Video-on-demand demo

Roberto Barbera, Univ. of Catania and INFN

EGEE 2nd Conference, The Hague, 22-26.11.2004

Demo Session, 24.11.2004

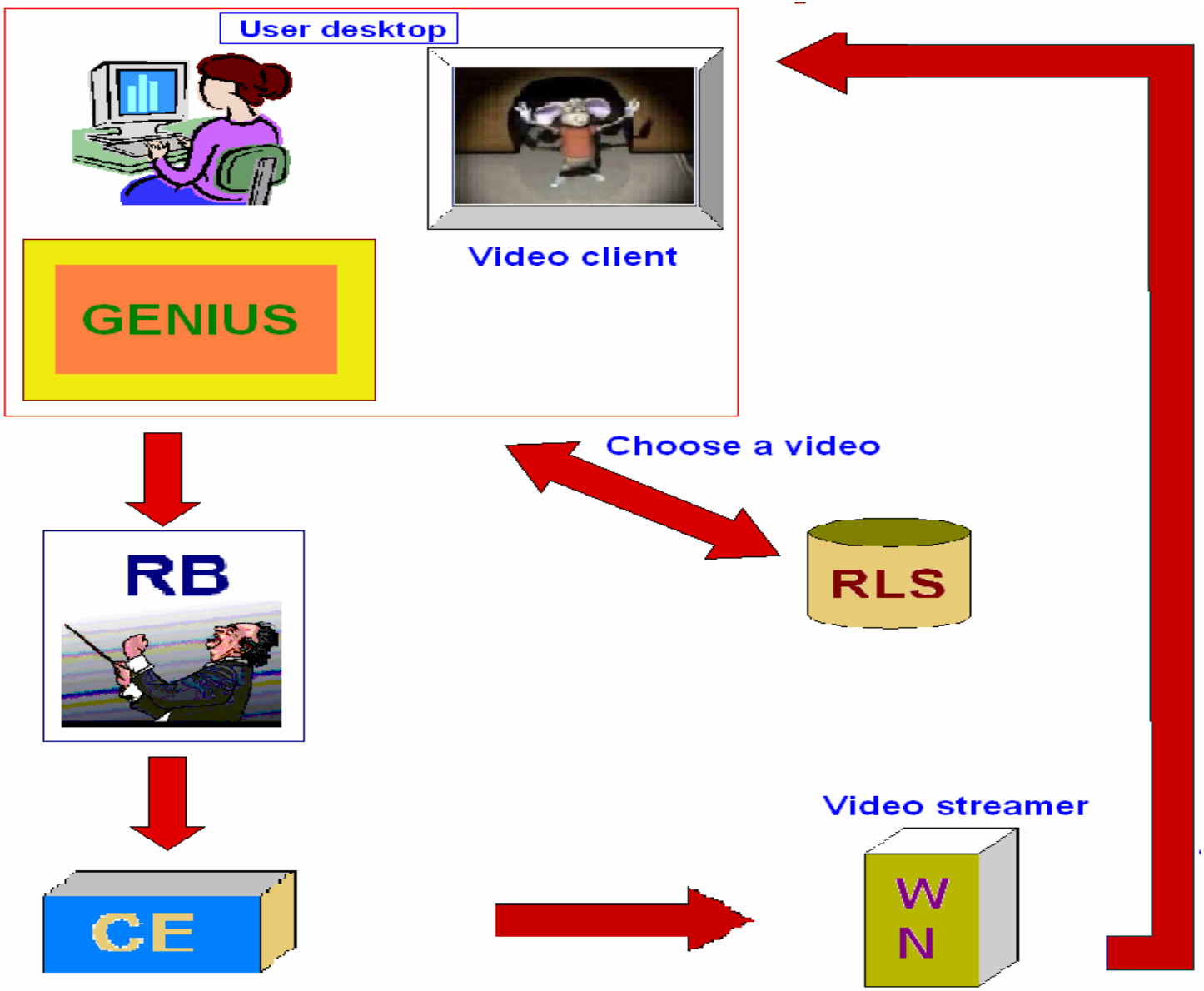
www.eu-egee.org

Information Society

Introduction

- **Goal of the use-case:**
  - create a real video-on-demand application using the LCG/EGEE middleware
  - make it in a way that it could have large adoption
- **Used testbed: GILDA**

