Agenda

Jefferson County Economic Development Consortium

Making Connections   Giving Directions

April 10, 2013
8:30 a.m.
141 W Woolcock Street, Jefferson

AGENDA

Committee Members

Chairman Ron Krueger – City of Watertown, Vice Chairman Bill Dovi-City of Waterloo, Secretary James Schroeder – County Supervisor, Evelyn Johnson-City of Fort Atkinson, Timothy Freitag-City of Jefferson, Steve Wilke - City of Lake Mills, Patrick Cannon-City of Whitewater, Mark Johnsrud-Village of Johnson Creek, Augie Tietz-County Supervisor, Al Counsell-County Supervisor

1. Call to Order
2. Roll Call (Establish a quorum)
3. Certification of Compliance with Open meeting Laws
4. Approval of Agenda
5. Citizens Comments
6. Approval of Minutes – March 13, 2013
7. Communications
8. Discussion about Broadband and Potential Creation of Taskforce for Jefferson County Area Network (JCAN) Broadband Initiative
9. Directors Report
   a. Activities Report
   b. Finance Report
10. Committee Reports
    a. Glacial Heritage
11. Future Agenda Items
12. Upcoming Meetings/Seminars
13. Adjournment

The Committee may discuss and/or take action on any item specifically listed on the agenda.

"Individuals requiring special accommodations for attendance at the meeting should contact the County Administrator at 920-674-7101 24 hours prior to the meeting so appropriate arrangements can be made."

Jefferson County Economic Development Consortium
Board of Directors Meeting
March 13, 2013

Jefferson County Economic Development Consortium

Making Connections & *Giving Directions*

Meeting called to order at 8:35 am.

Board members present: Supervisors Augie Tietz, Al Counsell, Jim Schroeder Bill Dovi-City of Waterloo, Ron Krueger – City of Watertown, Tim Freitag – City of Jefferson, Mark Johnsrud – Village of Johnson Creek, Evelyn Johnson - City of Fort Atkinson

Others Present: Chairperson John Molinaro, Kim Erdmann, Catherine Kleiber, Wayne Koessl, Jim Romlein, Connie Meyer, Jim Young, Director Dennis Heling, Administrative Assistant RoxAnne Witte

Certification of compliance with Open Meeting Law Requirements
D. Heling certified compliance for the agenda dated March 13, 2013.

Citizen Comments
Request for all to turn off cell phones and tablets.

Committee Reports
Broadband

J. Romlein gave a presentation on boardband in Jefferson County. It was the consensus of the board that a task orce will be formed to implement the Jefferson County Area Network. All board members were asked to send their member suggestions to D. Heling before the next board meeting. A decision will be made on the taskforce members at the April board of directors meeting

Minutes
Tietz/Dovi moved to approve the minutes of the February 10, 2013 as presented. Motion carried with Counsell and Schroeder abstaining.

Directors Report
Schroeder/Counsell moved to accept the March 2013 Directors Report as submitted. Motion carried.

Finance Report
Johnson/Tietz moved to approve the February 28, 2013 Financial Report as submitted. Motion carried.

Future Agenda Items
1. Broadband Taskforce

Upcoming Meetings
JCEDC Board of Directors, April 10, 8:30 am, Jefferson County Courthouse, Rm 112, Jefferson

Adjournment
There being no further business for consideration, motion by Dovi/Counsell to adjourn. Meeting adjourned at 10:55 am.

Respectfully submitted,
RoxAnne Witte

Jefferson County Economic Development Consortium
Sunday, March 31, 2013

Income		Mar-13		Year to Date		2013 Budget
CDBG & Others		-		-		10,000.00
Home Buyer Counseling - 2012				4,350.00		0.00
Home Buyer Counseling - 2013		-		-		0.00
Jefferson County		83,857.00		-		83,857.00
Fort Atkinson				-		12,380.00
Jefferson				7,934.00		7,934.00
Johnson Creek				2,806.00		2,806.00
Lake Mills				5,742.00		5,742.00
Waterloo				3,331.00		3,331.00
Watertown				15,444.00		15,444.00
Whitewater		-		0.00		3,205.00
Transfers & Other Financing Sources		-		-		-
TOTAL INCOME	$	83,857.00	$	39,607.00	$	144,699.00

Expenses						
Wages	$	9,953.25	$	20,617.58	$	119,439.00
Professional Services		-		-		0.00
Furniture & Fixtures		-		-		0.00
Office Equipment		-		-		200.00
Computer Equipment		-		124.00		100.00
Office Equipment Lease		-		-		0.00
Postage		21.67		30.55		260.00
Office Supplies		-		15.40		300.00
Printing		-		-		30.00
Subscription		-		99.75		400.00
Membership Dues		-		425.00		425.00
Advertising		-		-		0.00
Tourism Development- Discover Wisconsin		-		-		4,500.00
Registration		-		556.04		400.00
Mileage		187.50		227.52		2,250.00
Meals		23.33		-		280.00
Lodging		-		-		300.00
Other Travel		-		143.00		50.00
Telephone/IP Telephone		55.00		147.51		660.00
MIS		651.08		1,953.24		6,551.00
Other Insurance		39.92		119.38		479.00
ED workshop/materials		-		-		500.00
Web Page		-		-		0.00
Repair & Maintenance		-		-		510.00
County Duplication Allocation		50.25		135.94		603.00
Transfer to Reserve		-		-		6,462.00
TOTAL EXPENSES	$	10,982.00	$	24,594.91	$	144,699.00

* Note theses items are estimates only

JEFFERSON COUNTY ECONOMIC DEVELOPMENT CONSORTIUM
BOARD OF DIRECTORS
MEETING

Wednesday, April 10, 2013
8:30 a.m.
Conference Room
Highway Department
Jefferson, WI 53549

April 2013
DIRECTOR'S REPORT

Below are examples of some of the activities the department was involved in during this reporting period:

1. Meetings and various communications with Rushing Waters Fisheries to provide assistance on their expansion project. As a reminder the project is for Rushing Waters to expand its fish processing output capacity through expanding the processing plant, cooler and freezer space, value added production space, retail store and then add a dining facility area. Rushing Waters will add approximately $1.2 million in building improvements and $250,000 in new equipment expansion and have represented it will create at least 5 additional full time positions but, feels that it is likely to create between 9 and 16 new positions. The Revolving Loan Review committee authorized assisting with a $100,000 equipment loan which was subsequently approved by the Jefferson County Board of Supervisors on March 12, 2013, Resolution 2013-83. Disbursement of the loan took place with closing documents prepared and executed along with lien documents being filed. They plan for opening these additions in June/July of this year.

