使用Web伺服器下載Jabber問題報告(PRT)日誌。

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簡介

本文檔介紹如何在Windows電腦上設定Web伺服器,並介紹將Jabber PRT傳輸到Web伺服器的步驟 。

必要條件

思科建議您瞭解以下主題。

- 思科整合通訊管理員(CUCM)
- Cisco Jabber

需求

採用元件

本檔案中的資訊是根據以下軟體版本:

CUCM版本- 12.5.1.13900-152

Cisco Jabber版本- 12.9.2.54247 XAMPP (Web伺服器)版本- 7.4.10

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除(預設))的組態來啟動。如果您的網路運作中,請確保您瞭解任何指令可能造成的影響。

設定

網路圖表

Cisco Jabber > Windows_PC(使用Web伺服器XAMPP軟體)

組態

這些配置步驟可幫助您使用「超文本傳輸」(HTTP -埠80)以及使用「超文本傳輸協定安全」 (HTTPS -埠443)協定將Jabber PRT傳輸到Web伺服器。

- 1. 在Windows PC上安裝XAMPP軟體。
- 2. XAMPP的初始配置。
- 3. 設定「資料夾」以在Windows伺服器上儲存Jabber PRT。
- 4. 建立「統一通訊服務」,並將其分配到CUCM上的「服務配置檔案」。
- 5. 為Jabber終端使用者分配「服務配置檔案」。
- 6. 收集Jabber PRT。

如果要配置基於HTTPS(安全)的Web伺服器,請配置以下附加步驟。

7. 在XAMPP上生成「伺服器金鑰」和「證書簽名請求」(CSR)。

- 8. 使用憑證授權單位(CA)簽署CSR,並取得CA簽署的憑證。
- 9. 上傳憑證並重新啟動Apache服務。
- 10. 修改「統一通訊服務」上的URL
- 11. 收集Jabber PRT

1. 在Windows PC上安裝XAMPP軟體。

按一下<u>此處</u>下載XAMPP軟體(windows版)。

這些螢幕截圖中提到的步驟可幫助您在Windows電腦上安裝XAMPP。



按一下安裝精靈中的「下一步」按鈕。

	Setup	×
Select Components		8
Select the components you want to in Next when you are ready to continue	istall; clear the components you do	o not want to install. Click
 Server Apache MySQL FileZilla FTP Server Mercury Mail Server Tomcat Program Languages Perl Program Languages PhpMyAdmin Webalizer Fake Sendmail 		
XAMPP Installer	< Back	Next > Cancel

選取提及的元件,然後按一下「下一步」按鈕。

		Setup	X
Installation f	older		8
Please, choose	a folder to install XAMPP		
Select a folder	C:\xampp	12	
XAMPP Installer			
		< Back Next	Cancel

選擇安裝資料夾,然後按一下「下一步」按鈕。

ເຊ
ges.
k Next > Cancel

選擇語言並按一下「下一步」按鈕。



按一下「下一步」按鈕。

8	Setup		×
Ready to Install			33
Setup is now ready to begin installing XAMPP	on your computer.		
XAMPP Installer	< Back	Next > Can	cel

按一下「下一步」按鈕繼續安裝。



正在進行安裝。



按一下「完成」按鈕。

2. XAMPP的初始配置。

以管理員身分開啟「XAMPP控制檯」。



以系統管理員身分執行「XAMPP控制檯」。

按一下Config按鈕。

8		XAMPP Co	ntrol Panel v	3.2.4 [Co	mpiled: Ju	in 5th 201	9]	- 🗆 ×
ខ	XAI		P Config					
Modules Service	Module	PID(s)	Port(s)	Actions				Netstat
	Apache			Start	Admin	Config	Logs	Shell
	MySQL			Start	Admin	Config	Logs	Explorer
	FieZila			Start	Admin	Config	Logs	Services
	Mercury			Start	Admin	Config	Logs	Help
	Torncat			Start	Admin	Config	Logs	Duit .
7.21.47 P 7.21.47 P 7.21.47 P 7.21.47 P 7.21.47 P 7.21.47 P 7.21.47 P 7.21.47 P 7.21.47 P	M [main] M [main] M [main] M [main] M [main] M [main] M [main]	All prerequi Initializing I The MySQI The FileZills The Mercur The Tomca Starting Ch Control Par	sites found Modules L module is dis a module is dis y module is dis t module is dis eck-Timer tel Ready	abled abled abled				*

點選Config(配置)按鈕。

選擇已標籤的選項,然後按一下Save按鈕。

5		VAMOD	Configur	ation of Contr	ol Panel	- 🗆 🗙	
		AAMPP	Editor:				
83	XAI	MPP Cor	notepad.exe				P Config
Modules	Hodela	Difvel	Browser (empty =	system default)			Netstat
service	Apache	10(8)	Autostart of mor	tules			Shel
	MySQL		☑ Apache	Fiezlia	Tomca	t	Carl Explorer
	FieZila		MySQL Salacted mode	Mercury	f on part hum	th of the	E Services
	Mercury		Control Panel	ies will be scarce	a on next work	un or one	😣 Help
	Torncat		Start Control	Panel Minimized			📃 Quit
7.21.47 P 7.21.47 P 7.21.47 P 7.21.47 P 7.21.47 P	M [main] M [main] M [main] M [main]	All prere Initializir The MyS The File.	Check default	ports on startup			^
7:21:47 P 7:21:47 P 7:21:47 P	M [main] M [main] M [main]	The Mer The Ton Starting	Change L	anguage	Service and	Port Settings	
7.21:47 P	M [main]	Control I	User Defi	ned Files	Log	Options	
					× Abort	√ ² Save	*
T & PARTING	t industri ada	INVESTIGATION OF THE					A

選取提及的元件,然後按一下「儲存」按鈕。

按一下反白的「X」按鈕,啟動Apache服務。

.	XAMPP Control Panel v3.2.4									
ervice	Module	PID(s)	Port(s)	Actions				Netstat		
×	Apache			Start	Admin	Config	Logs	Shell		
	MySQL			Start	Admits	Config	Logs	Explorer		
	FieZila			Start	Admin	Config	Logs	Services		
	Mercury			Start	Admin	Config	Logs	😣 Help		
	Torncat			Start	Admin	Config	Logs	Qut		
24:47 P 24:47 P 24:47 P 24:47 P 24:47 P 24:47 P	M [main] M [main] M [main] M [main] M [main]	All prerequi Initializing I The MySQ The FileZill The Mercur The Tomca	isites found Modules L module is dis- a module is dis- ry module is dis- t module is dis-	abled abled abled						

