

Integrating Group communication tools

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Group collaboration media

	TEXT	AUDIO	VIDEO	DATA
SYNCHRONOUS/ REAL-TIME COLLABORATION	Instant Messaging, chat	Voice over IP	Video conf.	Desktop-sharing, Application-sharing
ASYNCHRONOUS COLLABORATION	E-mail, forum, Listserv, News	Voice-mail	Video-mail, Streaming	Presentation Documents Project info

SURFnet RTC services

- Videoconferencing service (institutions)
- VoIP related services (end user and institutions)
- SURFgroepen (end user)

Videoconferencing service

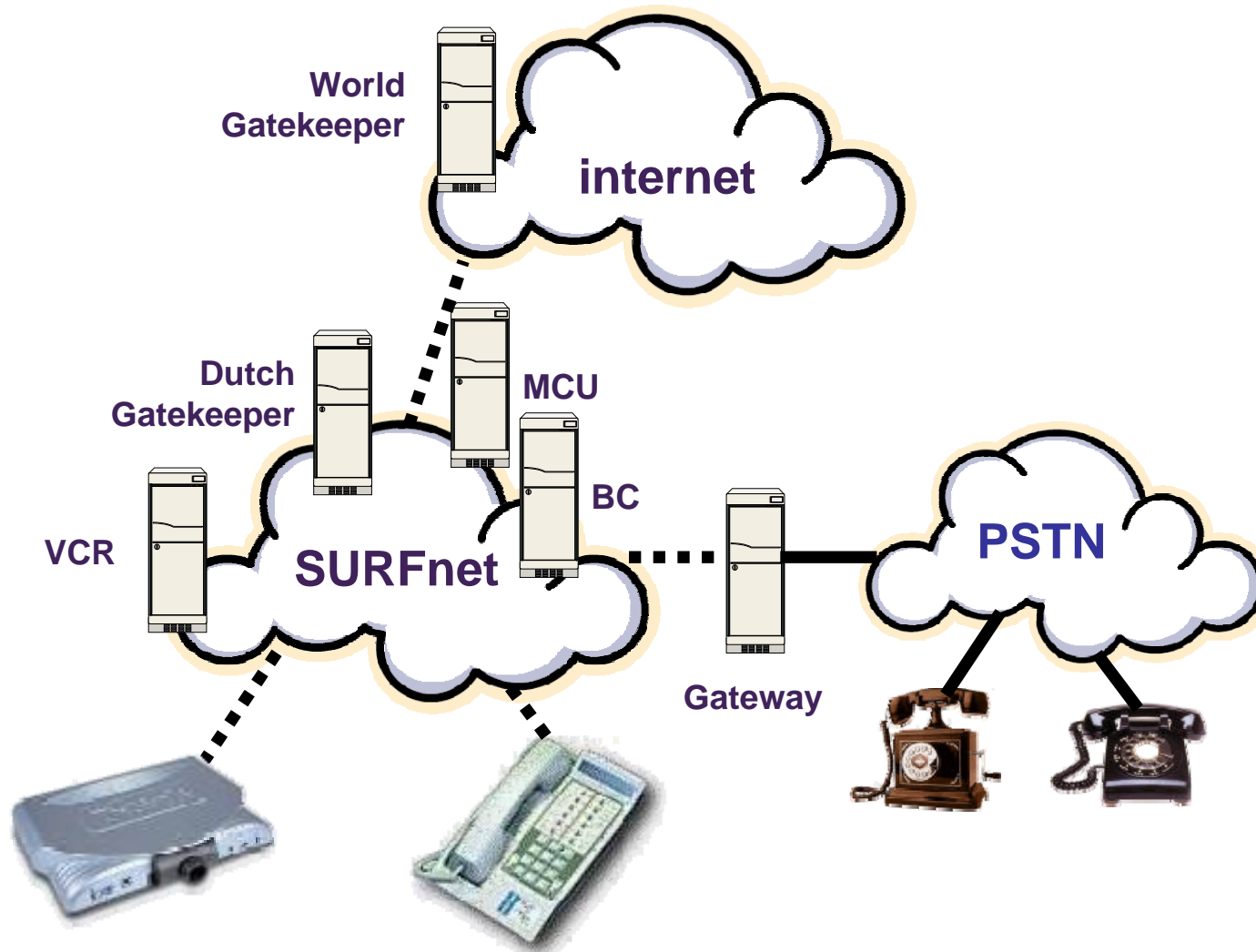
- GDS
- MCUs
- Dial-in
- Recording and streaming
- End-user portal
 - SWITCH e-Confportal
- Firewall traversal
 - Tandberg Border Controller
- 'HD'
- Mobile devices

