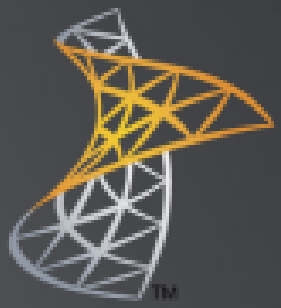
Microsoft

Connected and Complete Communications

Thomas Kisner
DFW IT Professionals User Group
November 3, 2011



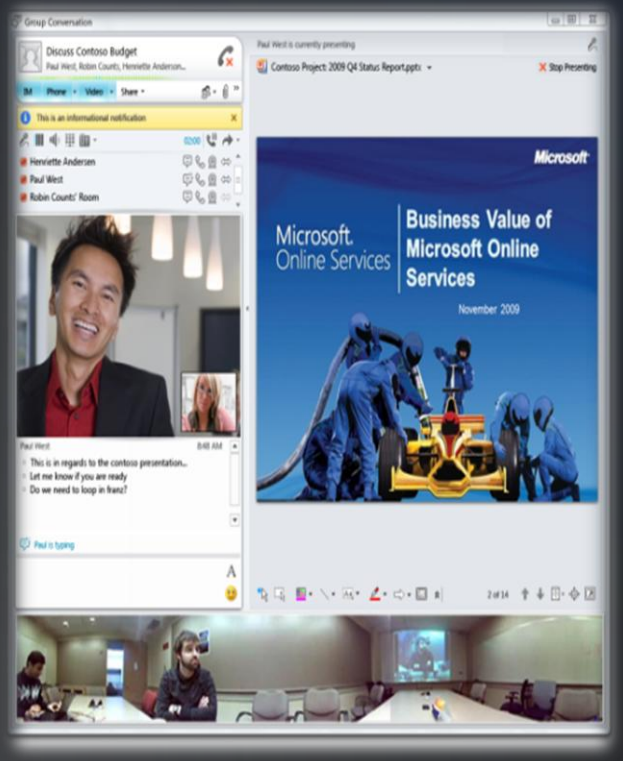
Microsoft® Lync™

Unified Communication

- Enhanced audio, video and web conferencing experience for simple collaboration

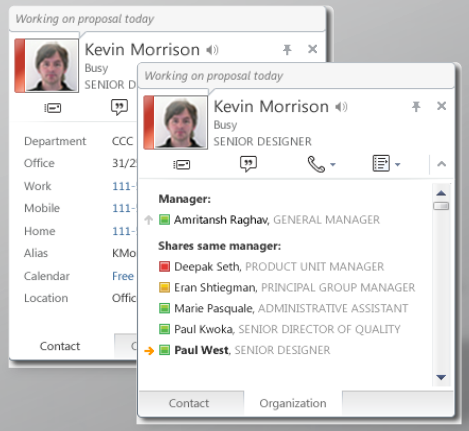
Key Features

- Single client
- Join reliability
- PSTN conferencing features
- Rich collaboration experience
- Panoramic HD video
- Reach client

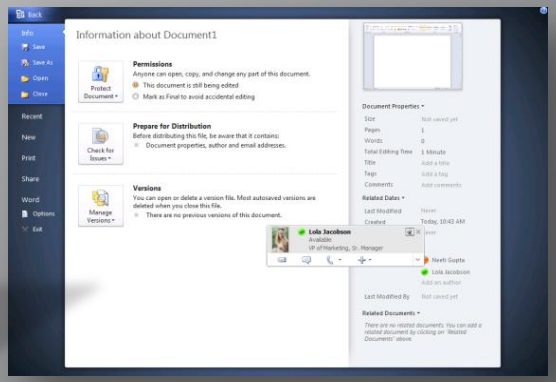


Lync Provides a Consistent Experience Across Office

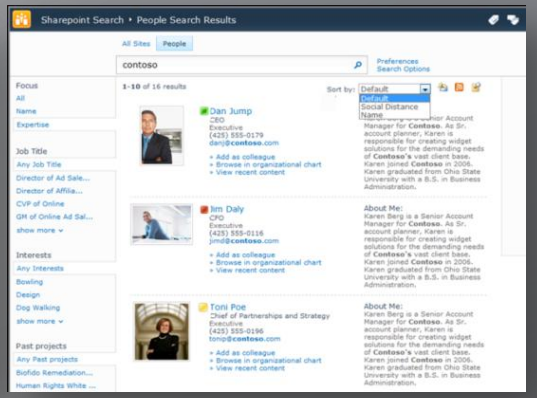
Common features across Microsoft Word, Excel, PowerPoint, Outlook, and SharePoint can help to improve the user experience



