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New Features in CUCM 9.0

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Pause in Speed Dial

Users can configure speed dials with FAC, CMC and post connect DTMF
Comma accepted in speed dial as delimiter and pause

Feature allows two methods of configuration:

- Method 1: Using comma as a pause and also as a delimiter
- Method 2: Dialstring/FAC/CMC/Post connect digits with no commas

Method 1: Command Delimiter for Pause

- Comma used to delineate dial string, FAC, CMC, and post connect digits
- For post connect digits, commas insert a 2 second delay
- Commas may be duplicated to create longer delays
- Preferred method for non-CUPC devices

Method 2: No Comma

- All digits to be used for dial string, FAC, CMC and post call digits entered as one string
- Once a digit string has been matched, CUCM moves on to next digit string
- Can be used on SCCP and SIP phones, but required for CUPC

Pause in Speed Dial Examples

- **914085551212,,,123456**
Will dial 914085551212, after connect, wait 8 seconds to dial 123456
- **90114455612323#,2244**
FAC for International Calls. Will dial 90114455612323# with FAC of 2244
- **914085551212,6534,5656,,,9933**
Will dial 91408551212, with a FAC of 6534 and CMC of 5656, wait 6 seconds, then dial the DTMF digits 9933
- **914085551212653456569933**
Will dial 914085551212 with a FAC of 6534 and CMC of 5656, then immediately after connect, dial 9933

New Service Parameter allows configuration of interdigit delay

If the speed dial FAC or CMC is wrong

- Method 1: Call disconnects and an error is displayed
- Method 2: phone displays an error and allows user to manually enter information

Pause in Speed Dial Caveats

- Dial string is truncated in the calls history list (only dialed number)
- Feature may not work with CUPC client and variable length/overlapping dialplans (no comma delineation)
- This feature is not supported SRST

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Codec Preference

Pre CUCM 9.0

- Administrator could only eliminate codecs (based on Maximum Audio Bit Rate)
- Could not prioritize G.711alaw over G.711ulaw, or G.729 codecs

With CUCM 9.0

- System default codec preference same as earlier versions
- Allow administrator to deterministically specify codec order
- Allow codec selection based on received offer
- Custom Codec list applied globally or on a GW/Trunk Level
- Can be applied to: SIP, MGCP, SCCP, H323 and EMCC

Codecs preference still choose by Regions

For SIP Devices/Trunk, can specify "Accept Codec Preference in received Offer"

Can change codec selection for EMCC logged in devices

Codec Preference Caveats

A common Codec Preference List must be the same on all clusters when using the following features:

- Extension Mobility Cross Cluster
- H323 Inter Cluster Trunks

Biggest challenge will be unexpected codec

- Check "Accept Audio Codec Preferences in Received Offer" settings
- Check at Device level and system level

When using non-pass through MTP, codec negotiated hop-by-hop

Native Call Queuing

Enables Hunt Pilot to queue callers

- Allow for redirection of calls based on different queue criteria
- Allow agents to participate in multiple queues
- Auto logout and call re-queue if agent does not answer
- Longest waiting call in all queues will be delivered first
- No 'post call' time or agent greeting options
- On phone 'Queue Status' display



Cisco Extend and Connect

What is the existing limitation?

- Using CTI (webex connect or CUCILync), user can monitor a calls, but not control the call
- No enterprise features for non-CUCM registered devices
- Cannot hold/resume, transfer, conference or park
- Remote devices ring and can be answered, but not mid-call features

What is Cisco Extend and Connect?

- A new device type, CTI Remote Device that represents all remote destinations for a user
- Anchors enterprise calls on the CTI Remote Device
- Allows a CTI application (like Jabber) 3rd party control of the remote connection to enable enterprise call features

Examples of a deployment scenario

Contact Center agent working from home

- Low bandwidth at house, VOIP not an option (hard phone or soft client) and cell phone is not an option
- Extend connect sends call to home phone and CAD agent allows enterprise features needed for contact center agents

Use Cisco Unified Communications with legacy PBX

- Customer has PBX under contract and not ready to move phones
- Customer wants UC for IM, Chat and messaging, but phones on PBX
- Extend Connect enables Jabber deployment for UC, but enterprise control of PBX phone (as remote device for Jabber)

New End User Webpages

CUCM 9.0 now has two types of end-user's webpages

- One type of page is for core Users with one phone and one line
- The other page will be for users with multiple phones with one or more lines on each device

New User Page UI targeted towards core users

Cisco Mobility Updates

Simultaneous Ring in previous versions of CUCM

- CUCM 7.0 introduced the parameter “Reroute Remote Destination Calls to Enterprise Number”
- Calls direct to cell would ignore time of day settings and call the cell
- Calls would be anchor on the enterprise phone...but the line would not ring

New features in CUCM 9.0:

- Added “Ring All Shared Lines” service parameter
- Uses Boolean Setting
- True – all lines (including other remote destinations) ring
- False – only the dialed number (remote destination) rings
- Default and existing behavior is False

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Single Number Reach Voicemail

The Problem:

- When a call is extended to a SNR destination, CUCM cannot determine if the call was answered by the user or VM
- Based on “Answer Too Soon”
- Time based mechanism is unreliable and requires tweaking for each service provider

New Solution

- CUCM 9.0 introduces a new parameter called “Single Number Reach Voicemail Policy”
- Can be either Timer Controlled or User Controlled
- Timer Controlled uses existing “Answer Too Soon” timer
- User Controlled requires the user to send a signal (DTMF) to accept the call

Hunt Pilot Connected Number Display

Hunt pilot DN display in previous versions

- Calls to a hunt pilot display the DN of the hunt pilot as the connected party ID
- Applies to both MGCP and SIP trunks

Hunt pilot DN display in CUCM 9.0

- This feature allows the connection to be updated with the answering party’s DN as the Called Party ID
- Applied on the Hunt Pilot Configuration page
- SIP: PAI and Remote PartyID are updated
- MGCP/H323: Connected Number sent to update the Called Party ID

RTCP Support

RTCP

- RTCP provides out-of-band statistics and control info for RTP
- RTP sent on even port and RTCP is sent over next higher odd port
- RTCP is supported between phones directly

RTCP not supported by:

- Trusted Relay Point (TRP)
- RSVP Agent
- DTMF Translator
- Passthru MTP

CUCM 9.0 RTCP New features:

- CUCM 9.0 supports RTCP through MTP in pass thru mode
- In non-pass thru mode, RTCP will still be blocked
- Only valid for SIP to SIP calls



BRI G.Clear

- CUCM v7.0 (1) first introduced G.Clear support for MGCP PRI
- G.Clear required for tandem ISDN bearer circuits in VOIP network

New features:

- CUCM 9.0 expands support for G.Clear to BRI interfaces
- Supported on MGCP BRI interface
- Supports G.Clear over SIP trunk with Early Offer and G.Clear

Security and OS Updates

- Red Hat Enterprise Linux 5.0 v7.0.2
- Host rename/reIP simplified (3 less steps to complete)

Optimized CLI commands:

- Utils dbreplication stop/dropadmin/db/reset
- Utils dbreplication forcedatasyncsub
- Utils dbreplication status replicate
- Utils dbreplication runtimestate

Upgrade paths

- L2 upgrade from 8.6(1) and later to 9.0(1)
- Refresh Upgrade for 8.x (prior to 8.5), 7.1(5) and 6.1(5)

Security Feature Update

CTL Client Update

- Single installer for all Windows versions
- Supports Windows 7 (32 and 64 bit), Windows XP and Windows Vista

Updates to AXIS 2.0 (support .NET clients)

Assured Services for SIP Line side devices

- MLPP support for 99xx/89xx SIP phones and 3rd party SIP Phone
- TLS connections for 3rd party SIP phones

LDAP Enhancements

Custom User Fields

- Existing LDAP agreements sync 13 default attributes
- LDAP agreements will allow 5 Custom User fields
- Custom User Fields are common across all sync agreements
- Custom User Fields updated on 1 agreement are synced across all agreements
- Attribute will be validated at save time
- Error message thrown when saving and the attribute does not exist

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LDAP and Manual User Support

Prior to CUCM 9.0

- Enabling LDAP sync would prohibit adding local users
- End user to be used by CUCM must be defined on AD and synced
- Extra users could trigger extra CAL's on the MS AD

With CUCM 9.0

- Administrator can have both LDAP sync users and locally defined users
- Ability to modify local users and roles assigned to LDAP users
- Deleting LDAP sync will mark users synced for deletion (garbage collection)
- Administrator can convert an LDAP user to a local user
- User status field is used to differentiate between the Local user and LDAP Synchronized users

To convert LDAP synchronized user to the local user account:

- Check the box Convert User Account and Save changes
- After a user is converted to local CUCM user all the fields become editable

CUCM IM and Presence

Beginning with release 9.0, CUCM and CUP will start integration to be one product

- Includes common release and upgrade process
- Centralize administration
- Simplify licensing, now included as part of CUCM user licensing
- Deprecating IP Phone Messenger (IPPM) and CUPC 7.0

Through CUCM IM and Presence administration screens, configure UC Services for clients

UC Services that can be defined:

- Voice Mail
- Visual Voice Mail
- Conferencing
- Directory
- IM
- Presence
- CTI

UC Services are used to build a UC Service Profile

UC Service Profiles assigned to users:

- Licensing for the feature handled at the user level
- Home cluster specified in the user page

When migrating to CUCM 9.0, existing service profiles and configuration in CUP will be migrated

- CUCM IM and Presence uses Templates and Layouts to speed up user creation
- BAT/AXL have been updated for CUCM/CUCM IM and Presence