

Proposed Middle Mile Service Offerings

Name of Service Offering	Distance Band or Point to Point	Minimum Peak Load Network Bandwidth Capacity (Mbps)	Monthly/Yearly Pricing (\$)	Other Comments/Description/Features or Limitations
100 Mb/s VLAN	Within service area	100 Mb/s	\$250/month	Public Entity pricing*
1 Gb/s VLAN	Within service area	400 Mb/s	\$500/month	Public Entity pricing*
Dark Fiber	Point-to-Point	Equipment limited	\$750/strand/mile per year	Public Entity pricing*
Wholesale Internet Access	Within service area	50% of purchased data rate	\$25 per Mb/s per month	Public Entity or Qualified Wholesaler pricing
Wholesale 100 Mb/s VLAN	Within service area	100 Mb/s	\$300/month	Qualified Wholesaler pricing
Wholesale 1 Gb/s VLAN	Within service area	400 Mb/s	\$600/month	Qualified Wholesaler pricing
Blackhawk Hills 2 Fibers	Within service area	Equipment limited	\$1600/mile/year	Public Fiber pricing in Blackhawk Hills region

*These prices are for additional services beyond allocated public entity strands.

Competitor Data

Competitor Data - Last Mile Service Providers

Service Provider	Service Areas Where Service Available	Technology Platform	Service Tiers	Downstream Speed	Monthly Pricing	Other Comments/Description/Features or Limitations
AT&T	2, 3, 9	DSL	Entry Level Plan	1 Mb/s	\$29.99	
			Highest Speed Plan	3 Mb/s	\$42.99	
IVNET	9	Wireless	Entry Level Plan	128 kb/s	\$180	
			Highest Speed Plan	1.5 Mb/s	\$300	
Verizon	2, 3, 4, 6, 8, 9	DSL	Entry Level Plan	1 Mb/s	\$29.99	
			Highest Speed Plan	3 Mb/s	\$42.99	
Comcast	2, 3, 4, 6, 8, 9	Cable	Entry Level Plan	up to 12 Mb/s	\$42.95	
			Highest Speed Plan	up to 16 Mb/s	\$52.95	
Mediacom	2, 5, 6, 9	Cable	Broadband	12 Mb/s	\$62.95	
Frontier	2, 5, 6, 7, 8	DSL	Entry Level Plan	3 Mb/s	\$44.99	

Competitor Data - Middle Mile Service Providers

Service Provider	Service Areas Where Service Available	Technology Platform	Service Tiers	Distance Band or Point-to-Point	Minimum Peak Load Network Bandwidth Capacity	Pricing	Other Comments/Description/Features or Limitations
AT&T	2, 3, 9	Copper	T-1	Point-to-Point	1.5 Mb	\$599	
			T-3	Point-to-Point	45 Mb	\$4,000	
			Ethernet	Point-to-Point	15 Mb	\$345	
IVNET	9	Copper	T-1	Point-to-Point	1.5 Mb	\$599	
Verizon	2, 3, 4, 6, 8, 9	Copper	T-1	Point-to-Point	1.5 Mb	\$599	
			T-3	Point-to-Point	45 Mb	\$8,000	
KDL	2, 3, 4, 7, 8	Ethernet	Ethernet	Point-to-Point	300 Mb	\$14,300	
Paetec	1, 2, 3, 4	Fiber	Dark Fiber	Point-to-Point	Unlimited	\$4,134	
ISTH	7, 8	Fiber	Dark Fiber	Point-to-Point	Unlimited	\$1,480	

BTOP CCI Service Area Template

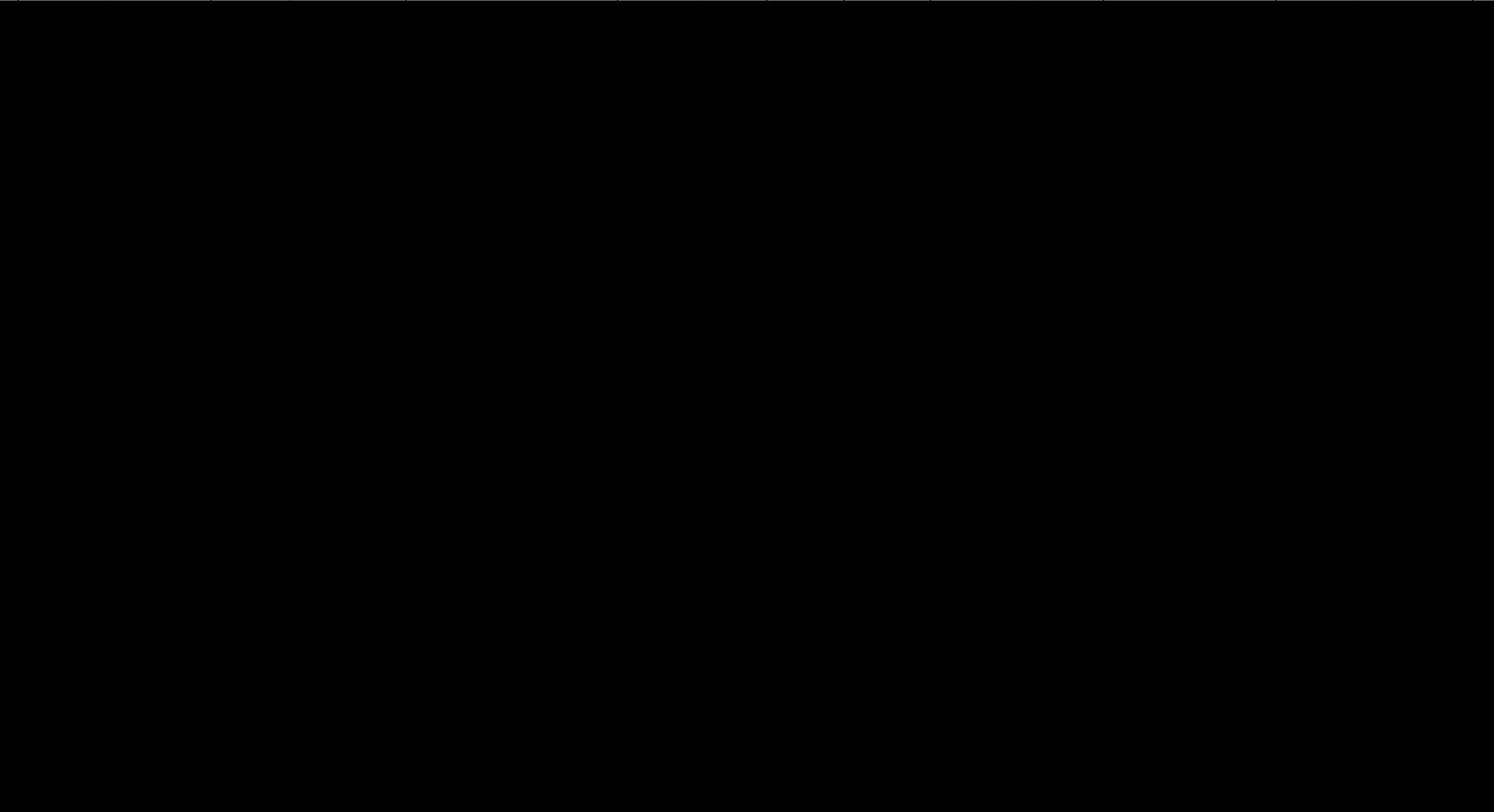
Title: **Illinois Broadband Opportunities Partnership Northwest Region**
Easy Grants ID: **6681**

Service Area Name	Tract or Block Group #
Service Area 1	17085
Service Area 2	17177
Service Area 3	17201
Service Area 4	17007
Service Area 5	17015
Service Area 6	17103
Service Area 7	17195
Service Area 8	17141

BTOP CCI Community Anchor Institutions Detail Template

Title: **Illinois Broadband Opportunity Partnership Northwest Region**
Easy Grants ID: **6881**

Facility Name	Organization	Address Line 1	City	State	Zip	Facility Type	Minority Serving Institution	Project Role
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15 Pages

Withheld in their entirety
pursuant to FOIA Exemption 4
(5 U.S.C. § 552 (b)(4))