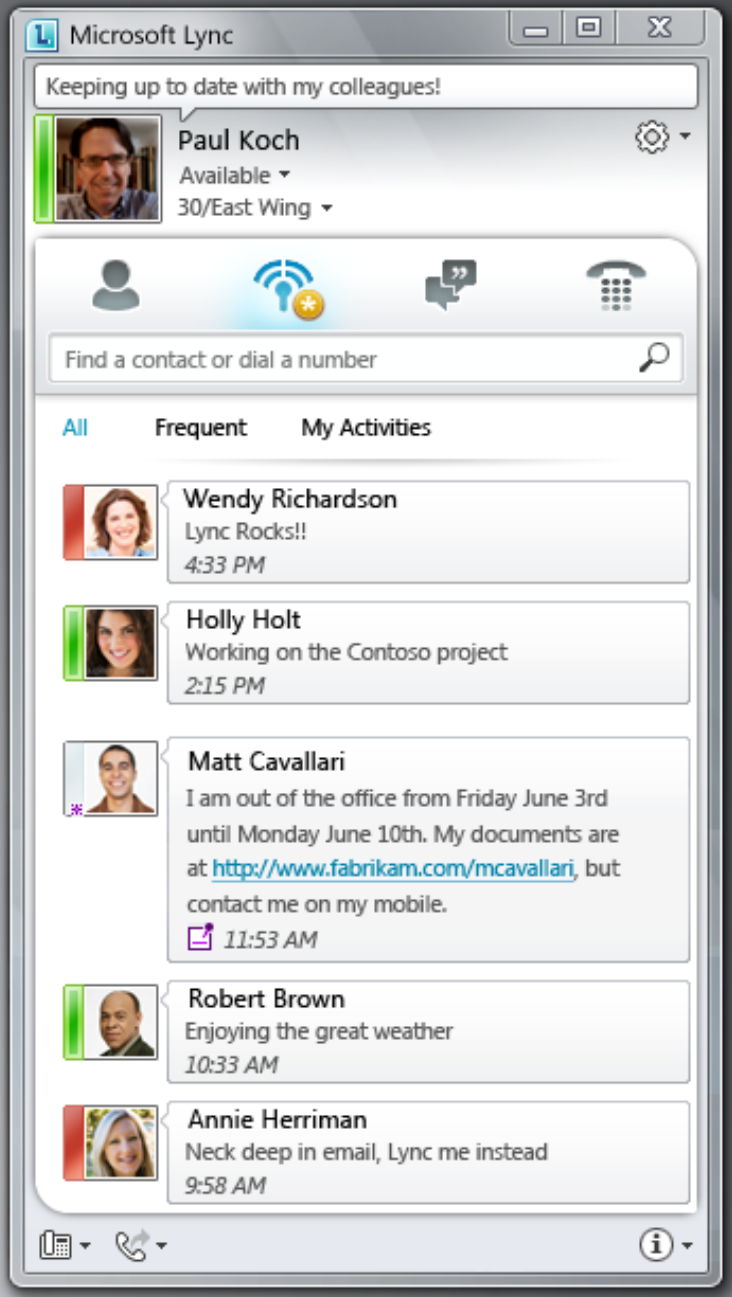
Contact Card

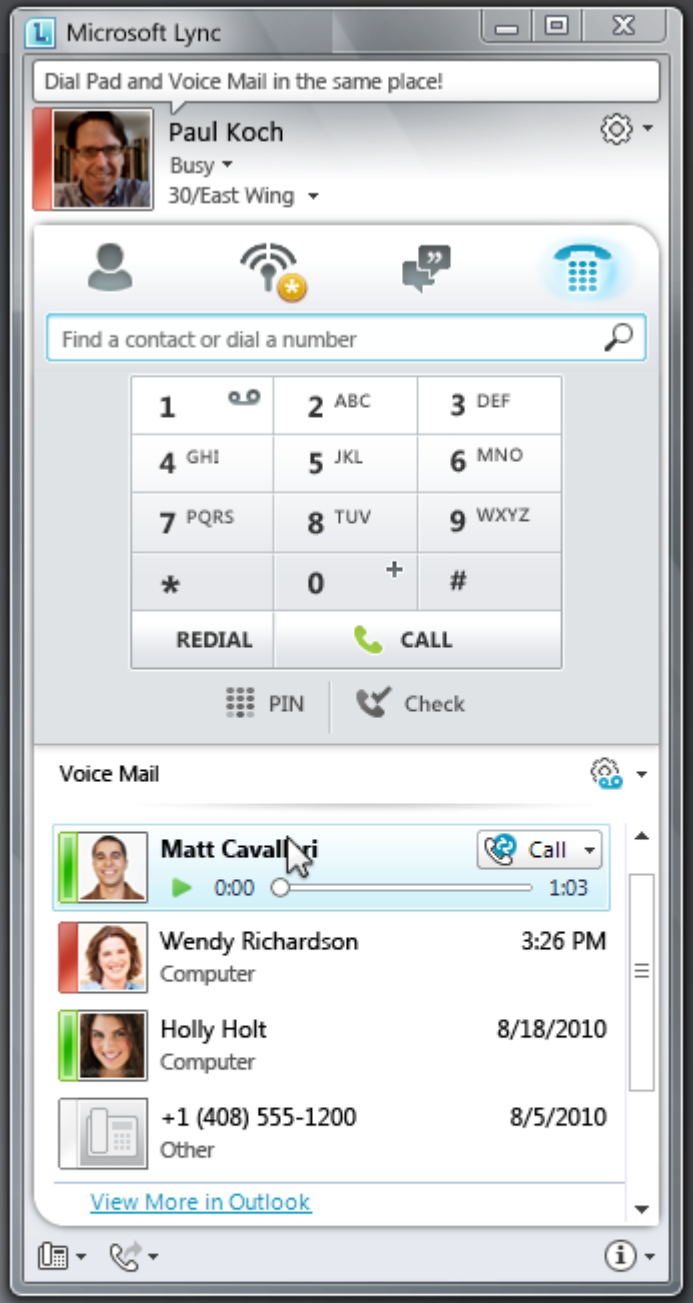


Click to communicate from Microsoft Backstage™ view (Word, Excel, PowerPoint)

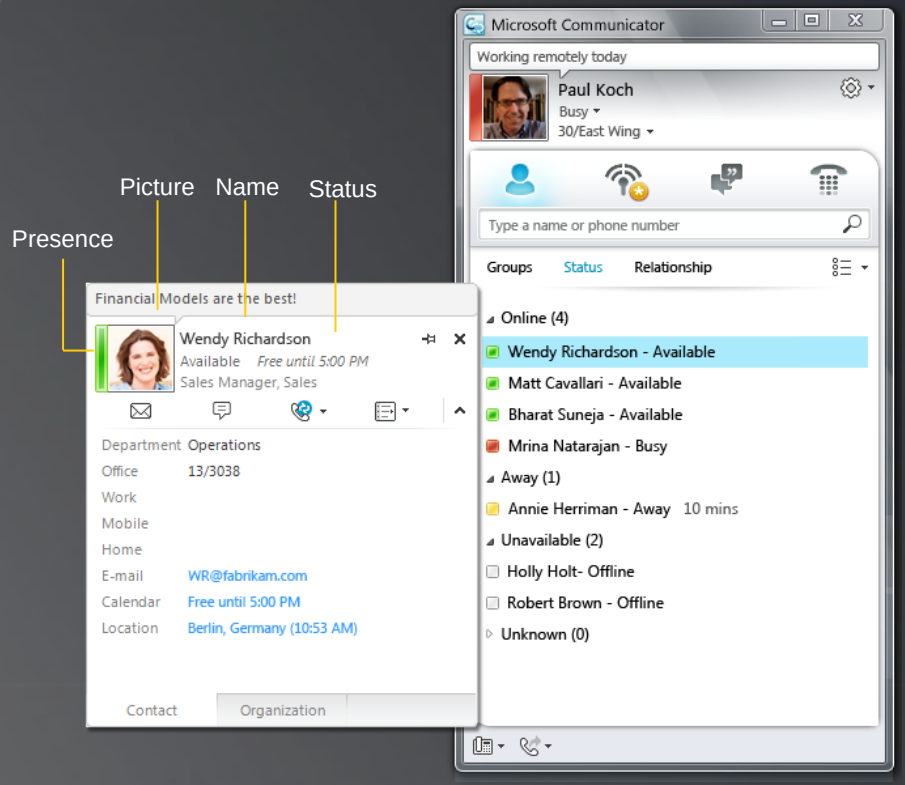


Presence in SharePoint


Microsoft Lync
Keeping up to date with my colleagues!
Paul Koch
Available
30/East Wing
Find a contact or dial a number
All
Frequent
My Activities
Wendy Richardson
Lync Rocks!!
4:33 PM
Holly Holt
Working on the Contoso project
2:15 PM
Matt Cavallari
I am out of the office from Friday June 3rd until Monday June 10th. My documents are at http://www.fabrikam.com/mcavallari, but contact me on my mobile.
11:53 AM
Robert Brown
Enjoying the great weather
10:33 AM
Annie Herriman
Neck deep in email, Lync me instead
9:58 AM


Microsoft Lync
Dial Pad and Voice Mail in the same place!
Paul Koch
Busy
30/East Wing
Find a contact or dial a number
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
*
0 +
#
REDIAL
CALL
PIN
Check
Voice Mail
Matt Cavallari
Call
0:00
1:03
Wendy Richardson
Computer
3:26 PM
Holly Holt
Computer
8/18/2010
+1 (408) 555-1200
Other
8/5/2010
View More in Outlook

Find and Communicate with Right People



Consistent People Experience

- Picture
- Presence with Status and Location
- Access to Multiple Modalities

Live Contact card

- Presence
- Active Directory® Domain Services (AD DS)
- Exchange Personal Contacts

For a door prize – who is the default contact card silhouette a picture of?

Answer:

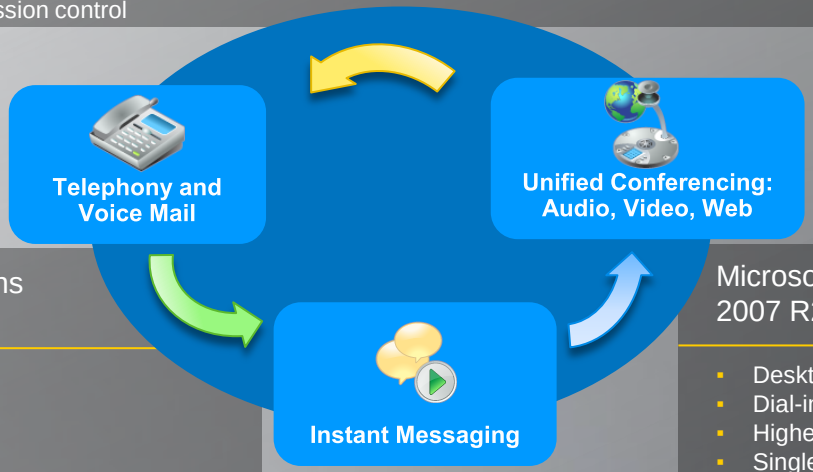
Bill Gates

Gartner's UC Magic Quadrant – July 2010

Lync Server 2010 delivers on Critical Voice Features

Microsoft Lync Server 2010

- Integrated conferencing experience
- Enhanced 9-1-1 for NA
- Survivable branch appliances
- Call admission control
- More options for devices (including lower cost)
- Call park and malicious call trace
- Additional data center survivability options



Microsoft Office Communications Server 2007

- "Anywhere access"
- IM and rich presence
- Desktop integration
- Voice features for mobile workers
- Unified messaging with Microsoft Exchange 2007
- Audio and video conferencing
- Web conferencing (Microsoft Live Meeting client)

Microsoft Office Communications Server 2007 R2

- Desktop sharing
- Dial-in audio conferencing
- Higher resolution video
- Single number reach
- Attendant console
- Response groups
- SIP trunking

Reducing Infrastructure Costs

A newly streamlined management infrastructure

New Deployment Model

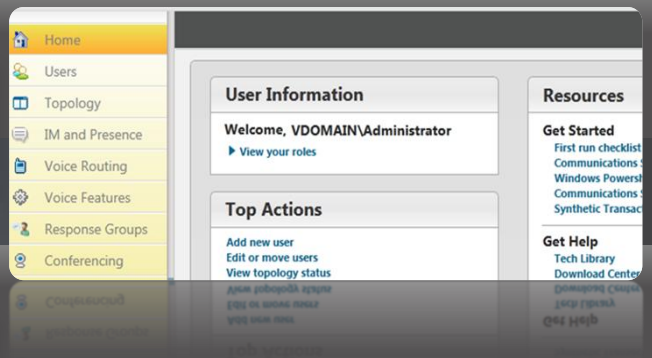
- Simplified topologies
- Reduced server roles
- Virtualization support for all server roles

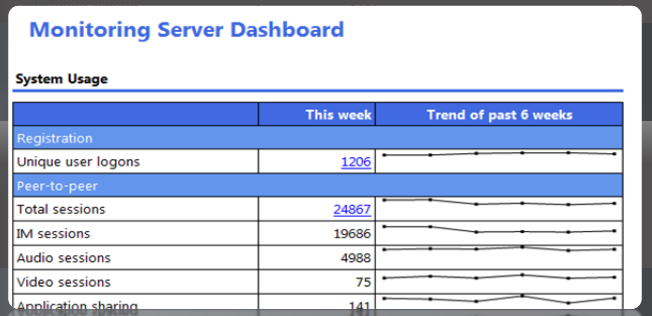
Enhanced Planning & Deployment

- Centralized configuration with Central Management Store
- Visual infrastructure planning with Planning Tool
- Pre-publish topology validation with Topology Builder

