



April 24, 2007

To: Harry Roesch, ARC Project Coordinator
Appalachian Regional Commission
1666 Connecticut Avenue NW Suite 700
Washington, DC 20009-1068

From: Robert R. Byrd
P.O. Box 1709
Enka, NC 28728

Subject: ARC Progress Report for Contract # NC15443-06
Western North Carolina Education Network (WNC EdNET) Information
Technology Equipment

Dear Harry:

Attached herewith are two copies of the 2nd 120-day progress report for the WNC EdNET ARC equipment contract. This report is a sequential continuation of the prior report submitted on December 19, 2006.

You will note that significant major activities occurring since the submission of the prior report included:

- major product review and decisions relative to the type and specification of the proposed routing and switching equipment to be purchased;
- major work on installing fiber to sites under contract;
- significant progress in finalizing the network maintenance organization and process; and
- progress toward procurement of significant additional funds to support WNC EdNET.

Copies of this report are being sent to the North Carolina ARC Liaison and the project officers of the Golden LEAF and Cherokee Preservation Foundations for their information.

Please let me know if you need additional information. Your assistance is acknowledged and appreciated. Best wishes for a nice springtime.

Robert R. Byrd

Cc: Bill Gibson
Roger Metcalf
Golden LEAF Foundation – Mark Sorrells, Pat Cabe
Cherokee Preservation Foundation - Susan Jenkins, Ashleigh Brown

**WNC EdNET Technology Equipment
Contract # NC-15443-06**

**Progress Report
January 1, 2007 – April 30, 2007**

**Submitted to:
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Appalachian Regional Commission
1666 Connecticut Avenue NW
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Washington, DC 20009-1068**

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Submitted by:

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Acknowledgements

The Technology Coordinators, Technology Applications Committee, are commended for the assistance provided in the preparation of this report. The North Carolina ARC Liaison, Olivia Collier, has been helpful with the implementation of the WNC EdNET ARC component. She has recently visited the WNC EdNET region and has met with Bill Gibson of the Southwestern Commission and others in helping to explore options for completing the Graham County WNC EdNET segment.

Report Distribution

It should be noted that the report will also be submitted to the Golden LEAF and Cherokee Preservation Foundations and to the NC Rural Center to be used as a project update/progress report for their respective purposes. The report has been sent to the N.C. ARC Liaison, Olivia Collier.

ARC Progress Report Outline

- I. WNC EdNET Background Information**
- II. Summary of Outcomes and Specific Progress**
- III. Summary and Projections**
- IV. ARC Financial Request**

Appendix A ~ WNC EdNET Activity Log

Appendix B ~ Infrastructure Progress Report/Equipment

Appendix C ~ Proposed 501 (c) (3) Organization/Maintenance Structure

Appendix D ~ SONET Justification/Sample Equipment List

Appendix E ~ Related Volunteer Contributions

ARC Progress Report

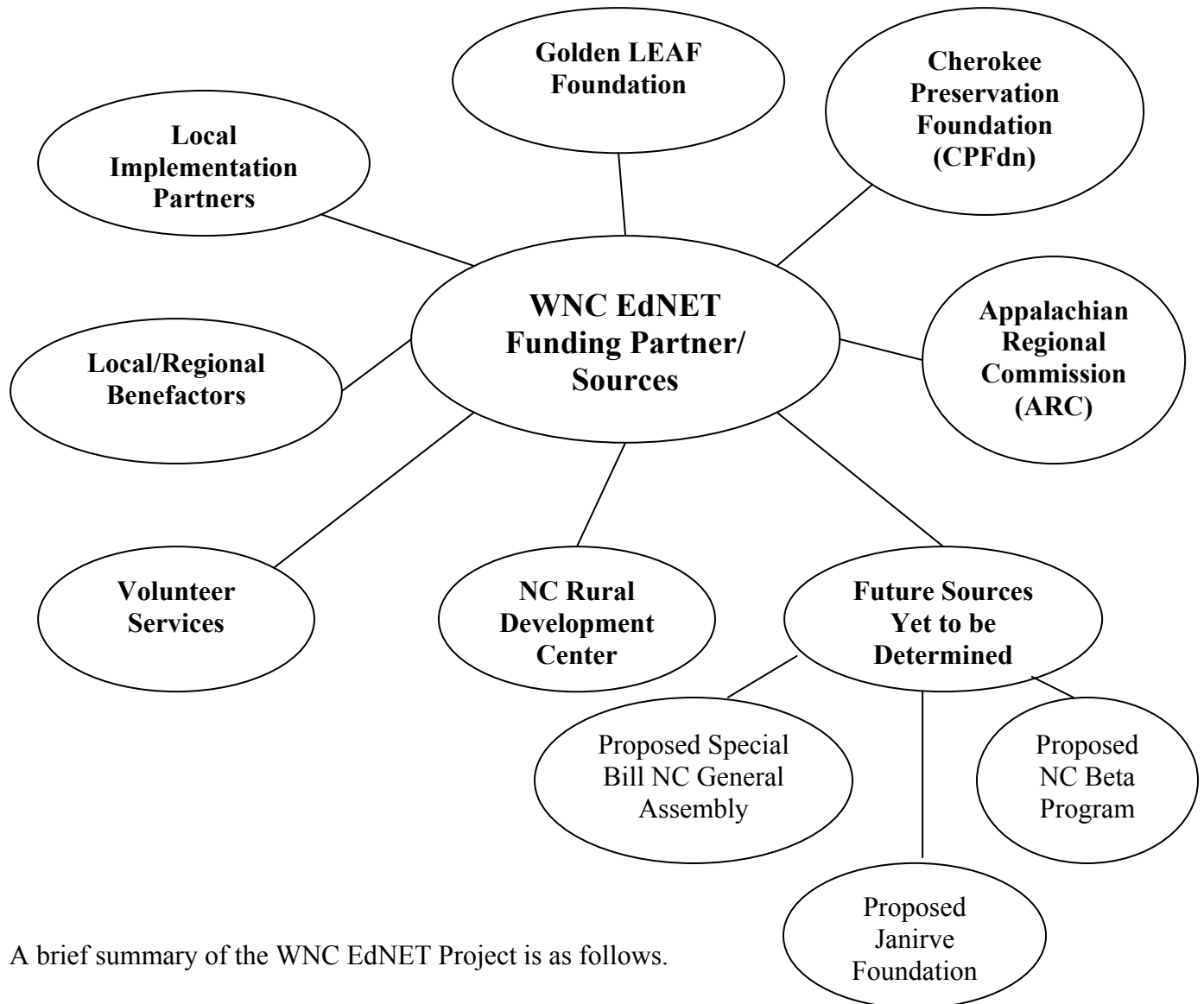
January – April 2007

I. WNC EdNET Background Information

This ARC Project is a partner with other funding sources such as Golden LEAF Foundation, Cherokee Preservation Foundation, local benefactors, The NC Rural Development Center and local sources (see Exhibit I, Funding Partners) for the purpose of establishing a broadband learning project called WNC EdNET.