2. Activities for the Community Development Block Grant Emergency Assistance Program (CDBG-EAP) for this reporting period continued. This included: communications with Wisconsin Department of Administration regarding the status of projects, conducting interviews for Labor Standards Compliance, preparing project disbursements requests, numerous site visits, completing historical review record for the Chmielewski property acquisition, meeting with City of Jefferson staff on various CDBG-EAP projects and discussions with Davis/Bacon compliance firm on several projects.

3. Regional Revolving Loan Fund (RLF) program team met to discuss and work on drafting the policy and procedures manual for this regional initiative. Ongoing discussions had about other regional revolving loan initiatives and incorporating concepts and ideas into our draft proposal. Plan to meet with Central Region RLF Committee representatives for further guidance and discussions about best practices. Continue the initial draft of procedures manual for the proposed Capital Region regional revolving loan entity.

4. Activities continue with the Wisconsin College of Osteopathic Medicine during this reporting period. Attended various meetings including discussions on next steps and working with various local businesses. This also included connecting the outreach team to several business leaders with whom they may explore mutually beneficial activities. I attended meetings regarding this project with state, county and city staff to inform them about various components of this project.

5. Attended and participated in the Inter-County Coordinating Committee meeting at which Joel Thomas, the 2012 WI Governor's Council on Financial Literacy award winner, founder of the

1

Financial Resiliency Foundation, and schools manager for EverFi, outlined his efforts and did a presentation which highlighted the following: poor financial decision making harms individual citizens, society, banks and the educational system. Joel advocates that financially educated citizens make higher quality informed financial decisions allowing them to contribute more to their local community and economy. EverFi has certified over 4.5 million students across all 50 states in critical life skills such as financial literacy and provides 21st century financial literacy platforms to K-12 schools at no cost through private public partnership with banks and foundations.

6. Attend program and presentation labeled as the "Special Program for Economic Development." The program featured Dave Lumley of Spectrum Brands Holdings, a member of the Russell 2000 Index, and a global and diversified consumer products company and a leading supplier of consumer batteries, residential builders' hardware and faucets, personal care products, small household appliances and a variety of other household products. The Company has a portfolio of market-leading, well-known brands including Rayovac®, Kwikset®, Weiser®, National Hardware®, Pfister®, Remington®,Black & Decker®, Farberware®, and Black Flag®, to name a few. They are headquartered in Madison, Wisconsin; the Company has approximately 12,000 employees in 55 countries. He discussed the region and future and growth potentials for their businesses.

7. Attend and participate in the Regional Economic Development Professionals meeting. The agenda included: discussions on activities happening in the region, introductions of staff members for Thrive, Congressman Mark Pocan discussed the "Partnership with Washington" process he is utilizing to keep in touch, and substantial discussions had about Business Retention and Expansion surveys and processes that the regional entity is promoting for our region.

8. Some of the other department activities included:
   - Attend and participate in Joint Review Board for Lake Mills,
   - Attend and participate in the Regional Home Consortia meeting,
   - Gather information for Broadband Taskforce,
   - Attend and participate in Jefferson County Department Head meeting.

Respectfully Submitted,

Dennis Heling

Dennis Heling
Director
Jefferson County Economic Development Consortium
864 Collins Road
Jefferson, WI. 53549
Phone 920.674.8710
Email dennish@co.jefferson.wi.us
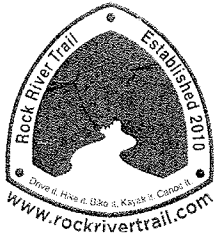
Rock River Trail Initiative
112 S. Lake Street
PO Box 89
Hustisford, WI 53034

News Release: April 5, 2013
Contact: Greg Farnham 920 386-2450

Rock River Water Trail is new National Water Trail

The Rock River Water Trail has been designated into the National Water Trails System by Secretary of the Interior Ken Salazar, according to a statement by the National Park Service in Washington, DC.

The National Water Trails System is a distinctive national network of exemplary water trails of local and regional significance that are cooperatively supported and sustained. The trails system has been established to protect and restore America's rivers, shorelines and waterways and to increase access to outdoor recreation on shorelines and waterways.

"We are extremely pleased and honored to have been designated a national water trail, " said Greg Farnham of Hustisford, Wis., coordinator of the Rock River Trail Initiative.

"For the past two years our management council has worked closely with the Wisconsin and Illinois Departments of Natural Resources and the National Park Service Rivers and Trails Program in Milwaukee and Chicago to establish a water trail on the Rock River."

"We understand that the Rock River Water Trail is the first national water trail in both Wisconsin and Illinois."

The Rock River Water Trail links 11 counties in both states along the 320-mile river course, from the headwaters above the Horicon Marsh in Fond du Lac and Dodge Counties to the confluence with the Mississippi River at Rock Island, Illinois. The water trail is a delineated path on the river that connects access sites, resting places and attractions for users of water craft.

"During the planning process our council members contacted each of the counties, municipalities, park districts and park departments along the river," offered Frank Schier of Rockford, Ill., founder and coordinator of the Rock River Trail Initiative.

" In addition we spoke with community organizations with interests in public health, resource conservation, public recreation, tourism and economic development. The water trail is truly a locally-supported effort."

Benefits of the designation include national promotion and visibility, with use of the National Water Trails System logo, and opportunities to obtain technical assistance and funding for planning and implementing water trail projects.

"The National Park Service has found that as a result of designation, national water trails can provide tangible benefits to river communities," added Farnham.

[MORE]

"These benefits include a positive economic impact from increased tourism, assistance with sustainability projects, increased protection for outdoor recreation and water resources, and contributions to public health and quality of life from maintaining and restoring watershed resources."

Farnham and Schier emphasized that achievement of national water trail designation highlights the collaborative process of local community interest, support and participation along the river.

"Each of the 11 counties, 37 cities and villages and local organizations has stepped forward to affirm the Rock River as a vital natural resources and backbone for local recreational, cultural and historical interests, and economic and community development activities."

"What a wonderful achievement for all concerned," they added.

Information on the National Water Trails System is available at
http://watertrails.nps.gov/watertrails/
The website of the Rock River Trail is www.rockrivertrail.com.

