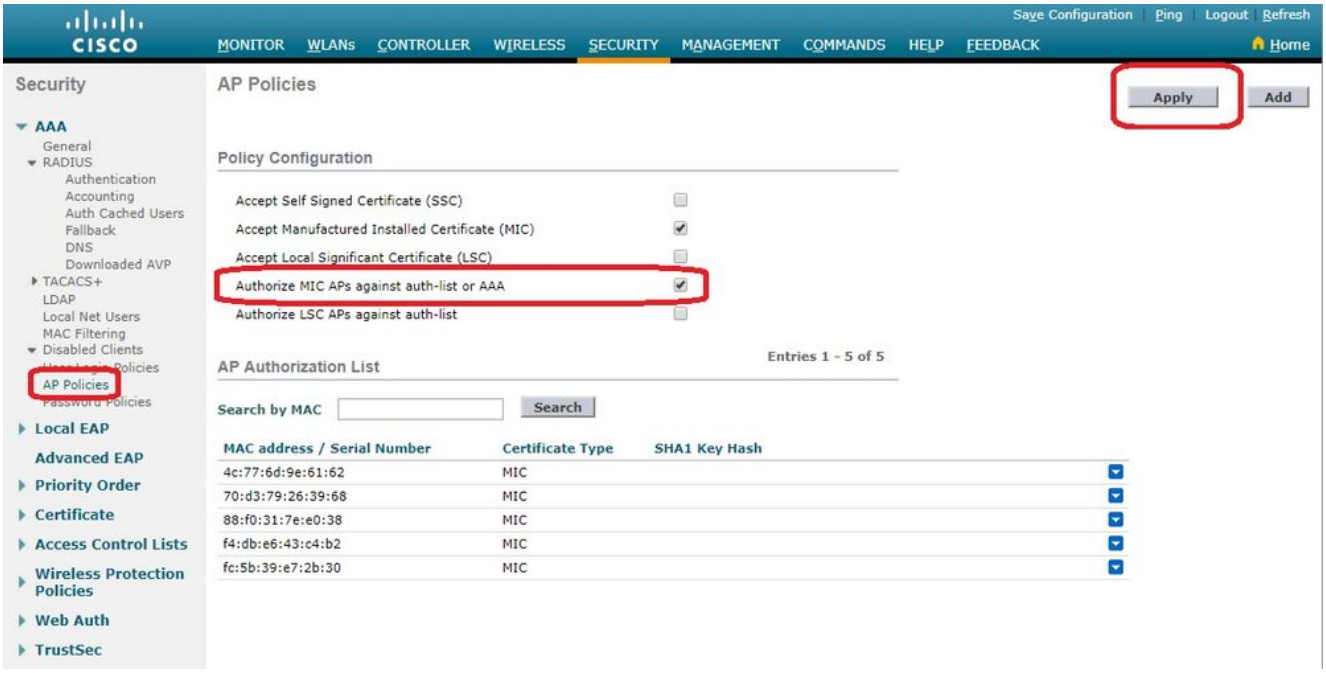
```
*spamApTask4: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 In AAA state 'Idle' for AP
70:69:5a:51:4e:c0
*spamApTask4: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 Join Request failed!


*aaaQueueReader: Feb 27 09:50:25.394: User 4c776d9e6162 authenticated
*aaaQueueReader: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 Normal Response code for AAA
Authentication : 0
*aaaQueueReader: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 Returning AAA Success for mobile
70:69:5a:51:4e:c0
*aaaQueueReader: Feb 27 09:50:25.394: AuthorizationResponse: 0x7f0288a66408


*aaaQueueReader: Feb 27 09:50:25.394: structureSize.............................194

*aaaQueueReader: Feb 27 09:50:25.394: resultCode.................................0

*aaaQueueReader: Feb 27 09:50:25.394:
proxyState.................................70:69:5A:51:4E:C0-00:00

*aaaQueueReader: Feb 27 09:50:25.394: Packet contains 2 AVPs:

*aaaQueueReader: Feb 27 09:50:25.394: AVP[01] Service-
Type.........................0x00000065 (101) (4 bytes)

*aaaQueueReader: Feb 27 09:50:25.394: AVP[02] Airespace / WLAN-
Identifier.............0x00000000 (0) (4 bytes)

*aaaQueueReader: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 User authentication Success with File DB
on WLAN ID :0
*spamApTask0: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 Join Version: = 134770432

*spamApTask0: Feb 27 09:50:25.394: 00:00:00:00:00:00 apType = 54 apModel: AIR-AP4800-E-K

*spamApTask0: Feb 27 09:50:25.394: 00:00:00:00:00:00 apType: Ox36 bundleApImageVer: 8.8.111.0
*spamApTask0: Feb 27 09:50:25.394: 00:00:00:00:00:00 version:8 release:8 maint:111 build:0
*spamApTask0: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 Join resp: CAPWAP Maximum Msg element len =
79

*spamApTask0: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 Join Response sent to 0.0.0.0:5256

*spamApTask0: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 CAPWAP State: Join

*spamApTask0: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 capwap_ac_platform.c:2095 - Operation State
0 ===> 4
*spamApTask0: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 Capwap State Change Event (Reg) from
capwap_ac_platform.c 2136

*apfReceiveTask: Feb 27 09:50:25.394: 70:69:5a:51:4e:c0 Register LWAPP event for AP
70:69:5a:51:4e:c0 slot 0
```

