CPPM 对接 AD, 加域终端机器认证失败问题

By CCE

现象描述:

CPPM v6.11.1, 采用加入 AD 域的方式来实现终端的 802.1x 认证(采用 EAP-PEAP 认证方法),加域的终端无法完成机器认证。从而导致 CPPM 无法判断加域的公司电脑和 非加域的其他电脑的策略决策。

在 Access Tracker 的 Alerts 选项卡中提示 EAP-PEAP fatal alert by cient - unknown_ca。

错误信息截图如下:

quest Details		
Summary I	put Output Alerts	
rror Code:	215	
rror Category:	Authentication failure	HICKING CO.
Error Message:	TLS session error	The second second
Alerts for this	Request	A COLORED TO A COL
RADIUS EAP-	EAP: fatal alert by client - unknown_ca	State Stranding of the State
eap-	s: Error in establishing TLS session	
		State of the State
		The Barrissian States
		State Balling Street, St.
		Contract Address of the
		BERTHER BERTHER
		Canal States
		A Part -
		F F F

问题原因:

这里报错的根本原因是在 EAP-PEAP 的认证过程中(这里处于机器认证阶段),终端 是需要验证 RADIUS/EAP 服务器证书的,如果终端的机器认证的 Trusted Root Certification Authorities-受信任的根证书颁发机构中没有包含 CPPM RADIUS/EAP 服务器证书的根证书, 那就会提示 unknown _ca。

解决办法:

如果客户环境中 AD 没有启用证书服务模块,我们可以在终端上针对该无线配置,去掉验证服务器证书的设置。

在终端的无线配置中, 通过验证证书来识别服务器身份选项前面的勾去掉, 当然 你可以通过 AD 组策略统一下发该无线配置给到加域的所有终端上。

配置截图如下:

Control Panel Home	Vie	Protected EAP Properties
Change adapter settings Change advanced sharing settings Media streaming options	View Content of a wireless network Successfully added aruba-dot1x	When connecting: Verify the server's identity by validating the certificate Connect to these servers (examples:srv1;srv2;.*\.srv3\.com):
See also Internet Options Windows Defender Firewall	Che aruba-dot!x Wireless Network Properties Connector Security Security type: WPA2-Enterprise Encryption type: AES Choose a network-authentication method: Microsoft: Protected EAP (PEAP) Settings 2 Microsoft: Protected EAP (PEAP) Settings 2 Advanced settings	Trusted Root Certification Authorities: AAA Certification Authorities: AAA Certification Authorities: AAA Certification Authorities: AAA Certification Authorities: Add Certification Authorities: Add Certification Authorities: DisjGert Global Root CA DisjGert Global Root C3 DisjGert Global Root C3 Select Authoritication Method: OK Conciliant OK Conciliant

2) 如果客户环境中 AD 没有开启证书服务即 ADCS,但是需要终端来验证 RADIUS/EAP 服务器证书,那么在终端机器认证的 Trusted Root Certification Authorities-受 信任的根证书颁发机构中,导入 CPPM 的 RADIUS/EAP 服务器证书的 ROOT CA (此时的 CPPM 的 RADIUS/EAP 服务器证书是采用 Local Onboard CA 做私签证书,需要先将 Onboard Root CA 导出为.P12 格式,设置 Private Key)。

配置截图如下:

 i) 在 CPPM Onboard 模块中,将 ClearPass Onboard Local Certificate Authority (Signing)这张根证书导出到 终端本地,格式选择.P12, Trust Chain 勾选, Passphrase 设置 自定义的密码(这个也是导入证书的 Private Key)

aruba	ClearPass Onboard	Menu 🗮
Guest Devices Onboard Certificate Authorities	Home > Onboard > Management and Control > View by Certificate Certificate Management	 Upload a certificate signing request Generate a new certificate signing request Upload a code-signing certificate Upload a trusted certificate
Configuration Configuration Configuration Configuration Configuration Configuration Configuration Configuration Configuration Self-Service Portal	There are among with the same profilede conflicted quarkon that will expert a final conflicted and the same profilede conflicted and the same profilede conflicted will be approximately of an Abartendading. Now do I fix this problem? Use this last view to manage conflictedes. O quark Hep Centificate Type: Lacid Cettificate Authority: Centificate Authority: Centificate Type: Abartendading Fitter:	
	Common Name Certificate Authority Serial Number Type Valid From Valid To Dear Clear/ass Orbitarie Local Certificate Authority 1 ca 2019-01-17 22:26:36+08:00 2029-01-17 22:26:36+08:00<	lice Type None None
 Configuration Administration 	Confirm Passpirase Confirm Passpiras	Activate Windows Go to Settings to activate Windows.