Streamlined Administration & Management

- Easy-to-use, Web-based, scenario-driven GUI
- Automate repetitive tasks with PowerShell
- Enhanced security with Role-Based Access Control
- Improved monitoring on services, components, and voice quality



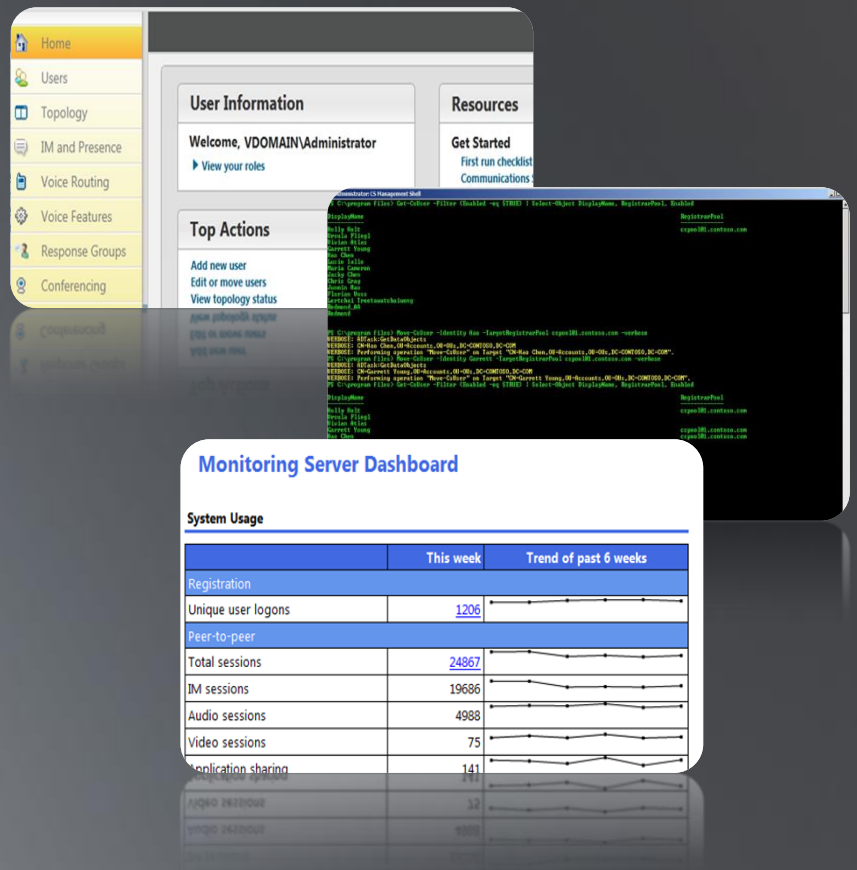


Manageability - Administration

- Investments increase performance and reduce total cost of ownership

Key Features

- Lync Server Control Panel
- PowerShell
- Role Based Access Control
- Server Draining
- Enhanced monitoring & archiving



Interoperable and Extensible Platform

Integrate and Enhance Existing Investments

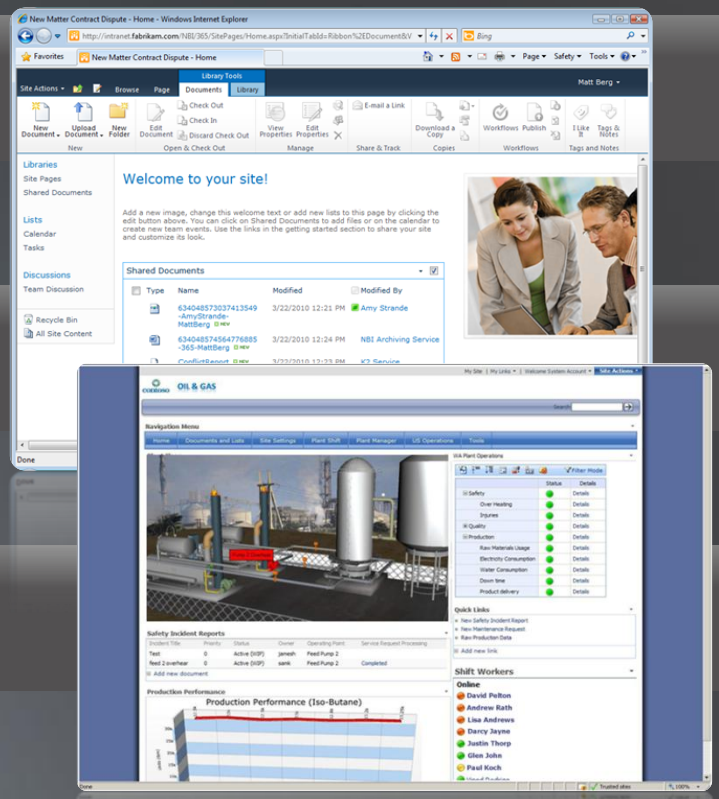
Lync 2010 works with other Microsoft Applications and third-party vendor technologies

Offer Choice in Voice

Take advantage of interoperability to replace, enhance, or add voice options

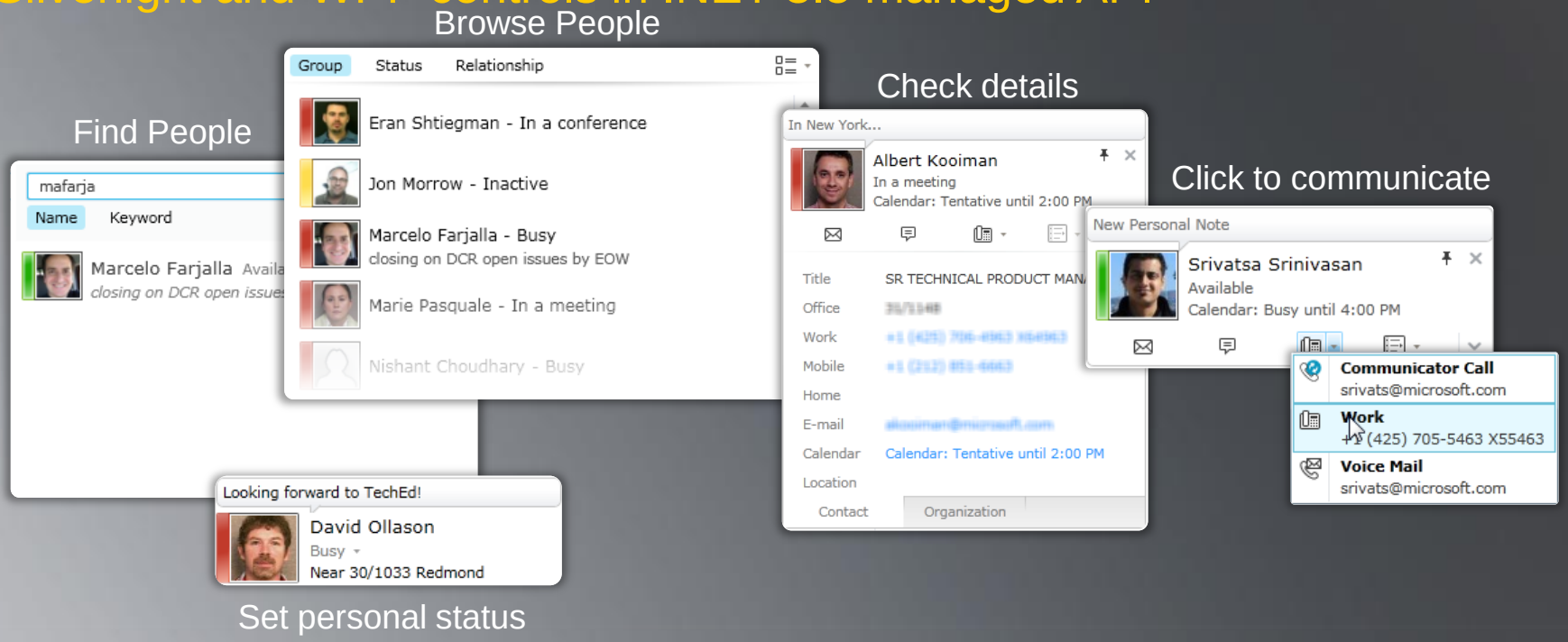
Extend Communications to Business Processes

Integrate presence with line of business applications



Integrate Lync 2010 Experiences with MS UC Developer Platform

Silverlight and WPF controls in .NET 3.5 managed API

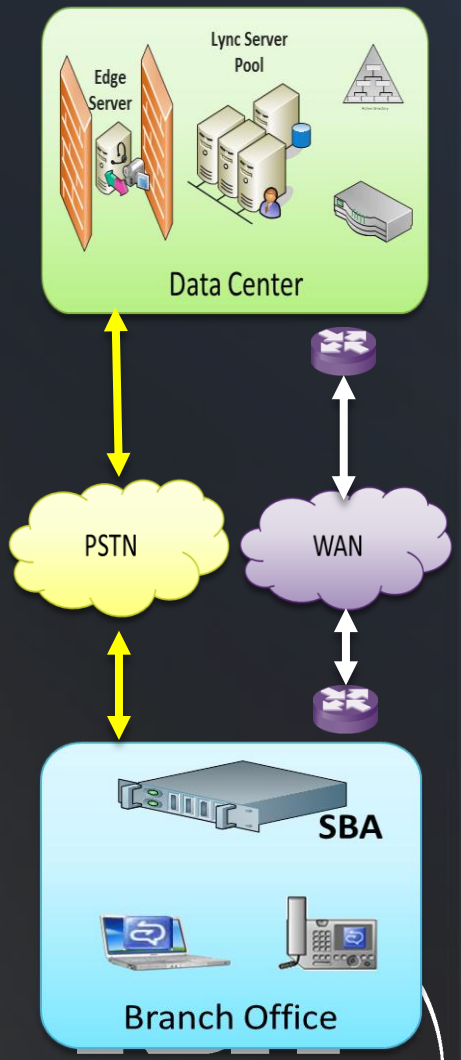


Enterprise Voice – Server Improvements

- The power of digital communication at your workplace.