Exhibit I

WNC EdNET Funding Sources



A brief summary of the WNC EdNET Project is as follows.

Purpose

To collaboratively assist the schools and colleges in **Jackson, Macon, Clay, Cherokee, Graham and Swain Counties, and the Cherokee Tribal Schools** to procure and use upgradeable high capacity broadband technology configurations and services to enhance learning, professional development, and organization administration, and to open up learning opportunities not currently available or imagined.

Objectives

- 1) To establish a collaborative of partners for the purpose of collaboratively enhancing the development and use of technology as a tool for improving learning opportunities
- 2) To facilitate procurement of broadband infrastructure by participating partners' central and field sites
- 3) To facilitate capacity building and use of broadband technology for the enhancement of teaching and learning
- 4) To help export the WNC EdNET model to other potential adopting sites.

Partnerships and Organization

The project grantee, the Southwestern Commission, is in partnership with the Western Region Education Service Alliance (WRESA) to collaboratively manage the grants. An Executive Steering Committee composed of the CEOs of the 12 partners plus a Golden LEAF representative governs the project. Partner Technology Coordinators are primarily responsible for implementing and helping to evaluate the program. A Technology Applications Committee provides leadership in use of high speed technologies and applications. Consulting Partners from other agencies and organizations such as ERC, e-NC Authority and NCDPI provide technical leadership and guidance.

PARTNERS

Southwestern NC Planning & Economic Development Commission
Western Region Education Service Alliance (WRESA)
Jackson County Schools
Macon County Schools
Clay County Schools
Cherokee County Schools
Graham County Schools
Swain County Schools
Cherokee Tribal Schools
Southwestern Community College
Western Carolina University
Tri County Community College

II. Summary of Outcomes and Specific Progress made toward implementing the major project activities.

Goal: (ARC Goal 2) “Strengthen the capacity of the people of Appalachia to compete in a global economy.”

Strategies:

- *ARC Strategic objective 2.4 “Increase Educational Attainment and Achievement”*
- *NC Strategy 2.4.2 “Assist Appalachian Communities in activities promoting high education standards that will aid in retaining students through graduation, in increasing post-secondary attainment, and/or involving citizens in their education system.”*

The outcome for the project goal is long term and it is interconnected with the strategies.

Progress Although the goals and strategies are long term, and the ARC equipment procurement is yet to occur, the various partners are not operating in a vacuum. Currently each of the partners individually and collaboratively with the state and other initiatives are engaging in a mosaic pattern of activities which will enhance goal/strategy attainment. Examples are:

- The NC Department of Public Instruction has a regionally based Technology Consultant who monitors progress in technology planning procurement and use and assists and nurtures technology initiatives in the schools.
- Some of the partner school districts have been recipients of Community Technology Learning Center (CTLIC) grants from the NC Department of Public Instruction over the past several years. The implementation of these grants has provided some of the schools a good readiness capability for involvement in the WNC EdNET broadband project.
- Each of the partners has a Technology Coordinator and other staff assigned to planning, procurement and use of technology.
- State planners are in the process of planning for a statewide connectivity program designed to bring broadband connectivity to homes and schools. It is anticipated that the statewide program will build on existing regional networks such as WNC EdNET. Planners are currently seeking funding from the NC Beta Program for the purpose of completing WNC EdNET.
- Each of the WNC EdNET partners is continuously procuring computers and other technology hardware and software. There is an increase in student technology access and use.
- Partners are beginning to do some collaborative “experiments” or “tests” with currently available transport and new technology hardware and software. The community colleges and the universities are working with the K-12 schools to set up some documentation. Examples include: (1) The Southwestern Community College has worked with the

Cherokee Tribal School in installing some distance learning equipment, and (2) the Western Carolina University is working with Clay County Schools to “test” the delivery of music via technology.

- The Technology Coordinators have been and are planning to be engaged in intense professional development experiences related to broadband deployment configurations and equipment comparisons capability and use. The Southwestern Community College is providing leadership and support for much of this training.
- Partners are submitting lists of locally procured equipment which will help with the ARC match.

Additional work to be accomplished on the goals and strategies includes:

- Full project implementation
- Collecting baseline measurement data
- Collecting, analyzing and reporting outcome data.

ARC Activity #1:

- *Sustaining a regional collaborative consisting of CEO's and Technology Coordinators from each of the implementation school district and college partners.*

Progress: As reported in the grant application, the WNC EdNET collaborative structures have been in place for almost two years. Examples of specific activities included several meetings of the Technology Coordinators for planning and decision making. Meetings of the Executive Committee have been used to select the infrastructure vendor and to approve the negotiated agreement with the vendor. The Technology Applications committee has been involved in planning curriculum applications of technology. All collaborative parties have been involved planning development and dissemination of the WNC EdNET Project (See Appendix A – WNC EdNET Activity Log).

Guidelines for the establishment of a 501 (c) (3) organization (WNC EdNET Inc.) have been developed. The organization is currently being formalized (See Appendix C for 501 (c) (3) Material).

All of the collaborative bodies are currently participating in the plans for the Technology Awareness Conference to be held next fall (October 12, 2007).

- Multiple funding initiatives are currently underway to include requests to the state Beta Program. A special bill has been introduced in the NC General Assembly to help fund WNC EdNET. The new 501 (c) (3), WNC EdNET Inc., plans to submit a request for funding to the Janirve Foundation in June 2007. Formula for partner pro-rata funding of WNC EdNET Inc. and the long term maintenance of the WNC EdNET fiber are currently under consideration.

Additional work to be accomplished on this activity includes:

- Formal adoption of WNC EdNET Inc.
- Formal agreement and adoption of WNC EdNET maintenance agreement.
- Continue to collaboratively seek funding and other resources to support the project.