ii) B: 在 Windows 终端上导入根证书到 Trusted Root Certification Authorities-受信 任的根证书颁发机构中。由于我们是在机器认证阶段出现问题,所以需要将该 根证书导入到 机器证书的受信任的根证书颁发机构中。

鼠标右击下左下角的 Start 图标, 弹出菜单, 选择 Run。



在Run窗口输入mmc

💷 Run	×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:	mmc
	OK Cancel Browse
۹ ∄	🖓 Type here to search 💦 🛱 💽 📄 🖭 🥥 🏟 💷 📧

进入到 Microsoft Management Console 界面,

点击File→Add/Remove Snap-ins

Co 📷	insole1 - [Console Root]						-	
E File	Action View Favorites	Window I	Help					- 6 ×
-	New	Ctrl+N	_	ſ				
-	Save	Ctrl+S		Name			Actions	
	Save As				There are no iter	ns to show in this view.	Console Root	•
	Add/Remove Snap-in	Ctrl+M					More Actions	•
	Options							
	1 apedit							
	Exit							
-								
Enables	you to add snap-ins to or remo	ove them from	n the si	nap-in console.				

在 Available snap-ins 中选择 Certificates, 然后点击中间的 Add 按钮

onsole Root	Name				Actions	
		The	re are no items to show in this view.		Console Root	
		Add or Remove Snap-ins You can select snap-ins for this console from those extensible snap-ins, you can configure which exter	available on your computer and configure the s	× selected set of snap-ins. For	More Actions	
		Available snap-ins:	Selected snap-ins:			
		Snap-in Vendor	Console Root	Edit Extensions		
		ActiveX Control Microsoft Cor		Remove		
		Certficates Microsoft Cor		Move Lin		
		Computer Managem Microsoft Cor		Maus Dave		
		Bords Hanagement Microsoft Cor Proceedings Point Poi	Add>	Advanced		
		Description:				
		The Certificates snap-in allows you to browse the	contents of the certificate stores for yourself,	a service, or a computer.		
				OK Cancel		

选择Computer account

Certifi	cates snap-in				×	
e A O O	snap-in will always manag My user account Service account Computer account	e certificates for:				
			< Back Ne	ext > Car	ncel	
1		-		-0	y y	
择口。	cal computer					
Ē择Lo	cal computer			2		
ē择Lo	cal computer			8		
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达择 Lo	cal computer	vant this snap-in to man manage:	age.	8		× -
选择 Lo	cal computer ct Computer elect the computer you w This snap-in will always n O Local computer: (the	vant this snap-in to man manage: e computer this console	age.	8		× s
E择 Lo	cal computer ct Computer elect the computer you w This snap-in will always n O Local computer: (the Another computer:	vant this snap-in to man manage: e computer this console	age. e is running on)	8	IDWS6	\$ -
E择 Lo	cal computer tt Computer elect the computer you w This snap-in will always n Cocal computer: (the Another computer: Allow the selected of only applies if you se	vant this snap-in to man manage: e computer this console computer to be changed ave the console.	age. e is running on) d when launching fr	om the command	rowse line. This	× s
5ele Sele	cal computer ct Computer elect the computer you w This snap-in will always n O Local computer: (the Another computer: Allow the selected conly applies if you se	vant this snap-in to man manage: e computer this console computer to be changed ave the console.	age. e is running on) d when launching fr	om the command	rowse line. This	×
E择 Lo	cal computer tt Computer elect the computer you w This snap-in will always n O Local computer: (the Another computer: Allow the selected c only applies if you sa	vant this snap-in to man manage: e computer this console computer to be changed ave the console.	age. e is running on) d when launching fr	om the command	rowse line. This	× -
E择 Lo	cal computer ct Computer elect the computer you w This snap-in will always n O Local computer: (the Another computer: Allow the selected co only applies if you se	vant this snap-in to man manage: e computer this console computer to be changer ave the console.	age. e is running on) d when launching fr	om the command	rowse line. This	×
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E择 Lo	cal computer ct Computer elect the computer you w This snap-in will always n O Local computer: (the Another computer: Allow the selected co only applies if you se	vant this snap-in to man manage: e computer this console computer to be changer ave the console.	age. e is running on) d when launching fr	om the command	rowse line. This	× s

