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CONNECTING COMMUNITIES

Community Connectivity Consortium

Strategic Plan

2015 - 2018

Community Connectivity Consortium brief background

The consortium started in 2003 with a joint fiber project between the Lake Washington School District and City of Kirkland. It then expanded to include the University of Washington, Evergreen Hospital and the City of Bellevue, followed quickly by the addition of Bellevue School District, Bellevue College, City of Renton, Renton School District, and City of Seattle. In 2011 the Consortium was formally organized as a government agency. The consortium's primary work so far has been to build out a fiber network on the eastside of Lake Washington to 'ring the lake.' Another current focus is to extend into south King County and 'expand in the valley', with the addition of Auburn and other cities.

We have built many miles of fiber optic cable, creating strategic connection points along the way. Our partners use the fiber network to:

- Connect schools and universities to enhance learning.
- Connect hospitals, medical facilities and clinics to improve health care.
- Connect government facilities for public safety, transportation and other needs.
- Provide a network backbone to serve the public with wireless and broadband access.

Strategic plan

Development methodology
The consortium board developed the plan during the last six months of the 2012/2013 board year (November 2012 to May 2013). The exercise started with an open brainstorming session, followed by a prioritization exercise and breakout team work to create two to three page summaries of each strategic goal.

Presentation
Each goal is presented at a high level with broad estimates for the actual amount of effort required. As goals are approved and started, teams will be expected to further refine estimates as part of their work plans.

Goals are displayed on this plan on a five-year grid.

Linkage to annual work plan

The consortium creates an annual work plan which is approved at the general membership meeting each year. Relevant portions of the strategic plan are included in the work plan.

High level schedule

#	Goal title and short description	2015 1H	2015 2H	2016 1H	2016 2H	2017 1H	2017 2H	2018 1H
1	Complete Ring Around the Lake	▓	▓	▓				
2	Linking PSAP's in King, Snohomish, and Pierce Counties	▓	▓	▓	▓	▓	▓	▓
3	Identify unserved entities	▓	▓					
4	Reach out to other potential stakeholders		▓	▓	▓	▓	▓	▓
5	Enable shared services	▓	▓	▓	▓			
6	Assure coherent regional plans	▓	▓					
7	Assess community readiness	▓	▓	▓				
8	Outreach to other consortiums							

PROJECT NAME: Complete Ring Around the Lake	Project# 1
Business project owner: Consortium Board	**Consortium Project Owner:** Consortium Executive Board

STAKEHOLDERS Consortium members

BUSINESS CASE:

What is the Project? This goal has two elements, fiber expansion of the network and lighting up the network with active electronics providing a carrier class, resilient network around Lake Washington.

The Consortium has been building its fiber network around Lake Washington with the goal of expanding south to the valley cities to connect to Pierce County and north to connect to Snohomish County. The network has segments that have yet to be built and existing sections that do not have sufficient capacity. The purpose of this effort is to complete the envisioned network at the full capacity needed by members.

The Consortium, working with members in a collaborative way, add active electronics, as necessary to provide a functional, high speed, resilient, carrier class network around Lake Washington.s

Objectives:
- Complete the 'ring' and the lake. This involves a UASI 2010 grant project to build the fiber network from Renton to Tukwila and connect to Sabey Corporation. The next phase is to build the network from Sabey to the Westin hotel in Seattle.
- Extend the network south to connect Kent, Auburn, Valley Comm, Puyallup and eventually connect to Pierce County's network (potential UASI 2013 grant).
- Increase capacity around the north side of ring around Lake Washington and connect to Snohomish County.
- Place high speed, resilient, expandable electronics on Consortium and/or member fiber to complete electronic transport around the Lake with access to members.

Benefits of the Project:
- Connects Consortium members with each other to enable high-speed connectivity using assets they own rather than lease.
- Gets Consortium members connected to strategic points, such as Sabey and the Westin, for greater access to services.
- Gives members more access to a variety of internet service providers.
- Foundational piece for other Strategic Plan goals, such as connecting PSAPs, enabling higher bandwidth to support online learning applications, sharing services between partners, and 'smart community' efforts.

