

Strategic Alliances and Partnerships in the New Millennium

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Abstract

Managing technology in an educational environment is increasingly calling for the adoption of unique, efficient and creative processes. One such process is the formation of strategic partnerships and alliances. This paper will provide insight into such a process initiated by Case Western Reserve University (CWRU) that has established a collaborative and cooperative environment favorable to the formation of (1) a Strategic Technology Alliance involving educational, cultural, research, health care, governmental and other non-profit institutions within Cleveland's University Circle and the northeast Ohio area; and (2) Strategic Technology Partnerships involving the Strategic Technology Alliance and technology vendors. Similarities and differences between this alliance and other similar consortia will be made. Work accomplished, to be done and benefits realized to date will also be discussed.

Introduction

Presupposing the new Case Western Reserve University President Edward M. Hundert's vision which, in part, states "As a service-oriented institution dedicated to civic leadership, ... Our uniquely transforming environment is not limited to the university's own classrooms ..., but includes partnerships with many other great institutions, including those concentrated in University Circle, Greater Cleveland, and Northeast Ohio. ... we build these partnerships in the service of national and international leadership."¹, the CWRU ITS Department, under the direction of its VP and CIO Lev Gonick, has during the past 1 ½ years undertaken the establishment of a collaborative and cooperative environment resulting in the formation of a Strategic Technology Alliance (STA) and associated Strategic Technology Partnerships (STP).

While certainly not the only consortium-like entity, as there are in excess of 100 higher education associations and consortia in the United States alone ², it will be shown how this initiative has grown into a process which truly has the potential to be the 'transforming environment' for University Circle, Greater Cleveland, and Northeast Ohio that Dr. Hundert envisions.

In conjunction with the President's initiative to make Case Western Reserve University (CWRU) an integral presence in the greater Cleveland community, CWRU's Information Technology Services (ITS) has begun to develop a framework through which the University has acquired and extended the offer to share a variety of technological products, services and directions for the benefit of the University, University Affiliates, neighboring institutions and various entities located in the greater Cleveland area. This multi faceted program involves the formation of strate-

gic technology coalitions with technology vendors and organizations that share common technology directions and institutional goals with the University.

Overview of Strategic Partnerships and Alliances

The Information Technology Services Planning and Advisory Committee (ITSPAC) of CWRU and its subcommittee structure provided the impetus for all subsequent development in the areas of alliances and partnerships. Information concerning the original charge can be found in Appendix A .

The formation of Strategic Partnerships and Alliances (SPA), which is charged with 're-engineering' the rapidly changing technology procurement processes through joint efforts of the University with University Affiliates and neighboring institutions such as the Cleveland Institute of Art and the Cleveland Institute of Music, has provided the necessary foundation for this process. Through a Strategic Technology Partnership program (STP), the SPA has and continues to develop strategic partnerships with hardware, software, telecommunications and other technology vendors which will enable the University to negotiate business contracts for these items and share the reduced costs and improved efficiency with its Affiliates.

Recognizing the important benefit that an integrated technological environment can mean to greater Cleveland, the SPA has created a consortium, Strategic Technology Alliance (STA), of educational, research, cultural, health care, governmental and other non-profit entities that will provide a forum for discussion of technological infrastructure issues affecting all. The multiple constituencies of the STA are actively committed to creating a sound technological infrastructure not only for educational, research and cultural institutions, but also for businesses, hospitals, and government agencies that exist in the greater Cleveland area.

Thus, the SPA, through the STP and the STA, is building a foundation that will enable CWRU and the greater Cleveland area to become one of the most advanced technological areas in the United States. The SPA is:

1. Facilitating effective communication exchanges between CWRU's ITS and the STA Affiliates regarding technological needs and resources.
2. Participating in University Circle and community wide initiatives aimed at creating and improving the regional technological infrastructure.
3. Developing and maintaining technological partnerships with vendors on behalf of the University and the STA Affiliates.
4. Through collaborative efforts, providing high quality, state-of-the-art technological resources to all entities.
5. Providing proactive technological leadership to the community. ³

The Strategic Technology Alliance (STA) is an alliance between Case Western Reserve University and Strategic Technology Affiliates. The STA membership is made up of educational, research, cultural, health care governmental and other non-profit organizations who share common technology goals and directions. The STA offers the University and its Strategic Technology Affiliates to jointly benefit from sharing Strategic Technology Partnerships (Products and Services), and information resources and services.