The screenshot shows a web interface for booking a videoconference. It includes a navigation bar with tabs: 1 Datum/Duur, 2 Deelnemers, 3 Geavanceerde Instellingen, and 4 Beves. The main form is titled 'Datum/Duur' and contains the following elements:

- A text input field for 'Event name'.
- A calendar for 'Datum' showing December 2006, with the 12th selected.
- A table of 'Bestaande reserveringen' (Existing reservations) for 2006-12-12:

Time	Participants
09:30 - 20:25	7 participants
14:00 - 16:00	10 participants
- Fields for 'Starttijd (UTC+1)' (Start time) set to 11 h and 20 min, with a checkbox for 'Start onmiddellijk' (Start immediately).
- Fields for 'Duur' (Duration) set to 01 h and 00 min.
- A '>> verder' button at the bottom right.

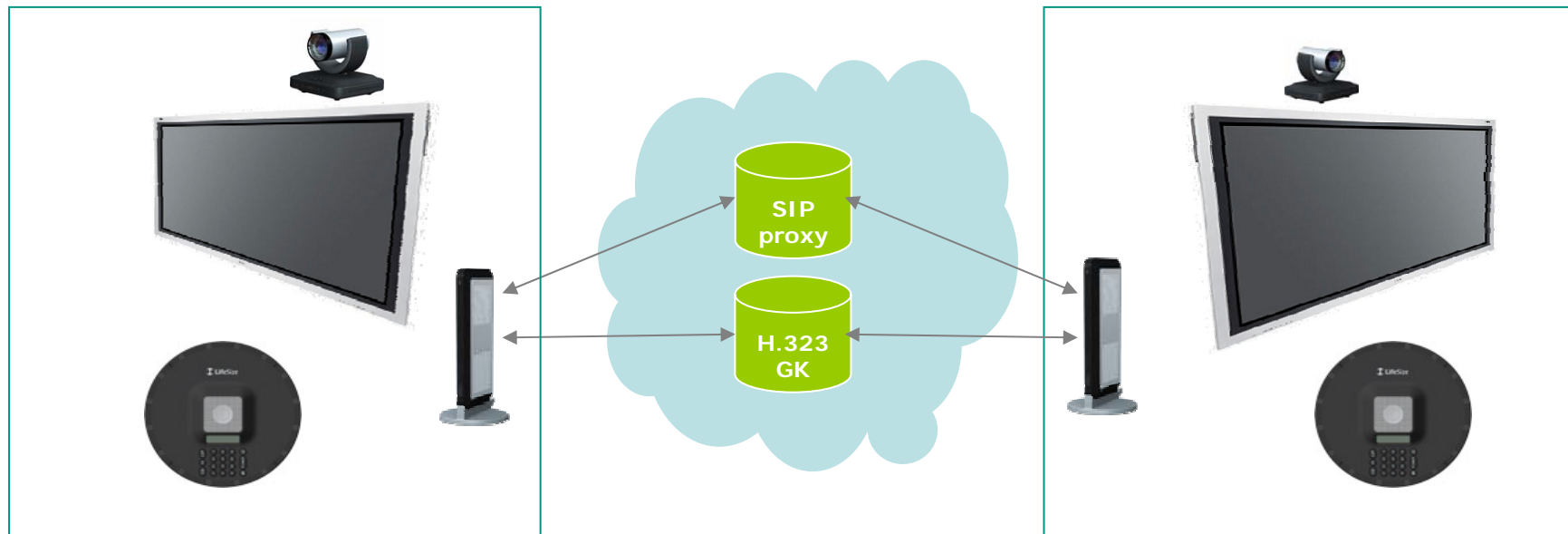
Videoconferencing service (H.323)