The lay-out

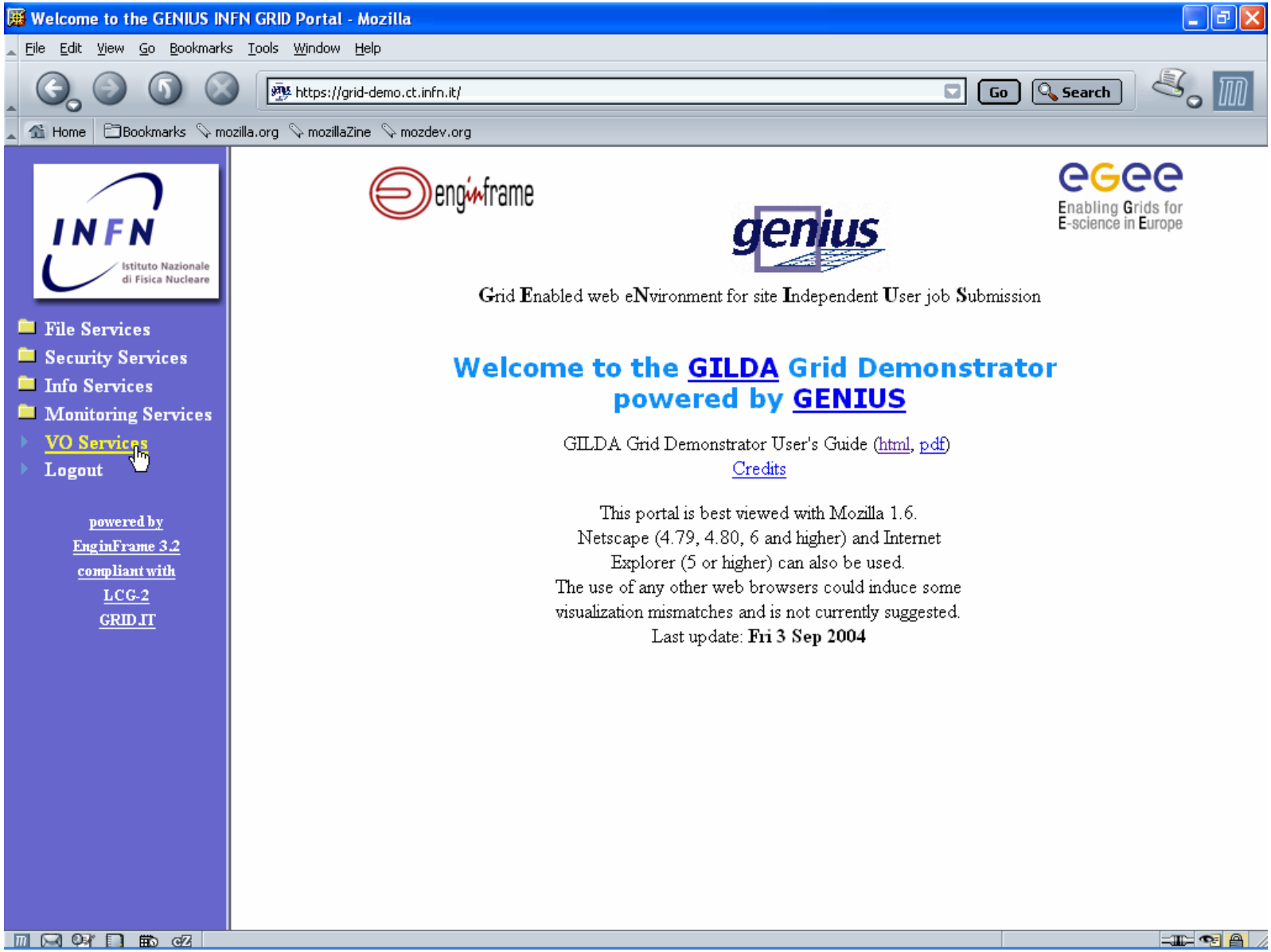

User desktop
Video client
GENIUS
Choose a video
RB
RLS
Video streamer
CE
W
N

The tool

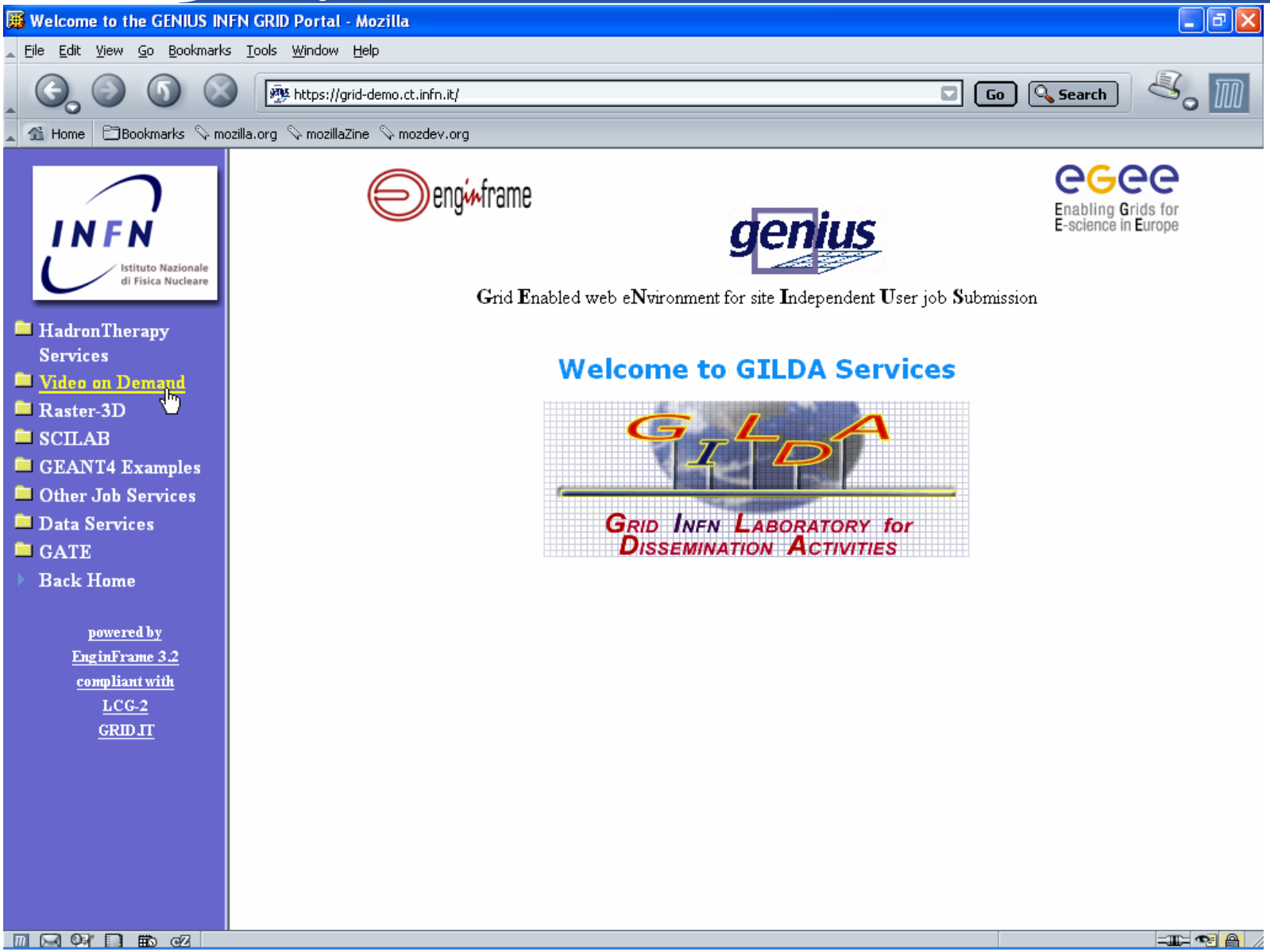
- VLC (initially VideoLAN Client) is a highly portable multimedia player for various audio and video formats (MPEG-1, MPEG-2, MPEG-4, DivX, mp3, ...) as well as DVDs, VCDs, and various streaming protocols. It can also be used as a server to stream in unicast or multicast in IPv4 or IPv6 on a high-bandwidth network.