Once the original Strategic Technology Alliance (STA) subcommittee completed its mission, the STA recommended that the STA subcommittee be changed to include STA Affiliate institutional representatives within the University Circle area.

The Strategic Technology Alliance Committee's 2002 tasks were to:

1. Develop a set of recommendations for inclusion in CWRU ITS Strategic Technology Partnerships.
2. Develop a standard STA Agreement with appropriate appendices.
3. Develop processes for inclusion of STA Affiliates' representation on appropriate CWRU ITS initiatives and technology committees.
4. Develop communication mechanisms including:
 - a) Web posting of STA Committee minutes, information impacting STA and STA Affiliates.
 - b) STA and CWRU ITS joint technology planning.

Concurrently, CWRU proceeded to further develop and enhance their Strategic Partnerships based on the following assumptions. The University and the Strategic Technology Affiliates expect that a Strategic Technology Partnership will be much more than a sales relationship. Our definition of a Strategic Technology Partnership is one that contains a set of cooperative efforts between the University, Strategic Technology Affiliates (Strategic Technology Alliance) and the Vendor. Some of the attributes we look for in potential partners are that the vendor:

1. Have technological goals in line with the University's and the Affiliates' strategic technology directions.
2. Can provide products and services to the University, the Strategic Technology Alliance (STA), the students, faculty and staff of the University and the STA.
3. Are willing to participate with the University and the STA in collaborative technology initiatives.
4. Are willing to commit its organization to a minimum four (4) year agreement to the Strategic Technology Partnership.

These efforts are in recognition by all members of the STA of the importance a sound technological infrastructure that is not only capable of supporting current and future technological demands. This infrastructure must be flexible, robust and innovative enough to support the myriad demands of the local entities that are vital for greater Cleveland economic, educational and cultural development and in keeping Cleveland at the forefront of the technological era.

Accomplishments to Date

The STA Agreement has been developed and finalized. The document basically serves as an agreement between CWRU and the Affiliate emphasizing common strategic technology goals and objectives of the institutions and which allows the Affiliate to participate in the product and service agreements offered by CWRU and its Strategic Technology Partners.⁴

In December of 2002, the STA committee met and outlined governance procedures for a University Circle Strategic Technology Planning and Advisory Committee. This committee is comprised of any University Circle educational, research, cultural, health care, governmental or non-profit institution wishing to participate as demonstrated by agreement with and signing of the STA agreement.

The rationale for the formation of this committee was to ensure the maintenance of the unique interests and initiatives of the University Circle area. Further, the committee serves as an advisory body to the CWRU ITSPAC and will provide representation to the larger STA committee.

Since its inception in November 2002, the STA has grown to 14 member institutions and another 20+ organizations actively considering membership. The STA and its Affiliates continue to actively solicit participation from Cleveland area non-member institutions (see Appendix B). The STP currently involves 4 corporate partners including Dell Computer, Sprint, Cisco, and Netgear, and another 20+ companies actively pursuing partnerships (see Appendix C).

Activity in other areas within Strategic Technology Partnerships and Alliances includes the formation of OneCleveland (see Appendix D), and planning and development for the University Circle Advanced Technology Commons⁵.

OneCleveland is the first step in realizing the goals of the Greater Cleveland Digital Project (GCDP) which are to:

- To create a broadband community by offering high-speed Internet and data services through a wired and wireless network to 75% of the metropolitan area residents by 2010, and to 99% of the community by 2015.
- To increase access to education, cultural activities, research, healthcare, and government services while systematically addressing the digital divide.

OneCleveland is a non-profit organization that is intended to be a partnership among organizations, private and not for profit institutions, government and industry who share a common vision and commitment to a digital 21st century in Greater Cleveland. This vision and commitment will deliver advanced information technology capabilities to help achieve community priorities for economic development, learning, job training, research, and community access.