啟動Apache服務。

按Config 按鈕,然後按一下PHP。

83	XAM	IPP Contro	ol Panel v3	.2.4				P Config	
Service	Module	PID(s)	Port(s)	Actions				Netstat	C
1	Apache			Start	Admin	Creat	a lana	Di Stel	Date
E	MySQL			Start	Admin	C	Apache (httpd Apache (httpd	Lconf) I-ssLconf)	
	FieZla			Start	Admin	C	Apache (httpd	l-xampp.conf)	
	Mercury			Start	Admin	c	PHP (php.ini)		
	Tomcal			Clart	Admin		phpMyAdmin	(config.inc.php)	
7 24 47 P 7 24 47 P 7 24 47 P	M [main] M [main] M [main]	The MySQI The FileZilli The Mercur	, module is dis a module is dis y module is dis	abled abled abled			<browse> (Ap <browse> (PH <browse> (ph</browse></browse></browse>	ache] IP] pMyAdmin]	
7 24 47 P 7 24 47 P 7 24 47 P 7 26 25 P 7 26 26 P	M [main] M [main] M [main] M [Apache] M [Apache]	The Tomca Starting Ch Control Par Installing se Successful	t module is dis eck-Timer tel Ready ervice	abled				•	9/10

打開php檔案。

確保「upload_max_filesize」值設定為40M。

<pre>File Edit Format View Help iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii</pre>	8		php - Note	pad			
<pre>File Uploads Find Find</pre>	File Edit Format	View Help					
<pre> iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii</pre>	; File Uploads		Find	×			
<pre>; Whether to a ; http://php.ne file_uploads=0e</pre>	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	Figd what Maximum a	dowed	End Next			
<pre>file_uploads=0: Match game Up @ Down ; Temporary directory for HTTP uploaded files (will use system default if not ; specified). ; http://php.net/upload-tmp-dir upload_tmp_dir="C:\xampp\tmp" ; Maximum allowed size for uploaded files. ; http://php.net/upload-max-filesize upload_max_filesize=100 </pre>	; Whether to a ; http://php.r		Direction	Cancel			
<pre>; Temporary directory for HTTP uploaded files (will use system default if not ; specified). ; http://php.net/upload-tmp-dir upload_tmp_dir="C:\xamp\tmp" ; Maximum allowed size for uploaded files. ; http://php.net/upload-max-filesize upload_max_filesize=""""""""""""""""""""""""""""""""""""</pre>	file_uploads=0	e Match gase	O⊈e ⊛ Bown				
upload_max_filesize-	; responsively di	rectory for hilf	uproaces files (w.	ill use system	e uerauit i	TINC	
د ۱	<pre>; http://php.r upload_tmp_dir ; Maximum allo ; http://php.r</pre>	<pre>wet/upload-tmp-dir ""C:\xampp\tmp" wed size for uplo et/upload-max-fil</pre>	aded files.				
Y I I I I I I I I I I I I I I I I I I I	<pre>; http://php.r upload_tmp_dir ; Maximum allo ; http://php.r upload_max_fil</pre>	<pre>wet/upload-tmp-dir "="C:\xampp\tmp" wed size for uplo wet/upload-max-fil esize="100"</pre>	aded files. esize				
1 81930	; http://php.r upload_tmp_dir ; Maximum allo ; http://php.r upload_max_fil	<pre>wed size for uplo et/upload-tmp wed size for uplo et/upload-max-fil esize=100</pre>	aded files. esize				3

將upload_max_filesize的值設定為40M。

按一下開始按鈕啟動Apache服務。

8		XAMPP Co	ontrol Panel v	3.2.4 [Co	mpiled: Ju	un 5th 201	9]	- 🗆 ×
83	XAN	IPP Contr	ol Panel v3	.2.4				P Config
Modules Service	Module	PID(s)	Port(s)	Actions	-			Netstat
1	Apache			Start	Admin	Config	Logs	Shell
	MySQL			Start	Admin	Config	Logs	Explorer
	FileZilla			Start	Admin	Config	Logs	😴 Services
	Mercury			Start	Admin	Config	Logs	🔒 Help
	Tomcat			Start	Admin	Config	Logs	Quit
7 24 47 P 7 24 47 P 7 26 25 P 7 26 26 P 7 29 31 P 7 29 31 P 7 29 56 P 7 29 56 P 7 29 58 P	M [main] M [main] M [Apache] M [Apache] M [Apache] M [Apache] M [Apache]	Starting Ch Control Pa Installing s Successful Attempting Status cha Attempting Status cha	eck-Timer nel Ready ervice	e service unning e service stopped				<

按一下「開始」按鈕以啟動Apache服務。

3	XAMPP Control Panel v3.2.4								
Modules Service	Module	PID(s)	Port(s)	Actions				Netstat	
1	Apache	4524	80, 443	Stop	Admin	Config	Logs	Shell	
	MySQL			Start	Admin	Config	Logs	Explorer	
	FileZilla			Start	Admin	Config	Logs	Services	
	Mercury			Start	Admin	Config	Logs	😣 Help	
	Tomcat			Start	Admin	Config	Logs	Quit	
26 25 P 26 26 P 29 31 P 29 31 P	M [Apache M [Apache M [Apache M [Apache M [Apache	Installing s Successful Attempting Status cha Attempting	ervice to start Apache nge detected. m to stop Apache	service				,	