ARC Activity #2:

- *The building of the transport infrastructure to each of the 60 education sites is currently underway. Contract negotiations are in the final stages. Golden LEAF, Cherokee Preservation Foundation and Philanthropic contributions are the major sources of funding for the “build” phase. A portion of the Golden LEAF and Cherokee Preservation Foundation funds will be used to provide a match for the ARC funds herein requested. The vendor ASAP (Alliance for Southern Appalachian Prosperity) will complete the infrastructure build over the next several months. (Note: Some additional procurement funds will be needed.) The procurement goal is to connect each partner headquarters with each of its “field” sites (via star topology), then connect the partners with each other (via a ring), then connect to the outside world (via low cost internet services). The ARC funds will be used to procure connection and use equipment which will allow the educational sites to access and use the transport infrastructure.*

Progress has been made during the reporting period toward accomplishing this activity as follows:

- Contractual agreements were finalized to begin work on the provision of transport infrastructure (fiber) to all school sites except for 5 schools in Cherokee County and 1 school in Macon County. Funds were not available to place those schools under contract or to make the college connections to their 13 field sites. Project planners made the decision to begin work with funds “in hand” rather than wait for an indefinite period of time while other resources were solicited.
- Work on the fiber transport system to sites under contract has begun and is making substantial progress. Several sites are currently ready to be connected, pending the procurement of the switching/routing and related equipment (See Appendix B Infrastructure Progress Report).
- Additional funding was obtained from the Cherokee Preservation Foundation and the NC Rural Center to help cover the cost of the underground deployment of fiber from Topton to Robbinsville. Rock terrain in this 14 mile section increased the cost per mile; however, project planners, funding source, the Graham County government, and the ECBI (Eastern Band of the Cherokee Indians) supported this decision as being the most appropriate method of fiber deployment.
- The Carlton family has made a significant donation which will fund the Cashiers fiber link.

- The Southwestern Community College has made a major contribution of fiber for the WNC EdNET Ring (See Appendix E Related Volunteer Contributions).

Additional work needing to be accomplished on this activity includes:

- Procure specific funding for the remaining school and college sites.
- Commence construction on the Topton to Robbinsville section of fiber deployment.
- Proceed with procurement of electronic equipment needed to make the fiber transport fully operational and functional.
- Complete the deployment of fiber and electronics to all of the schools.
- Monitor and evaluate the construction.

ARC Activity #3:

- *The selecting, procuring and installing of ARC procured connection, switching and use equipment is the first major ARC proposed activity. The project engineer working with the technology coordinators have the primary responsibility of coordinating this activity. The equipment will need to be selected, ordered, installed and tested in the first phase.*

Progress toward accomplishing this activity is mixed in that ARC equipment funds have not been drawn down and used, however the following positive progress has occurred during the reporting period:

- Major collaborative decisions regarding the type, specification, and capacity of electronic equipment for WNC EdNET have been made. These decisions involved intense discussions with engineers and vendors. The Technology Coordinators met with state network staff at Research Triangle Institute and subsequently met with engineers from Cisco Systems at Southwestern community college. After much consideration the Technology coordinators voted to procure and deploy SONET type equipment. Capacity serviceability, upgradeability, and reliability were major considerations (See Appendix D “Why SONET”).
- The Technology Coordinators agreed last week to hold the expenditure of ARC equipment funds pending the outcome of current funding initiatives. ARC funding represents only a small percentage of equipment funds needed for electronics thus the aggregation of equipment funds from ARC, CPFdn, Golden LEAF Foundation, and hopefully from the Beta initiative will provide a critical level of funding so as to allow the vendors to provide significant price breaks because of order size/volume.
- The equipment to be purchased has largely been identified. The equipment identification has been a long and technical process. The Technology Coordinators considered cost, upgradeability, re-occurring cost, etc. as key elements for

consideration. The premise of investing on the front end in order to lower long term reoccurring cost was adopted (See Appendix D Sample Equipment List).

- The grant request for \$1,000,000 submitted to the NC State Employees Foundation was not funded due to foundation priorities. The lack of SECU funding required project planners to seek additional funding elsewhere.

Additional work to be accomplished on this activity includes:

- Procure additional funding.
- Aggregate from all sources the equipment funds and request bids.
- Finalize procurement.
- Inventory equipment, deploy to sites and install equipment.
- Test equipment.
- Provide training.
- Use equipment to enhance learning.

ARC Activity #4:

- *The use of the technology to enhance learning will be a long-term process and will be coordinated by the partner Technology Coordinators and Curriculum Coordinators. Regionally the partner Technology Coordinators and Curriculum Coordinators comprise the Technology Applications Committee which will provide much of the leadership and guidance for the technology application/use phase of the project. The Technology Application Committee is currently under the co-chair leadership of the college and public school sectors and has been operational for several months.*

A state of the art Technology Application Awareness Conference is planned for the purpose of showcasing many ways of effective uses of technology to enhance learning. This conference will be coordinated by the Technology Applications Committee and area colleges and is planned for 2007.

Progress: Since its empowerment, the Technology Applications Committee (TAC) has had several meetings in various physical locations as well as cyber meetings. The committee has co-chairs (1 from the higher education sector and 2 from the public school sector) who establish the agendas and conduct the meetings. Examples of major areas of focus thus far include review of internet 2, review of Centra software for cyber meetings, review of various local partner technology application initiatives, and planning for the region-wide Awareness Conference on technology application for learning. The TAC group decided to request the WRESA to manage the Awareness Conference to be held in October 2007 at Western Carolina University. The group requested that area Superintendents establish a teacher workday in the school calendar

which would permit all teachers to attend the conference. The workday was established. The conference will be on October 12, 2007.

Funding for the conference will come from Golden LEAF funds and participant registration fees.

Additional work to be accomplished included logistical organization for the conference, the selection of speakers and technology programs to be showcased, the development of a relevant program sensitive to various audiences and the development of “roadmaps” for follow up initiatives. Much of this has been done, school presentations are now under consideration. The WRESA has identified the keynote speakers, and has secured the WCU Ramsey Center location. Follow up “roadmaps” need to be developed.