The focus of the organization is on the communication infrastructure which will allow participating organizations to utilize high speed network communications, including specifically (but not limited to) developing and providing a system for digital telecommunications transport and storage, and related services, to:

- Support the development of Greater Cleveland educational, cultural, research, and health-care institutions, government-related agencies, and other non-profit organizations by providing high-speed data communications network at the most competitive prices available
- Provide the initial backbone infrastructure to facilitate development of broader high-speed data communications network services that can serve all Greater Cleveland constituents in a manner consistent with the GCDP's goals.

At its core, the University Circle Advanced Technology Commons (ATC) is an effort to broaden the contribution of the University and its Alliance partners to the economic future of the greater University Circle community, to Cleveland, and the region as a whole. It will serve as a showcase and hub for advanced research, the incubation of information technology commercialization

opportunities, new media production, and will provide for enhanced public access and education to science, technology, and the new media.

The ATC is comprised of the following 6 components (see Appendix E for more detail), all of which are still in varying stages of development:

1. Centers of Excellence in Advanced Research and Development
2. Technopolis
3. New Media Center
4. GigaPoP
5. Internet Switching Hotel
6. Network Operations and Data Center

Benefits (suggest grouping the following by the initiatives (STA, STP, OneCleveland, UCATC):

Benefits which have been realized to date by participating members of the alliance include:

- Participation in STA by taking advantage of the negotiated partnership agreements has had a very positive impact on our IT bottom line. To date, CWRU and the STA together have realized more than \$10 million in savings in their technology purchases.
- Ongoing solicitation of input from STA Affiliates has been helpful in the determination of strategic technology directions for University Circle and Greater Cleveland area.
- Participation in the annual Strategic Technology Alliance Fall Forum (STAFF) allows for the sharing of ideas and information related to institutional strategic planning between CWRU and STA Affiliates and promises to be a very useful and ongoing endeavor.
- Several collaborative efforts have ventures which materialized within the alliance.
 - One of the first such efforts was Kinetic Shadows⁵, a collaborative effort between CWRU and the Cleveland Institute of Music wherein dancers from Case Western Reserve University and musicians from the Cleveland Institute of Music performed a new dance work, Kinetic Shadows, simultaneously at CWRU's Mather Dance Center in Cleveland and at the University of Southern California's Bing Theater in Los Angeles. Video special effects were provided by a faculty member of CIA's Digital Media program.
 - One Week⁶ was another collaboration between STA Affiliates. One Week stands for "A Week in the Life of University Circle," a collaborative digital media project that explored and celebrated Cleveland's University Circle. It represented a collaborative effort between students from the CIA's Digital Media program, CWRU's New Media Studio, the Cleveland Museum of Art, the Cleveland Institute of Music and with support from University Circle Incorporated. The intent of the venture was to capture the activities of the people and institutions of University Circle during a one week time period.
- Members are actively encouraged to contribute to the Alliance by introducing new potential Strategic Technology Partners (see Appendix C).
- Ongoing, biweekly STA meetings have proven to be very helpful in keeping abreast of latest technological advances and keeping fellow members abreast of events occurring at their respective institutions.

- There has been a fostering of allowing for ready access to technological advice and information from Alliance members.
- There is a developing sense within the Alliance of making a positive contribution to the economic growth of the Greater Cleveland community.
- Finally, there is a growing sense of energy observable within the Alliance by its members being active participants in one of the most ambitious plans for the utilization and leveraging of technology in the public interest in the country and one that can serve as a model for others seeking to form such ventures.
- The collaborative Alliance technology planning is leading to uplifting technological changes in all Affiliates who participate.