- VLC media player is a cross-platform media player and server. It works under Linux, Windows, Mac OS X, BeOS, BSD, Solaris, Familiar Linux and QNX.
- Last release: VLC.0.7.2 installed on all GILDA sites
- More information about the VideoLAN streaming solution can be found in the streaming section http://www.videolan.org/.

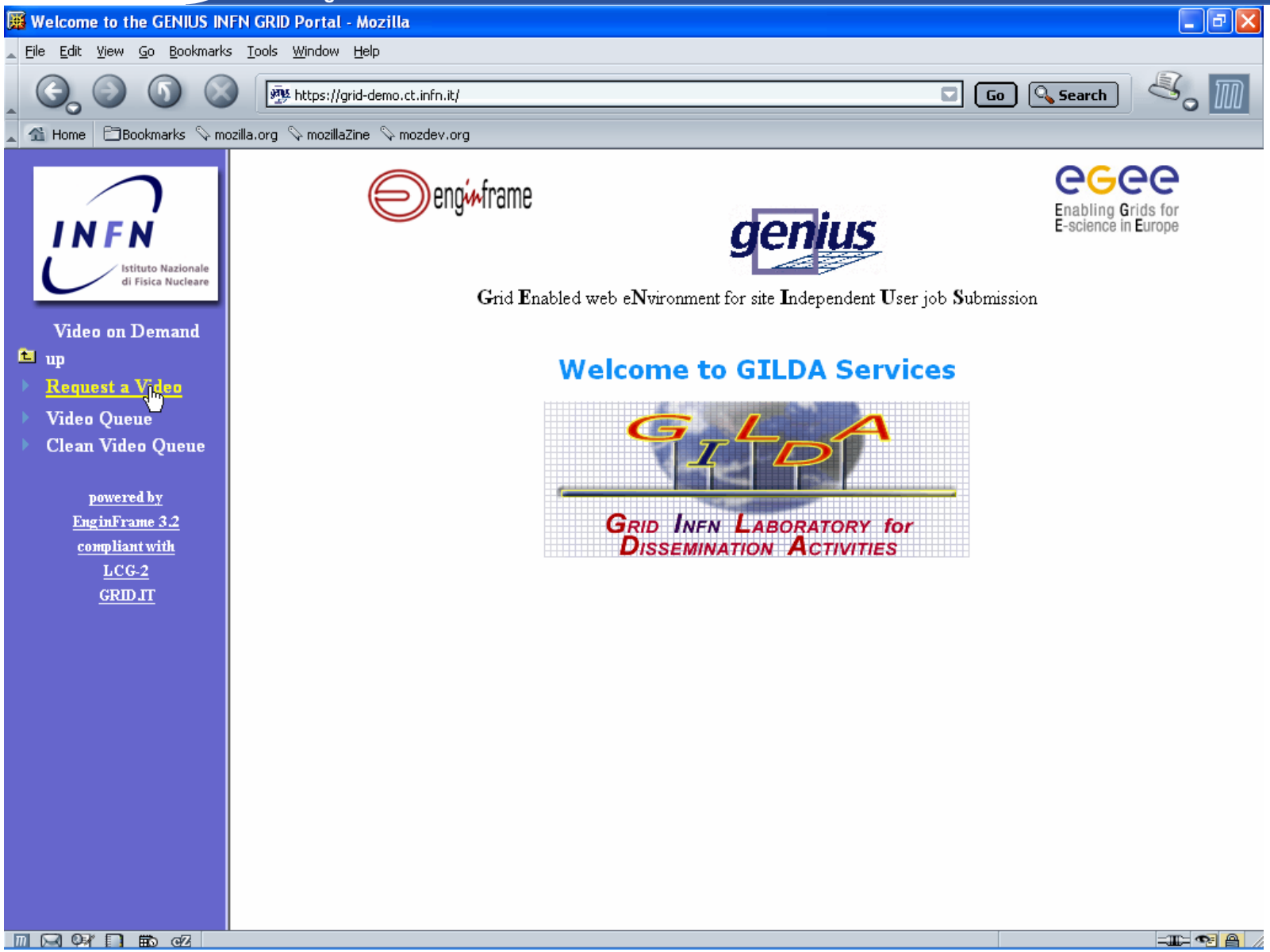
The demo (1/5)