High Definition Videoconferencing

HDTV resolution (720p)

(2mbit/s, 720p, compatible with SURFnet H.323 and SIP services)



VoIP related end-user services

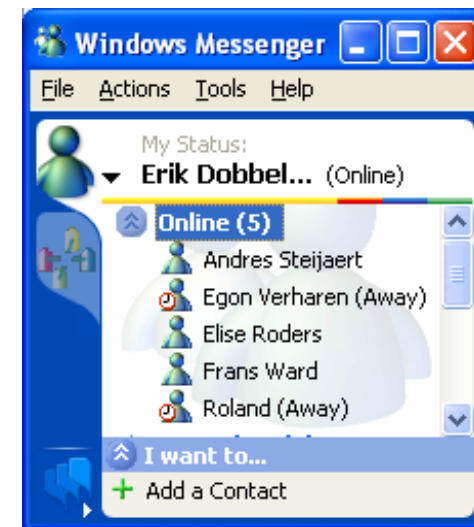
- Landline-alternative service by optibel.nl (InterNLnet.nl)

Klik & Klets!



- Messenger-based IP-only services through SURFgroepen

- SIP playground



IP-Telephony related services for institutions

- NOT: IP telephony within the institution
- Lightpaths for VoIP transport between institutional campuses
- Termination of minutes by Telco's
 - ISDN30 emulation: pilot 2006Q4
 - SIP trunking: pilot 2007Q1
 - Over IP or over lightpath
- VoIP provided by Application Service Provider

SURFgroepen ('SURFgroups')

Combines:

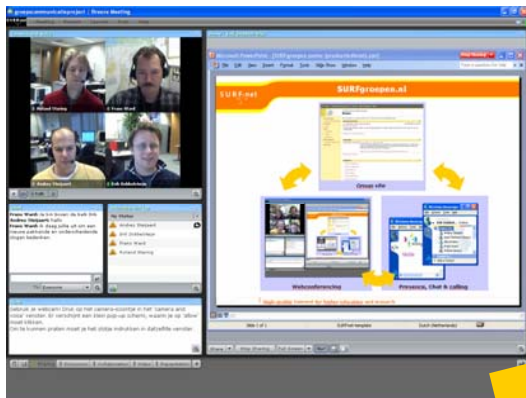
- Documentsharing
- Chat/IM
- Webconferencing

All employees and students connected to SURFnet can get an account and create **groups**.

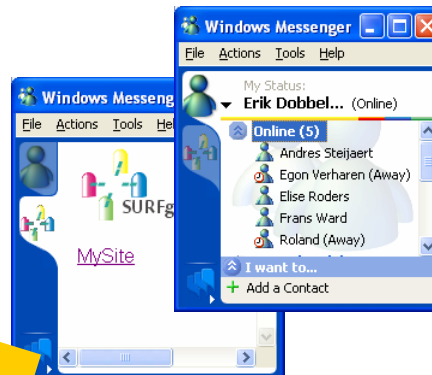
Everything they need is provided to support a project team, a class, course or other educational collaborations, especially over the borders of one institution