Work to be Done

While the underlying mechanisms are by and large in place, there remains more work on the agenda. Some of these agenda items are:

- With the formation of the University Circle Strategic Technology Alliance Advisory Committee, the charter for a larger Strategic Technology Alliance must be revisited and formalized.
- OneCleveland is still a work in progress nearing completion, but the charter members still need to finalize the legal and regulatory structure, business and network lighting of that entity.
 - Not the least of these matters is the completion of a business plan and its attendant financial projections.
- We will continue to extend invitations to potential STA Affiliates both within University Circle and the Greater Cleveland community to enhance the strategic directions and bargaining power of the Alliance.
- As the OneCleveland organization is nonprofit, active exploration and solicitation of potential funding sources is critical.
- Determination of the number of administrative and technical staff must be made along with the attendant recruitment and hiring processes.
- Members must continue efforts to form collaborative arrangements within the Alliance. These efforts would include educational, research, cultural, health care, governmental and corporate joint ventures.

Summary

Case Western Reserve University and the STA Affiliates have a vested interest in contributing to the growth of the Greater Cleveland area and to society at large. This is a shared core value. In the spirit of that core value, we have laid no claim to a monopoly on the ideas that might evolve and develop to support a sustainable, knowledge-based economic future associated with the continued development of the STA, STP, UCATC and One Cleveland. The initiatives outlined above represent some thinking among not only CWRU staff and faculty but also other institutions at University Circle, a number of Foundations, individuals, and indeed, the Greater Cleveland community. We want to continue our efforts to further engage our University Circle colleagues, foundations, public and private sectors, alumni and local technology interests. Case Western Reserve University and the STA want an anchor role in the build-out and future development of the UCATC and OneCleveland. We want to be an equity player and seen as a catalyst for change that we should be in University Circle and the Greater Cleveland region. Most impor-

tant, and at the heart of the vision is our joint commitment to working with the entire community and realizing a partnership model.

References

1. Full text of the CWRU President's Vision can be viewed at:
http://www.cwru.edu/its/strategic/CWRU_President_Vision.htm
2. A fairly exhaustive list of other higher education consortia can be found at:
<http://www.necop.org/pages.html>
3. ITS Strategic Partnerships and Alliances http://www.cwru.edu/its/strategic/about_spa.htm
4. Copies of the Strategic Technology Alliance agreement can be found at:
http://www.cwru.edu/its/ /alliance_agreement.htm
5. See University Circle Advanced Technology Commons(ATC): A Concept Paper (April 2002Version 4) at: http://www.cwru.edu/its/strategic/UCATC_concept_paper.htm
6. More information on the Kinetic Shadows performance can be found at:
http://www.cwru.edu/its/strategic/i2_performance.htm
7. More information about the One Week project can be found at:
<http://ciaweb.cia.edu/html/oneweek/>

Appendix A

Charge

Strategic technology alliances refer to those "special" relationships between CWRU and a limited number of commercial vendors, educational institutions, and research organizations. The goal of the sub-committee is to advise the CIO on new opportunities, help establish priorities, and support in the cultivation of new strategic technology alliance partners as well as in the continuing acknowledgment and support of long-standing technology alliance partners. In addition, there are some very important and pragmatic work that needs to be done in the area of strategic technology alliance. CWRU's current technology alliances do not contain consistent components; may not be aligned with the goals and objectives of the University; may not serve as strategic relationships as related to the strategic Information Services direction and/or CWRU Information Services Plan; may not contain appropriate legal requirements; do not have standard procedures for their evaluation; may not be aligned with other current technology accords (e.g. utilization of certain CWRU digital information resources); and may not be known to CWRU community members who may be impacted by them. At the present time, there is no standard procedure for the selection of participants (e.g. RFP?) in any future technology alliances, nor is there a standard procedure for the initiation of any future technology alliances.

- 1 The ITSPAC Sub-Committee on Strategic Technology Alliances shall recommend to the CIO a standard set of components that should be contained in any technology alliances, including but not limited to:
 - 1.1 alignment with University goals and objectives,