Welcome to the GENIUS INFN GRID Portal - Mozilla
File Edit View Go Bookmarks Tools Window Help
https://grid-demo.ct.infn.it/
Go
Search
Home
Bookmarks
mozilla.org
mozillaZine
mozdev.org
INFN
Istituto Nazionale di Fisica Nucleare
File Services
Security Services
Info Services
Monitoring Services
VO Services
Logout
powered by EnginFrame 3.2 compliant with LCG-2 GRID.IT
enginframe
genius
Enabling Grids for E-science in Europe
Grid Enabled web eNvironment for site Independent User job Submission
Welcome to the GILDA Grid Demonstrator powered by GENIUS
GILDA Grid Demonstrator User's Guide (html, pdf)
Credits
This portal is best viewed with Mozilla 1.6. Netscape (4.79, 4.80, 6 and higher) and Internet Explorer (5 or higher) can also be used. The use of any other web browsers could induce some visualization mismatches and is not currently suggested.
Last update: Fri 3 Sep 2004

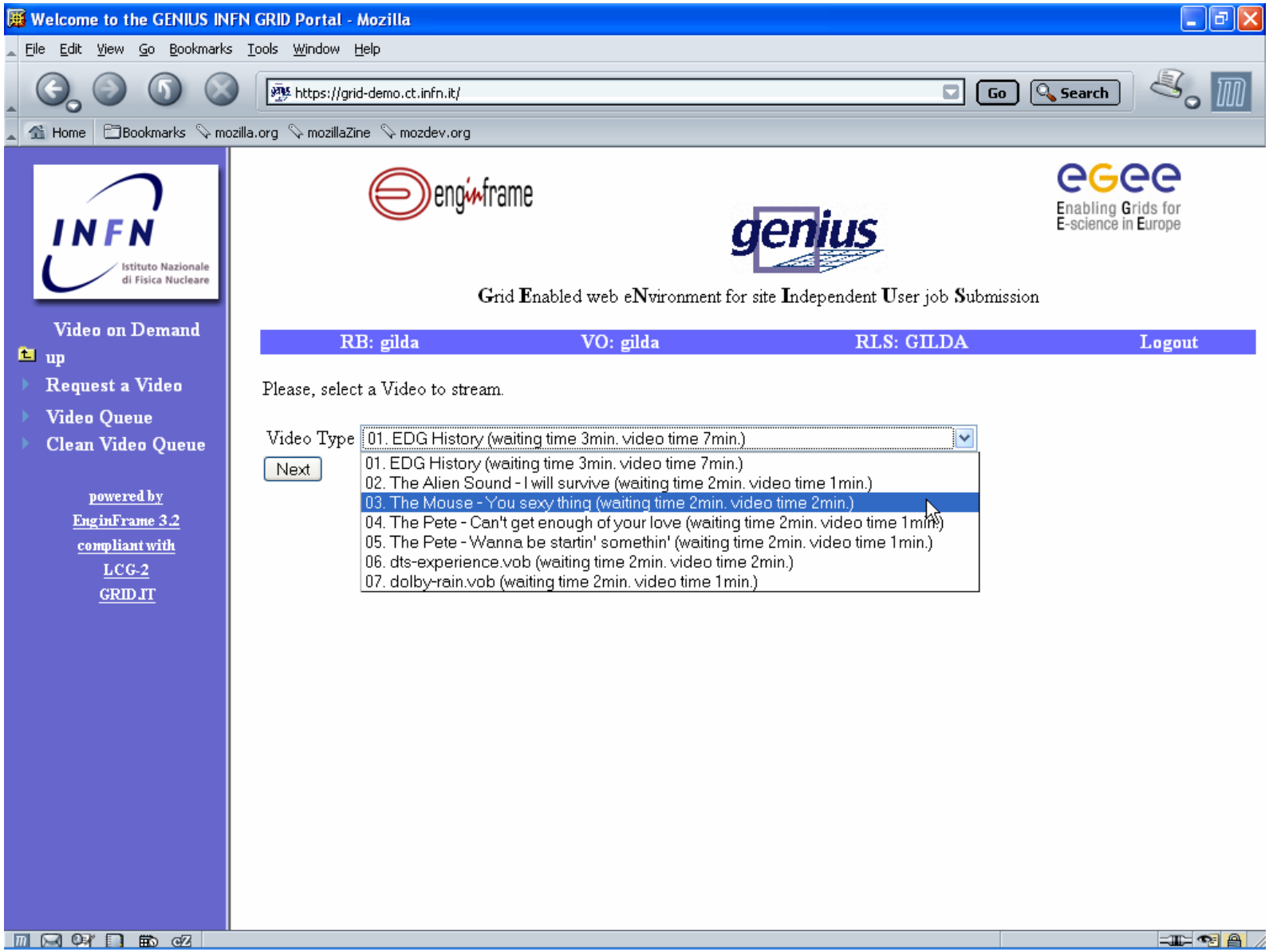
The demo (2/5)


