Commonwealth Office of Broadband Outreach and Development
Promoting a 21st century economy

IPA Workshop -- Meeting Summary & Outcomes

Central Region- October 24, 2012

This document provides an overview of the issues discussed during a broadband planning workshop held in the Central Region of Kentucky, comprising the three Area Development Districts of Lincoln Trail, Lake Cumberland and Barren River. The document concludes with a "Outcomes" summary that identifies the goals and objectives agreed to by the end of the workshop. This documents draws on notes taken by KCADD, Baker and SNG staff.

Brian Kiser convened the meetings and introduced the project team members and working group members before asking attendees to introduce themselves around the room. Kiser provided a brief history of the inception of the Commonwealth Office of Broadband Outreach & Development, including its mission statement, goals, and current involvement in presenting to legislative bodies.

Kiser explained that the purpose of the planning process is to identify and engage stakeholders, identify the priorities of the region, and engage Internet services providers. At this juncture, the planning process turned to the ADDs and regional stakeholders to allow them to determine what goals and objectives for the region.

Darryl McGaha presented the Central Region Working Group's Scope of Work (SOW) document. McGaha explained that when the OBOD asked the ADDs to write the SOW, they were asked to choose a project area based upon an area where there was a measurable broadband need that could be addressed with the involvement of committed stakeholders. Based upon the survey data, all three ADDs in the area had an opportunity to tap into teleworking initiatives to assist their communities. The Central Region Working Group, working with Kentucky Teleworks, began to identify that there are training needs for increased digital literacy and availability needs for teleworkers who need a reliable broadband connection. At this point, the Working Group has enlisted the help of the stakeholders present to assist in designing an initiative that addresses both needs.

Bill Bates then provided some information relating to the project goals, including regional availability, changes in provider participation over the past two years, and data on users, usage, and uses.

Derek Murphy then presented information relating to the regional survey data from March 2012. Murphy then informed the group that the goals for the day's workshop would be creating a vision statement, goals, strategies for achieving those goals, action items, and other strategies for implementing the action plan.

Various stakeholders noted that Internet availability and reliability are priorities for the region. Josh Ball from Kentucky Teleworks spoke on their experience with current teleworkers across the state. Ball agreed that availability has been an issue for some teleworkers, particularly in terms of reliability. Ball said unreliable connections jeopardize teleworkers' jobs. As a temporary solution in eastern Kentucky, Ball said his agency is opening co-workspaces for low-cost rent to teleworkers who need access to a place to telework with a reliable connection if they cannot get that connection in the home. In his experience, satellite is unacceptable for teleworking. The minimum needed is 5 Mbps or faster download speed. Ball also identified that there is a need for training on best practices for teleworking to assist regular office workers transition to becoming effective teleworkers.

The plenary session identified two main objectives for this planning process:

1. Create access to reliable broadband connections in currently unserved and underserved rural areas, especially for teleworkers / potential teleworkers;
2. Work with stakeholders to address digital literacy gaps and opportunities related to telework;

The session then convened for lunch and reconvened at 1 p.m., breaking into two groups to address the two identified issues: Availability of broadband in rural areas, especially for teleworkers; and, promotion of telework and related digital literacy initiatives to prepare a strong digital workforce capable of taking advantage of telework opportunities.

Telework and Digital Literacy Group

The group articulated the following objectives

1. Maximize employment/income opportunities.
2. Take advantage of skills within region.
3. Bring income back to counties – Working at home will keep folks in rural communities.

The group was very supportive of bringing Kentucky Teleworks to the region. With this as an agreed objective, the group discussed how to maximize opportunities for opportunities for telework. The following suggestions were discussed and received support from participants:

a. Targeted training in digital literacy, as well as skills related to teleworking. One possibility is a certification program endorsed by Kentucky Teleworks and delivered by regional post-secondary training organizations.

b. Changing the regional business culture in support of both part-time and full-time teleworking is key to attracting and retaining skilled employees. There was support for an education and outreach targeted at existing businesses focusing on the benefits and best practices of telework.

c. There was support for the suggestion that rural connectivity and workforce training initiatives should include entrepreneurship and best practices for home-based businesses.

d. One specific suggestion was identification of possible co-work space facilities in the areas most likely to face Internet service issues related to either reliability or availability.

e. Teleworking consists not only of "employment" opportunities, but also contract work by independent entrepreneurs. oDesk is as an example of this type of telecommuting opportunity.

Availability Group

Participation in the breakout session included Internet Service Providers, ADD business contacts and Stakeholder/citizens. Those who participated had interest in broadband access and availability for the focus area, to gain a better understanding of the business of broadband: how the Providers operate their business, the limitations of technology types, and criteria for residential, teleworking and business services and how decisions are made.