[END]

# Jefferson County Area Network (JCAN) - Overview

The Jefferson County Economic Development Consortium (JCEDC) has long recognized the importance of broadband Internet services and their critical role in advancing the ability of the enterprise to accomplish their mission. This initiative is developing the conceptual model for a Jefferson County Area Network (JCAN) that would provide high bandwidth services to all citizens of Jefferson County, needed to effectively compete in a global environment.

The model will be a public/private partnership structured to easily evolve into an architecture where content providers have equal access to distribution, access and transport providers are equitably compensated, and users have reliable service capable of high bandwidth at reasonable rates.

The JCAN will support the next generation of 911 services, be compliant with the Criminal Justice Information Services (CJIS) Security Policy, support mesh topology routing needed to meet the demands of mobile cloud computing, and serve as a test bed for organizations developing next generation applications.

This Jefferson County critical infrastructure will be able to stand alone and provide service within Jefferson County in a "stand-alone" mode isolated from the Internet, should the need arise.

From the Internet, the Wisconsin Independent Networks (WIN) Backbone will connect to the JCAN Point of Presence (POP) at the UW HealthPartners Hospital with two fiber cables using diverse routes. This configuration is known as High Availability - Fault Tolerant (HAFT) ring as the network will continue to function if one of the connecting cables is severed.
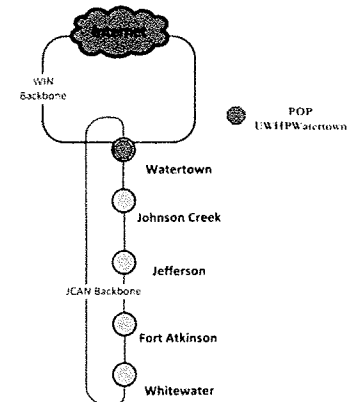

From the POP, the existing WIN fiber cable which follows Wisconsin Highway 26, connects to the backbone cities. The last of these connections, Fort Atkinson, will be completed soon. This backbone is also an HAFT ring.
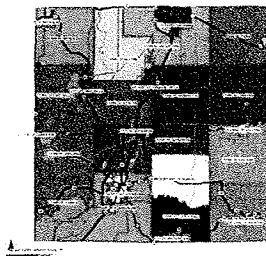
Note that Jefferson County is made up of sixteen Townships which are arranged in a symmetrical 4x4 square with Highway 26 running down the middle of the county.

Each Township will be served with an aggregation point that will feed distribution cables in the Township. The sixteen Townships will be served by four HAFT loops from backbone cities.
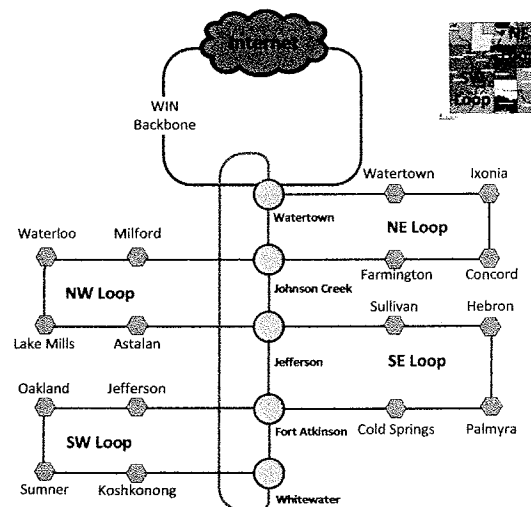
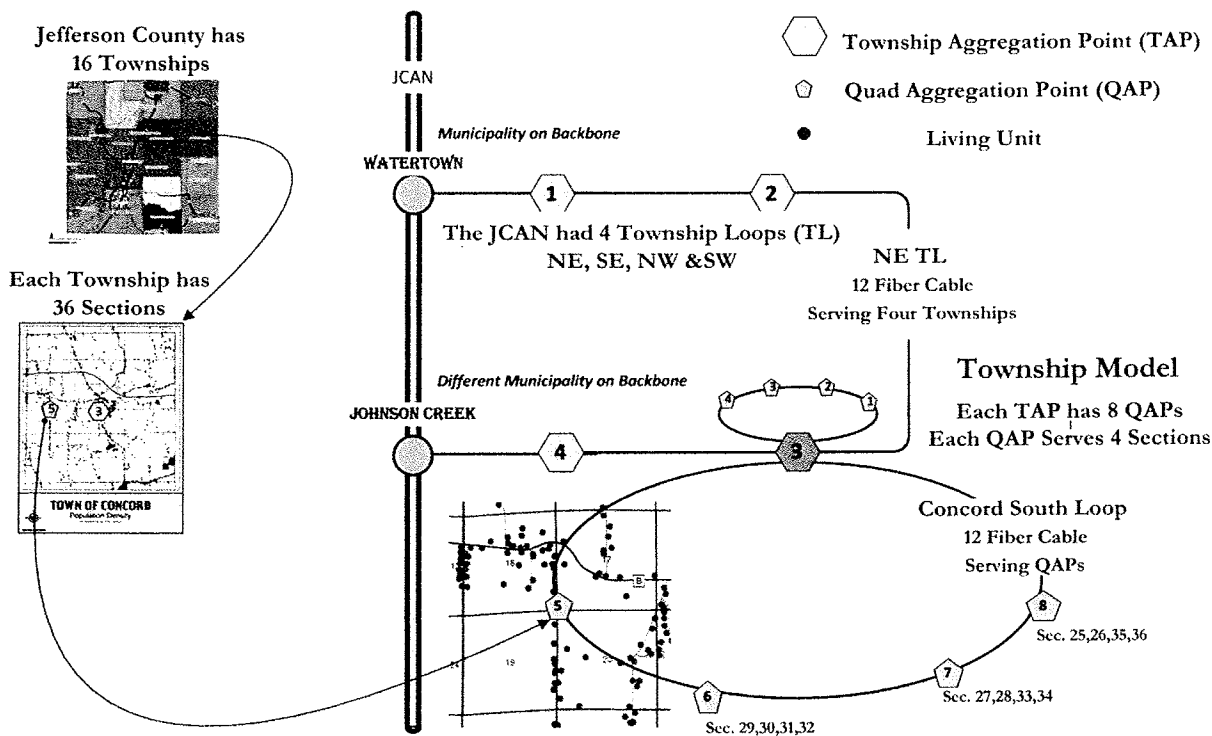Township Loops Not Shown

Romlein 4/7/2013

Jefferson County Area Network (JCAN) - Overview

Each of these 16 townships is made up of thirty six (one mile square) sections arranged in a 6X6 square. By placing an aggregation point at the center of each four section square, the township can be served by nine aggregation points, the Township Aggregation Point (TAP) and eight additional Quad Aggregation Points (QAP).

