Megaconference V Reaches Five Continents

More than 1000 people from over 200 institutions in 27 countries on five continents dialed into the 5th Annual Megaconference on December 10th 2003, to participate in the world's largest simultaneous Internet videoconferencing event to test, discuss, and present applications of IP-based H.323 Videoconferencing.

H.323 is a standard from the International Telecommunications Union (ITU) that serves as the "umbrella" for a set of standards defining real-time multimedia communications for packet-based networks, such as the commodity Internet used by hundreds of millions of people around the world.

The standards define how equipment that is built in compliance with H.323 can set up calls, exchange compressed audio and video, participate in Internet videoconferences, and interoperate with non-H.323 endpoints.

The Megaconference is a system of distributed H.323 multipoint control units (MCU) located around the world that are cascaded together to create the world's most cutting-edge Internet video conference. During the event people from all over the Earth describe their real-world applications of H.323 videoconferencing, using H.323 videoconferencing to do so. It is the largest forum in the field of Internet videoconferencing.

While H.323 technology is most commonly used in academic settings for classroom instruction, distance learning, and other collaborations, it is also used in the medical field for remote consultations between health care professionals for patient care. And H.323 has become increasingly popular for conferences and business meetings, allowing participants to "dial in" rather than fly in.

The technology is remarkably easy to use, readily available, and can be installed on the desktop of home computers for as little as $400 and a Roadrunner or DSL connection of at least 128 kilobits per second (Kbps). Standard dial-up modems only run at 56 Kbps.

Countries participating in this year's Megaconference include Argentina, Australia, Brazil, Canada, Chile, China, Costa Rica, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Mexico, Netherlands, New Zealand, Poland, Singapore, Spain, Switzerland, and the United States.

Many participants decorated their videoconferencing environments with winter themes, and there was singing and instrumental music during the breaks, as well as short mini-concerts from many locations around the world including sing-alongs, and a first-ever grand finale MegaChoir, during which the entire Megaconference sang "The More We Get Together, The Better It Will Be."

Some of the formal presentations about practical uses of H.323 technology included: the United Nations World Summit on the Information Society; Business Collaborations using Videoconferencing; a Music Grid; the Lewis & Clark Then and Now Voyage; Scotland and Syracuse Joint Memorial Scholars Program; European Educational Collaboration; Distance Learning in Siberia; Collaborations between New Zealand and Germany; and Distance Learning in Latin America.

Dr. Robert S. Dixon, (aka "Dr. Bob"), Senior Network Engineer for OSC Networking and Chief Research Engineer for The Ohio State University's Office of the CIO, is the founder and original architect of the Megaconference, which made its debut in October 1999 during the Internet2 fall conference in Seattle. Since then Dr. Bob has worked during the past five years with researchers, engineers, technicians, teachers, students, musicians and many others to coordinate the Megaconferences. His tireless efforts have brought
literally thousands of people together from across the country and around the world to participate in and help develop the technologies deployed for the Megaconference.

"By all accounts, this was the best Megaconference ever. This year we added musical mini-concerts from many places around the globe, including a digeridoo player from Australia. The United Nations World Summit on the Information Society was meeting in Geneva at the same time, and made a guest appearance."

This year's Megaconference used the Beacon software, developed by ITEC-Ohio engineer Prasad Calyam. Beacon is a tool that uses a distributed-client/server architecture to measure, monitor and qualify the performance of an H.323 Videoconference session. It serves as a de-bugging tool for end-users such as network engineers and videoconference operators by providing H.323 protocol-specific evidence, as well as other information necessary to troubleshoot H.323 application performance problems on the network.

OSC Networking network engineer Arif Khan, one of the lead organizers of the Megaconference, said that during the past five years the Megaconferences have allowed engineers and technicians to develop the tools necessary to establish technology-based communities in education and research around the world.

"This year's Megaconference truly reflected its title of "Sustaining Global Communities Through Videoconferencing," with people from around the world discussing new applications, describing their institutions, and showcasing their cultural heritage. In my opinion this has been the most successful Megaconference yet, where many technological, political, cultural and religious barriers were transcended to bring real people together to make a difference," Khan said.

Awards were given to 15 institutions that have participated in all five Megaconferences including OSC Networking, Ohio State University, and Kent State University. Ohio was the state with the most "All-5" participants. The Finnish IT Centre for Science, CANARIE in Canada, and SURFNet in the Netherlands were the only foreign "All-5" institutions to win the award.

This year also marked the first time a university president addressed a Megaconference session. OSU President Dr. Karen Holbrook marveled at the worldwide scope of the event, as well as the technological achievements.

"I think it's very important because it really opens the door for the kinds of collaborations worldwide that we want to have in teaching, that we want to have in research among faculty, among students, and it's a wonderful opportunity to share a lot of innovative applications that have broad implications for education in many different domains," Holbrook said.

OSC Networking and The Ohio State University have provided technical support including Multipoint Control Unit (MCU) coordination, network operations, and hardware provisions for the Megaconference throughout the entire 5-year history of the Megaconference. The Internet2 Commons Network, which runs the Megaconference, sits on the OSC network, and OSC Networking and OSU engineers built, setup, scheduled and maintained the topology for the Megaconference. OSC Networking also provided the 24/7 Global H.323 NOC for testing, network operations, engineering and support for the Megaconference. In addition, Polycom and RADVision donated upgrades to the Internet2 Commons and OSC Networking MCUs.

Additional OSC Networking personnel responsible for the Megaconference include: Paul Schopis, who provided overall network troubleshooting and monitoring tools; Mark Fullmer, who provided troubleshooting and monitoring tools; John Langkals, who provided support for presenters and other technical support; Megan Troyer and Gabe Moulton, who provided technical support.

Several vendors donated a total of 34 prizes that were awarded throughout the Megaconference, which
included various equipment from Polycom, Inc., Tandberg, VCON, and ViewCommunications. The Grand Prize, a Tandberg 1000 Videoconferencing Station, was won by the Swiss Education and Research Network (SWITCH).

For more information about the Megaconference see www.megaconference.org.