

啟用CMS和CUCM之間的安全通訊

目錄

[簡介](#)

[必要條件](#)

[需求](#)

[採用元件](#)

[背景資訊](#)

[設定](#)

[啟用CMS和CUCM/IMP伺服器之間的安全通訊](#)

[用於在Webapp和Jabber客戶端之間共用線上狀態的CUCM特定配置](#)

[驗證](#)

簡介

本文檔介紹如何在思科會議伺服器(CMS)和思科統一通訊管理器(CUCM)之間啟用通訊。

必要條件

需求

思科建議您瞭解以下主題：

- CMS版本3.8及更高版本
- CUCM和IM&P
- Jabber

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- CMS版本3.8
- CUCM和IM&P 14 SU(3)

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。

背景資訊

本文檔概述了在CMS和CUCM之間建立安全通訊的流程，以實現Jabber/Web應用線上狀態共用。它解釋了在CMS上的Web應用會議期間，配置和排除Jabber使用者更新狀態的詳細步驟。可以配置會議伺服器，以更新Jabber使用者參與思科Meeting Server Web應用會議時的線上狀態。

設定

啟用CMS和CUCM/IMP伺服器之間的安全通訊

在作業系統管理頁面上登入CUCM，導航至Security > Certificate Management，然後下載TOMCAT證書。

Certificate	Common Name	Usage	Type	Key Type	Distribution	Issued By	Expiration	Description
CAPF-trust	High_Assurance_SUDI_CA_0a6475524cd9617c62	Trust	CA-signed	RSA	High_Assurance_SUDI_CA	Cisco_Root_CA_2099	08/10/2099	This certificate was used to sign the MIC installed on Cisco eni Presence of this certificate allows the end point to communica securely with UCM using the MIC when associated with a secu
CAPF-trust	Cisco_Basic_Assurance_Root_CA_2099_01a65af15ee994eb41	Trust	Self-signed	RSA	Cisco_Basic_Assurance_Root_CA_2099	Cisco_Basic_Assurance_Root_CA_2099	05/27/2099	This certificate was used to sign the MIC installed on Cisco eni Presence of this certificate allows the end point to communica securely with UCM using the MIC when associated with a secu
CAPF-trust	CAPF-4c15e524	Trust	Self-signed	RSA	CAPF-4c15e524	CAPF-4c15e524	05/07/2028	
CAPF-trust	Cisco_Root_CA_M2_01	Trust	Self-signed	RSA	Cisco_Root_CA_M2	Cisco_Root_CA_M2	11/12/2037	This certificate was used to sign the MIC installed on Cisco eni Presence of this certificate allows the end point to communica securely with UCM using the MIC when associated with a secu
CAPF-trust	Cisco_Root_CA_2099_019a335878ce16c1c1	Trust	Self-signed	RSA	Cisco_Root_CA_2099	Cisco_Root_CA_2099	08/10/2099	This certificate was used to sign the MIC installed on Cisco eni Presence of this certificate allows the end point to communica securely with UCM using the MIC when associated with a secu
CAPF-trust	Cisco_Manufacturing_CA_SHA2_02	Trust	CA-signed	RSA	Cisco_Manufacturing_CA_SHA2	Cisco_Root_CA_M2	11/12/2037	This certificate was used to sign the MIC installed on Cisco eni Presence of this certificate allows the end point to communica securely with UCM using the MIC when associated with a secu
ipsec	cucm14test.test.com_6dffac16e53663f3d9a4a66f355758	Identity	Self-signed	RSA	cucm14test.test.com	cucm14test.test.com	09/30/2028	Self-signed certificate generated by system
ITLRecovery	ITLRECOVERY_cucm14test_77c9a7891d58be201eff4ae038db166	Identity	Self-signed	RSA	cucm14test.test.com	ITLRECOVERY_cucm14test	05/01/2028	Self-signed certificate generated by system
tomcat	cucm14test.test.com_36a7986900000000004	Identity	CA-signed	RSA	cucm14test.test.com	S-WIN2008R2-CA	10/04/2025	Certificate Signed by S-WIN2008R2-CA
tomcat-ECDSA	cucm14test-EC.test.com_486beedc450b08f40ff7716b999d2a4	Identity	Self-	EC	cucm14test.test.com	cucm14test-EC.test.com	09/30/2028	Self-signed certificate generated by system

CUCM Tomcat證書

登入作業系統管理頁面上的Cisco Unified Presence Server (CUPS)，導航到Security > Certificate Management，然後下載CUPS證書。

Certificate	Common Name	Usage	Type	Key Type	Distribution	Issued By	Expiration	Description
cup	impnew.test.com	Identity	CA-signed	RSA	impnew.test.com	S-WIN2008R2-CA	10/04/2025	Certificate Signed by S-WIN2008R2-CA
cup-ECDSA	impnew-EC.test.com	Identity	Self-signed	EC	impnew.test.com	impnew-EC.test.com	09/30/2028	Self-signed certificate generated by system
cup-trust	impnew-EC	Trust	Self-signed	EC	impnew	impnew-EC	09/30/2028	Trusted local cluster own-certificate
cup-trust	impnew-EC.test.com	Trust	Self-signed	EC	impnew.test.com	impnew-EC.test.com	09/30/2028	Trusted local cluster own-certificate

Presence CUPS憑證

下載簽署Tomcat和Cup證書的根CA證書。

Certificate	Common Name/Common Name.SerialNumber	Usage	Type	Key Type	Distribution	Issued By	Expiration	Description
tomcat-trust	cucm14test-EC.test.com_486beedc450b08f40ff7716b999d2a4	Trust	Self-signed	EC	cucm14test.test.com	cucm14test-EC.test.com	09/30/2028	Trust Certificate
tomcat-trust	S-WIN2008R2-CA_04738d12017db7df49a3a7381b3d388e	Trust	Self-signed	RSA	S-WIN2008R2-CA	S-WIN2008R2-CA	09/29/2028	Signed Certificate
tomcat-trust	impnew.test.com_36a798690000000000004	Trust	Self-signed	RSA	impnew.test.com	impnew.test.com	09/30/2028	Trust Certificate
tomcat-trust	cucm14test.test.com_36a798690000000000004	Trust	CA-signed	RSA	cucm14test.test.com	S-WIN2008R2-CA	10/04/2025	Trust Certificate
tomcat-trust	impnew-EC.test.com_773a9d72e3f6e922487383a1071417e	Trust	Self-signed	EC	impnew.test.com	impnew-EC.test.com	09/30/2028	Trust Certificate

Tomcat的根憑證

Cisco Unified IM and Presence Operating System Administration

Navigation Cisco Unified IM and Presence OS Administration

Show Settings Security Software Upgrades Services Help

Certificate List

Generate Self-signed Upload Certificate/Certificate chain Generate CSR Reuse Certificate

Status

4 records found

Certificate List (1 - 4 of 4) Rows per Page 50

Find Certificate List where Certificate begins with cup-trust Find Clear Filter

Certificate	Common Name	Usage	Type	Key Type	Distribution	Issued By	Expiration	Description
cup-trust	impnew-EC	Trust	Self-signed	EC	impnew	impnew-EC	09/30/2028	Trusted local cluster own-certificate
cup-trust	impnew-EC.test.com	Trust	Self-signed	EC	impnew.test.com	impnew-EC.test.com	09/30/2028	Trusted local cluster own-certificate
cup-trust	S-WIN2008R2-CA	Trust	Self-signed	RSA	S-WIN2008R2-CA	S-WIN2008R2-CA	09/29/2028	Signed Certificate
cup-trust	impnew	Trust	Self-signed	RSA	impnew	impnew	09/30/2028	Trusted local cluster own-certificate

