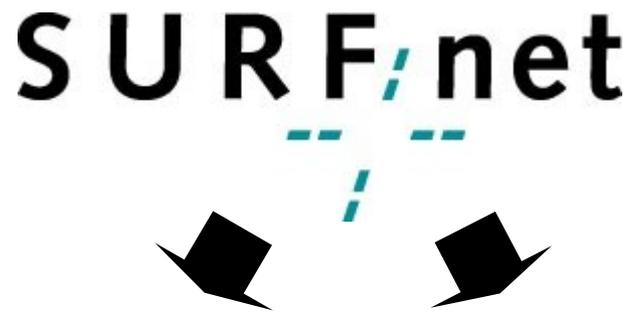
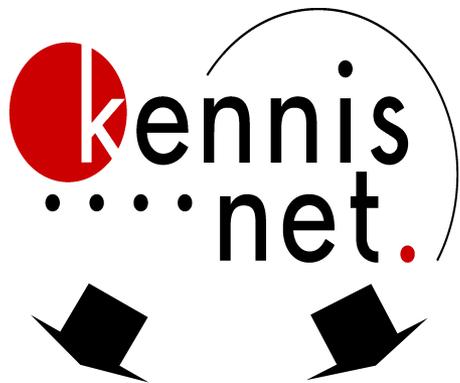


# Expert at a distance

Creating a marketplace where expertise is made available through videoconferencing

Roland Staring – Community Support Manager  
*[roland.staring@surfnet.nl](mailto:roland.staring@surfnet.nl)*



Naturalis - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Recycle Bin Mail Print Wordpad Taskbar Notification Area

Address <http://www.naturalis.nl/asp/page.asp?alias=naturalis.en&view=naturalis.en&id=i000256&frameurl=http%3A%2F%2Fwww.naturalis.nl%2Fnaturalis.en> Go Links

**. naturalis** Nationaal Natuurhistorisch Museum  
National Museum of Natural History

Home ? @ Search RSS

Visit What's on Services Science About us Support us

Services > Education and group arrangements

Print Email

## Education and group arrangements

### Education

Naturalis' education services offer a wide range of programmes for all primary and secondary school ages. These programmes are linked to various themes and exhibitions.

### Group arrangements

A visit to Naturalis with friends, family or colleagues is an original idea for a day out. Whether you take one of the interesting guided tours or participate in a workshop, both you and your party will have a very special day. Naturalis arranges events and activities for all ages. Our birthday parties for children aged up to twelve are extremely popular. Celebrate your child's birthday in style at a Bone Ball, a Piggy Party or a Dino Party.

### Information

For reservations and information on school visits, guided tours, hiring halls or rooms and arranging birthday parties please contact the Events Office [Bureau Evenementen] on (+31) (0) 71 568 7700 (working days: 9:00 to 12:00 and 13:00 to 17:00).



Internet

# A one year pilot



- 5 secondary schools
- High bandwidth connections ( $> 100$  mbit/s)
- H323 hardware videoconferencing kits
- Workshop for educators & technicians



# Expert at a distance sessions

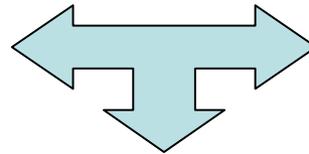
- Content based sessions
  - Society and culture
  - Engineering and science
  - Music and art
  - Languages
- International sessions
  - Sharing stories
- Study and career
  - Job choice support
  - Study choice support