Broadband Subscriber Estimates

Name of Service Offering	Customer Type	Year 0	Cumulative/ Net Add	Year 1				Year 2				Year 3				Year 4			
				Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
Anchor Institution Dark Fiber	Community Anchor Inst.		Cumulative	0	29	82	155	249	359	502	594	594	594	594	594	594	594	594	594
			Net Add	0	29	53	73	94	110	143	92	0	0	0	0	0	0	0	0
Business VLAN	Business		Cumulative	0	10	25	45	50	85	105	115	118	141	159	177	180	208	226	244
			Net Add	0	10	15	20	5	35	20	10	3	23	18	18	3	28	18	18
Residential Service	Residential/Individual		Cumulative	0	120	270	420	420	620	770	920	920	1120	1270	1420	1420	1620	1820	2020
			Net Add	0	120	150	150	0	200	150	150	0	200	150	150	0	200	200	200
Service Provider	Third Party Service Provider		Cumulative	2	4	5	5	5	6	6	6	6	6	6	6	6	6	6	6
			Net Add	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0
			Cumulative																
			Net Add																
			Cumulative																
			Net Add																
Cumulative Totals (excluding Indirect)	Residential/Individual		Total	0	120	270	420	620	770	920	920	920	1120	1270	1420	1420	1620	1820	2020
	Business		Total	0	10	25	45	50	85	105	115	118	141	159	177	180	208	226	244
	Community Anchor Inst.		Total	0	29	82	155	246	359	502	594	594	594	594	594	594	594	594	594
	Third Party Service Provider		Total	2	4	5	5	5	6	6	6	6	6	6	6	6	6	6	6
Cumulative Totals (including Indirect)	Residential/Individual		Total	0	120	270	420	420	620	770	920	920	1120	1270	1420	1420	1620	1820	2020
	Business		Total	0	10	25	45	50	85	105	115	118	141	159	177	180	208	226	244
	Community Anchor Inst.		Total	0	29	82	155	246	359	502	594	594	594	594	594	594	594	594	594
	Third Party Service Provider		Total	2	4	5	5	5	6	6	6	6	6	6	6	6	6	6	6

Table of Customer Types

Residential/Individual
Business
Community Anchor Inst.
Third Party Service Provider
Indirect - Res./Ind.
Indirect - Business
Indirect - Com. Anchor Inst.

Explanation of Methodology:

The community anchor institution counts were based on the expected completion rate of the proposed fiber network. Once complete, it is expected that all major community anchor institutions will be connected by the end of year two. Beyond that, community anchor institutions are not expected to significantly grow.

Business customers are expected to increase significantly in the first two years as word spreads from the community anchor institutions. As the primary goal of the grant is connectivity to anchor institutions, business expansions will be limited until the anchor institutions are connected. Once complete, the business connections are expected to grow at a steady rate throughout the future.

Incidental customers are difficult to determine given the limited time-frame of the grant preparation. It is expected that some percentage of the business customers will themselves be service providers, providing for incidental increases in customer counts. The lack of incidental customers does not affect the viability of the grant proposal. Should the grant move into due diligence, potential service provider partners will be asked for specific potential customer counts.

Name of Service Offering	Customer Type	Year 5				Year 6				Year 7				Year 8			
		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
Anchor Institution Dark Fiber	Community Anchor Inst.	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Business VLAN	Business	247	275	298	321	324	357	380	403	406	439	467	495	498	536	564	592
		3	28	23	23	3	33	23	23	3	33	28	28	3	38	28	28
Residential Service	Residential/Individual	2020	2270	2470	2670	2670	2920	3120	3320	3320	3570	3770	3970	3970	4220	4420	4620
		0	250	200	200	0	250	200	200	0	250	200	200	0	250	200	200
Service Provider	Third Party Service Provider	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Totals (excluding Indirect)	Residential/Individual	2020	2270	2470	2670	2670	2920	3120	3320	3320	3570	3770	3970	3970	4220	4420	4620
	Business	247	275	298	321	324	357	380	403	406	439	467	495	498	536	564	592
	Community Anchor Inst.	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594
	Third Party Service Provider	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Cumulative Totals (including Indirect)	Residential/Individual	2020	2270	2470	2670	2670	2920	3120	3320	3320	3570	3770	3970	3970	4220	4420	4620
	Business	247	275	298	321	324	357	380	403	406	439	467	495	498	536	564	592
	Community Anchor Inst.	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594

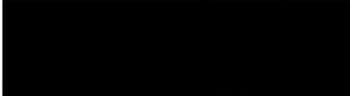
Table of Customer Types

- Residential/Individual
- Business
- Community Anchor Inst.
- Third Party Service Provider
- Indirect - Res./Ind.
- Indirect - Business
- Indirect - Com. Anchor Inst.

**U.S. Department of Commerce
Broadband Technology Opportunities Program
Authentication and Certifications**

1. I certify that I am the duly Authorized Organization Representative (AOR) of the applicant organization, and that I have been authorized to submit the attached application on its behalf.
2. I certify that I have examined this application, that all of the information and responses in this application, including certifications, and forms submitted, all of which are part of this grant application, are material representations of fact and true and correct to the best of my knowledge, that the entity(ies) that is requesting grant funding pursuant to this application and any subgrantees and subcontractors will comply with the terms, conditions, purposes, and federal requirements of the grant program; that no kickbacks were paid to anyone; and that a false, fictitious, or fraudulent statements or claims on this application are grounds for denial or termination of a grant award, and/or possible punishment by a fine or imprisonment as provided in 18 U.S.C. §1001 and civil violations of the False Claims Act.
3. I certify that the entity(ies) I represent have and will comply with all applicable federal, state, and local laws, rules, regulations, ordinances, codes, orders and programmatic rules and requirements relating to the project. I acknowledge that failure to do so may result in rejection or deobligation of the grant or loan award. I acknowledge that failure to comply with all federal and program rules could result in civil or criminal prosecution by the appropriate law enforcement authorities.
4. I certify that the entity(ies) I represent has and will comply with all applicable administrative and federal statutory, regulatory, and policy requirements set forth in the Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements ("DOC Pre-Award Notification"), published in the Federal Register on February 11, 2008 (73 FR 7696), as amended; DOC Financial Assistance Standard Terms and Conditions (Mar. 8, 2009); the Department of Commerce American Recovery and Reinvestment Act Award Terms (Apr. 9, 2009); and any Special Award Terms and Conditions that are included by the Grants Officer in the award.
5. I certify that any funds awarded to the entity(ies) I represent as a result of this application will not result in any unjust enrichment of such entity(ies) or duplicate any funds such entity(ies) receive under federal universal service support programs administered by the Universal Service Administrative Corporation (USAC).
6. I certify that the entity(ies) I represent has secured access to pay the 20% of total project cost or has petitioned the Assistant Secretary of NTIA for a waiver of the matching requirement.

3/24/10
Date


Authorized Organization Representative Signature

David A. Stone
Print Name

Director, Office of Sponsored Projects
Title

John L. Lewis, Ph.D.
Administration and University Outreach



Education:

Ph.D., May 1981, Economics, University of Missouri. Dissertation topic: "An Investigation Into the Availability and Need for Physician Services."

M.A., Economics, Western Michigan University, 1968.

B.A., Monmouth College (Illinois), 1967.

Professional Experience:

Associate Vice President, Administration and University Outreach, Northern Illinois University, DeKalb, IL 2002 – present

Responsible for the Division of Administration and University Outreach that include a variety of university externally oriented research and technical assistance initiatives.

Associate Director/Director, Center for Governmental Studies, Northern Illinois University, DeKalb, IL 1991 - 2002.

Responsible for Center activities in the area of economic development, community and local government services and health care research.

Director, Corporate Relations, Northern Illinois University, DeKalb, IL 1987 - 1991

Responsible for development, implementation and administration of university corporate relations program. Serve as the university's senior administrator for external contacts with corporations.

Special Adviser for Economic Development, Northern Illinois University, DeKalb, IL, February, 1987 - September, 1987.

Develop and implement a strategy to involve the University in the economic development of Northern Illinois. Serve as the University external representative for economic development activities.

President, Illinois Council on Economic Education, DeKalb, IL, 1978 - 1987.

Chief executive officer with major responsibility for administrating programs at ten universities in Illinois and implementing a private sector fund-raising campaign of over \$350,000 in 1986.

Assistant Professor of Economics and Director of the Center for Economic Education, Ball State University, Muncie, IN, 1974 - 1978.

Taught undergraduate and graduate courses in economics and implemented economic education programs for school districts in east-central Indiana.

Research Associate and Assistant Director of the Center for Economic Education, University of Missouri, Columbia, MO, 1974.

Instructor of Economics, Southwest Missouri State University, Springfield, MO, 1969 - 1973.

Assistant Professor, King College, Bristol, TN, 1968 - 1969.

Concurrent Positions:

Northern Illinois Proton Treatment and Research Center 2007 – Present, Executive Director.
Manage project construction, implementation, and research activities.

Adjunct Associate Professor, School of Allied Health Professions, Northern Illinois University, 1980 - present.

Teach the undergraduate and graduate course in Economic Issues in Public Health.

Consultant, Robbin, Schwartz, Nicholas, Lifton, and Taylor, Ltd.; 1991

Served as expert witness on suits by four newspaper distributors against Tribune Company.

Consultant, Higher Education Strategic Planning Institute, Washington, DC, 1983 - 1984

Assisted in the development of strategic planning program for institutions of higher education and acted as consultant to universities.

Visiting Professor, State University of New York College at Buffalo, Summer 1982.

Visiting Professor, DePaul University, Summer 1981.

Selected Recent Grants:

Northern Illinois University – Health Information Technology Regional Extension Center Award, Department of Health and Human Services, 2010 – present, PI.

