

Nota técnica sobre el flujo de llamadas de CTI Manager para la solicitud de control del teléfono de escritorio Jabber

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Introducción

Este documento describe el flujo de llamada detallado para una autenticación de administrador de integración de telefonía por ordenador (CTI) correcta para clientes de escritorio Jabber

Prerequisites

Requirements

Cisco recomienda que tenga conocimiento sobre estos temas:

- Protocolo ligero de acceso a directorios (LDAP)
- Computer Telephony Integration (CTI)

Componentes Utilizados

La información que contiene este documento se basa en estas versiones de software:

- Cisco Jabber para Windows 11.5
- Cisco Unified Communications Manager (CUCM) 10.5(2) y posterior

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Si tiene una red en vivo, asegúrese de entender el posible impacto de cualquier comando.

Mensajería CTI para el control del teléfono de escritorio Jabber

Asegúrese de que los registros de servicio de CTI Manager estén establecidos en el nivel de depuración, reproduzca el problema y, a continuación, recopile los registros a través de la línea de comandos o la herramienta de supervisión en tiempo real (RTMT). Siga estos pasos para verificar la autenticación CTI

Paso 1. El servicio CTI Manager recibe la solicitud abierta del proveedor del cliente Jabber.

```
00895255.002 |08:59:16.944 |AppInfo |[CTI-APP] [CTIHandler::processIncomingMessage] CTI  
ProviderOpenRequest ( seq#=2 provider=UCProvider login=wwhite heartbeat=60 timer=10 priority=0  
lightWeightProviderOpen=0 AuthType=0 RequestOldFetch=0 EncryptedSSODataSize=0)  
00895256.000 |08:59:16.944 |SdlSig |CtiProviderOpenReq |init_complete_await_provopen  
|CTIHandler(1,200,22,7) |CTIHandler(1,200,22,7) |1,200,13,8.3^*^* | [R:N-H:0,N:0,L:0,V:0,Z:0,D:0]  
Async Response=2 ProviderName=UCProvider ClientVersion=UCProvider LoginId=wwhite ApplName=Shibui  
ServerHeartbeat=60 CMAssignedAppId=1234 PluginName=Cisco JTAPI LightWeightProviderOpen=0 Auth  
Style=0 RequestOldFetch=0  
00895256.001 |08:59:16.944 |AppInfo |SSOTOKEN =  
00895256.002 |08:59:16.944 |AppInfo |QBEBUILDER::BuildQbeMessage(): objectID=2  
00895256.003 |08:59:16.944 |AppInfo |CTIHandler::OutputQbeMessage: TcpHand=[1:200:13:8]  
QbePref={0x0xf74b346c,0x70} pQbeMsg=0x0xf74b3474 qbeMsgSize=0x70 tmpLen=0x78 msgSize_=0x78
```

Paso 2. La respuesta abierta del proveedor se envía al cliente Jabber.

```
00895256.004 |08:59:16.944 |AppInfo |[CTI-APP] [CTIHandler::OutputCtiMessage ] CTI  
ProviderOpenResponse (seq#=2) provider id=16777223 FIPMode = 0
```

Paso 3. Se inicia el proceso de autenticación del usuario final.

```
00895260.000 |08:59:17.057 |SdlSig |CtiProceedWithAppLogin |init_complete_await_auth  
|CTIHandler(1,200,22,7) |CtiManager(1,200,21,1) |1,200,13,8.3^*^* | [R:L-H:0,N:0,L:0,V:0,Z:0,D:0]  
00895261.000 |08:59:17.058 |SdlSig |CtiLoginCheckReq |ready |Directory(1,200,23,1)  
|CTIHandler(1,200,22,7) |1,200,13,8.3^*^* | [T:N-H:0,N:0,L:0,V:0,Z:0,D:0] Login=wwhite Seq#=2  
Auth Style=0 3rd Party Certificate=0 mOcsUrl= mIssuerName= EncryptedSingleSignOnData Size=0  
00895261.001 |08:59:17.058 |AppInfo |CtiLoginCheckReq:authenticateByUserName
```

Paso 4. El descifrado de claves tiene lugar y debe ser exitoso antes del intento de autenticación.

```
00895261.002 |08:59:17.058 |AppInfo |CCMASymmetricEncryption::DecryptText Enter  
00895261.003 |08:59:17.067 |AppInfo |CCMASymmetricEncryption::DecryptText Exit  
00895261.004 |08:59:17.067 |AppInfo |Decrypted Key Status success - [52]  
00895261.005 |08:59:17.067 |AppInfo |Nonce =cc64fd13-d4e1-43bc-808f-f051f7c945d0  
00895261.006 |08:59:17.067 |AppInfo |Nonce validation success  
00895261.007 |08:59:17.067 |AppInfo |CCMASymmetricEncryption::DecryptText:enter  
00895261.008 |08:59:17.067 |AppInfo |CCMEncryption::DecryptText (Exit) (Success)  
00895261.009 |08:59:17.067 |AppInfo |Decrypted Password Status success - [8]
```