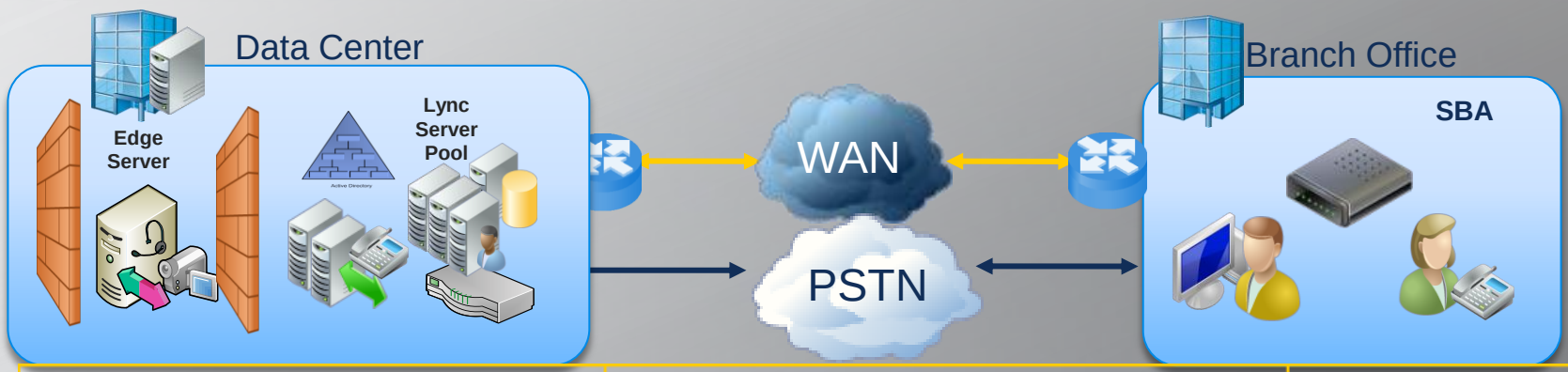
Key Features

- Survivable branch appliance
- Data center resiliency
- Call admission control
- Announcement service
- Media bypass
- E-911 for North America
- Malicious call tracing
- Response group improvements



Survivable Branch Appliance (SBA)

A purpose-built appliance optimized to provide resilient multi-modal communication for maximizing branch office user productivity. Solution re-architected for Registrar to work when UserServices role is unavailable or unaccessible.



Components	Functionality	Go-To Market
Windows Server® 2008 R2 Mediation Server Registrar PSTN Gateway	Normal/Failover mode SIP Registrar SIP Proxy and Routing engine PSTN connectivity Voicemail routing PSTN re-routing Centrally provisioned Up to 1000 user support	OEM (Embedded channel) 5 partners: • AudioCodes • HP • Dialogic • NET • Ferrari

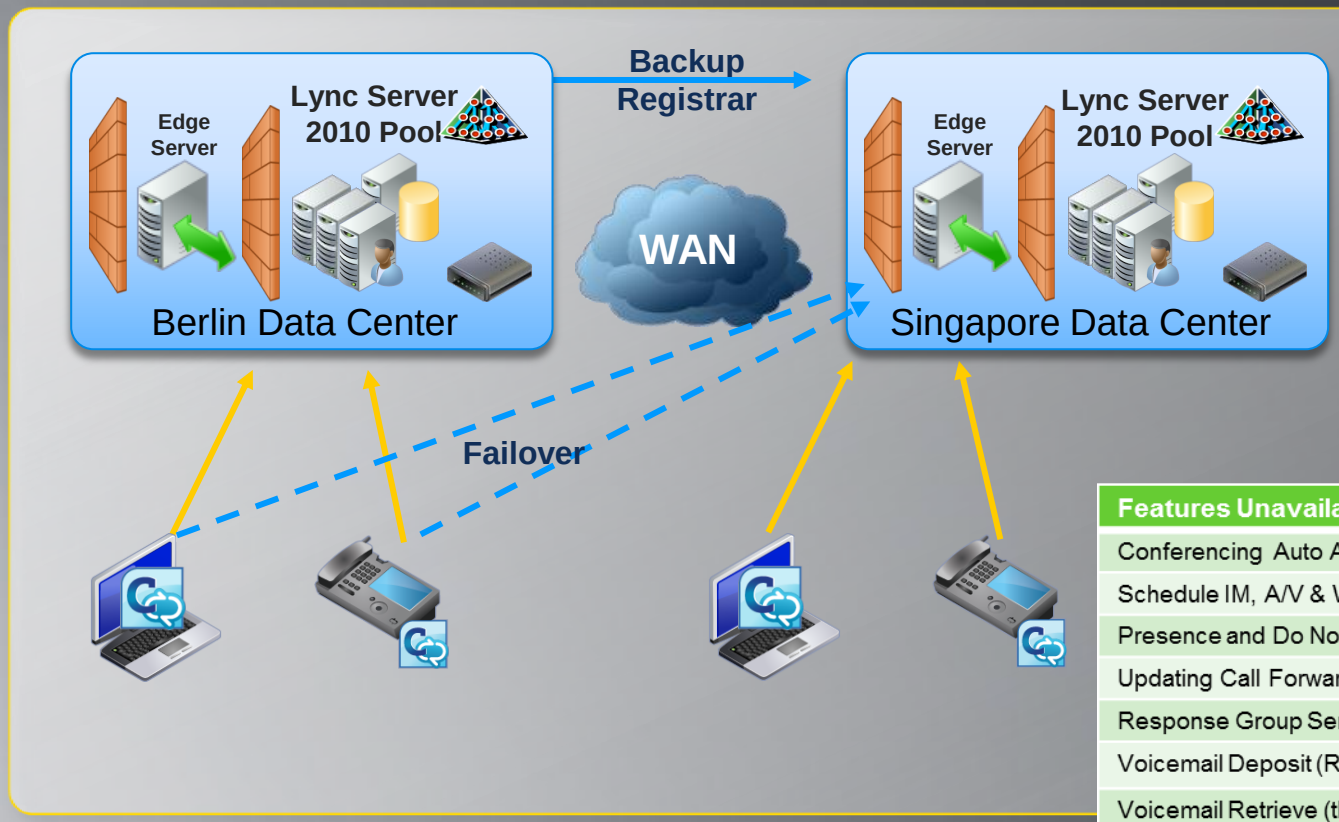
Data Center Voice Resiliency

Failover to Backup Data Center

- Lync Server 2010 pools operate as separate systems.
- Client DNS SRV request discovers one or multiple Lync Server 2010 Pools. That Lync Server 2010 Pool directs client to primary and backup SIP registrar.
- Client connects to Backup if connecting to Primary Registrar Pool fails.
  - Limited feature set available on failover.
  - Enable/Disable automatic failover, configurable failover interval.
  - Automatic Failback, configurable failback interval.
- If Primary Data Center cannot be restored:
  - Restore Central Management Server in backup datacenter.
  - Restore other services including Presence, Conferencing by “moving” users to other Pool.

Data Center Voice Resiliency

Failover to Backup Data Center



Features Available to Users In Case of Data Center Disaster
PSTN Inbound calls (carrier provided)
PSTN Outbound calls
Intra-Site calls and Inter site calls
Hold, Retrieve, Transfer
Authentication, Authorization
2 Party Intra Site Instant Messaging (IM) and Audio/Video (A/V)
Call Detail Records (CDR)
Call Forwarding, Simultaneous Ringing, Delegation, Team-call
Join conferences scheduled by users homed on other pool

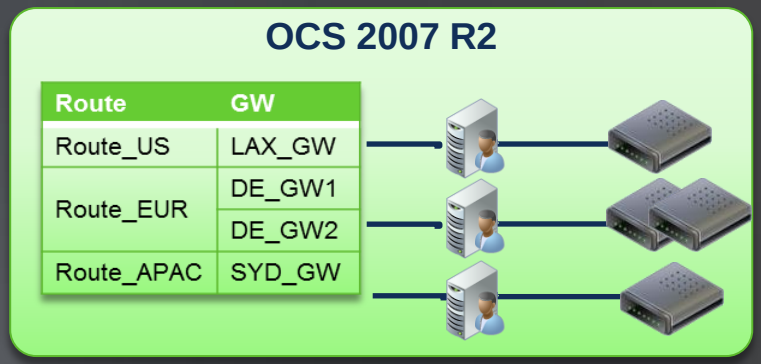
Features Unavailable
Conferencing Auto Attendant (AA) (through PSTN)
Schedule IM, A/V & Web Conferences
Presence and Do Not Disturb (DND) based routing
Updating Call Forwarding settings
Response Group Service & Call Park
Voicemail Deposit (Redirect to Exchange UM in the datacenter)
Voicemail Retrieve (through PSTN)