Document Sharing



Webconferencing

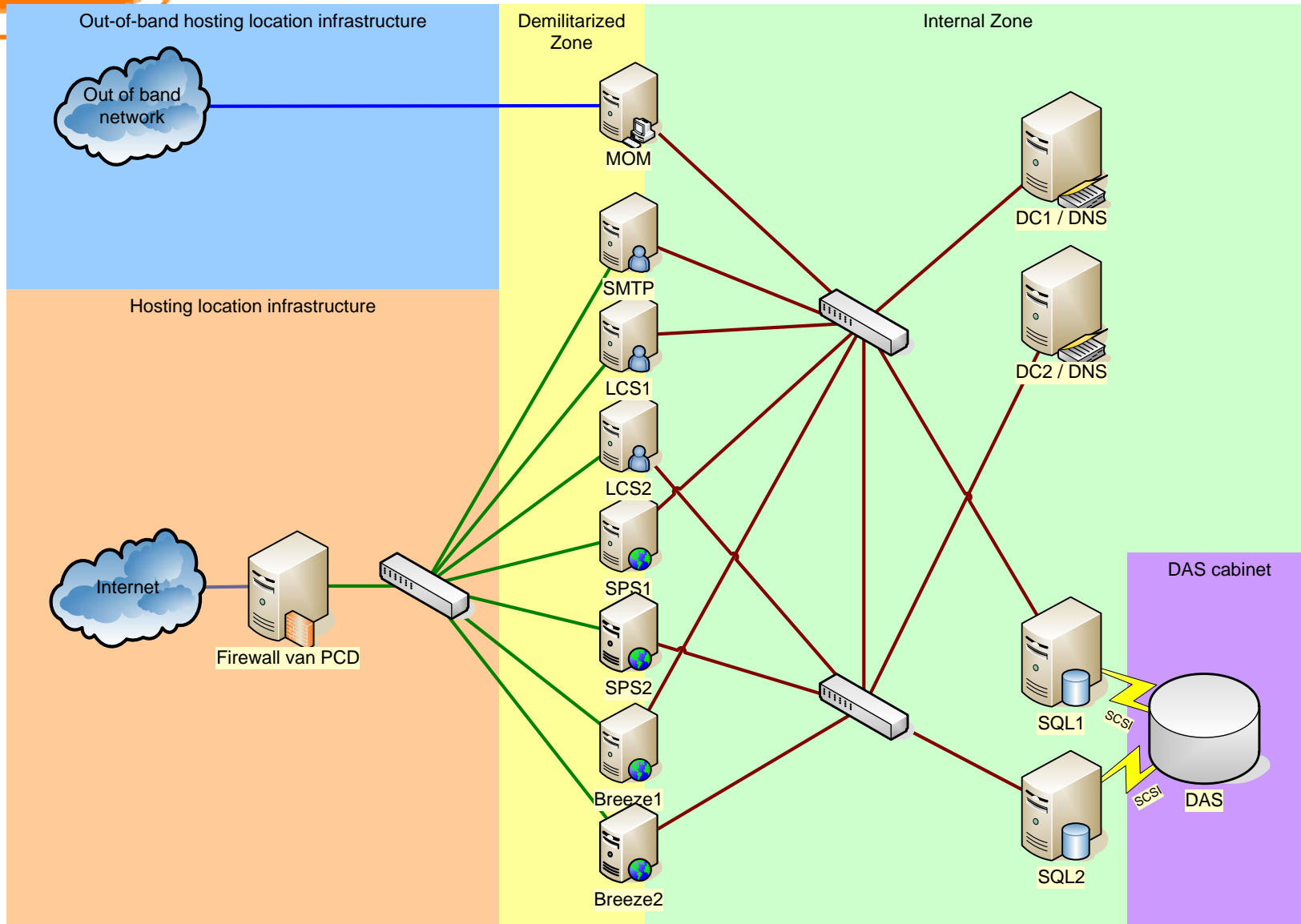


Instant Messaging

Bring in...

