Evolution von UC auf mobile Endgeräte

Bert- Henrik Czaya
Consulting Systems Engineer
German Public Sector Team
bczaya@cisco.com
Agenda

• Was natürlich geht … 😊
• Remote Destinations
• Nokia Call Connect
• Cisco Unified Mobile Communicator
• Mobile Clients
• Cisco Cius
Smartphones & Basic SIP-Clients
Remote Destinations
# Remote Destination

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access List</td>
<td>List that determines the phone numbers that are permitted to be passed or blocked from being passed to remote destinations.</td>
</tr>
<tr>
<td>Mobile Connect</td>
<td>Feature that allows users to answer incoming calls on the desktop phone or remote destination and to pick up in-progress calls on the desktop phone or remote destination without losing the connection.</td>
</tr>
<tr>
<td>Mobile Voice Access</td>
<td>Integrated voice response (IVR) system used to initiate Mobile Connect calls and to activate or deactivate Mobile Connect capabilities.</td>
</tr>
<tr>
<td>Remote Destination Profile</td>
<td>Phones that are available for Mobile Connect responses and pickup, plus locations that are used to reach Mobile Voice Access. Remote destinations may include any of the following devices:</td>
</tr>
<tr>
<td></td>
<td>• Single mode cellular phones</td>
</tr>
<tr>
<td></td>
<td>• Smart phones</td>
</tr>
<tr>
<td></td>
<td>• Dual mode phones</td>
</tr>
<tr>
<td></td>
<td>• Enterprise IP phones not in the same cluster as the desktop phone</td>
</tr>
<tr>
<td></td>
<td>• Home phone numbers in the PSTN.</td>
</tr>
<tr>
<td>Remote Destination Profile</td>
<td>Set of parameters that apply to all of a user's remote destinations.</td>
</tr>
</tbody>
</table>
Nokia Call Connect
Dual-Mode Phones and Clients

Nokia Call Connect 2.x: Hand-In (Cellular to WLAN)

After registration the device waits for **60 seconds** (default) and then opens a silent background call to **VoIP handover number** 1234 on the Unified CM system.

Once background call received by Unified CM, calling number is compared against system dual-mode mobility identities and provided a match is found, RTP stream on PSTN gateway is redirected to the WLAN.

An existing call between the Nokia dual-mode device on the mobile voice network and a phone on the PSTN.

The Nokia dual-mode user moves into the enterprise and the device associates in the background to WLAN infrastructure and registers to Unified CM.

Background call opened to the configured **VoIP Handover Number** in VCC settings (on Nokia device) which corresponds to the Handoff Number configured within Unified CM.

Hand-in can also be invoked manually by the user using the in-call menu “Switch to WLAN” option. Manual invocation of handoff stops operation of auto-handoff for duration of call.
Dual-Mode Phones and Clients
Remote Connectivity

While VPN connection from dual-mode device/client to enterprise is supported, **Cisco cannot guarantee voice quality when dual-mode devices are connected to the enterprise via public or private WiFi hotspots or over 3G.**

- **Cisco Mobile 8.0/8.1 (iPhone)** supports native IPSec VPN client as well as new AnyConnect client for VPN on-demand access for connectivity back to enterprise (Cisco Mobile 8 client → VPN → Provider data connection (3G) / WLAN AP (WiFi) → Internet)

- **Nokia CC** supports native IPSec VPN client for VPN on-demand access for connectivity back to enterprise (Nokia CC client → VPN → Provider data connection (3G) / WLAN AP → Internet)
Cisco Unified Mobile Communicator

Product naming decoder ring:

- **Cisco Unified Mobile Communicator (CUMC)** → Name of the solution and client
- **Cisco Unified Mobility Advantage (CUMA)** → Name of the server
- **Cisco Mobile 7** → Newer name for client (iPhone and Blackberry) – still CUMC
- **Cisco Mobile 8.x** → New dual-mode client (different than CUMC)
Cisco Unified Mobile Communicator

Overview

Cisco Unified Mobile Communicator (CUMC) solution enables mobile users to utilize enterprise applications from their mobile phones using a mobility client that communicates with a mobility server inside the enterprise (client-server architecture).