Project History/Relationship to Other Projects: Enables other projects to be done.

Other Comments:
Public/private partnerships may be key to accomplishing several of the goals.

Potential Challenges (risks, issues, and concerns surrounding the project): Include all anticipated roadblocks here

Funding to complete the builds. Grant funding is continually pursued but slowly diminishing. If new member funding is needed in 2013/14 it will come via project agreement.

Estimated Project Length: *(Provide estimate duration of the project, if available)*
Total Duration Estimate: at least 3 years

Staff Resources Required:
Executive Board member hours estimate: 100-200 hours per year
Consultant hours estimate: 500 hours per year

One-time Cost:	Ongoing Cost to the Consortium:
Ring $100K South $100K North $300K	Maintenance and replacement costs of expanded network (<$10K per year)

PROJECT NAME: Linking PSAPs in King, Snohomish & Pierce Counties	Project# 2
Business project owner: Consortium Board	**Consortium Project Owner:** Project Team

STAKEHOLDERS
King County PSAPs: Valley Comm, NORCOM, King County SO, Seattle PD, Seattle FD, WSP, Port of Seattle PD/FD, Univ of Wash PD, Bothell PD, Issaquah PD, Redmond PD, Enumclaw PD, EOCs
Snohomish PSAPs: SnoCom, SnoPac, WSP Everett, EOCs
Pierce PSAPs: South Sound 911, Puyallup PD, WSP Tacoma, EOCs

BUSINESS CASE:

What is the Project?   Within King, Snohomish and Pierce counties there are at least 18 9-1-1 Centers, or Public Safety Answering Points (PSAPs), and dozens of EOCs that do not have any more connectivity with each other than a telephone line. The public expects seamless communication in the Public Safety field and that is not the reality today. Linking these critical facilities with robust, dedicated and secure communication pathways for voice and data is essential in local and regional emergencies in order to share information quickly and reliably. A regional 800 MHz radio (PSERN) is in development in King County providing an opportune time to plan for backhaul and infrastructure efficiencies.

Objectives:
- Have ability to share voice and data communication in the PSAP and EOC community.
- Meet public expectation of a unified 9-1-1 community.
- Efficient, reliable, cost-effective and secure communications network.
- Contributes to strategic goal of fiber build out.

Benefits of the Project:
- Data sharing opportunities amongst PSAPs and/or EOCs. Creates eventual ability to connect disparate Computer Aided Dispatch (CAD) systems to share incident data and messaging.
- Provide pathway for "hot backup" for PSAPs.
- Preparedness for Next Generation (NG) 9-1-1 components which include texting to 9-1-1, and receipt of pictures and video from public. Once the data is received it must be communicated to first responders in the field or to the RMS at each agency which would be the responsibility of the individual PSAP/jurisdiction.

- First step in connecting other anchor institutions in three county regions such as hospitals, education, city halls, fire stations, etc.

Project History/Relationship to Other Projects:
- PSERN (King County Radio replacement project) is in the early planning phase. Locations of sites, among other key infrastructure decisions, are yet to be made. The current timeline shows a cutover in 2018. The technical design should include input from this project in order to leverage cost and benefit. PSERN will provide microwave connectivity between PSAPs but this capacity may not meet all the needs of PSAP connectivity.
- King County PSAP Consolidation Study is underway and the recommendation from the consultant is to have 6 PSAPs instead of 12. At least two of the PSAPs would need new facilities at yet to be identified locations. For planning purposes, the PSERN project is assuming the existing 12 PSAPs will remain active as it is not determined if the recommendation will be implemented.

Other Comments:
This project is related to our stated goals for the UASI grants.