看到 Selected snap-ins 中已经包含了 Certificates(Local Computer), 点击 OK 按钮

iap-in	Vendor	^	Console Root Edit Extens	sions
ActiveX Control	Microsoft Cor		Certificates (Local Computer)	ve
Authorization Manager	Microsoft Cor		Kano	Marca Co.
P Certificates	Microsoft Cor		Maria	1 In
Component Services	Microsoft Cor		195745	op.
Device Manager	Microsoft Cor		Move D	OWD
Disk Management	Microsoft and		d >	
Event Viewer	Microsoft Cor			
Folder	Microsoft Cor			
Group Policy Object	Microsoft Cor			
IP Security Monitor	Microsoft Cor			
IP Security Policy M	Microsoft Cor			
Link to Web Address	Microsoft Cor	~	Advance	ed
		*	Auvalu	24
Group Policy Object IP Security Monitor IP Security Policy M Link to Web Address	Microsoft Cor Microsoft Cor Microsoft Cor Microsoft Cor	~	Advance	ed

点击 Certificates (Local Computer)前面的箭头,展开配置,

选择 Trusted Root Certification Authorities→Certificates, 查看现有的根证书列表,

应该是没有 Clearpass Onboard Local Certificate Authority 的

🞽 Console Root	Issued To	Issued By	Expiration Date	Intended Purposes	Friendly Name	Status	Certificate Ten	Actions	
🗸 🧊 Certificates (Local Computer)	AAA Certificate Services	AAA Certificate Services	12/31/2028	Client Authenticati	Section (AAA)			Cartificates	
Personal	Baltimore OvherTrust Boot	Baltimore CyberTrust Boot	5/12/2025	Client Authenticati	DigiCert Baltimore			contents .	
Trusted Root Certification Authorities	Class 3 Public Primany Certificat	Class 3 Public Primany Certificatio	8/1/2028	Client Authenticati	VeriSion Class 3 Pu			More Actions	
Certificates	Convright (c) 1997 Microsoft C	Convright (c) 1997 Microsoft Corp.	12/30/1999	Time Stamping	Microsoft Timesta				
> Enterprise Irust	DigiCert Assured ID Root CA	DigiCert Assured ID Root CA	11/9/2031	Client Authenticati	DigiCert				
> Intermediate Certification Authorities	DigiCert Global Root CA	DigiCert Global Root CA	11/9/2021	Client Authenticati	DigiCert				
> Irusted Publishers	DigiCert Global Root G2	DigiCert Global Boot 62	1/15/2038	Client Authenticati	DigiCert Global Boo				
> Ontrusted Certificates	DigiCert Global Boot G3	DigiCert Global Root G3	1/15/2038	Client Authenticati	DigiCert Global Roo				
Inird-Party Root Certification Authorities	DigiCert Trusted Root G4	DigiCert Trusted Boot 64	1/15/2038	Client Authenticati	DigiCert Trusted Ro				
Cliant Authentication Issuars	DST Root CAX3	DST Boot CA X3	9/30/2021	Client Authenticati	DST Root CA X3				
Preview Build Boots	GlobalSign	GlobalSign	3/18/2029	Client Authenticati	GlobalSign Root CA				
