

# Lync - phone, voice mailbox, instant messaging ...

Pawel Grzywaczewski  
CERN IT/OIS

- Unified Communication and softphone
- Pre-deployment environment
- Lync architecture
- Challenges and plans

# Unified Communication

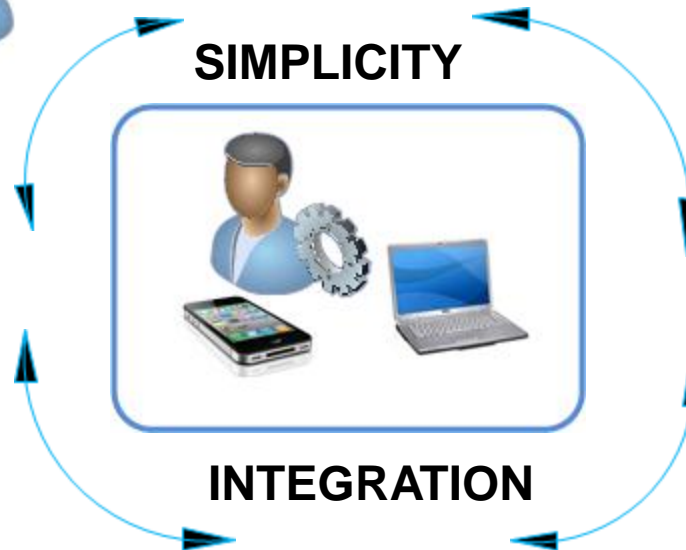
Collaboration Tools



Messaging systems



PABX services



GSM Services

# Softphone benefits

Contact



Address Book, quick  
phone call

Presence verification



Availability

Clear message



Instant messaging

Instant access to  
information



Voice mail -> mailbox

Access from abroad  
(roaming charges)