Generate Self-signed Upload Certificate/Certificate chain Generate CSR Reuse Certificate

CUPS的根證書

建立CUCM證書的證書捆綁包。捆綁證書是指將伺服器證書放在頂部，中間證書（任意）放在中間，根證書放在底部，然後一(1)個回車符。

以下是套件組合憑證的範例：

```
1 -----BEGIN CERTIFICATE-----
2 MIIFqgCCBjOgAwIBAgIKNqYeYAAAAAABDANBgkqhkiG9w0BAQsFADBBMRMwEQYK
3 CZImiZPyLQGBGRYDY29tMREwDwYKCC2ImiZPyLQGBGRYBUzEXMBUGA1UEAAMOUy1X
4 SU4yMDA4UjItQ0EwHhcNMjMxMjA0MTMyNzE2WncNMjUxMDA0MTMzNzE2WjBXMQsw
5 CQYDVQQGEwJlZEMMAQGA1UECMBDQ2FyMzQwYyYDVQVHREwNpbmQxZjAMBGNVBAOT
6 BWNpc2NvMRswGgYDVQQDEkxNjDWNtMTR0ZXN0LnRlc3QuY29tMIIBIjANBgkqhkiG
7 9w0BAQEFAAOCAQ8AMIIBCgKCAQEAAoYE9ann27hv05JUwAEwutEy5RA4WwaxIvkqEI
8 ah0fDpRI2GgY+mrH9q70hAvG3uDYBtBHKYJpkYepeULNjZkh07a39IeeJMG8/q28
9 SckZ+j1VIyw8gt+CnG6E6ibCD+HNdtKfwL0ipSdlTnlieX6DsF05Z1K4Alm4yrsN
10 +b0/wSikfV0+ValyC90nbTCUCIKGvqvqGsdidyndb6TRfhi+w4RD+0NgOBjWHqcXX
11 WXgp9JWYQdy7YeX8Y2kljBAyRhSPfa35hojy470hE91N8axmHRm2m5htqEe0kSOy
12 2o09pj7f7Aq1waVAFVpQCxkl2sXtZARHpGdswpm4M8r5MoXPtWIDAQABo4ICjTCC
13 AokwDgYDVR0PAAQ/BAQDAgWgMB0GA1UdJQQWMBQGCCsGAQUFBwMBBggrBgEFBQcD
14 AjAoBgNVHREEITAfghh0ZXN0LmNvbYITy3VjbTE0dGVudC50ZXN0LmNvbTAdBgNV
15 HQ4EFgQUtMTpsuTu05EBH2wgGf6qii7M38wHwYDVR0jBBgwFoAUA6L6fIQ4Vp+QI
16 UDz/X6MwFAVhJ4IwgcgGA1UdHwSBwDCBwTCBuqCBt6CBtIaBsWakYXA6Ly8vQ049
17 Uy1XSU4yMDA4UjItQ0EwS049V010MjAwOFIyLENOPUNEUCxDTj1lQdWJsaWMM1MjBL
18 ZXklMjBTZXJ2aWNlcysDTj1lTXJ2aWNlcysDTj1lDb25maWdlcmF0aW9uLERDPVMS
19 REM9Y29tP2N1cnRpZmljYXRlUmV2b2b2NhdGlvbkxpc3Q/YmFzZT9vYmplY3RDDBGFs
20 csljUkxEXX0cmliidXRpb25Qb2ludDCBugYIKwYBBQUHAQEEdga0wgaowgacGCCsG
21 AQUFBsAChOGabGRhcDovLy9DTj1lTLVdJTj1lMDhSM1lDQ3xDTj1lBSUESQ049UHVl
22 bGljJTlW29V29V2VydmljZXMzQ049U2VydmljZXMzQ049Q29uZmlndXJhdGlv
23 bixEQslTLERDPWNvbT9jQUN1cnRpZmljYXRlP2Jhc2U/b2JqZWN0Q2xhc3M5Y2VY
24 dG1maWNhdGlvbkf1ldGhvcml0eTA9BgkkrBgEEAYI3FQcEMDAuBiYrBgEEAYI3FQcE
25 yrsWhcnoHIXEjS6B5uhFhsusPgeGpusehts3XAIBZAIbAjAnBgkkrBgEEAYI3FQcE
26 GjAYMAoGCCsGAQUFBwMBMAoGCCsGAQUFBwMCMAoGCCsG8Ib3DQEBcUAA4IBAQCQ
27 hREe6ZJHVx1N7JNgY0RE4V9S3FiyQPIVYFVEdaKAL+AfvlS214D7ohFIjL5rSA
28 ThWiFFS1w1eA5Cjlg9gi2leHI2uDuor6XEXKWB/bkC9BXoDkRMFV7bh9CoosFmXk8
29 r6xeN7H9cAHAs3wFILUnAip1KF/7odBkNUSgT39NJAL1UgVFPt81r6lk8OR5TAYI
30 9vs4dw5ocQzs7Z0Av8ZDKNFDTsWoOGtU2dCMIXasJ05ALmMBtagqYBNj16URkR8i
31 f2sOkb+NdPZD4XAE00tW8rji124ukr7JBgeWYsjsD2tsZsJgslMprNaVuMDh280Q
32 JQFAiCOp3GgYjkJB2cH2
33 -----END CERTIFICATE-----
34 -----BEGIN CERTIFICATE-----
35 MIIDXTCCAkWgAwIBAgIQDXWNEgF8t79Jqac4Gz04jjANBgkqhkiG9w0BAQsFADBB
36 MRMwEQYKCC2ImiZPyLQGBGRYDY29tMREwDwYKCC2ImiZPyLQGBGRYBUzEXMBUGA1UE
37 AAMOUy1XSU4yMDA4UjItQ0EwHhcNMjMxMjA0MTMyNzE2WncNMjUxMDA0MTMzNzE2WjBXMQsw
38 WjBEMRMwEQYKCC2ImiZPyLQGBGRYDY29tMREwDwYKCC2ImiZPyLQGBGRYBUzEXMBUG
39 A1UEAAMOUy1XSU4yMDA4UjItQ0EwGwEiMA0GC8qG8Ib3DQEBAAUAA4IBDwAwggEK
40 AoIBAQCXa6tjSyoUyn6GkoSbe98SasKkRUNGbCORKnI41tWEiX0vPITEsqZUPRJq4
41 7C8useeDiJPUBWAY9e8F4nm+VhGSEKqkwekrlJAF1mV4hkypkR0Wz64b4y04Ln8e
42 3E/F6/SXA6HOHQHdy1qlQMWSA/PXb441GKbSnfA4pjTB8nMP5WL+iBruYHP9tX6EJ
43 IJq5Fe+RZYNH/mLuB+0Qf1OCn4sqsxZGf8DxhJNHU+2m3q7h319exxioDcwiVwZO
44 xqUKrvBs6jBtOg4Kvs3sa4AHyP91SAA2vp42MwtBdis8O3wx+vm/HoVr0fHum/W1
45 Z92iwR9Jx44tKoJHVpBwMvnrK7TrAgMBAAGjUTBPMAsGA1UdDwQEAwIBhJAPEgNV
46 HRMBAf8EBTADAQH/MB0GA1UdDgQWBBERovp8hDhWn5AhQ0s9fosAUBWEngjAQBgkr
47 BgEEAYI3FQEEAwIBADANBgkqhkiG9w0BAQsFAAOCAQEA5nsa91K4BISCAuBgMMe
48 YSPEXl5kEXPQcFtJt1FjnC5uTC4IOMQQFfuralBQfr4DokDXK5892npt5DAForS5
49 k60GpH1bRPBaoxJhR0Ta3imL6yAZ0f2o380nrVRDZKlug/1VeXF/2hlTeZc73utt
50 k5sqewqTQ04NHrBp0Udybmpf2L5BjhlctoH490PI0HEbmVDE0WALKXliqsuEzrmm
51 mrl0MRRlS2ZBpX2W3qw90IrmPW13fde2kE2S1DvuaNcc7B8W0hgWT3HnyuMTyZi
52 b6Yf7hb5F3Z3OpHFU1b222tqk4qouEigyoaUZaLcVhV5UdBCCvwyU19yU6+EscnM
53 Ww==
54 -----END CERTIFICATE-----
55
```

