

# Beveiligde communicatie tussen CMS en CUCM inschakelen

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## Inleiding

Dit document beschrijft hoe u de communicatie tussen de Cisco Meeting Server (CMS) en Cisco Unified Communications Manager (CUCM) kunt inschakelen.

## Voorwaarden

### Vereisten

Cisco raadt kennis van de volgende onderwerpen aan:

- CMS versie 3.8 en hoger
- CUCM en IM&P
- Jabber

### Gebruikte componenten

De informatie in dit document is gebaseerd op de volgende software- en hardware-versies:

- CMS versie 3.8
- CUCM en IM&P 14 SU (3)

De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk live is, moet u zorgen dat u de potentiële impact van elke opdracht begrijpt.

# Achtergrondinformatie

Dit document schetst het proces voor het opzetten van beveiligde communicatie tussen CMS en CUCM voor het delen van de aanwezigheid van Jabber/Web app. Het legt de gedetailleerde stappen uit voor het configureren en oplossen van problemen van de updatestatus van Jabber-gebruikers tijdens web app vergaderingen op het CMS. De Meeting Server kan worden geconfigureerd om de aanwezigheidsstatus van Jabber-gebruikers bij te werken terwijl zij zich bezighouden met een Cisco Meeting Server web app vergadering.

## Configureren

### Beveiligde communicatie tussen CMS en CUCM/IMP-server inschakelen

Log in CUCM op de OS admin pagina, navigeer naar Security > Certificate Management, en download het TOMCAT-certificaat.

Trust	Common Name	Usage	Type	Key Type	Distribution	Issued By	Expiration	Description
CAFF-trust	High_Assurance_SUDI_CA_0a6475524cd8617c62	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 en Presence of this certificate allows the end point to communica securely with UCM using the MIC when associated with a secu
CAFF-trust	Cisco_Basic_Assurance_Root_CA_2099_01a65af15ee994ebe1	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 en Presence of this certificate allows the end point to communica securely with UCM using the MIC when associated with a secu
CAFF-trust	CAFF-4c15e524	Trust	Self-signed	RSA	CAFF-4c15e524	CAFF-4c15e524	05/07/2028	
CAFF-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 en Presence of this certificate allows the end point to communica securely with UCM using the MIC when associated with a secu
CAFF-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 en Presence of this certificate allows the end point to communica securely with UCM using the MIC when associated with a secu
CAFF-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 en 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_6dffacfb16e53663f3d9af4a66355758	Identity	Self-signed	RSA	cucm14test.test.com	cucm14test.test.com	09/30/2028	Self-signed certificate generated by system
ITLRecovery	ITLRECOVERY_cucm14test_77cea7891d68be201eff4e1e038db166	Identity	Self-signed	RSA	cucm14test.test.com	ITLRECOVERY_cucm14test	05/01/2028	Self-signed certificate generated by system
tomcat	cucm14test.test.com_36a79869500000000004	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_496beedc456be08f49ff7716b999d3a4	Identity	Self-	EC	cucm14test.test.com	cucm14test-EC.test.com	09/30/2028	Self-signed certificate generated by system

### CUCM Tomcat Certificaat

Log in op de Cisco Unified Presence Server (CUPS) op de beheerpagina van het besturingssysteem, navigeer naar Security > Certificate Management en download het CUPS-certificaat.

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

### Aanwezigheids-CUPS-certificaat

Download het ROOT CA-certificaat dat het Tomcat- en Cup-certificaat heeft ondertekend.

Cisco Unified Operating System Administration

Navigation Cisco Unified OS Administration

Show Settings Security Software Upgrades Services Help

Certificate List

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

Status

3 records found

Certificate List (1 - 5 of 5) Rows per Page 50

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

Certificate	Common Name/Common Name_SerialNumber	Usage	Type	Key Type	Distribution	Issued By	Expiration	Description
tomcat-trust	cuom1test-EC.test.com_488baed456ba0b40f7716999d41ad	Trust	Self-signed	EC	cuom1test.test.com	cuom1test-EC.test.com	09/30/2028	Trust Certificate
tomcat-trust	S-WIN2008R2-CA_04738d12017d7f59a9a7381b2d388e	Trust	Self-signed	RSA	S-WIN2008R2-CA	S-WIN2008R2-CA	09/29/2028	Signed Certificate
tomcat-trust	impnew-EC.test.com_38082a2e3808b2801a33985d9c583	Trust	Self-signed	RSA	impnew.test.com	impnew-EC.test.com	09/30/2028	Trust Certificate
tomcat-trust	cuom1test.test.com_26a738692000200020024	Trust	CA-signed	RSA	cuom1test.test.com	S-WIN2008R2-CA	10/04/2025	Trust Certificate
tomcat-trust	impnew-EC.test.com_729a9d72e3fe922d97583a1071417e	Trust	Self-signed	EC	impnew.test.com	impnew-EC.test.com	09/30/2028	Trust Certificate

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

Root certificate of Tomcat

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

Root certificate for CUPS

Maak een certificaatbundel van CUCM-certificaten. Een bundelcertificaat betekent, het plaatsen van het servercertificaat bovenop, het tussenliggende certificaat (om het even welk) in het midden, en het ROOT certificaat onderaan, gevolgd door één (1) wagenterugloop.