- 1.2 alignment to the strategic Information Services direction and/or CWRU Information Services Plan,
 - 1.3 appropriate legal requirements,
 - 1.4 a business plan,
 - 1.5 and. alignment with other technology alliances;
- 2 The ITSPAC Sub-Committee on Strategic Technology Alliances shall recommend to the CIO appropriate mechanisms for the involvement of, and communication to, potential impacted CWRU members in the development of yet unspecified technology alliances.
 - 3 The ITSPAC Sub-Committee on Strategic Technology Alliances shall recommend to the CIO a standard process for the evaluation of current and yet unspecified technology alliances.
 - 4 The ITSPAC Sub-Committee on Strategic Technology Alliances shall recommend to the CIO a process for how to deal with new, or as yet unspecified technology alliances, including but not limited to a standardized procedure for the selection of the alliance participants and for the initiation of the alliance.
 - 5 The ITSPAC Sub-Committee on Strategic Technology Alliances shall review on an annual basis the existing technology alliances, and shall recommend to the CIO alliances requiring further review, updates or substantive changes.

Appendix B

A Strategic Technology Affiliate is a member of the Strategic Technology Alliance if the organization has signed and agreed with all of the terms of the Strategic Technology Alliance Agreement.

<i>Strategic Technology Alliance Affiliates</i>	<i>Date Joined Strategic Technology Alliance</i>	<i>Contact</i>
Baldwin Wallace College	2/18/03	Robert Agnew <i>Director of Information Technology</i> Baldwin Wallace College 275 Eastland Road Berea, Ohio 44017 Business: (440) 826-2310 Business Fax: (440) 826-3540 E-mail: ragnew@bw.edu

<i>Strategic Technology Alliance Affiliates</i>	<i>Date Joined Strategic Technology Alliance</i>	<i>Contact</i>
Case Western Reserve University	Founding Affiliate	Dell Klingensmith Director, Strategic Technology Partnerships and Alliances Information Technology Services Case Western Reserve University 10900 Euclid Avenue Cleveland, Ohio 44106 Business: (216) 368-5404 Business Fax: (216) 368-8720 E-mail: Dell.Klingensmith@cwru.edu
The Cleveland Institute Of Art	11/25/02	Tom Horn Director, Information Technology Cleveland Institute of Art 11141 East Boulevard Cleveland, OH 44106 Business: (216) 421-7384 Business Fax: (216) 421-7333 E-mail: thorn@gate.cia.edu
The Cleveland Institute Of Music	12/17/02	Aimee Barton Director, Information Systems Cleveland Institute of Music 11021 East Boulevard Cleveland, OH 44106 Business: (216) 795-3262 Business Fax: (216) 791-3063 E-mail: alb25@po.cwru.edu
The Cleveland Museum Of Art	02/24/03	Len Steinbach Chief Information Officer Cleveland Museum of Art 11150 East Boulevard Cleveland, OH 44106-1797 Business: (216) 707-2642 Business Fax: (216) 721-4176 E-mail: lsteinbach@clevelandart.org

<i>Strategic Technology Alliance Affiliates</i>	<i>Date Joined Strategic Technology Alliance</i>	<i>Contact</i>
Cleveland State University	3/5/03	Mike Droney <i>Vice President for Information Services</i> Cleveland State University 2121 Euclid avenue Cleveland, OH 44115 <i>Business: (216) 687-2115</i> <i>E-mail: m.droney@csuohio.edu</i>
The Health Museum Of Cleveland	2/12/03	Roger E. Zender <i>Director, Information & Learning Technology</i> The Health Museum of Cleveland 8911 Euclid Avenue Cleveland, OH 44106-2039 <i>Business: (216) 231-5010 x131</i> <i>Business Fax: (216) 231-5129</i> <i>E-mail: zender@healthmuseum.org</i>
ideastream (WVIZ/PBS and 90.3/WCPN)	2/27/03	Thomas P. Furnas <i>Senior Director of Technology</i> ideastream (WVIZ/PBS and 90.3/WCPN) 4300 Brookpark Road Cleveland, OH 44134 <i>Business: (216) 739-3986</i> <i>Business Fax: (216) 432-3681</i> <i>E-mail: tfurnas@wcpn.org</i>
John Carroll University	4/14/03	Richard Valente <i>Executive Director, Information Services</i> John Carroll University 20700 North Park Boulevard University Heights, Ohio 44118-4581 <i>Business: (216) 397-1750</i> <i>Business Fax: (216) 397-1734</i> <i>E-mail: rvalente@jcu.edu</i>