3. 設定「資料夾」以在Windows伺服器上儲存Jabber PRT。

在位置「C:\xampp\htdocs」內建立新資料夾「JabberPRT」。此資料夾用於儲存Jabber PRT。 另外,如螢幕截圖所示建立PHP指令碼。

			_			
• •	🕆 🎍 This PC	C > Local Disk (C:) + sampp > htd	lecs	~ G	Search Ht.	- 1
Tavorit	es	Name	Date modified	Type	Size	e
E Desk	top	ashboard dashboard	10/13/2020 7:17 PM	File folder		
Down	nloads		10/13/2020 7:17 PM	File folder		
1 Rece	nt places	JabberPRT	10/13/2020 7:34 PM	File folder		
		🌲 webalizer	10/13/2020 7:17 PM	File folder		
📫 This Pi	C.	😹 xampp	10/13/2020 7:17 PM	File folder		
Desk	top	applications	8/27/2019 7:02 AM	HTML Document	4 KB	
Docu	iments	a) bitnami	8/27/2019 7:02 AM	Cascading Style S	1 KB	
Down	nloads	E favicon	7/16/2015 0:32 AM	loon	31 KB	
Musi	c	index.php	7/16/2015 8:32 AM	PHP File	1.08	
Picts	res	uploadprt.php	10/13/2020 7:33 PM	PHP File	1 KB	
Nid-	-	1000	and advantage Manager			
Lec		ups	oadprt.php - Notepad			
1 A A	File Edit Forma	t View Help			_	
Netw		C:\xampo\htdocs\JabberPH	<u>T//</u> ;			
	move_uploaded	file(\$_FILES['zipFileNam	<pre>be']['tmp_name'], \$uploadfile</pre>);	name [])	

指定要儲存Jabber的PRT日誌的資料夾位置。

在>「C:\xampp\htdocs」位置內建立檔案「uploadprt.php」,並將這些行寫入.php檔案

 $<?php \uploaddir = 'C:\xampp\htdocs\JabberPRT\'; \uploadfile = \uploaddir . \ date('Y_m_d_H_i_s') . \ basename(\FILES['zipFileName']['name']); \ move_uploaded_file(\FILES['zipFileName']['tmp_name'], \uploadfile); \ ?>$

4. 建立「統一通訊服務」,並將其分配到CUCM上的「服務配置檔案」。

登入CUCM管理網頁並導航至使用者管理 > 使用者設定 > 統一通訊服務。

建立新的統一通訊服務。

	Crister and rangements •	ulk Administration	1 • Help •	
Alert : You have not configured a direct dial 911 pattern on that most multi-line telephone systems in the US have a dir Smart Software Licensing: The system is currently unregist Register with <u>Smart Software Manager</u> or Smart Software M and devices. WARNING: No backup device is configured. This is required to	Application User End User User/Phone Add SIP Realm User Settings Sett-Provisioning Assign Presence Use	, system in	unication Commission ere for more informati Credential Policy Default Credential Policy Role Access Control Group	rules ma on. naini n use
Emergency Notifications Paging is not configured. To configured please go to Cisco Unified CM Administration > Advanced Fea	atures > Emergency	Notificatio ency Notif	Application User CAPF Profile End User CAPF Profile UC Service	remi
Cisco Unified CM Administration System version: 12.5.1.13900-152			Service Profile User Profile User Group User Rank	

在CUCM管理網頁上打開「統一通訊服務」。

選擇「Jabber客戶端配置(jabber-config.xml)」並選擇適當的值。 在URL中提供Web伺服器和PHP檔案的詳細資訊,如螢幕截圖所示。

章節:**客戶端**

引數:PrtLogServerURL

值:http://<WebServer_IP/FQDN>: 80/uploadprt.php

diala	Cisc For Cit	co Un	nified CM Ac	dministratio	n		1111	111		Navigation Cisco U	Inified CM Ad	ministration 👻
System •	Call Rout	ng •	Media Resources +	Advanced Features	· Device	Application •	User Management	Bulk Administra	stion +	Help +		
UC Service	e Config	uratio	m							Related Links:	Back To Fir	nd/List ~
Save	× De	iote [[Copy 🛟 Add	New								
Status												
(i) Statu	s: Ready							My Web-Ser	ver			
-UC Service	e Inform	nation	_									
UC Servic Product T Name* Description	e Type: ype:	Jabbe Jabbe	er Client Configura er «Config	ation (jabber-confi	g.xml)		$\left(\right)$	- http://10.8	8.11.2	18:80/uploadp	ort.php	
Jabber Co	onfigural	tion P	arameters									
	Section			Parameter		Parameter	Description	Value	(-	Operations	
Client		1 I	PrtLogServerURL		~ Lini	k to the script for	r submitting PRT	218:80/uploa	adprt.php	Delete		
Not Se	elected -	· *	Not Selected -	*	~					Add 1	Add Custo	m
t Not Se	Section elected -	· •	Not Selected	Multipa ~] [Not Select	t Parameter ed ~] [-	- Not Selected -	. v	arameter Description		Value		Operations Add

在Jabber客戶端配置(jabber-config.xml)中配置Web伺服器的詳細資訊。

導航至:使用者管理>使用者設定>統一通訊服務。

將建立的UC服務分配到服務配置檔案。

CISCO For Cisco Unified Communications Solutions					admin	Abc	
System Call Routing Media Resources Advanced Features	Device - Application -	User Manage	ment •	Bulk Administration	• Help •		
Find and List Service Profiles		Applicat	ion User				
Clear All 🔛 Clear All 🙀 Delete Selected		End Use User/Ph	r one Add				
Status		User Se	dings.		Credential Policy Default		
1 records found		Set Provisioning			Credential Policy		
Service Profiles (1 - 1 of 1)		Assign Presence Users			Role	er	
Find Service Profiles where Name v begins with v	Find	Clear Filter	4 .	-	Access Control Group		
Name *	Descript	on			End User CAPF Profile	10	
CUCMOnb/PRTServer		System Default Service			UC Service		
Add New Select All Clear All Delete Selected					Service Profile		
					User Profile User Group User Rank		

在CUCM管理網頁上打開「服務配置檔案」。

cisco	Cisco Unified CM Administration For Cisco Unified Communications Solutions
System +	Call Routing Media Resources Advanced Features Device Application User Management Bulk Administration
Service Pro	ofile Configuration
Save	X Delete Copy 🖧 Add New
Tertiary	<none> Y</none>
CTI Profile) ————————————————————————————————————
Primary	cucm125 V
Secondary	<none> ~</none>
Tertiary	<none> \v</none>
Video Con	ference Scheduling Portal Profile
Primary	<none> \</none>
Secondary	<none> ~</none>
Tertiary	<none> M</none>
Jabber Cli	ent Configuration (jabber-config.xml) Profile
Common	abberConfig 😒
Desktop	abberConfig ~
Mobile 1	abberConfig ~
Save	Delete Copy Add New