Northern Illinois University – Northern Illinois Proton Treatment and Research Center, Department of Defense grant for research related to proton and hadron therapy, 2008 – Present, PI.

Northern Illinois University – Institute for Neutron Therapy, 2004 – 2006, Department of Defense, PI.

Northwest Regional Partnership, Completion of Critical Skills Shortage Industry study for three industries in northwest Illinois, 2004, CO-PI.

Illinois Department of Commerce and Community Affairs, Illinois Technology Enterprise Center grant to support commercialization of technology being developed in university research labs and small and medium size businesses in northern Illinois, 2003 - 2009, PI.

Western Illinois Workforce Investment Board, completion of an underemployment study for 19 counties in western Illinois, 2003, PI.

Illinois Department of Commerce and Community Affairs, 2000- 2004, Development of a five year strategic economic development plan for the state of Illinois, Project manager and CO-PI.

Rockford Register Star, Ongoing survey of economic conditions in Rock River Region, 2001 – 2010.

Illinois Manufacturing Extension Center, 2001- present, serve as regional host of the organization and manage activities in Northern Illinois, PI.

Louisiana State University – Alexandria, 2001, Allied Health Workforce Analysis for Central Louisiana. PI.

Mendota Community Hospital, 1999, Serve as a facilitator to the Board to identify strategic direction and develop plans for a possible strategic partnership.

Hauser-Ross Eye Foundation, Inc, Research on Costs/Benefits of Cataract Surgery, 1988.

Publications:

Lewis, John L.; Schroeder, Betty L. and Stricklin, Wilma D., Wiley CPS Review for Economics and Management. New York: John Wiley and Sons, inc., 1984, 1989, 1994, and 1999.

Peddle, M., Lewis, J., *Development Exactions as Growth Management and Local Infrastructure Finance Tools*, Public Works Management & Policy, Vol. 1., No. 2, October 1996, Sage Publications, Inc.

Lewis, John L., *An Economic Baseline Study for the Northwest Eight Counties of Illinois*, June 1992, Center for Governmental Studies, Northern Illinois University, DeKalb, IL 60115

Lewis, John L.; Lewis, Kevin R., *Using GIS software for Hospital Market Analysis* 1992 Proceedings, American Association for Advancement in Health Care Research, March 1992

Lewis, John L.; Ross, Neil, *Cataract Surgery: A Cost Benefit Analysis* currently being reviewed by Journal of Cataract and Refractive surgery for publication.

Other Activities:

Board Member and secretary, Ben Gordon Center, 2002 – present

Board Member, Rockford Local Development Corporation, 2003 present

Sycamore Planning Commission, Chairman, 1998 - present

Board Member, Valley West Community Hospital Board of Trustees, Chairman, 1998 – 2002

Member, Kishwaukee Health System Council, member, 1998 -2003

Board Member, Sandwich Community Hospital Board of Trustees, vice chairman and secretary, October 1996 – 1998

Herb Kuryliw, Network and Technology Architect for Northern Illinois University is responsible for the design and build out of a state of the art regional fiber optic network used for research advancement, healthcare, governmental services, education and economic development. His continued involvement in the design and build of a regional research network named NIUNet is rapidly expanding into communities throughout Northern Illinois. His responsibilities include the development of strategic partnerships to reduce costs of network infrastructures and promote the design of advanced networks in the Northern Illinois region and the State of Illinois. Within Northern Illinois University, he is a facilitator working with research administration for the development of applications over high speed networks.

Over the past five years his involvement with writing technical design specifications for core backbone networks utilizing fiber optical cabling over large regional areas within the State of Illinois includes:

- The DeKalb Advancement of Technology Authority (DATA)
 - Project manager and grant writer for a successful \$15M federal and state grant award for a 139 mile fiber optic and ultra high speed network for DeKalb and LaSalle County anchor institutions, businesses, healthcare and agriculture.
 - Structured a new concept model for the private and public sector working together for regional economic development using technology.
 - Created network design models that deliver high speed low cost services which interconnect to several regional network projects.

- The Illinois Rural HealthNet (IRHN)
 - Researched and reviewed fiber optic routes for the design of the IRHN.
 - Created an efficient design of networking minimizing costs by utilizing existing datacenters within hospitals along the anticipated route.
 - Reviewed connection routes for over 200 hospital locations.
 - Created the fiber optic design concept for the IRHN grant.
 - Currently lead the technical committee for the IRHN.

- The Northern Illinois Technology Triangle (NITT)
 - Initiated concept idea for regional networks for the City of Rochelle in 2004 and presented to the Greater Rochelle Economic Development Committee (GREDCO) to create a partnership with NIU and develop a technology plan for the region.
 - Consulted with GREDCO for the implementation of a fiber optic network along the I-39 corridor between Rochelle, IL and Rockford, IL.
 - Planned and designed, with the City of Rochelle, the creation of a not-for-profit network provider currently called the NITT.

- Assigned to the NITT Technical Committee in 2007 to design a state of the art network over 175 miles of fiber.
 - Organized several technical sessions to review technology options for the NITT network.
 - Created a weighted evaluation for the NITT that was designed to collect information on relevant technology best suited to meet the needs of the region for high speed networks.
 - Wrote a technical request for proposal design for the NITT.
 - Lead and organized evaluations of vendor proposal for the NITT.
 - Submitted recommendation for network design to the board of the NITT.
- TriLight Net Health Network
 - Consulted with TriRivers Partners on best design to use for a Medical Network that included fiber optical networking.
 - Reviewed and assisted in optical networking equipment design.
 - Facilitated fiber optical agreements and fiber exchange with NIU.
 - Consulting with TriLight Net on creating partnerships in networking for the medical, education, government and private networks.
- Illinois Municipal Broadband Communications Association (IMBCA)
 - Initiated partnership with several cities along the I-88 corridor for the development of a fiber optical network.
 - Designed plans for the implementation of 15 miles of lateral fiber optic connections to utilize the Illinois Tollroad Authority fiber.
 - Assisted in the development of a network plan for the IMBCA that is used between four different cities.

Mr. Kuryliw has initiated and implemented the concept for building metro fiber networks to connect into core networks throughout local and regional areas. Included are projects that he has designed and implement a plan for:

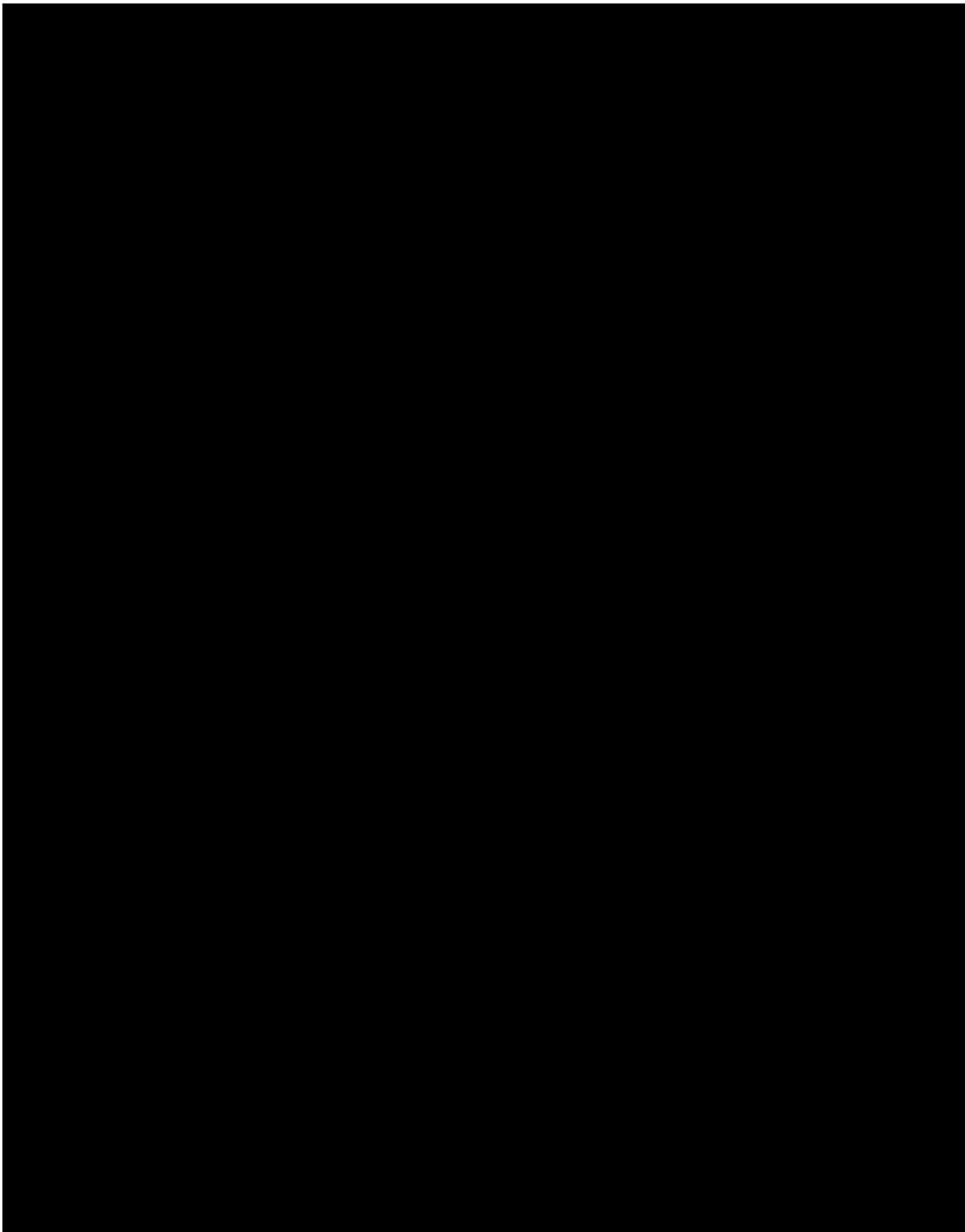
- Northwest Municipal Broadband Authority (NMBA) that consists of two villages, a city, and large school district that combined form a sharing agreement utilizing a CWDM network over 20 miles of fiber.
- DeKalb School District 428 fiber optical networks throughout the City of DeKalb and include the Village of Malta and the Town of Cortland.
- Sycamore School District 427 fiber optical network throughout the City of Sycamore.