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Two cables connect the eight aggregation points back to the township aggregation point in an HAFT ring architecture extending this robust architecture to the final connection.

Note that every rural resident in Jefferson County has an aggregation point served by an HAFT network located within one approximately mile!

Jefferson County has
16 Townships

Each Township has
36 Sections

TOWN OF CONCORD
Population Density

JCAN

Municipality on Backbone
WATERTOWN

Different Municipality on Backbone
JOHNSON CREEK

⬡ Township Aggregation Point (TAP)

⬠ Quad Aggregation Point (QAP)

● Living Unit

The JCAN had 4 Township Loops (TL)
NE, SE, NW &SW

NE TL
12 Fiber Cable
Serving Four Townships

Township Model
Each TAP has 8 QAPs
Each QAP Serves 4 Sections

Concord South Loop
12 Fiber Cable
Serving QAPs

Sec. 25,26,35,36

Sec. 27,28,33,34

Sec. 29,30,31,32

Jefferson County Area Network
Definitive Design Model

handout 4/10/2013

By Alex Marshall

Who Controls Fiber?

Private companies think they should be the only player in the broadband market.

Great politicians can explain complex issues quickly and simply. That's what Franklin Delano Roosevelt did on Sept. 21, 1932, when, as a candidate for the presidency, he spoke in Portland, Ore., and addressed a big issue of the time: electrical service and who would provide it—public utilities or private companies.

"My answer has been, as it is tonight, to point out these plain principles," Roosevelt told the crowd. "That where a community—a city or county or a district—is not satisfied with the service rendered or the rates charged by the private utility, it has the

Can cities offer better Internet service and better prices?

undeniable basic right, as one of its functions of government, one of its functions of home rule, to set up ... its own governmentally owned and operated service."

FDR went on to win the presidency and, while losing some battles, he helped bolster the viability of both public and cooperatively owned power companies, which are still serving their communities well today. He also encouraged states to regulate private electrical companies more aggressively.

We are at a similar transition point with fiber-optic networks, the slender glass tubes that transmit the torrents of bits and bytes that power the Internet, cable television and telephone service, as well as a range of other services, including smart energy grids.

It is now clear that fiber networks need to go everywhere; they should be carried into homes and businesses and replace the antiquated copper lines. But who will install these networks and who will control them? This question is key because it will impact decades of economic growth and who will benefit from it.

Hundreds of towns and cities are already laying their own fiber networks, and offering high-speed Internet, cable TV and telephone service at reasonable rates. They are doing this in the teeth of opposition from the private cable giants, such as Comcast, AT&T and Time Warner. These companies are using every means at their disposal, from the courts to the city council to the state legislature, to stop towns and cities.

Most of these places are setting up fiber-optic networks through public or cooperatively owned utilities, which have an easier time of it because they already have bonding authority, relationships with customers and access to the streets. There are about 2,000 cities with public power utilities or "munis," and more than 900 cooperatively owned power companies that collectively serve about 100 million Americans.

Nick Braden, spokesman for the American Public Power Association, says more than 135 of his member public utilities are already offering broadband service. Many also offer cable TV and phone service.

"As was the case when America was electrifying a century ago, many unserved or underserved communities are ready, willing and able to take matters into their own hands, if necessary, to deploy the sophisticated broadband communications networks that will enable their communities and America to continue to be a leader in the global economy," says Braden. "Many have already done so."

What about cities that don't have public power or cooperatives? They can still come up with a strategy to start putting in place their own fiber-optic network. Santa Monica, Calif., has built one such network called the Santa Monica City Net, which provides broadband to businesses in the downtown area.

"Internet access, like electricity, is crucial to the economic and social health of the country," wrote Susan Crawford in an op-ed in *Bloomberg News*. Crawford, a law professor and former special assistant to President Obama, is the author of "Captive Audience: The Telecom Industry and Monopoly Power in the New Gilded Age."

Public fiber networks differ from private ones in that cities are interested in extending great Internet and other services as widely as possible, particularly for economic development reasons and not just maximizing profits and shareholder value.

"When a community owns it, the incentives produce totally different results," says Christopher Mitchell, director of the Telecommunications as Commons Initiative of the Institute for Local Self-Reliance.

But private companies are fighting hard against such efforts, usually losing in court but sometimes winning in state legislatures after heavy lobbying and campaign contributions. In 2007, for example, the Louisiana Supreme Court ruled 7-0 against BellSouth and Cox Communications, the phone and cable television companies that had sued to stop a Lafayette power company from installing a fiber-optic network. But the North Carolina legislature passed a bill in 2011 that essentially prohibited localities, many of which already have public power, from offering Internet service. Eighteen other states reportedly have similar laws.

Given that the evidence shows that cities could offer better service at better prices than private companies, the logic behind these laws makes little sense. "They are the kind of arguments that can only work when accompanied by an army of lobbyists and large campaign contributions," says Mitchell.

For a couple key reasons, many Americans are unaware of these crucial battles taking place. First, people are so used to thinking of government doing things less efficiently that it turns their head around to realize the public sector can do some things better, even supplying physical infrastructure. Second, information is fractured. Although we live in a famously information-saturated time, what's happening in places as disparate as Philadelphia, Lafayette and Chattanooga, Tenn., doesn't travel far. Private companies can operate in a bubble, secure that a population one or two states over won't know what they are doing.