Hier is een voorbeeld voor het BUNDLE-certificaat:

```
1 -----BEGIN CERTIFICATE-----
2 MIIFqgCCBjOgAwIBAgIKNqYeYAAAAAABDANBgkqhkiG9w0BAQsFADBBMRMwE
3 CZImiZPyLgQBGRYDY29tMREwDwYKCC2ImiZPyLgQBGRYBUzEXMBUGA1UEAxM
4 SU4yMDA4UjItQ0EwHhcNMjMxMjA0MTMyNzE2WncNMjUxMDA0MTMzNzE2W
5 CQYDVQGEwJjEEMMAQGA1UECMBDQ2FyMQwwCgYDVQQHEwNpbmQxZjAMBgNV
6 BwNpc2NvMRwwGgYDVQQDEkxjZWNtMTR0ZXN0LnRlc3QuY29tMIIBIjANBgkq
7 hkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAAoYE9an27hV05JUwAEwutEY5RA4
8 ah0fDpRI2GgY+mrH9q70hAvG3uDYBtBHKYJpkYepeULNjZkh07a39IeeJMG8
9 SckZ+j1VIyw8gt+CnG6E6ibCD+HNdtKfwL0ipSdlTnlieX6DsF05Z1K4Alm4
10 +b0/wSikfV0+ValyC90nbTCUCIKGvqvqGadiydb6TRfhi+w4RD+0NgOBjWHq
11 WXgp9JWYQdy7YeX8Y2kljBAyRhSPfa35hojy470hE91N8axmHRm2m5htqEe
12 2o09pj7f7Aq1waVAFVpQCxnl2sXtZARHpGdswpm4M8r5MoXPtWIDAQABo4I
13 AokwDgYDVR0PAAQ/BAQDAgWgMB0GA1UdJQQWMBQGCCsGAQUFBwMBBggrBgE
14 AjAoBgNVHREEITAfghh0ZXN0LmNvbYITy3VjbTE0dGVudC50ZXN0LmNvbT
15 HQ4EFgQUTMTpsuTu05EBH2wgGf6qii7M38wHwYDVR0jBBgwFoAUA6L6fIQ4
16 UDz/X6MwFAVhJ4IwgcgGA1UdHwSBwDCBwTCBuqCBt6CBtIaBsWakYXA6Ly8v
17 Uy1XSU4yMDA4UjItQ0EwEzQ049V01OMjAwOFIyLENOPUNEUCxDTj1lQdW
18 Zkx1MjBTZXJ2aWNlcykDTj1lTXJ2aWNlcykDTj1lDb25maWdlcmF0aW9u
19 REM9Y29tP2N1cnRpZmljYXRlUmV2b2b2NhdGlvbkxpc3Q/YmFzZT9vYmpl
20 csljUkxEXN0cmliidXRpb25Qb21udDCBugYIKwYBBQUHAQEEdga0wgaowgac
21 AQUFBsAChOGabGRhcDovLy9DTj1lTLVdJTj1lMDhSM1lDQ3xDTj1lBSUEs
22 bGljJTlW2V5JTlW2V5dmljZXMzQ049U2V5dmljZXMzQ049Q29uZmlndX
23 bixEQslTLERDFWNvbT9jQUNlcnRpZmljYXRlP2Jhc2U/b2JqZWN0Q2xhc3
24 dG1maWNhdGlvbkf1dGhvcml0eTA9BgkkrBgEEAYI3FQCxEMDAuBiYrBgEE
25 YI3FQOEYrsWhcnoHIXEjS6B5uhFhsusPgeGpusehts3XAIBZAIbAjAnBgk
26 GjAYMAoGCCsGAQUFBwMBMAoGCCsGAQUFBwMCMAoGCCsG8Ib3DQEBcUAA4I
27 hREe6ZJHVx1N7JNgY0RE4V9S3FiyQPIVYFVEdaKAL+AfvlS214D7ohFIjL
28 ThWiFFS1w1eA5Cjlg9gi2leHI2uDuor6XEXKB/bkC9BXoDkRMFV7bh9CoO
29 r6xen7H9cAHAs3wFILUnAip1KF/7odBkNUSgT39NJAL1UgVFPt81r6lk8
30 9vs4dw5ocQzs7Z0Av8ZDRNfDTsWoOGtU2dCMIXasJ05ALmMBtagqYBNj1
31 f2sOkb+NdPZD4XAE00tW8rji124ukr7JBgeWYsjsD2tsZsJgslMprNaVu
32 JQFAiCOP3GgYjkJBZcH2
33 -----END CERTIFICATE-----
34 -----BEGIN CERTIFICATE-----
35 MIIDXTCCAkWgAwIBAgIQDXWNEgF8t79Jqac4Gz04jjANBgkqhkiG9w0BAQsF
36 MRMwEQQYKCC2ImiZPyLgQBGRYDY29tMREwDwYKCC2ImiZPyLgQBGRYBUz
37 AxMOUy1XSU4yMDA4UjItQ0EwHhcNMjMxMjA0MTMyNzE2WncNMjUxMDA0
38 WjBEMRMwEQQYKCC2ImiZPyLgQBGRYDY29tMREwDwYKCC2ImiZPyLgQBGR
39 A1UEAxM0Uy1XSU4yMDA4UjItQ0EwEwggEiMA0GCSqGSIb3DQEBAQUAA4IB
40 AoIBAQCXa6tjSyoUyn6Gk0Sbe98SasSKrUNGbcCORKnI41tWEiX0vPITEsq
41 7C8useeDiJFUBWAY9e8F4nm+VhGSEKqkwekrlJAF1mV4hkypkR0Wz64b4y
42 3E/F6/SXA6HOqHDylq1QMWSA/PXb441GKbSnfA4pjTB8nMP5WL+iBruYH9t
43 IJq5Fe+RZYNH/mLuB+0Qf1OCn4sqsxZGf8DxhJNHU+2m3q7h319exxi0Dc
44 xqUKrvBs6jBtOg4Kvs3sa4AHyP91SAA2vp42MwtBdis803wx+vm/HoVr0f
45 Z92iwR9Jx44tKoJHVpBwMvnrK7TrAgMBAAGjUTBPMAsGA1UdDwQEAwIBh
46 HRMBAf8EBTADAQH/MB0GA1UdDgQWBBERovp8hDhWn5AhQ0s9fosAUBWEng
47 BgEEAYI3FQEEAwIBADANBgkqhkiG9w0BAQsFAAOCAQEA5nsa91K4BISCAu
48 YSPEXl5kEXpQcFtJt1FjnC5uTC4IOMQQFfuralBQfr4DokDXK5892npt5
49 k60GpH1bRPBaoxJhR0Ta3imL6yAZ0f2o380nrVRDZKlug/1VeXF/2hlTeZ
50 k5sqewqTQ04NHrBp0Udybmpf2L5BjhlctoH490PI0HEbmVDE0WALKXliq
51 mrl0MRRLe2ZBpX2W3qw90IrmPW13fde2kE2S1DvuaNcc7B8W0hgWT3Hn
52 b6Yf7hb5F3Z3OpHFU1b222tqk4qouEigyaaUZaLcVhV5UdBCCvwyU19yU6
53 EescnM
54 -----END CERTIFICATE-----
55
```