针对AAA服务器的AP授权

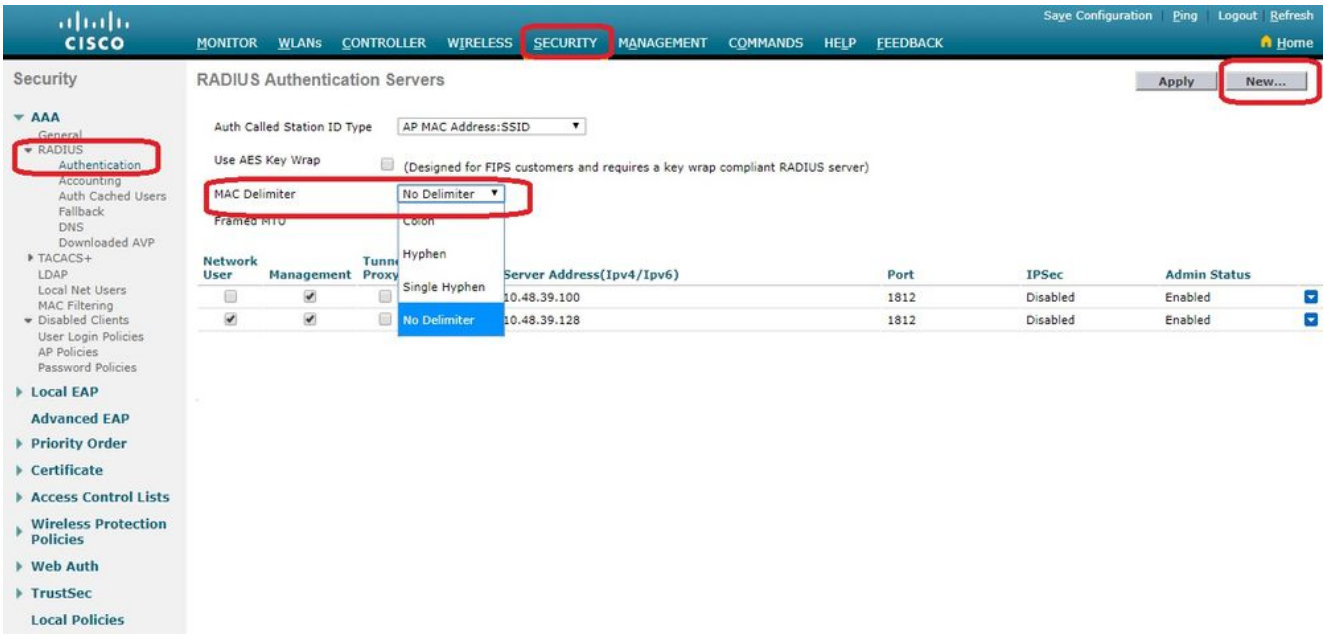
您还可以将WLC配置为使用RADIUS服务器授权使用MIC的AP。当向RADIUS服务器发送信息时，WLC使用AP MAC地址作为用户名和密码。例如，如果AP的MAC地址是 **4c:77:6d:9e:61:62**中，控制器用于授权AP的用户名和密码都是使用已定义的传递器的mac地址。

此示例显示如何配置WLC以使用Cisco ISE授权AP。

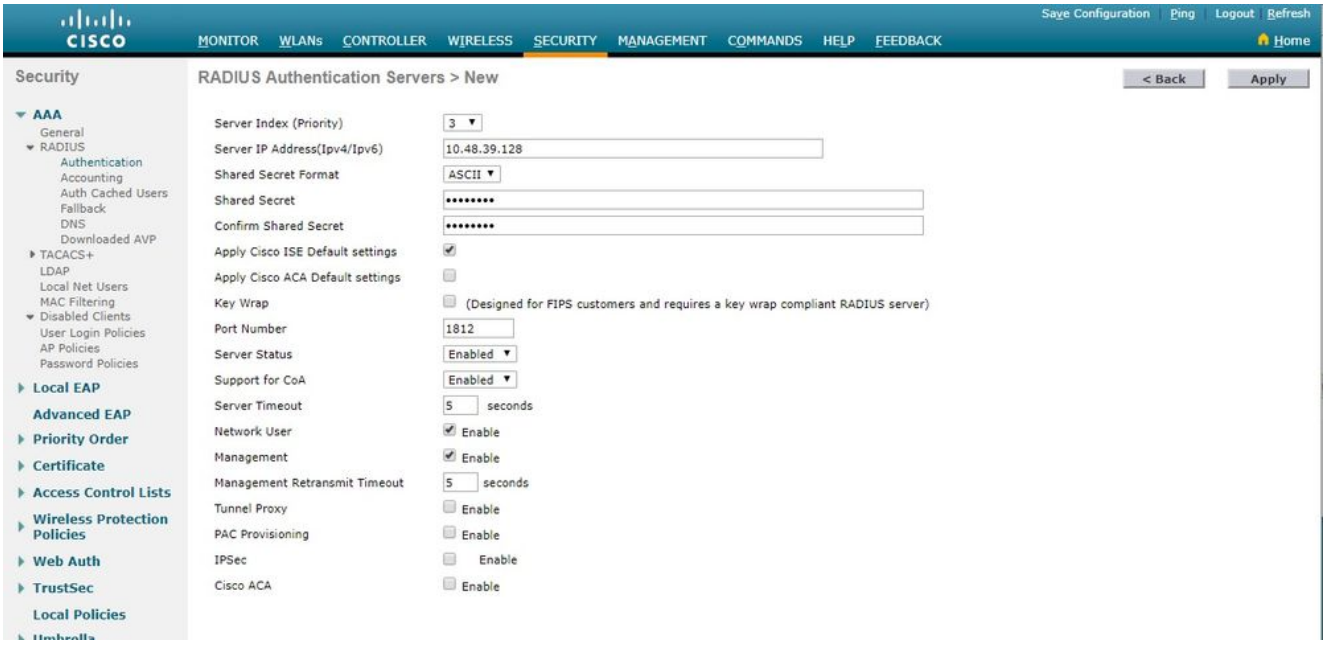
1. 在WLC控制器GUI中，单击 **Security > AP Policies**.系统将显示AP Policies页面。
2. 在Policy Configuration（策略配置）下，选中 **Authorize MIC APs against auth-list or AAA**.当您选择此参数时，WLC首先检查本地授权列表。如果AP MAC不存在，它会检查RADIUS服务器。



3. 导航至 **Security > RADIUS Authentication** 从控制器GUI显示 **RADIUS Authentication Servers** 页码.在此页中，可以定义**MAC分隔符**。WLC获取AP的Mac地址并使用此处定义的分隔符将其发送到Radius服务器。这一点非常重要，以便用户名与Radius服务器中的配置匹配。在本示例中，**No Delimiter** 用于使用户名 **4c776d9e6162**.