Welcome to the GENIUS INFN GRID Portal - Mozilla
File Edit View Go Bookmarks Tools Window Help
https://grid-demo.ct.infn.it/
Go
Search
Home
Bookmarks
mozilla.org
mozillaZine
mozdev.org
INFN
Istituto Nazionale di Fisica Nucleare
HadronTherapy Services
Video on Demand
Raster-3D
SCILAB
GEANT4 Examples
Other Job Services
Data Services
GATE
Back Home
powered by
EnginFrame 3.2
compliant with
LCG-2
GRID.IT
enginframe
genius
Enabling Grids for E-science in Europe
Grid Enabled web eNvironment for site Independent User job Submission
Welcome to GILDA Services
GILDA
GRID INFN LABORATORY for DISSEMINATION ACTIVITIES

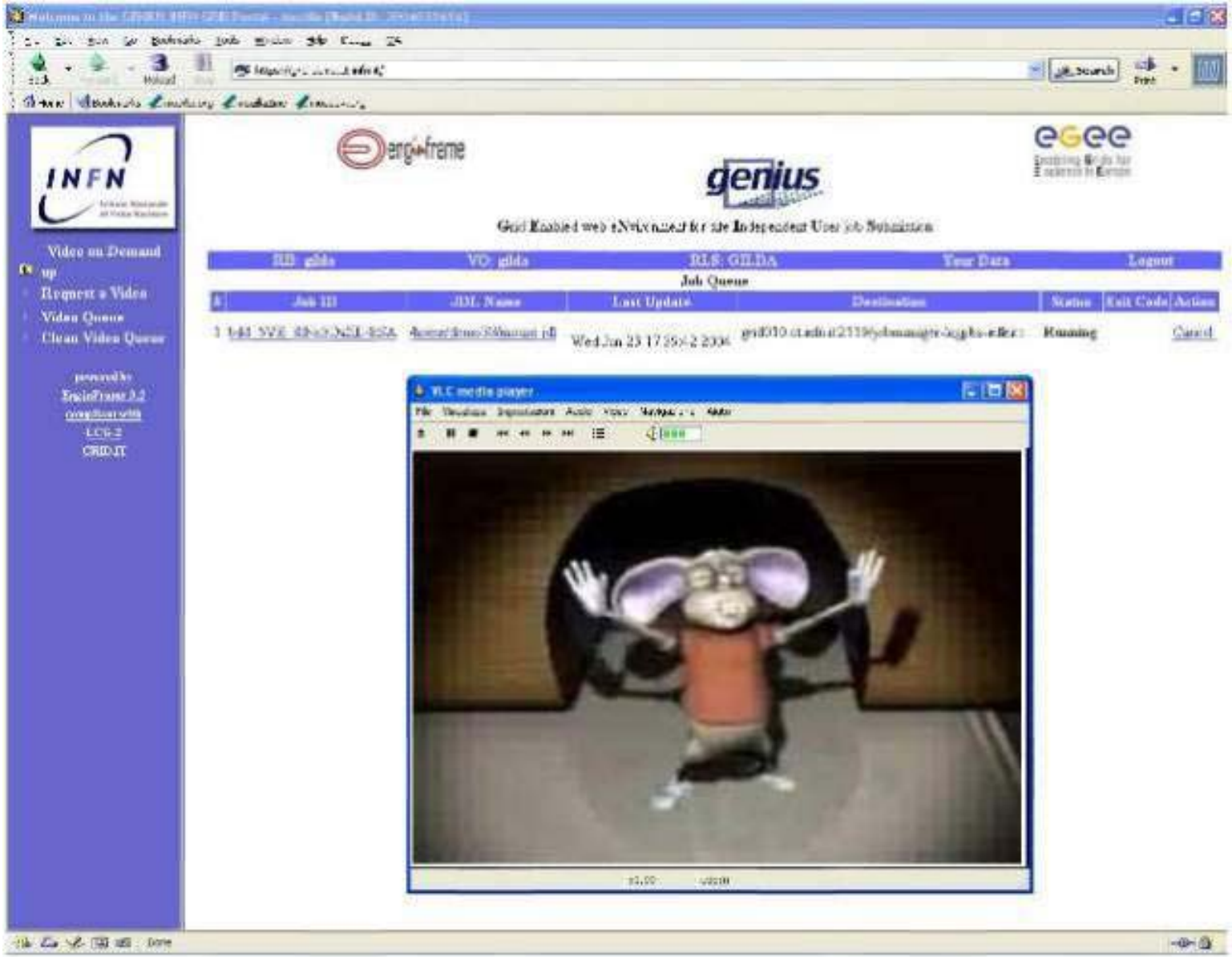
The demo (3/5)