Test Boots	GlobalSign Boot CA	GlobalSign Boot CA	1/28/2028	Client Authenticati	GlobalSign Root CA				
AAD Token Issuer	Hotspot 2.0 Trust Boot CA - 03	Hotspot 2.0 Trust Boot CA - 03	12/8/2043	Client Authenticati	Hotspot 2.0 Trust R				
> SIM Certification Authorities	ISRG Root X1	ISRG Root X1	6/4/2035	Client Authenticati	ISRG Root X1				
> Homegroup Machine Certificates	Microsoft Authenticode(tm) Ro	Microsoft Authenticode(tm) Root	12/31/1999	Secure Email. Code	Microsoft Authenti				
> 🧾 Remote Desktop	Microsoft ECC Product Root Ce	Microsoft ECC Product Root Certi	2/27/2043	<all></all>	Microsoft ECC Prod				
> Construction Signature Card Trusted Roots	Microsoft ECC Product Boot Ce	Microsoft FCC Product Boot Certi	2/27/2043	< All>	Microsoft ECC Prod				
> 🧾 Trusted Packaged App Installation Authorities	Microsoft ECC TS Root Certifica	Microsoft FCC TS Root Certificate	2/27/2043	< All>	Microsoft FCC TS R.				
> 🧰 Trusted Devices	Microsoft Root Authority	Microsoft Root Authority	12/30/2020	<all></all>	Microsoft Boot Aut				
> 🗾 Windows Live ID Token Issuer	Microsoft Root Certificate Auth	Microsoft Root Certificate Authori	5/9/2021	<all></all>	Microsoft Root Cert				
> 🙆 WindowsServerUpdateServices	Microsoft Root Certificate Auth	Microsoft Root Certificate Authori	6/23/2035	<all></all>	Microsoft Root Cert				
	Microsoft Root Certificate Auth	Microsoft Root Certificate Authori	3/22/2036	<all></all>	Microsoft Root Cert				
	Microsoft Time Stamp Root Cer	Microsoft Time Stamp Root Certif	10/22/2039	<all></all>	Microsoft Time Sta				
	NO LIABILITY ACCEPTED, (c)97	NO LIABILITY ACCEPTED, (c)97 Ve	1/7/2004	Time Stamping	VeriSign Time Stam				
	Symantec Enterprise Mobile Ro	Symantec Enterprise Mobile Root	3/14/2032	Code Signing	<none></none>				
	Thawte Timestamping CA	Thawte Timestamping CA	12/31/2020	Time Stamping	Thawte Timestampi				
	USERTrust RSA Certification Aut	USERTrust RSA Certification Autho	1/18/2038	Client Authenticati	Sectigo				
*	UTN-USERFirst-Object	UTN-USERFirst-Object	7/9/2019	Encrypting File Syst	Sectigo (UTN Object)				
	VeriSign Class 3 Public Primary	VeriSign Class 3 Public Primary Ce	7/16/2036	Client Authenticati	VeriSign				
	VeriSign Universal Boot Certific	VeriSign Universal Boot Certificati	12/1/2037	Client Authenticati	VeriSign Universal R				

鼠标右击下 Trusted Root Certification Authorities→Certificates, 弹出菜单, 选择 AII Tasks-→ Import

