IP-telephony - an enabler for converged communications

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The evolution of the Net

Mail Server

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Web Server

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Web Server
Basic problem

- How to find a party to communicate with?
- How to get attention from the user that you want to communicate with
- Select a way to communicate
SIP User Addressing

- Re-uses DNS!
- Email style address, use email address for telephony!
  - info@operator.com
- DNS used by device to find SIP server in the domain
  - info@sipserver.operator.com
- SIP Server resolves address to current location of the user
  - johan@computer.mydomain.com
- Possible to map telephone numbers to SIP addresses
  - +46890510@operator.com
SIP is about All Communication

- Telephony
- Instant Messaging
- UMTS Wireless
- SIP Proxy
- Video Conferencing
- Gaming
Communication Setup

INVITE pelle@operator.com

Media Flow
Number format translation

VoIP Gateway

IP

ENUM Service

PSTN

1010
VoIP Gateway
Bridging between E.164 numbers & SIP addresses

- ENUM (Telephony Number Mapping)
  - Input: Telephone number
  - Output: List of URLs
  - Associated email address, SIP address, web page etc.
  - +46706662326 maps to 6.2.3.2.6.6.6.0.7.6.4.e164.foo
Polite communications

• Presence enabled addressbook
  – See if people is available for communication
  – Launch appropriate communication channel
    • Multiplayer game
    • Shared white board
    • Instant messaging
    • Control desktop phone
    • VoIP call
Future applications

- UMTS wireless networks
  - Wireless video conferencing
- Contact centers
- Multimodal communications
  - Combine multiple media and devices in same session
    - Voice recognition
    - Graphical user interface
Summary

- IP infrastructure foundation for communication services
- A single SIP server infrastructure enables many media sessions
- The communication follows the user
- Voice is one media among many others
- Communication integrated with other applications