<i>Strategic Technology Alliance Affiliates</i>	<i>Date Joined Strategic Technology Alliance</i>	<i>Contact</i>
Lorain County Community College	1/13/03	David Weiser <i>Director, Information Services and Systems Lorain County Community College 1005 Abbe Road North Elyria, Ohio 44035-1691</i> <i>Business: (800) 995-LCCC E-mail: dweiser@lorainccc.edu</i>
The MetroHealth Systems	1/27/03	Vince Miller <i>Vice President/CIO The MetroHealth System 2500 MetroHealth Drive Cleveland, Ohio 44109-1998</i> <i>Business: (216) 778-5007 Business Fax: (216) 778-3232 E-mail: vmiller@metrohealth.org</i>
The Nature Center at Shaker Lakes	4/7/03	Jan Zorman <i>Facilities Director The Nature Center at Shaker Lakes 2600 South Park Blvd. Shaker Heights, Ohio 44120</i> <i>Business: (216) 321-5935 x29 E-mail: zorman@shakerlakes.org</i>
The Western Reserve Historical Society	03/28/03	Matthew Miller <i>Systems Administrator The Western Reserve Historical Society 10825 East Blvd Cleveland, Ohio 44106</i> <i>Business: (216) 721-5722 x282 E-mail: matt@wrhs.org</i>

Organizations who have indicated an interest in becoming a member of the Strategic Technology Alliance (26):

- [BioEnterprise Corporation](#)
- [Case Alumni Association](#) (waiting for CAA signature)
- [Cleveland Botanical Garden](#) (waiting for CBG signature)
- [The Cleveland Clinic Foundation](#) (waiting for CCF signature)

- [Cleveland Hearing & Speech Center](#)
- [Cleveland Municipal School District](#)
- [The Cleveland Museum Of Natural History](#) (waiting for CMNH signature)
- [The Cleveland Orchestra \(Musical Arts Association\)](#) (waiting for CO signature)
- [Cuyahoga County](#) (waiting for CC signature)
- [Cuyahoga Community College](#) (waiting for CCC signature)
- [David N. Myers University](#) (waiting for DMU signature)
- [Great Lakes Science Center](#)
- [Hanna Perkins Center for Child Development](#)
- [Lakeland Community College](#) (waiting for LCC signature)
- [NASA-Glenn Research Center](#) (waiting for NASA signature)
- [Notre Dame University](#) (waiting for NDU signature)
- [OARnet \(Ohio Academic Research Network\)](#) (waiting for OARnet signature)
- [Oberlin College](#) (verbally interested, waiting for introduction to STA meeting)
- [OneCleveland](#) (waiting for OneCleveland 501c3 organization filing)
- [Siegal College of Judaic Studies](#) (waiting for SC signature)
- [University Circle, Inc.](#)
- [University Hospitals Of Cleveland](#) (waiting for UH signature)
- [Ursuline College](#) (waiting for UC signature)
- [The Western Reserve Historical Society](#) (waiting for WRHS signature)
- [Wright State University](#) (waiting for WSU signature)

Appendix C

The following shows the status of vendors under consideration for partnership with the Strategic Technology Alliance.

VENDOR	PRODUCT/SERVICE	REQUESTED BY	STATUS
Ad Astra	Room scheduling software	CIA	Agreed to CIA purchase, working on STP Agreement
Allied Telesyn	Networking equipment	CWRU	Completed discussion; waiting technical recommendation
BARCO	Projection equipment	CWRU	Initial STP Meeting on 2/20/03
City Signal Communications	Dark fiber optic cable, cable construction	CWRU, OneCleveland	Verbal agreement, CSC examining STP agreement
EMC	Information storage systems, software, networks, and services	CWRU	Verbal agreement, EMC examining STP agreement
InfINET Solutions	Billing software, billing ASP	CWRU	Verbal agreement, working on STP Agreement