Server Certificate on TOP

CUCM TOMCAT CERT

Root certificate at bottom



just 1 carriage return

Tomcat certificaatbundel

Maak een certificaatbundel van CUPS-certificaten. Een bundelcertificaat betekent: het plaatsen van het servercertificaat bovenop, het tussenliggende certificaat (om het even welk) in het midden, en het ROOT certificaat onderaan, gevolgd door één (1) wagenruigloop.

```
1 -----BEGIN CERTIFICATE-----
2 MIIFqTCCBjGgAwIBAgIKNrMm8gAAAAAABTANBgkqhkiG9w0BAQsFADEBMMRMwEQYK
3 CZImiZPyLgQBGRYDY29tMREwDwYKZCZImiZPyLgQBGRYBUzEXMBUGA1UEAxMOUy1X
4 SU4yMDA4UjItQ0EwHhcNMjM5MDA0MTMzOTU0WhcNMjUzMDA0MTMzOTU0WjBjMQsw
5 CQYDVQQGEwJlEOMAwGA1UECBMFA2FybmExDDAKBgNVBACTA2JnbDEOMAwGA1UE
6 CmFY21sY28xDDAKBgNVBAwTA2t0c3EYMBYGA1UEAxMPaW1wbmV3LnRlc3QuY29t
7 MIIIBjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAKHb9jsWYhi6i4IkSx8hC
8 Z1USLZHBQ28RDQw1vT3CFGZut+dayK9KshYtsOAhRfWLPWgGtABJWMz98f+DM0RG
9 FsmCtNo1ZsEOq3QCR6b/kbQuC+6LhhgIM8I448tLaAF4neZ/5dmCUSzJNCpnbpH
10 EbqbXKkHw8V42BZeLP0T2savk5V+vriGuMjV299vGrEu49kB0EN2M+mnfcnf20xT5
11 wtFqCY9jijKSKC40cu6iJ88A7Hi/yJQJ1NeUmnLpGpF/HKUrclu5pBdfiV1EXBkS
12 LX2bm49PFGRS0guxJZVC457vmAgACgKvwE5s3HvW1t3Tp1WE4AZtSn3z9tsYSOC7
13 bwIDAQABO4ICfsCCAnsWHDYDVR01BBYwFAYIKwYBBQUHAWEGCCsGAQUFBwMCMA4G
14 A1UdDwEB/wQEAwIFoDAAEgNVHREEEzARgg9pbXBu2XcudGVsdC5jb20wHQYDVR0O
15 BBEYFOxvmV/jdcIDMEVOjzWR/yRAo9ktMB8GA1UdIwYQYBaAFGi+nyEOfafkCFA7
16 P1+jMBQFYSeCMIHIBgNVHR8EgcAwgb0wgbqggbbeggb3GgbFsZGFwOi8vL0NOFVMe
17 V01OMjAwOFIyLUNBLENOFVdJTjIwMDhSMixDTj1DRFAzQ049UHVibGljJTJwS2V5
18 JTIwU2VydmljZXMzQ049U2VydmljZXMzQ049Q29uZmlndXJhdGlvbixEQs1TLERD
19 FWNvbT9jZkxJ0aWZpY2F0ZVJldm9jYXRpb25MaXN0P2Jhc2U/b3JqZWN0Q2xhc3M9
20 Y1JMRGlzdHJpYnV0aW9uUG9pbmQwgb0GCCsGAQUFBwEBBIBGtMIGqMIGnBggrBgEF
21 BQcwAoaBmmxkYXA6Ly8vQ049Uy1XSU4yMDA4UjItQ0EzQ049QU1BLENOFVBlYmcp
22 YyUyMEtleSUyMFN1cnZpY2VsLENOPVN1cnZpY2VsLENOPUNvbmZpZ3V5YXRpb24s
23 REM9UyxEQs1jb20/Y0FDZkxJ0aWZpY2F0ZT9iYXN1P29iamVjdENsYXNsPWN1cnRp
24 ZmljYXRpb25EeXRob3JpdHkwPQYJKwYBBAGCNxUHBDAwLgYmKwYBBAGCNxUIhcq7
25 FoXJ6ByFwY0ugeboRyBLSz4HhqbRbHobc91wCAWQCAQIwJwYJKwYBBAGCNxUKBBow
26 GDAKBggrBgEFBQcDATAKBggrBgEFBQcDAjANBgkqhkiG9w0BAQsFAAOCAQEAUJdy
27 3mM0FwGwLW4hiShn/XCPChLMPG54IE+EINTBqsoqxsV12XLl1do0JjNAI7Xd+FoAGQ
28 UXRjRN3q236yiY5C2itTLe/vAplC5yN6krL/8PEBnmopubQVdqRUCbn4r21iNV
29 sNcBrUeOY0Vr2/EVeBObVh1DGowfrxMj59v40k15wYc88h0bopL1I/Sc2mpw5m2Z
30 R5nyyx3XfjkmZSvWmO+Suz7dbJu2zfI6sw0EhF12tRRQHCsq9n9uQDSUXCjQFdq
31 Y3A+LJGwL1AuPt4+sqOxjYKYNP8m8+WIBIUEv+oXAOVbz8ffQFoPKYf/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/PXB441GKb8nfa4pjTBSnMP5WL+iBruYHp9tX6EJ
43 IJq5Fe+RZYnh/mLUB+0Qf1OCn4sqszGf8DxhJNHU+2m3q7h319exxioDcwiVwZO
44 xqUKRvBs6jBtOg4Kvs3sa4AHyP91SAA2vp42MwtBdis803wx+vm/HoVr0fHum/W1
45 Z92iwR9Jx4t4tKoJHVpBwMvnrK7TrAgMBAAgJUTBPMAsGA1UdDwQEAwIBhjAPBqNV
46 HRMBAf8EBTADAQH/MB0GA1UdDgQWBBRovp8hDhWn5AhQOz9fozAUBWEngjAQBgtr
47 BgEEAYI3FQEEAwIBADANBgkqhkiG9w0BAQsFAAOCAQEAU5nsa91K4BISCAuBqMMe
48 YSPEXLSkExPQCfTJt1FjnCSuTC4IOMQQFfuralBQfr4DokDXK5892npt5DAFor5
49 k60GpHlbrPBaoxJhK0TaSimL6yAZ0fZc380nrVRDZKlug/lVeXF/2h1TeZc73utt
50 k5sqewqTQO4NhrBp0Udybmf2L5BJh1ctoH490PIOHEbmVDE0WALEKXliqsuE2rmm
51 Mr10MRRLs22BpX2WSqw90IrmPWI3fds2kE2S1DvuaNcc7B8W0hgWT3HxnyuMTyZi
52 b6Yf7hb5F2ZSOpHFU1b222tqk4qouEigyoaUZaLcVhV5UdBCCvwyU19yU6+EscnM
53 Ww==
54 -----END CERTIFICATE-----
55
```