Paso 5. El nombre de usuario se recupera y se utiliza para la autenticación junto con la contraseña.

```
00895261.010 |08:59:17.067 |AppInfo |AuthenticationImpl::login:enter  
00895261.011 |08:59:17.067 |AppInfo |AuthenticationImpl::retrieveCredential:enter  
00895261.012 |08:59:17.067 |AppInfo |userid is wwhite  
00895261.013 |08:59:17.067 |AppInfo |AuthenticationImpl::login - no encryptedpassword  
Credential, look for password  
00895261.014 |08:59:17.067 |AppInfo |AuthenticationImpl::login (Auth with password. Calling  
authenticateUserWithPassword)  
00895261.015 |08:59:17.067 |AppInfo |authenticationDB:authenticateUserWithPassword():enter  
00895261.016 |08:59:17.067 |AppInfo |Credential Length is: 8
```

Paso 6. CTI Manager verifica la política de credenciales del usuario.

```
00895261.021 |08:59:17.113 |AppInfo |userType is: 1
```

```

00895261.022 |08:59:17.113 |AppInfo |timeOfLockout is: 0
00895261.023 |08:59:17.113 |AppInfo |timeHackedLockout is: 0
00895261.024 |08:59:17.113 |AppInfo |hackCount is: 0
00895261.025 |08:59:17.113 |AppInfo |daysToExpiry is: 0
00895261.026 |08:59:17.113 |AppInfo |doesNotExpire is: 0
00895261.027 |08:59:17.113 |AppInfo |useExpiryWarning is: 0
00895261.028 |08:59:17.113 |AppInfo |isInactive is: 0
00895261.029 |08:59:17.113 |AppInfo |userMustChange is: 0
00895261.030 |08:59:17.113 |AppInfo |endUserStatus is: 1
00895261.031 |08:59:17.113 |AppInfo |imsInfo is: 1
00895261.032 |08:59:17.113 |AppInfo |lastSuccessfulLoginTime is: 1455049675
00895261.033 |08:59:17.148 |AppInfo |XXXXXX Check 1

```

Paso 7. La autenticación CTI para el usuario final continúa.

```

00895261.034 |08:59:17.149 |AppInfo |authenticationDB::login (Authenticating using LDAP)
00895261.035 |08:59:17.149 |AppInfo |
|authenticationLDAP.cpp::authenticateUserWithPassword():enter
00895261.036 |08:59:17.149 |AppInfo |LDAP userid is 'wwhite'
00895261.037 |08:59:17.149 |AppInfo |
|authenticationUtils::escapeLDAPSpecialCharsForFilter():enter
00895261.038 |08:59:17.149 |AppInfo |
After Escaping for LDAP special Characters for Filter = wwhite

```

Paso 8. El servicio CTI Manager ahora intenta conectarse a LDAP antes del intento de autenticación.

```

00895261.040 |08:59:17.149 |AppInfo |LDAP not initialized...connecting...
00895261.041 |08:59:17.149 |AppInfo |authenticationLDAP::connect():enter
00895261.042 |08:59:17.149 |AppInfo |authenticationLDAP::Authenticate():enter
00895261.043 |08:59:17.149 |AppInfo |Authenticating with SSL not enabled
(ldap://10.10.10.10:3268)

```

Paso 9. El intento de conexión se ha realizado correctamente con la cuenta de servicio configurada en la configuración de autenticación LDAP.

```

00895261.044 |08:59:17.149 |AppInfo |LDAP initialize non-SSL Return Code (0)

```

Paso 10. La autenticación de administrador es correcta.

```

00895261.051 |08:59:17.158 |AppInfo |LDAP authentication bind SUCCESS for
Administrator@joshlab.net
00895261.052 |08:59:17.158 |AppInfo |Connection # (0): sucessful
00895261.053 |08:59:17.158 |AppInfo |Details ::
00895261.054 |08:59:17.158 |AppInfo |10.10.10.10 3268
00895261.055 |08:59:17.158 |AppInfo |-----
-----
00895261.056 |08:59:17.158 |AppInfo |Available Servers (1)
00895261.057 |08:59:17.158 |AppInfo |authenticationLDAP::Authenticate():exit(0)
00895261.058 |08:59:17.158 |AppInfo |Authentication of LDAP administrator successful.