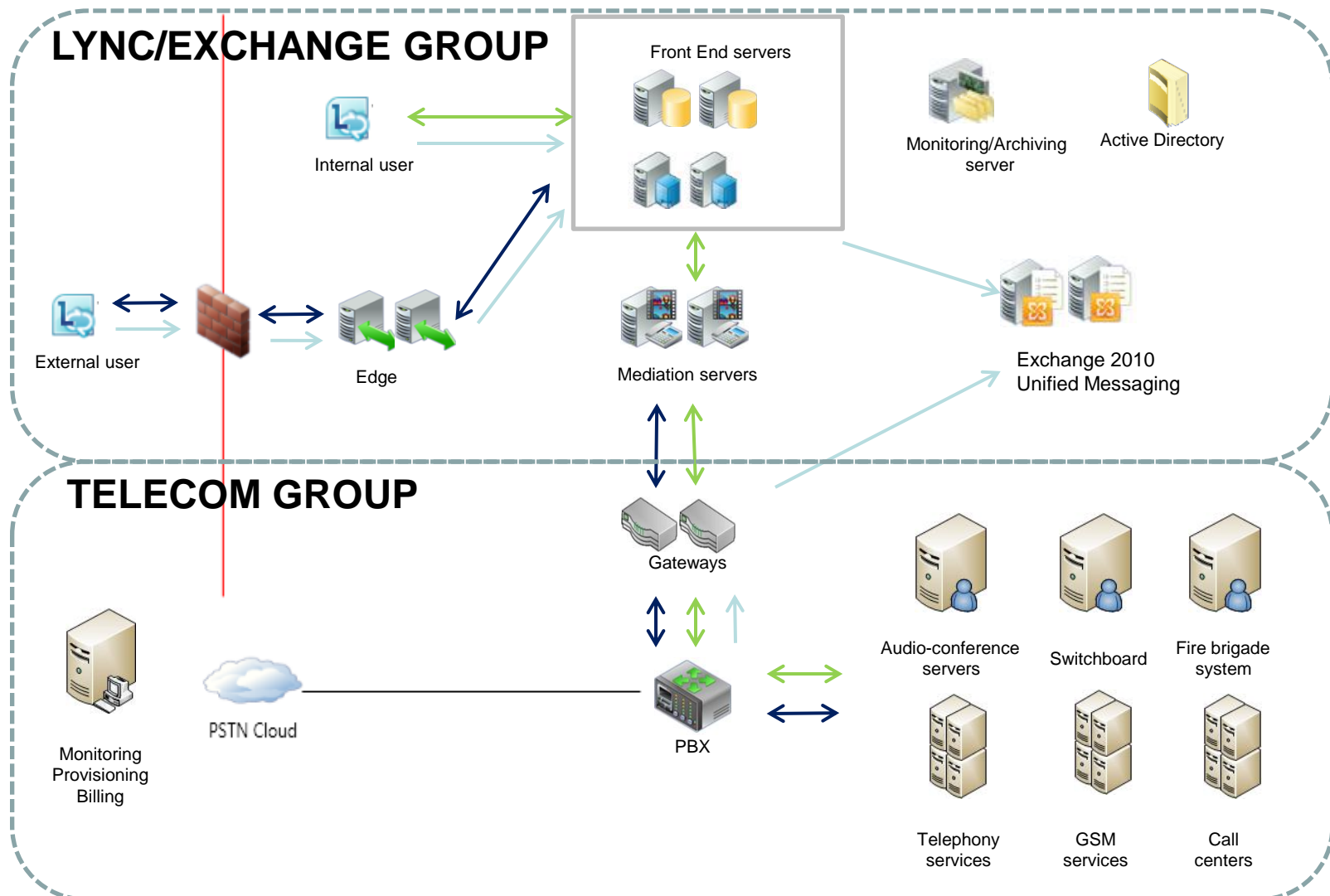


Wifi

- Microsoft/Mac compliant
  - OS evolution will be followed up
  - Integration with Office, Exchange...
- Mobility
  - Smartphones compliant
- Competences within IT
- Maturity
  - Gateway vendors and Alcatel evolution (SIP)
  - Redundancy solutions for Lync & Exchange
- Cost effective for CERN
- Support lines already in place
- Scalable, now there is:
  - Up to 8,500 users and 400 simultaneous calls

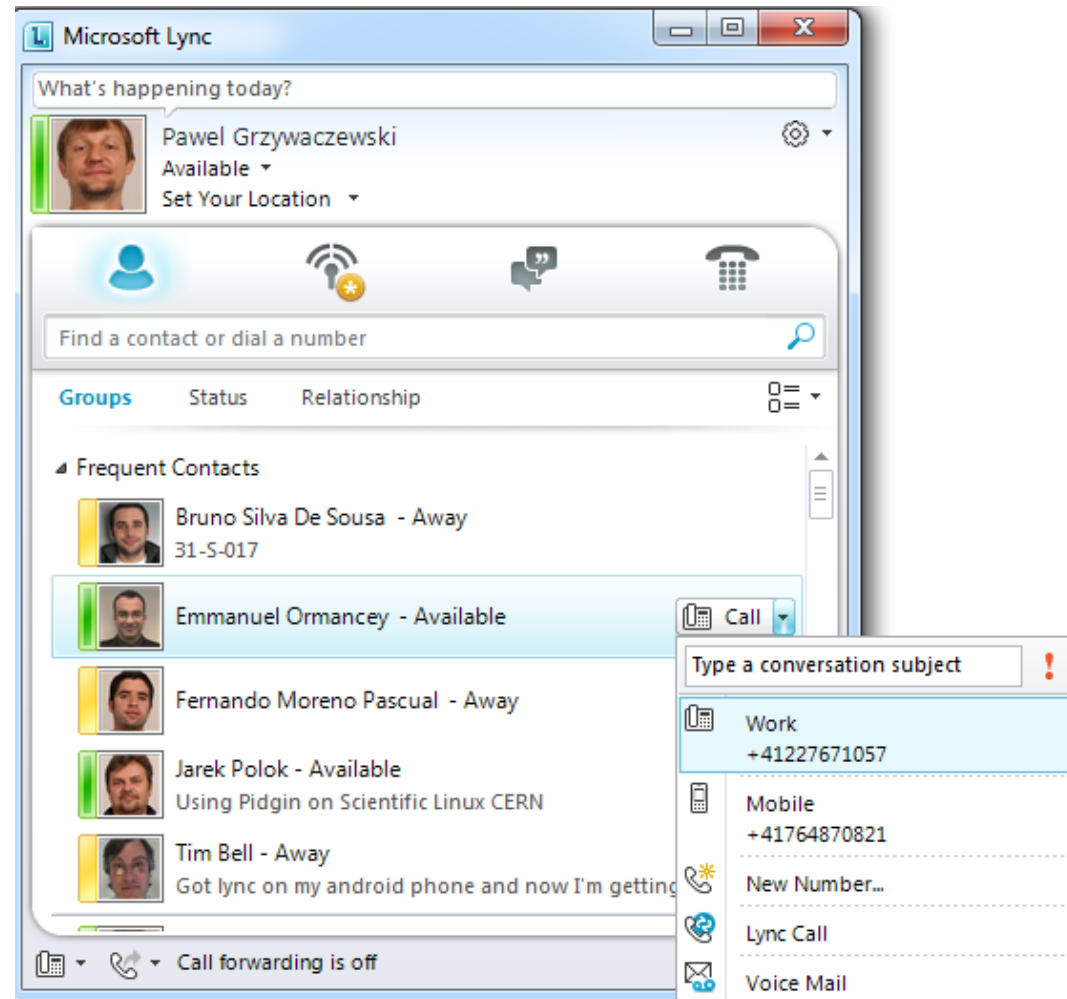
- Fixed Telephony service:
  - 4 PBX and 14 IP-PBX Alcatel OmniPCX 4400
  - **11,000 fixed users + 5,500 mobile users**
    - **2.5 millions** outgoing calls/year
  - Call centers
  - IP Telephony services
    - IP phones / Softphones / FAX IP
  - Telecom software
    - Provisioning, billing, specific tools (Fire Brigade)
- Exchange 2010
  - 30,000 mailboxes