Server Certificate on TOP

CUCM TOMCAT CERT

Root certificate at bottom



just 1 carriage return

Tomcat憑證套件

建立CUPS證書的證書捆綁包。捆綁證書是指將伺服器證書放在頂部，中間證書（任意）放在中間，根證書放在底部，然後一(1)個回車。

```
1 -----BEGIN CERTIFICATE-----
2 MIIFqTCCBjGgAwIBAgIKNrMm8gAAAAAABTANBgkqhkiG9w0BAQsFADEBMMRMwEQYK
3 CZImiZPyLgQBGRYDY29tMREwDwYKZCZImiZPyLgQBGRYBUzEXMBUGA1UEAxMOUy1X
4 SU4yMDA4UjItQ0EwHhcNMjM5MDA0MTMzOTU0WhcNMjUzMDA0MTMzOTU0WjBjMQsw
5 CQYDVQQGEwJlEOMAwGA1UECBMFA2FybmExDDAKBgNVBACTA2JnbDEOMAwGA1UE
6 CmFY21sY28xDDAKBgNVBA5TA2t0c3EYMBYGA1UEAxMPaW1wbmV3LnRlc3QuY29t
7 MIIIBjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAKHb9jsWYhi6i4IkSx8hC
8 Z1USLZHBQ28RDQw1vT3CFGZut+dayK9KshYtsOAhRfWLPWgGtABJWMr98f+DM0RG
9 FsmCtNo1ZsEOq3QCR6b/kbQuC+6LhhgIM8I448tLaAF4neZ/5dmCUSzJNCpnbpH
10 EbqbXKkH8W42BZLeLP0T2savk5V+vriGuMjV299vGrEu49kB0EN2M+mnfcnf2OxT5
11 wtFqCY9jijKSKC40cu6iJ88A7Hi/yJQJ1NeUmnLpGpF/HKUrclu5pBdfiV1EXBkS
12 LX2bm49PFGRS0guxJZVC457vmAgACgKvwE5s3HvW1t3Tp1WE4AZtSn3s9tsYSOC7
13 bwIDAQABO4ICfzCCAnsWHDYDVR01BBYwFAYIKwYBBQUHAWEGCCsGAQUFBwMCMA4G
14 A1UdDwEB/wQEAwIFoDAAEgNVHREEEzARgg9pbXBu2XcudGVsdC5jb20wHQYDVR0O
15 BBEYFOxvmV/jdcIDMEVOjzWR/yRAo9ktMB8GA1UdIwYQYBaAFGi+nyEOfafkCFA7
16 Fl+jMBQFYSeCMIHIBgNVHR8EgcAwgb0wgbqggbbeggb3GgbFsZGFwOi8vL0NOFVMe
17 V01OMjAwOFIyLUNBLENOFVdJTjIwMDhSMixDTj1DRFAzQ049UHVibGljJTJwS2V5
18 JTIwU2VydmljZXMsQ049U2VydmljZXMsQ049Q29uZmlndXJhdGlvbixEQs1TLERD
19 FWNvbT9jZkxJ0aWZpY2F0ZVJldm9jYXRpb25MaXN0P2Jhc2U/b2JqZWN0Q2xhc3M9
20 Y1JMRGlzdHJpYnV0aW9uUG9pbmQwGwGCCsGAQUFBwEBBIBGtMIGqMIGnBggrBgEF
21 BQcwAoaBmmxkYXA6Ly8vQ049Uy1XSU4yMDA4UjItQ0EzQ049QU1BLENOFVBlYmcp
22 YyUyMEtleSUyMFN1cnZpY2VsLENOPVN1cnZpY2VsLENOPUNvbmZpZ3VyYXRpb24s
23 REM9UyxEQs1jb20/Y0FDZkxJ0aWZpY2F0ZT9iYXN1P29iamVjdENsYXNsPWN1cnRp
24 ZmljYXRpb25EYXRob3JpdHkxPQYJKwYBBAGCNxUHBDAwLgYmKwYBBAGCNxUIhcq7
25 FoXJ6ByFwY0ugeboRYbLs4HhqbRbHobc91wCAWQCAQIwJwYJKwYBBAGCNxUKBBow
26 GDAKBggrBgEFBQcDATAKBggrBgEFBQcDAjANBgkqhkiG9w0BAQsFAAOCAQEAUJdy
27 3mMOfWgLN4hiShn/XCPChLMPG54IE+EINTBqsoqxs12XLldo0JjNAI7Xd+FoAGQ
28 UXRjRN3q26yiY5C2itLe/vAplC5yN6krL/8PEBnmopubQVdqRUCbn4r21iNV
29 sNcBrUeOY0Vr2/EVeBObVh1DGowfrxMj59v40k15wYc88h0bopL1I/Sc2mpw5m2Z
30 R5nyyx3XfjkmZSwwMnO+Suz7dbJu2sfI6sw0EhF12tRRQHCsq9n9uQDSUXCjQFdq
31 Y3A+LJGawlAuPt4+sqOxjYKYNP8m8+WIBIUEv+oXAOVbs8ffQFoPKYf/ZmWxB-JRP
32 2v/At0ns31UdcKFUPw==
33 -----END CERTIFICATE-----
34 -----BEGIN CERTIFICATE-----
35 MIIDXTCCAkWgAwIBAgIQDXWNEgF8t79Jqac4Gz04jjANBgkqhkiG9w0BAQsFADEB
36 MRMwEQYKZCZImiZPyLgQBGRYDY29tMREwDwYKZCZImiZPyLgQBGRYBUzEXMBUGA1UE
37 AxMOUy1XSU4yMDA4UjItQ0EwHhcNMjM5MDA0MTMzOTU0WhcNMjUzMDA0MTMzOTU0WjBjMQsw
38 WjBEMRMwEQYKZCZImiZPyLgQBGRYDY29tMREwDwYKZCZImiZPyLgQBGRYBUzEXMBUG
39 A1UEAxMOUy1XSU4yMDA4UjItQ0EwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEK
40 AoIBAQCXa6tj8yOUyn6GkoSbe988Sa3KrUNGBCORKnI41tWEiX0vPITEsqZUPRJq4
41 7C8useeDiJPUBWAY9e8F4nm+VhGSEKqkwekr1JAF1mV4hkypxR0Wz64b4yO4Ln8e
42 3E/F6/SXA6HOqHDylq1QWWSA/PXB441GKbSnfA4pjTBSnMP5WL+iBruYHp9tX6EJ
43 IJq5Fe+RZYnh/mLuB+0Qf1OCn4sqszGf8DxhJNHU+2mSg7h319exxi0DcwiVwZO
44 xqUKRvBs6jBtOg4Kvs3sa4AHyP91SAA2vp42MwtBdis803wx+vm/HoVr0fHum/W1
45 Z92iwR9Jx4tK0JHVpBwMvnrK7TrAgMBAAgJUTBPMAsGA1UdDwQEAwIBhjAPBqNV
46 HRMBAf8EBTADAQH/MB0GA1UdDgQWBRRovp8hDhWn5AhQOz9fozAUBWEngjAQBgtr
47 BgEEAYI3FQEEAwIBADANBgkqhkiG9w0BAQsFAAOCAQEAU5nsa91K4BISCAuBgmMe
48 YSPEXl5kExPQCfTJt1FjnCSuTC4IOMQQFfuralBQfr4DokDXK5892npt5DAFor5
49 k60GpHlbrPBAoxJhK0TaSimL6yAZ0fZc380nrVRDZKlug/lVeXF/2h1TeZc73utt
50 k5sqewqTQO4NhrBp0Udybmf2L5BJh1ctoH490PIOHEbmVDE0WALEKXliqsuE2rmm
51 Mr10MRRLs22BpX2WSqw90IrmPWI3fds2kE2S1DvuaNcc7B8W0hgWT3HxnyuMTyZi
52 b6Yf7hb5F32SOpHFU1b222tqk4qouEigyoaUZaLcVhV5UdBCCvwyU19yU6+EscnM
53 Ww==
54 -----END CERTIFICATE-----
55
```