4. 然后，单击 **New** 以便定义RADIUS服务器。



5. 在上定义RADIUS服务器参数 **RADIUS Authentication Servers > New** 页码.这些参数包括RADIUS **Server IP Address**, **Shared Secret**, **Port Number**,和 **Server Status**.完成后，单击 **Apply**.此示例使用Cisco ISE作为IP地址为10.48.39.128的RADIUS服务器。

配置Cisco ISE授权AP

要启用Cisco ISE授权AP，您需要完成以下步骤：

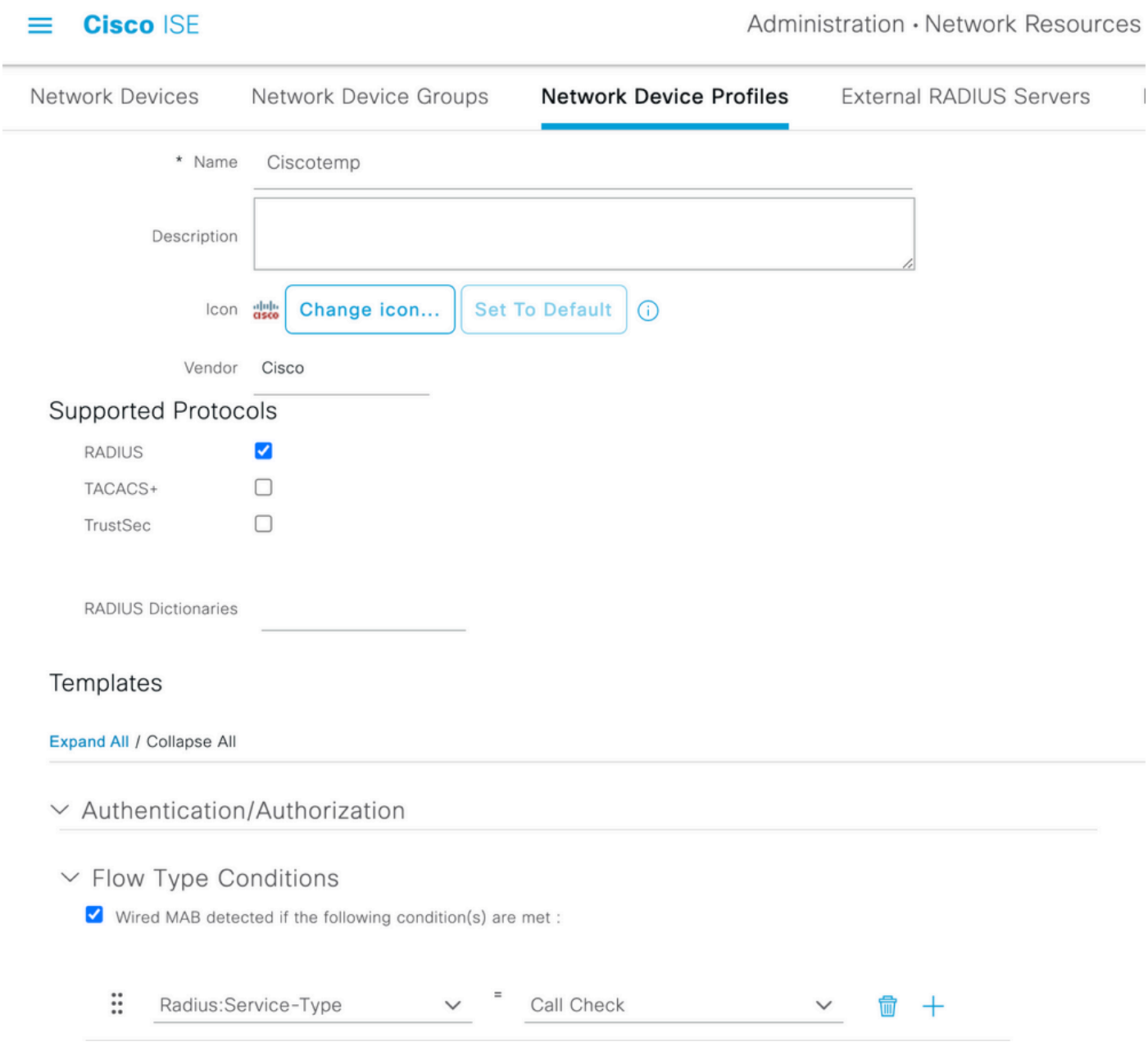
1. 将WLC配置为Cisco ISE上的AAA客户端。
2. 将AP MAC地址添加到Cisco ISE上的数据库。