VENDOR	PRODUCT/SERVICE	REQUESTED BY	STATUS
IntelliNet Corporation	Managed service provider for enterprise networks	CMA	Presentation being arranged by CMA 2/26/03 10:30a-12:30p Presentation @ Cleveland Museum of Art (Recital Hall)
Luna Imaging, Inc.	Digital imaging software and services	CMA	
McPc	Technology services	CIA	Completed discussion; no further action
Motion Computing	Tablet PC vendor	CWRU	Verbal agreement, Motion Computing examining STP agreement
Newbury Networks	Location enabled networks	CMA	3/4/03 Security Meeting @Cleveland Museum of Art
Oracle	Database software, collaboration software and other software and services	CWRU	
OARnet	OARnet POP @ CWRU	CWRU	Verbal agreement waiting written confirmation
Sarcom Sun Microsystems	Technology Services All products, Center of Excellence	CIA CWRU	Verbal agreement, Sun examining STP agreement
XO Communications	Full-service provider of communications services	CWRU, OneCleveland	In preliminary discussion
WinZIP	WinZIP	CIM	WinZIP refused to partner

Appendix D OneCleveland

Overview

OneCleveland is a non-profit organization (501(c)(3) application pending) intended to be a partnership among organizations, private and non-profit institutions, government and industry sharing a common vision and commitment to a digital 21st century Greater Cleveland. OneCleveland has a two-part mission associated with its short- and longer-term objectives to:

Support the development of Greater Cleveland educational, cultural, research, and healthcare institutions, government-related agencies, and other non-profit organizations by providing high-speed data communications network at the most competitive prices available.

Provide the initial backbone infrastructure to facilitate development of broader high-speed data communications network services that can serve all Greater Cleveland constituents (e.g., commercial enterprises, individual consumers) in a manner consistent with the GCDP's goals.

Charter Members

- * Case Western Reserve University
- * City of Cleveland
- * Cleveland Municipal School District
- * Cleveland State University
- * Cuyahoga Community College
- * Greater Cleveland Regional Transit Authority

The Product/Service

OneCleveland will provide its members with high-speed data transmission services via a regional "ring" of what is currently dark fiber. The regional ring has a tremendous amount of available capacity and will allow OneCleveland members to improve the overall performance of their data services while also decreasing their costs. Specific benefits include:

- Ability to connect multiple locations (within an organization and between organizations) in the region without having to go through commercial vendors or use the Internet.
- Access to the Internet, Ohio's Third Frontier Network, OARnet, Internet2 and other high-speed networks
- Price advantages over existing alternatives.

While the initial product is specifically defined as high-speed data transmission, the opportunity exists for additional network services in the future. Some of these might include: network integration planning and support; application development; and data warehousing.

Target Market

The target market for OneCleveland is limited to Greater Cleveland educational, cultural, research, and healthcare institutions, government-related agencies, and other non-profit organizations. Specifically, OneCleveland will focus on those entities with a current high cost and high usage of data and data communication services or those that expect significant growth in the near future. It will not target commercial entities or individual consumers. However, as OneCleveland's backbone regional infrastructure is developed, it may partner with other initiatives/entities for the purpose of providing high-speed broadband services to broader audiences.

Pricing/Costs

OneCleveland's price advantage lies in its approach of securing long-term access contracts to existing "dark" fiber. While the upfront costs of securing the contracts along with the acquisition of necessary data communications are still large, they have a very short payback period when compared to other alternatives. In addition, by leveraging the requirements of multiple members, the synergies only increase.

While the specific pricing models are yet to be finalized, they will have two key components:

1) Network usage fees based on capacity required - this represents the upfront fee that OneCleveland will have to pay to establish the network and could be paid as a one-time fee, amortized over a short-time period (e.g., 5 years), or some combination.

2) Ongoing network maintenance and support - fee to cover the ongoing operation and support of OneCleveland and the network.

OneCleveland is analyzing whether to include the cost of member-specific access lines in the business model. These are the data lines (laterals) that cover the "last mile" and connect the member's specific location(s) to the OneCleveland network. However, in order to facilitate this process and ensure that it is cost-efficient for its members, OneCleveland will set up arrangements/contracts with providers of these links to ensure reasonable prices and financing arrangements that are consistent with OneCleveland's value proposition.