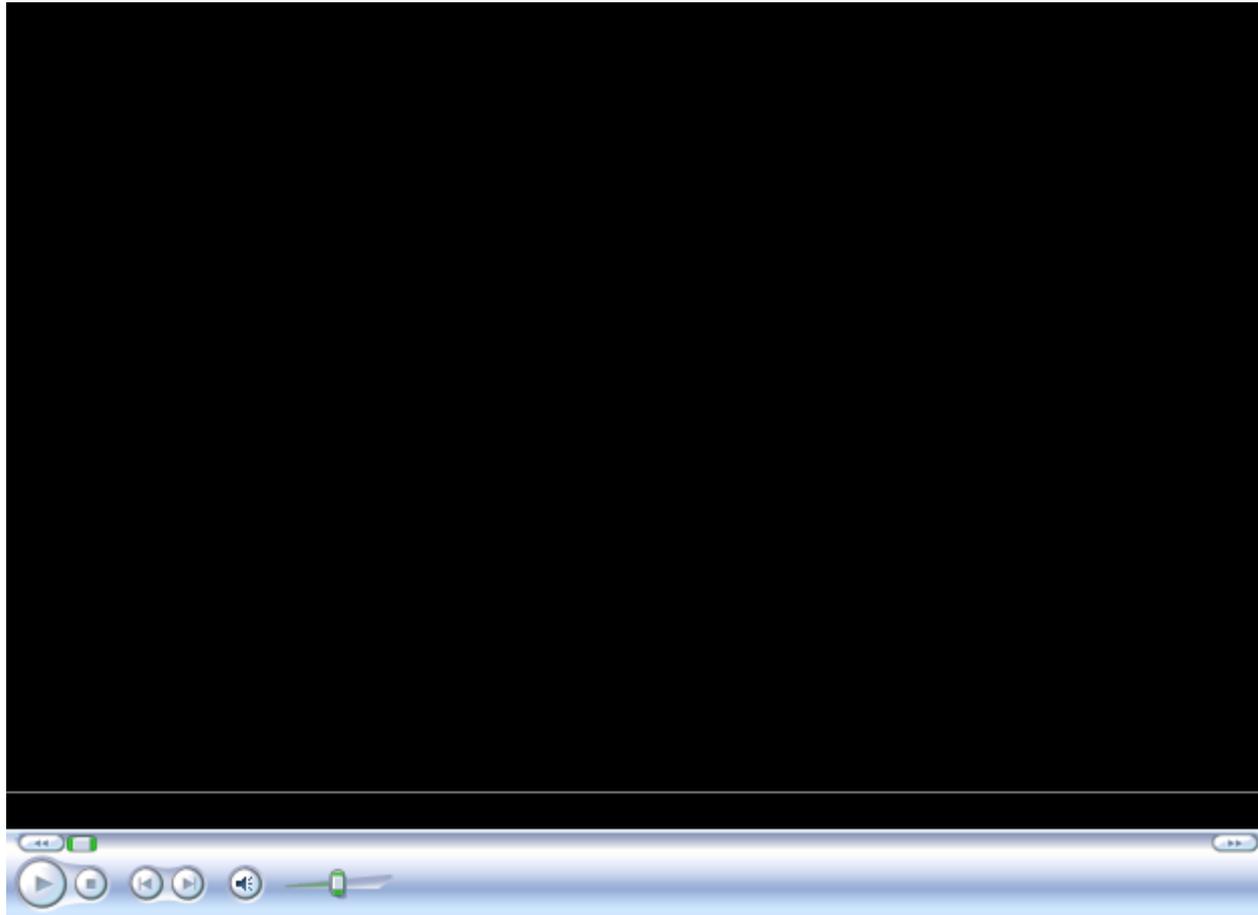
# Migration - a comparison with America



# Sharing stories with Palestine

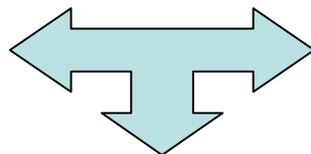


# Sharing stories with Palestine

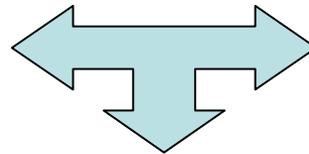


<http://www.expertopafstand.nl/conferencingindeklas/bekijkeensessie/sharingstories>