ARC Activity #5:

- *Record keeping, data collection, data analysis and reporting will be a major project activity and will be part of quality control monitoring and evaluation. The project director will coordinate this activity. Periodic reports will be provided to the key stakeholders in the project as well as to the funding agencies.*

Progress: Project staff has continued to update the Project “Activity Log” (See Appendix A WNC EdNET Activity Log). The finance officer continues to provide updated information on the budget. He has submitted two financial reports to the CPFdn during this period.

The primary vendor has submitted 2 progress reports during this reporting period (See Appendix B Infrastructure Progress Reports).

Additional work to be accomplished includes:

- Complete grant extension request for CPFdn.
- Prepare and submit reports to the Golden LEAF Foundation.
- Gather and analyze evaluation data in the areas of student performance, contract negotiations, quality control of infrastructure deployment; and awareness conference and training efficacy.
- Prepare and distribute evaluation reports.

ARC Activity #6:

- *Dissemination and exportability of the project will be done as needed. A publicity event and some overview presentations have been provided to describe project progress thus far. A project brochure has been developed. More formal presentations and technical assistance capability will be developed to assist “adopters” as the WNC EdNET demonstrates more effectiveness.*

Progress: The project dissemination activities continued during this reporting period. Project personnel have had at least 2 meetings with state staff explaining WNC EdNET and discussing hookup to the state network as well as discussing state funding potential.

Balsam West FiberNet (primary vendor) provided a major publicity event on March 9, 2007 showcasing various aspects of WNC EdNET. Numerous political and civic leaders as well as educators and business representatives were in attendance. This meeting was held in the Cherokee Tribal Casino Hotel.

The Cherokee Preservation Foundation is sponsoring a publicity event in May. The WNC EdNET project will have a booth and 2 persons providing WNC EdNET information.

An overview of the WNC EdNET project will be presented at the North Carolina statewide Summer Leadership Conference June 25, 2007 in Asheville.

Additional work to be accomplished includes:

- Conducting the Technology Awareness Conference (October).
- Update the project brochure.
- Prepare a DVD depicting the WNC EdNET story.
- Continue presentations at national, state and local meetings.

III. Summary/Projections

Many aspects of WNC EdNET are actively coming together. The transport infrastructure is being deployed, plans and initiatives for additional funding are in place, the 501 (c) (3) organization is close to being formalized, the Awareness Conference is on track, and equipment decisions have been made.

When the Technology Coordinators recently decided to have a 10 Gb capacity and to use high capacity upgradeable electronics, the cost projections for the electronic equipment increased substantially.

The increased cost requires additional funding. The request for additional funding has resulted in a delay in the use of ARC funds. When the results of the current funding initiatives are known, decisions on the encumbrance of the ARC funds will be made. Hopefully we will be able to aggregate the ARC funds with new funding and complete the electronic equipment procurement and installation soon.

IV. ARC Financial Request

An ARC financial request will be submitted later when we know the total amount of equipment funding is available from all sources. The decision to delay this request was based on the need to be able to spend the requested ARC funds within a 120 day window and the need to procure additional funding.

Appendix A

WNC EdNET Activity Log

Appendix A Activity Log

Date	Location	Participants/Representatives/Agencies	Brief Summary/Purpose/Results/Outcomes
4/12/2005	WRESA	Bill Gibson (SEDPC), Mark Sorrells (Golden Leaf), Patricia Cabe (Golden Leaf), Dale Carroll (Advantage West), Billy Clarke (Golden Leaf), Roger Metcalf (WRESA), Bob Byrd (WRESA)	Meeting called by Bill Gibson to explore WRESA involvement/ assistance with Golden Leaf Technology effort in western most North Carolina schools. WRESA agreed to collect needs data and to follow up with school superintendents and technology coordinators.
4/20/2005	WRESA	6 Superintendents, WRESA Director	WRESA Director briefed superintendents on possible Golden LEAF initiative and needs data collection.
4/26/2005	SWCC	SWCC, WRESA, 6 School District Technology Coordinators, Balsam West, Drake Enterprises, WCU, Cherokee Tribe TCCC, NC DPI	Excellent information, sharing session. Presentation by SWCC and Balsam West group as per broadband history/efforts in 6 western counties.
4/26/2005	SWCC	WRESA, 6 School District Superintendents/Technology Representatives, NC DPI	WRESA Director asked for direction and planned next steps.
4/29/2005	Swain County High School	WRESA, 6 School Superintendents and Technology Coordinators, NC DPI	WRESA Director presents overview information on Golden Leaf effort and requests direction from superintendents who advise him to proceed with planning and development of a grant application.
5/12/2005	Franklin	WRESA, Clay County School Superintendent, Technology Coordinator	Discussed technical possibilities, background information and future direction.
5/18/2005	WRESA	WRESA, 6 Superintendents	WRESA Director updated superintendents on needs data.
5/20/2005	Jackson County	WRESA, Superintendents, Golden Leaf	WRESA Director and Golden LEAF staff discussed broadband collaborative issues and possibilities.
5/23/2005	WRESA	WRESA, Swain Technology Coordinator, Clay Technology Coordinator, Golden Leaf, ERC, Cherokee Preservation Foundation, E-N-C Authority	Information update, question and answer, multi-party involvement agreement for proposal development.
6/1/2005	Franklin	WRESA, D-Net, Clay County Schools	Multiple party information sharing.
6/1/2005	Franklin	WRESA, Clay County Schools	Planning, organization
6/7/2005	Murphy	Pat Cabe, Mark Sorrells, Roger Metcalf, Norman Oglesby, Marjorie Tucker	Information sharing - working on collaborative model.
6/8/2005	Webster	Pat Cabe, Mark Sorrells, Roger Metcalf, Norman Oglesby	SCC - Information sharing - working on collaborative model.
6/14/2005	Cherokee	Brandon Stevens, Bob Byrd, Charles George, Andy Gibson, Roger Metcalf	Information sharing - building a collaborative model.
6/21/2005	Cherokee	WRESA, EBCI Planner	Information sharing
6/21/2005	Cherokee	WRESA, EBCI School Superintendent	Information sharing, organization
7/8/2005	Asheville	WRESA and selected collaborative members	ENC Authority conference; Connectivity meeting - presentation.
7/15/2005	Bryson City	Andy Gibson, Leonard Winchester, Bob Byrd, Roger Metcalf, Mark Sorrells	Update - Review - Setting dates
7/15/2005	Robbinsville	Mike Edwards, Bob Byrd, Roger Metcalf	Discussion of Graham's needs in broadband connectivity.
7/15/2005	Sylva	Technology Coordinators	Information sharing, planning