但是，您可以将AP MAC地址添加为终端（最佳方式）或用户（其密码也是MAC地址），但这要求您降低密码安全策略要求。

由于WLC不发送NAS-Port-Type属性(ISE要求该属性匹配Mac地址身份验证(MAB)工作流程)，您需要调整此属性。

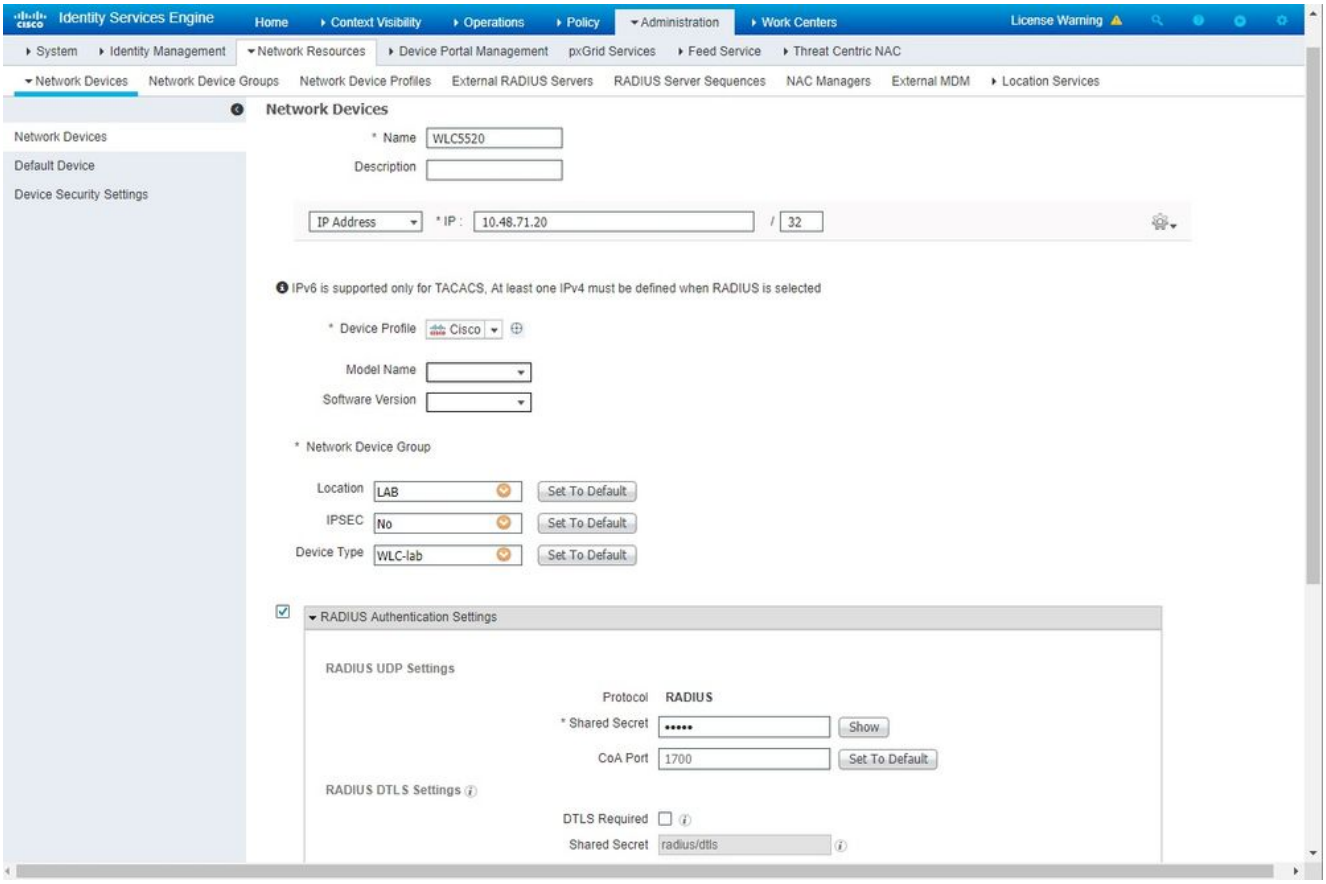
配置MAB不需要NAS端口类型属性的新设备配置文件

导航至 **Administration > Network device profile** 并创建新的设备配置文件。启用RADIUS并将有线MAB流设置为需要service-type=Call-check，如图所示。您可以从经典思科配置文件复制其他设置，但想法是不需要“Nas-port-type”属性来用于有线MAB工作流程。



将WLC配置为Cisco ISE上的AAA客户端

1. 转到 **Administration > Network Resources > Network Devices > Add**.系统将显示New Network Device页面。
2. 在此页面上，定义WLC **Name**,管理接口 **IP Address** 和 **Radius Authentications Settings** 喜欢 **Shared Secret**.如果您计划输入AP MAC地址作为终端，请确保使用之前配置的自定义设备配置文件而非默认思科配置文件！



3. 点击 **Submit**.