Mr. Kuryliw has over twenty five years of technical, managerial, and administrative experience in communication networks at Northern Illinois University.

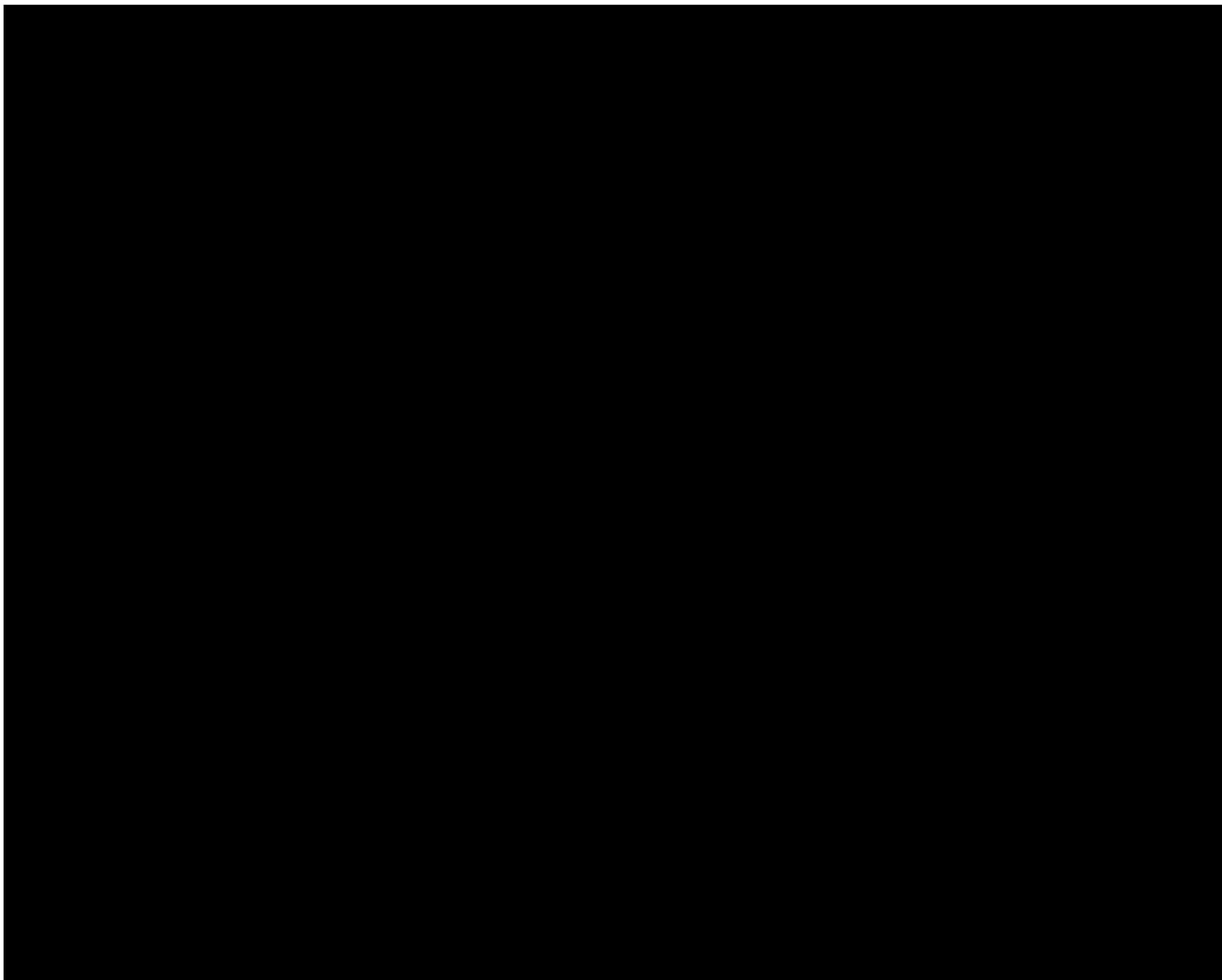
- He designed and installed the first routed backbone for Northern Illinois University and expanded it to support over 12,000 concurrent users with a multi-gigabit backbone.
- His background includes knowledge of the Nortel SL-100 and he helped in the development of the first dialable wideband service using H.320 protocols.
- He assisted in the development and testing of an early ADSL product with Nortel that later became a product known as the 1-Meg Modem.

Professional Activities:

- Illinois Rural HealthNet Technical Committee, 2008 to Present
- Northern Illinois Technology Triangle Technical Committee, 2007 to Present
- Advanced Engineering Task Force for the Illinois Century Network, 2006 to Present
- Governors Broadband Deployment Council, Council Member, 2005 to Present.
- Illinois Municipal Broadband Communications Association (IMBCA), Board of Directors, 2004 to Present, Secretary.
- Internet 2 Technical Representative for Northern Illinois University, 2004 to Present.
- DeKalb Community School District Technology Committees, Technical Advisor, 1996 to 2008.