Technology

OneCleveland will use Dense Wave Division Multiplexing (DWDM) technology to "light" the dark fiber network. This technology is the same as being used by OARnet, maximizes the capacity available in the fiber and allows the assigning of dedicated lambdas (virtual networks) to particular applications. For example, a critical remote medical procedure would not be competing with lower priority traffic such as e-mail or web browsing. Each lambda can be customized to meet the unique requirements of the advanced applications it is supporting. The bandwidth that will be available to an individual institution and user is over 100,000 times greater than generally available Internet capabilities.

Strategic Technology Partners

OneCleveland will become an Affiliate in Case Western Reserve University's Strategic Technology Alliance (STA). The STA will allow OneCleveland to partner directly with STA's Strategic Technology Partners (STP) (e.g. Cisco, Dell Computing, NETGEAR, Sprint) for

Reduction of costs of electronics, software, maintenance and other services

Participation in joint engineering planning

Utilization of the provision of equipment and software for inter-operability labs

Utilization of alpha and beta product testing

Utilization of STPs' other financial support (e.g. presentations, seminars)

Funding

OneCleveland's mission is 100% inline with the goals of Governor Taft and the Third Frontier initiative. Because of this, OneCleveland hopes to be able to access State funding to get it started. Along with some additional private monies, OneCleveland will be able to get the network up and running and quickly move to an ongoing cash-neutral position where the fees from members offset all expenses.

Funding will also be sought from:

- Local funds
- State funds
- Federal funds
- Private funds
- Strategic Technology Partners

The specific amount of the initial funding requirement is still being determined.

Appendix E

Components of the University Circle Advanced Technology Commons

Centers of Excellence in Advanced Research and Development

1. Showcase for collaborative scientific and technological research done in University Circle
2. Faculty driven technology needs for research and development
3. To date there are 6 centers of excellence.
 - Center of Excellence in Advanced Network Applications in the Fine and Performing Arts.
 - Center of Excellence in Advanced Networking Research
 - Center of Excellence in Advanced Wireless Applications
 - Center of Excellence in Discovery through Advanced Visualization
 - Center of Excellence in Learning Tools and Advanced Network Technology
 - Center of Excellence in Remote and Simulated Medical Interventions

Technopolis@University Circle

1. Museum/exploratorium/job training center
2. Virtual reality centers, exhibits
3. Intense exposure to science, technology, discovery
4. Screen literacy environments
5. Public access “discovery zone”

New Media Center

1. Digital production facility for use by faculty and University Circle partners

University Circle GigaPoP

1. Connections to high speed state, national and international networks
 1. OARnet
 2. Internet2 (through OARnet)
 3. Global Medical Research Exchange Network
 4. National Light Rail Project
2. Integrate Internet service for all 45 Circle institutions into one fiber ring
3. Financial and operational efficiencies
4. Improved connectivity and collaboration
5. City-wide “dark fiber” connections for education, research, cultural and public institutions
6. Spread benefits of ATC to entire community
7. Link institutions to future markets, resources

Internet Switching Hotel

1. Carrier neutral switching facility
2. Ohio Academic Research Network (OARnet) hub
3. Cleveland Education and Research Network hub
4. Cleveland Education and Research Network
5. OneCleveland Project Network hub
6. E-Commerce Network hub
7. E-government Network hub
8. Sprint hub

9. Core facility to carry Internet traffic in NE and MW regions; speed international service as well
10. Support region's IT needs and its capacity to connect to the world
11. Work with Geographic Network Affiliates
12. Build major Internet switching facility
13. Link hotel to a co-generation facility in Circle

Network and Computing Operations Center

1. 24x7x365 operation
2. Network Operations Center for CWRU, ISH, UCG and Strategic Technology Alliance
3. Computer Operations Center for CWRU and Strategic Technology Alliance
4. Relocate CWRU network and computer staff (~150-200 people)
5. Become operations center for one of nation's largest data storage programs
6. Provide service to all Circle institutions (CWRU to become anchor client)
7. Opportunities for small firms to collaborate with research-intensive institutions