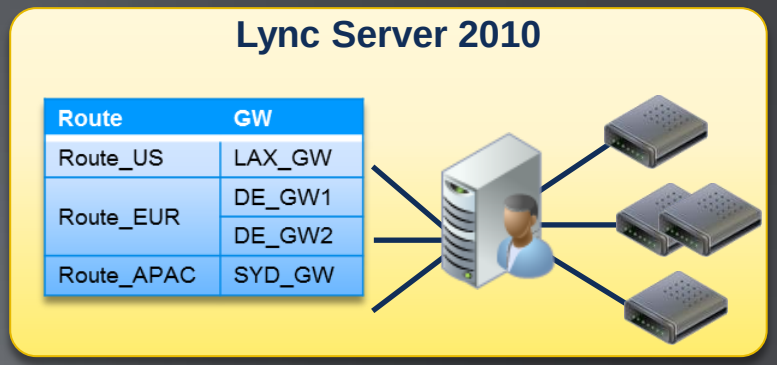
Mediation Service Colocation

Enabled through two enhancements that lower TCO and optimize quality

Multiple Gateways per Mediation Service

- Lync Server 2010 allows for Gateways to be connected to the same Mediation Service
- Routes point to a Gateway
- Topology document used to find an appropriate Mediation Service, inserted into the routing path
- Mediation Service uses the GW-FQDN in the Request-Uniform Resource Identifier (URI) to route to appropriate Gateway





Mediation Service Colocation

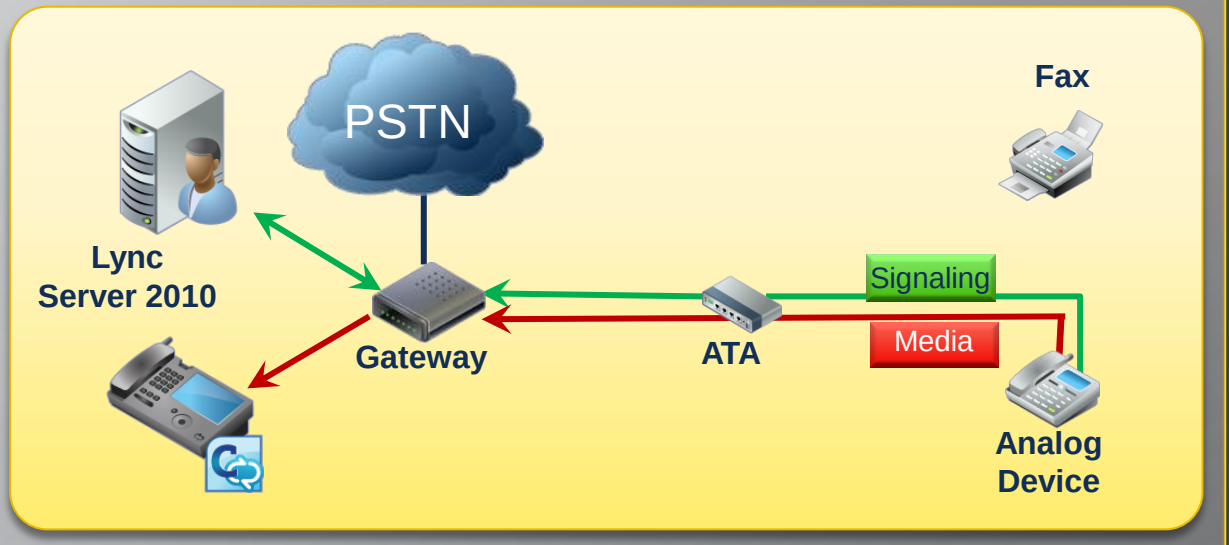
Enabled through two enhancements that lower TCO and optimize quality

Media Bypass of Mediation Server

- Whenever possible media for calls egressing to the PSTN will flow directly to upstream device without traversing Mediation Server
- Applies where media can stay local to a capable next hop - a site or branch
  - Does not apply where media is not local
  - Signaling continues to traverse Mediation Server role
- Consolidation of most Mediation resources at the Data Center.
  - Mediation could be on a Front End, in a SBA, or standalone
  - Low CPU intensity enables running Mediation role on FE & Appliance

Analog Device Management

- Physical connectivity of Analog devices (FXS) provided by GW partners
- All routing and policy enforcement for Analog devices centralized in Lync Server 2010 – eliminates the need to manage GWs as “mini-PBX”



- Lync Server 2010 Call Detail Record (CDR) infrastructure used to track usage
- Optimized routing allows Fax call routing through Lync Server 2010 without terminating Media

Call Admission Control

- New Policy Server role introduced in Lync Server 2010 to support CAC
  - Admins configure logical sites based on groupings of subnets
  - Enforce policies on links between sites
    - Bandwidth available for audio, video
    - Maximum bandwidth allowed per session
    - Rerouting behavior when bandwidth limited exceeded
- Seamless support for roaming users Microsoft Lync 2010 on moving between different sites
- Allows Internet to be used for overflow of traffic
  - Support failover of video sessions

PowerShell with Lync Server 2010

User Management
Search for users
Enable/Disable for Lync Server
Assign Lync Server policies

Configuration Management
Server Roles
Global/Site level

Device Management
Device Configuration
Common Area Phones
Analog Devices

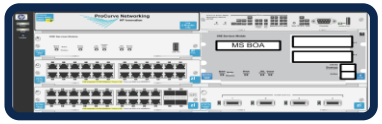
Policy Management
Archiving Policy
External Access Policy
Voice Policy

Synthetic Transactions
Test Phone Calls
SIP registrations
Simple Conferencing

Deployment Management
Certificates management
Setup steps
Topology Management

Voice Applications
Response Group
Conferencing Attendant
Bandwidth Management
External Applications

SBA - Partner Solutions

Audiocodes		Mediant 1000 –1U, 4E1/T1, redundant power supply, MSBG-Firewall, Routing engine Mediant 2000 – 1U, 480 concurrent calls, redundant power supply
Dialogic		DMG 4000, 1U, 4 E1/T1, Redundant power supply
Ferrari		1U, 4 E1/T1, Redundant Power supply
HP		SBA Module running on Procurve 54xx switch Chassis. Redundant Power supply, 8 E1/T1, Layer 2 functionality
NET		UX Series. 1U, 8 E1/T1, Redundant power supply. MSBG-Firewall, Routing engine

Audiocodes: Existing M1k and M2k gateways can be converted to SBA

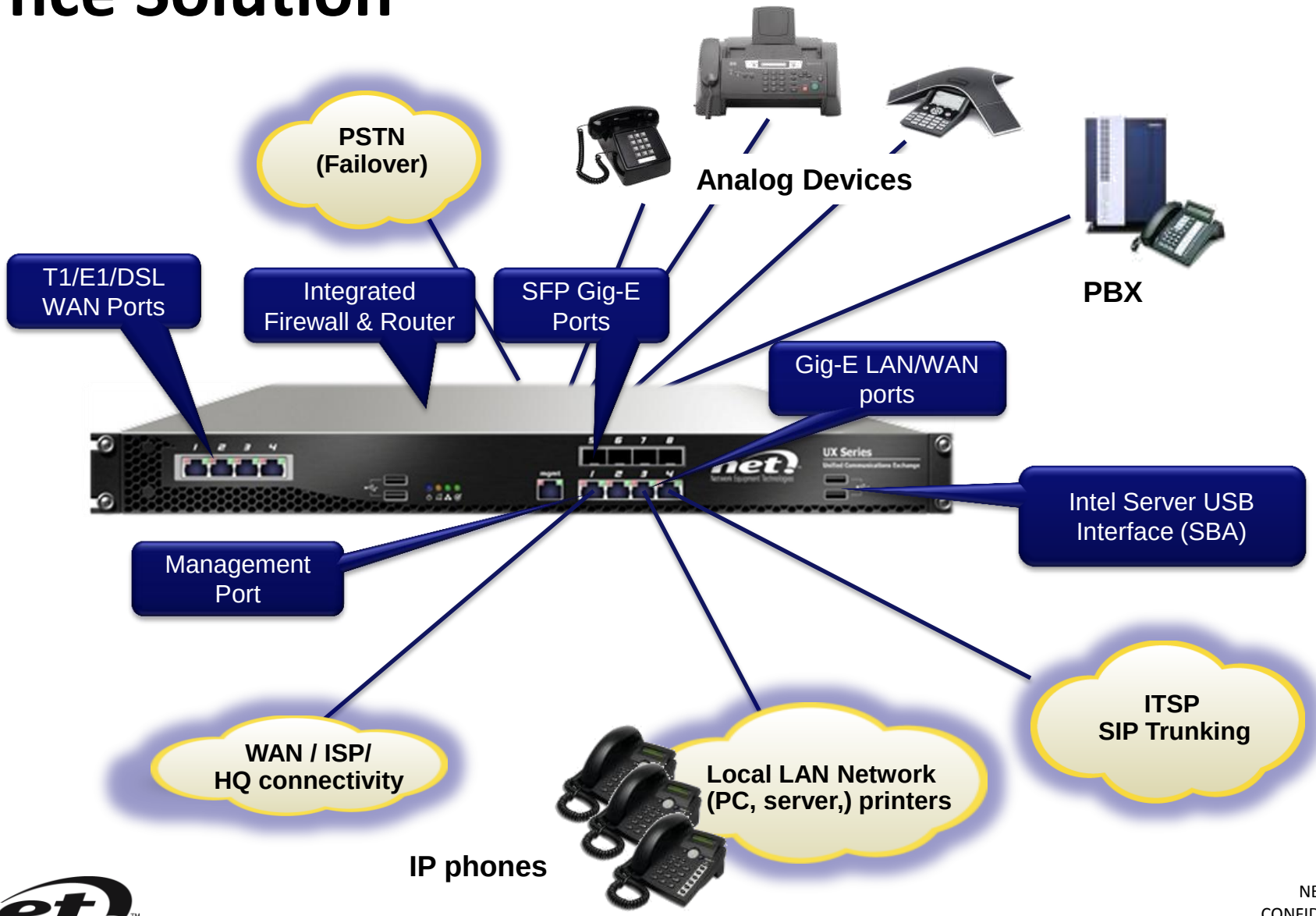
Dialogic: Existing DMG4000 Hybrid can be converted to SBA