CUPS Certificate

Root Certificate



carriage return

CUPS證書捆綁包

透過WinSCP將之前建立的捆綁證書推送到CMS伺服器。

Name	Size	Type	Name	Size	Changed	Rights	Owner
..		Parent director	c2wip.key	198 KB	5/16/2020 3:44:38 PM	r--r--r--	admin
cupbun.cer	4 KB	Security Certifi	CA.cer	198 KB	8/17/2021 9:36:00 PM	r--r--r--	admin
cucmbun.cer	4 KB	Security Certifi	CA222.cer	198 KB	8/17/2021 10:53:32 PM	r--r--r--	admin
			CA2222.cer	198 KB	8/24/2023 9:35:26 AM	r--r--r--	admin
			CB1.csr	198 KB	8/24/2023 2:58:43 PM	r--r--r--	admin
			CB1.key	198 KB	8/24/2023 2:58:43 PM	r--r--r--	admin
			CB222.cer	198 KB	8/17/2021 11:07:26 PM	r--r--r--	admin
			CB222.csr	198 KB	8/18/2021 4:21:01 AM	r--r--r--	admin
			CB222.key	198 KB	8/18/2021 4:21:01 AM	r--r--r--	admin
			CB2222.cer	198 KB	8/24/2023 9:35:26 AM	r--r--r--	admin
			cmm.csr	198 KB	4/20/2022 11:12:14 PM	r--r--r--	admin
			cmm.key	198 KB	4/20/2022 11:12:14 PM	r--r--r--	admin
			cms.cer	198 KB	9/21/2021 12:18:15 PM	r--r--r--	admin
			cms.lic	198 KB	10/26/2023 5:54:51 PM	r--r--r--	admin
			cucmbun.cer	198 KB	10/4/2023 7:18:03 PM	r--r--r--	admin
			cup.cer	198 KB	10/4/2023 3:51:03 PM	r--r--r--	admin
			cupbun.cer	198 KB	10/4/2023 7:22:10 PM	r--r--r--	admin
			Feb_09_2023_14_14.bak	518 KB	2/9/2023 2:13:12 PM	r--r--r--	admin
			Feb_10_2023_13_27.bak	518 KB	2/10/2023 1:25:05 PM	r--r--r--	admin

將證書捆綁包複製到CMS

使用callbridge ucm certs <cert-bundle>在Callbridge上分配TOMCAT捆綁證書。

```
wb3>
wb3> callbridge ucm certs cucmbun.cer
wb3>
```

Callbridge證書信任

使用callbridge imp certs <cert-bundle>在Callbridge上分配CUP伺服器捆綁證書。

```
wb3>
wb3> callbridge imp certs cupbun.cer
wb3>
```

運行callbridge命令，以檢查是否已分配證書捆綁。

```

wb3> callbridge
Listening interfaces      : a
Preferred interface     : none
Key file                 : wb2sept2.key
Certificate file        : wb3sept2.cer
Address                  : none
CA Bundle file          : bunsept22.cer
C2W trusted certs       : WMBUN.cer
Callbridge cluster trusted certs : none
Callbridge trust branding certs : none
UCM trusted certs      : cucmbun.cer
UCM verification mode  : enabled
IMPS trusted certs     : cupbun.cer
IMPS verification mode : enabled
WC3 JWT Expiry in hours : 24
wb3>

```

Callbridge信任證書檢查

以CM管理員身份登入CUCM，導航至User Management > User Settings > Access Control Group，點選Add New，然後建立訪問控制組CUCM_AXL_Group。

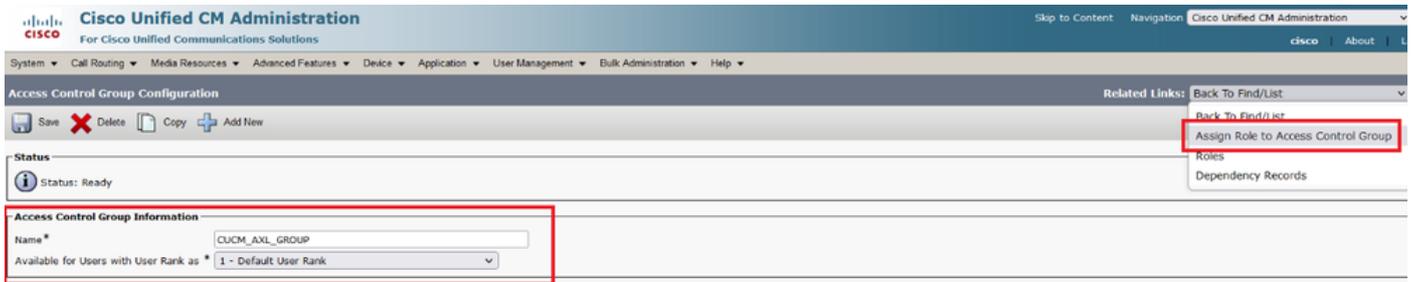
The screenshot shows the Cisco Unified CM Administration web interface. The breadcrumb navigation is: System > Call Routing > Media Resources > Advanced Features > Device > Application > User Management > Bulk Administration > Help. The page title is "Access Control Group Configuration". There is a "Save" button at the top left. The "Status" section shows "Status: Ready". The "Access Control Group Information" section is highlighted with a red box and contains the following fields:

- Name*: CUCM_AXL_GROUP
- Available for Users with User Rank as*: 1 - Default User Rank