Cisco Unified Mobile Communicator includes the following set of features:

- Enterprise directory lookups and single sign-on
- Secure text messaging between CUMC clients*
- Presence integration*
- Enterprise visual voicemail and MWI
- Conference notifications and click-to-join (Call Me)*
- Desk phone call log integration
- Dial-via-office*
- Mobile Connect (via Unified Mobility integration)*

Not supported on all clients
### Cisco Unified Mobile Communicator

**Mobile OS Feature Summary**

<table>
<thead>
<tr>
<th>Feature</th>
<th>BlackBerry</th>
<th>Nokia</th>
<th>iPhone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Directory Lookup and single sign-on</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Enterprise Desk Phone Call Log Integration</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IM/Text Messaging</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Presence</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Voicemail (visual and MWI)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Conference Integration – Meeting List *</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Conferencing Integration – Call Me (click-to-join)</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Dial-via- Office (DVO-F)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dial-via-Office Reverse/Callback (DVO-R)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mobile Connect (Single Number Reach) †</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

* Microsoft Exchange required
† Via integration with Unified Mobility
RIM Mobile Voice System
RIM Mobile Voice System Architecture

RIM Mobile Voice System (MVS) solution enables BlackBerry mobile users to utilize secure enterprise connectivity to leverage enterprise telephony infrastructure for making and receiving calls using the MVS client which communicates with the MVS server inside the enterprise (client-server architecture).
RIM Mobile Voice System
Features and Functionality

- Provide access to UC features directly from native integrated client on BlackBerry
  - Single number reach
  - Dial-via-office
  - Enterprise MWI and single voicemail box for all enterprise calls
  - Enterprise mid-call features over data channel or via DTMF (KPML): Transfer, Hold, Resume, Call Waiting
  - Mobile phone masking (outgoing enterprise caller ID)
  - Move active calls between Blackberry mobile device and desk phone*
  - Call filtering and call screening
  - Dual-mode support for Voice over WLAN

- Relies on Unified CM for **device registration and call routing via SIP integration** (SIP line and trunk).
- **SNR and dial-via-office are delivered natively** rather than via Unified Mobility (no Remote Destination Profile or Remote Destination/Mobility Identity)
- MVS 5 supports VoWLAN/dual-mode functionality (co-resident with native SNR and DVO functionality)
- Leverages existing secure enterprise BES infrastructure

* Send Call to Mobile (move to mobile) requires Unified CM 8.5
Today: Transitioning to Direct Connect
Transitioning to Direct Connect Clients
Architecture – Future

Future
Cisco Mobile 8.1
Turn your iPhone/Android into a Wireless IP Phone

- Adds Multitasking capabilities to Cisco Mobile 8.0
- Voice over Wireless LAN / Wi-Fi
- Voice over VPN (Cisco AnyConnect)
- Call preservation upon receipt of GSM call
- Handoff to GSM / cellular network
- Mid-call features
- Bluetooth headset (limited support)
- Voice Dialing
- Business Visual Voicemail
- Business Directory Access
Visual Voicemail

• Actions synchronized with your Cisco Unity Connection voicemail system
• Play secure messages
• Uses Wi-Fi / VPN – no voice call required
# Cisco Mobile Workspace

## Jabber Enterprise IM
- Available: In Beta (Mango)
  - Guide: [Here](#)

## WebEx Web & Video Conferencing
- Appstore Download
  - Phone: [Here](#)
  - Pad: [Here](#)
- Guide: [Here](#)

## Quad Social Software
- Appstore Download
  - Phone: [Here](#)
  - Pad: [Here](#)
- Guide: [Here](#)

## Mobile 8.x VoIP
- Appstore Download
  - Phone: [Here](#)
  - Pad: [Here](#)
- Guide: [Here](#)

## Show & Share
- Download: [Here](#)
- Guide: [Here](#)

### Available:
- Available: 2H CY2011
- Available: Q3 CY 2011
- Available: Q4 CY 2011

### Download to Phone:
- Android
  - Guide: [Here](#)
- BlackBerry
  - Guide: [Here](#)
- Curve, Tour, Bold, Torch
  - Guide: [Here](#)
- CUMC Download
  - Guide & instructions: [Here](#)
Cisco Cius als Innovation
Hörer/Freisprechen/großes Display/Anschl.