<https://www.surfgroepen.nl/sites/groepscommunicatieproject>

Architectural design



End user strategy: Rich Media

- Presence is main starting point for session initiation!
- Voice is considered valuable addition to chat
- Video has been an niche, will become common by making it easy-to-use
- EASE OF INSTALLATION, CONFIGURATION AND USE



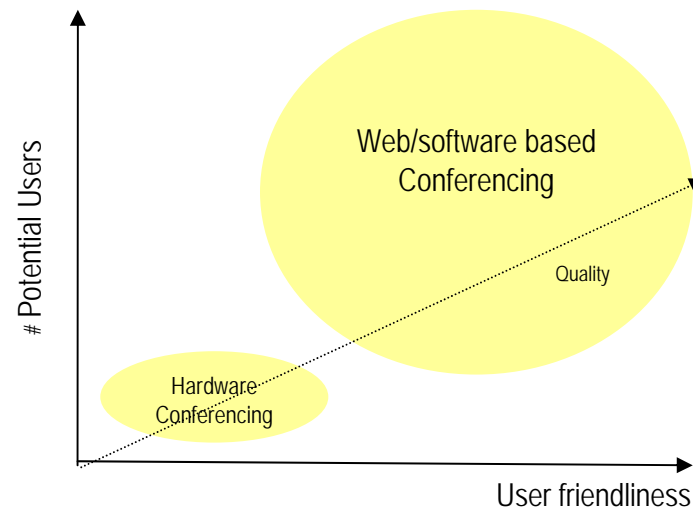
Hardware vs Software

Hardware based

- H.323, SIP
- Firewall ☹️
- Installation
- € € € €
- Features ☹️
- Quality 😊

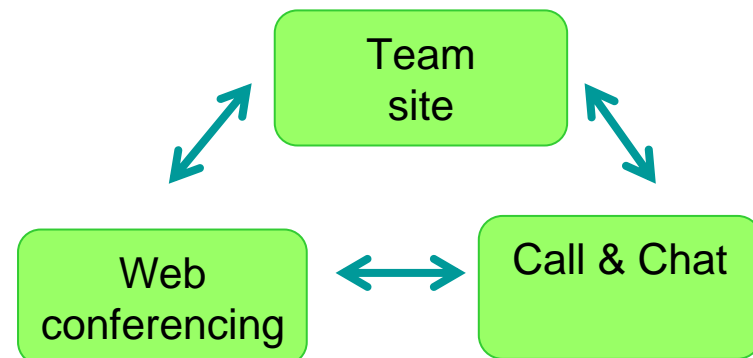
Webbased

- Proprietary
- Network no-brainer
- Zero-install
- Cheapo
- Feature rich
- Quality ☹️ (improving)



Why Integration?

- 'Just' a webcommunity is not enough
- Interaction between media
- Support wide variety of usage scenarios:
 - Lectures
 - Project based education
 - Ad-hoc collaboration
 - Student associations
 - Medical Diagnostics
- Integrate 'over borders'



Functional Integration

User subscription process

- Check mail domain to SURFnet customer domain table (SOAP)

Group site creation process

- Create Web conferencing room in Breeze (webservice)
- Mapping of user rights

Security

- SSL-ify Sharepoint & LCS
- SSL-ify Breeze logon procedure (proxy) and media

Use SURFgroepen account for other services ('VHO')