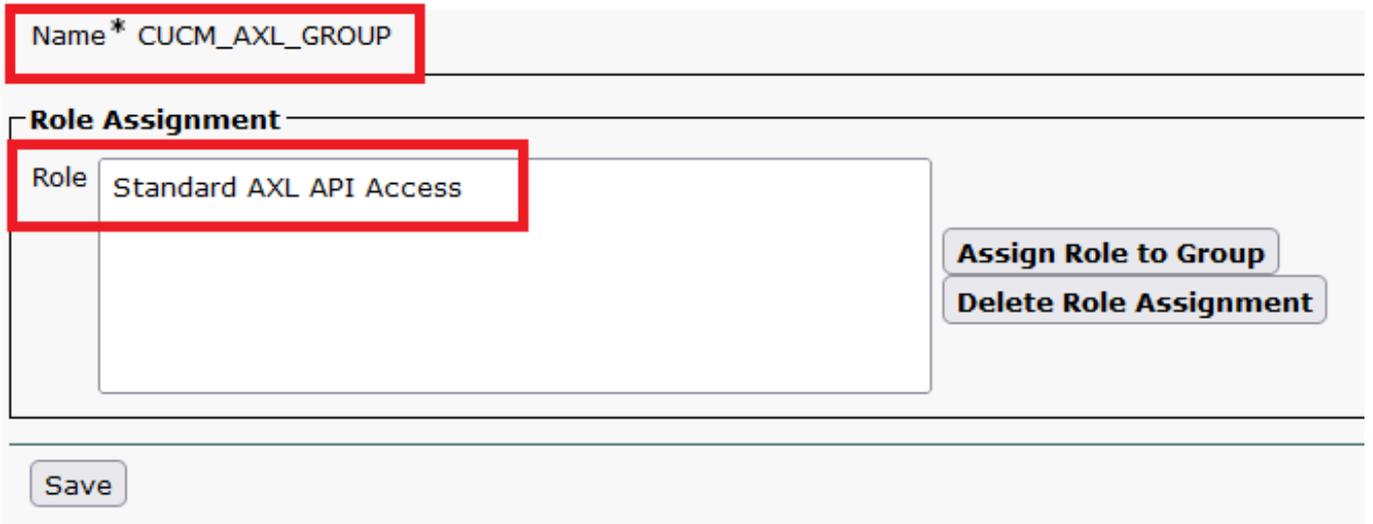
There is another "Save" button at the bottom left. A note at the bottom states: "* - indicates required item."

建立AXL群組

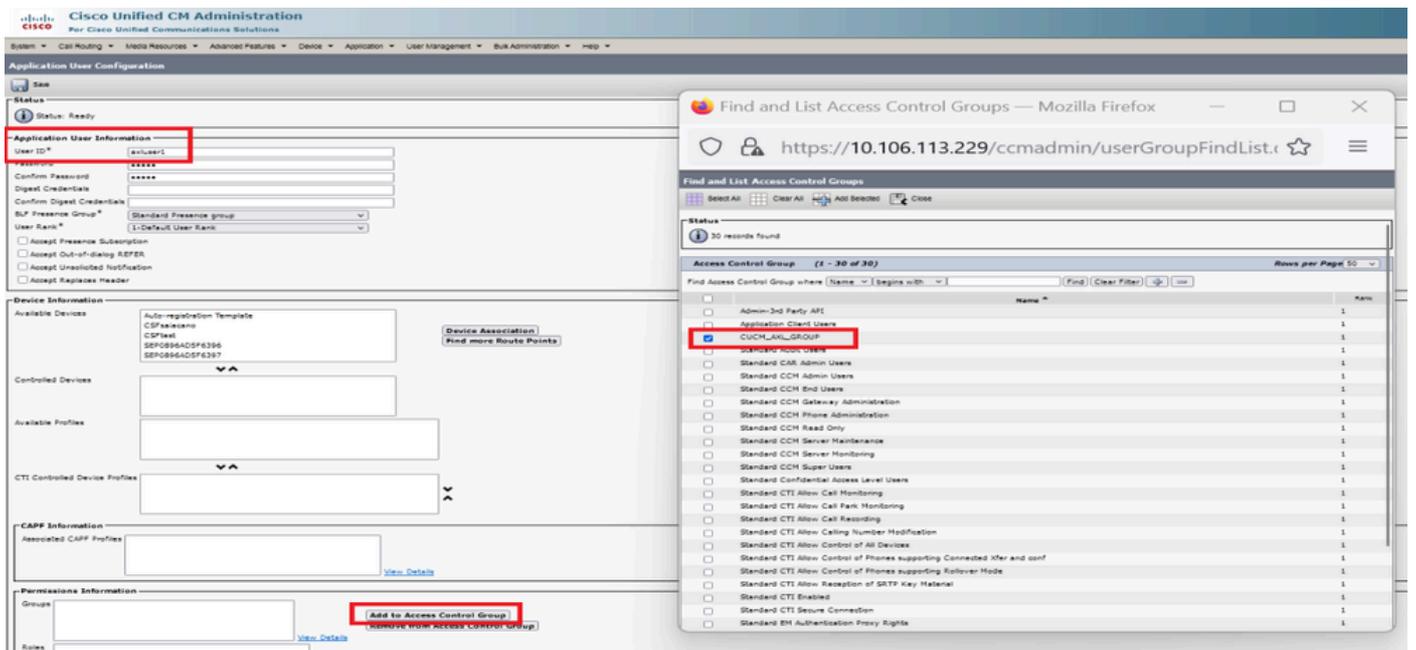
將角色Standard AXL API Access分配給之前建立的訪問控制組。