Criteria and attributes for considering service or new service expansion:

- Broadband subscriber **density** in area -- *Institutional, *CAI's, *Residential, *Business, *Gov.
- Geography / Topology
- *Middle-mile Info, *Head-end/Hub Location Points
- Providers presently operating in the area
- Specific business locations: *Commercial(Larger), *Teleworker, *Small Business, *At-Home Business
- Network considerations for Providers / Criteria for Households(H) & Business(B):
    - Capacity / Speed / Latency / Symmetric Service
    - Service Redundancy (B) / Service Quality
    - Entry Cost (For HH's and the ROI for Teleworkers)
    - Demand for "Enterprise Class" Service (B)
- Technology options in the area
    - Cost/timing of fiber network expansion (a limiting factor)
    - Fixed-Wireless may likely provide a faster way to bring service in underserved areas
- Understanding the "partnership potential" of an area
- Land ownership, parcel boundary, business zoning or districts, ROW access -- location data/information
- Public / Private Structures
    - Pole access -- *Pole owner, *Pole Type, *Attachment capacity, *Cost, *Permitting/Licensing process, *Speed-of-attachment (bureaucracy)
    - "Vertical Assets" – Existing towers or buildings where wireless or fixed-wireless equipment may be deployed to reach new customers; Including private-sector tower assets in the region --*Co-location towers expensive,*Interference with cell antenna
- Fostering a competitive environment can bring down user costs and encourage continued investment in upgrading broadband infrastructure
- Costs of customer acquisition – equipment, maintenance, installation

- Government rules/requirements/regulations/constraints –
    - Muni/County/Regional: Established department(s)? Points-of-Contact?
    - Business "guidelines" or processes: documented? in place?
    - RFI / RFP: Value-based? Cost-based? Criteria defined? Is the decision/evaluation process defined, open and fair (People/Committee/Processes)?

Outcomes

This section reflect areas of agreement on goals and objectives going forward. Given the structure of the planning workshop many of the objectives are general or preliminary in nature. The planning process will be responsible for taking these Outcome Statements and turning them into a Broadband Plan for the region. The planning process will consist of teleconference calls of the Central Region Working Group and production of a draft Broadband Plan by the Baker / SNG team. The resulting draft Broadband Plan for the Central Region will be presented to a stakeholder workshop in February or March for discussion, amendment and adoption. The draft plan will begin to develop an implementation plan that includes specific tasks, timelines and responsibilities. To the extent that these areas are not addressed in the draft plan, they will be addressed at the stakeholder workshop.

Teleworking

I. Bring Kentucky Teleworks to the Region. The ADDS are already working on this issue and will provide leadership on this specific objective.
II. Consult with Kentucky teleworks to define with connectivity and skills required by teleworkers.
III. Use existing structures (committees) tasked with workforce development to explore and develop specific workforce counseling, training and promotion initiatives related to teleworking and entrepreneurship.
IV. Explore the possibility of developing co-work facilities, especially in rural areas with poor connectivity.

Broadband Availability

V. Developing more, detailed, and targeted information is a recommended strategy for defining business strategies for broadband access and availability, while also engaging Providers in identifying and developing solutions. A specific objective for local governments and stakeholders is to define and develop a "kit" of information with resources specific to broadband, with defined technical service levels and requirements to make it easier for Providers to understand the business needs.
VI. Complementary efforts to these regional efforts should include:
    - Demand Aggregation
    - Business Surveys
    - CAI identification & inventory,
    - WiFi Hot-Spot strategies

VII. Connected to the above, define leadership and owners to build capacity for sustaining ongoing efforts over time.

The resulting Central Region Broadband Plan will also identify potential funding sources for implementation once the OBOD gives final approval.

The Central Region Outcomes document was prepared by Michael Baker Jr. Inc. in partnership with Strategic Networks Group.

IPA Workshop -- Meeting Summary & Outcomes

East Region- November 1st, 2012

This document provides an overview of the issues discussed during a broadband planning workshop held in the East Region of Kentucky, focusing primarily on the Kentucky River Area Development District. The document concludes with a "Outcomes" summary that identifies the goals and objectives agreed to by the end of the workshop. This documents draws on notes taken by KCADD, Baker and SNG staff.

Brian Kiser convened the meetings and introduced the project team members and working group members before asking attendees to introduce themselves around the room. Kiser provided a brief history of the inception of the Commonwealth Office of Broadband Outreach & Development, including its mission statement, goals, and current involvement in presenting to legislative bodies.

Kiser explained that the purpose of the planning process is to identify and engage stakeholders, identify the priorities of the region, and engage Internet services providers. He also summarized the challenges Kentucky faces in Broadband adoption and utilization. Having Broadband available to homes and businesses does not ensure it is being used effectively to improve the way people live and businesses work. At this juncture, the planning process turned to the ADDs and regional stakeholders to allow them to determine what goals and objectives for the region.

Mike Miller then presented the East Region Working Group's Scope of Work (SOW) document. Miller explained that in looking at the data for the area, it became clear that there was a great opportunity to address utilization among local governments. The group determined that by driving e-solutions in the governments, they will not only be catering to the younger population (which the region is losing, according to Baker's data), but they will also be increasing education to their communities on the benefits of broadband. There is a hope that this will drive demand and therefore availability that could result in reversal of the population loss in the areas. Some examples of e-processes that are not currently available include payment of water/utility bills, car taxes, applications for permits, etc.

Bill Bates then provided technology and trending information relating to regional broadband availability, project goals, changes in provider participation over the past two years, and data on users, usage, and uses.

Derek Murphy then presented information relating to the regional survey data from March 2012. Murphy then informed the group that the goals for the day's workshop would be creating a vision, goals, strategies for achieving those goals, action items, and other strategies for implementing the action plan.

Plenary discussions then began to define what local e-government services are currently available and what it would cost to administer training and software for those services. The group determined that a local government portal of some sort would be ideal. Other discussion included:

- An incentive must be identified for seniors if they are going to access online local government services.
- The area could be made more attractive to younger populations through solving Internet access problems.
- Public access is an issue for those who cannot get or cannot afford broadband in the home.
- Hot spots in downtown areas are a popular solution to public access problems and could be paired with the project in terms of a bank of computers at the local courthouses where the splash page took them to the e-services portal.