Date	Location	Participants/Representatives/Agencies	Brief Summary/Purpose/Results/Outcomes
7/18/2005	Bryson City	WRESA, Clay, Swain Technology Coordinators	Information sharing, planning
7/21/2005	Franklin	WRESA, Technology Coordinators	Information sharing, planning
7/26/2005	Bryson City	WRESA/Southwestern Commission	Fiscal agent determination.
7/28/2005	Murphy	WRESA, Technology Coordinators, Golden LEAF, Southwestern Commission	Agreement on basic plans
7/29/2005	Franklin	WRESA, Superintendents, College Presidents, Technology Coordinators	Agreement on plans, budget, & service agreement
8/10/2005	Franklin	WRESA, Clay, Swain	Budget, Bidders' guidelines
8/11/2005	Bryson City	WRESA, Clay, Swain	Technical design discussions
8/15/2005	WRESA	WRESA, Southwestern Commission	Final Proposal submission
8/16/2005	WRESA	WRESA, Clay	Process checklist development.
8/22/2005	Cherokee	WRESA - Region A	Annual dinner
8/26/2005	WRESA	WRESA, Golden LEAF, Clay	Process checklist developed.
9/16/2005	Franklin	WRESA-2, Southwestern Commission-2, Etel. Com-4	Announcement of Golden LEAF Award/Conditions
9/29/2005	Swain HS	Technology Coordinators-9, WRESA/Southwestern Commission-2, CEO's-2, Other-15	Pre-Bidder Conference
10/13/2005	Cherokee	WRESA-2, CPFdn-3	Explore funding options
10/27/2005	WRESA	Bob Byrd, Andy Gibson, Leonard Winchester	Plan evaluations and procurement bid
10/28/2005	Email, Phone	WRESA-1, CPFdn-1	Submit questions/COI
11/1/2005	WRESA	WRESA-1, Golden LEAF-1	Explore COI Policy & budget
11/3/2005	Swain MS	WRESA-2, Clay, Swain, SW Commission	Plan procurement and CPFdn budget
11/9/2005	Email	WNCEdNET Groups	Mail CPFdn draft
11/11/2005	WRESA	WRESA-1, Vendors-8	Receive proposals
11/14/2005	Swain MS	WRESA-2, Technology Coordinators-9, Consultants-2	Open/review proposals
11/16/2005	Macon BOE	WRESA-2, Technology Coordinators-9, Consultants-2, Vendors-8	Vendor proposal presentations
11/17/2005	Macon BOE	Technology Coordinators-9, Consultants-2	Review proposals
11/22/2005	Macon BOE	WRESA-2, Technology Coordinators-9	Review proposals
11/29/2005	Cherokee Holiday Inn	WRESA-1	Burroughs Welcome Mtg
12/7/2005	Macon BOE	WRESA-2, Technology Coordinators-9	Review proposals select ASAP
12/16/2005	Macon BOE	WRESA-2, SW Commission-2, Technology Coordinators-9, Executive Committee-9	Present recommendations to Executive Committee ASAP
1/3/2006	WRESA	WRESA-2, Golden LEAF-1	Review progress plan budget
1/10/2006	Sylva	WRESA-2, Technology Coordinators-2	Plan setup of Applications Committee
1/19/2006	Macon BOE	WRESA-2, Technology Coordinators-9, Vendors-11	Negotiations with ASAP/planning
1/20/2006	SW Commission - Bryson City	Technology Coordinators-4, Executive Committee-3, WRESA-3, Golden LEAF-1	Plan publicity, discuss negotiations, plan budget format/process, plan future funding

Date	Location	Participants/Representatives/Agencies	Brief Summary/Purpose/Results/Outcomes
1/25/2006	Clay BOE	Technology Coordinators/Applications Committee-14, WRESA-2	Organization of Technology Applications Committee
1/27/2006	Cherokee County Schools	WRESA-1, Technology Coordinators-1	Site visit/Formative Evaluation
1/27/2006	Clay County Schools	WRESA-1, Technology Coordinators-1	Site visit/Formative Evaluation
2/1/2006	WRESA	WRESA-3, Technology Coordinators-2	Plan ERC funding presentation
2/6/2006	Congressman Taylor's Office	WRESA-2, Golden LEAF-1, Technology Coordinators-2, Congressman-1, ERC-6	Funding request presentation
2/9/2006	SW Commission - Bryson City	WRESA-1, SW Commission-1	Budget Process Planning
2/9/2006	Swain County Schools	WRESA-1, Technology Coordinator-1	Site visit/Formative Evaluation
2/9/2006	Cherokee Central Schls	WRESA-1, Technology Coordinator-1	Site visit/Formative Evaluation
2/10/2006	Various	WRESA-2, Applications Committee-8	Cyber Mtg -Test of Centra
2/14/2006	WRESA	WRESA-8, LearNC-1	Review NC LEARN online courses
2/17/2006	SWCC	WRESA-1, Technology Coordinator-1	Site visit, evaluation
2/17/2006	WCU	WRESA-1, Technology Coordinator-1	Site visit, evaluation
2/20/2006	Macon BOE	WRESA-2, Technology Coordinators/Application Committee-15	Technology Coordinators review contract negotiations option, Applications Committee selection of facilitator
2/23/2006	CPFdn	WRESA-2, Technology Coordinators-4, CPFdn-5	Review CPFdn/WNCEdNET grant application
3/1/2006	WRESA	WRESA-3, Technology Coordinators-2, ARC-1	Prepare ARC request
3/6/2006	Cyber Mtg	WRESA-3, Technology Coordinators-5, Application Committee-8	Centra Orientation, Review websites
3/7/2006	CPFdn	WRESA-1, Technology Coordinators-1, CPFdn-2	Review contract elements
3/9/2006	WRESA	WRESA-2, Technology Coordinators-2	Revise ARC request
3/10/2006	WRESA	WRESA-2, Southwestern Commission-2, CPFdn-1	Notification of funding
3/13/2006	WRESA	WRESA-4, Etel Com-11, Technology Coordinators-9, Consulting Committee-8	E-mail notice of CPFdn Funding
3/20/2006	Macon Co Sch	TAC (14)	Discuss needs assessment Internet II
12/7/05 - 6/19/05		Contract negotiations led by Leonard Winchester	
3/27/2006	WRESA	GL-1, WRESA-3	Discuss publicity event & work W R-Polk
4/12/2006	Rutherford BOE	WRESA-2, E Polk Pangea Librarians-20, Rutherford CS	Discuss plans for P-R broadband
4/24/2006	WRESA	WRESA-2, GL-2, Polk-2, Ruth-2, Cher-2	Discuss Golden LEAF Grant possibilities; decision for e-Polk to be grantee