# Lync / PBX architecture



Lync – internal access ↔  
 Lync – external access ↔  
 Access to voice mail →

- **One Click to phone call,**  
Address Book
- Availability
- Instant Messaging
- Voice Mail on Exchange
- On your computer
- Manage forwarding





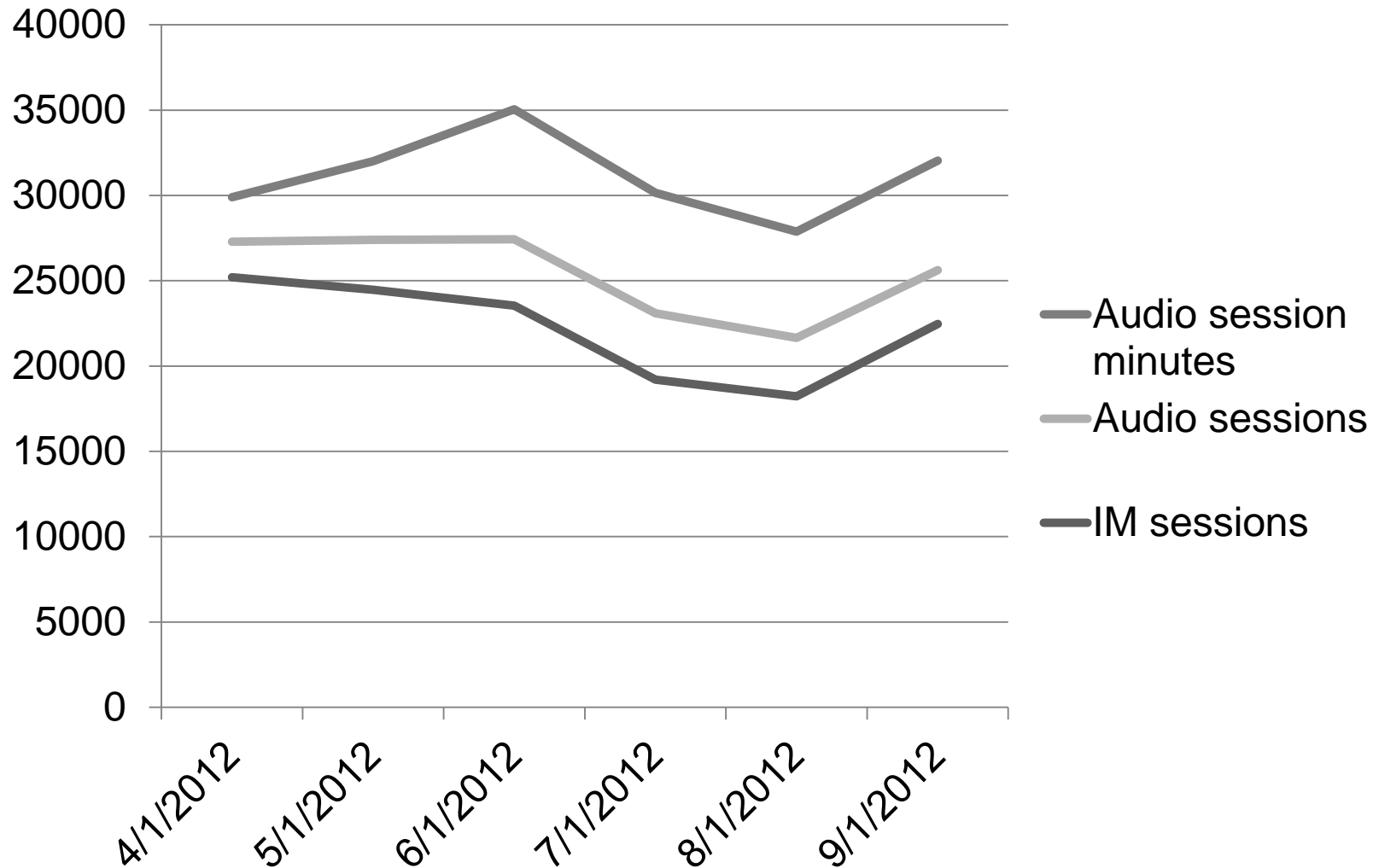
# What is supported

	Lync on Windows	Lync Mac	Pidgin on Linux
Phone Calls	✓	✓	NO
Address Book	✓	✓	✓
Availability	✓	✓	✓
Instant messaging	✓	✓	✓
Voice mail	✓	✓	✓ - unified messaging
Access from external network	✓	✓	✓

- Lync client on “smartphones”
  - Android, Windows Phone, iOSX (iPhone/iPad)
- Recommended audio devices for Lync
  - Polycom CX300 (USB)



- At present > **50 users** on softphone pilot project
  - From **different departments** and **profiles**
    - Teams
    - Travelers
    - Staff changing offices
  - IT head and deputy head with secretaries
    - Deep testing of delegation/forwarding scenarios
- Very **positive feedback**
- People interested in collaboration features
  - Presentation sharing, **whiteboard**
  - **Desktop sharing** very useful to provide support



- September 2012 in numbers
  - Unique users (softphone included): **204**
  - Instant messaging sessions: **22,475**
  - Audio sessions (phone calls): **3,155**
  - Audio sessions minutes: **6,412**

- Feature of the soft phone solution
  - No PIN, no “\*#\*#\*12313”
  - Get access to it from everywhere
  - Based on Exchange Unified Messaging role
  - Well integrated with other systems
- Current CERN voice mail
  - Old system
  - Not evolving
  - We can use Exchange instead

# Voice mail on Exchange

Search Trash (Ctrl+E)

Arrange By: Date | Newest on top

Friday

Fernando Moreno Pascual Fri 12/10  
Voice Mail from Fernando Moren...

Play | Play on Phone | Edit Notes

**Voice Mail from Fernando Moreno Pascual (14 seconds)**

Microsoft Outlook on behalf of  Fernando Moreno Pascual

You forwarded this message on 12/10/2012 15:34.

Sent: Fri 12/10/2012 15:31  
To:  Pawel Grzywaczewski

Play | Play on Phone | Edit Notes

**Voice Mail from Fernando Moreno Pascual (14 seconds)**

Thank you very much and get your vacation bye.