The plenary session identified two main objectives for this planning process:

1. Create access to reliable broadband connections in currently unserved and underserved rural areas by focusing on provider-centered partnership for potential build-out;
2. Work with local government entities in the Kentucky River Area Development District to develop an action plan for expanding local government online services in a manner that supports broader community adoption of the Internet.

The group broke for lunch and reconvened at 1 p.m., splitting into two breakout groups—one to address availability needs and one to address local e-government services.

Local e-Government Group

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Key discussions points included:

- 1/3 of counties provide Cable TV; 10% of counties provide gas/electric
- All counties are taking care of property, franchise, occupational taxes
- The end goal is online bill pay, access to records and court docs online.
- The ADD(s) could serve as a clearinghouse/portal for this.
- Any system addressed must make it easy for users, particularly in terms of eliminating multiple usernames and passwords.
- Some municipalities (e.g. Pikeville) already have on-line service applications utilizing an e-Gov cloud based service.
- The State Kentucky.Gov resources could probably be used to setup and operate local government website(s). Application development and implementation is typically free – Small transaction fee after implementation. Kentucky.Gov websites can be branded as preferred with County/Municipality look and feel.

The following objectives were identified:

- Inclusion of all Count Courthouses, Water/Sewer Districts, Sheriff's Offices and Court Clerks Offices in Kentucky River ADD.
- Development of an online system for provision of on-line bill payment, court documents, and other local government services to residents. This could consist of one web site or a number of coordinated and linked web sites.
- The approach is evolutionary, in that the process could start with some easier, less expensive or better defined services and evolve into something more ambitious.
- Part of the longer vision is possible development of a portal to a broader range of regional information and Internet sites and services.

The workshop identified the following as actions that should be carried out as part of this initiative:

1. Assess available online platforms for online payments and other local government services;
2. Establish key characteristics, design parameters and options for site(s)
3. Meet with utility providers to determine interest, requirements;
4. Meet with city councils, commissioners, courthouse officials; and
5. Put the program in place and determine interest of the CVADD and BSADD in participating or building on the lessons of the KRADD initiative.

Availability Group

Participation in the breakout session included Internet Service Providers, ADD business contacts and Stakeholder/citizens. Those who participated had interest in broadband access and availability for the focus area, to gain a better understanding of the business of broadband: how the Providers operate their business, the limitations of technology types, and criteria for household and business services and how decisions are made.

Valuable Criteria and Attributes for Providers Considering the Addition of New Service Expansion:

- Population information at the county and local level, including potential broadband subscriber **density** in area -- Institutional, CAI's, Residential, Business, Gov.
- Geography / Topology
- *Middle-mile Info, Head-end/Hub Location Points
- Providers presently operating in the area
- Network considerations for Providers / Criteria for Households(H) & Business(B):
    - Capacity / Speed / Latency / Symmetric Service
    - Service Redundancy (B) / Service Quality
    - Entry Cost (For HH's and the ROI for Teleworkers)
    - Demand for "Enterprise Class" Service (B)
- Technology options in the area
    - Cost/timing of fiber network expansion (a limiting factor)
    - Fixed-Wireless may likely provide a faster way to bring service in underserved areas
- Land ownership, parcel boundary, business zoning or districts, ROW access -- location

- Public / Private Structures
    - Public/Muni towers or water tanks -- Does muni-owned infrastructure have specific business and contract terms? Document business processes and contract terms.
    - Pole access -- Pole owner, Pole Type, Attachment capacity, Cost, Permitting/Licensing process, Speed-of-attachment (bureaucracy)
    - Private-sector tower assets in the region
- Fostering a competitive environment can bring down user costs and encourage continued investment in upgrading broadband infrastructure
- Costs of customer acquisition – equipment, maintenance, installation
- Government rules/requirements/reg's/constraints –
    - Thinking more in a broadband-centric way…
    - Muni/County/Regional: Established department(s)? Points-of-Contact?
    - Business "guidelines" or processes: documented? in place?
    - RFI / RFP: Value-based? Cost-based? Criteria defined? Is the decision/evaluation process defined, open and fair (People/Committee/Processes)?
- Pole access -- Pole owner, Pole Type, Attachment capacity, Cost, Permitting/Licensing process, Speed-of-attachment (bureaucracy)
- Understanding the "partnership potential" of an area – Facilitating the partnering between local governments, institutions or Providers:
    - Connecting big Providers w/middle-mile to smaller providers to reach rural HH
    - Connecting one Provider w/technology to another Provider to extend service areas
    - Building off one Provider's connection to a State Park/Gov. Facility to reach a local community nearby with eager residential and Small Business customers
    - Leveraging access to government funding sources by ADD to incentivize local Provider build-out (Grants, FedGov Loan Guarantees, State or Regional $$$, Private Equity)
    - Acting as an "honest broker" or "matchmaker" between owners of "pipeline" and "access"
    - Identifying key businesses as "anchor" points as leverage points for surround HH availability
    - Brokering relationships between wireline and fixed-wireless providers for backhaul capacity and to reach unserved/under-served customer areas

Outcomes

This section reflects areas of agreement on goals and objectives going forward. Given the structure of the planning workshop many of the objectives are general or preliminary in nature. The planning process will be responsible for taking these Outcome Statements and turning them into a Broadband Plan for the region. The planning process will consist of teleconference calls of the East Region Working Group and production of a draft Broadband Plan by the Baker / SNG team. The resulting draft Broadband Plan for the East Region will be presented to a stakeholder workshop in February or March for discussion, amendment and adoption. The draft plan will begin to address the implementation of the

final plan, and include specific tasks, timelines and responsibilities If any area is not completely addressed in the draft plan, they will be finalized at the stakeholder workshop.