Date	Location	Participants/Representatives/Agencies	Brief Summary/Purpose/Results/Outcomes
4/27/2006	Smokey Mtn Elem Sch	Numerous agencies-26, approx. 250	GL/CPFdn Publicity Event
5/8/2006	Macon Co Sch	TAC-15	Review Tech programs
5/31/2006	Jackson Co Schools	Technology Coordinators-11, WRESA-3	Review contract, set up planning for maintenance
5/31/2006	Jackson Co Schools	Exec. Comm-7, Tech Coordinators-11, WRESA-3	Approve draft contract elements
6/8/2006	PPFdn	WRESA-1, CPFdn-1	Review evaluation
6/12/2006	Macon Co Sch	TAC-12, WRESA-1	Review Tech programs/needs policies
6/19-23/06	WRESA	Exec Comm, Tech Coord, SW Commission	Prepare ARC application
7/11/2006	CPFdn	WRESA (1), CPFdn (1)	Deliver WNC EdNET Brochures
7/11/2006	Raleigh	Lt. Gov (2), WRESA (1), Tech Coord (2)	Discuss state networks
7/14/2006	WCU	Exec. Comm. (1), WRESA (2), Other (3)	Review ASAP contract
7/18/2006	WRESA	Consulting group (1), WRESA (1)	Review evaluation for WNC EdNET
7/18/2006	Ch Hill	East-West Mtg. WRESA (1), Tech Coord (3)	Review broadband configurations
7/19/2006	Macon BOE	Tech Coord Mtg Tech Coord (7), WRESA (1), Other (2)	Approve contract; approve maintenance structure
7/19/2006	Macon BOE	Exec. Comm. (12) Tech Coord (6) WRESA (2)	Approve contract; approve maintenance structure
7/25/2006	Unknown	Tech Coord (4), WRESA (1)	List questions about the assessment goals and objectives
8/21/2006	SW Commission - Dinner	County Gov. Reps,	Annual Meeting
8/23/2006	SW Commission-Webster; Tech Coord Mtg	Tech Coordinators (6), WRESA - SW (4), Other (1)	Specific partner builds; discuss contract, ARC and maintenance.
8/30/2006	Cherokee Casino	WNC EdNET Presentation; WRESA (1), Other	Show Casino CPFdn Projects
8/30/2006	SW Commission - Webster	Staff Planning; SWC/WRESA (4), Tech Coord (2)	Planning contracting
9/7/2006	SWCC	WNC EdNET Planning; Tech Coord (2), SWC/WRESA (4)	Planning contracting
9/22/2006	Macon County Schools	Tech Coord. Meeting; Tech Coord (8); WRESA/SWC (2)	Discuss budget/ARC allocations
9/27/2006	Robbinsville	Exec Comm (1), WRESA/SWC (3), Tech Coord (1); Other (commissioners) (5)	Plan/explore Graham transport possibilities

Date	Location	Participants/Representatives/Agencies	Brief Summary/Purpose/Results/Outcomes
10/10/2006	Cherokee	WRESA (1), Tech Coord (3), TAC (5)	TAC Plan Conference
10/26/2006	Webster	WNC EdNET SWC (1), WRESA (1)	Planning Bookkeeping
11/28/2006	Hayesville	Tech Coord (1), WRESA (1)	ARC Planning
11/29/2006	Phone Person/WRESA	SWCC (1), GCS (1), CPFdn (2), G. County (1), Tech Coord (1), WRESA (3)	Plan, prepare, submit to CPFdn Graham Co Supplement
12/5/2006	Macon Co BOE	Tech Coord (10), WRESA (2), TAC/Other (6)	Plan Awareness Conf. Select WRESA to manage; update WNC EdNET maintenance - management structure
12/7/2006	Phone	Tech Coord (2), WRESA (1)	Update/briefing ARC Report Planning
12/11/2006	Phone	Tech Coord (2), WRESA (3)	Plan ARC encumbrance process
1/4-5/2007	Webster/Cherokee	SW Comm (2), WRESA (2), CPFdn (1)	Prepare/submit Funding Spent Report
1/16/2007	Webster	Tech Coord (14), TAC (1), WRESA (2), SW Comm (2), Golden LEAF (1)	Review contracts, review Bi-laws, review Awareness Conf. Program, review funding
1/25/2007	WCU Cullowhee	WRESA (6), Other (4)	Scope out Ramsey Center for WNC EdNet Awareness Conf.
1/26/2007	WCU Cullowhee	WRESA (2), WCU (2), Tech Coord (2), Other (6)	Discuss/plan possibilities to use e-NC Authority to support EdNET
1/30/2007	Conference Call	WRESA (1), SW Comm (1), CPFdn (2)	Discuss Graham Supplement request
1/31/2007	SWCC - Webster	WRESA (1), Tech Coord (4), Other (4)	Review by vendor of SONET/alternatives
2/5/2007	Conference Call	WRESA (1), Tech Coord (10), Other (4)	Discuss 501 (c) (3) Janirve and Graham Supplement
2/6/2007	Macon Co. Tech Center	WRESA (1), Tech Coord (10), Other (4)	Review switching, routing and other equipment via vendor presentations for possible WNC EdNET procurement.
2/7/2007	WRESA - Phone Call/Discussion	WRESA (3), Other (1)	Establish contact with Janirve Foundation. Meeting set up with Mr. Dyson.
2/8/2007	WCU	WRESA (1), Other (4)	Planning session for Awareness Conference.
2/14/2007	Phone/Email	WRESA (3), SW Comm (2), Tech Coord (2), Others (7)	Prepare follow up report for CPFdn Graham Supplement.
2/22/2007	Graham Co. BOE Robbinsville	WRESA (1), SW Comm (1), BWFN (3), Execu. Comm. (1), Tech Coord (5), Other (4)	Review/plan/summarize CPFdn Graham Supplement, pricing and work schedule.
2/22/2007	WCU Outreach Center	WRESA (2), WCU (5), TAC (3)	Review Awareness Conf. Program plans. Decide on 2 Keynote speaks, discuss VIP representative.
2/23/2007	Janirve Office	WRESA (1), Tech Coord. (1), Other (1)	Discuss WNC EdNET needs with Janirve Director. Determine application/funding process.

