Introduction

- The panel introduced the almost limitless possibilities of Internet2...
- We stretched some classical technologies and connected them to Internet2...

- What we did
- How we did it
- Why we did it

- A live sample ( hopefully - or some video )
What: Connect scientists at remote sites to students “at home”

- AWI has permanent stations in Antarctica and on Spitsbergen, inhabited by at least 9 or 2 persons - respectively - in winter
- First of all, they have to survive (do house-keeping)
- Then, they study the atmosphere, ice and animals
- We connected them via videoconference to high school students, visitors of museums and a studio at the World EXPO at Hannover
- Thus, we enabled conversations about work and life at the stations: “What, why and How”

From ISDN to Internet2

- Leased line @ 384 kBit/s via satellite (Antarctica)
- Internet2 Bremerhaven-Ohio
  - G-WiN,
  - Dante,
  - Abilene
- 6 ISDN channels (Arctic)
- DSL link to congress site
Why (and who)?

- Interest in the sciences has been declining for some years...
- AWI has interesting and important topics as well as exotic locations to offer
- Thus, Public Relations and IT departments made a team to stage events designed to raise interest
- ...among all age groups, but especially among children and students

Antarctic Internet

- In 2000, with the help of a sponsor, bandwidth between Bremerhaven and Antarctica was raised to 384 kBit/s - which is enough for good H.323
Examples - Munich

- Munich, Nov 2000, at the Technical Museum

Ex. - Megaconference II

- As seen from Neumayer station, Antarctica
- Two students question a geophysicist 10 meters below the ice surface
- Seen at 140 places around the world, Oct 2000
Going live...

- hopefully at least:
  ISDN lines from
  Spitsbergen to the
  mainland broke
down this week...

- Else, we will see
  some video collected during the first test of satellite
  link and H.323 systems, Antarctica, June 2000

Conclusions

- To have a conversation with scientists and
  technicians “on site” proved to have a much higher
  impact - fascination even - on visitors (!!) than
  • speaking to them “after the fact” or
  • speaking to them over telephone

- There was no hesitation to use this technology
  - the least with children of kindergarten age - even
    when there are artifacts like seconds of delay
    between question and answer

- We hope to have inspired more curiosity and
  interest in science at least in some of or guests