2 📰 📋 🤉 🗟 🖬									
sole Root	Issued To	Issued By	Expiration Date	Intended Purposes	Friendly Name	Status	Certificate Ten	Actions	
Certificates (Local Computer)	AAA Certificate Services	AAA Certificate Services	12/31/2028	Client Authenticati	Section (AAA)			Certificates	
🛗 Personal	Baltimore CyberTrust Boot	Baltimore CyberTrust Boot	5/12/2025	Client Authenticati	DigiCert Baltimore				
Trusted Root Certification Authorities	Contraction Contificat.	Class 3 Public Primary Certificatio	8/1/2028	Client Authenticati	VeriSign Class 3 Pu			More Actions	
Certificator	Impart rosoft C	Copyright (c) 1997 Microsoft Corp.	12/30/1999	Time Stamping	Microsoft Timesta				
Enterpris All Tasks	> Import	DigiCert Assured ID Root CA	11/9/2031	Client Authenticati	DigiCert				
Intermed View	> DigiCert Global Boot CA	DigiCert Global Boot CA	11/9/2031	Client Authenticati	DigiCert				
Irusted P New Window from Here	DigiCert Global Root G2	DigiCert Global Root G2	1/15/2038	Client Authenticati	DigiCert Global Roo				
Third Day	DigiCert Global Root G3	DigiCert Global Root G3	1/15/2038	Client Authenticati	DigiCert Global Roo				
Trusted P	DigiCert Trusted Root G4	DigiCert Trusted Root G4	1/15/2038	Client Authenticati	DigiCert Trusted Ro				
Client Au Refresh	DST Boot CA X3	DST Root CA X3	9/30/2021	Client Authenticati	DST Root CA X3				
Preview Export List	GlobalSign	GlobalSign	3/18/2029	Client Authenticati	GlobalSign Root CA				
Test Root	GlobalSign Root CA	GlobalSign Root CA	1/28/2028	Client Authenticati	GlobalSign Root CA				
AAD Toke Help	Hotspot 2.0 Trust Root CA - 03	Hotspot 2.0 Trust Root CA - 03	12/8/2043	Client Authenticati	Hotspot 2.0 Trust R				
eSIM Certification Authorities	ISRG Root X1	ISRG Root X1	6/4/2035	Client Authenticati	ISRG Root X1				
Homegroup Machine Certificates	Microsoft Authenticode(tm) Ro	Microsoft Authenticode(tm) Root	12/31/1999	Secure Email, Code	Microsoft Authenti				
Remote Desktop	Microsoft ECC Product Root Ce.,	Microsoft ECC Product Root Certi	2/27/2043	<all></all>	Microsoft ECC Prod				
Smart Card Trusted Roots	Microsoft ECC Product Root Ce.,	Microsoft ECC Product Root Certi	2/27/2043	<all></all>	Microsoft ECC Prod				
Trusted Packaged App Installation Authorities	Microsoft ECC TS Root Certifica	Microsoft ECC TS Root Certificate	2/27/2043	<all></all>	Microsoft ECC TS R				
Trusted Devices	Microsoft Root Authority	Microsoft Root Authority	12/30/2020	<all></all>	Microsoft Root Aut				
Windows Live ID Token Issuer	Microsoft Root Certificate Auth	Microsoft Root Certificate Authori	5/9/2021	<all></all>	Microsoft Root Cert				
WindowsServerUpdateServices	Microsoft Root Certificate Auth	Microsoft Root Certificate Authori	6/23/2035	<all></all>	Microsoft Root Cert				
	Microsoft Root Certificate Auth	Microsoft Root Certificate Authori	3/22/2036	<all></all>	Microsoft Root Cert				
	Microsoft Time Stamp Root Cer	Microsoft Time Stamp Root Certif	10/22/2039	<all></all>	Microsoft Time Sta				
	NO LIABILITY ACCEPTED, (c)97	NO LIABILITY ACCEPTED, (c) 97 Ve	1/7/2004	Time Stamping	VeriSign Time Stam				
	Symantec Enterprise Mobile Ro	Symantec Enterprise Mobile Root	3/14/2032	Code Sianina	<none></none>				
	Thawte Timestamping CA	Thawte Timestamping CA	12/31/2020	Time Stamping	Thawte Timestampi				
	USERTrust RSA Certification Aut	USERTrust RSA Certification Autho	1/18/2038	Client Authenticati	Sectigo				
	UTN-USERFirst-Object	UTN-USERFirst-Object	7/9/2019	Encrypting File Syst	Sectigo (UTN Object)				
	VeriSign Class 3 Public Primary	VeriSign Class 3 Public Primary Ce	7/16/2036	Client Authenticati	VeriSign				
	VeriSign Universal Root Certific	VeriSign Universal Root Certificati	12/1/2037	Client Authenticati	VeriSign Universal R				
	-	-			-				

弹出 Import Wizard 的界面, 在 Store Location 中默认选择了 Local Machine(灰色), 点击 Next 按钮

		X
ï ←	😓 Certificate Import Wizard	
t		
٠		
	Welcome to the Certificate Import Wi	zard
	wercome to the certificate import wi	2414
	This wizard helps you copy certificates, certificate trust lists lists from your disk to a certificate store.	;, and certificate revocation
c	A certificate, which is issued by a certification authority, is a and contains information used to protect data or to establis connections. A certificate store is the system area where co	a confirmation of your identity h secure network ertificates are kept.
)	Store Location	
t F	O Current User	
f	Local Machine	
L C	To continue, click Next.	
L		
1		
,		