Date	Location	Participants/Representatives/Agencies	Brief Summary/Purpose/Results/Outcomes
3/7/2007	SW Comm	WRESA (1), SW Comm, (1), Tech Coord (1)	Realign budget.
3/9/2007	Harrah's Casino Hotel	Multiple agencies and participants.	Showcase of Balsam West Fiber Net
3/15/2007	MC NC Ofc RTP	Tech Coord (10), MC NC RTP (7)	Switching/Routing discussion and comparison
3/19/2007	Macon Co BOE	WRESA (1), Tech Coord (9), Other (1)	Discussed 501 (c) (3) WNC EdNET Inc. Revise draft, decide to meet March 28 on switching/routing.
3/21/2007	Southwestern Comm	WRESA (1), SW Comm (1)	Review project progress
3/23/2007	Email/Phone	WRESA (2), Tech Coord (3), Exec Comm (3), Other (1)	Review legislative possibilities/implications for WNC EdNET.
3/26/2007	SWCC	WRESA (2), Tech Coord (2), Exec Comm (3), Other (1)	Meet with Rep. Haire to discuss legislative implications.
3/27/2007	Bryson City	WRESA (2), Tech Coord (2)	Review WNC EdNET progress and plans for equipment/hookups.
3/28/2007	SWCC	WRESA (1), Tech Coord (9), Other (3)	Engineer technology comparisons SONET, ethernet DWDN
3/28/2007	SW Comm	WRESA (1), SW Comm (3)	Review CPFdn Graham Supplement & 501 (c) (3)
3/29/2007	Cherokee	WRESA (1), CPFdn (1)	Complete grant award contract Graham Supplement
3/30/2007	WRESA	WRESA (3), Tech Coord (4), Other (4)	Discuss BETA Application
4/3/2007	ERC Asheville	ERC (3), WRESA (2), Tech Coord (2)	Review/tour ERC and discuss services
4/19/2007	SW Comm	Tech Coord (10), WRESA (1), SW Comm (1), Other (1)	Tech Coord Meeting review 501 (c) (3) - approve. Review equipment/maintenance issues - adopt 100% approach.
4/25/2007	Jackson County BOE	TAC (2), Exec Comm (1), Tech Coord (10), WRESA (2), SW Comm (1), Other (1)	Tech Coord discuss/adopt 501 (c) (3). Discuss WNC EdNET maintenance.
4/25/2007	Jackson County BOE	Exec Comm (9), TAC (2), Tech Coord (10), WRESA (2), SW Comm (1), Other (2)	Executive Committee - adoption of 501 (c) (3) guidelines - review Awareness Conf - empower maintenance study group

Appendix B
Infrastructure Progress Reports

WNC EdNet Progress Update 2-26-07 v3

School:	Total Mileage	Existing Fiber	New Construction	Engineering Completed	NCDOT Permits Applied for	NCDOT Permits Approved	Pole Attachments Applied For	Pole Attachments Approved	Fiber Optic Cable Ordered & Delivered	Estimated Construction Start Date	Estimated Construction Completion Date
Cherokee Schools	0.672	0.63	0.042	Yes	N/A	Yes	N/A	N/A	Yes	3/22/2007	4/4/2007
Cherokee Elem	0.342	0.27	0.072	Yes	Yes	No	N/A	N/A	Yes	3/22/2007	4/4/2007
Cherokee HS	1.800	0.9	0.900	Yes	Yes	Yes	N/A	N/A	Yes		Completed
Cherokee Middle	0.905	0.9	0.005	Yes	Yes	Yes	N/A	N/A	Yes		Completed
Cherokee New School Complex	4.232	2.83	1.402	Yes	Yes	Yes	N/A	N/A	Yes		TBD by EBCI
Total in Miles	7.950	5.53	2.420								
Percentage Completion	91.52%	100%	72.13%	100%	100%	80.00%	100%	100%	100%		

Cherokee Co NOC	0.095	0	0.095	Yes	Yes	Yes	N/A	N/A	Yes	3/22/2007	4/12/2007
Andrews Elem	5.673	5.44	0.233	Yes	Yes	Yes	Yes	Yes	Yes	3/22/2007	4/12/2007
Andrews High	6.302	5.44	0.862	Yes	Yes	Yes	Yes	Yes	Yes	3/22/2007	4/12/2007
Andrews Mid	7.363	7.06	0.303	Yes	Yes	Yes	Yes	Yes	Yes	3/22/2007	4/12/2007
Marble Elem	1.192	1.04	0.152	Yes	Yes	Yes	Yes	Yes	Yes	3/22/2007	4/12/2007
Total in Miles	20.624	18.98	1.644								
Percentage Completion	92.03%	100%	0%	100%	100%	0%	100%	20%	100%		

Jackson Co Schools	0.038	0	0.038	Yes	Yes	Yes	Yes	Yes	Yes	3/14/2007	3/19/2007
Fairview Elem	2.670	2.67	0.000	Yes	Yes	Yes	Yes	Yes	Yes	3/14/2007	3/19/2007
Scotts Creek Elem	3.243	0.17	3.073	Yes	Yes	Yes	Yes	Yes	Yes	3/5/2007	3/22/2007
Smokey Mtn Elem	13.113	12.84	0.273	Yes	Yes	Yes	Yes	Yes	Yes	3/5/2007	3/22/2007
Smokey Mtn High	2.670	2.67	0.000	Yes	Yes	Yes	Yes	Yes	Yes	3/5/2007	3/19/2007
School of Alternatives	1.117	0.17	0.947	Yes	Yes	Yes	Yes	Yes	Yes	3/5/2007	3/30/2007
Cullowhee Valley School	10.159	9.97	0.189	Yes	N/A	N/A	N/A	N/A	Yes	6/4/2007	6/14/2007
Blue Ridge School	10.254	9.97	0.284	Yes	N/A	N/A	N/A	N/A	Yes	6/4/2007	6/14/2007
Total in Miles	43.264	38.46	4.804								
Percentage Completion	88.90%	100%	0%	100%	100%	100%	100%	100%	100%		