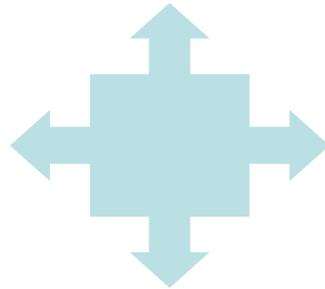
# Ask a nurse or technician



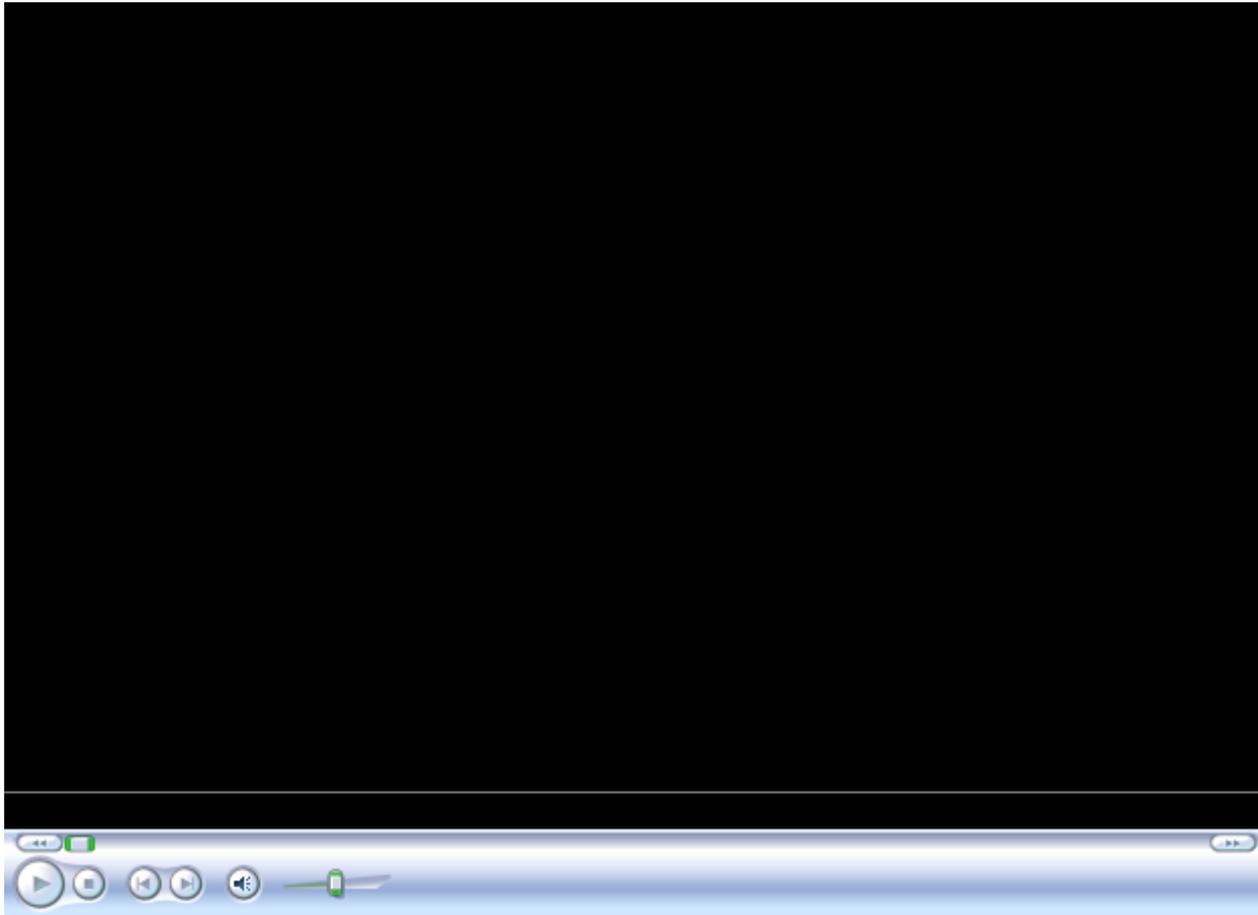
# Does extra-terrestrial life exist?