If the politicians falter, they should remember FDR's words. It's clear that fiber networks are a natural monopoly and need to be either run directly by the government, or so heavily regulated that it amounts to the same thing. **G**
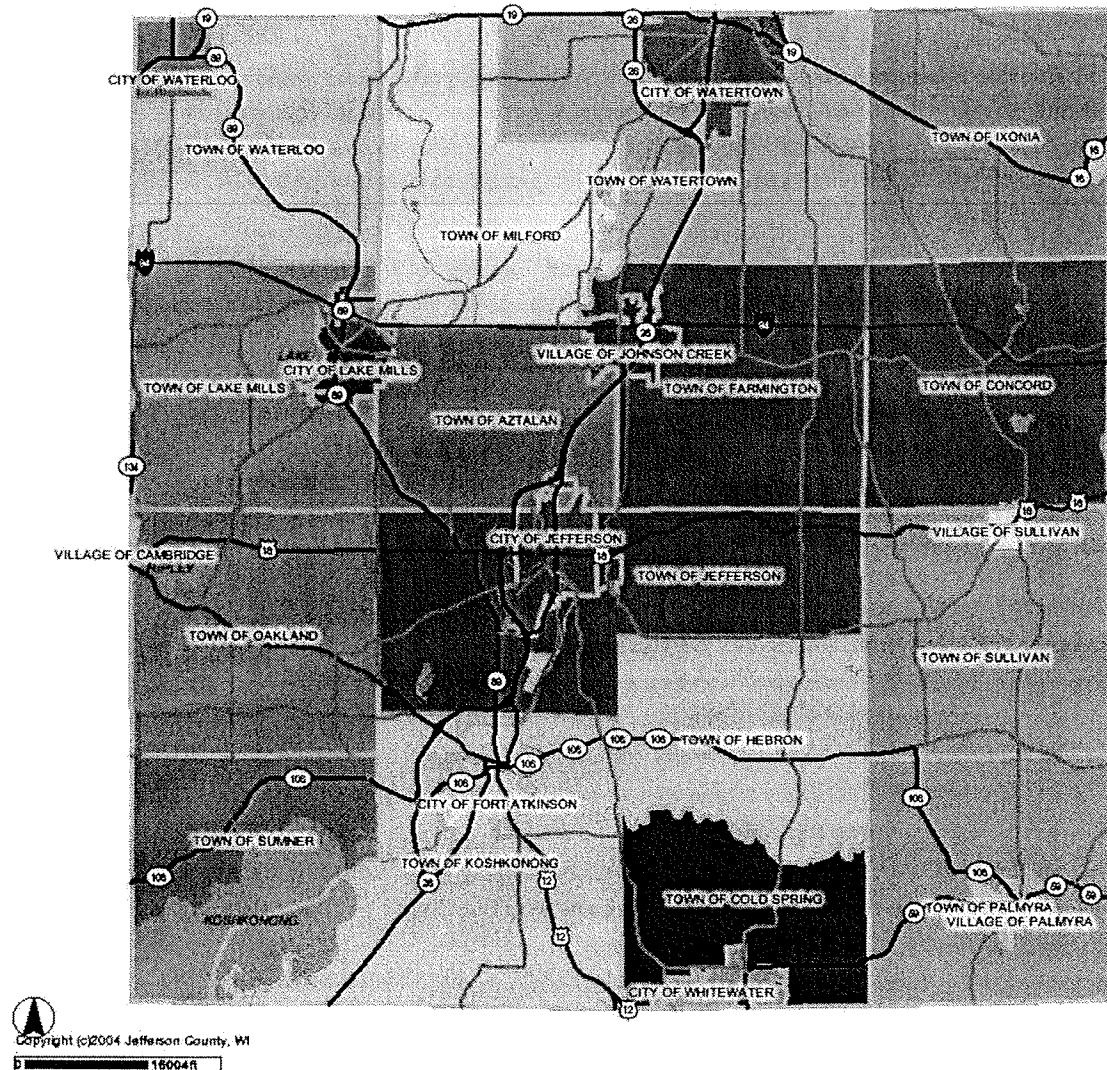
Email alex@rpa.org

Jefferson County Economic Development Consortium

Making Connections ... Giving Directions

Project Proposal

Jefferson County Area Network (JCAN)

Innovation Anywhere / Anytime / Anybody

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16004ft

James W. Romlein Sr. PE
4/10/2013

Executive Summary

Advanced communication infrastructures are an essential part of modern life. Throughout the world countries are investing billions to ensure that they are competitive and that their citizens enjoy the vast improvements brought by mobility and high-speed fiber connectivity. In the United States, and elsewhere, these investments have proven a substantial boon to economic development in virtually every municipality that has implemented fiber-based communications to homes and business – attracting business, increasing median incomes, reducing the drain caused by endless commuting, improving education, improving the tax base, reducing unemployment; the list is long. The road to achieve these results is long and difficult but definitely worth the effort.

At their December 2012 meeting The Jefferson County Economic Development Consortium established an initiative to begin formulating a vision and strategic plan towards a fiber connected, county wide broadband network. Further discussions were held with communication carriers, potential anchor participants in economic sectors, and Other Interested Parties. A network sector model was developed and preliminary estimates were made for possible work elements within the sectors. All of these discussions were directed at three core assessments.

Vision: What vision is being pursued? – not just fiber-to-the-home-and-business, not just today technology, and not just broadband connectivity but a robust integrated environment that meets the performance requirements of global competition and the health requirements of our citizens today in the next generation of web based services – A Value Network. How will this integrated environment drive future City(s) and County goals? What is to be achieved and how?

Resource: What general resources are available? What is the feasibility of FTTH for Jefferson County? Who might be other potential local anchor participants? What elements are necessary for this critical infrastructure to operate in a stand-alone mode?

Commitment: What commitment(s) is required to support the JCEDC in this phased effort?

Finally, the development of this proposal was supported with information from a number of experienced parties (e.g. providers, other cities and counties, other co-development initiatives) and application specific research, some of which has been shared with the JCEDC members. Documents used in the development of this proposal are listed below:

- **National Broadband Plan** *Connecting America*
- **Wisconsin's Playbook for Broadband Progress**
- **Gig. U** *The University Community Next Generation Innovation Project*
  - *Generic Request for Proposal Template for Next Generation Network and Services: Third Party Model*
- **FTTH Council** *Bringing Fiber-to-the-Home Communities Together*
- **FTTH Community Toolkit** *Asset Inventory Worksheet*
- **Broadband at the Speed of Light** *How Three Communities Built Next-Generation Networks*
- **Connecting to Our Future: Portland's Broadband Strategic Plan**
- **Fiber to the Home: A Key Element for Smart Electric Grids**
- **Consolidation of Communications Centers**
- **Legal and Regulatory Framework for Next Generation 911 Services:** *FCC*
- **CSRIC Working Group 4B** *Transition to Next Generation 9-1-1*
- **Feasibility Studies:** *Lookout Point Communications*

- **Toward a Connected Community:** *Lookout Point Communications*
- **FTTH Deployment Assessment:** *CSMG*
- **Development Agreement:** *Google/Kansas City*
- **Community Broadband Development Process:** *Blandin Foundation*

Jefferson County stands in an excellent position to be successful. Here are a few of the unique aspects to this project:

Backbone – Jefferson County has an existing backbone network designed to serve the major municipalities along highway 26 in the county.

Two Division Project – This project has two distinct divisions, Municipal and Rural, that can and should move on different implementation schedules.