將建立的Jabber客戶端配置分配到「服務配置檔案」,然後點選「儲存」按鈕。

5. 為Jabber終端使用者分配「服務配置檔案」。

確保此服務配置檔案與Jabber 終端使用者關聯。

cisco U For Cisco U	Inified CM Administration			Navigation Cis
System · Call Routing ·	Media Resources • Advanced Features • Device • Application	n • User Management	Bulk Administration	• Help •
End User Configuratio	n	Application Us	or	Related Links
Same V Dates	Add Mary	End User		-
	All you keek	User/Phone A SIP Realm	dd 🔸	
Service Settings		User Settings		
Home Cluster		Self-Provisioni	ing	
Enable User for	Unified CM IM and Presence (Configure IM and Presence in the as	socia Assign Presen	ce Users	
Include me	eeting information in presence(Requires Exchange Presence Gates	way to be configured or	CUCM IM and Presen	ce server)
UC Service Profile	Use System Default("CUCMOnlyPRTServer")	w Details		
Device Information				
Controlled Devices	CSFAGENT1	10		
		Device As	sociation	
		Line Appe	arance Association	for Presence
Available Profiles		-		
		100		

為Jabber終端使用者分配服務配置檔案。

6. 收集Jabber - PRT。

對於收集Jabber PRT,您可以選擇Jabber並按一下「為選定的生成PRT」按鈕。

CISCO	co Unified CM Ac	dministr	ation					Navigation Cis	co Unified CM Admir	vistratio	Go Go
For t	isco Unified Communicatio	ons Solutions							admin	About	Logou
System · Call Ro	uting · Media Resources ·	Advanced Fe	atures •	Device · Ap	plication • U	ser Management	 Bulk Ad 	ministration · Help ·			
Find and List Ph	ones							Related Links: Active	iy Loggod In David	o Ropo	6 G
Add New	a Add New From Template	Select All	Clear	Al 🔆 Dele	te Selected	Reset Selecte		oply Config to Selected	Generate PRT	for Sele	cted
Status											_
1 records for	und										
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Filone (1 -				- baalas a	44		The second second	and a second sec			
Find Phone where	Device Name			< Defina w	ath ~		Find	Clear Filter 🎲 🚥			
Find Phone where	Device Name			- Loopins w	Selec	t item or enter s	Find search text	Clear Filter 🌵 🚥			
Find Phone where	Device Name Device Name(Line)	Description	Device Pool	Device Protocol	Status	t item or enter s Last Registered	Find search text Last Active	Unified ON	IPv4 Address	Сору	Super Copy
Find Phone where	Device Name Device Name(Line) CSFAGENT1	Description	Device Pool Default	Device Protocol SIP	Status Registered	t item or enter t Last Registered Now	Find search text Last Active	Clear Filter 🕹 🛥	IPv4 Address 10.201.251.189	Сору	Super Copy
Find Phone where	Device Name Device Name(Line) CSFAGENT1 d New From Template Se	Description	Device Pool Default	Device Protocol SIP	Status Registered	t item or enter i Last Registered Now	Find search text Last Active	Clear Filter 🕹 🛥	IPv4 Address 10.201.251.189 Generate PR	Copy	Supe Copy

收集Jabber埠。

您可以在Web伺服器中找到Jabber PRT(該位置在PHP指令碼中配置)。



Web伺服器包含下載的Jabber PRT檔案。

4			Capturing from	m Ethernet	0			- 0	×.
File	Edit View Go	Capture Analyze Statis 🕅 🖸 🧣 👄 營	tics Telephony Wireles	is Tools I	Help				
11	.addr==10.201.251.189							Expression.	- 1+
No.	Time	Source	Destination	Protocol	Length	Info			1
5	539 32.153498	10.201.251.189	10.88.11.218	TCP	66	58578 + 80	[SYN]	Seq=0 Win=64240 Len	-0_
	540 32.153598	10.88.11.218	10.201.251.189	TCP	66	88 + 58578	[SYN,	ACK] Seq=0 Ack=1 Wi	n=
	541 32.153972	10.201.251.189	10.88.11.218	TCP	60	58578 + 80	[ACK]	Seq=1 Ack=1 Win=525	56
	542 32.164023	10.201.251.189	10.88.11.218	TCP	296	58578 + 80	[PSH,	ACK] Seq=1 Ack=1 Win	n=
	543 32.164564	10.88.11.218	10.201.251.189	HTTP	79	HTTP/1.1 10	0 Con	tinue	
	544 32.165383	10.201.251.189	10.88.11.218	TCP	1514	58578 + 80	[ACK]	Seq=243 Ack=26 Win=	52_
	545 32.165544	10.201.251.189	10.88.11.218	TCP	1514	58578 - 80	[ACK]	Seq=1703 Ack=26 Win	=5_
	546 32.165546	10 201.251.189	10.88.11.218	TCP	1514	58578 + 80	[ACK]	Seq=3163 Ack=26 Win	-5-
	547 32.165547	12.201.251.189	10.88. 1. 10	TCP	1514	58578 + 80	[ACK]	Seq=4623 Ack=26 Win	=5_
	548 32.165547	0 281 251 189	10.88. WEB	SERVER	R 1514	58578 + 80	[ACK]	Seq=6083 Ack=26 Win	=5_
	549 32.165548	TARRER PC	10.88.11.218	TCP	1514	58578 - 80	[ACK]	Seg=7543 Ack=26 Win	=5_
	550 32.165548	10 201 361 180	10.88.11.218	TCP	1514	58578 - 80	[ACK]	Seg=9003 Ack=26 Win	-5-
	551 32.165549	10.201.251.189	10.88.11.218	TCP	1514	58578 + 80	[ACK]	Seg=10463 Ack=26 Wi	n=
	552 32.165549	10.201.251.189	10.88.11.218	TCP	1514	58578 + 80	[ACK]	Seg=11923 Ack=26 Wi	n=
_	553 32 165558	18 281 251 189	18 88 11 218	TCP	1514	58578 + 88	FACK1	Senaliter Arkate Mi	n# `
DF	rame 539: 66 byte	s on wire (528 bits)	. 66 bytes captured (528 bits)	on inte	erface 0	and a feature to		51
ÞE	thernet II, Src:	Cisco d1:42:c4 (e8:8	4:62:d1:42:c4), Dst:	Veware a5:	ef:fd (00:50:56:a5	:ef:fo	d)	
P I	Internet Protocol	Version 4, Src: 10.2	01.251.189, Dst: 10.8	8.11.218			222222		1
<1									3
1					_		_		- land

如果在PRT傳輸事件期間在Web伺服器上運行Wireshark捕獲,您將看到此資訊。

Web伺服器上的Wireshark捕獲顯示PRT檔案事務。

如果要配置基於HTTPS(安全)的Web伺服器,請配置以下附加步驟。

Jabber PRT.

