



MAGPI

## **MAGPI Application for U.S.UCAN Affiliate Pilot Program**

### **MAGPI Mission and Synergy with U.S. UCAN Affiliate Program Goals**

MAGPI's mission is to deliver regional infrastructure in a cost-effective manner and promote applications for the region's research and education communities through high performance network technology. MAGPI has a proven track record of and is committed to serving the diverse range of community anchor institutions across the region. Our current support infrastructure includes over 700 institutions in six states through technical assistance and application development. MAGPI is uniquely positioned to best identify CAIs in Pennsylvania to help them to remove barriers to obtaining connectivity to the state-wide broadband network and to support them in the facilitation and development of innovative applications.

Since its creation in 1999, MAGPI has established a reputation based on successes in the tri-state region while providing connectivity and support to institutions across all facets of research and education, including the healthcare and non-profit cultural communities. Our acknowledged history of working with these institutions will enable MAGPI to most efficiently serve these communities via the new Affiliate Pilot Program.

### **Current MAGPI Partnerships Likely to Benefit its Work with the U.S.UCAN Affiliate Pilot Program**

#### ***Strategic Partnerships in Pennsylvania***

KINBER – The Keystone Initiative for Network Based Education and Research (KINBER) will serve as coordinator for the construction and management of a state-wide fiber optic network accessible to a host of educational, research, health care, and economic development partners seeking to aggregate services for their members and subscribers at affordable cost. Our close affiliation with the Board of KINBER and the network construction process has created a unique relationship of collaboration within Pennsylvania. MAGPI was one of several authors of the original BTOP proposal which was funded by the NTIA and has since provided guidance on applications and services to become available to KINBER connected sites. MAGPI is currently creating programs for the First Annual KINBER member meeting to be held in April 2012 and will stream and archive the proceedings.

PAIUNet – PAIUNet is a statewide, high-speed educational network that enables educators and students throughout Pennsylvania to create, communicate, collaborate and share valuable resources to enhance student learning. PAIUNet provides PA Intermediate Units (IUs) and K-12 schools a network that is 50 times faster and 95% less expensive than using the commodity Internet to connect to one another. It increases connectivity between Pennsylvania IUs and school districts providing access to content and resources that will transform the way educational services and information are delivered.

PAIUnet connects all 29 IUs and their member school districts throughout the Commonwealth. It also connects public library systems and charter schools. MAGPI is a strategic partner with the PAIUnet organization and works jointly on several initiatives including development and delivery of educational projects and programs to Pennsylvania K12s. Of particular note is the Marcellus Shale statewide student energy summit project which will include experts in the field, student teams, and government agencies. This is a true collaborative effort among all partner organizations. MAGPI is also an Internet2 provider to PAIUnet and has delivered hundreds of educational programs to PAIUnet members each year.

PaCIE – The Pennsylvania Council of International Education works to strengthen international education in the Commonwealth of Pennsylvania. Established in 1969 by a group of Pennsylvania colleges and universities in order to advocate for international education and to support collaborative projects, PaCIE has also provided important professional development and networking opportunities to college and university faculty, administrators and students. Membership was extended in 2004 to K-12 teachers and administrators involved in international education, and PaCIE actively promotes linkages between K-12 and tertiary institutions. MAGPI staff have served on the PaCIE Board and MAGPI's ongoing work in support of international educational and collaborations will serve CAIs across the Commonwealth as they seek to develop meaningful international collaborations utilizing NRENs worldwide. MAGPI has used its strategic partnerships with the NREN community to bring in speakers and live educational events for PaCIE member meetings. Challenges such as non-connected hotel venues were managed by MAGPI resulting in successful connections to Chile, Taiwan, and elsewhere for the benefit of increasing awareness of the value of advanced networks.

### ***Strategic Partnerships in New Jersey***

NJEDge.Net – NJEDge.Net supports its members in their institutional missions by providing collaborative resources and networked information services in support of teaching and learning; research and development; outreach and public service; as well as economic development throughout the state of New Jersey. In providing a broadband statewide network, NJEDge.Net establishes standards for interoperability, achieves economies of scale and supports new and emerging technologies to foster and support productive use of technology across the academic enterprise. MAGPI provides broadband connectivity for NJEDge.Net and its members as well as applications and program support. Specifically MAGPI has worked with NJEDge.Net on the development of demonstrations and awareness events on use of broadband networks in research and education. Of note was the distributed Community College Internet2 Awareness Day held simultaneously in NJ and PA to connect faculty and staff at community colleges with live demonstrations and presentations featuring case studies of use of broadband networks. MAGPI also has assisted NJEDge.Net members by providing resources and support for programs such as the annual Around the World Program, Science in the Cinema, and others.