為AXL組分配API訪問許可權

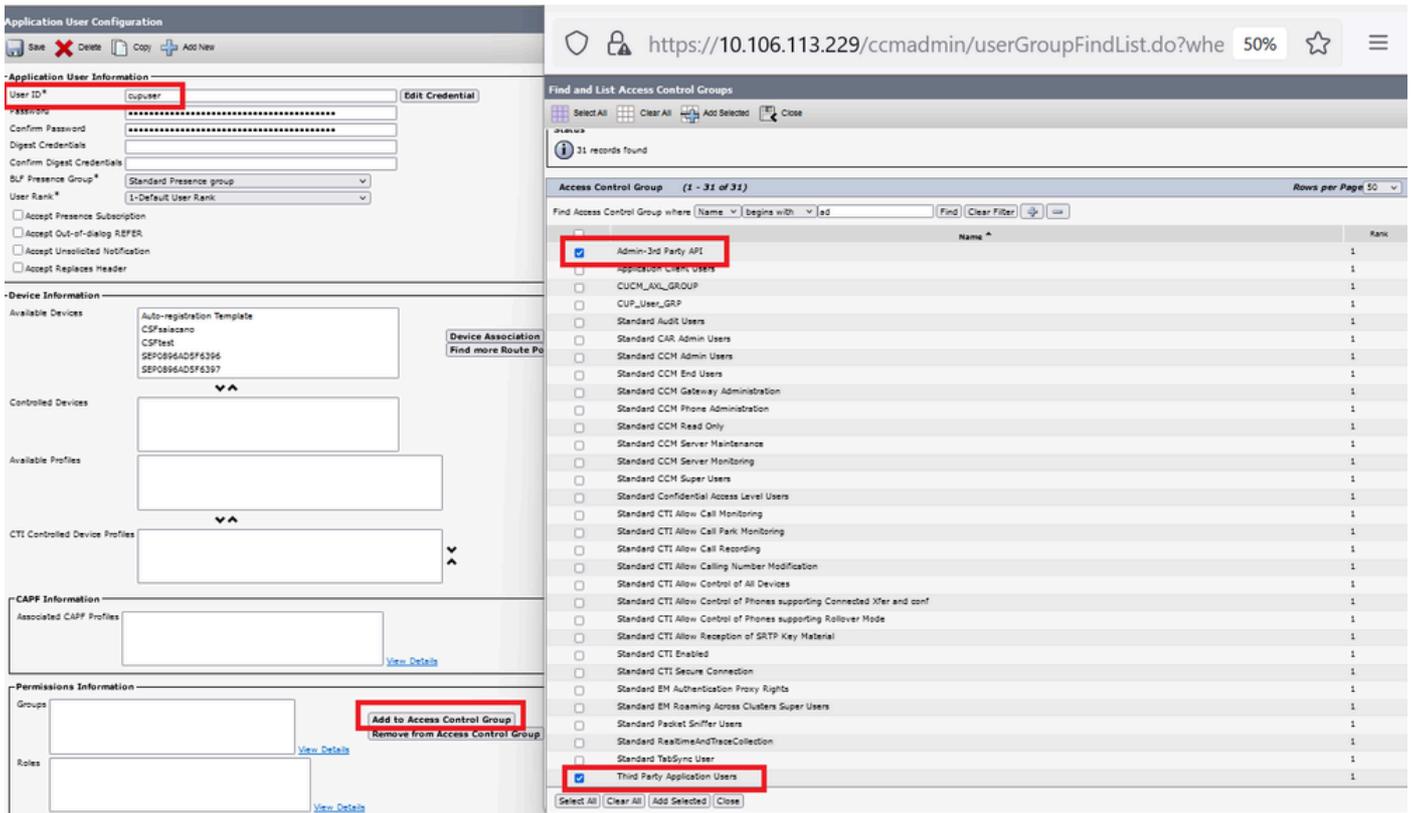


導航到User Management > Application User，按一下Add New，然後建立應用程式使用者(Application UserAXLuser)。然後，指定先前建立的存取控制群組。



建立使用者並指派AXL群組

建立CUP使用者並分配以下兩個角色：Third Party Application Users和Admin-3rd Party API。



建立CUP使用者

使用以下命令在CMS上啟用CUCM和Cisco Unified Communications Manager IM & Presence Service (IMPS)證書的證書驗證：

callbridge ucm verify <enable/disable>

callbridge impv verify <enable/disable>

```

wb3>
wb3> callbridge ucm verify enable
wb3>
wb3>
wb3> callbridge impv verify enable
wb3>

```

Callbridge驗證CUCM和CUPS證書

透過運行callbridge命令進行驗證。

```

wb3>
wb3> callbridge
Listening interfaces      : a
Preferred interface     : none
Key file                 : wb2sept2.key
Certificate file        : wb3sept2.cer
Address                  : none
CA Bundle file          : bunsept22.cer
C2W trusted certs       : WMBUN.cer
Callbridge cluster trusted certs : none
Callbridge trust branding certs : none
UCM trusted certs      : cucmbun.cer
UCM verification mode  : enabled
IMPS trusted certs     : cupbun.cer
IMPS verification mode : enabled
WC3 JWT Expiry in hours : 24
wb3>

```

Callbridge指令檢查

現在使用callbridge ucm add <hostname/IP> <axl_user> <presence_user>在CMS上增加CUCM完全限定域名(FQDN)和之前建立的使用者AXL和CUPS。

axl_user = CUCM上的AXL使用者

presence_user = 之前建立的CUP使用者

```

wb3>
wb3> callbridge ucm add <hostname/IP> <axl_user> <presence_user>
Only 1 UCM node is allowed. Delete existing UCM node to add a new UCM node.
wb3> callbridge ucm add cucm14test.test.com axluser cupuser
Enter axl user password:
Enter presence user password:
UCM node updated successfully. Restart the callbridge for changes to take effect.
wb3>
wb3>

```

將CUCM增加到Callbridge

現在，請透過以下幫助驗證CMS是否信任CUCM服務：

```
callbridge ucm <hostname/IP> axl_service status
```

```
callbridge ucm cucm14test.test.com axl_service status
```

```

wb3> callbridge ucm cucm14test.test.com axl_service status
Axl service available.
wb3>

```

Callbridge AXL狀態

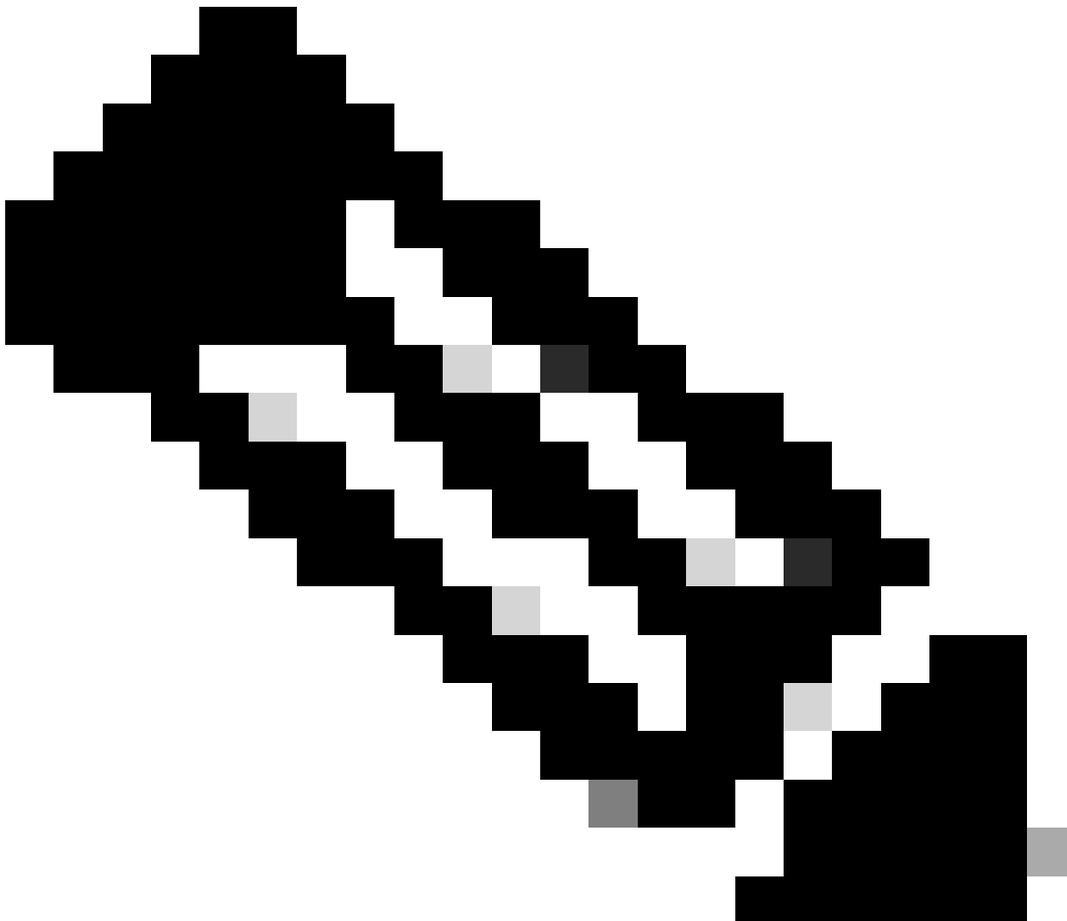
callbridge imps <hostname/IP> <presence_user> presence_service status

wb3> callbridge imps impnew.test.com cisco presence_service status

```
wb3>  
wb3>  
wb3> callbridge imps impnew.test.com cupuser presence_service status  
Enter presence user password:  
Presence service available.  
wb3>
```

Callbridge線上狀態

可用服務表示CUCM和CMS相互信任AXL和線上狀態服務。



附註：

CUCM具有在CUPS上同步和更新的輕量級目錄訪問協定(LDAP)使用者。使用者必須具有相同的Web應用使用者ID和Jabber JID，並且必須使用相同的使用者ID登入Web應用，以便在Jabber上更新線上狀態。