Local e-Government Group

KRADD will convene two groups to initiate the planning process:

I. The first group will examine paying for local government services online. Tasks include organizing and leading a meeting of utilities, collection of relevant data, identification of possible options. This will be followed by a meeting with local government officials to inform them and determine willingness to participate in a shared or coordinated online local e-government service.

II. A second group will be convened by KRADD to identify a possible larger role for online e-government. This group will consider: developing an inventory of current online resources in the KRADD Region; identifying issues, gaps and opportunities for a stronger local e-government presence; soliciting community input regarding interest in online services, as well as possible barriers and approaches to ensure broad community use of such services.

Develop a Strategic Plan for Broadband Availability

III. A strategic plan will be developed for production of detailed and targeted information needed to initiate efforts that address broadband access and availability, while also engaging Providers in identifying and developing solutions. The plan will provide tools to assist local governments and stakeholders in developing a "kit" of information with resources specific to broadband, with defined technical service levels and requirements to make it easier for Providers to understand the business needs.

IV. The Strategic plan will include complementary elements to contribute to the regional effort :
- Demand Aggregation
- Business Surveys
- CAI identification & inventory,
- WiFi Hot-Spot strategies

V. Connected to the above, the plan will provide strategies for developing the leadership needed to build capacity for sustaining ongoing efforts over time.

VI. More thorough information is needed to gain an understanding of different business and ownership models and the elements involved. The strategic plan will provide examples of successful Broadband business models for use in un-served or underserved areas, as well as sample legal documents such as RFIs, RFPs and water tower leases, etc. ;

VII. Funding is a critical component to the East Region Plan, regardless of the model involved. The Plan will identify possible funding sources to enable a sustainable effort over time.

The Central Region Outcomes document was prepared by Michael Baker Jr. Inc. in partnership with Strategic Networks Group.

COMMONWEALTH OFFICE OF BROADBAND OUTREACH AND DEVELOPMENT
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IPA Workshop -- Meeting Summary & Outcomes

North Region- October 29, 2012

This document provides an overview of the issues discussed during a broadband planning workshop held in the North Region of Kentucky, focusing primarily on the I- 71 Corridor within the KIPDA and Northern Kentucky Area Development Districts (including the counties of Oldham, Trimble, Carroll, Henry, Gallatin, Owen, excluding Jefferson County). The document concludes with a "Outcomes" summary that identifies the goals and objectives agreed to by the end of the workshop. This document draws on notes taken by KCADD, Baker and SNG staff.

Brian Kiser convened the meetings and introduced the project team members and working group members before asking attendees to introduce themselves around the room. Kiser provided a brief history of the inception of the Commonwealth Office of Broadband Outreach & Development, including its mission statement, goals, and current involvement in presenting to legislative bodies.

Kiser explained that the purpose of the planning process is to identify and engage stakeholders, identify the priorities of the region, and engage Internet services providers. He also summarized the challenges Kentucky faces in Broadband adoption and utilization. Having Broadband available to homes and businesses does not ensure it is being used effectively to improve the way people live and businesses work. At this juncture, the planning process turned to the ADDs and regional stakeholders to allow them to determine what goals and objectives for the region.

Lisa Cooper then presented the North Region Working Group's Scope of Work (SOW) document. Cooper explained that as soon as the North Region's boundaries were defined, NKADD and KIPDA wanted to address breaching the rural/urban gap in the six county area already identified by the newly-created I-71 Task Force. Because the area includes three counties from each ADD, both ADDs are equally invested in gaining broadband along this corridor. Cooper explained that the corridor is an ideal site for industrial recruitment; it already has roads, river, and rail. All the area needs is broadband to entice industrial investment in the area. At this juncture, the Working Group has enlisted the help of the stakeholders present to assist in designing an initiative that addresses the connectivity issues in along that corridor.

Bill Bates then provided technology and trending information relating to regional broadband availability, project goals, changes in provider participation over the past two years, and data on users, usage, and uses.

Derek Murphy then presented information relating to the regional survey data from March 2012. Murphy then informed the group that the goals for the day's workshop would be creating a vision, goals and strategies, as well as action items for implementing an action plan.

Plenary discussions then ensued on the issue of local broadband availability. Those present confirmed that broadband generally is available in the towns but begins to deteriorate beyond those borders. A representative from Gallatin County noted that the only connectivity in the county is in the county seat. Other elected officials confirmed that they know the map does not accurately reflect where broadband is available in their counties. Representatives from Carroll and Owen counties said they could obtain information down to a road level regarding broadband availability that would more accurately reflect the project area.

Steve Dale from the I-71 Task Force noted that while residential connectivity is an issue, there is a real need to pair up high-end broadband availability at the junctions of other infrastructure already in place. He agreed to work with the group at a later date to identify those potential locations.

The plenary session identified two main objectives for this planning process:

1. Create access to reliable broadband connections in currently un-served and underserved rural residential areas by focusing on provider-centered partnership for potential build-out;
2. Improve broadband service to businesses to enable them to compete at a global level.