Ferrari: Existing R2 Hybrid gateway can be converted into SBA

HP: Customers using ProCurve switches can convert it into a SBA by buying the module

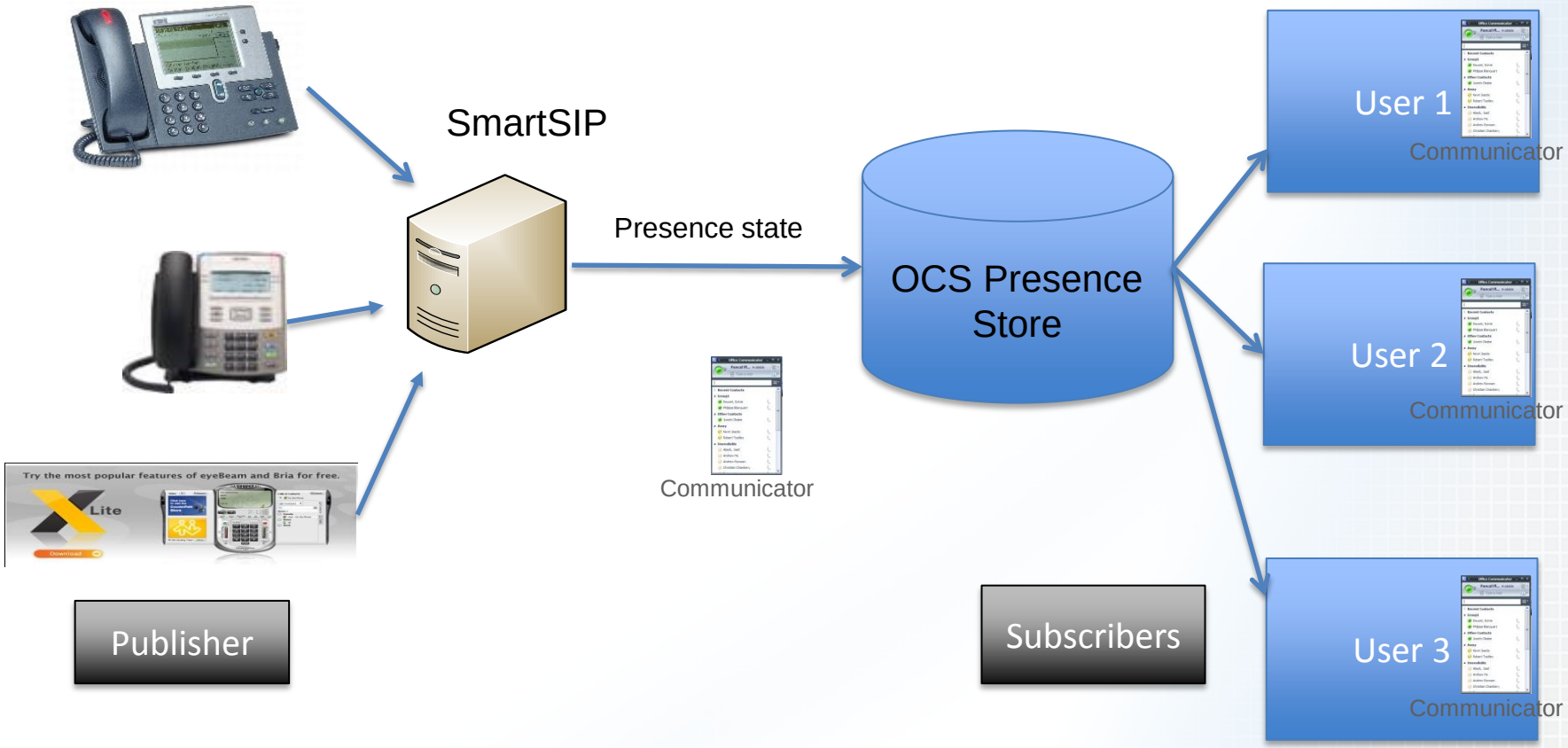
NET: New HW to support SBA. Migration plan for customers wanting to move to UX platform.

UX Modular Platform: UX2000 – Branch Office Solution



NET
CONFIDE
NTIAL

Publishing SIP Phone Presence with SmartSIP

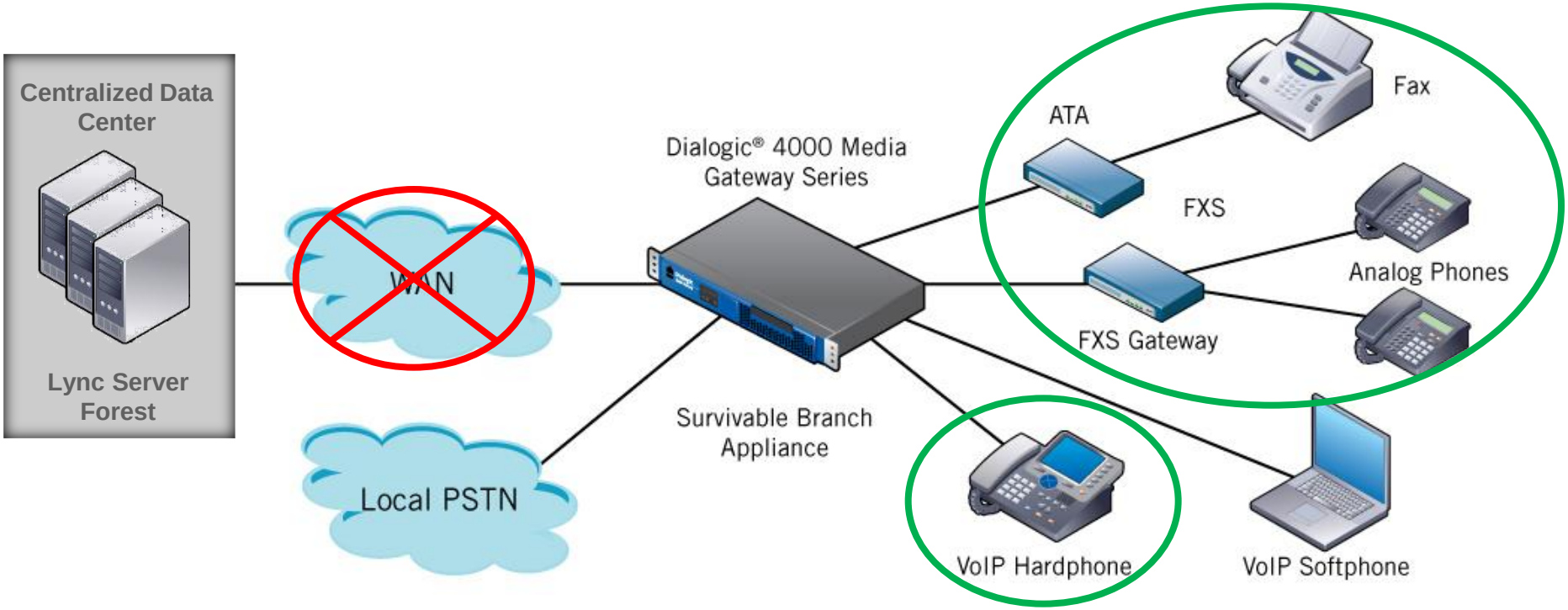


State	Presence
SIP Phone is Registered	Online – no IM
SIP Phone in a call	In a Call

25

Microsoft® Lync™ Solution
Dialogic® 4000 Media Gateway Series Survivable Branch Appliance

Microsoft Lync Survivable Branch Appliance Server Software installs on the Dialogic® 4000 Media Gateway Series (DMG4000)



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Dialogic® Enhanced Media Gateway Series – Appliances