CUPS Certificate

Root Certificate



carriage return

CUPS-certificaatbundel

Druk op de bundelcertificaten die eerder op de CMS-server zijn gemaakt via WinSCP.

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

*Certificaatbundel naar CMS kopiëren*

Wijs TOMCAT bundelcertificaat toe op Callbridge met `callbridge ucm certs <cert-bundle>`.

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

*CallBridge-vertrouwen*

Wijs CUP server bundelcertificaat toe op CallBridge met `callbridge imps certs <cert-bundle>`.

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

Voer decallbridge opdracht uit om te controleren of de certificaatbundels zijn toegewezen.

```
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>
```

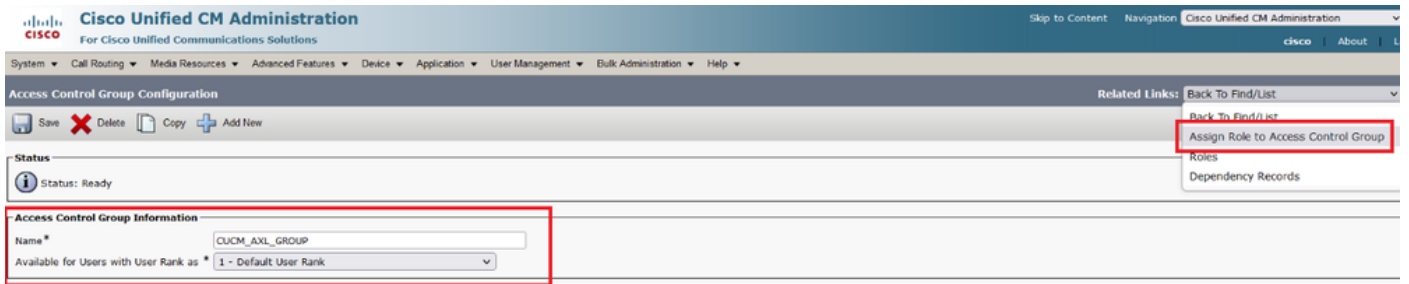
#### Callbridge vertrouwen cert check

Log in CUCM als CM-beheerder, navigeer naar User Management > User Settings > Access Control Group, klik op Add New en maak een Access Control Group CUCM\_AXL\_Group.