然后鼠标点击 Browse 来选择 Clearpass Onboard Local Certificate Authoriy_signing.p12,

注意右下角的类型中要先选择*.P12 格式,这样才能看到和选择你的根证书。 最后鼠标点击 Open 按钮

,	ile to Import						
	Specify the file you want to im	port.					
-		0	-	Expiration Date	Intended Purposes	Friendly Name	Status Certifica
	File name:		Services	12/31/2028	Client Authenticati	Sectigo (AAA)	
		Browse	rTrust Root	5/12/2025	Client Authenticati	DigiCert Baltimore	
			nmary Certificatio 197 Microsoft Corp.	12/30/1000	Time Stamping	Verisign Class 3 Pu Microsoft Timesta	
	Note: More than one certifica	te can be stored in a single file in the following formats:	d ID Root CA	11/9/2031	Client Authenticati	DigiCert	
	Personal Information Excha	ange- PKCS #12 (.PFX,.P12)	Root CA	11/9/2031	Client Authenticati	DigiCert	
	Cryptographic Message Sy	ntax Standard- PKCS #7 Certificates (.P7B)	Root G2	1/15/2038	Client Authenticati	DigiCert Global Roo	
	Microsoft Serialized Certific	ate Store (.SST)	Root G3	1/15/2038	Client Authenticati	DigiCert Global Roo	
1			R00t 64	1/15/2038	Client Authenticati	DigiCert irusted Ko	
	🔤 Open						×
	← → · ↑ ■ > Thi	s PC > Desktop			V Ö Sei	arch Desktop	٥
	Organize • New folde	r				111 • 🗆	• •
	自行定义的皮肤: ^	Name	3 Date m	odified	Туре	Size	
_	 OneDrive 	ClearPass Onboard Local Certificate Authority	Signing 11/15/2	023 4:02 AM	Personal Informati	5 KB	
		■学员配置自行备份文件夹(可与入) - Shortcut	11/30/2	022 5:05 AM	Shortcut	2 KB	
	This PC						
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indows Se	 3D Objects Desktop Documents Downloads Image Music St Laß Config B. Videos Local Disk (Ct) Network File no 	arme: ClearPass_Onboard_Local_Certificate_Authority_	Signing_	2-		ersonal Information Excha 599 Centificate Creent of the	nge (*.pfs;*.p12)
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ertificati	 3D Objects Desktop Documents Downloads Imge Music Pictures SE LAB Config 8. Videos Local Disk (Cc) Network File name 	ume: ClearPass_Onboard_Local_Certificate_Authority_	Signing_	8		ersonal Information Excha 599 Center Coere Cert aronal Information Room entificate Revocation List Co	nge (*.pfic;*.p12) nge (fisikiep12) *.en)

选择好根证书后,点击Next 按钮

🐉 Certificate Import Wizard	ica I
File to Import Specify the file you want to import.	ica ica ica
File name: p\ClearPass_Onboard_Local_Certificate_AuthoritySigningp12 Browse	ica ica ica
Note: More than one certificate can be stored in a single file in the following formats: Personal Information Exchange- PKC5 #12 (.PFX,.P12) Cryptographic Message Syntax Standard- PKC5 #7 Certificates (.P7B)	ica Cor
Microsoft Serialized Certificate Store (.SST)	
	G
	z V°

接着需要好输入 Password(就是之前在 CPPM 上导出证书时设置的密码)。点击 Next

按钮

Private key protection	
To maintain security, the private key was protected with a password.	
Type the password for the private key.	
5	
Password:	
Import options:	
Enable strong private key protection. You will be prompted every time private key is used by an application if you enable this option.	e the
Mark this key as exportable. This will allow you to back up or transport	rt vour
keys at a later time.	
Protect private key using virtualized-based security(Non-exportable)	
Private key is used by an application if you enable this option. Mark this key as exportable. This will allow you to back up or transporkeys at a later time. Protect private key using virtualized-based security(Non-exportable)	rt your