Potential Challenges (risks, issues, and concerns surrounding the project):
- Competing interests limiting resources and funding.
- Timing and schedule of determining location and construction of South Sound 911 building.
- PSERN project dependent upon funding measure passing in November 2014.
- The number of EOCs is high and may need to be limited.
- PSAP Consolidation study introduces uncertainty in the planning phase as the number of PSAPs and/or technical consolidations is yet unknown.

Estimated Project Length: Due to the number of agencies involved and the complexities of related projects (PSERN and PSAP Consolidation) this will likely be a 3 to 5 year effort. Developing strategies that are consistent with agency goals, state and federal communications mandates and funding cycles will help determine project length.

Staff Resources Required:
Executive Board member hours estimate: 60-120
Technical team project hours estimate: 60
Consultant hours estimate: 100

One-time Cost: Consultant Costs: $18,500	Ongoing Cost to the Consortium: None

PROJECT NAME: Identify Underserved Entities	Project# 3
Business project owner: Consortium Board	**Consortium Project Owner:** Consortium Executive Board
STAKEHOLDERS School districts, higher ed and Community members	

BUSINESS CASE:

What is the Project?
Explore the access to infrastructure throughout our region. Taken into account affordability and identify underserved entities. Develop a plan to address needs.

Objectives:
- Identify underserved entities using the definition of "like-entities" (e.g. municipalities, public education institutions, public health organizations, non-profit social service agencies) needing transport for data, voice, video or other network based connectivity.
- Identify needed and available resources for those identified underserved entities.
- Map the regions available broadband access and cost.
- Map the regions publicly available wireless access.
- Identify mutually beneficial (underserved entities and the Consortium) goals that can benefit from Consortium fiber/connectivity.
- Research grants available to improve access and affordability.
- Work with underserved entities to implement consortium membership and/or relationship for the purpose of implementation of identified goals.
- Develop a phased approach to providing broader and more affordable access.

Benefits of the Project:
- Access to wireless/broadband has become mandatory for students and teachers in all levels of instruction. This project should address the gaps.
- Strengthen the infrastructure and access for public entities.
- Expanded consortium member benefit through the implementation of mutually beneficial goals.
- Expansion of community access to public services
- Increased potential to secure grants due to greater ROI and impact of potential grant monies.

Project History/Relationship to Other Projects:
- n/a

Potential Challenges (risks, issues, and concerns surrounding the project): Include all anticipated roadblocks here: The greatest challenge will be funding and exploring the ability to provide public open wireless access.	
Estimated Project Length: Total Duration Estimate: 12 to 36 months	
Staff Resources Required: Executive Board member hours estimate: 10- 30 Technical team project hours estimate: 100 - 150 Consultant hours estimate: 50-100 Network engineering hours: 20-30 Grant writer hours: 80 to 160	
One-time Cost: Hardware: $200,000 Software: 30,000 Prof. Svcs: 90,000 **Total:..........$310,000**	**Ongoing Cost to the Consortium:** n/a **Ongoing hours estimate:** IT: 160 Non-IT: 100

PROJECT NAME: Regional Outreach	**Project# 4**
Business project owner: Consortium Board	**Consortium Project Owner:** Regional Outreach Team

STAKEHOLDERS
All Consortium members
All King County governmental entities (list needs to be developed, but examples are PSAPS, EOC's, regional jails, cities, school districts and other not-for-profit education providers, health care agencies and providers, utility districts and other special districts)

BUSINESS CASE:
What is the Project? Appoint a subcommittee of the Board to create a list of local potential stakeholders. Identify and refine key messages, plan and execute outreach.

Objectives:
- New members.
- New partners.
- A better understanding of possible needs in the community.

Benefits of the Project:
- Gaining new members may make pathway easier to obtain.
- May find synergies with other organizations.
- Learning more from potential partners or users may help us make better use of the fiber resources we own.

Project History/Relationship to Other Projects: No history. This project is somewhat related to the Outreach to Other Consortiums Project and may be able to share some of the same outreach tool development.