# What is it like to be a professional dancer?



## What is it like to be a professional dancer?



<http://www.expertopafstand.nl/conferencingindeklas/bekijkeensessie/nationaleballet>

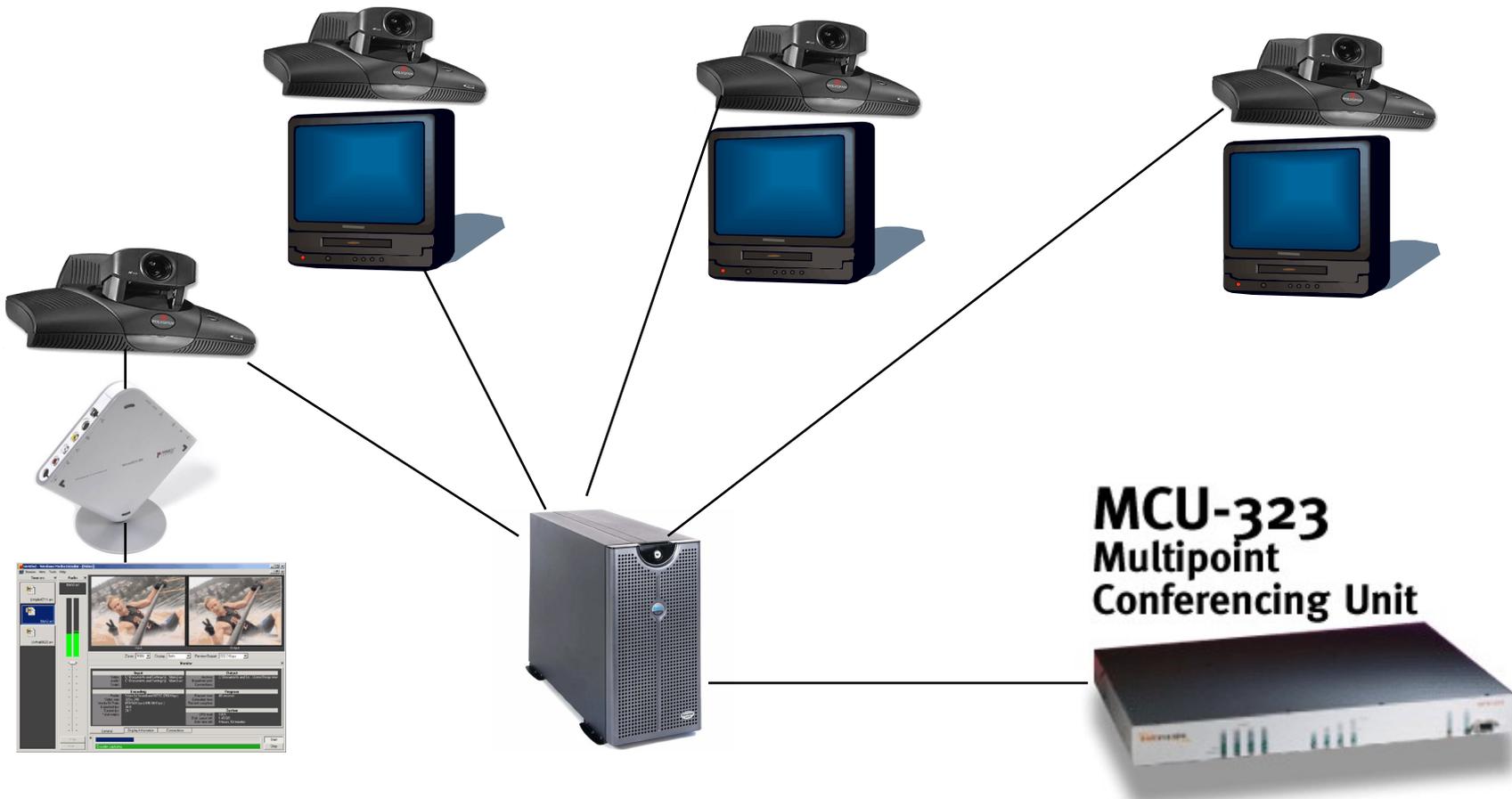
## Lessons learned - technical

- Test everything before the session starts
- Instruct everyone to 'mute' when not talking
- Have one technical contact person on every site
- Send an email with technical details
  - Containing the number to call
  - The exact times of actual and test sessions
  - A normal telephone number to call in case of problems
- Always use an MCU