> Municipal Division - All the primary municipalities, Watertown, Lake Mills, Johnson Creek, Jefferson, Fort Atkinson, and Whitewater have broadband service from Charter that offers 30 Mbp/s service to residential customers. NetwurX also serves these communities and offers residential wireless service that ranges between 2 and 8 Mbp/s. Whitewater, Lake Mills, and Jefferson have a fiber Point of Presence (POP) and are deploying fiber to their industrial areas. Fort Atkinson will have a POP in 2013 with an initial limited distribution. Fiber distribution projects in a municipality are three to five times more expensive and take longer to build, than those in a rural area.

> Rural Division – The 16 Townships that makeup rural Jefferson County, for the most part, are only served by wireless, satellite and dial-up services.

These two project divisions can and should move on different schedules.

Dig Once - Electric distribution in Jefferson County is provided by We-Energies. This critical network infrastructure includes the Concord Peaking Plant. Fiber to the Home is a critical part of the electrical industry's future Smart Grid technology where real-time data will control the network. The Jefferson County Rural Division is an excellent opportunity for a "Dig Once" partnership and a possible Wisconsin Version of a Smart Grid test bed.

At the meeting with We-Energies on 1 April, representatives expressed interest in the project and provided talking points for developing a close working relationship. The project is being forwarded to executives for further action. *For more information on this see: Romlein Meeting Notes – We-Energies*

Data-Center – Of the sixteen data centers in Wisconsin, the closest is Bella Mia, Inc.,401 Host Drive 53147 Lake Geneva Wisconsin. Profile Details: Tier 2/3 with Tier 1 provider connectivity and cross connect to carrier independence available to Time Warner, SBC, and AT&T. A Data-Center serving Jefferson and Dodge Counties and the immediate surroundings would enhance our profile by reducing the vulnerability window considerably. The vision for this consists of a single central location, preferably in Jefferson County, with satellite units (capable of standalone operation) in each backbone city.

Commitment is the first focus; we have most everything else. Without at least some level of commitment, it will be difficult to proceed. The development of this commitment is the primary task of the Steering Committee that will be established at the 10 April meeting. Our cities have a myriad of responsibilities and, in general, proceed cautiously in new endeavors, as they should. This proposal contains recommendations on how to proceed in building commitment, in reinforcing commitment for an ever larger audience, while ensuring that tasks necessary to successfully build an advanced fiber-based communications network are

efficiently and effectively completed. And importantly, that tasks are done in a manner that allows early exit should something arise that requires the JCEDC to change course.

Three phases are identified in the Statement of Work section. The purpose of listing these major phases is to provide a look at the entire path to achieving FTTP. Individual phases will be segmented with milestones to be established in the first "vision and plan" document. At each milestone a benefit analysis will be provided and thoroughly discussed. Commitment will be sought from all major stakeholders. Stakeholders will increase as the project moves forward, building an ever-larger base of support.

To date the JCEDC, anchor parties in each of the sectors, and other visionaries have been involved as the first "Definitive Design" document was conceived. Next, establish a Steering Committee to provide guidance and funding for the Phase One portion of the project. Next, engage the JCEDC and Interested Parties with workshops, education, costs and benefits. Then add partners, add citizens, add business — at each appropriate stage. At defined milestones more benefit(s), more "how-to(s)," and better knowledge can support a go-no-go decision. Each milestone and phase builds upon itself. Each phase builds commitment.

Initially JCEDC, members of each sector, and the Steering Committee should participate in solidifying a connected County Wide vision and specific implementation plan. This plan will further define subsequent decision milestones, target dates and funding sources through a full County-wide implementation of FTTP. If the decision is to proceed, further refinement to the vision can be made by grounding that vision in organizational and market issues: governance, "must-have" negotiation elements, local service offerings, legal issues, perhaps with additional financial modeling. Next, we should explore bringing in partners by creating a partner specific "Attractiveness Plan" as presented to We-Energies.

Potential Partners need to be sold and an "Attractiveness Plan" identifies benefits to them and their mission critical objectives as they themselves look to their future business models and infrastructure requirements. *The electric and cable industries are poised for change.* The plan will capture refinements to the financial models reflecting monetization models to be offered. This may also be a point to seek grants or other funding support.

Phase One will provide a firm and grounded vision defining what is to be built, what benefits will be achieved, who might be involved including public and/or private partners, with specific costs, financial plans, governance and legal guidelines, marketing and implementation plans to achieve those results.

Phase Two creates the Business Case for the investment community and prepares to seek funding. Critical aspects of this phase include: hardening all aspects of architecture and design; selection of vendors and contractors willing to commit pricing and schedules; detail for legal and governance issues; incorporation of public and private partners; establishment of final Financial Pro-forma; and, selection of an investment banker to solicit funding.

Phase Three is the actual build and initiation of services. By far the most complex phase, its success is a direct result of the quality of work in the previous two phases. Good planning and clear vision are the keys to success.

At the end of the Phase One scope of work you will find a projected time frame and cost proposal. Phase Two and Phase Three estimates will be developed in the Phase One scope of work.

Scope of Work

This proposal envisions a multi-phase effort. It is a proposal that speaks to building a very close working partnership with many interested parties. It is a proposal that is mindful of the keys to success.

The JCEDC is seeking knowledge and information to provide an enabling technology that will position Jefferson County in the advantage by looking over the present technology horizon and identifying the functional elements needed in the next generation systems. It is this forward looking work that will stimulate interest, develop public/private partnerships and deploy a value network where Innovation Anytime/Anywhere/Anybody in Jefferson County is a reality.

We need to identify, understand, and engage the potential partners in each City, Town, Village, and Township in order to build a connected community. Communication networks are about much more than technology. This is one of the Project Director's key tasks.

Get the technology wrong and it's a disaster. Getting technology that you don't want or use is probably worse.

This proposal discusses the three major phases leading to an actual FTTP build. Woven into these phases are work elements that lead to successful results: sound financials, partnership development, marketing the vision, building and funding the delivery and ensuring commitment through close monitoring and information exchanges.

Commitment and Vision – Phase One

The first task is to build a vision. Much work has already been done and presented at the March 13th meeting. This work needs to be completed:

- Establish the scope and functional requirement for each of the six network segments
- Explore with potential partners
- Identify and monetize services
- Document results.

This process can begin immediately upon selection of a JCEDC Steering Committee and the establishment of an agreement. The Project Director will conduct most of the investigations, provide leadership and prepare monthly reports or summations of activities to the JCEDC.