7. 在XAMPP上生成「伺服器金鑰」和「證書簽名請求」(CSR)。

在「XAMPP控制」面板(Web伺服器)中打開Shell,鍵入openssl命令並按enter。



透過「XAMPP控制」面板的Shell執行openssl指令。

透過運行命令	[¬] genrsa -out server.key 2048 →	生成伺服器金鑰。
--------	--	----------

File Home	C XAMPP Control Panel v3.2.4 [Compiled: Jun 5th 2019]	- 🗆 X
€ · ↑ 📕	XAMPP Control Panel v3.2.4	J Config
-	Administrator: XAMPP for Windows - openssl	Netstat
Setting enviro Administrator® W openssl OpenSSL> OpenSSL> generating RSP Cenerating Cenerating RSP Cenerating Cenerating Ceneratin	nment for using XAMPP for Windows. AGENT3 c:\xampp a -out server.key 2048 private key. 2048 bit long modulus <2 primes> ****** 818081>	Explorer Services
		c III

透過執行這些命令來產生憑證簽署請求(CSR)。

genrsa -out server.key 2048

req -new -sha1 -nodes -key server.key -out server.csr -days 0000

在這些欄位下提供相關資訊:

- 國家名稱。
- 州或省名稱。
- 地點名稱。
- 組織名稱。
- 組織單位。
- 一般名稱。
- 電子郵件地址。
- 額外屬性。

Administrator: XAMPP for Windows - openssl	×
OpenSSL> OpenSSL> genrsa -out server.key 2048 Generating RSA private key, 2048 bit long modulus (2 primes) 	^ ∃ 29999 ted a DN.
Country Name (2 letter code) [AU]:US State or Province Name (full name) [Some-State]:TX Locality Name (eg, city) []:RCDN Organization Name (eg, company) [Internet Widgits Pty Ltd]:CISCO Organizational Unit Name (eg, section) []:WEBSERVER Common Name (e.g. server FQDN or YOUR name) []:agent3.ramebalaimp.com Email Address []:agent3.ramebalaimp.com Please enter the following 'extra' attributes to be sent with your certificate request A challenge password []: An optional company name []:CISCO OpenSSL>	
OpenSSL> _	~

產生Web伺服器的憑證簽署請求(CSR)。

C:\xampp\



已生成證書簽名請求(CSR)位置。

將server.csr複製到此資料夾位置。

C:\xampp\apache\conf\ssl.csr

N D B =		ssi.csr			
File Home SI	hare View				
🕑 💿 + 🕇 🚺	C/wampp/apache/conf/ssl.csr			v C	Search ssLcsr
* Favorites	Name	Date modified	Туре	Size	
Desktop Downloads Recent places	Contract of the server of the	10/14/2020 1:00 PM	CSR File	2 KB	
📲 This PC					
🗣 Network					

將CSR檔案複製到新的資料夾位置。

將server.key檔案複製到上述位置:-

從

成長至

C:\xampp\apache\conf\ssl.key

Rouses	City Mathematical	
Service Module PID(s)	k xampp	- 0 X
Administrator: XAMPP for Wi	🛞 💮 👻 🕆 This PC + Local Disk (C) + xampp 🔹 🖒 Search xampp	<i>Q</i>
Setting environment for using XAMPP for Windows Mainistrator@AGENT3 c:\xampp H openssil Openssil, Openssil, genrsa -out server.key 2040 Generating RSA private xey, 2048 bit long modul Concenting RSA private xey, 2048 bit long modul openssil, preg -new -shal -nodes -key server.key Ignoring -days; not generating a certificate You are about to be asked to enter information	Favorites Name Date modified Type Size Desktop 10/13/2020 11:28 - Windows Batch File 1 KB Desktop 10/13/2020 11:28 - Configuration sett 1 KB Recent places uninstall.dat 10/13/2020 11:29 - DAT File 161 KB Image: This PC install 10/13/2020 11:29 - DAT File 2 KB Image: This PC Image: Street Rep 10/14/2020 12:55 - KEY File 2 KB If tem selected 56 KB 10/14/2020 10 PM CSR File 2 KB	111 (c) 111 (c) 111 (c)
into your certificate request. What you are about to enter is what is called a There are quite a few fields but you can leave For some fields there will be a default value.	J 2 D = ssikey	x
If you enter ',', the field will be left blank. Country Name (2 letter code) (AU]:US State or Province Name (full name) (Some-State) Locality Name (eg. city) (1:RCDN Organization Name (eg. company) (Internet Uidgi Organization (Internet Name) (Internet Uidgi Organization (Internet Name) (Internet Vidgi Please enter the following 'extra' attributes to be sent with your certificate request A challenge password (I: n optional company name (I:CISCO)	Image: State View View Image: State View Image: State View Image: State View Image: S	٩
OpenSSL> OpenSSL>	P This PC	

將server.key複製到新資料夾位置。

8. 使用憑證授權單位(CA)簽署CSR,並取得CA簽署的憑證。

取得由CA(LAB CA伺服器- ADFSCAIMP)簽署的CSR(server.csr),並取得CA簽署的Web伺服器憑證「server.crt」。



注意:確保將證書儲存為.crt格式(而不是儲存為.cer或.der)。此擷取畫面顯示如何使用Windows CA伺服器將憑證儲存為.crt格式(下載已簽署的憑證時)

🗧 🕘 🥌 http://localhost/certsrv/certInsh.asp	の ▼ C Ø Microsoft Active Directory ×	
Microsoft Active Directory Certificate Services - ADFSCAIMP		
Certificate Issued		
The certificate you requested was issued to you.	Image: Save As (← →) → ↑	×
Download certificate	Organize New folder Name Date modified Type Size No items match your search.	0
	■ Dexitop # ↓ Downloads # ★ Documents # v <	3
	File name "perver.ct" Save as type: Security Certificate A Hide Folders Save	~ ~