用於在Webapp和Jabber客戶端之間共用線上狀態的CUCM特定配置

CUCM必須已配置LDAP。

LDAP系統：

LDAP System Configuration

Status

-  Please Delete All LDAP Directories Before Making Changes on This Page
-  Please Disable LDAP Authentication Before Making Changes on This Page

LDAP System Information

Enable Synchronizing from LDAP Server

LDAP Server Type

LDAP Attribute for User ID

CUCM LDAP配置1

LDAP目錄：

LDAP Directory Related Links: [Back to](#)

LDAP Directory Information

LDAP Configuration Name*

LDAP Manager Distinguished Name*

LDAP Password*

Confirm Password*

LDAP User Search Base*

LDAP Custom Filter for Users

Synchronize* Users Only Users and Groups

LDAP Custom Filter for Groups

LDAP Directory Synchronization Schedule

Perform Sync Just Once

Perform a Re-sync Every* DAY

Next Re-sync Time (YYYY-MM-DD hh:mm)*

Standard User Fields To Be Synchronized

Cisco Unified Communications Manager User Fields	LDAP Attribute	Cisco Unified Communications Manager User Fields	LDAP Attribute
User ID	sAMAccountName	First Name	givenName
Middle Name	middleName	Last Name	sn
Manager ID	manager	Department	department
Phone Number	telephoneNumber	Mail ID	mail
Title	title	Home Number	homephone
Mobile Number	mobile	Pager Number	pager
Directory URI	mail	Display Name	displayName

CUCM LDAP配置2

LDAP驗證：

CUCM LDAP配置1 CUCM LDAP配置1 CUCM LDAP配置1

LDAP Authentication

Status

Status: Ready

LDAP Authentication for End Users

Use LDAP Authentication for End Users

LDAP Manager Distinguished Name*

LDAP Password*

Confirm Password*

LDAP User Search Base*

LDAP Server Information

Host Name or IP Address for Server*

LDAP Port* Use TLS

CUCM LDAP配置3

從LDAP提取到CUCM且配置了郵件ID的使用者：

End User Configuration

Save
 Delete
 Add New
 Revoke Refresh Token

Status

Status: Ready

User Information

User Status: Active Enabled LDAP Synchronized User
 User ID*: test
 Self-Service User ID:
 PIN: [Edit Credential](#)
 Confirm PIN:
 Last name*: test
 Middle name:
 First name: test
 Display name: test test
 Title:
 Directory URI: test@test.com
 Telephone Number:
 Home Number:
 Mobile Number:
 Pager Number:
Mail ID: test@test.com
 Manager User ID:

CUCM中的使用者

在CUPS伺服器上更新的CUCM使用者：

The screenshot shows the 'Node User Assignment (impnew.test.com)' page. The left sidebar shows a tree view with 'impnew.test.com' selected and containing '(2) users'. The main content area shows a table of user assignments:

User ID	First Name	Last Name	IM Address	Directory URI	Failed Over	Node	Presence Redundancy Group
test	test	test	test@test.com	test@test.com		impnew.test.com	DefaultCUPSsubcluster
test2	test2	2	test2@test.com	test2@test.com		impnew.test.com	DefaultCUPSsubcluster

CUPS使用者

CMS上也配置了相同的LDAP目錄。在CMS上提取並同步使用者資料庫。

Users

Filter

Name	Email	
Gogi	gogi@s.com	gogi@s.com
Saiacano	saiacano@s.com	Saiacano@s.com
cms user	cmsuser1@saml.com	cmsuser1@saml.com
go go	gogo@federation.com	gogo@federation.com
ivrman	ivrman@s.com	ivrman@s.com
joey	joey@s.com	joey@s.com
popo1 1	popo11@saml.com	popo11@saml.com
prashant	prkapur@s.com	prkapur@s.com
replication user	replicationuser@saml.com	replicationuser@saml.com
sai 1	sai1@saml.com	sai@saml.com
sai1 acano	sai1acano@federation.com	sai1acano@federation.com
saml superuser	ssosuperuser@saml.com	ssosuperuser@saml.com
sankar v		sankar@s.com
shakur 2pac	2pac@s.com	2pac@s.com
test test	test@test.com	test@test.com
testz	testz@test.com	testz@test.com
user 1	user1@saml.com	user1@saml.com

CMS使用者

現在，由於您已驗證CMS可以信任CUCM，因此您可以繼續測試線上狀態。

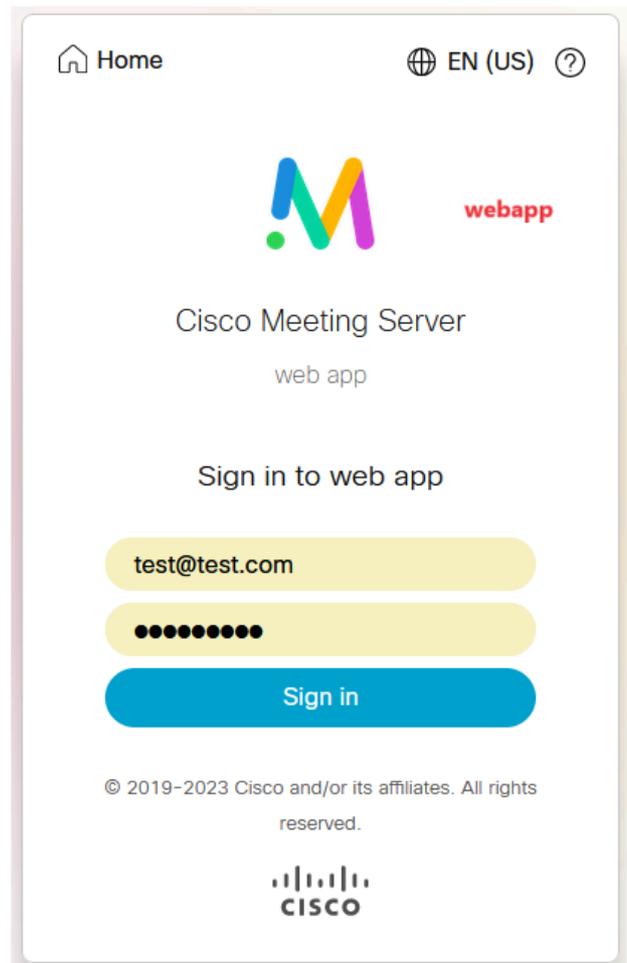
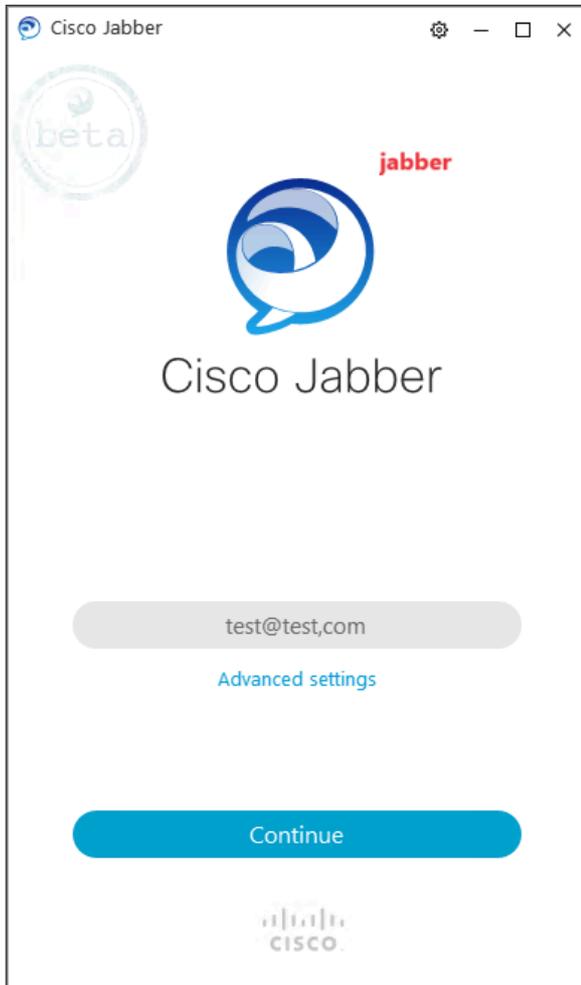
```

wb3>
wb3> callbridge ucm add <hostname/IP> <axl_user> <presence user>
Only 1 UCM node is allowed. Delete existing UCM node to add a new UCM node.
wb3> callbridge ucm add cucml4test.test.com axluser cupuser
Enter axl user password:
Enter presence user password:
UCM node updated successfully. Restart the callbridge for changes to take effect.
wb3>
wb3> █
  