Garden State Distance Learning Consortium – The GSDLC promotes the development of distance learning in New Jersey and the application of video conferencing within a classroom setting for education and training. GSDLC is embarking on innovative ways to incorporate instructional technologies that validate and punctuate what the teachers are doing inside the classroom. MAGPI has partnerships with members of the Garden State Distance Learning Consortium and has helped support their mission and goals and continues to offer technology and applications support and resources when needed.

Medical Missions for Children – Medical Missions, a multiple award winning charity located at St. Joseph's Hospital for Children in Paterson, NJ. Medical Missions for Children is dedicated to improving

the health of children in underserved communities around the world through operating the Global Video Library of Medicine (GVLM) as well a distance medicine network in over 100 countries called the Telemedicine Outreach Program (TOP), a global satellite and IPTV network called the Medical Broadcasting Channel (MBC), and GigglesChildren's Theater – Where Laughter is the Best Medicine. MMC produces four television programs targeted to the general public: Plain Talk, Tomorrow's Medicine Today, Take Care, and Encore Lifestyles. MAGPI has strong ties with Medical Missions for Children and continues to support its mission and goals as needed.

### ***Strategic Partnerships in Delaware***

Delaware Department of Education / Department of Technology and Information  
MAGPI has supported all 19 school districts in Delaware through professional development, programs, and educational events in collaboration with the Delaware Department of Education and the Delaware Department of Technology and Information. MAGPI will continue to work with the Delaware Department of Education to support K20 efforts in the state and is hopeful that barriers to renewing their SEGP can be removed.

More recently MAGPI is working with Nemours Children's Hospital and representatives from the Delaware Health Information Network to interconnect all six major healthcare systems in Delaware. MAGPI is also working with Internet2 for interconnectivity between Nemours facilities in Florida and Delaware toward the goal of unified electronic records delivery systems.

### **MAGPI's Established Relationships with CAI Sectors**

K-12 School – Currently, MAGPI connects 18 of the 29 Intermediate Units in the Commonwealth of Pennsylvania which serve as regional service centers to K-12 schools. MAGPI provides technical support and training to its K12 members as well as educational and multimedia services. MAGPI has historically been a leader in the connectivity and support of K12s to broadband networks. MAGPI has partnered with several IUs and K-12 schools to create award winning leading edge programs and applications including Megaconference Jr. (now in its 9th year), Alex's Virtual Lemonade Stand, and the Stand Up Speak Out Lend a Hand project which brought Holocaust survivor, humanitarian, and award-winning documentary film maker Gerda Weissman Klein to students around the country to challenge them to develop service projects in their communities and relay her own personal experiences with hunger and genocide.

Museums – MAGPI's engagement with and support for the non-profit cultural community has fostered many exciting programs including the MAGPI Content Provider Carnival and the Preferred Content Provider Discount Program. MAGPI piloted an exciting Virtual Reality project with the Academy of Natural Science. MAGPI staff were instrumental in writing a grant application jointly with the University of Pennsylvania Museum of Archeology and Anthropology which was funded as a Digital Humanities Start-Up Grant from the National Endowment for the Humanities. MAGPI's success in the area of working with museums and the non-profit cultural community has been shared nationally for leveraging an exchange of services model that benefits both the MAGPI member community at large as well as the non-profit museum or cultural organization.

Health Services – MAGPI serves several hospitals and medical organizations in the region including Temple University Hospital, Hospital of the University of Pennsylvania, Children's Hospital of Philadelphia, University of Medicine and Dentistry of New Jersey, St. Joseph's Children's Hospital, Lehigh Valley Hospital, Medical Missions for Children and others. MAGPI held the first ever Virtual

Symposium on Advanced Networks and the Health Sciences in September 2011 bringing together healthcare practitioners and medical faculty across the country to hear from leaders in the field with case studies and healthcare related applications utilizing advanced research and education networks. MAGPI has also worked with the Pennsylvania Department of Health by participating in workshops focusing on the use of the advanced networks for transmitting medical images and health records between hospitals.

Public Media and Performing Arts – MAGPI has had a strong track record of success and innovation with the public media and performing arts community. In its work with the world-renown Philadelphia Orchestra MAGPI supported their development of a Global Concert Series which used advanced DVTS video over broadband networks for delivery of live performances to virtual venues around the globe. As a response to the particular needs of this community and MAGPI's work with its members in this space a new level of Internet2 membership was created for Performing Arts and Cultural Institutions. MAGPI has also facilitated several programs with the Opera Company of Philadelphia as well as The Kimmel Center and among others.