Tasks are grouped by general category, not in order of occurrence. Schedules of activity will be provided following agreement on tasks. Initially, it is anticipated that Phase One would be completed in six months and produce the following deliverables:

Deliverables

- Documented vision for a connected county with measurable targets
- Competitive market analysis
- Proposed service offerings and pricing
- Create an "Attractiveness Plan" for Open Access providers or partners
- Financial pro-forma including capital costs, operating expense, revenue, cash flows, balance sheets, and income statements developed using industry norms (See FTTP Deployment Assessment)
- Outline of governance principals, legal issues, and compliance with Wisconsin 66.0422
- Meetings – Monthly sessions with JCEDC – Council Workshop(s) – Providers, partners, vendors, City, County, or Township staff, and Other Interested Parties as necessary

Tasks

Build a vision

- Conduct further JCEDC, Steering Committee, and Sector Team education on high-level technology and trends
- Document immediate and possible future services e.g. triple-play (voice, television and Internet), high-speed business connectivity, city-wide mobility of all services, certain additional sector specific services such as educational improvements, healthcare, public safety improvements and other goals such as reduced cost for citizens, business or government; innovative environments
- Establish target measures, or directional changes, in each defined vision attribute – define measureable results expected or desired
- Establish the network functional requiems:
- Governance objectives (e.g. local control, ability to effect change, improved and/or local customer service, division of revenues, open access networks)
- Integrate public/private participation objectives with feasibility; monetize and model
- Technical attributes (e.g. the design and services horizon in years; what technical or service properties are required or desired and when could they be delivered, general interface requirements, mobility and capacities)
- Prepare a list of non-negotiable(s) or "must haves" for the network, from providers, for economic development

- If directed: Obtain early legal soundings concerning Wisconsin Statute 66.0422, new PUC rulings, franchise laws, new changes anticipated during 2013/2014

  Note: Associated Legal Fees are not included in the cost proposal and are an extra cost item.

Develop a plan to evaluate the vision

- o Rough out a feasibility plan – financial pro-forma
  - Get some basic equipment quotes: i.e. GPON/Ethernet Access; routers and transport; servers; 4G LTE/WiFi vendors
  - Develop an OSP preliminary design to determine layout, fiber counts, develop options that incorporate assets from partners, develop an estimated materials list and costs and anticipated construction costs
  - Document the local competitive environment: services offered and pricing
  - Interview "new technology" vendors: video OTT space, mobility, application (app) and cloud providers, JCAN Cloud Off-Site candidates
  - Engage with, perhaps visit, successful cities: Portland, Kansas City, etc. This would/could be a team effort – Costs not included in cost proposal
- o Explore and begin developing partnerships
  - Create a rough monetization plan and re-model with rough feasibility pro-forma
  - Re-state the non-negotiable(s) that are required, develop and "attractiveness plan" and prepare for negotiation
  - Determine backhaul potentials; consider pico-cell technology deployment (LTE Advanced), or wide-area WiFi for tablet, smartphone and laptop support
  - Solidify We-Energies participation
  - Solidify WiscNet participation
  - Solidify WIN participation
  - Solidify NetwurX participation
  - Solidify Charter participation
  - Solidify Other Interested Party(s) participation
  - Identify area fiber sources and vendors
  - Identify alternate operating companies or define an operating organization
- o Explore funding arrangements
  - Seek foundation support
  - Determine whether Federal grant programs might assist

- Explore local angel community
  - Define a legal structure that would accomplish the governance goals
  - Create a summary document of findings

Build Governmental Commitments

- Create an educational and information structure for the JCEDC
  - Initiate a work session explaining the concepts, benefits, rough financials being pursued and carefully develop feedback
  - Re-model with feedback as applicable
  - Develop a status update to inform and educate
  - Hold a final session prior to a go/no go decision – present justification, financials, approach/governance, funding methods
- Integrate Key Stake Holders
  - Define current uses on communication networks and their costs
- Define new areas/projects by sector to integrate and their benefit
- Build educational coalitions –
  - Define desirable technology pilots by sector
  - Define current costs and benefits by sector
- Identify early stage marketing efforts and create plans
  (perhaps engage a local marketing company - cost not included in this proposal)

Phase One - Cost Proposal

Working as the Project Director in an Independent Contractor capacity, the anticipated schedule for Phase One is six months; May 2013 through October 2013. Services are payable at monthly fee of $5,000.00. Preapproved Travel costs will be invoiced monthly.

To support this effort, project support to be provided by City of Watertown Engineering Department and Jefferson County Land Information Office.

Phase One will provide a firm and grounded vision defining what is to be built, what benefits will be achieved, who might be involved including public and/or private partners, with specific costs, financial plans, governance and legal guidelines, marketing and implementation plans to achieve those results. This Vision is the baseline for the next step: an executable plan(s) to build a network that promises:

In Jefferson County Innovation Anywhere/Anytime/Anybody

Create Executable Plans — Phase Two

This is a preliminary estimate of the Phase Two effort. It will provide an overview of the entire project plan. Given the fact that this is uncharted territory, many sections may change completely. For that reason, the development of phase two follows sound engineering design guidelines and leaves much of the detail work definition until it can be more clearly defined.

Following Phase One, the JCEDC and the Interested Parties will be ready to move from conceptual understandings to the detailed design. Businesses can have world-class high-availability-fault-tolerant connectivity and affordable high-speed access. Citizens who wish can work from home and children can have the technology and educational access that enables success in the 21st Century. Government can reduce the cost of certain services while leveraging technology toward community benefits.

The primary purposes of this phase are to ensure that technical, marketing and organizational elements are conformant to Phase One goals and objectives, within financial parameters, and compliant with future technological standards. At the end of this phase the JCEDC will have contractual agreements in support of the business case and an executable architecture, with component designs, all supporting the goals and objectives developed in Phase One. In short, the JCEDC will have a Business Case that can support an investment grade prospectus under which funding can be obtained.

Deliverables

- Finalized Service Offerings and phased rollout by geographic component

- Completed network design

- Contractual bidding and selection of all vendors and contractors

- Partnership Agreements, with monetization plans

- Governance Documents

- Marketing Plan

- Investment grade Business Plan with complete Financial Pro-Forma

- Meetings – Monthly sessions with JCEDC – Council Workshop(s) – Providers, partners, vendors, City, County, or Township staff, and Other Interested Parties as necessary

Tasks

Technical Design

- Document design criteria and goals utilizing the outputs from Phase One

- Create and issue RFPs for all equipment and services which may include:
  - Access (fiber termination and mobility)
  - Transport
  - Routing and switching
  - Services
  - ISP functionality (peering, email, servers, etc.)
  - Network Management and backend software
  - Note: Open access (the next generation model being developed) and specific sector initiatives like NG911 will require coordination with CSRIC, IEEE, and other standards bodies. Should active participation in the standard bodies become advisable, these issues will be addressed as a unique task at the direction of the JCEDC.