Potential Challenges (risks, issues, and concerns surrounding the project):
- Staffing and time allocations could impact us
- Getting a clear message that all members agree to may take some work

Estimated Project Length: *(Provide estimate duration of the project, if available)*:
Total Duration Estimate: 18 months
- 6 months to refine message, produce materials, and have them approved by the Board.
- The process of initial outreach and follow-up could take up to another year.

Staff Resources Required:

- Executive Board member hours estimate: 60-120 - Technical team project hours estimate: 10 - Consultant hours estimate: 40 - May need some in-kind contribution of graphics services or may need some funding to hire graphics service for development of outreach materials.	
One-time Cost: Cost estimate of one-time costs: Professional services: $7,400	**Ongoing Cost to the Consortium:** Cost estimate of ongoing costs: None

PROJECT NAME: Enable Shared Services	Project# 5
Business project owner: Consortium Board	**Consortium Project Owner:** Consortium Executive Board

STAKEHOLDERS Consortium members
BUSINESS CASE: **What is the Project?** As high-speed, reliable connectivity happens between partner institutions, discussions around shared services can occur. These shared services might include data center hosting, help desk services, GIS, network support, etc. Sharing services can potentially be cost effective. Consortium members could provide services to each other or combine efforts with other members to procure a private sector service provider.   **Objectives:**   - Consortium members providing services - begin discussions on what services each member provides their organization and which they would be interested in acquiring from other providers. While IT services can be the starting point of discussion, it doesn't have to be limited to IT. Provide input as members define their potential service offering, including service descriptions, service levels, costs, etc.   - Joint services procurement – pursue joint purchasing opportunities for shared service providers (e.g., network services for all members from one provider).   **Benefits of the Project:**   - Enables cost sharing and partnership.   **Project History/Relationship to Other Projects:**   **Other Comments:**
Potential Challenges (risks, issues, and concerns surrounding the project): Include all anticipated roadblocks here   Relies on partners' willingness to offer service and others to buy that service.
Estimated Project Length: *(Provide estimate duration of the project, if available)*   Total Duration Estimate: approx. 3 years.
Staff Resources Required:

- Executive Board member hours estimate: <100 hours per year.
- Partner hours estimate: Depends on type of service offering being pursued.

One-time Cost:	Ongoing Cost to the Consortium:
N/A – cost borne by partners	N/A – cost borne by partners

PROJECT NAME: Assure Coherent Regional Plans	Project# 6
Business project owner: Consortium Board	**Consortium Project Owner:** All Consortium Members

STAKEHOLDERS
Consortium members, regional users, grant requestors, taxpayers

BUSINESS CASE:
This project formalizes the efforts that have been initiated by the Consortium to coordinate with other fiber owners, including consortium fiber owners, to understand, map, document, and leverage all the fiber assets that exist in the region.

Objectives:
- Complete the consortium's fiber mapping/documentation project.
- Identify problem areas, e.g. gaps in fiber runs, unnecessary duplication, etc.
- Develop additional policies and procedures, if necessary, for usage of existing and future fiber resources among stakeholders.
- Develop a plan for fixing problem areas.
- Identify critical regional entities and others who need to be connected and develop a plan for effecting connectivity.

Benefits:
- Creates a resource of collective value to the consortium and the region.
- Leverages the past investments of the consortium and of other fiber owners.
- Avoids duplication of effort and wastage of scarce resources.
- Strengthens the consortium's ability to compete for grant funds by demonstrating regional coherence.
- Increases our ability to deliver fiber and service to entities in the most effective manner possible.

Project History/Relationship to Other Projects:
- This project builds on recent consortium efforts at regional fiber mapping.
- This project relates to other connectivity (King County iNet, IGN, etc.).
- The data collected via this project can feed future UASI and other grant requests.