```

Paso 11. El servicio CTI Manager recupera información LDAP y se autentica con la cuenta de usuario final.

```

00895261.072 |08:59:17.164 |AppInfo |Retrieve the specified user entry:
(&(&(objectclass=user)!(objectclass=Computer)!(UserAccountControl:1.2.840.113556.1.4.803:=2))
)(sAMAccountName=wwhite)
00895261.073 |08:59:17.164 |AppInfo |LDAP Search for User base: 'OU=Breaking
Bad,DC=joshlab,DC=net'

```

```

00895261.074 |08:59:17.165 |AppInfo |LDAP Search complete. Code: 0
00895261.075 |08:59:17.165 |AppInfo |Get DN of entry.
00895261.076 |08:59:17.165 |AppInfo |Got DN: CN=Walter White,OU=Breaking Bad,DC=joshlab,DC=net
00895261.077 |08:59:17.165 |AppInfo |Attempt to authenticate DN: CN=Walter White,OU=Breaking
Bad,DC=joshlab,DC=net
00895261.078 |08:59:17.165 |AppInfo |authenticationLDAP::Authenticate():enter
00895261.079 |08:59:17.165 |AppInfo |Authenticating with SSL not enabled
(ldap://10.10.10.10:3268)

```

Paso 12. La autenticación LDAP para el usuario final es correcta.

```

00895261.087 |08:59:17.171 |AppInfo |LDAP authentication bind SUCCESS for CN=Walter
White,OU=Breaking Bad,DC=joshlab,DC=net
00895261.088 |08:59:17.171 |AppInfo |Connection # (0): sucessful
00895261.089 |08:59:17.171 |AppInfo |Details ::
00895261.090 |08:59:17.171 |AppInfo |10.10.10.10 3268
00895261.091 |08:59:17.171 |AppInfo |-----
-----
00895261.092 |08:59:17.171 |AppInfo |Available Servers (1)
00895261.093 |08:59:17.171 |AppInfo |authenticationLDAP::Authenticate():exit(0)
00895261.094 |08:59:17.171 |AppInfo |authenticationLDAP::authenticateUserWithPassword():Exit(0)
00895261.095 |08:59:17.171 |AppInfo |Successfully authenticated user: wwwhite

```

Paso 13. CTI Manager comprueba la base de datos para asegurarse de que el usuario final tiene los permisos correctos para permitir el acceso al teléfono.

```

00895262.000 |08:59:17.171 |SdlSig |CtiLoginCheckRes |authenticating |CTIHandler(1,200,22,7)
|Directory(1,200,23,1) |1,200,13,8.3^*^* | [R:N-H:0,N:0,L:0,V:0,Z:0,D:0] Seq#=2 result=Success
LoginUserID= Expire days=4294967295
00895263.000 |08:59:17.172 |SdlSig |CtiUserSettingsReq |ready |CTIDbAccess(1,200,26,1)
|CTIHandler(1,200,22,7) |1,200,13,8.3^*^* | [T:H-H:0,N:0,L:0,V:0,Z:0,D:0] mUserId=wwwhite
00895263.001 |08:59:17.172 |AppInfo |DbAccess::ReadCtiUserSettingsReq

```

Paso 14. Se confirman los permisos de usuario CTI.

```

00895264.000 |08:59:17.172 |SdlSig |CtiUserSettingsRes |verifying |CTIHandler(1,200,22,7)
|CTIDbAccess(1,200,26,1) |1,200,13,8.3^*^* | [R:N-H:0,N:0,L:0,V:0,Z:0,D:0] SuperProvider =
Disabled CallParkRetrievalAllowed = Disabled ModifyCallingNumber = Disabled CTI Enabled =
Enabled CallMonitor=Disabled CallRecord=Disabled Userid = wwwhite result=0
00895264.001 |08:59:17.172 |AppInfo |[CTI-INFO] [CTIHandler::verifying_CtiUserSettingsRes]
mCtiUserSettings.mbSecurityEnabled=0
00895264.002 |08:59:17.172 |AppInfo |[CTI-INFO] [CTIHandler::verifying_CtiUserSettingsRes]
mListenPort=2748
00895264.003 |08:59:17.172 |AppInfo |[CTI-INFO] [CTIHandler::verifying_CtiUserSettingsRes] sent
providerSubscriptionRegNotify for user wwwhite