```

將CUPS和CUCM增加到CMS

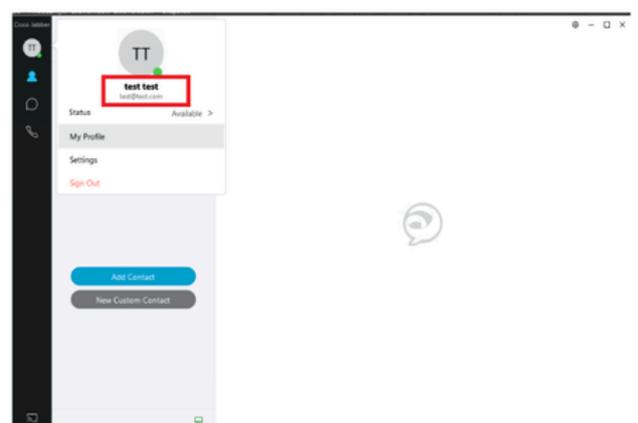
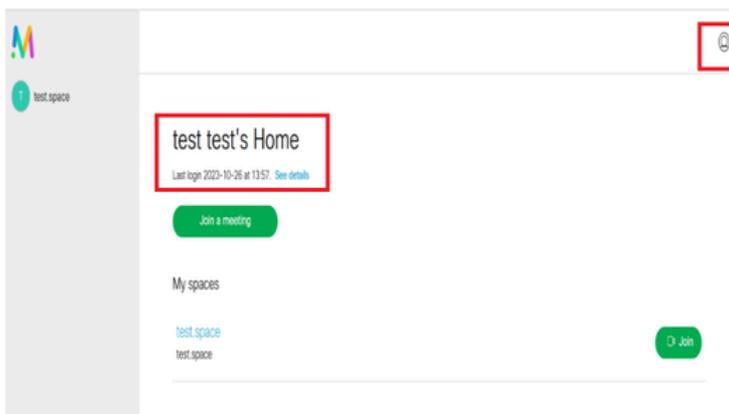
驗證

使用同一使用者在兩個客戶端上簽名（從同一個LDAP同步）：

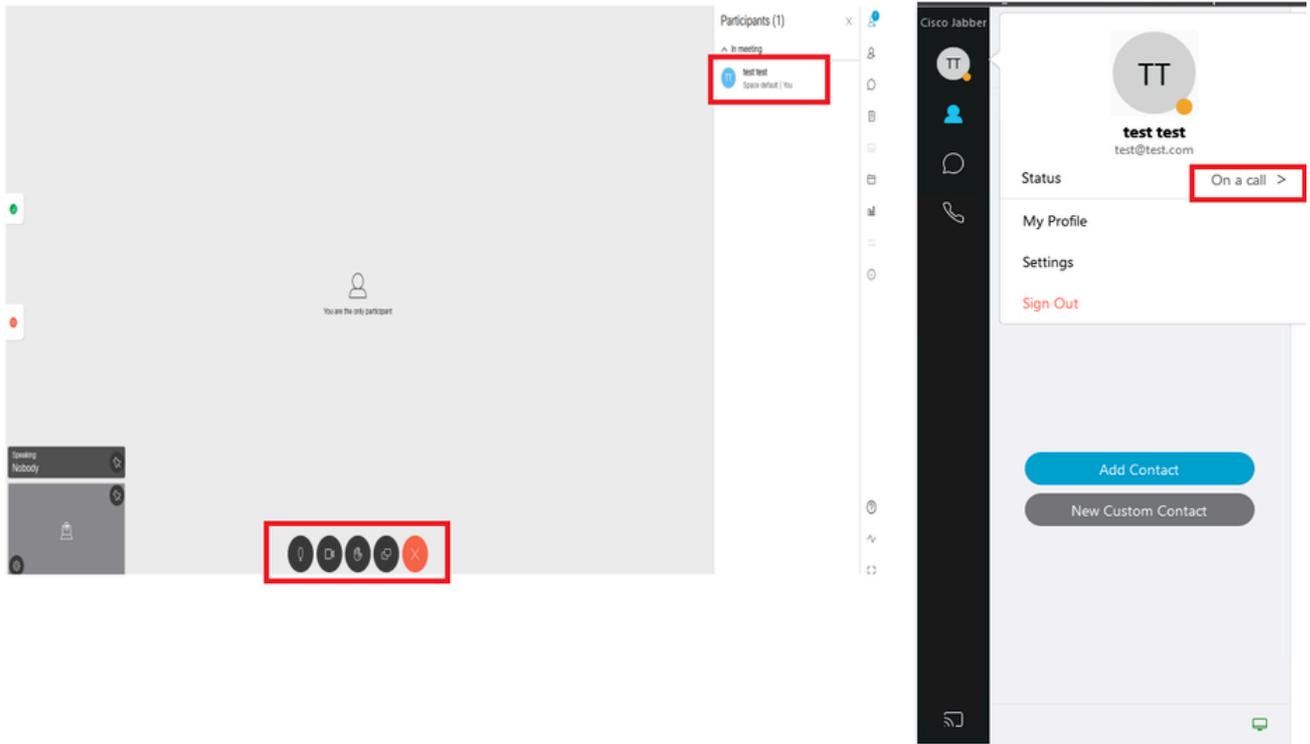


使用者在Jabber和Webapp中登入

兩個客戶端都登入到同一使用者 test@test.com。



通話前在Jabber和Webapp中的狀態



從WebApp加入呼叫時線上狀態更改

當Jabber使用者登入到Web應用並加入會議時，會議伺服器會將Jabber狀態更新為「在會議中，在呼叫中」，並在使用者結束會議後恢復其先前的狀態。例如，如果Jabber上的使用者狀態顯示「可用」，則在Web應用會議中該狀態會更新為「會議中，通話中」。使用者離開會議後，Jabber狀態再次設定為「可用」。如果Jabber使用者在加入Web應用會議時正在另一個會議/呼叫中，則會議伺服器不會更新Jabber狀態。如果Jabber使用者在加入Web應用會議之前將其狀態設定為「DND - 請勿打擾」，會議伺服器不會更新Jabber狀態。如果使用者在Web應用會議期間隨時手動更新Jabber狀態，會議伺服器不會覆蓋手動更新的使用者狀態。

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）。