Virtual Rooms Videoconferencing System

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VRVS is a Videoconference Service over Internet (IP) for the HEP community (originally for CMS).

The service is only based on the VRVS Software: reflectors network and web user interface.

VRVS is mainly designed to Desktop videoconferencing. However, with a particular setup it could be used in conference rooms.

VRVS is not linked to any physical conference room!
VRVS is a production service:

- As of today, more than 5340 machines from 3250 different users are registered into the system.
- During the year 2000, 1300 Multipoint Conferences were performed (total 3800 Hours). More than 180 conferences/month since 2001.
- More than 3000 point to point connections were established.
- The system provides Video, Audio, Desktop Sharing, Chat in multi-point and point to point connections.
- Organizing videoconference via a full graphical booking system.
- The User Interface is fully Web based.
813 Machines registered at CERN

60% of machines registered in Europe
Reflectors Deployment

More than 35 reflectors Running around the world.

Europe:
- Switzerland: CERN (2)
- Italy: CNAF Bologna
- UK: Rutherford Lab, Wales
- France: IN2P3 Lyon, Marseilles
- Germany: Heidelberg Univ.
- Finland: FUNET
- Spain: IFCA-Univ, Rediris
- Portugal: LIP
- Israel: Weizmann Institute
- Poland: Cyfronet AGH

United States of America
- West: Caltech, LBNL, SLAC
- Center: FNAL, ANL
- East: BNL, Jefferson Lab
- DoE HQ Germantown
- Internet2: Ann Arbor, Gatech, Indiana
- Esnet (Energy Science Network)

Canada
- University of Alberta
- University of Quebec

Asia:
- Academia Sinica (Taiwan),
- KEK (Japan)
- APAN/SingeREN (Singapore)

South America
- Venezuela: CeCalcula

Russia:
- Moscow State Univ.,
- Tver. University
- JINR Dubna
On March, 2001, we released a completely new version (2.5).

- All the H.323 clients (like NetMeeting, Polycom ViewStation, ...) can be used in VRVS.
- A Sharing Desktop service allows users to display/share their graphic desktop with the other participants.
- The video camera can be controlled remotely by the other participants.
- MPEG2 multi-point videoconferences in a specific Virtual Room.
- The booking is adapted to any time zones.
- And more...
For the End User:

- Have a PC with a soundcard (a video camera if you want to send a video).
- Go to http://www.VRVS.org
- Register your machine
- Download the latest VRVS package
- Go to http://www.VRVS.org/Doc/Hardware/hardware.html for recommendations before buying an additional device.
- Check your audio/video local setup
- Book and enter into a Virtual Room
For an Institute:

Fore more than 3 local users, we advise the installation of a VRVS reflector for network/performance optimizations. To do so you need:

► to have a dedicated Linux server which is well connected to the network.
► to send a request to: Contact@VRVS.org
Philippe Galvez, Caltech  
Project Manager

Gregory Denis, Caltech  
Main Developer

David Collados, Caltech  
project Associate at CERN until 2002  
Developer

Kun Wei, Caltech  
Technical Support
At Caltech:

- 1 Main VRVS Web server (www.VRVS.org)
- 1 Development server
- 2 Reflectors/Servers

In Remote Sites (excluded CERN):

- In more than 30 reflectors already installed all over the world.

At CERN:

- Like the other institutes the CERN is currently replacing his 2 old reflectors/servers by 2 new Linux boxes. The upgrade is done by David Collados.
VRVS is completely funded by the DoE.

(DoE / HEP (High Energy Physics department):
Since 1995 this department has funded the videoconference activities at Caltech.

DoE / MICS

(Mathematical, Information and Computational Sciences department):
“A Next Generation Integrated Environment for Collaborative Work Across Internets”
A 3 years Development Project until 2002.
Next Evolution (1/3)

- **Internet2 deployment**
  - Internet2 has selected and will deploy VRVS as one of the main Videoconference service.
  - The 180 U.S. Universities that take part of the Internet2 will be able to use VRVS.
  - Deployment of new reflectors over Abilene network (GigaPoP’s).

- **Integration in ESnet (Energy Science Network)**
  - They will upgrade their current DCS (ISDN Videoconference) service during the year.
  - The new H.323/ISDN MCU will provide a limited capacity for videoconferences over IP. VRVS will interact with their system to scale all their large users community.
AccessGrid compatibility

- Soon VRVS will be able to connect users directly to AccessGrid meeting.
- Then H.323 users will be able to participate to AccessGrid conference via VRVS.

Adoption from other Communities

- Received lots of requests from sites/institutes/organizations developing/deploying GRID technology,
- Recently the European Fusion Community addresses official request to use VRVS as the principal collaborative environment platform.
New version (3.0) is planned for the Fall

- Will be designed to support different communities with their own set of Virtual Rooms.
- Will provide a Local Virtual Room on each site.
- Will improve the security and privacy.
- Will improve the H.323 integration.
- Will optimize the Sharing Desktop service.
- And more...
VRVS at CERN

- The use of VRVS is increasing quickly at CERN

- 1000 registered machines will be reached soon.

- PCs become powerful and cheaper. Potentially already able to make videoconference (only need an cheap USB camera to send video).

- In 1 year everybody at CERN will be able to use VRVS from his desktop. Microsoft NetMeeting is automatically installed in Nice 2000.

- The video conference rooms at CERN are fully booked each week. A big part of these meetings are done with VRVS.

- The CERN management needs a plan to support Desktop videoconferences for Laboratory at large.
Examples

GLAST meeting

21 participants connected via VRVS (Audio, Chat and Web shared)
Examples

CMS meeting

16 participants connected via VRVS (ex. H.323 and Mbone)