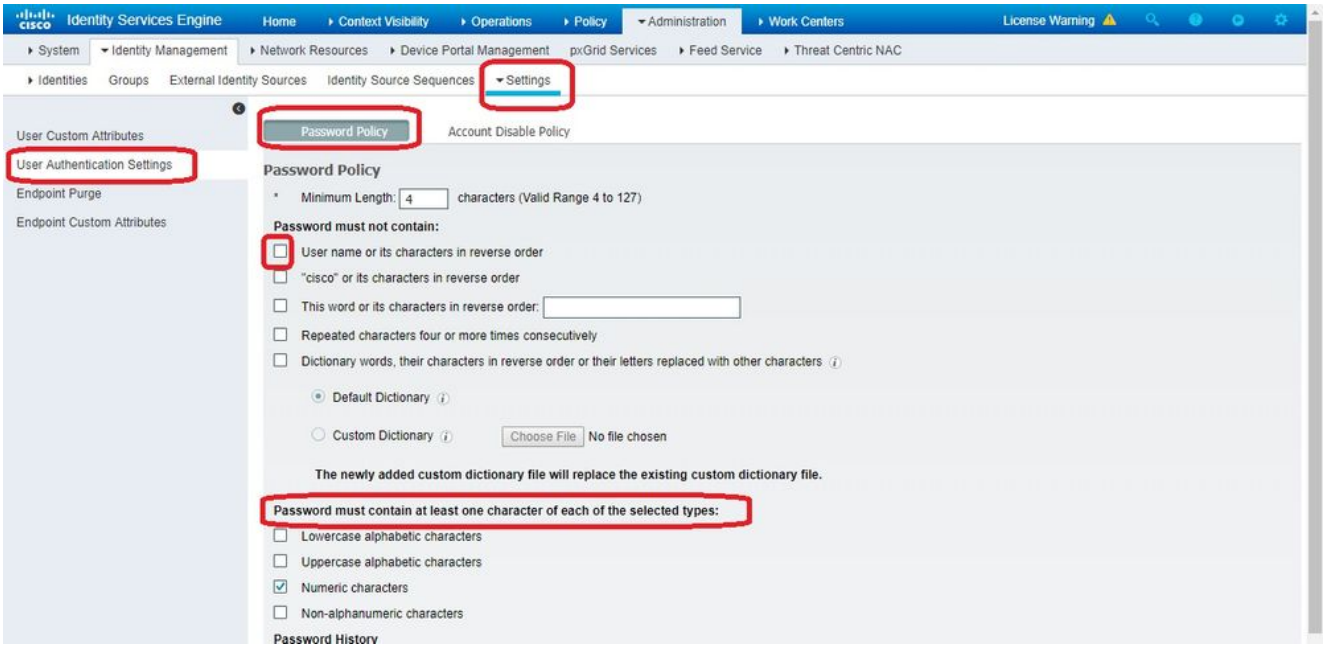
将AP MAC地址添加到思科ISE上的终端数据库

导航至 **Administration > Identity Management > Identities** 并将MAC地址添加到终端数据库。

将AP MAC地址添加到思科ISE上的用户数据库（可选）

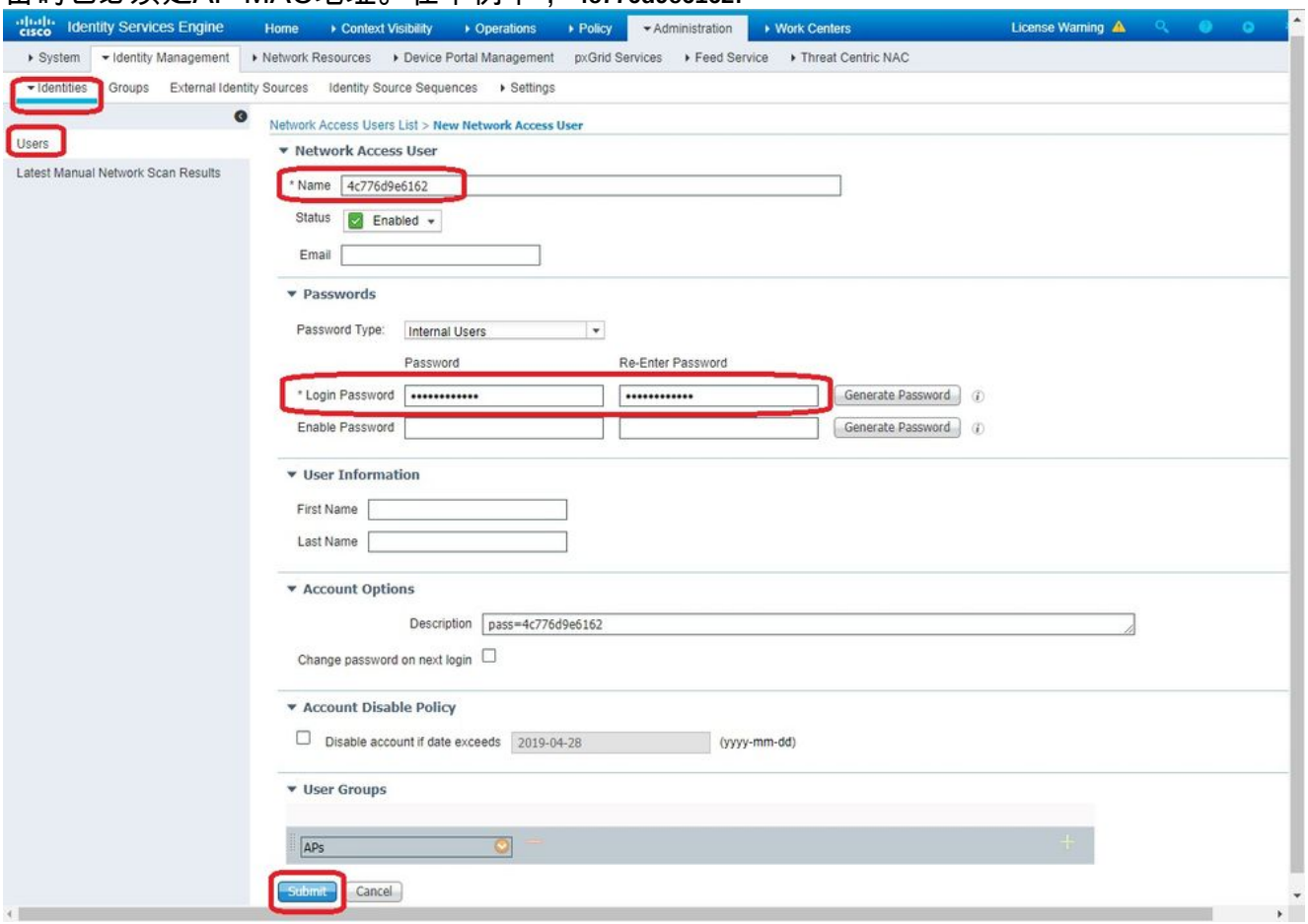
如果您不想修改有线MAB配置文件并选择将AP MAC地址作为用户放置，则必须降低密码策略要求。

1. 导航至 **Administration > Identity Management**.此处我们需要确保密码策略允许使用用户名作为密码，并且策略也必须允许使用mac地址字符，而不需要不同类型的字符。导航至 **Settings > User Authentication Settings > Password Policy**：



2. 然后导航至 **Identities > Users** 并点击 **Add**.显示User Setup页面时，请按照所示定义此AP的用户名和密码。

提示：请使用 **Description** 字段输入密码，以便稍后轻松了解密码的定义。
密码也必须是AP MAC地址。在本例中， **4c776d9e6162**.

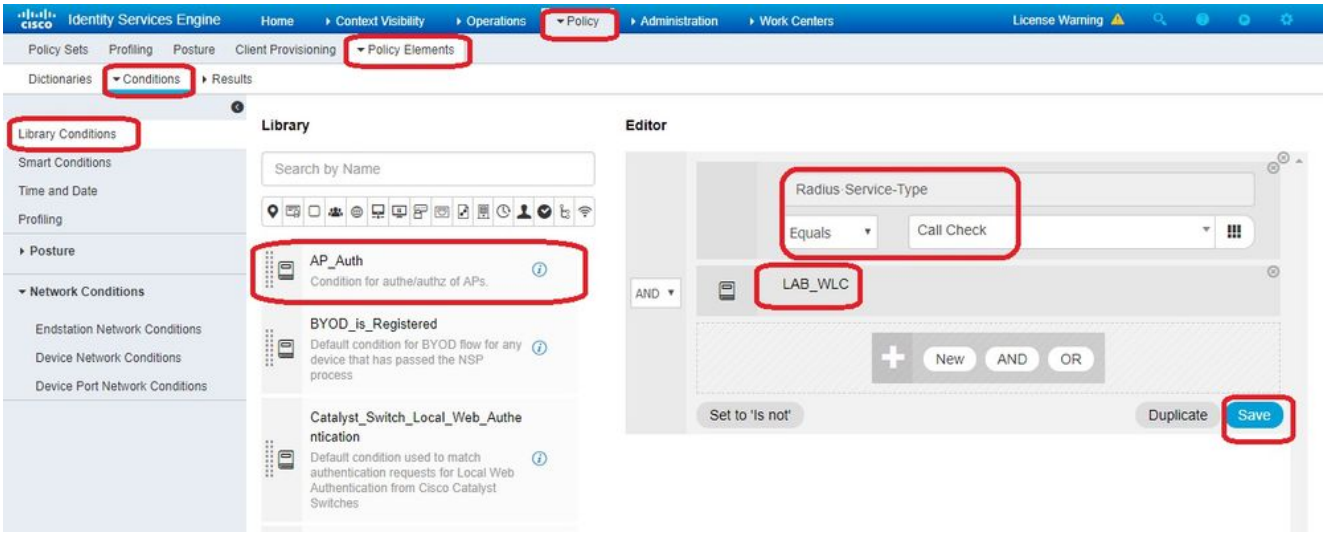


3. 点击 **Submit**.