The group broke for lunch and reconvened at 1 p.m., splitting into two breakout groups—one to address rural residential broadband availability and one to address world-class commercial broadband services.

With the two breakout groups dealing with the issue of broadband infrastructure, there were many issues common to both. These included valuable criteria and attributes for Providers considering service expansion:

- Population information at the county and local level, including potential broadband subscriber **density** in area -- Institutional, CAI's, Residential, Business, Gov.
- Geography / Topology
- Providers presently operating in the area – the competitive environment
- Technology options in the area
    - Cost/timing of fiber network expansion (a limiting factor)
    - Fixed-Wireless may likely provide a faster way to bring service in underserved areas
- Understanding the "partnership potential" of an area – Facilitating the partnering between local governments, institutions or Providers
- Land ownership, parcel boundary, business zoning or districts, ROW access – location data
- Public / Private Structures
    - Public/Muni towers or water tanks -- Does muni-owned infrastructure have specific business and contract terms? Document business processes and contract terms.
    - Pole access -- Pole owner, Pole Type, Attachment capacity, Cost, Permitting/Licensing process, *Speed-of-attachment (bureaucracy)

    - Private-sector tower assets in the region
- Government rules/requirements/regulations/constraints –
    - Thinking more in a broadband-centric way…
    - RFI / RFP: Value-based? Cost-based? Criteria defined? Is the decision/evaluation process defined, open and fair (People/Committee/Processes)?

World-Class Commercial Broadband Group

For the six-county area along the interstate corridor, there is a lack of knowledge surrounding the technology needed. The group was asked, "How do we determine what tomorrow's technology will be?"

In a similar vein, the group was asked "what companies are looking for in relocating; will they only relocate to an area with existing availability or will they look at a location with a plan for infrastructure that can be tailored to the business' needs?" The group needs to identify the trends in the existing economic development market.

A survey was suggested with industries similar to the ones they would be recruiting to see what they are currently using in terms of broadband and what they would look for when relocating. A separate survey of existing industries in the counties could identify how much they paid for infrastructure, what type of service they receive, and what they look for in a broadband connection?

Gallatin County Attorney Spike Wright suggested creation and/or identifying business-friendly zones that could have intersecting value on a local level, possibly along the interstate exits. Currently when businesses are being recruited, Broadband service is not always available for certain areas. Businesses need to know where Broadband is available in locations where they may be considering. Identifying certain business zones would be a real value.

The group was asked if they wanted to work with small businesses in the area to educate them on the benefits of broadband. The group agreed that doing so could not only benefit the small businesses in the area, but also increase the demand for broadband along the interstate, which would aid industrial recruitment efforts in the future**

Rural Residential Broadband Availability Group

1. Residential group objective: Increase residential access to Broadband service in the 5 counties project area.
2. Carroll County schools need BB access for households for their kids, so they have BB at home for homework.
3. Each county needs a community champion, either individual or a group.
4. Fixed wireless needs about 10 customers per vertical asset to make in financially feasible, versus the previously mentioned 40 households per mile for wireline.

5. Fiber is about $9,000 per mile to install.
6. Need a business case based on real numbers: population, costs, potential revenues.
7. Gallatin County talked about what they have done in their county.
    a. Initial goal was 75-80% population with BB coverage in first year.
    b. The remainder 20% of population will have BB service in 3-4 years later.
    c. They made a $50,000 capital investment to go from 20% population coverage to 80% coverage.
    d. They will get back their $50,000 investment later.
8. Shelby Broadband invested >$50,000 in Harrison County and connected about 600 customers.
9. Schools have contracts with WindStream, but if they need more capacity, they can get it elsewhere if they choose. Maybe can be a core service to start projects in an area.
10. Need communication to community about what this group is doing, in order to sell this plan.
11. There are a lot of misunderstandings about broadband that need to be resolved thru communication.

Outcomes

This section reflects areas of agreement on goals and objectives going forward. Given the structure of the planning workshop many of the objectives are general or preliminary in nature. The planning process will be responsible for taking these Outcome Statements and turning them into a Broadband Plan for the region. The planning process will consist of teleconference calls of the North Region Working Group, the potential for email/telephone outreach to stakeholder participants, and production of a draft Broadband Plan by the Baker-SNG team. The resulting draft Broadband Plan for the North Region will be presented to a stakeholder workshop in March for final discussion, input and adoption. The draft plan will begin to address implementation by identifying specific tasks, timelines, cost/benefit statement, outcome measures, and responsibilities. If any area is not completely addressed in the draft plan, they will be finalized at the Final Planning Session (FPS) workshop with stakeholders.

Develop a Strategic Plan for Broadband Availability

I. A strategic plan will be developed for production of detailed information needed to address broadband access and availability, in addition to active Provider engagement for collaborating on the identification and development of solutions. The plan will provide tools to assist local governments and stakeholders in developing a "kit" of information with resources specific to broadband, with defined technical service levels and requirements to make it easier for Broadband leadership and Providers to understand the business needs.
II. The strategic plan will include sections on both residential and commercial broadband availability.
III. The Strategic plan will develop a vision statement for commercial broadband in the corridor.

IV. The Strategic plan will leverage complementary elements to accomplish the regional effort :
   - Demand Aggregation
   - Business Surveys
   - CAI identification & inventory,
   - WiFi Hot-Spot strategies

V. Connected to the above, the plan will provide strategies for developing the leadership needed to build capacity for sustaining ongoing efforts over time.