Created by Microsoft Speech Technology. [Learn More...](#)


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You received a voice mail from Fernando Moreno Pascual at [fernando.moreno.pascual@cern.ch](mailto:fernando.moreno.pascual@cern.ch)




Caller-Id: [fernando.moreno.pascual@cern.ch](mailto:fernando.moreno.pascual@cern.ch)  
Work: [+41227674427](tel:+41227674427)  
E-mail: [fernando.moreno.pascual@cern.ch](mailto:fernando.moreno.pascual@cern.ch)  
IM Address: [fernando.moreno.pascual@cern.ch](mailto:fernando.moreno.pascual@cern.ch)

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### Voice Mail Preview:

Hello by then how are you.

That I'm calling you because said we need to book.

Thank you very much and get your vacation bye.

Created by Microsoft Speech Technology. [Learn More...](#)

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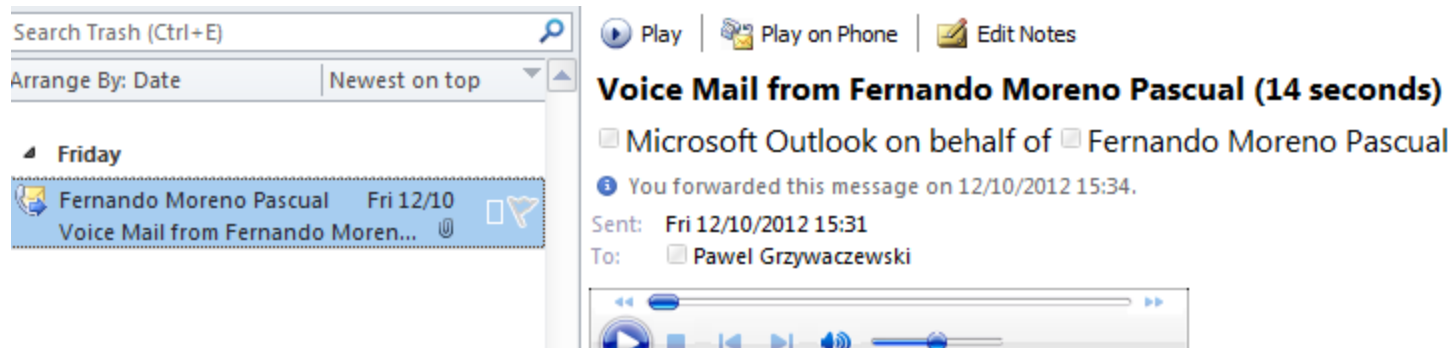
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Work: [+41227674427](tel:+41227674427)

E-mail: [fernando.moreno.pascual@cern.ch](mailto:fernando.moreno.pascual@cern.ch)

IM Address: [fernando.moreno.pascual@cern.ch](mailto:fernando.moreno.pascual@cern.ch)

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- **Interoperability** – solved with media gateway
  - Adapt different SIP implementation of each vendor
  - Numbering and SIP headers compatibility
    - Diversion on Lync, and History header on PBX
- **Reuse** current infrastructure:
  - Lync client as an extension of the PBX
  - Current systems (Alcatel, Exchange, CERN specific tools)
- **Security**
  - Users, servers, phone system
- **Redundancy**
  - Lync provides clustering (but no mirroring)

- Competences in two different groups
  - Lync, Exchange: IT/OIS
  - Telephony, interconnection, special services: IT/CS
- Support for different OS
  - Linux: lack of audio/video support for Lync

- Softphone Lync
  - Go to production beginning of next year
- Voice mail
  - Migrate users from current Alcatel system to Exchange
- Federation with other institutes
  - Free phone calls, availability
- Other features are available
  - Callpark, Location, Response group
- Lync 2013
  - Federation with Skype
  - XMPP gateway – integrate with Google Talk, etc
  - VOIP from mobile devices

- We gained experience in managing the system
- More features can be implemented
- The key was to **integrate** it with current systems
  - Telephone, e-mail, phonebook
  - Collaboration between people
- People doesn't like changes, but
  - **Very good feedback** once using the system

Thank you!



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