Income Statement



Balance Sheet

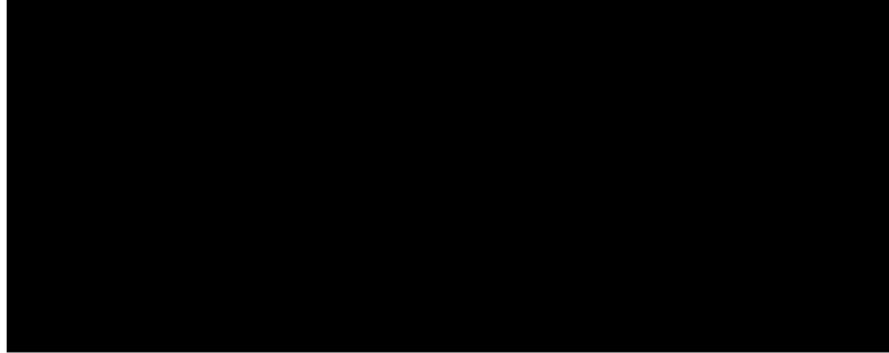




Statement of Cash Flows



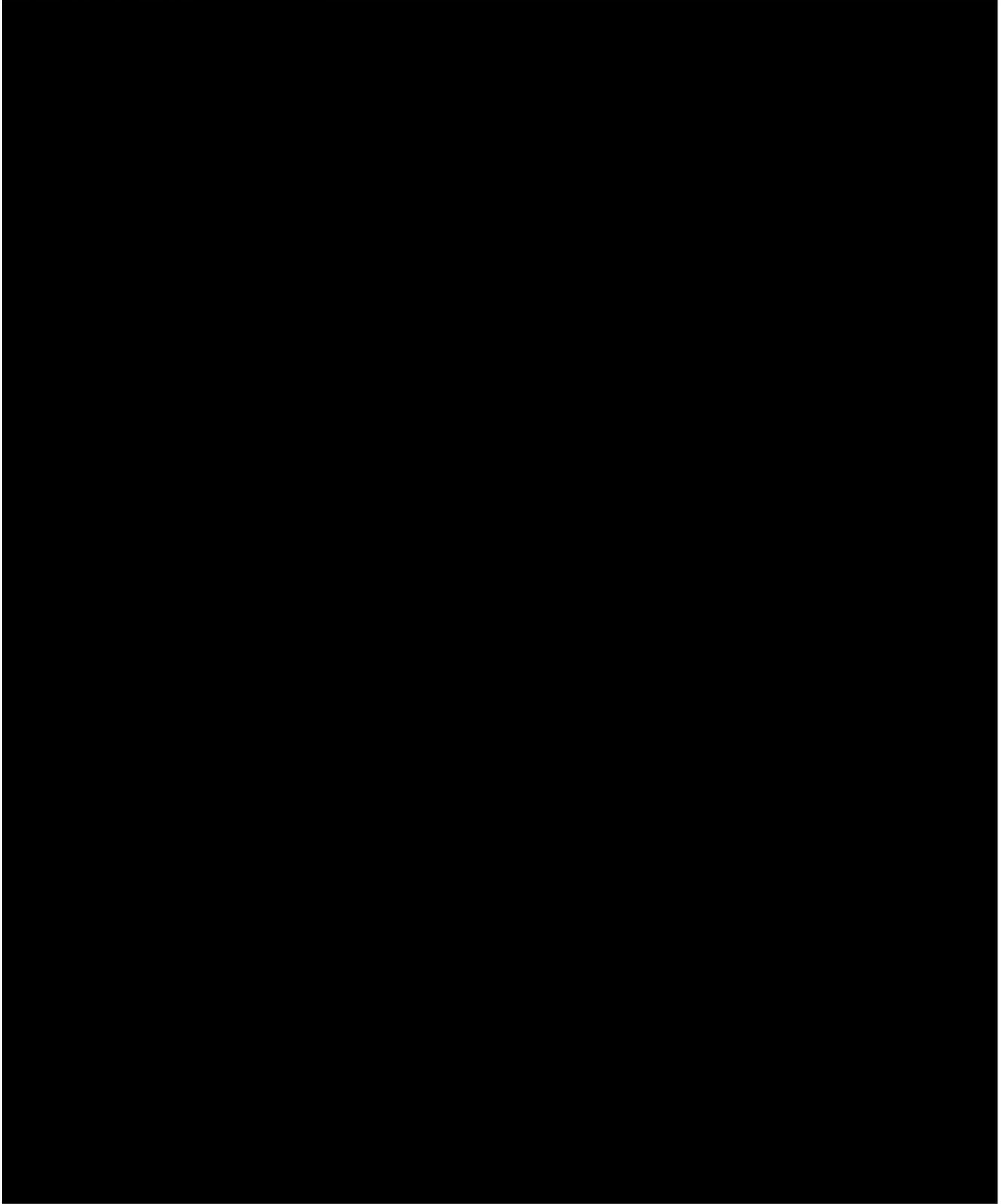
NPV/IRR Table



Revenue Assumptions



Expense Assumptions



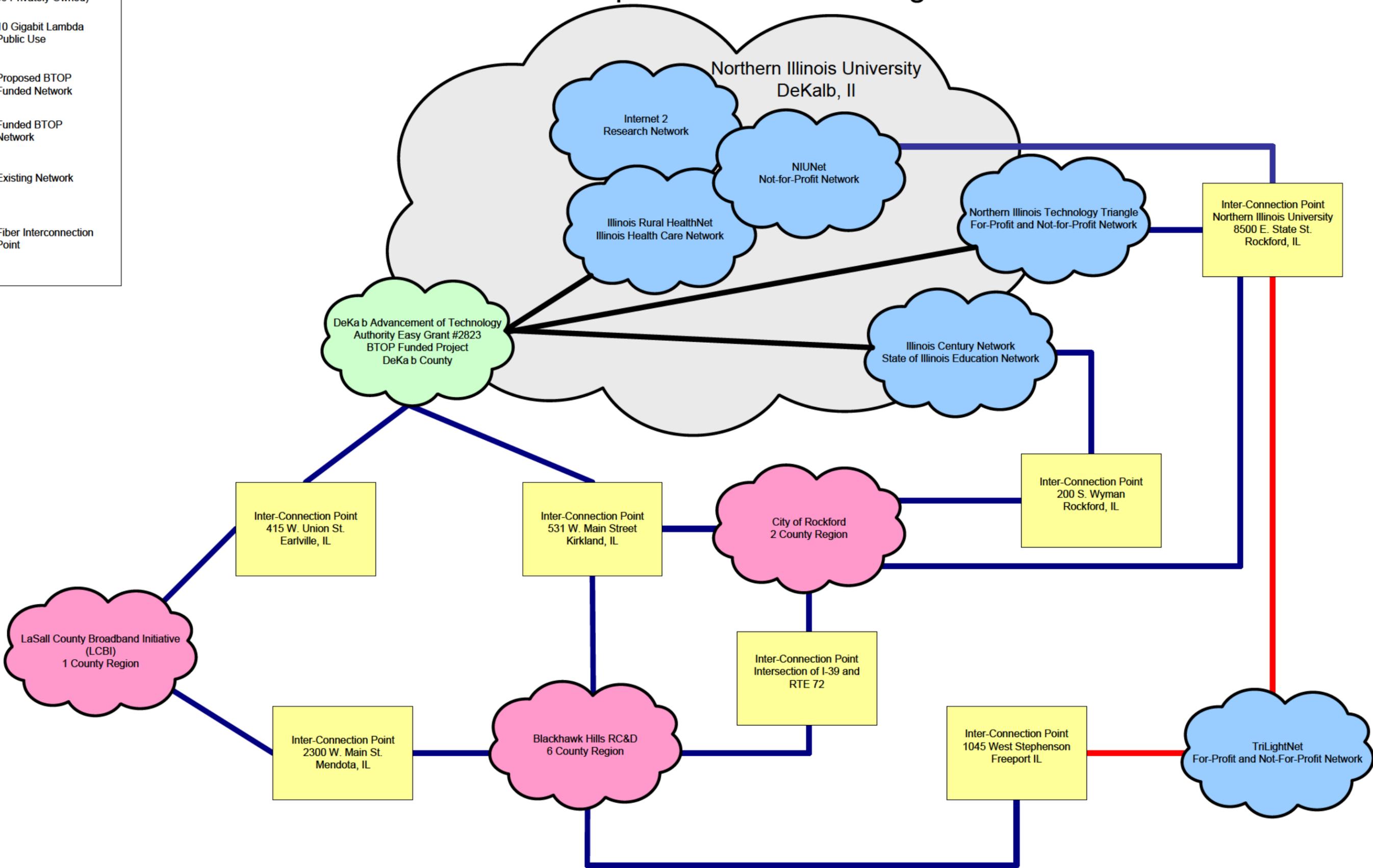
methods and lives

able rates to income generated

Illinois Broadband Opportunity Partnership Northwest Region Partnership Interconnection Diagram