# Lessons learned - organisational

- Have the pupils prepare their questions in advance
- Explain the expert how the videoconference set works
- Have a session coordinator
  - To keep time
  - To prevent experts from giving long answers
- The participating schools should be motivated to participate (supported by management)
- Have a school evangelist to support the sessions
- Support the early adopters
- Let the schools decide on the experts

# Technical set-up



# Technical problems

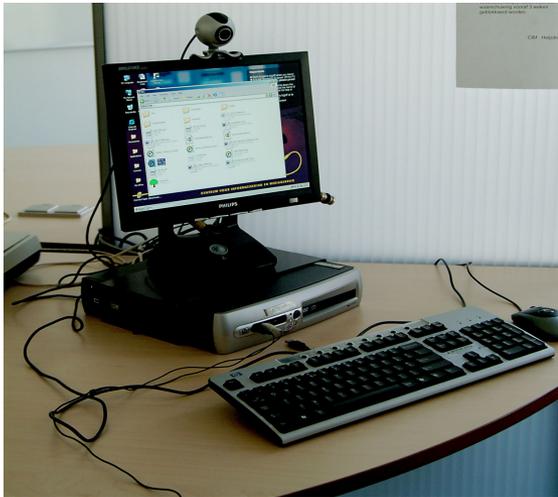
Port	Type	Description	H323 Client	H323 MCU	H323 Gatekeeper
80	Static TCP	HTTP Interface (Optional)			
389	Static TCP	ILS Registration (LDAP)	x		
1502	Static TCP	T.120	x	x	
1718	Static UDP	Gatekeeper Discovery	x	x	x
1719	Static UDP	Gatekeeper RAS	x	x	x
1720	Static UDP/TCP	H323 Call Setup	x	x	
1731	Static TCP	Audio Call Control	x	x	
1024-65535	Dynamic UDP	H245 Call Parameters	x	x	
1024-65535	Dynamic UDP	RTP ( Video Data Streams)	x	x	
1024-65535	Dynamic UDP	RTP ( Audio Data Streams)	x	x	
1024-65535	Dynamic UDP	RTCP Control Information	x	x	

Tabel 1 – Poorten die door H323 gebruikt worden

# Webconferencing vs Hardware



# Webconferencing



**Attendee List (4)**

My Status

- Waldo Smeets
- Andres Steijaert
- Roland Staring
- Waldo Mac

**Camera and Voice**

Waldo Smeets   Roland Staring   Andres Steijaert

Talk   Lock

**Wat is de mooiste omgeving?**

Wat is de mooiste omgeving?