VI. More thorough information is needed to gain an understanding of different business and ownership models and the elements involved. The strategic plan will provide examples of successful Broadband business models for use in un-served or underserved areas, as well as sample legal documents such as RFIs, RFPs, water tower leases, etc.;

VII. Funding is a critical component to the Region Plan, regardless of the model involved. The Plan will identify possible funding sources to enable a sustainable effort over time

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The Central Region Outcomes document was prepared by Michael Baker Jr. Inc. in partnership with Strategic Networks Group.

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IPA Workshop -- Meeting Summary & Outcomes

Northeast Region- October 30, 2012

This document provides an overview of the issues discussed during a broadband planning workshop held in the Northeast Region of Kentucky, focusing on ***Northeast Kentucky (Buffalo Trace, Gateway and FIVCO Area Development Districts)***. The document concludes with an "Outcomes" summary that identifies the goals and objectives agreed to by the end of the workshop. This documents draws on notes taken by KCADD, Baker and SNG staff.

Brian Kiser convened the meetings and introduced the project team members and working group members before asking attendees to introduce themselves around the room. Kiser provided a brief history of the inception of the Commonwealth Office of Broadband Outreach & Development, including its mission statement, goals, and current involvement in presenting to legislative bodies.

Kiser explained that the purpose of the planning process is to identify and engage stakeholders, identify the priorities of the region, and engage Internet services providers. He also summarized the challenges Kentucky faces in Broadband adoption and utilization. Having Broadband available to homes and businesses does not ensure it is being used effectively to improve the way people live and businesses work. At this juncture, the planning process turned to the ADDs and regional stakeholders to allow them to determine what goals and objectives for the region.

Jason Boggs then presented the Northeast Region Working Group's Scope of Work (SOW) document. Boggs explained that in looking at the data for the area, it became clear that there was a real opportunity to address utilization among small businesses. Subsequently, the group began working with the SBDC through Morehead State University to determine what the needs of small businesses may be. This process is ongoing, but the group would like to create a plan that addresses the needs of small businesses in the area through educational methods suited to the businesses.

Bill Bates then provided technology and trending information relating to regional broadband availability, project goals, changes in provider participation over the past two years, and data on users, usage, and uses.

Derek Murphy then presented information relating to the regional survey data from March 2012. Murphy then informed the group that the goals for the day's workshop would be creating a vision, goals, strategies for achieving those goals, with an action plan for implementation .

The group took a break and re-convened for a working lunch/group discussion regarding identifying and solving the broadband needs of small businesses in the area. Some key discussions included:

- Chambers of Commerce (COC) have had a good experience and turn out for face-to-face businesses training workshops when training has a specific topic. Having business people present the training classes works better than a college type class, due to experience of the business people.
- Morehead University Small Business (**MUSB**) noted that most folks come in for help on short term issues – not long term. It is hard to get folks involved in proactive/long term efforts .
- MUSB thought efforts to reach small businesses would be more effective if they provided ROIs on implementation of internet applications.
- COC and MUSB have some different objectives, but they do work together.
- Non-urban areas typically don't have access to computer support services. Discussion on building a list of computer/IT vendors that can provide cost effective and personal help support and education. It was mentioned that Commonwealth government may have IT contractors that would have an interest in this as well.
- The ADD Business Service Coordinators (BSC) could possibly help with internet support. The BSCs already know and communicate with SBs.
- Availability of broadband doesn't always translate into customers/users.
- Chamber representatives are seeing small businesses that need higher-priced Internet packages to do the processes they would like to adopt. Small businesses could benefit from a guide that helps them determine what they need in a broadband connection.
- The provider's role would be in promoting use of internet and helping ADDs/Counties in this effort. Providers are willing to participate in BB promotion efforts.
- Provide Educational Instructional resources for general dissemination, but also provide personal touch. May want to consider some sort of on-line help resource. Place where SBs can also share lessons learned and other knowledge.
- A mentorship program is needed but must be sustainable. In order to entice participation of mentors, there must be an incentive in place to justify small business owners spending the time to participate.
- Affordability is the # 1 issue in region – low income. This also the top issue for Small Business, who can't find the start-up funds.

Outcomes

This section reflects areas of agreement on goals and objectives going forward. Given the structure of the planning workshop many of the objectives are general or preliminary in nature. The planning process will be responsible for taking these Outcome Statements and turning them into a Broadband Plan for the region. The planning process will consist of teleconference calls of the Northeast Region Working Group and production of a draft Broadband Plan by the Baker / SNG team. The resulting draft Broadband Plan for the Northeast Region will be presented at the Final Planning Session (FPS) workshop

in February to stakeholder s--for final discussion, amendment and adoption. The draft plan will begin to develop an action plan for implementation with specific goals, objectives, tasks, timelines and responsibilities. If any areas are not completely addressed in the draft plan, they will be finalized at the Final Planning Session workshop with stakeholders.