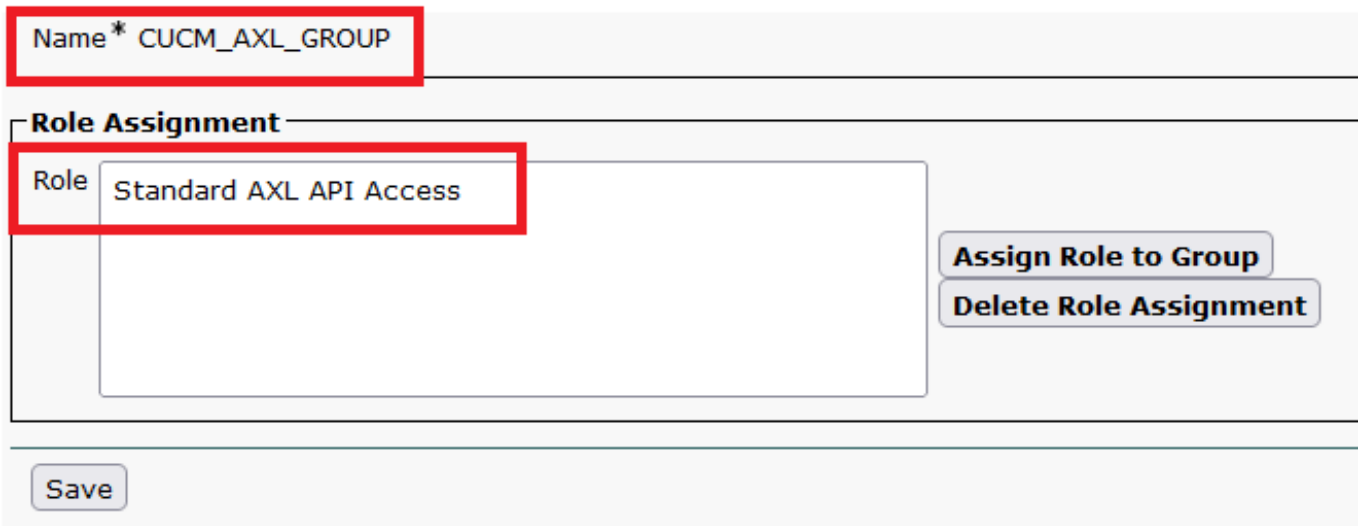
The screenshot shows the Cisco Unified CM Administration web interface. The breadcrumb navigation is: System > Call Routing > Media Resources > Advanced Features > Device > Application > User Management > Bulk Administration > Help. The main heading is "Access Control Group Configuration". There is a "Save" button with a floppy disk icon. Below this is a "Status" section with an information icon and the text "Status: Ready". The "Access Control Group Information" section is highlighted with a red box and contains a "Name\*" field with the value "CUCM\_AXL\_GROUP" and an "Available for Users with User Rank as\*" dropdown menu set to "1 - Default User Rank". There is another "Save" button at the bottom of the form. A note at the bottom left states: "i \*- indicates required item."

#### AXL-groep maken

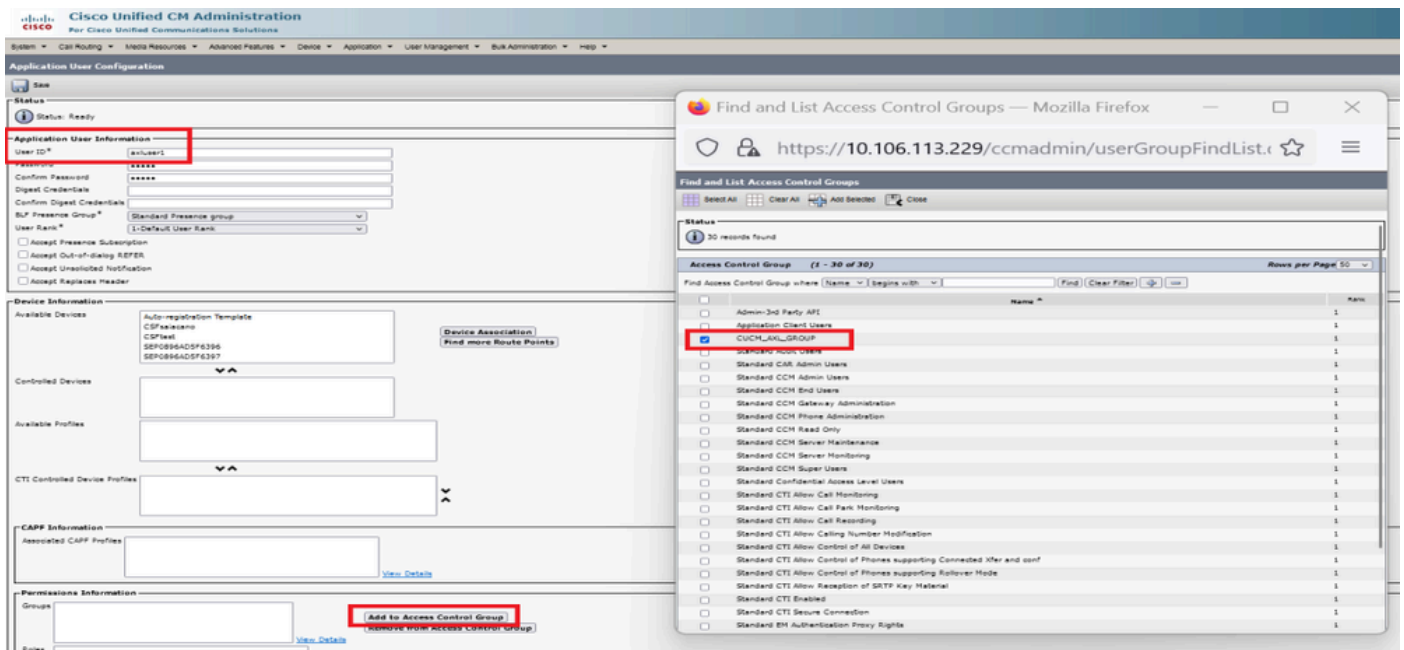
Wijs de rol toe Standard AXL API Access aan de eerder gecreëerde Access Control Group.