在 Certificate Store 界面中,系统自动设置了 Place all certificates in the following store

Certificate store: Trusted Root Certification Authorities

鼠标点击 Next 按钮

c	ertificate Store Certificate stores are system	areas where certifica	tes are kept.				
	Windows can automatically s the certificate.	elect a certificate store	e, or you can specif	fy a location for			
	O Automatically select th	e certificate store bas	ed on the type of o	ertificate			
	 Place all certificates in Certificate store: 	he following store					
	Trusted Root Certific	ation Authorities		Browse			
				ext Cance			
示占	击 Finish 按	Ŧ					
际点	击 Finish 按	Ħ					
际点	击 Finish 按	⊞ 	2				
际点 ←	击 Finish 按	Ħ	2	me /0 80.0	×	i in	
际点 ← ↓	击 Finish 按 Certificate Import Wizard	E	0	- 19 d - 10 B -	×	h 11	
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最后系统提示证书导入成功, 鼠标点击 ok 按钮

ansole Root	Issued To	Issued By	Expiration Date	Intended Purposes	Friendly Name	Status	Certificate Ten	Actions
Certificates (Local Computer)	AAA Certificate Services	AAA Certificate Services	12/31/2028	Client Authenticati	Sectigo (AAA)			Certificates
 Personal Trusted Root Certification Authorities 	Baltimore CyberTrust Root	Baltimore CyberTrust Root	5/12/2025	Client Authenticati	DigiCert Baltimore			More Actions
	🕞 Class 3 Public Primary Certificat	Class 3 Public Primary Certificatio	8/1/2028	Client Authenticati	VeriSign Class 3 Pu			more Accords
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Intermediate Cartification Authorities	DigiCert Assured ID Root CA	DigiCert Assured ID Root CA	11/9/2031	Client Authenticati	DigiCert			
Trusted Publishers	🗔 DigiCert Global Root CA	DigiCert Global Root CA	11/9/2031	Client Authenticati	DigiCert			
Untrusted Certificates	🔄 DigiCert Global Root G2	DigiCert Global Root G2	1/15/2038	Client Authenticati	DigiCert Global Roo			
Third-Party Root Certification Authorities	🔄 DigiCert Global Root G3	DigiCert Global Root G3	1/15/2038	Client Authenticati	DigiCert Global Roo			
Trusted People	🗔 DigiCert Trusted Root G4	DigiCert Trusted Root G4	1/15/2038	Client Authenticati	DigiCert Trusted Ro			
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Preview Build Roots	GlobalSign	GlobalSign	3/18/2029	Client Authenticati	GlobalSign Root CA			
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AAD Token Issuer	Hotspot 2.0 Trust Root CA - 03	Hotspot 2.0 Trust Root CA - 03	12/8/2043	Client Authenticati	Hotspot 2.0 Trust R			
eSIM Certification Authorities	ISRG Root X1		6/4/2035	Client Authenticati	ISRG Root X1			
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在 证书列表中, 可以看到 Clearpass Onboard Local Certificate Authoriy

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Note:导入后,也会自动同步到 Current user 证书的根证书颁发机构信任列表中

3) 如果客户环境中 AD 开启了证书服务即 ADCS,需要终端验证 RADIUS/EAP 服务器证书,那需要事先在加域的终端上将 ADCS 的根证书导入到机器认证的受信任的根证书颁发机构中,接着还需要由 ADCS 给 CPPM 签发一张 RADIUS/EAP 服务器证书并导入到CPPM 中(针对 EAP-PEAP 认知方法)。 如果是基于 EAP-TLS 认证方法,由于是双向验证

证书,所以在之前的基础上,另外还需要为终端签发机器认证和用户认证的 TLS 证书,用 于无线配置中的使用。

关于如何使用 ADCS 为终端签发和导入 TLS-Client 和 Root CA 证书的相关配置,请参考:

https://arubase.club/archives/5601 https://arubase.club/archives/6422

关于如何使用 ADCS 给 CPPM 签发一张 RADIUS / EAP 服务器证书的相关配置,请参

考:

https://arubase.club/archives/8249

注意:以上方法是采用任何一种即可。本文介绍的是机器认证失败,如果是用户 认证阶段失败提示相同错误,也可以参考上述方法,但是需要注意用户认证的: Trusted Root Certification Authorities 中也需要有Root CA存在。