



# NOMS

## Distinguished Experts Panel

**VoIP management**  
**Does the emperor have any clothes on**

Vancouver, Thursday, 6 April 2006



Information Society  
Technologies





# Meet our Panelist

- Aiko Pras, chair  
University of Twente, the Netherlands
- Magda Nasser, AT&T, USA  
Design and implementation VoIP network and services
- Amy Pendleton, Nortel, USA  
Senior Advisor and implementor, IETF VoIP management
- Alexander Gelman, Panasonic Digital Networking Laboratory, USA  
Chief Scientist, consumer communications and networking
- Henry Sinnreich, Pulver.com, USA  
CTO, SIP design MCI Advantage, SIP Forum, IETF voice standards





# Importance of PSTN

## Example: KPN the Netherlands

- 27000 employees
- Revenues 2005: 12 Billion Euro
- Profit: 2.3 Billion Euro
- Profit PSTN: 619 Million Euro (27%)

***Telephony is still important for operators***





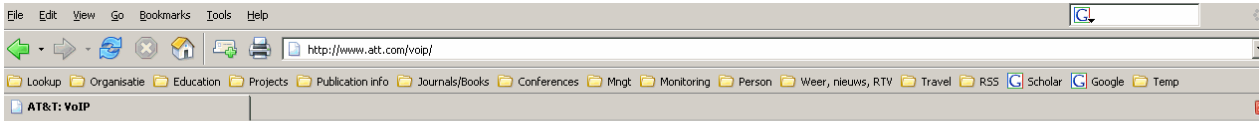
# FROM PSTN TO VoIP

- VoIP takes over PSTN
- VoIP gets important for many players
  - Traditional telecom operators
  - New VoIP service providers (Skype, SIPgate, ...)
  - Equipment vendors (Telco, Enterprise, End user, ...)
  - Etc.





# Telecom operators



**at&t** Region / Language

## Voice over Internet Protocol (VoIP)

**Broadband phone service for your home or business**

Voice over IP from AT&T reinvents the way you use your phone by merging it with your high-speed Internet connection. VoIP from AT&T converts your voice into data and uses your broadband connection to send and receive calls. Connect your home or business with VoIP service from AT&T and start enjoying the remarkable voice quality, powerful new features, and comprehensive savings that broadband phone service from AT&T can deliver.

**For Home**

### AT&T CallVantage™

Phone service for broadband

**LEARN MORE**

Now high-speed Internet users can enjoy unlimited local and long distance calling for just **\$29.99/mo**<sup>1</sup>. Plus:

- Unlimited calling in the U.S. and to Canada
- Your favorite features and powerful new ones, like Locate Me
- Consistent voice quality
- Low [international rates](#)
- Efficient and productive communications options for home offices

1 Broadband service charges not included. 1st month free offer expires 6/30/06 for web orders only. Int'l calls are billed at add'l per-minute rates. \$29.99 service activation fee applies. Disconnect fee and other charges may apply. DSL or cable Internet access required. Service will not function during a power or broadband service outage and is not compatible with home or office security systems. Other restrictions apply.

**For Business**

### AT&T Business VoIP Service

**LEARN MORE**

What happens when the world's networking company merges the possibilities of VoIP technology with the power of its business communications? You get AT&T Business VoIP Service, the network-based VoIP service that enables businesses to:

- Evolve at their own pace
- Protect existing investments
- Future-proof their networks
- Initiate more efficient cost management

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- *How will they be able to get revenues / profit from VoIP?*
- *How to beat Skype?*
- *Is Quality / availability of key importance?*
- *Is management of VoIP services essential?*
- *How to setup a VoIP network?*







# Equipment vendors



- *What management functions should be provided?*
- *Is central equipment still needed, or will P2P technologies like Skype take over?*
- *Is there a need for VoIP management standards?*





# Other VoIP management questions

- Do we need 99.999% availability?
- Is network QoS management important (DiffServ etc.)?
- Does VoIP require a dedicated network infrastructure?
- Is it only monitoring, or also configuration management
- What VoIP management topics should researchers focus on?
- Can Skype comply with telecom legislation?
- Is management still necessary with P2P solutions like Skype?
- Does the emperor has any clothes on?