- There was agreement that the regional Broadband initiative should focus on providing means/tools that build on current resources
- The 4 directions for this group to focus on are:
    - Provision of training for small businesses, both in person and online.
    - Development of mentoring for small businesses.
    - Organization of an annual conference that highlights Internet Service Providers (ISPs), and Internet applications for business -- cloud solutions, training, etc.
    - Develop and maintain a resources/contact list for live help for small businesses.
- The Strategic plan will consider inclusion of complementary elements to support the regional effort:
    - Demand Aggregation (Business)
    - Business Surveys
    - Regional Community Anchor Institutions (CAI 's) -- identification & inventory,
    - WiFi Hot-Spot Strategies
-
- Connected to the above, the plan will provide input for developing the stakeholder leadership needed to build capacity for sustaining the ongoing efforts over time.
- Funding is a critical component to the Region Plan, regardless of the model involved. The Plan will identify possible funding sources to enable a sustainable effort

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The Central Region Outcomes document was prepared by Michael Baker Jr. Inc. in partnership with Strategic Networks Group.

Kentucky UNBRIDLED SPIRIT™

COMMONWEALTH OFFICE OF BROADBAND OUTREACH AND DEVELOPMENT
Promoting a 21st century economy

IPA Workshop -- Meeting Summary & Outcomes

West Region- October 22, 2012

This document provides an overview of the issues discussed during a broadband planning workshop held in the West Region of Kentucky, focusing primarily on the Purchase Area Development District. The document concludes with an "Outcomes" summary that identifies the goals and objectives agreed to by the end of the workshop. This documents draws on notes taken by KCADD, Baker and SNG staff.

Brian Kiser convened the meetings and introduced the project team members and working group members before asking attendees to introduce themselves around the room. Kiser provided a brief history of the inception of the Commonwealth Office of Broadband Outreach & Development, including its mission statement, goals, and current involvement in presenting to legislative bodies.

Kiser explained that the purpose of the planning process is to identify and engage stakeholders, identify the priorities of the region, and engage Internet services providers. He also summarized the challenges that Kentucky faces in Broadband adoption and utilization. Having Broadband available to homes and businesses does not ensure it is being used effectively to improve the way we live and work. At this juncture, the planning process turned to the ADDs and regional stakeholders to allow them to determine the goals and objectives for the region.

Jennifer Beck-Walker presented the West Region Working Group's Scope of Work (SOW) document. Beck-Walker explained that when the OBOD asked the ADDs to write the SOW, they were asked to choose a project area based upon an area where there was a measurable broadband need that could be addressed with the involvement of committed stakeholders. The four Mississippi River counties of Carlisle, Hickman, Fulton, and Ballard were selected because of their apparent lack of access to affordable broadband for households. As the working group continued to investigate the situation, they discovered an alarming lack of public access to Internet services for those citizens in the area that cannot get broadband in their home or cannot afford to subscribe to it. In the Regional Profile provided by OBOD's subcontractors, Baker and SNG, the Working Group learned that K-12 schools in the area are already adopting advanced Internet processes at a level consistent with their counterparts across the state. As the primary industry already adopting advanced processes and as a critical community anchor institution in the area, the Working Group determined that any efforts addressing broadband access or use would necessarily involve the school systems. Beck-Walker reported that at this juncture, the stakeholders present in the room were being asked for input and commitment to assist in the goals going forward.

Bill Bates then provided technology and trending information relating to regional broadband availability, project goals, changes in provider participation over the past two years, and data on users, usage, and uses.

Derek Murphy then presented information relating to the regional survey data from March 2012. Murphy then informed the group that the goals for the day's workshop would be creating a vision, goals, strategies for achieving those goals, action items, and other strategies for implementing the action plan.

Various fixed wireless providers present noted that if local areas wanted to help them in assessing the cost and possibilities of serving areas, a list of potential vertical assets would be very helpful, including foliage estimates. A representative from Fast Net Wireless noted that they usually hesitate to consider applying for grant funding because of the red tape involved. Q Wireless noted that in working with Green River ADD, they were able to take advantage of grant money without the red tape and found that partnership to work very well for both the ADD and the provider. Fast Net representatives also noted that they have contracted and delivered several county hot spots that were either provided by the city or the county in other areas. They reported having good experiences in working with local officials in doing this work.

The plenary session identified two main objectives for this planning process:

1. Create access to reliable broadband connections in currently unserved and underserved rural areas by focusing on provider-centered partnership for potential build-out;
2. Work with stakeholders to address public access points for citizens who either cannot currently get broadband in their homes or cannot afford to subscribe to broadband.

The group broke for lunch and reconvened at 1 p.m., splitting into two breakout groups—one to address availability needs and one to address public access points.

Public Access Group

1. Many households can't participate in educational and entrepreneurial support programs because they lack or can't afford Internet service. This is a major barrier to increasing the skills and income opportunities for residents in the region.
2. Many existing Internet access sites are resource poor and have extremely limited hours of operations. Rural libraries were cited as one example.
3. A couple of participants felt that public schools were not a promising base for establishing public access centers, in part because they were more closed than collaborative and the schools presently have limitations on their hours of operation.
4. The group agreed on the following objectives:
    - Initiate a process of developing Internet Access Centers as vehicles to achieve higher levels of adoption and utilization;
    - Access Centers can be an important vehicle in providing education for entrepreneurs and support staff (maybe Best Practice Modules).

- Need to develop sustainable business model for access centers. This may include funding from foundations.
- The key to developing and sustaining public access centers is a strong and collaborative leadership team (consisting of strong individuals and key institutions); this planning process needs to develop a work group to start working thru implementation planning.

Availability Group

Participation in the breakout session included Internet Service Providers, ADD business contacts and Stakeholder/citizens. Those who participated had interest in broadband access and availability for the focus area, to gain a better understanding of the business of broadband: how Providers operate their business, the limitations of technology types, and criteria for household and business services and how decisions are made.