- Create testing protocols and specifications, included in the RFPs where appropriate

- Create and issue RFP for system integration (two approaches possible)
  - Internal: Establish job descriptions and teams to conduct integration designs/plans
  - External: vendor review, evaluation and recommendations

Outside Plant Design

- Utilizing the Phase One OSP engineering, create detailed design engineering resulting in plans, bills of materials and construction specifications
- Conduct complete field engineering
- Surveys and subsequent GIS mapping identify fiber routes, services drop entry points, fiber transport, feeder, distribution and service drop designs along with fiber strand assignments and splicing documents
- Optimize routing and optimum placement of all network elements and support structure
- Determine exact position and depth of construction running line
- Preparation and submission for all permits and easements
- Create testing protocols and specifications
- Digitizing all of the above information on GIS systems compatible with City and County requirements
- Note: please consider that the final engineering surveys, particularly underground portions, cannot be performed effectively during our snow cover season

Contractual Bidding

- Vendor review and evaluation
  - Equipment and Services: each specific design and integration component will be evaluated for conformance with the specification and conformance to anticipated budget plans
  - Non-Compliant items will not be considered
  - Contractual agreements for content licensing will be estimated
  - Outside Plant bidding documents will be evaluated and assessed
- Present recommendations and assist best-and-final agreements
- Subsequent to decisions from JCEDC, issuance of Letters of Intent conformant to funding instrument requirements
- Finalize Financial Pro-Forma

Marketing Plans

- Create a series of low-cost, informal meetings to bring vision to the community and obtain useful feedback
- Coordinate with JCEDC, City, County, and Township to harmonize efforts and ensure objectives are current and in line with community thoughts and plans
- Create a full marketing plan: interim referenda if applicable; pre-sign up; rollout implementation and customer acquisition

- Execute those portions of the Marketing Plan that occur during this phase
    - Develop customer service approach and structure
    - Focus sector groups for service refinement
    - Marketing survey informed by specifics in service offerings and price

Organization
- Finalize governance documents, create legal entity
- Create a Board or establish a County Department
- Finalize, or at least obtain strong commitments, from all partnerships: services, management, or other offerings
- Finalize options for network operation
    - Internal: define job roles, organizational structure, facilities
    - External: complete negotiations and agreement(s)

The anticipated schedule for Phase Two would be six to nine months; depending most significantly on the extent of Open Access Partnerships pursued. This will probably be scheduled for November through June or July 2015.

Following Phase One and further consultation with the JCEDC the Interested Parties, work elements and costs will be refined. The current projection estimates are based on estimates extracted from reviewed documents and other similar work operations. That said it is our intent to estimate certain costs, such as the Outside Plant Design and large portions of the architectural design detail and possible legal work. For example the largest single work effort generally relates to the OSP survey and design. This estimate along with the other major cost components of architecture, electronics design, RFP creation vendor review and evaluation, legal will be fully developed and presented.

It should be remembered that it is the practice of most FTTP municipal builds studied to include full reimbursement of all of the above costs in the issued Revenue Bonds. Phase one and two then represent temporary and recoverable expenditures. Revenue bonds themselves are secured by the activities of the eventual FTTP build and do not generally have recourse to tax payers.

Phase Two creates the Business Case for the investment community and prepares to seek funding. Critical operations in this phase include: harden all aspects of architecture and design; selection of vendors and contractors willing to commit pricing and schedules; detail for legal and governance issues; incorporation of public and private partners; establishment of final Financial Pro-forma; and, selection of an investment banker to solicit funding.

Bond Issuance and Build Supervision – Phase Three

Much work needs to be done prior to entering this phase. Work and decisions made over the coming year will dictate some of this content. Most significantly, are decisions involving the operating organization: retaining an outside company, a specific carrier, or establishing an independent County monitored organization, and Wis. Statute 66.0422 compliance? Additionally, the election of multiple providers to engage in an Open Access network structure will have complexities. Finally, prior to this activity taking place, an investment banker(s) needs to be retained, prospectus created, funds raised and all of the financial management activities organized and executed.

The generic costs of "doing things" will be contained within the Phase Two and One financial pro-forma. Here is a listing of the basic tasks that will arise. These need to be anticipated in the previous phase and to a lesser degree in Phase One.

The actual construction of the JCAN FTTP network has testing, certification, interoperability, marketing, organization, and roll out activities that need to fully understood early in the program. Testing and certification apply to ensuring that outside plant construction meets the technical requirements for fiber qualities and, for electronics, meets the criteria specified in the RFP(s). Most construction companies expect that certain oversight and testing will be conducted by the Owners Representative. Equipment vendors often help facilitate testing of their equipment. Specific testing equipment needs to be acquired. Proper testing and certification of individual components leads to the next, often complex, phase of testing known as integration or interoperability (e.g. do these elements work seamlessly together?). Lab testing can be performed along with pilot projects to ensure that the system will meet the design objectives. When these tests are executed well, roll out plans can proceed on a more sound footing. Roll out plans relate not only to technical implementations and people management, they need tight coordination with marketing. Proper roll out is critical to achieving measured costs and ensuring revenue targets.

All of this activity will occur at the same time as we build the organization itself. Hence, careful organization and staffing plans in phase two are important. The organization may be housed in a new facility that could also support the off-site storage entity, or other suitable building to be constructed. Customer service and marketing offices may also need a physical building and presence. When selecting and establishing a team, outside assistance can be invaluable. It is important to remember that this county wide effort will have management elements in every municipality.

Ultimately good execution of JCEDC plan is what creates success.

Phase Three is the actual build and initiation of services. By far the most complex phase, its success is a direct result of the quality of work in the previous two phases. Good planning and clear vision are the keys to success.

Telephone Industry
R.I.P. 1876-2008

Brokerage Industry
R.I.P. 1801-1997

Book Industry
R.I.P. 1439-2011

In Jefferson County Innovation Anywhere/Anytime/Anybody

Record Industry
R.I.P. 1889-2003

Travel Planning Industry
R.I.P. 1758-2007

Big Box Retail Industry
R.I.P. 1962-2012