由憑證授權單位(CA)伺服器簽署CSR,然後取得簽署的憑證。

4g	Certificate	x
Ger	neral Details Certification Path	
	Certificate Information	
	Windows does not have enough information to verify this certificate.	
	Issued to: agent3.ramebalaimp.com	
	Issued by: ADFSCAIMP	
	Valid from 10/14/2020 to 10/14/2022	
I.		
	Install Certificate Issuer Statement	
	OK	_

已簽署的憑證。

9. 上傳憑證並重新啟動Apache服務。

在此位置上傳server.crt。

C:\xampp\apache\conf\ssl.crt

📕 🕞 🚯 = 1		ssl.crt					x
File Home Sha	ire View						~ 0
€	\xampp\apache\conf\ssl.crt			¥	C	Search ssl.crt	Q
☆ Favorites	Name	Date modified	Туре	Size			
E Desktop	Server	10/14/2020 2:25 PM	Security Certificate		2 KB		
Downloads							
Market Recent places							
🌉 This PC							
🗣 Network							
1 item							

上傳簽署的憑證。

上傳KEY/CSR/CERT之後,請重新啟動Apache服務。

ເສ	XAMPP Control Panel v3.2.4										
Service	Module	PID(s)	Port(s)	Actions				Netsi	tat		
1	Apache	10400	80, 443	Stop	Admin	Config	Logs	She	el .		
	MySQL			Start	Admin	Config	Logs	Explo	rer		
	FieZila			Start	Admin	Cenfig	Loga	Servi	ces		
	Mercury Tomcet			Start	Admin	Config	Logs	😥 Hel	rip		
				Start	Admin	Config	Logs	Cu Qu	t		
21 23 P 21 23 P 21 23 P 21 23 P 21 23 P 21 27 P 21 49 P 26 20 P 26 20 P	M [main] M [main] M [main] M [main] M [Apache] M [Apache] M [Apache] M [Apache]	The Mercur The Tomca Starting Ch Control Par Attempting Attempting Status cha	ry module is disa t module is disa neck-Timer nel Ready to start Apache to start Apache to start Apache nge detected: ru	service service service							

按下「停止並啟動」按鈕,重新啟動Apache服務。

在CUCM上,確保Tomcat證書由同一CA簽署(此處CA伺服器為ADFSCAIMP)。

Show Settings Security Software Upgrades Services Help Certificate List Certificate Management Certificate Find Certificate Management Certificate Find Certi	cisco For	sco Unified Operating	System /	Adminis	tration		Navi	admin About Loo
Certificate List Certificate Management Certificate Management Certificate Management Certificate Management Certificate Management Status PSEC Configuration Buk Certificate Management Session Management Certificate List Find Certificate Management Certificate Certificate Management Certificate Certificate Certificate C	Show . Settings	Security Software Upgrades	· Services ·	Help -				
Generate Self-sign Certificate Management Status PSEC Configuration Buk Certificate Revocation PSEC Configuration Buk Certificate Management Session Management Certificate List Cipher Management Certificate List Cipher Management Find Certificate List Cipher Management Conditionation Type Kay Type Distribution Lissued By Expiration Conditionation Certificate Signed Vertificate Conditionation Certificate Signed Vertificate Vertificate Signed Vertificate Vertificate Signed Vertificate Vertificat	Certificate List	Certificate Management						
Status PSEC Configuration Buk Certificate Management Session Management Session Management Session Management Certificate List Cpher Management Find Certificate List Cpher Management Contractor Type Kay Type Distribution Lissued By Expiration Contractor Type Kay Type Distribution Loncat Currul25:ramebalaimp.com Contractor Contractor Contractor Contractor Contractor Contractor Contractor Type Kay Type Distribution Lissued By Expiration Contractor Contractor Contractor Contrac	Generate Self-	-sign Certificate M Certificate Many Certificate Revocation	igement 💽 G	enerate CSR				
Certificate List Cipher Management Rows per Patholic Find Certificate List where Certificate begins with ~ tomcat Find Clear Filter	Status 5 records fo	PSEC Configuration Buik Certificate Management Session Management						
Find Certificate List where Certificate begins with Itomcat Find Clear Filter Image: Certificate Expiration Description Certificate List where Certificate Type Type Distribution Issued By Expiration Description Certificate Output Certificate Self-signed RSA cucm125.rsmebalaimp.com ADFSCAIMP 10/14/2022 Certificate Signed by ADFSCAIMP Tomcat-ECD5A cucm125.FC.ramebalaimp.com Self-signed EC cucm125.rsmebalaimp.com 07/31/2025 Self-signed certificate Self-signed Certificate Self-signed Certificate Self-signed Certificate Self-signed Certificate Self-signed Certificate Self-signed Certificate Self-signed Certificate Self-signed Certificate Self-signed Certificate Self-signed Self-signed Certificate Self-signed Ceri	Certificate Lis	at Cipher Management						Rows per Page 50
Construction Type Kay Type Distribution Issued By Expiration Description Concat cucm125.ramebalaimo.com CA-signed RSA cucm125.ramebalaimo.com ADFSCAIMP 10/14/2022 Certificate Signed by ADFSCAIMP tomcat cucm125.fc.ramebalaimo.com Self-signed EC cucm125.ramebalaimp.com 07/31/2025 Self-signed certificate generated to the complete certificate tomcat-trust ADFSCAIMP Self-signed RSA ADFSCAIMP ADFSCAIMP 05/28/2049 Signed certificate Self-signed to the certificate tomcat-trust ADFSCAIMP Self-signed RSA ADFSCAIMP ADFSCAIMP 05/28/2049 Signed Certificate tomcat-trust ADFSCAIMP Self-signed RSA ADFSCAIMP DS/28/2049 Signed Certificate	Find Certificate L	ist where Certificate V begin	is with ~ tom	cat	Find Clear Filter	4 -		
tomcat cucm125.ramebalaimo.com CA-signed RSA cucm125.ramebalaimp.com ADFSCAIMP 10/14/2022 Certificate Signed by ADFSCAIMP tomcat-ECDSA cucm125-EC.ramebalaimp.com Self-signed EC cucm125-ramebalaimp.com 07/31/2025 Self-signed certificate	Cercincace		Туре	Кеу Туре	Distribution	Issued By	Expiration	Description
tomcat-ECDSA cucm125-EC.ramebalaimp.com Self-signed EC cucm125.ramebalaimp.com cucm125-EC.ramebalaimp.com 07/31/2025 Self-signed certificate generated to tomcat-trust ADESCATHP Self-signed RSA ADESCATHP ADESCATHP 05/28/2049 Signed Certificate comparison and DESCATHP 05/28/2049 Signed Certificate comparison and DESCAT	tomcat	cucm125.ramebalaimo.com	CA-signed	RSA	cucm125.ramebalaimp.com	ADFSCAIMP	10/14/2022	Certificate Signed by ADFSCAIMP
tomcat-trust ADFSCAIMP Self-signed RSA ADFSCAIMP ADFSCAIMP 05/28/2049 Signed Certificate	tomcat-ECDSA	cucm125-EC.ramebalaimp.com	Self-signed	EC	cucm125.ramebalaimp.com	cucm125-EC.ramebalaimp.com	07/31/2025	Self-signed certificate generated by system
tomostioust pure 125 camebalaime com CAutional DEA pure 125 camebalaime com ADEC/AIMD 10/14/3033 Tout CastEcate	tomcat-trust	ADFSCAIMP	Self-signed	RSA	ADFSCAIMP	ADFSCAIMP	05/28/2049	Signed Certificate
tomost-trust company, com carsigned KSA com125,ramedalamp.com AurouAuro torare instruction	tomcat-trust	cucm125.ramebalaimo.com	CA-signed	RSA	cucm125.ramebalaimp.com	ADFSCAIMP	10/14/2022	Trust Certificate
tomcat-trust cucm125-EC.ramebalaimp.com Self-signed EC cucm125.ramebalaimp.com cucm125-EC.ramebalaimp.com 07/31/2025 Trust Certificate	tomcat-trust	cucm125-EC.ramebalaimp.com	Self-signed	EC	cucm125.ramebalaimp.com	cucm125-EC.ramebalaimp.com	07/31/2025	Trust Certificate