- **Dialogic® 2000 Enhanced Media Gateway Series (DMG2000)**
  - 1-/2-/4-span T1/E1 Interfaces
  - TDM to SIP, TDM to TDM, SIP to SIP Routing
    - Flexible routing, survivability options, analog device support
  - Protocols: SIP, Q.SIG, ISDN, CAS, T.38 FoIP
  - SIP Security: TLS and sRTP
  - Microsoft® Unified Communications Qualified
    - Microsoft Exchange Server 2010 Unified Messaging
    - Microsoft Office Communications Server 2007 R2
  - Software Upgrade to 'Enhanced Gateway' for Microsoft Communications Server '14'
    - Beta Release Available May 2010; Generally Available Q3'10

Ease of Use

Lync™ and 'R2' Qualified

Software Upgrade to 'Enhanced Gateway' for Microsoft Communications Server

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AudioCodes - Survivable Branch Appliance (SBA)

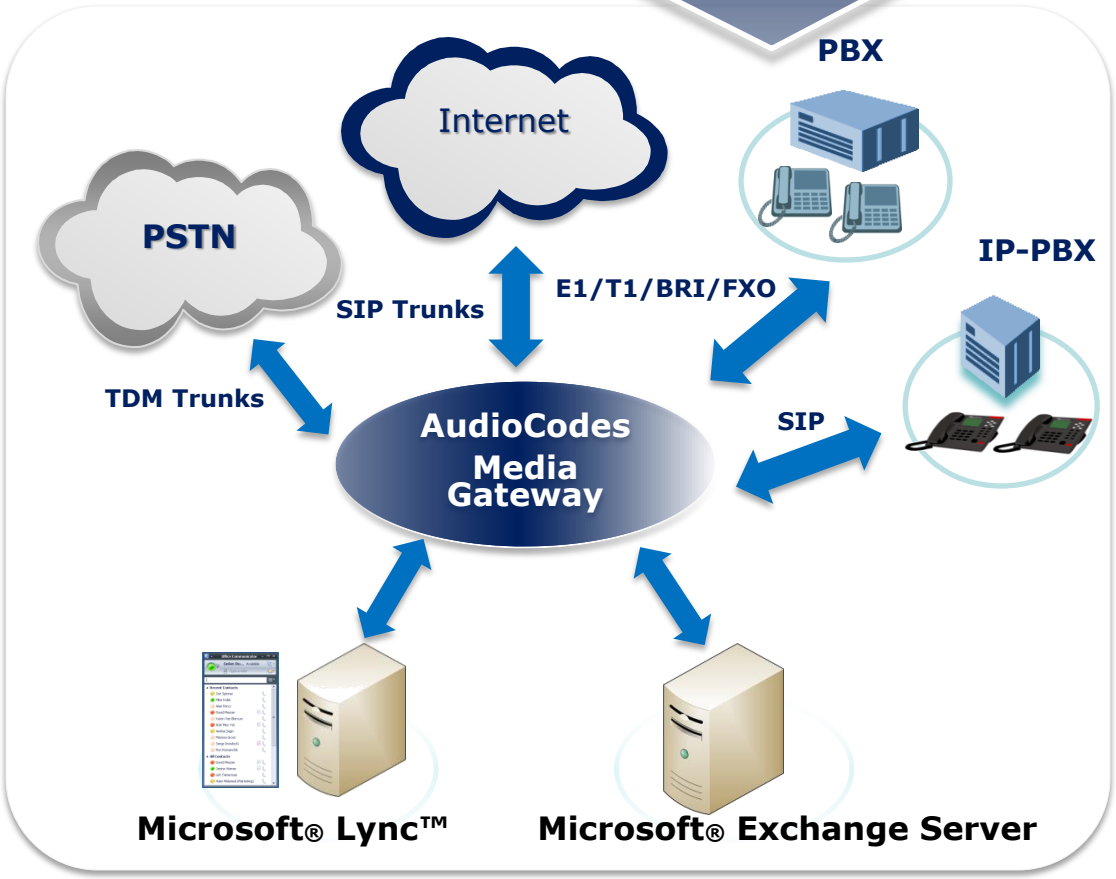
	Mediant 1000	Mediant 2000
Target Applications	Mid Density Applications	High Density Applications
Maximum Channels	120	480
Maximum Registered Users	1,000	1,000
Supported Voice Modules	FXS, FXO, BRI, E1/T1	E1/T1 (Software Scalability)
Voice Coders	G.711, G.726, G.723.1, G.729A, GSM-FR, MS-GSM, Microsoft RTA	
Supported Operation Modes	Media Gateway , MSBG (WAN Access, LAN & Data Routing) and E-SBC	Media Gateway
CPU	Core2 Duo 1.5 GHz	Core2 Duo 2.16 GHz
Fax and Modem Transport	T.38 compliant (real time fax), Automatic bypass to PCM or ADPCM	
Power Supply	Single universal 90-260 V AC or redundant AC	Single universal 90-260 V AC or redundant AC or single -48 V DC
Physical	1U high, 19-inch wide rack mount	

Microsoft GOLD CERTIFIED Partner

Connecting Microsoft Unified Communications with the outside world

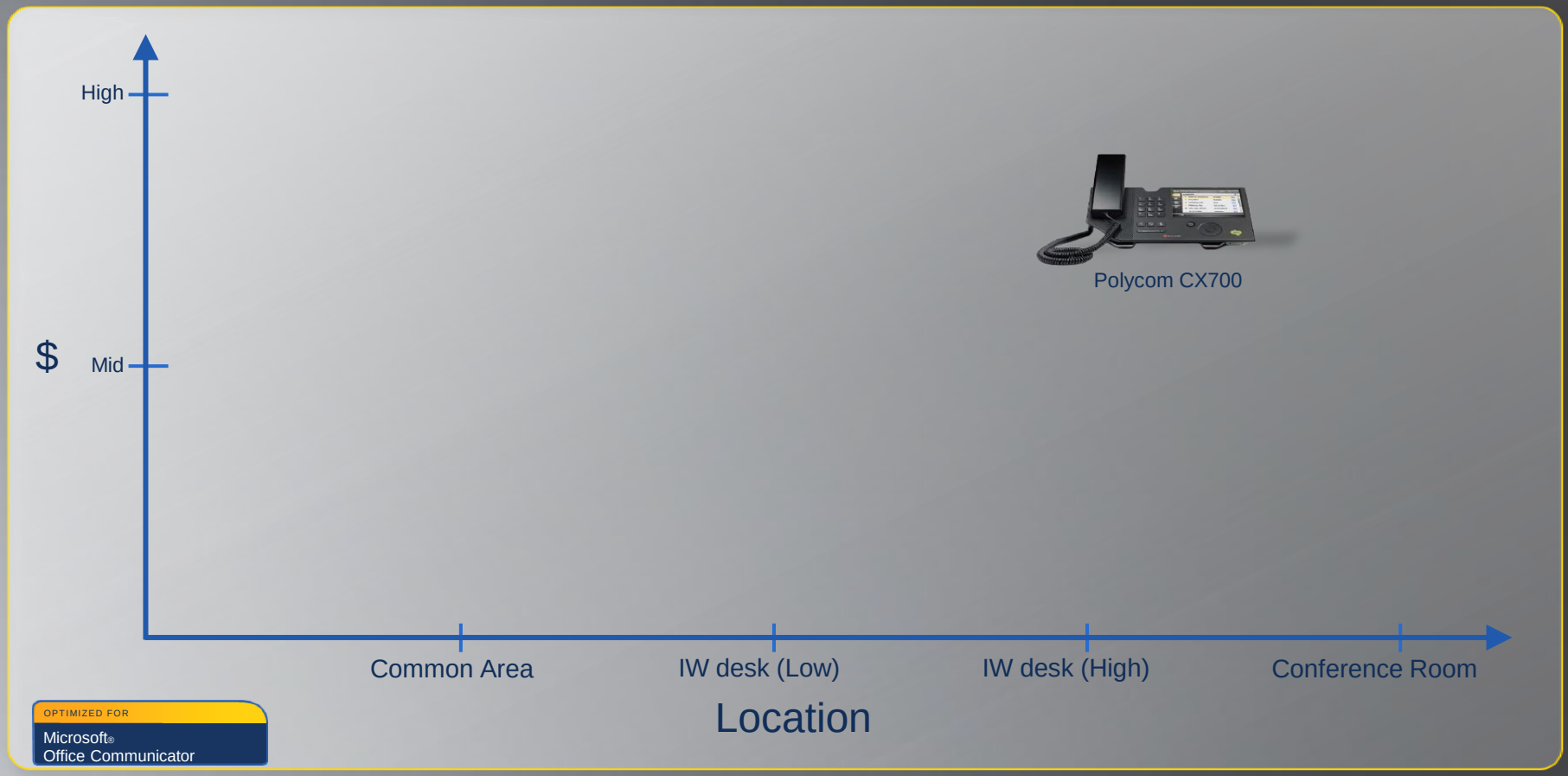
AudioCodes

Simultaneous support of PBX, IP-PBX, PSTN & SIP Trunk connections to Office Communications Server 2007 / Lync Server 2010 Microsoft & Exchange Server 2007/2010



Microsoft GOLD CERTIFIED Partner

OCS 2007 R2 IP Phone Portfolio (Recap)