Toewijzen van API-toegang aan AXL-groep



Navigeer naar User Management > Application User, klik op Add New en maak een Application User AXUser. Wijs vervolgens de toegangscontrolegroep toe, die eerder is gemaakt.



Een gebruiker maken en AXL-groep toewijzen

Maak een CUP-gebruiker en wijs deze twee rollen toe: Third Party Application Users en Admin-3rd Party API.



The screenshot displays two configuration windows from the Cisco Unified Communications Manager (CUCM) administration console. The left window, titled 'Application User Configuration', shows the configuration for a user named 'cupuser'. The 'User ID' field is highlighted with a red box. Below it, there are fields for 'Password', 'Confirm Password', 'Digest Credentials', and 'Confirm Digest Credentials'. There are also dropdown menus for 'SIP Presence Group' (set to 'Standard Presence group') and 'User Rank' (set to '1-Default User Rank'). Several checkboxes are present, including 'Accept Presence Subscription', 'Accept Out-of-dialog REFER', 'Accept Unsolicited Notification', and 'Accept Replaces Header'. The right window, titled 'Find and List Access Control Groups', shows a search for groups where the name begins with 'ad'. A table lists 31 records. Two records are highlighted with red boxes: 'Admin-3rd Party API' and 'Third Party Application Users'. The table has columns for 'Name' and 'Rank'.

CUP-gebruiker maken

Certificaatverificatie voor de CUCM en het Cisco Unified Communications Manager IM & Presence Service (IMPS)-certificaat op de CMS inschakelen met:

callbridge ucm verify <enable/disable>

callbridge imps verify <enable/disable>

```

wb3>
wb3> callbridge ucm verify enable
wb3>
wb3>
wb3> callbridge imps verify enable
wb3>

```

Callbridge verify CUCM en CUPS-cert

Controleer dit door de opdracht uit te voeren callbridge.

```

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>

```

#### Gesprekscontrole

Voeg nu CUCM Fully Qualified Domain Name (FQDN) toe en de User **XL** en **CUPS** die eerder op CMS zijn gemaakt met callbridge ucm add <hostname/IP> <axl\_user> <presence\_user>.

axl\_user = AXL-gebruiker op CUCM

Presence\_user = CUP-gebruiker gemaakt eerder

```

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>

```

#### CUCM toevoegen aan CallBridge

Controleer nu of CMS de CUCM-services vertrouwt met de hulp van:

```
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 status

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>
```

### Status van CallBridge-aanwezigheid

Beschikbare diensten betekent dat CUCM en CMS elkaar vertrouwen voor AXL- en Presence-diensten.

---

**Opmerking:**

---

CUCM heeft Lichtgewicht Directory Access Protocol (LDAP) gebruikers gesynchroniseerd en ook bijgewerkt op de CUPS. De gebruikers moeten dezelfde web app gebruikers-id en Jabber JID hebben en moeten in de web app met dezelfde gebruikers-id zijn ondertekend, zodat de aanwezigheid kan worden bijgewerkt op Jabber.

CUCM-specifieke configuratie voor delen van aanwezigheid tussen Webapp en Jabber-client



CUCM moet LDAP geconfigureerd hebben.

LDAP-systeem:

## 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-configuratie 1*

LDAP-map:

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

Save Delete Copy Perform Full Sync Now Add New

---

**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-configuratie 2

LDAP-verificatie:

CUCM LDAP-configuratie 1 CUCM LDAP-configuratie 1 CUCM LDAP-configuratie 1

**LDAP Authentication**

Save

---

**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 configuratie 3

Gebruikers van LDAP naar CUCM getrokken met Mail-ID geconfigureerd:

## 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:

Gebruikers in CUCM

CUCM gebruiker bijgewerkt op CUPS server:

The screenshot shows the 'Node User Assignment (impnew.test.com)' page. The 'Status' section indicates '2 records found'. Below is 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

Gebruikers in CUPS

Dezelfde LDAP Directory is ook geconfigureerd op het CMS. De gebruikersdatabase wordt geüpload en gesynchroniseerd op CMS.

### 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-gebruikers

Nu, aangezien u reeds hebt bevestigd dat CMS op CUCM kan vertrouwen, kunt u met het testen van Presence te werk gaan.