由同一CA伺服器簽名的Tomcat證書。

10. 修改「統一通訊服務」上的URL

登入CUCM管理網頁並導航至使用者管理 > 使用者設定 > 統一通訊服務。

請相應地修改此UC服務部分中所示的Web伺服器URL。

章節:**客戶端**

引數:PrtLogServerURL

值:https://<WebServer_FQDN>: 443/uploadprt.php

	ed CM Administration		A DESCRIPTION OF TAXABLE PARTY.	Nevigeton Co	co Unified CM Administration 🖂 G			
CISCO For Cisco Unifie	d Communications Solutions		admin About L					
System • Call Routing • Media	Resources · Advanced Features · Device ·	Application • User Management • Bulk Administration • He	Nep •					
UC Service Configuration				Related Lin	ks: Back To Find/List			
Save 🗶 Delete 🗋 O	tay 👍 Add New							
Status Status: Ready			https://agent3.rameh	alaimp.com:4	43/unloadprt.php			
•			- A Benton and	anannpiconni				
UC Service Information								
DC Service Type: Japper C	ment contiguration (Japper-contig.xmi)	•		ore I have EDDN in 1	the method of a castificate			
Product Type: Jabber Name* JabberCo Description	nta		u	ed FQDN of WebSer	rver in this URL			
Product Type: Jabber Vamn* JabberCo Description Jabber Configuration Parar	ntg neters			ed FQDN of WebSer	iver in this URL			
Product Type: Jabber Vame* JabberCo Description Jabber Configuration Parar Section	ntig neters Parameter	Parameter Description		ed FQDN of WebSer	Operations			
Product Type: Jabber Vanne * Jabber Description Jabber Configuration Param Section Client ~	ntig meters Persmeter PrilogServerUS,	Parameter Description	https://agent3.ramebalarm)	ed FQDN of WebSer	Operations			
Product Type: Jabber vame * jabberCo Description Jabber Configuration Parar Section Client ~ (• Not Selected ~	ntig meters Parsmeter (Prt.ogServerUR), (Not Selected	Parameter Description Clink to the script for submitting PRT	https://agent3.ramebalarm	Delete	Operations			
Product Type: Jabber tame ' Jabber Description Jabber Configuration Parar Section Client · · · · Not Selected · · · · Section	ntig meters PricegServerURs, [Not Selected M	Parameter Description	Parameter Description	Delete	Operations Operations Operations			

在Jabber客戶端配置(jabber-config.xml)中配置Web伺服器的詳細資訊。

11. 收集Jabber - PRT

然後,透過CCM頁面生成PRT。

cisco Fer Cisco	Unified CM Administ	ration						Nevige	tion Cisco Unified CM	Administration	ration - Go lout Lopou
System · CaliRouting	Keda Resources Advanced Fe	stures . Device	· Application	User Management	· Buk Administ	ration - Help -					
Find and List Phones								Related Links	Actively Logged In	Device P	teport - G
Add New Car Ad	dd New From Template 🔠 Select All	CROFAE	Delete Selecte	d 🎦 Reset Selecte	a de Addy C	enfig to Selected			of con	erate PRT fo	r Selected
Status 2 records found Phone (1 - 2 of	(2)								,	lows per	Page 50 -
Find Phone where Dev	vice Name	v	begins with	Select item or en	First ter search text	Clear Filter					
	Device Name(Line) *	Description	Device Pool	Device Protocol	Status	Last Registered	Last Active	Unified CM	IPv4 Address	Copy	Buper Copy
8	CSFAGENT1		Default	SIP	Registered	Now		cucm125.ramebalaimp.com	10.201.251.189	D	104
	camebala		Default	51P	None	Never			None	D	07
Add New Add New	w from Template Select All C	Slear All Delet	e Selected	leset Selected [Ar	ply Config to S	elected			Genera	te PRT for	Selected

收集Jabber埠。

從資料包捕獲中,您可以確認Jabber與Web伺服器之間的流量是透過TLS1.2 (HTTPS-443)加密的:

Web伺服器IP:10.88.11.218

Jabber PC IP: 10.201.251.189

A				WebServerPCAP-during-PRTcollection-secure_HTTS.pcapng	×
File	Edit View Go	Capture Analyze Stat	istics Telephony Wirele	es Tools Help	
4.10	10 00		TATER	0.0	
	August 201 201 10			2 - 1 Permis	
1.00		Terrer and the second s	1100000	In the second	-
No.	Time	Source	Destruction	Protocol Length brits	
1	552 25.577386	10.201.251.189	10,88,11,218	TCP 66 60547 + 443 [SYN] Seq=0 xLn+64240 Len+0 PSS=1460 xS+256 SACK_PERM=1	
-	553 25,577543	10,08,11.218	10,201,251,189	TCP 66 443 + 68547 [SYN, ACK] Seq+0 Ack+1 Win+8192 Len+0 MSS+1460 WS+256 SACK_PIRM=1	
	554 25.577929	10.201.251.189	10.88.11.218	TCP 60 60547 + 443 [ACK] Seq=1 Ack=1 Win=525568 Len=0	
	\$55 25.578770	10.201.251.189	10.88,11.218	TLSv1.2 259 Client Hello	
1 3	556 25.580939	10,85.11.218	10.201.251.189	TLSv1.2 1946 Server Hello, Certificate, Server Key Exchange, Server Hello Done	
	557 25.581511	10.201.251.109	10.88.11.218	TCP 60 60547 + 443 [ACK] Seq=206 Ack=1893 Min=525568 Len=0	
1 3	568 25.625996	10.201.251.189	10.88.11.218	TLSv1.2 150 Client Key Exchange, Change Cipher Spec, Encrypted Handshake Message	
	561 25.632508	10.88.11.218	10.201.251.189	TLSv1.2 105 Change Clpher Spec, Encrypted Handshake Message	
	562 25.633637	10.201.251.189	10.88.11.218	TL5v1.2 334 Application Data	
	563 25.652036	10.88.11.218	10.201.251.189	TLSv1.2 108 Application Data	
	564 25.653286	10.201.251.189	10.88.11.218	TCP 1514 60547 + 443 [ACK] Seq=612 Ack=1996 Min=525312 Len=1460 [TCP segment of a reassembled PDU]	
	565 25.653445	10.201.251.189	10.00.11.218	TCP 1514 60547 + 443 [ACK] Seq=2072 Ack=1998 Win=525312 Len=1460 [TCP segment of a reassembled POU]	
1 3	566 25.653452	10.201.251.189	10.68.11.218	TCP 1514 60547 + 443 [ACK] Seq=3532 Ack=1998 Hin=525312 Len=1460 [TCP segment of a reassembled POU]	
	567 25.653454	10.201.251.189	10.00.11.218	TCP 1514 60547 + 443 [ACK] Seq=4992 Ack=1998 Win=525312 Len=1460 [TCP segment of a reassembled PDU]	
	568 25.653455	10.201.251.189	10.08.11.218	TCP 1514 60547 + 443 [ACK] Seq=6452 Ack=1998 Win=525312 Len=1460 [TCP segment of a reassembled PDU]	
	\$69 25.653456	10.201.251.109	10.88.11.218	TCP 1514 60547 + 443 [ACK] Seq=7912 Ack=1998 Win=525312 Len=1460 [TCP segment of a reassembled POU]	
1 3	570 25.653457	10.201.251.189	10.08.11.218	TCP 1514 60547 + 443 [ACK] Seq=9372 Ack=1998 Win=525312 Len=1460 [TCP segment of a reassembled POU]	
	571 25.653458	10.201.251.189	10.88.11.218	TCP 1514 68547 + 443 [ACK] Seq=18832 Ack=1998 Win=525312 Len=1468 [TCP segment of a reassembled PDU]	
	572 25.653459	10.201.251.189	10.88.11.218	TCP 1514 68547 + 443 [ACK] Seq=12292 Ack=1998 Win=525312 Len=1460 [TCP segment of a reassembled PDU]	
	573 25.653468	10.201.251.189	10.88.11.218	TCP 1514 68547 = 443 [ACK] Seq=13752 Ack=1998 Win=525312 Len=1468 [TCP segment of a reassembled PDU]	
11.5	574 25.653497	10.88.11.218	10.201.251.189	TCP 54 443 + 68547 [ACK] Seg=1998 Ack+15212 Win=65536 Len=0	
	\$75 25.653859	10.201.251.189	10.05.11.218	TCP 1514 60547 = 443 [ACK] Seo-15212 Ack-1998 Win-525312 Len-1460 [TCP segment of a reassembled PDU]	
1. 5	376 25,654004	10,201,251,189	10.88,11,218	TLSv1.2 1514 Application Data [TCP segment of a reassembled PDU]	
	\$77 25,654006	10.201.251.189	10.68.11.218	TCP 1514 60547 + 443 [ACK] Sep-18132 Ark-1998 Win-525312 Len-1460 [TCP segment of a reassembled POU]	
	578 25,654007	18,201,251,189	10.85.11.218	TCP 1514 68547 + 443 (ACK) Sep-19592 Ack-1958 Win-\$25312 Len-1468 (TCP segment of a reassembled POUL	
	579 25,654009	10.201.251.189	10.88.11.215	TCP 1514 68547 + 443 [ACK] Sec-21852 Ack-1998 Min-525312 Len-1468 [TCP segment of a reassembled PDU]	
	100 25.654010	10.201.251.189	10.08.11.218	TCP 1514 68547 + 443 [ACK] Security1 Acks1988 Min-525112 Len-1448 [TCP segment of a restambled POUL	
	\$81 25.654011	10.201.251.189	10.65.11.218	TCP 1514 68547 + 443 [ACK] Seq=23972 Ack=1998 Win=525312 Len=1468 [TCP segment of a reassembled POU]	v
-		R - Flor but cat			1.

Web伺服器上的Wireshark捕獲顯示PRT檔案事務已安全發生。

驗證

您可以在Web伺服器中找到Jabber PRT(該位置在PHP指令碼中配置)。



Web伺服器包含下載的Jabber PRT檔案。

疑難排解

目前尚無適用於此組態的具體疑難排解資訊。

相關資訊

• <u>遠端收集PRT日誌</u>

希望這篇文章能有所幫助!

關於此翻譯

思科已使用電腦和人工技術翻譯本文件,讓全世界的使用者能夠以自己的語言理解支援內容。請注 意,即使是最佳機器翻譯,也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準 確度概不負責,並建議一律查看原始英文文件(提供連結)。