

Unified Communication: A Review

Davide Quaglia

01/14/10

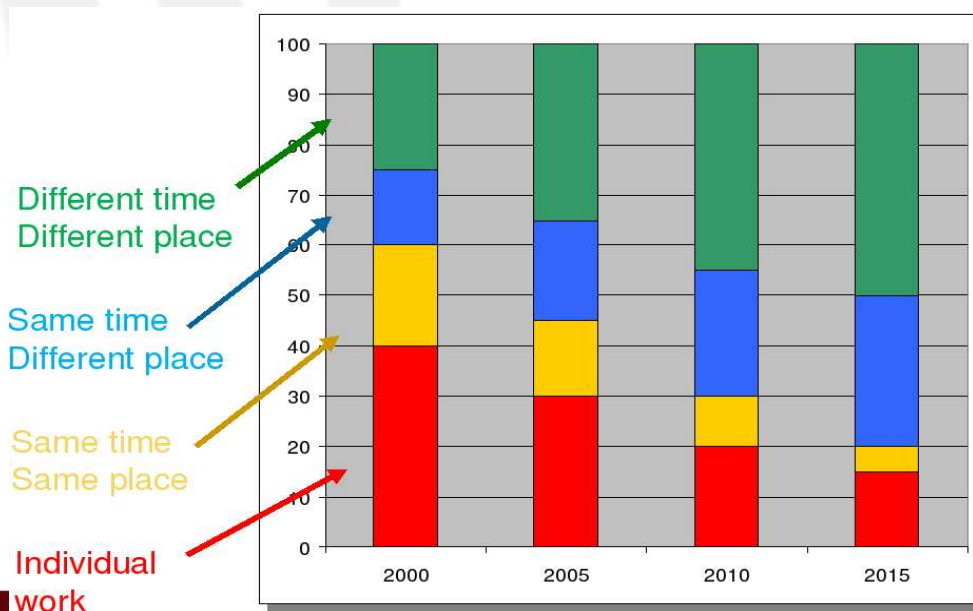
Outline

- Motivation
- Key points
- Advantages

Motivation

- Information (and therefore communications) is more and more important in today's work
- New ways to work
- New ways to communicate
- Internet Protocol convergence

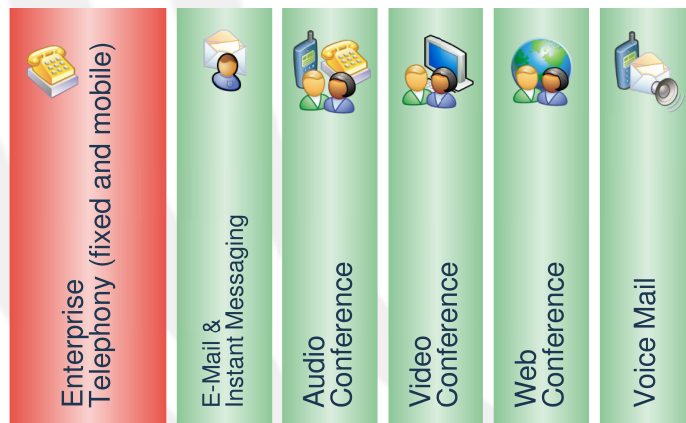
New ways to work



New ways to work

- Workgroup
- Tele-work
- Work travels
- Flexible work schedule (e.g., vertical/horizontal part-time)
- Office sharing
- Remote call center

New ways to communicate



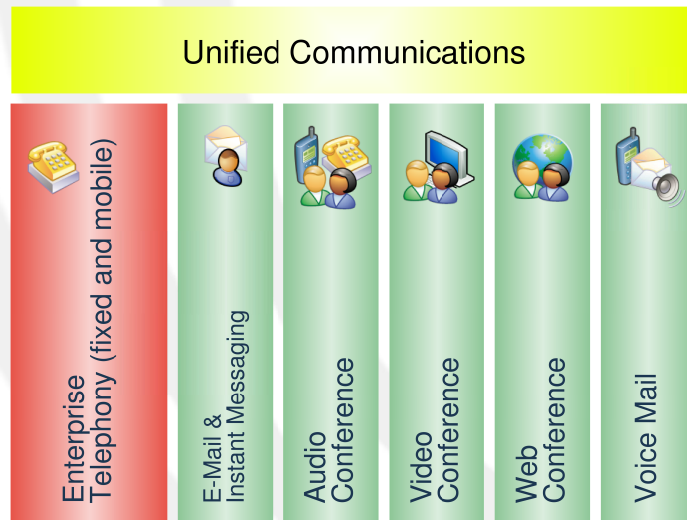
New ways to communicate

- Telephone:
 - prompt answer (if present)
 - which phone to dial: Office ?
Mobile ?
- E-mail:
 - Big text
 - written proof of the transaction
 - delayed answer
- Instant messaging:
 - small text
 - prompt answer
- SMS
 - small text
 - mobile reachability
- Audio/Video/Web Conference
 - work together even in different countries
 - application and blackboard sharing
- Voicemail
 - voice messages in emails

Internet Protocol convergence

- Email, voicemail and Instant Messaging are traditional IP applications
- Telephone and audio/video conference are NOW IP applications

Unified Communications (UC)



9

UC: architecture

- A centralized application
 - Keep track of people presence and preferences
 - Instant Messaging function
 - PBX function
 - Connection to the Web server, directory server, mail server
 - Audio/Video/Web conference server

10

UC: architecture (2)

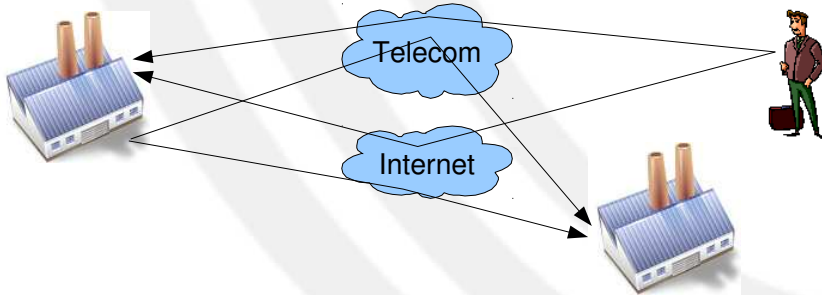
- An application on each employee's PC or on each mobile terminal to manage:
 - softphone
 - instant messaging client
 - personal directory
 - integration with personal calendar
 - preferences (e.g., do not disturb, call redirection, etc...)
- Phones (old fixed, mobile, IP phones)
 - Directly managed by the server

UC: advantages

- Answer to the following questions:
 - Presence (Are you online ?)
 - Modality (How many ways can I interact ?)
 - State (Are you available, away, on the phone, etc ?)
 - Context (What device are you using now ?)
 - Preference (What method do you prefer ?)

UC: advantages (2)

- Cost reduction for communications
 - Call me on the office phone instead of cell phone
 - Routing internal calls over Internet is cheaper
 - Between different office branches
 - When I am on travel with a (free) Internet access



UC: advantages (3)

- Integration with other applications
 - Calendar
 - E.g., if I am abroad only emails are allowed
 - Simple access to the people addresses
 - E-mail addresses, phone numbers, Instant Messaging nicknames
 - Just click on the number instead of dial it on the phone keyboard