Criteria and attributes for considering service or new service expansion:

- Broadband subscriber **density** in area -- Institutional, CAI's, Residential, Business, Gov.
- Geography / Topology
- Middle-mile Info, Head-end/Hub Location Points
- The Providers presently operating in the area
- Network considerations for Providers / Criteria for Households(H) & Business(B):
    - Capacity / Speed / Latency / Symmetric Service
    - Service Redundancy (B) / Service Quality
    - Entry Cost (For HH's and the ROI for Teleworkers)
    - Demand for "Enterprise Class" Service (B)
- Technology options in the area
    - Cost/timing of fiber network expansion (a limiting factor)
    - Fixed-Wireless may likely provide a faster way to bring service in underserved areas
- Understanding the "partnership potential" of an area
- Land ownership, parcel boundary, business zoning or districts, ROW access – location data
- Public / Private Structures
    - Pole access -- Pole owner, Pole Type, Attachment capacity, Cost, Permitting/Licensing process, Speed-of-attachment (bureaucracy)
    - "Vertical Assets" – Existing towers or buildings where wireless or fixed-wireless equipment may be deployed to reach new customers; Including private-sector tower assets in the region --Co-location towers expensive, Interference with cell antenna
    - Private-sector tower assets in the region -- Crown Castle, American Tower
- Fostering a competitive environment can bring down user costs and encourage continued investment in upgrading broadband infrastructure
- Costs of customer acquisition – equipment, maintenance, installation
- Government rules/requirements/regulations/constraints –

- Muni/County/Regional: Established department(s)? Points-of-Contact?
- Business "guidelines" or processes: documented? in place?
- RFI / RFP: Value-based? Cost-based? Criteria defined? Is the decision & evaluation process defined, open and fair (People/Committee/Processes)?

Business Models for Broadband:

- GRADD Model: Public/Private Partnership -- ***Connect GRADD Inc.***
  - GRADD owns infrastructure assets
  - Business Partner operates/maintains network (Q-Wireless)
  - Board of Directors oversight (7 County Judges)
  - Leverage Steering Committee
  - State funding
  - Local investment funding
  - Monthly subscriber fees
  - "RIFR" Contract for business partner

- Private-Sector / "Demand-Motivated" Model – ***Work with Providers***
  - Identify area demand-potential of Broadband
  - Develop and provide value-added information "tools"
  - Encourage/engage Providers in an "information-gathering" or formal RFI process, to get input more expert input on technology and network
  - Define an open and fair proposal process – research/identify/include best-practice ideas from other regions; other States.

- Franchise Model – ***Similar to technology franchises elsewhere***
  - Defined territory
  - Longer-term contract to ensure reasonable ROI for network investment
  - Caldwell and Lyon Counties were able to get DRA funding for the initial costs of build-out, allowing the providers to rent the equipment from the county as part of a franchise agreement. The group was interested in this idea and wanted to consider pursuing it as a viable option for the area.

- "Hybrid" Model – ***In a changing economy still in recovery, are there variations to above models worth considering***
  - What would be the "mix" of public-private participation?
  - Funding –Private capital? Public capital? Combination?
  - Other incentives/offsets –Installation subsidy? Equipment subsidy?

Outcomes

This section reflects areas of agreement on goals and objectives going forward. Given the structure of the planning workshop many of the objectives are general or preliminary in nature. The planning process will be responsible for taking the outcomes from the workshop and developing them into a Broadband Plan for the region. The planning process will consist of teleconference calls of the West Region Working Group, periodic email or phone calls to Working Group and Stakeholder members, and production of a draft plan by the Baker / SNG team. The resulting draft Broadband Plan for the West Region will be presented at the Final Planning Session (FPS) workshop in February for final discussion, amendment and adoption. The draft plan will also begin to address implementation by identifying specific tasks, timelines, cost/benefit statement, outcome measures, and responsibilities. If any area is not completely addressed in the draft plan, they will be addressed at the FPS workshop with stakeholders.

Build a Strategic Plan for Internet Access Centers

I. Expand Work Group to include stakeholders specifically interested in developing and/or supporting Internet Access Centers;
II. Provide a high level plan for the development /maintenance of Internet Access Centers.
III. Identify and allocate tasks and responsibilities.
IV. Explore funding sources for both the development and maintenance phases.

Develop a Strategic Plan for Broadband Availability

V. A strategic plan will be developed for production of detailed and targeted information needed to initiate efforts that address broadband access and availability, while also engaging Providers in identifying and developing solutions. The plan will provide tools to assist local governments and stakeholders in developing a "kit" of information with resources specific to broadband, with defined technical service levels and requirements to make it easier for Providers to understand the business needs.
VI. The Strategic plan will use complementary elements to the regional effort :
    - Demand Aggregation
    - Business Surveys
    - CAI identification & inventory,
    - WiFi Hot-Spot strategies
VII. Connected to the above, the plan will provide input for developing the leadership needed to build capacity for sustaining ongoing efforts over time.
VIII. More thorough information is needed to gain an understanding of different business and ownership models and the elements involved. The strategic plan will provide examples of successful Broadband business models for use in un-served or underserved areas, as well as sample legal documents such as RFIs, RFPs and water tower leases;

IX. Funding is a critical component to the West Region Plan, regardless of the model involved. The Plan will identify possible funding sources to enable a sustainable effort over time.

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