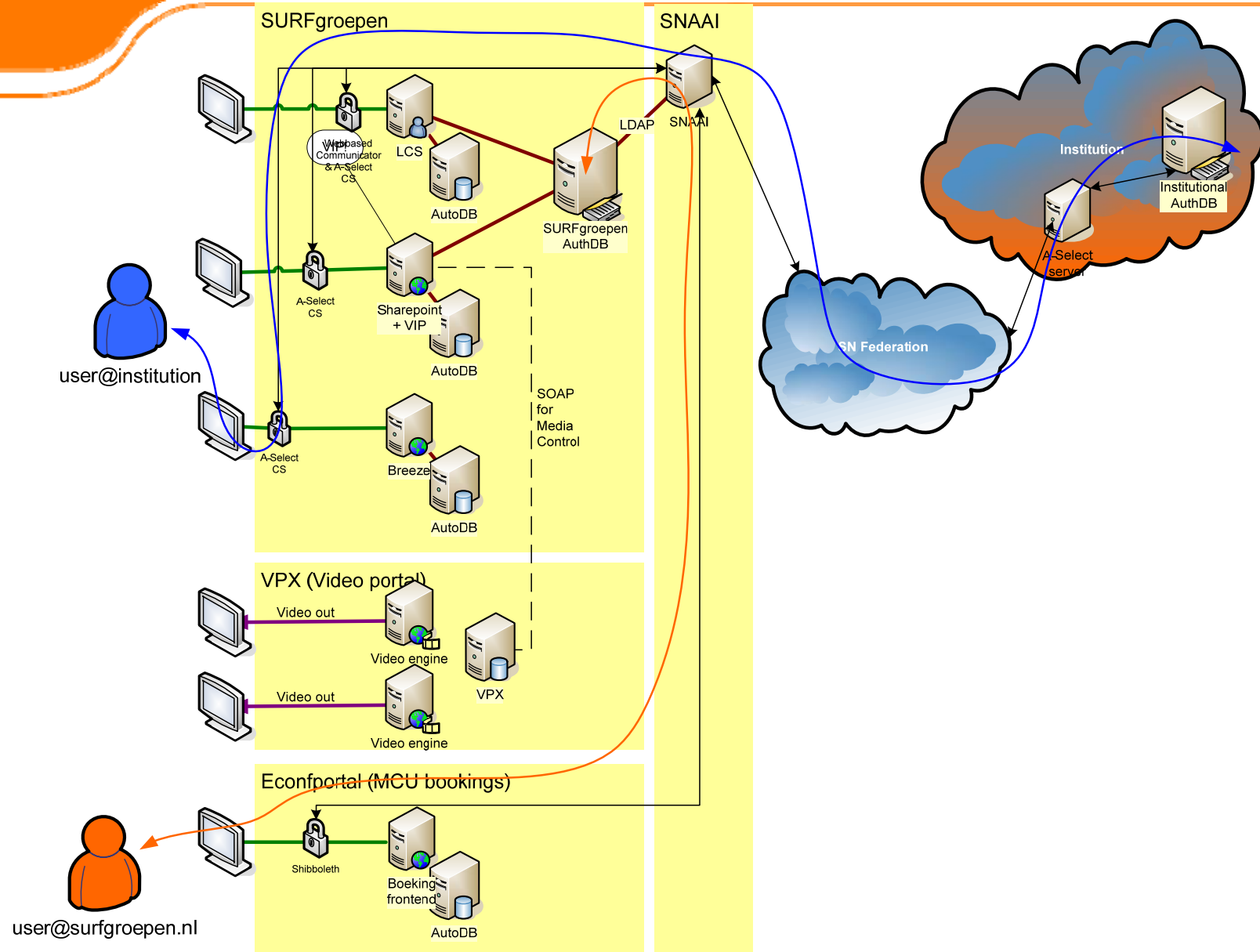
- Video portal

Single Signon

- Logon with your home institution credentials through the Federation
- If you're not in the Federation, use SURFgroepen account for other services

Reach other domains


- LCS federation based on SIP
- Enter webconferencing session with other HW
- Use your SURFgroepen login to be reached on your Optibel phone number or to dial to the PSTN



Compliance

- Sharepoint: IE, FF, Opera (IE adds extra's)
- Breeze: any Flash-enabled browser
- LCS: MS Messenger (Win/Mac), MS Office Communicator (Jabber and web-based communicator to come)
- Developed software (webparts) is Open Source