Lync Server 2010 IP Phone Portfolio

Polycom CX USB and IP Phones

OPTIMIZED FOR Microsoft® Lync™

CX100 Speaker Phone

- Two high-quality microphones
- Hands-free model
- USB connection and power supply

CX200 Desktop Phone

- Presence indicator
- Convenient buttons to control calls
- USB, driverless plug-and-play installation

CX300 Desktop Phone

- Convenient dial pad and display
- High definition audio for voice and video calls
- USB, driverless plug-and-play installation

CX500 IP Phone

- Large color display
- Call and directory information
- Single integrated PoE port
- Wall-mountable

CX600 IP Phone

- Large color display
- Call, directory, and presence information
- USB port
- Two-port gigabit Ethernet switch

CX700 IP Phone

- Microsoft Windows® CE device
- Full duplex
- Advanced user interface
- 5.7-inch color touchscreen
- Contact directory integration

CX3000 IP Conference

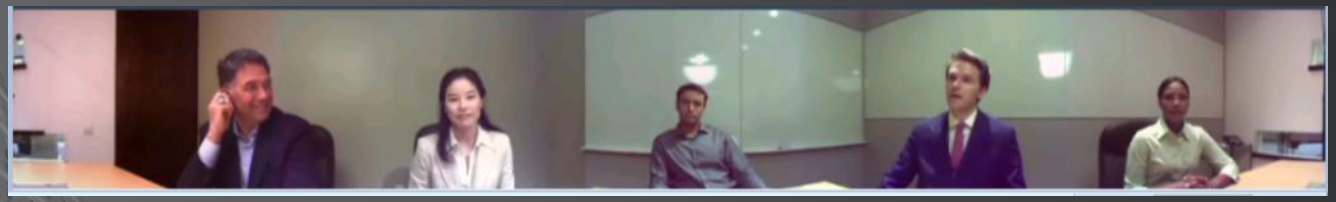
- Interactive conference calls
- 12-foot microphone pickup range
- Large color display
- Call, directory, and presence information

CX5000 Unified Conference Station

- 360-degree group video experience
- Combination of video, voice, and content in one interactive session

Lync Enables New CX5000 Opportunities

- Live Meeting functions now included in Lync client
  - ***Panoramic & active speaker video support*** (both CX5000 and RoundTable)
  - Desktop & application sharing
  - Whiteboarding
  - Polling
- No changes to CX5000
- Live Meeting hosted service will still continue for large-scale meetings



Polycom Telepresence
Fully Interoperable with Microsoft

Office (HDX 4000)

Personal Telepresence

Ultimate HD Conference Room (HDX 6000, 7000, 8000, and 9000)

Room Telepresence

Open Telepresence Experience (OTX HD 300)

RealPresence Experience (RPX) HD 200 and 400 Series

Immersive Telepresence

Microsoft

POLYCOM

Aastra's Lync Phones

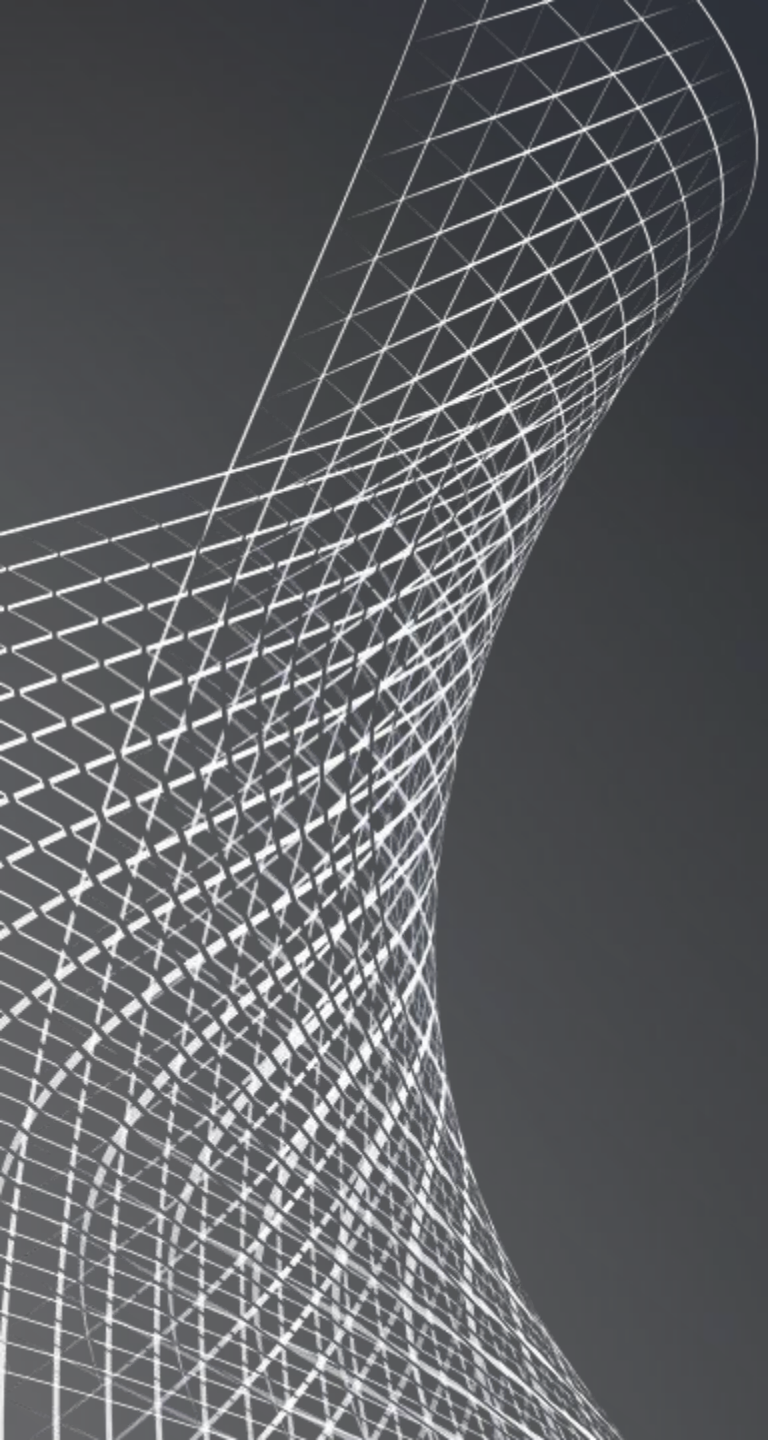
- 6725ip is the mass market phone and will fit the requirements of the large majority of users

- 6721ip is designed as a common area/entry level phone

© Aastra - 2010

Snom qualified on Microsoft‘s new device program

- **What does it mean?**
  - Snom is first participant in “compatible devices program for Microsoft Lync 2010”
  - snom300 was tested by Microsoft to work with Microsoft Office Communications Server 2007 R2
  - Formal compatibility announcement with Microsoft on September 22, 2010
  - snom300 is officially part of the Microsoft UC ecosystem (http://technet.microsoft.com/en-us/office/ocs/bb970310.aspx)
  - Customers will be supported by Microsoft and snom



Headsets and USB Endpoints

UNIFIED COMMUNICATIONS PORTFOLIO

OPTIMIZED FOR
Microsoft®
Office Communicator

GOOD USER EXPERIENCE=SUCCESSFUL DEPLOYMENT

- **The correct Audio device is critical to a successful deployment**
- **Not everyone has the same audio device requirement**
- **Comfort and appearance are as important as audio quality**
- **Consider Bluetooth Multipoint for Mobile workers**
- **Consider wireless for non stationary in office workers**
- **Executive offices may need special requirements**
- **Provide an upgrade path for workers who will want to change devices**
- **USE ONLY MICROSOFT OPTIMIZED DEVICES**

Jabra®

OPTIMIZED FOR Microsoft® Lync™

USER TYPE	DESK CENTRIC	OFFICE CENTRIC	MOBILE CENTRIC
BEST	Jabra BIZ™ 2400 USB	Jabra PRO™ 9400 Series	Jabra GO™ 6470
BETTER	Jabra GN2000 USB	Jabra GN9350e Jabra SPEAK™ 410	Jabra GO™ 6430
GOOD	Jabra BIZ™ 620 USB	Jabra GN9330e USB	Jabra DIAL™ 520 USB

New Products for Lync

Jabra SPEAK™ 410 OC

- Optimized for Microsoft® Lync
- Plug & Play
- True wideband sound for maximum call clarity
- Omni-directional (360°) microphone
- Headset port
- Portable form factor
- Hook, mute & volume control

Jabra GO™ 6470:
Stay in touch wherever you go

Jabra PRO™ 9470:
Stay in touch around the office

- Wideband sound (150–6,800 Hz)
- Dual microphone Noise Blackout™ system
- Bluetooth® Class 1 (Up to 100m range)
- Tri-mode connectivity
- Touch screen with Smart Setup wizard: automatic microphone tuning & phone compatibility settings
- Full hearing protection with Jabra SafeTone
- Superior comfort with 2 wearing styles
- Low energy consumption with Jabra IntelliPower
- Up to 10 hours talk time

DFW Unified Communications User Group

- Meets 4th Thursday of Every Month 6-8PM
- Location – here at Microsoft in this room
- http://dfwucug.org