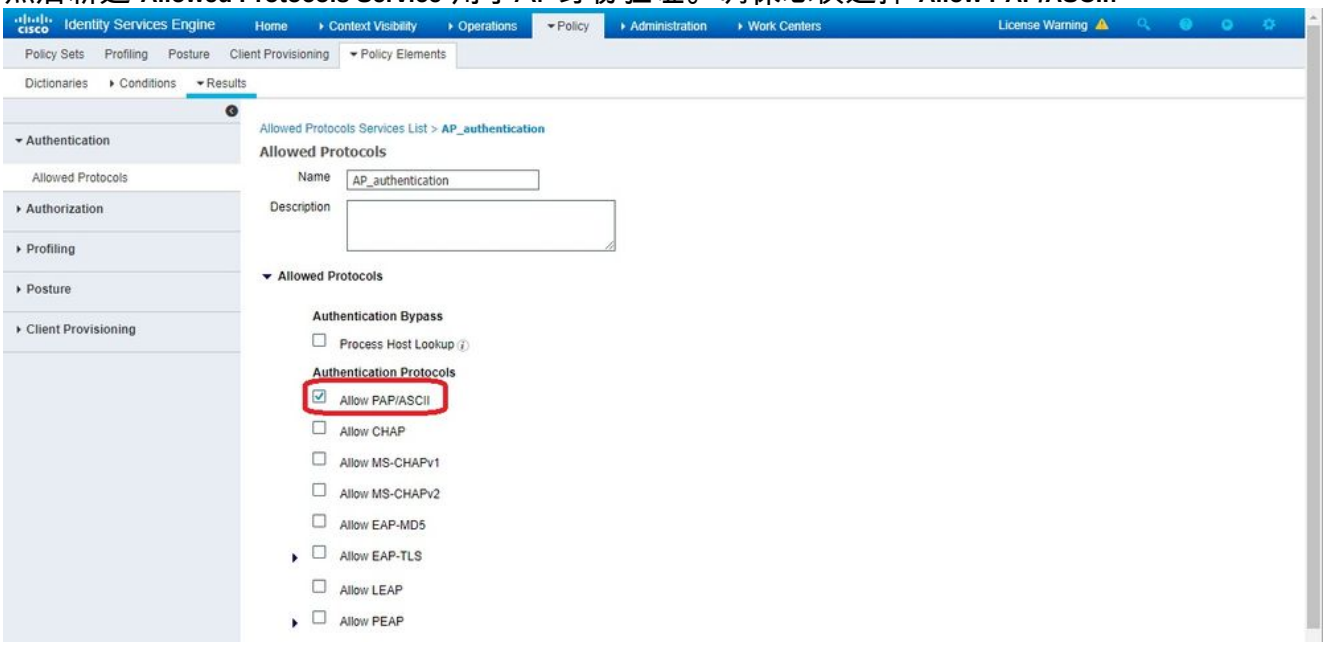
定义策略集

1. 您需要定义 **Policy Set** 匹配来自WLC的身份验证请求。首先，通过导航到 **Policy > Policy Elements > Conditions**，并创建一个与WLC位置匹配的新条件，在本例中

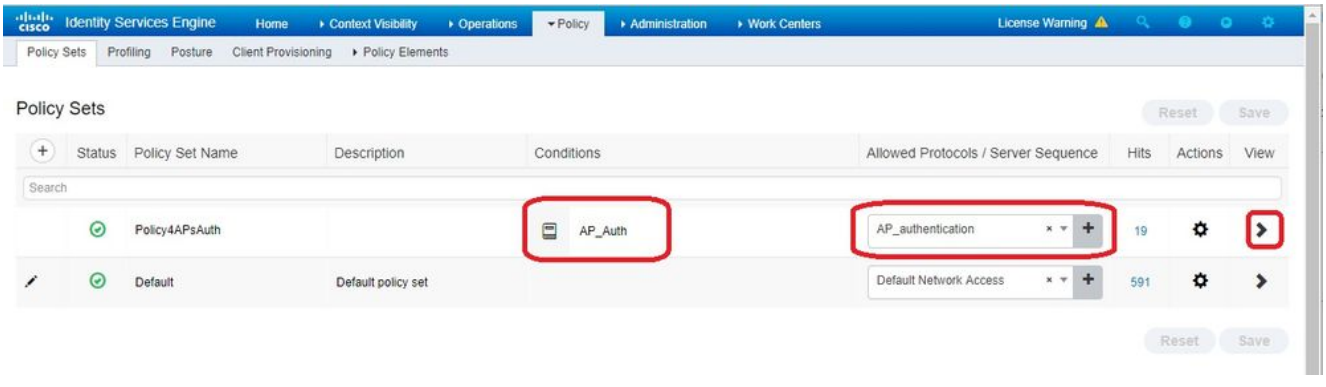
，“LAB_WLC”和 **Radius:Service-Type Equals Call Check** 用于Mac身份验证。此处的条件名为“AP_Auth”。