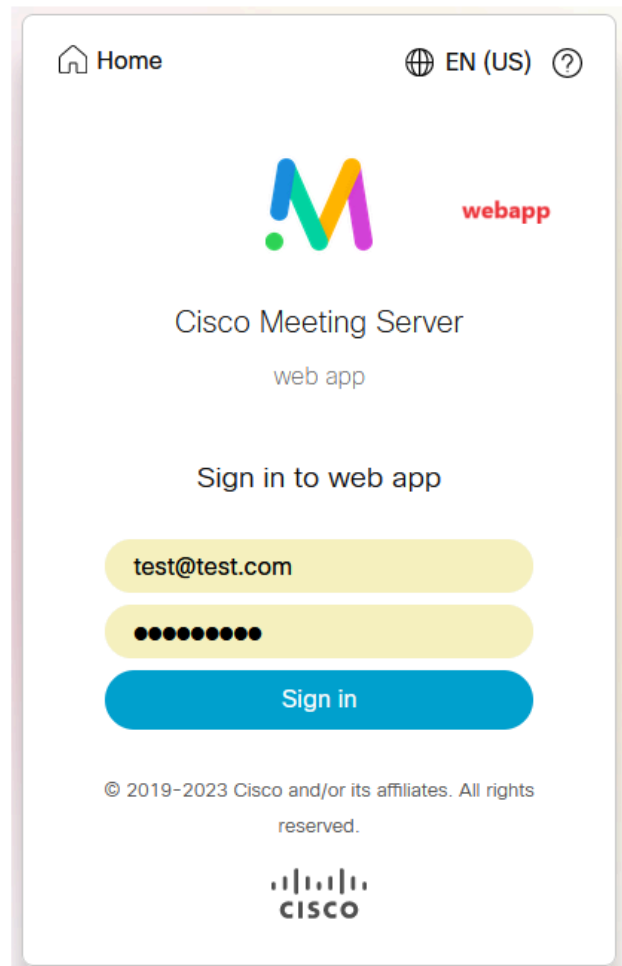
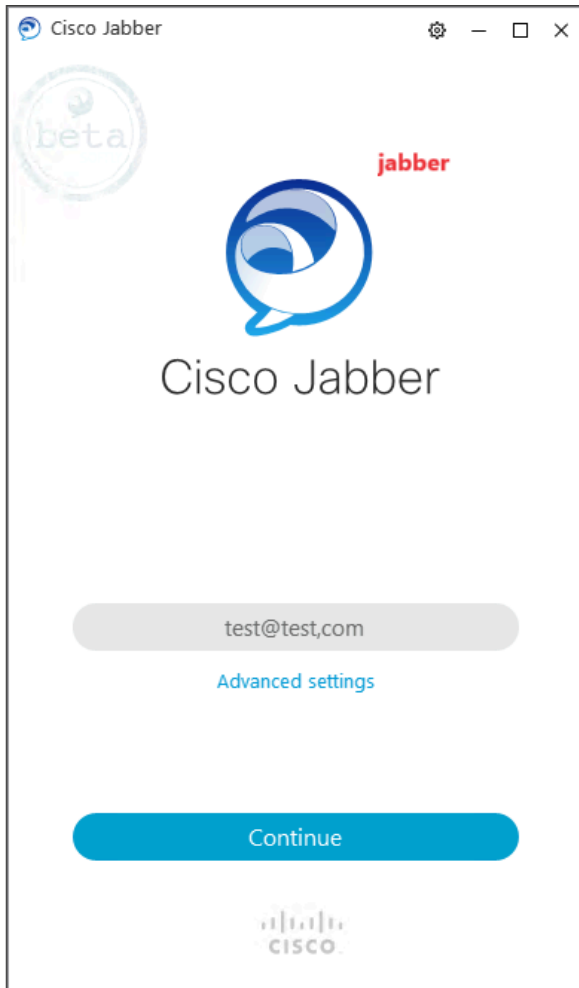
```

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> █
  
```

### CUPS en CUCM toevoegen aan CMS

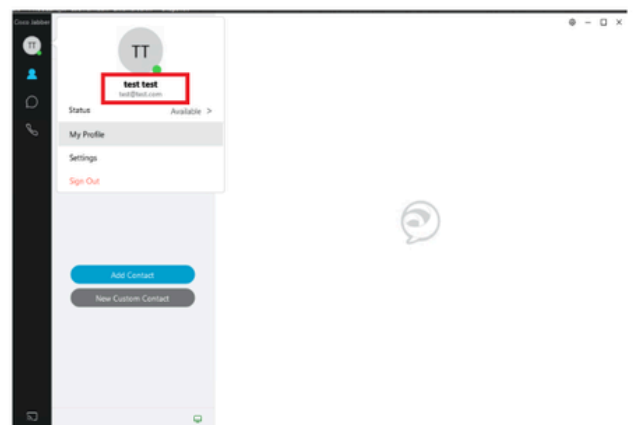
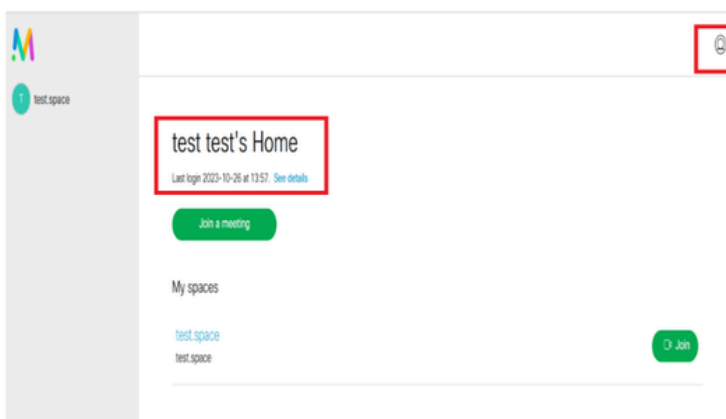
### Verifiëren