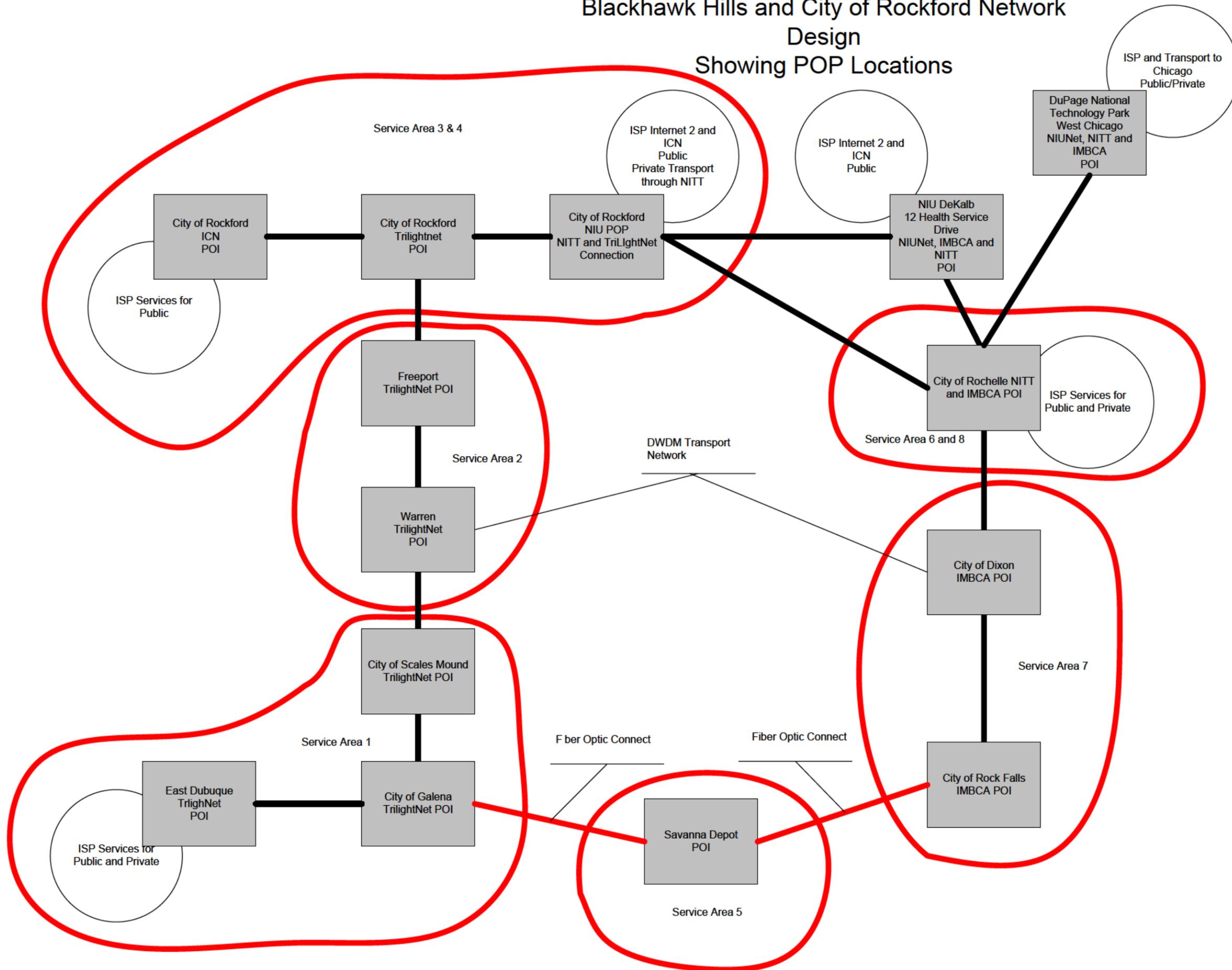
Legend

-  144 Fiber Strands
(48 Public Owned)
(96 Privately Owned)
-  10 Gigabit Lambda
Public Use
-  Proposed BTOP
Funded Network
-  Funded BTOP
Network
-  Existing Network
-  Fiber Interconnection
Point