- Breeze Live 0
- C2M 0
- Marratech 0
- No Vote 0

Broadcast Results

Prepare   Open Poll   Close Poll   0/4

**Chat**

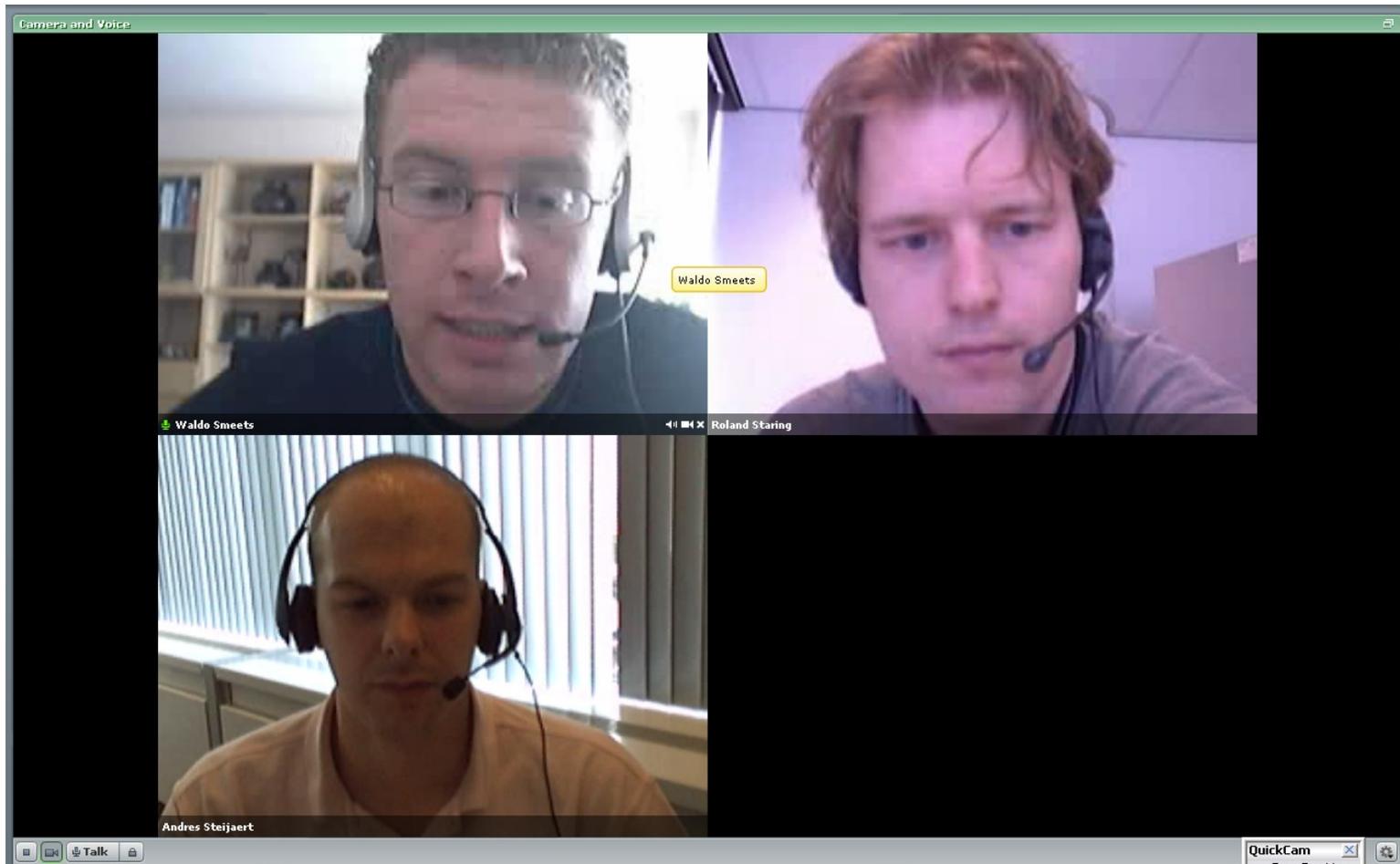
Andres Steijaert: hallo!  
 Roland Staring: ja  
 Roland Staring: hoor jij ons ook?  
 Roland Staring: ja webcam en audio  
 Roland Staring: ja  
 Andres Steijaert: doe maar gelijk VOIP  
 Roland Staring: we geven de voorkeur aan het doen via VOIP  
 Andres Steijaert: wij hebben al getest  
 Andres Steijaert: zaten zojuist nog in een sessie  
 Andres Steijaert: heb ik de rechten al?  
 Andres Steijaert: Waldo, ik heb volgens mij de juiste rechten niet  
 Andres Steijaert: Ik zie mijn eigen chat text ook niet  
 Andres Steijaert: xp doos  
 Andres Steijaert: zojuist nog een breeze sessie gedraaid  
 Andres Steijaert: en die ging goed  
 Andres Steijaert: dit is beter!  
 Andres Steijaert: ok!  
 Roland Staring: AH we worden opgenomen ;)  
 Waldo Smeets: verkeerde klik  
 Roland Staring: audio lijkt weg te vallen  
 Roland Staring: ah daar ben je weer  
 Waldo Smeets: <http://macromedia-v5.emea.breezecentral.com/668592446/>  
 Waldo Smeets: ja ik was met de settings aan het spelen  
 Waldo Smeets: moment, ik ben er nog hoor :-)  
 Andres Steijaert: je audio valt weg  
 Waldo Smeets: ik snap het  
 Waldo Smeets: als je settings anders zet dan wordt automatisch de mic uitgezet  
 Waldo Smeets: nog 1 testje, moment  
 Andres Steijaert: ok