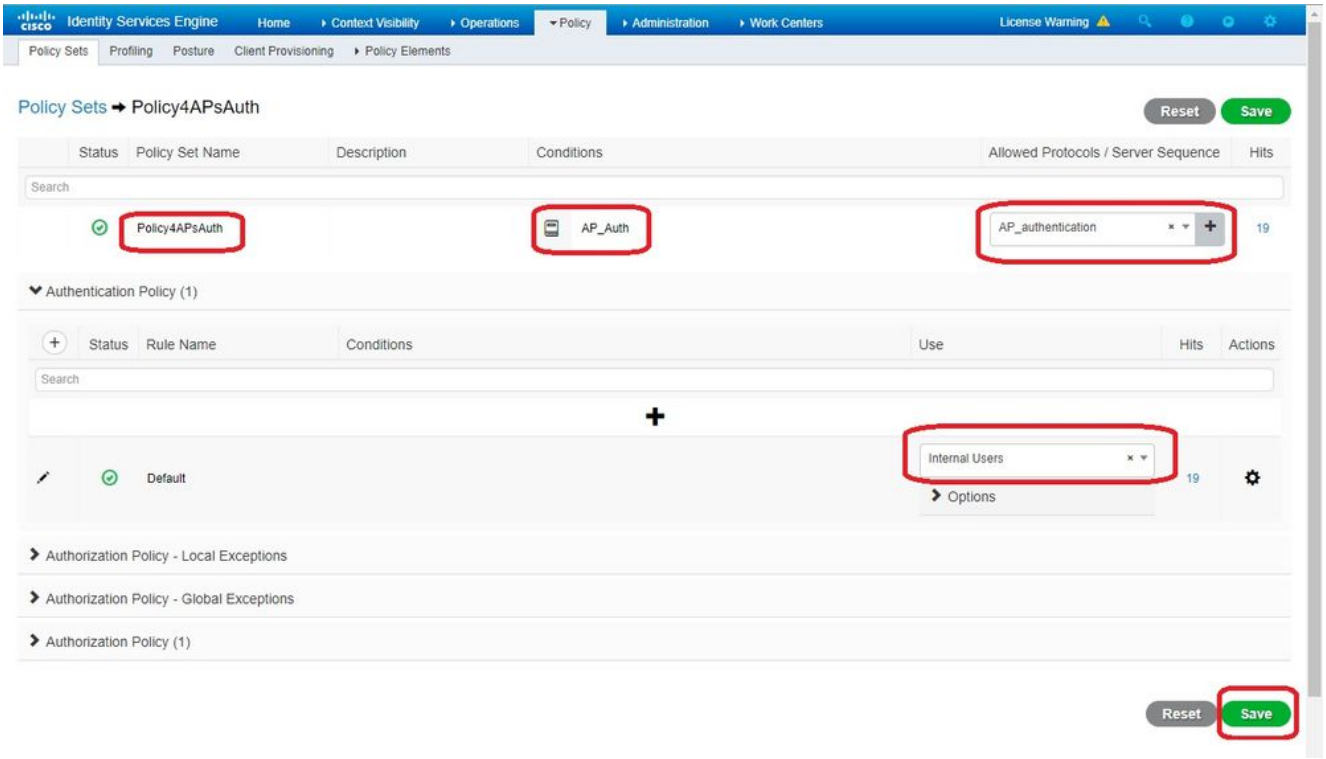


2. 点击 **Save**.
3. 然后新建 **Allowed Protocols Service** 用于AP身份验证。确保您仅选择 **Allow PAP/ASCII**:



4. 在 **Allowed Protocols/Server Sequence**.展开 **View** 和 **Authentication Policy > Use > Internal Users** 以便ISE在内部数据库中搜索AP的用户名/密码。





5. 点击 **Save**.

验证

要验证此配置，您需要将MAC地址为4c:77:6d:9e:61:62的AP连接到网络和监视器。请使用 **debug capwap events/errors enable** 和 **debug aaa all enable** 命令。

从调试中可以看到，WLC将AP MAC地址传递给RADIUS服务器10.48.39.128，并且服务器已成功对AP进行身份验证。然后，AP向控制器注册。

注意：由于空间限制，输出中的某些行已移至第二行。

```
*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 Join Request from 192.168.79.151:5248

*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 using already alloced index 437
*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 Unable to get Ap mode in Join request

*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 Allocate database entry for AP
192.168.79.151:5248, already allocated index 437

*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 AP Allocate request at index 437 (reserved)
*spamApTask4: Feb 27 14:58:07.566: 24:7e:12:19:41:ef Deleting AP entry 192.168.79.151:5248 from
temporary database.
*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 AP group received default-group is found in
ap group configured in wlc.

*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 Dropping request or response packet to AP
:192.168.79.151 (5248) by Controller: 10.48.71.20 (5246), message Capwap_wtp_event_response,
state Capwap_no_state

*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 Message type Capwap_wtp_event_response is
not allowed to send in state Capwap_no_state for AP 192.168.79.151

*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 In AAA state 'Idle' for AP
```

70:69:5a:51:4e:c0
*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 Join Request failed!

*spamApTask4: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 State machine handler: Failed to process msg type = 3 state = 0 from 192.168.79.151:5248

*spamApTask4: Feb 27 14:58:07.566: 24:7e:12:19:41:ef Failed to parse CAPWAP packet from 192.168.79.151:5248

*aaaQueueReader: Feb 27 14:58:07.566: **70:69:5a:51:4e:c0 Normal Response code for AAA Authentication : -9**
*aaaQueueReader: Feb 27 14:58:07.566: ReProcessAuthentication previous proto 8, next proto 40000001
*aaaQueueReader: Feb 27 14:58:07.566: AuthenticationRequest: 0x7f01b404f0f8

*aaaQueueReader: Feb 27 14:58:07.566: Callback.....0xd6cef02166

*aaaQueueReader: Feb 27 14:58:07.566: protocolType.....0x40000001

*aaaQueueReader: Feb 27 14:58:07.566: proxyState.....70:69:5A:51:4E:C0-00:00

*aaaQueueReader: Feb 27 14:58:07.566: Packet contains 9 AVPs:

*aaaQueueReader: Feb 27 14:58:07.566: AVP[02] Called-Station-Id.....70:69:5a:51:4e:c0 (17 bytes)

*aaaQueueReader: Feb 27 14:58:07.566: AVP[03] Calling-Station-Id.....4c:77:6d:9e:61:62 (17 bytes)

*aaaQueueReader: Feb 27 14:58:07.566: AVP[04] Nas-Port.....0x00000001 (1) (4 bytes)

*aaaQueueReader: Feb 27 14:58:07.566: AVP[05] Nas-Ip-Address.....0x0a304714 (170936084) (4 bytes)

*aaaQueueReader: Feb 27 14:58:07.566: AVP[06] NAS-Identifier.....0x6e6f (28271) (2 bytes)

*aaaQueueReader: Feb 27 14:58:07.566: AVP[08] Service-Type.....0x0000000a (10) (4 bytes)

*aaaQueueReader: Feb 27 14:58:07.566: AVP[09] Message-Authenticator.....DATA (16 bytes)