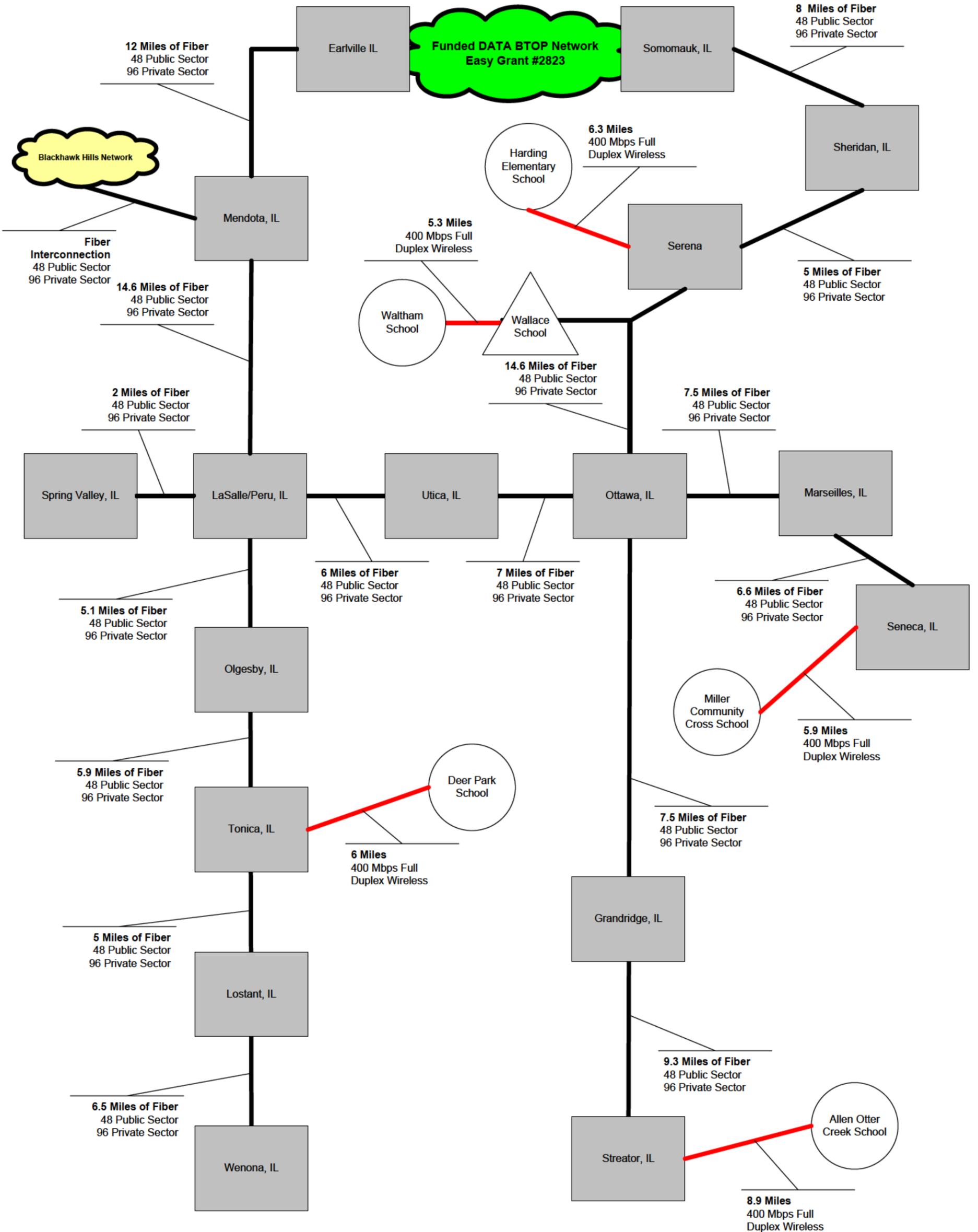


Blackhawk Hills and City of Rockford Network Design

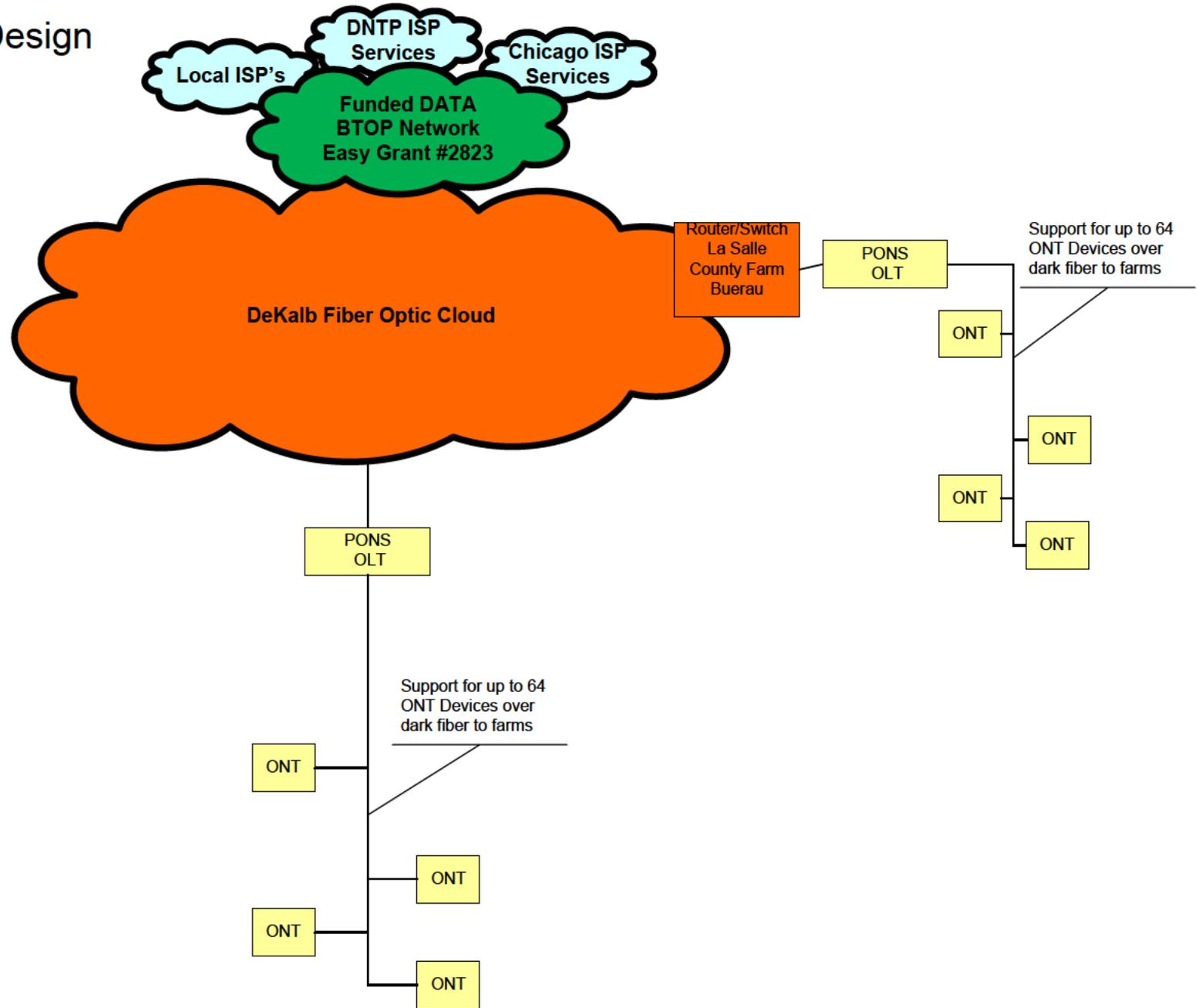
Showing POP Locations



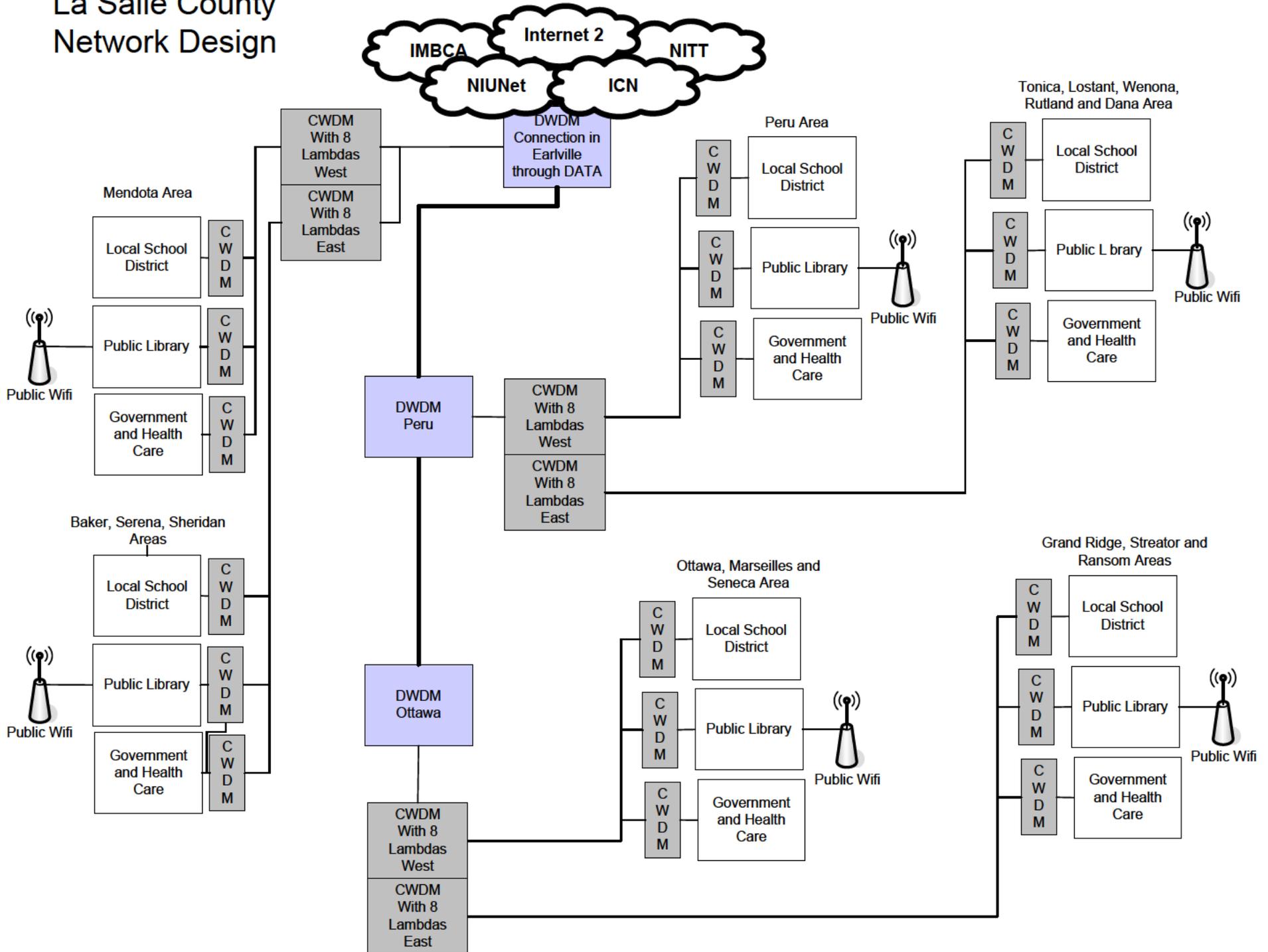
LaSalle County Fiber Optic Network and Wireless Connections Between Population Centers



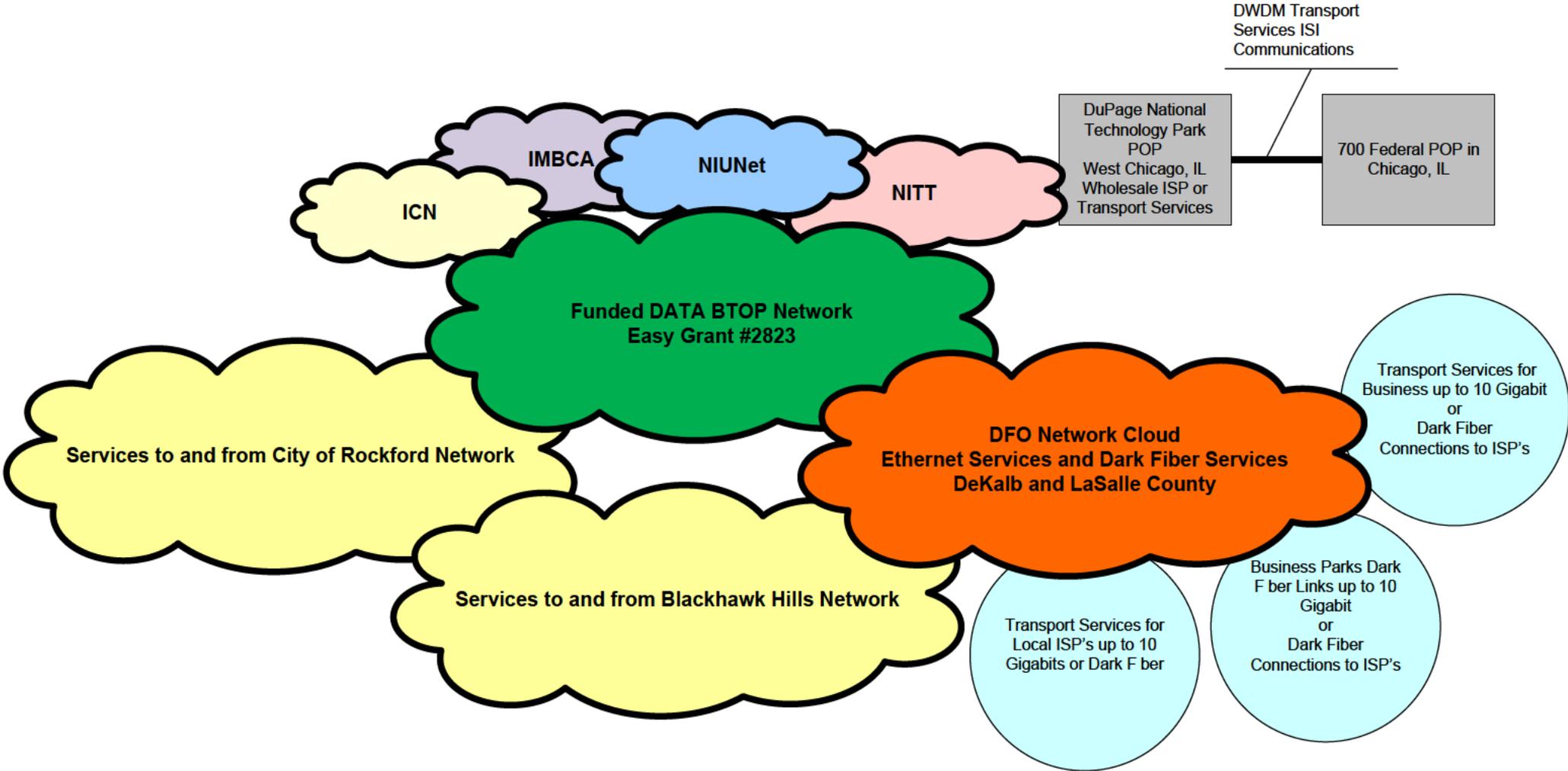
LaSalle County Agriculture Network Design

