



The Media Grid

The Media Grid is a public utility for digital media. Based on new and emerging distributed computational grid technology, the Media Grid builds upon existing Internet and Web standards to create a unique network optimized for digital media delivery, storage, and processing. The Media Grid also provides traditional grid computing capabilities not specifically related to digital media, and is a secure, stable, scalable, and simple (4S) network.

As an on-demand public computing utility, a range of software programs and Web sites can use the Media Grid for delivery and storage of rich media content, media processing, and computing power. It is an open and extensible platform that enables a wide range of applications not possible with the traditional Internet alone, including:

- Massive Media on Demand (MMoD)
- Interactive digital cinema on demand
- Immersive education and distance learning
- Truly immersive multiplayer games and Virtual Reality (VR)
- Hollywood movie and film rendering, special effects, and composition
- Real-time rendering of high resolution graphics
- Real-time visualization of complex weather patterns
- Real-time protein modeling and drug design
- Telepresence, telemedicine, and telesurgery
- Vehicle and aircraft design and simulation
- Visualization of scientific and medical data

The grid services technology upon which the Media Grid is built combines standard Web services with traditional distributed computing practices to permit parallel processing across decentralized networks comprised of heterogeneous devices. By using open Internet and Web standards the Media Grid allows massively scalable, secure, and stable digital media networks to be assembled automatically (for autonomous, on-demand computing) or assembled from specific devices that can be administered like a traditional managed network. The Media Grid supports Quality of Service (QoS), broadcast capabilities, military-grade security, distributed parallel processing and advanced rendering features. Together these features create a novel software development platform designed specifically for networked applications that produce or consume massive quantities of media and media-related data.

The Media Grid has the potential to revolutionize how software looks, feels, and acts. Instant access to all forms of media, coupled with massive storage and processing power on demand, will fundamentally change the global software industry and spawn new technologies, innovative applications, unique companies, and new industries.

Under development since 2002, the Media Grid is produced by the Grid Institute in cooperation with for-profit and non-profit organizations, universities, and local and federal government agencies. For more information visit <http://MediaGrid.org>