Community Colleges – MAGPI's support for its community colleges across the region have been demonstrated by events such as the Distributed Community College Day which featured two community college host sites connected via interactive video that showcase applications and case studies of particular relevance to Community College faculty and staff. MAGPI also was instrumental in supporting programs at its community colleges ranging from an international live distributed dance rehearsal and critique with Japan, MAGPI's Teaching & Learning Virtual Symposium, the Global Concert Series Pilot between The Philadelphia Orchestra and Montgomery County Community College and other. More recently, MAGPI and KINBER are working with Montgomery County Community College for the KINBER Days awareness event geared for CAIs to be held in April 2012.

Universities – MAGPI's support for its higher education members ranges across disciplines and a broad spectrum of technology support needs. MAGPI has assisted universities with their grant writing efforts and served as a technology partner on several successfully funded high performance research and education initiatives. Specifically MAGPI has worked with several schools and centers at the University of Pennsylvania including the Graduate School of Education, the University Museum of Archaeology and Anthropology, Wharton Business School, Nursing School, the Teleimmersion Project within the Engineering School, the Laboratory for Research in the Structure of Matter Virtual Lecture Series, the Arthur Ross Gallery, the School of Medicine's ITMT Dept. In addition to support at Penn, MAGPI has provided support for many other initiatives at other member universities including the Lehigh NEES Grid, Lehigh's Imaginations Scanning Electron Microscope, the University of Delaware's Music School, Lafayette University, Temple University's Fox School of Business, and many others. MAGPI also offers several unique opportunities to engage higher education faculty and staff including our Grants & Funding Series and the Teaching & Learning Virtual Symposia Series.

### **MAGPI's Contribution to a Repository of Information on Advanced Applications, Resources, Processes, and Reporting Being Developed by U.S.UCAN**

MAGPI is more than willing to contribute to the repository of information on advanced applications, resources, processes and reporting being developed by U.S.UCAN. MAGPI staff worked closely with Internet2 staff in the past to develop a national social networking tool that aimed to serve as a repository for applications and resources for the K20 national community. MAGPI's experience in this arena both at the national level on the Muse effort and on the regional level in the development of its own regional activities collecting and disseminating information about advanced applications, resources, processes and reporting will likely be of value to future U.S.UCAN efforts in this space.

## **Mechanisms Currently or To Be In Place by MAGPI to Identify, Assist, and Enable CAIs**

As partners in this application, MAGPI and KINBER will work together to use demographic information from the BTOP application to identify, assist, and enable CAIs.

## **Value Proposition of U.S.UCAN for the Commonwealth of Pennsylvania**

U.S.UCAN's efforts to connect CAIs to broadband networks in the Commonwealth of Pennsylvania cannot be underestimated. MAGPI in partnership with the KINBER organization and through the PennREN network is fully committed to seeing U.S.UCAN succeed in identifying, nurturing, and implementing national advanced network and application programs to benefit from being on the leading edge of broadband connectivity. The elimination of barriers to access to broadband networks and facilitating program and application development is our primary goal and will complement U.S.UCAN's efforts and mission.

## **MAGPI's Anticipated Interaction with U.S.UCAN**

MAGPI looks forward to working with U.S.UCAN and other members of the Affiliate Pilot Program as joint partners developing processes and guidelines that can be a model for the rest of the country. MAGPI is eager to share our expertise as well as learn from others.

## **Metrics MAGPI is Currently Using to Track CAI Participation**

Currently, MAGPI tracks utilization reports for individual institutions and connected networks. This is an indicator of efforts on the member's part to deploy advanced applications. In situations where utilization is low, MAGPI staff will contact the institution or organization on how they might make better use of their broadband connection. MAGPI has also been the lead organization for Pennsylvania in participating in the K20 Initiative Connectivity Survey over the past seven years collecting network performance and applications data from across the connected institutions in the Commonwealth.

## **Additional Metrics to be Tracked to Demonstrate the Value Added by U.S.UCAN**

Through MAGPI's role in the CAI Data Collection Project Team, new efforts are in development to more accurately test the connectivity and performance of the network to CAIs for educational and diagnostic purposes.

## **How MAGPI is Able to Serve as the Primary Organization in the State**

In Pennsylvania MAGPI will work closely with the KINBER organization during the construction of the PennREN network. This partnership offers an ideal synergy as PennREN will provide the 1600 miles of backbone infrastructure with access points in areas currently underserved or unserved. The combination of physical infrastructure provided by PennREN with MAGPI's expertise in application development and support across all potential CAIs is a guarantee of our success. As an added bonus MAGPI has similar relationships in New Jersey and Delaware giving U.S.UCAN a wider geographical range and reach through which MAGPI can be of service. This unique partnership between MAGPI and communities within each state will help U.S.UCAN to make a unified presence in the region.