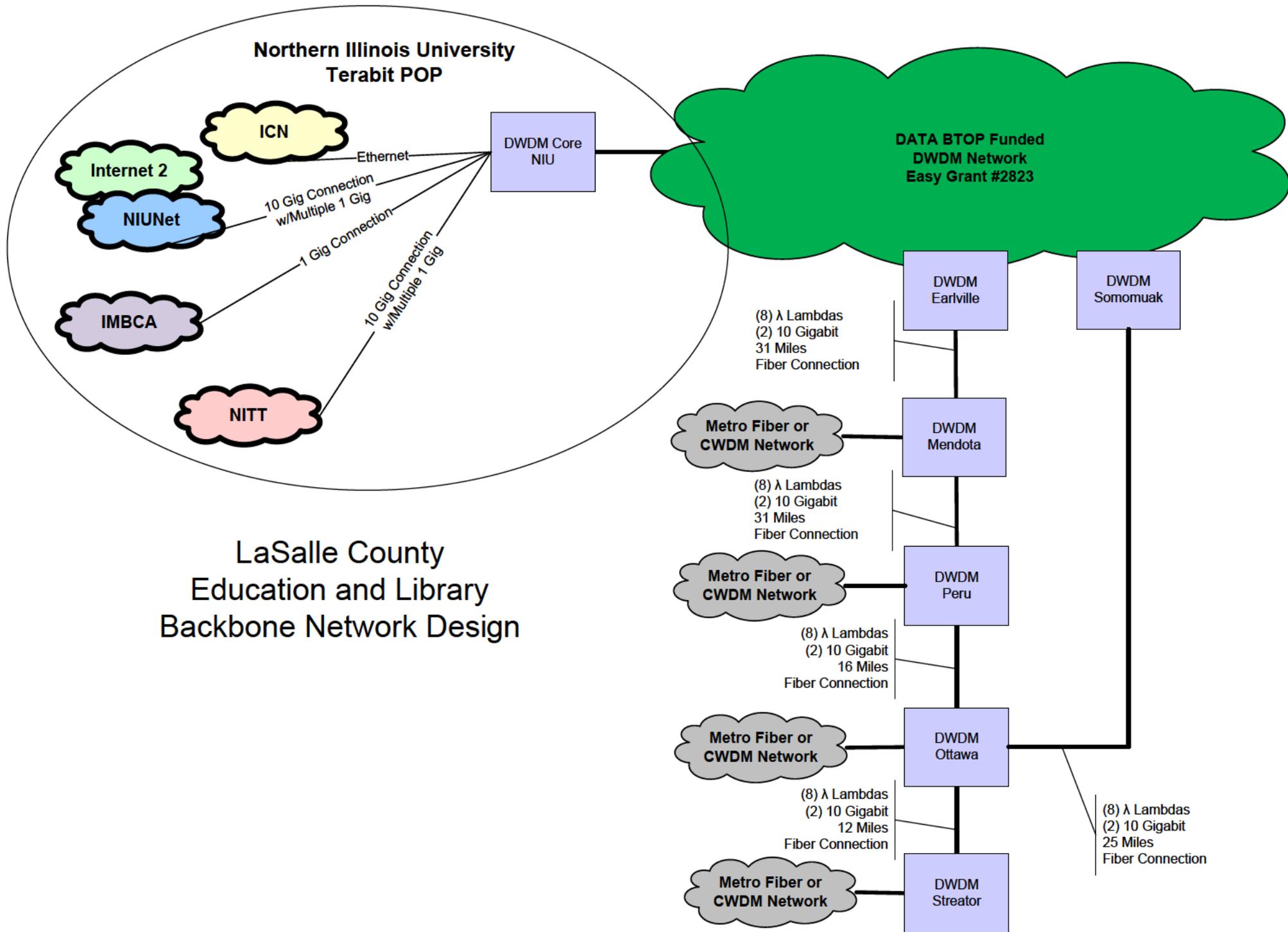


La Salle County Network Design

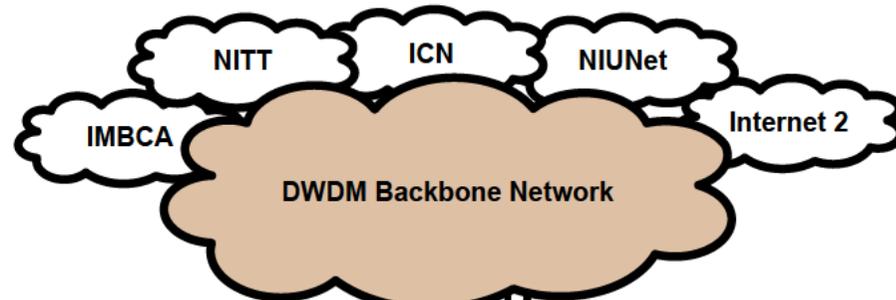


LaSalle County Private Business/Economic Development Network Design

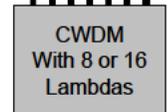




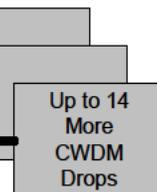
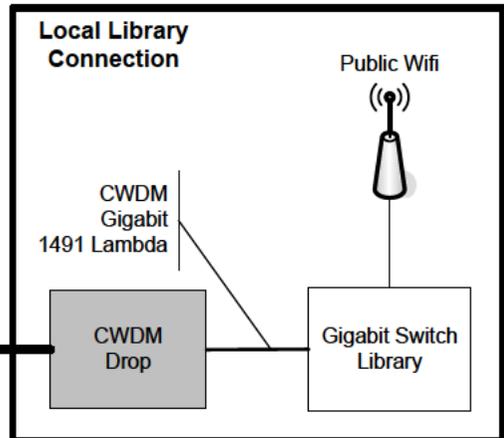
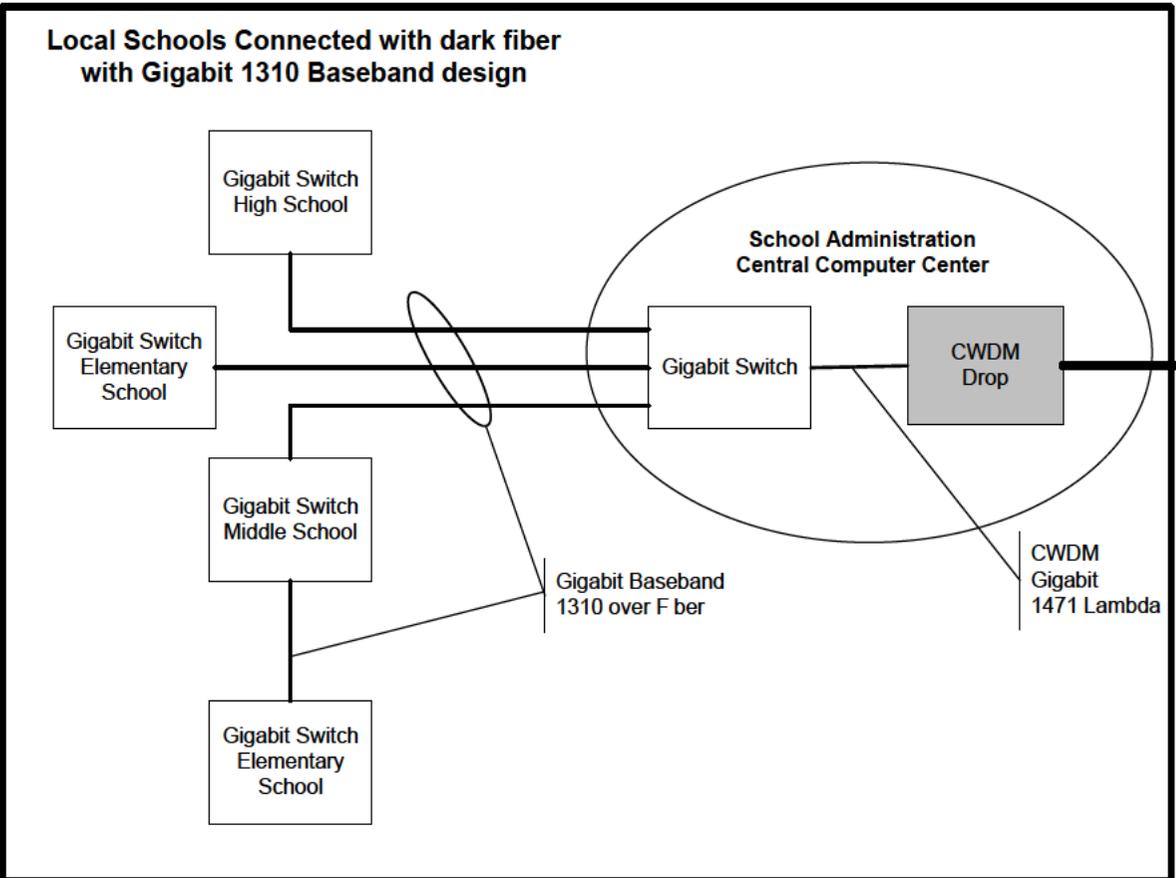
LaSalle County Education and Library Metro Network Design



Gigabit Transport back for Internet Services and Educational Network Core Services



Dark Fiber Equipped with CWDM up to 16 Lambdas at 1 Gig Each. Distance up to 20 Miles



2 Pages

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(5 U.S.C. § 552 (b)(4))

Service Area 9

LaSalle County Service Area Map



Unserved Areas



Underserved Areas



Served Areas

1 Page

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