- Ausbaufähige Hardware = Multifunktionalität
  Bspw. Konferenzfunktion, Ladestation, ext. Maus/Tastatur/Display)
- Bluetooth 3.0 Hands-Free (HFP) und Streaming (A2DP) Profile
Gewohnte Bedienung: Zoom/Mutitasking/Homescreens
Wegweisend: Cius User Experience
Komfortable Wahl – “Eingebautes Telefon” oder von Webseiten heraus möglich
<table>
<thead>
<tr>
<th>Contact</th>
<th>Mobile Phone Number</th>
<th>Office Phone Number</th>
<th>Email Address</th>
<th>Instant Messenger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frank Johnson</td>
<td>4085967789</td>
<td>5104452341</td>
<td><a href="mailto:frank.johnson@corporation.com">frank.johnson@corporation.com</a></td>
<td>johnson345</td>
</tr>
<tr>
<td>Janet Smith</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edward Molina</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Voice & Video
User Experience
Helfer und mehr…
Helfer und mehr: Widgets, Suche
Helfer und mehr:
z.B. Wecker und Rechner
Helfer und mehr: Email, geschützt durch PIN
Schreiben v. Emails, IM’s, Posts etc…
Helfer und mehr: Kamera- Funktion
Helfer und mehr: Bildbetrachterfunktion
Helfer und mehr: Musik-Player und Soundrecorder
Mobilität, Applikationen und Video
Mitnahmemöglichkeit z.B. in Konferenzraum
Auf einen Blick: Anruflisten, Email, Erinnerungen, Presence
IM: Status setzen

- Available
- Busy
- Do not Disturb
- Custom
Dashboard als Ausgang f. Kommunikation (Realtime VM/Email/IM/Psence/Kalender)
Komfortable Voicemail
Integration von Social Media
... und anderen Kommunikationsebenen:
Wie Telepresence:
... und Multipoint
... auf Cius:

- In Mediastation (Ethernet)
- oder mobil (WLAN)
- Inkl. Handover!
Im Multipunkt- Szenario...

Positioning
- Powerful immersive multipoint solution with continuous presence, ad hoc flexibility, individual transcoding and native interoperability with standards-based endpoints and TIP

Application
- Multi and single screen immersive
- Active presence

Quality
- 720p30 quality
- Individual transcoding for best quality to every endpoint

Interop
- Optimized for TANDBERG and standards-based endpoints
- Interoperability with competitor immersive systems
- Standards-based interoperability
- TIP support

Scalability
- Expandable up to 144 screens, up to 48 screens per conference

Telepresence Server

CTMS + MXE 5600
- High quality, ultra low latency, media switching for large immersive conferences with user-friendly features such as one button to push and conference controls
- Multi and single screen immersive
- Voice switching

MCUs
The leading multipoint solution for single-screen endpoints with a variety of conference features, custom layouts for different meeting scenarios, and native interoperability with standards-based endpoints
- Single screen multipoint
- Ad-hoc MeetMe conferencing
- Continuous presence
- Up to 1080p30 quality and support for multiple SD resolutions
- Individual transcoding for best quality to every endpoint
- Optimized for TANDBERG and standards-based endpoints
- Multivendor interoperability with all standards-based endpoints
- Expandable up to 180 HD ports, 720 SD ports, up to 60 HD/80 SD ports per conference

High quality, ultra low latency, media switching for large immersive conferences with user-friendly features such as one button to push and conference controls

IMMERSIVE TELEPRESENCE MULTIPoint
WebEx
WebEx Meeting Center

- App for Cius – highly integrated
- Start directly or via Contacts, IM session, and Calendar
- Must have Internet access (WiFi or ethernet)
Cisco WebEx – Meeting Sign In
WebEx – Join Now
WebEx – Rückruf

Content sharing from the Clus is not supported. To make someone else the presenter, drag and drop the ball to the person’s name.

Audio
I want to receive a call from the meeting at this number:

+1 1-555-555-5111

Call Me at This Number

1 2 ABC 3 DEF
4 GHI 5 JKL 6 MNO
7 PQRS 8 TUV 9 WXYZ
∗ # ( 0 + –
Cius und Virtueller Desktop
Der virtuelle Desktop zum Mitnehmen

- Auf Monitor
- Auf Tablet
- Auch mobil
Fazit
Die Arbeitsumgebung verändert sich

**Convergence getrieben durch:**
- Portability
- Versatility
- User Experience
- High resolution display
Cisco liefert Innovationen im Mobilten Workspace

- 802.11 Wi-Fi
- 3G/4G data
- Bluetooth

- Voice, video, unified messaging
- Conferencing
- Presence & IM

- High-definition video
- Cisco TelePresence Interop
- Adobe Flash

- Virtual Desktop
- Thin client applications
- Cloud computing
Thank you.