To: Everyone

**Note**

Conference Number(s): 020  
 7132918  
 Participant Code: 289560

# Webconferencing



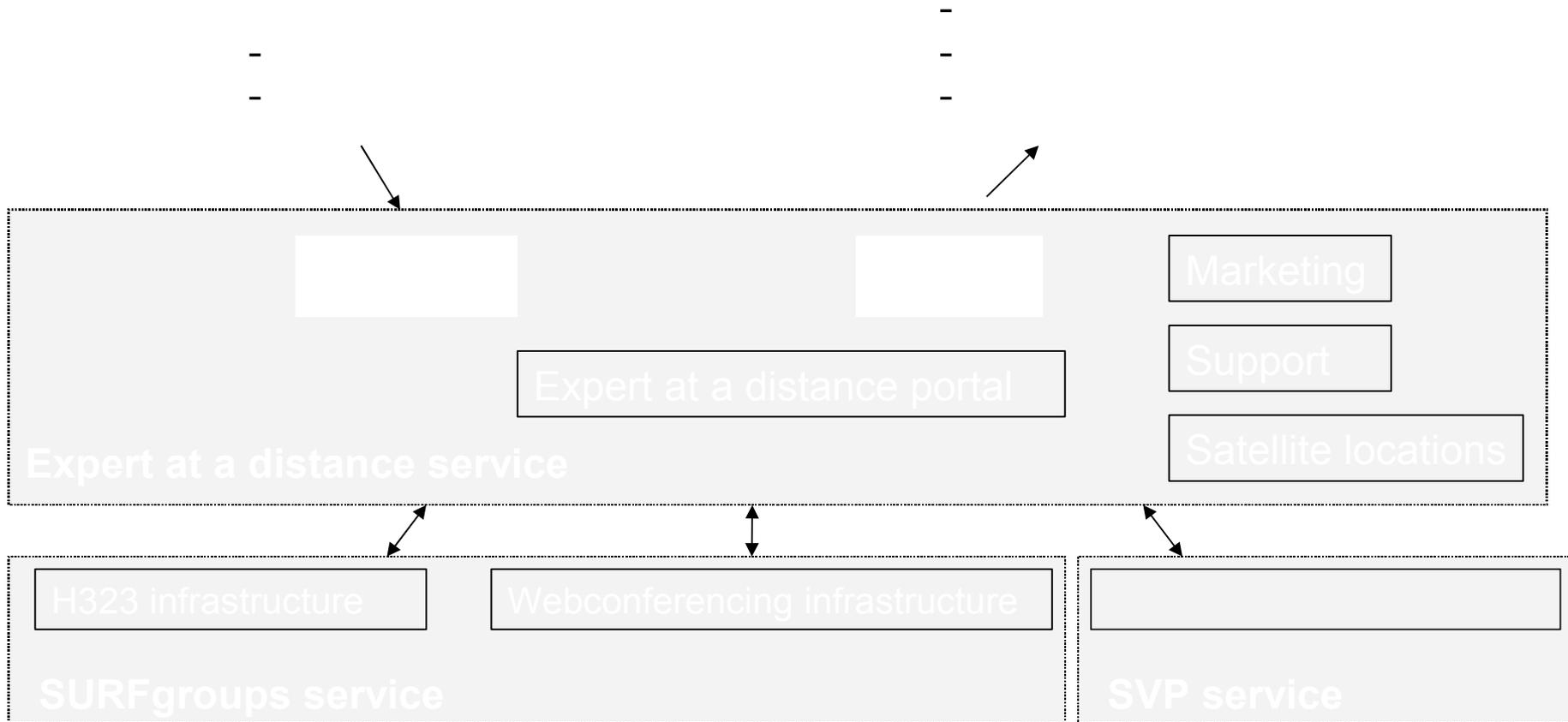
# Expert at a distance service

Project

Service  
(experimental)

Service

# A virtual marketplace



# Satellite locations for experts



# Questions



- 
- 
- 
- 
- 
- 
- 
-