Ondertekend op twee clients met dezelfde gebruiker (gesynchroniseerd via dezelfde LDAP):



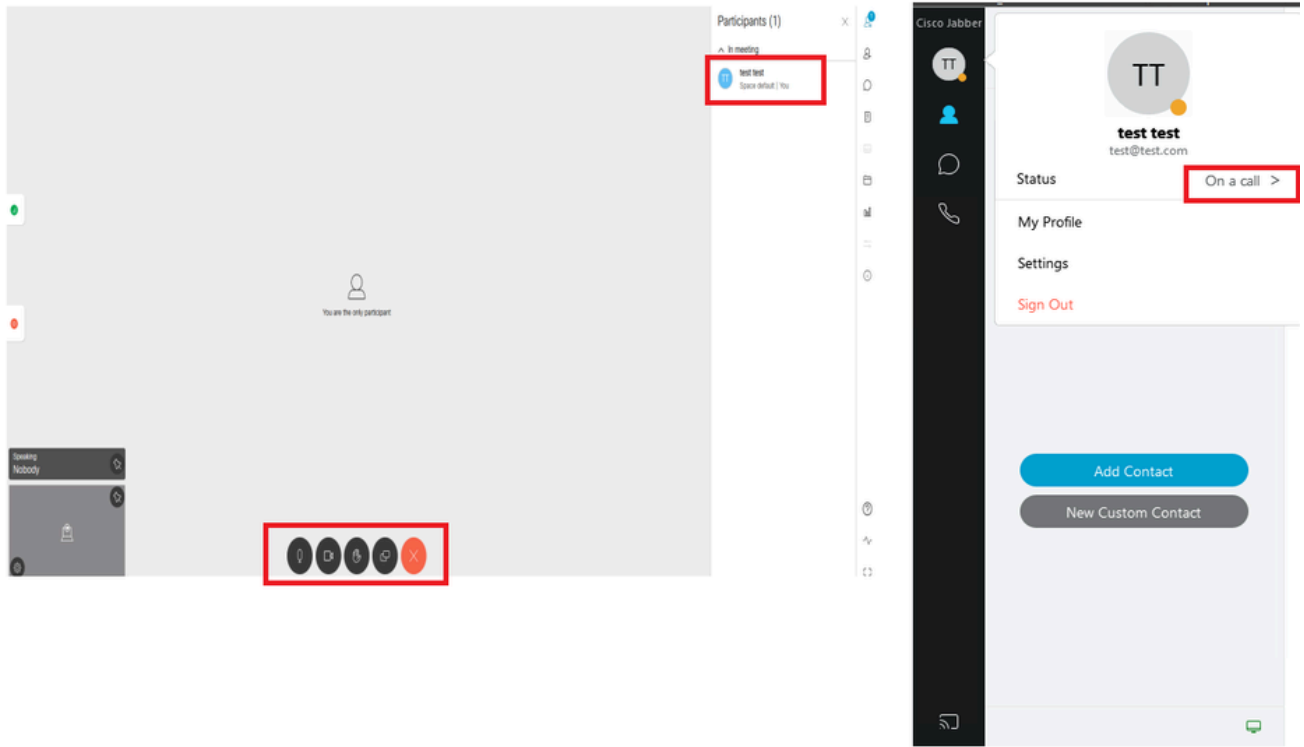
*Gebruikersaanmelding in Jabber en webapp*

Beide cliënten ondertekenden in de zelfde gebruiker [test@test.com](mailto:test@test.com).



*Aanwezigheid in Jabber en Webapp voor gesprek*





*De status van de aanwezigheid verandert wanneer de vraag van webapp wordt aangesloten*

Wanneer een Jabber-gebruiker zich aanmeldt bij de web-app en zich bij een vergadering aansluit, werkt de Meeting Server de Jabber-status bij tot 'In een vergadering, in een oproep' en keert deze terug naar de vorige status nadat de gebruiker de vergadering beëindigt. Bijvoorbeeld, als de status van de gebruiker op Jabber 'Beschikbaar' toont, wordt het bijgewerkt naar 'In een vergadering, In een oproep' wanneer in een web app vergadering. Nadat de gebruiker de vergadering verlaat, wordt de status van Jabber opnieuw ingesteld op 'Beschikbaar'. Als de Jabber-gebruiker in een andere vergadering/oproep is tijdens het deelnemen aan de web-app-vergadering, werkt de Meeting Server de Jabber-status niet bij. Als de Jabber-gebruiker zijn status heeft ingesteld op 'DND - Niet storen' voordat hij zich aansluit bij de web-app-vergadering, werkt de Meeting Server de Jabber-status niet bij. Als de gebruiker de Jabber-status tijdens de web-app vergadering handmatig bijwerkt, heeft de Meeting Server geen invloed op de handmatig bijgewerkte gebruikersstatus.

## Over deze vertaling

Cisco heeft dit document vertaald via een combinatie van machine- en menselijke technologie om onze gebruikers wereldwijd ondersteuningscontent te bieden in hun eigen taal. Houd er rekening mee dat zelfs de beste machinevertaling niet net zo nauwkeurig is als die van een professionele vertaler. Cisco Systems, Inc. is niet aansprakelijk voor de nauwkeurigheid van deze vertalingen en raadt aan altijd het oorspronkelijke Engelstalige document ([link](#)) te raadplegen.