```

Paso 15. A continuación, CTI envía un DeviceOpenRequest para el teléfono que Jabber va a controlar.

```

00895326.002 |08:59:17.335 |AppInfo |[CTI-APP] [CTIHandler::processIncomingMessage] CTI
DeviceOpenRequest ( seq#=4 device name=SEP001794625DE5 softkeys AppID=1234)
00895327.000 |08:59:17.335 |SdlSig |CtiDeviceOpenDeviceReq |ready |CTIHandler(1,200,22,7)
|CTIHandler(1,200,22,7) |1,200,13,8.5^14.48.68.203^SEP001794625DE5 | [R:N-
H:0,N:0,L:0,V:0,Z:0,D:0] AsyncResponse=4 DH=0|0 Name=SEP001794625DE5 Type=0 RisClass=0
TerminateMedia=5 RequestType=0 RtpDestination1|1 ApplnIpAddrMode=3 Filter
Bitmap=000100000000000000000000100000001001 AppLoginUserId=wwwhite AppIPAddr= ipAddrType=0
ipv4=10.10.10.100 ApplicationIDListCount = 1 ApplicationIds are 1234, mSoftKeyApplicationID =
1234 ProviderIDListCount = 1 ProviderIds are 16777223, IsCTIConnectionTLS = F

```

Paso 16. CTI Manager permite la conexión y envía la respuesta DeviceOpenRequest.

```

00895329.000 |08:59:17.339 |SdlSig |CtiDeviceOpenDeviceRes |ready |CTIHandler(1,200,22,7)
|CTIDeviceLineMgr(1,200,25,1) |1,200,13,8.5^10.10.10.100^SEP001794625DE5 |[R:N-
H:0,N:3,L:0,V:0,Z:0,D:0] mAsyncResponse = 4 DH=1|38 Name=SEP001794625DE5 Type=7
StationPid=(0,0,0,0) mOpenResult=0x0 mEncodingType=3 mRequestType=0 mDSSDeviceState = 0
00895329.001 |08:59:17.339 |AppInfo |CQBEBUILDER::BuildQbeMessage(): objectID=27
00895329.002 |08:59:17.340 |AppInfo |CTIHandler::OutputQbeMessage: TcpHand=[1:200:13:8]
QbePref={0x0xf74b346c,0x98} pQbeMsg=0x0xf74b3474 qbeMsgSize=0x98 tmpLen=0xa0 msgSize_=0xa0
00895329.003 |08:59:17.340 |AppInfo |[CTI-APP] [CTIHandler::OutputCtiMessage ] CTI
DeviceOpenResponse ( seq#=4 result=0 DH=1|38 deviceName=SEP001794625DE5 deviceType=7 deviceId=38
registrationAllowed=0 deviceLocale=1 protocol=1 deviceRestricted=0 altScript= Rollover=0 BIB=0
DNDOption=0 IpAddrMode=0 supportsFeat=0 Visiting=0)
00895330.000 |08:59:17.340 |AppInfo |-->RisCTIManagerAccess::DeviceOpenActivityy(...)
00895331.000 |08:59:17.340 |AppInfo |DeviceOpenActivity(): activity: 1, connID: 7, deviceName:
SEP001794625DE5, appID: wwwhite-10.10.10.100-58667, rtpaddr: , assocIpAddr: , mediaControl: 0,
deviceType: 7, reason: 0
00895332.000 |08:59:17.340 |AppInfo |<--RisCTIManagerAccess::DeviceOpenActivityy(...)

```

Paso 17. Finalmente, está el mensaje **DeviceInService** que marca la finalización correcta de la solicitud de control del teléfono de escritorio.

```

00895336.003 |08:59:17.343 |AppInfo |[CTI-APP] [CTIHandler::OutputCtiMessage ] CTI
DeviceInServiceEvent ( DH=1|38 ) Encoding Type=3 Device locale=1 Alt Script= DNDStatus=0
DNDOption=0)
00895337.000 |08:59:17.344 |SdlSig |SdlDataInd |ready |CtiManager(1,200,21,1)
|SdlTCPConnection(1,200,13,8) |1,200,13,8.6^** |*TraceFlagOverrode
00895337.001 |08:59:17.344 |AppInfo |CtiManager::ready_SdlDataInd(): ConnHandle=[1:200:13:8] TCP
message length=0x108
00895338.000 |08:59:17.344 |SdlSig |CtiQbeGenericMessage |ready |CTIHandler(1,200,22,7)
|CtiManager(1,200,21,1) |1,200,13,8.6^** |*TraceFlagOverrode
00895338.001 |08:59:17.344 |AppInfo |CQBEPARSER::ParseQbeMessage: PDU#=37

```

En este momento, el cliente Jabber puede controlar correctamente el teléfono de escritorio a través de CTI. Se pueden ver problemas comunes en la autenticación LDAP y en el proceso de permisos de usuario final de los registros CTI.

Información Relacionada

- [Guía de configuración de Jabber](#)
- [Soporte Técnico y Documentación - Cisco Systems](#)