*aaaQueueReader: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 radiusServerFallbackPassiveStateUpdate: **RADIUS server is ready 10.48.39.128 port 1812** index 1 active 1
*aaaQueueReader: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 NAI-Realm not enabled on Wlan, radius servers will be selected as usual
*aaaQueueReader: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 Found the radius server : 10.48.39.128 from the global server list
*aaaQueueReader: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 Send Radius Auth Request with pktId:185 into qid:0 of server at index:1
*aaaQueueReader: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 Sending the packet to v4 host 10.48.39.128:1812 of length 130
*aaaQueueReader: Feb 27 14:58:07.566: 70:69:5a:51:4e:c0 **Successful transmission of Authentication Packet (pktId 185) to 10.48.39.128:1812** from server queue 0, proxy state 70:69:5a:51:4e:c0-00:00
*aaaQueueReader: Feb 27 14:58:07.566: 00000000: 01 b9 00 82 d9 c2 ef 27 f1 bb e4 9f a8 88 5a 6d ....'......Zm
*aaaQueueReader: Feb 27 14:58:07.566: 00000010: 4b 38 1a a6 01 0e 34 63 37 37 36 64 39 65 36 31 K8....4c776d9e61
*aaaQueueReader: Feb 27 14:58:07.566: 00000020: 36 32 1e 13 37 30 3a 36 39 3a 35 61 3a 35 31 3a

62..70:69:5a:51:
*aaaQueueReader: Feb 27 14:58:07.566: 00000030: 34 65 3a 63 30 1f 13 34 63 3a 37 37 3a 36 64 3a
4e:c0..4c:77:6d:
*aaaQueueReader: Feb 27 14:58:07.566: 00000040: 39 65 3a 36 31 3a 36 32 05 06 00 00 00 01 04 06
9e:61:62........
*aaaQueueReader: Feb 27 14:58:07.566: 00000050: 0a 30 47 14 20 04 6e 6f 02 12 54 46 96 61 2a 38
.0G...no..TF.a*8
*aaaQueueReader: Feb 27 14:58:07.566: 00000060: 5a 57 22 5b 41 c8 13 61 97 6c 06 06 00 00 00 0a
ZW"[A..a.l......
*aaaQueueReader: Feb 27 14:58:07.566: 00000080: 15 f9 ..
*aaaQueueReader: Feb 27 14:58:07.566: **70:69:5a:51:4e:c0 User entry not found in the Local FileDB for the client.**
*radiusTransportThread: Feb 27 14:58:07.587: Vendor Specif Radius Attribute(code=26, avp_len=28, vId=9)
*radiusTransportThread: Feb 27 14:58:07.588: 70:69:5a:51:4e:c0 *** Counted VSA 150994944 AVP of length 28, code 1 atrlen 22)
*radiusTransportThread: Feb 27 14:58:07.588: Vendor Specif Radius Attribute(code=26, avp_len=28, vId=9)
*radiusTransportThread: Feb 27 14:58:07.588: 70:69:5a:51:4e:c0 AVP: VendorId: 9, vendorType: 1, vendorLen: 22

*radiusTransportThread: Feb 27 14:58:07.588: 00000000: 70 72 6f 66 69 6c 65 2d 6e 61 6d 65 3d 55 6e 6b profile-name=Unk
*radiusTransportThread: Feb 27 14:58:07.588: 00000010: 6e 6f 77 6e nown
*radiusTransportThread: Feb 27 14:58:07.588: 70:69:5a:51:4e:c0 Processed VSA 9, type 1, raw bytes 22, copied 0 bytes
*radiusTransportThread: Feb 27 14:58:07.588: **70:69:5a:51:4e:c0 Access-Accept received from RADIUS server 10.48.39.128** (qid:0) with port:1812, pktId:185
*radiusTransportThread: Feb 27 14:58:07.588: RadiusIndexSet(1), Index(1)
*radiusTransportThread: Feb 27 14:58:07.588: structureSize.............................432

*radiusTransportThread: Feb 27 14:58:07.588: protocolUsed.............................0x00000001

*radiusTransportThread: Feb 27 14:58:07.588: proxyState.................................70:69:5A:51:4E:C0-00:00

*radiusTransportThread: Feb 27 14:58:07.588: Packet contains 4 AVPs:

*radiusTransportThread: Feb 27 14:58:07.588: **AVP[01] User-Name.............................4c776d9e6162** (12 bytes)

*radiusTransportThread: Feb 27 14:58:07.588: AVP[02] State.................................ReauthSession:0a302780bNEx79SKIFosJ2ioAmIYNOiRe2iDSY3drcFsHuYpChs (65 bytes)

*radiusTransportThread: Feb 27 14:58:07.588: AVP[03] Class.................................DATA (83 bytes)

*radiusTransportThread: Feb 27 14:58:07.588: AVP[04] Message-Authenticator...................DATA (16 bytes)

*spamApTask0: Feb 27 14:58:07.588: 70:69:5a:51:4e:c0 Join Version: = 134770432

*spamApTask0: Feb 27 14:58:07.588: 00:00:00:00:00:00 apType = 54 apModel: AIR-AP4800-E-K

*spamApTask0: Feb 27 14:58:07.588: 00:00:00:00:00:00 apType: Ox36 bundleApImageVer: 8.8.111.0
*spamApTask0: Feb 27 14:58:07.588: 00:00:00:00:00:00 version:8 release:8 maint:111 build:0
*spamApTask0: Feb 27 14:58:07.588: 70:69:5a:51:4e:c0 Join resp: CAPWAP Maximum Msg element len = 79

*spamApTask0: Feb 27 14:58:07.588: 70:69:5a:51:4e:c0 Join Response sent to 0.0.0.0:5248

*spamApTask0: Feb 27 14:58:07.588: **70:69:5a:51:4e:c0 CAPWAP State: Join**

故障排除

使用以下命令排除配置故障：

- debug capwap events enable — 配置LWAPP事件的调试
- debug capwap packet enable — 配置LWAPP数据包跟踪的调试
- debug capwap errors enable — 配置LWAPP数据包错误的调试
- debug aaa all enable — 配置所有AAA消息的调试

如果RADIUS实时中的ISE报告在您对ISE授权AP时用户名“INVALID”，这意味着身份验证正在根据终端数据库进行验证，并且您未修改有线MAB配置文件，如本文档所述。如果MAC地址身份验证与有线/无线MAB配置文件不匹配，ISE会认为该身份验证无效，默认情况下，WLC不会发送NAS端口类型属性。

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