Welcome to the GENIUS INFN GRID Portal - Mozilla
File Edit View Go Bookmarks Tools Window Help
https://grid-demo.ct.infn.it/
Go
Search
Home
Bookmarks
mozilla.org
mozillaZine
mozdev.org
INFN
Istituto Nazionale di Fisica Nucleare
Video on Demand
up
Request a Video
Video Queue
Clean Video Queue
powered by
EnginFrame 3.2
compliant with
LCG-2
GRID.IT
enginframe
genius
Enabling Grids for E-science in Europe
Grid Enabled web eNvironment for site Independent User job Submission
Welcome to GILDA Services
GILDA
GRID INFN LABORATORY for DISSEMINATION ACTIVITIES

The demo (4/5)


Welcome to the GENIUS INFN GRID Portal - Mozilla
File Edit View Go Bookmarks Tools Window Help
https://grid-demo.ct.infn.it/
Go
Search
Home
Bookmarks
mozilla.org
mozillaZine
mozdev.org
INFN
Istituto Nazionale di Fisica Nucleare
Video on Demand
up
Request a Video
Video Queue
Clean Video Queue
powered by
EnginFrame 3.2
compliant with
LCG-2
GRID.IT
enginframe
genius
Enabling Grids for E-science in Europe
Grid Enabled web eNvironment for site Independent User job Submission
RB: gilda
VO: gilda
RLS: GILDA
Logout
Please, select a Video to stream.
Video Type
01. EDG History (waiting time 3min. video time 7min.)
Next
01. EDG History (waiting time 3min. video time 7min.)
02. The Alien Sound - I will survive (waiting time 2min. video time 1min.)
03. The Mouse - You sexy thing (waiting time 2min. video time 2min.)
04. The Pete - Can't get enough of your love (waiting time 2min. video time 1min.)
05. The Pete - Wanna be startin' somethin' (waiting time 2min. video time 1min.)
06. dts-experience.vob (waiting time 2min. video time 2min.)
07. dolby-rain.vob (waiting time 2min. video time 1min.)

The demo (5/5)


INFN
Video on Demand
up
Request a Video
Video Queue
Clean Video Queue
genius
Job Queue
VLC media player

Summary and conclusions

- **Video-on-demand on grid opens the future to many applications:**
  - e-Learning
  - distance self-teaching
  - ubiquitous/transparent digital media access/sharing
  - commercial exploitation:
    - pro's from the user point of view
      - *certificates+web interface allow access from everywhere and by "everything" (desktop, laptop, PDA, …)*
      - *no decoders or any other equipments required*
    - pro's from the provider point of view
      - *certificates can be issued for 2 hours (the time of a movie), 1 day, 1 week, 1 month, ….*
      - *certificates can be easily revoked in case of abuse*
      - *no decoders or any other equipments required, so no possibility to clone or modify cards*
      - *media files are "unicasted": no problems of unauthorized access*