Work in progress

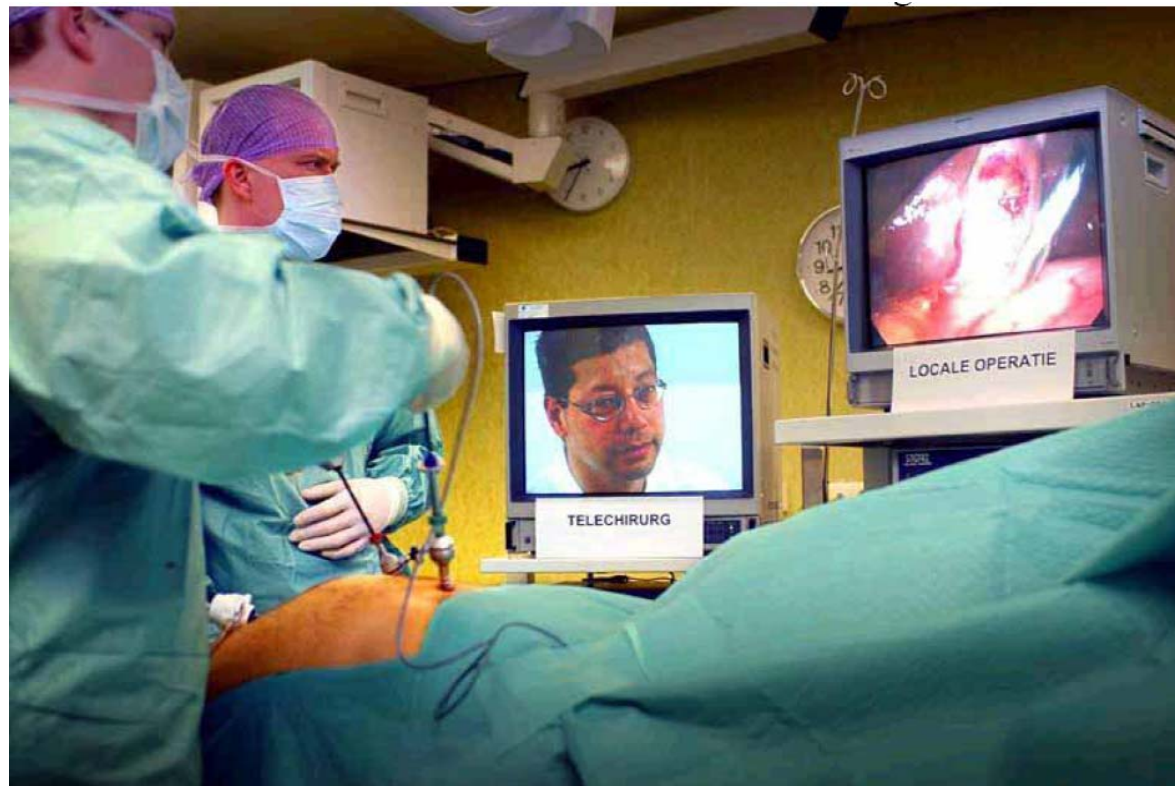
- Virusscanning
- Extra functions like blogging, RSS, mailinglists, other webparts (wiki-like)
- Support one-to-many sessions in Breeze
- SIP/SIMPLE for Breeze
- Jabber/XMPP support  Jabber Software Foundation
- Web based presence/messaging
- Mobile Device support
- Provide GUI for video and other end-user services
- Transport Geo information
- Trustfabric for Enhanced Communication Services based on SIP (video, IM etc): under development by TERENA TF-ECS

Find people (or: the content)

- Expert op afstand
- Telesurgery
- Spaans project
- Studium Generale
- Supercomputing



Surgery training



Source: Sint Antonius Hospital, Nieuwegein, The Netherlands

Lectures



Source: RTV Utrecht

Conclusions

- Webbased conferencing is easy to reach the masses
 - Audio still tricky
 - Interop necessary
 - Integration of web based components with SOAP/XML works well
 - Scalable, Stable and Secure
 - Easy to expand functionality
- High Quality is getting higher, hardware still outruns software
- VoIP: SURFnet aims at niche, collaboration with commercial service providers for telephony services
- Glueing it all together: SIP, SOAP and SAML