**Potential Challenges (risks, issues, and concerns surrounding the project):
Include all anticipated roadblocks here**
- Availability of members' time; diversity of resource tracking mechanisms of consortium members; limited resources

Estimated Project Length:
• At least 2 years

Staff Resources Required:
• Executive Board member hours estimate: 100   • Technical team project hours estimate: 200-300   • Consultant hours estimate: 50

One-time Cost:	**Ongoing Cost to the Consortium:**
Cost Estimate of one-time costs: $5,000 miscellaneous expenses	Cost Estimate of ongoing costs: $1,000/year

PROJECT NAME: Regional Smartness	Project# 7
Business project owner: Consortium Board	**Consortium Project Owner:** Consortium Executive Board

STAKEHOLDERS Consortium members

BUSINESS CASE:

What is the Project? The overall outcome we are aiming for is an economically competitive region with modern, interconnected infrastructure. To do that we need to assess our community and regional "smartness" with a focus on core systems and infrastructure including:

- Transportation – ability to support new capabilities of intelligent transportation, connected vehicles, smart mobility.
- Energy – facilitate advances in smart grid, EV charging infrastructure, energy conservation.
- Connectivity – increase broadband connectivity options for anchor institutions and citizens, with additional focus on enabling machine-to-machine connectivity and smart sensors needed to manage our infrastructure.

Objectives:
- Outline what makes a smart community and define objectives that the Consortium can use for future planning and decision making
- Do an analysis/roadmap of how existing projects help reach our objectives and help identify potential collaboration ideas.
- Reach out to other private and public institutions/groups that could be key partners to achieving objectives.

Benefits of the Project:
- Clarifies common long-range objectives for the Consortium members in regards to key infrastructure.
- Begins to shape future projects and partners that will be needed.
- Lays groundwork for long-term infrastructure investments and increases innovation

Project History/Relationship to Other Projects:
- Helps in decision making for future projects

Other Comments:
- May need consultant

Potential Challenges (risks, issues, and concerns surrounding the project): Include all anticipated roadblocks here

- Funding to complete the builds. Grant funding is continually pursued but slowly diminishing.

Estimated Project Length: *(Provide estimate duration of the project, if available)*

- Total duration estimate: at least 2 years

Staff Resources Required:

- Executive Board member hours estimate: 100 hours per year
- Consultant - TBD

One-time Cost:	Ongoing Cost to the Consortium:
TBD	TBD

PROJECT NAME: **Outreach to Other Broadband Consortiums**	Project# 8
Business project owner: Consortium Board	**Consortium Project Owner:** Consortium Executive Board

STAKEHOLDERS Consortium members

BUSINESS CASE:

What is the Project? There are many other regional community-based fiber consortiums around the United States. This is a first cut at identifying them and understanding how they do business and exploring possible synergies.

Objectives:
- Develop a list of reasonably similar agencies. Talk to some of them, and produce a report for the membership by the next May meeting that includes the survey level information, the results of conversations, and includes a recommendation for next steps, should any be clear.
- Introduce ourselves to these agencies and get on the appropriate mailing lists etc. to learn about lessons learned, about possible grant requests, and about other funding strategies.

Benefits of the Project:
- Strategic relationships may yield future grant partners
- There may be opportunities to learn from other similar organizations so that we avoid repeating mistakes they have already made and learn about approaches that we might find successful.

Project History/Relationship to Other Projects:
- No history at this point. A clearer relationship to other projects may exist after the initial objectives are met.

Other Comments:
Such a report may have already been created by other interested organizations (such as NATOA – the National Association of Telecommunications Officers and Advisors).
Note that this research might be something which could be hired out or which an intern could assist with, but there has been no budget set aside to allow for this.

Potential Challenges (risks, issues, and concerns surrounding the project): Include all anticipated roadblocks here
- The greatest risk on this project is finding the time to get it done.

Estimated Project Length: *(Provide estimate duration of the project, if available)*
- Total duration estimate: 9 months

Staff Resources Required:	
• Executive Board member hours estimate: 80-120 • Consultant hours estimate: 15	
One-time Cost: $2,775	**Ongoing Cost to the Consortium:** None