

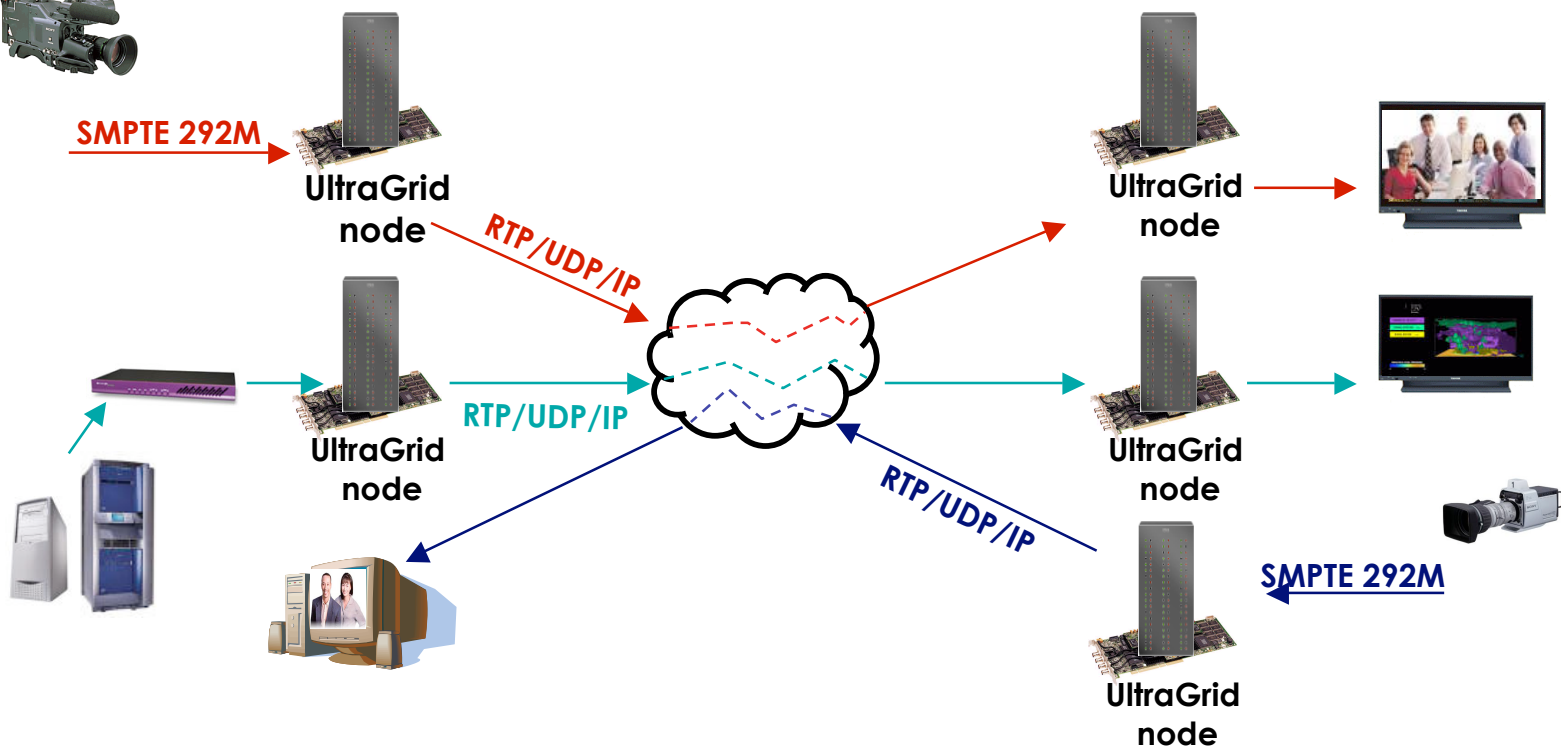


UltraGrid

A High Definition Collaboration Tool

<http://ultragrid.east.isi.edu/>

Phillips
LDK-6000



Objectives

- High quality and low latency video conferencing and remote visualization
- General purpose SMPTE 292M over IP transport at adaptable data rates
- A platform for research on high performance transport protocols and congestion control

Commercially Available Hardware

UltraGrid video capture and playback nodes are Dell PowerEdge 2500 PCs running Linux. They are equipped with gigabit Ethernet and DVS HDstation/Centaurus HDTV capture/playback cards.

Custom software developed at ISI

RTP packetization, transmission, timing recovery and playback is handled in software. UltraGrid integrates with the AccessGrid venue server infrastructure and Globus security. The UltraGrid software is available for download under open source license.

Standard Network Transport Protocols

- Signaling component determines provisioned path or IP best effort transport
- Support for IPv4 and IPv6 transport and one-to-many distribution using IP multicast
- RTP/UDP transport with TCP Friendly Rate Control profile for IP transport
- Flexible and extensible RTP payload format and video packetization
- Open IETF standard formats and RTP profiles under development