WNC EdNet Progress Update 2-26-07 v3

Macon Co Schools	0.000	0	0	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
W. Macon Elem	2.721	2.38	0.341	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
Cullasaja Elem	8.110	4.61	3.500	No	No	No	No	No	No	TBD	TBD
E. Franklin Elem	3.495	3.23	0.265	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
Franklin High	2.117	2.06	0.057	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
Iotla Elem	6.720	2.72	4.000	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
Macon Co Middle	4.692	4.48	0.212	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
Nantahala School	73.855	68.06	5.795	Yes	No	No	No	No	Yes	5/14/2007	6/11/2007
Union Learning Center	5.989	2.37	3.619	Yes	Yes	Yes	Yes	Yes	Yes	5/21/2007	6/13/2007
Total in Miles	107.700	89.91	17.790								
Percentage Completion	83.48%	100%	0%	90.00%	77.78%	77.78%	77.78%	77.78%	88.89%		

Graham Co Schools	0.300	0	0.300	Yes	Yes	Yes	N/A	N/A	Yes	6/4/2007	7/16/2007
Graham Co High/Middle School	12.000	0	12.000	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	7/16/2007
TCCC Annex	0.319	0	0.319	Yes	Yes	Yes	N/A	N/A	Yes	6/4/2007	7/16/2007
Total in Miles	12.619	0	12.619								
Percentage Completion	0.00%	100%	0%	0.02%	0.02%	0.02%	100%	100%	100%		

Swain Co Schools	0.000	0	0.000	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	5/11/2007
Swain Co High	2.507	1.06	1.447	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	5/11/2007
Swain Co Middle	1.447	0	1.447	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	5/11/2007
Swain Co W. Elem	4.637	3.19	1.447	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	5/11/2007
Swain Co E. Elem	9.579	9.29	0.289	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	5/11/2007
Total in Miles	18.170	13.54	4.630								
Percentage Completion	74.52%	100%	0%	100%	100%	20.00%	100%	100%	100%		

Total Mileage Completed:	79.10%										
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WNC EdNET Progress Report 03/31/2007

School:	Total Mileage	Existing Fiber in Miles	New Const. in Miles	New Const. completed in Miles	New Const. % completed	Engineering Completed	NCDOT Permits Applied for	NCDOT Permits Approved	Pole Attachments Applied For	Pole Attachments Approved	Fiber Optic Cable Ordered & Delivered	Estimated Const. Start Date	Estimated Const. Completion Date
Cherokee Schools	0.672	0.63	0.042	0.042	95.0%	Yes	N/A	Yes	N/A	N/A	Yes	3/22/2007	Completed
Cherokee Elem	0.342	0.27	0.072	0.072	95.0%	Yes	Yes	No	N/A	N/A	Yes	3/22/2007	Completed
Cherokee Central Schools IT	0.095	0	0.095	0.095	95.0%	Yes	Yes	Yes	N/A	N/A	Yes	3/22/2007	Completed
Cherokee HS	1.800	0.9	0.900	0.900	95.0%	Yes	Yes	Yes	N/A	N/A	Yes		Completed
Cherokee Middle	0.905	0.9	0.005	0.005	95.0%	Yes	Yes	Yes	N/A	N/A	Yes		Completed
Cherokee New School Complex*	4.232	2.83	1.402	1.402	70.0%	Yes	Yes	Yes	N/A	N/A	Yes		TBD by EBCI
Total in Miles	8.044	5.53	2.514	2.514									
Percentage Completion	90.44%	100%		77.70%	90.8%	100%	100%	80.00%	100%	100%	100%		

Cherokee Co NOC	0.095	0	0.095	0.038	40.0%	Yes	Yes	Yes	N/A	N/A	Yes	3/22/2007	4/12/2007
Andrews Elem	5.673	5.44	0.233	0.221	95.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/22/2007	Completed
Andrews High	6.302	5.44	0.862	0.819	95.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/22/2007	Completed
Andrews Mid	7.363	7.06	0.303	0.242	80.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/22/2007	4/12/2007
Marble Elem	1.192	1.04	0.152	0.045	30.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/22/2007	4/12/2007
Total in Miles	20.624	18.98	1.644	1.366									
Percentage Completion	92.03%	100%		83.1%	68.0%	100%	100%	0%	100%	20%	100%		

Jackson Co Schools	0.038	0	0.038	0.04	95.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/14/2007	Completed
Fairview Elem	2.670	2.67	0.000	0.00	95.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/14/2007	Completed
Scotts Creek Elem	3.243	0.17	3.073	3.07	95.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/5/2007	Completed
Smokey Mtn Elem	13.113	12.84	0.273	0.27	95.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/5/2007	Completed
Smokey Mtn High	2.670	2.67	0.000	0.00	95.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/5/2007	Completed
School of Alternatives	1.117	0.17	0.947	0.57	60.0%	Yes	Yes	Yes	Yes	Yes	Yes	3/5/2007	3/30/2007
Cullowhee Valley School	10.159	9.97	0.189	0.00	0.0%	Yes	N/A	N/A	N/A	N/A	Yes	6/4/2007	6/14/2007
Blue Ridge School	10.254	9.97	0.284	0.00	0.0%	Yes	N/A	N/A	N/A	N/A	Yes	6/4/2007	6/14/2007
Total in Miles	43.264	38.46	4.804	3.95									
Percentage Completion	88.90%	100%		82.2%	66.9%	100%	100%	100%	100%	100%	100%		

Macon Co Schools	0.000	0	0	0.000	90.0%	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
W. Macon Elem	2.721	2.38	0.341	0.000	0.0%	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
Cullasaja Elem	8.110	4.61	3.500	0.000	0.0%	No	No	No	No	No	No	TBD	TBD
E. Franklin Elem	3.495	3.23	0.265	0.000	0.0%	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
Franklin High	2.117	2.06	0.057	0.000	0.0%	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
Iotla Elem	6.720	2.72	4.000	0.000	0.0%	Yes	Yes	Yes	NO	NO	Yes	5/14/2007	6/11/2007
Macon Co Middle	4.692	4.48	0.212	0.000	0.0%	Yes	Yes	Yes	Yes	Yes	Yes	5/14/2007	6/11/2007
Nantahala School	73.855	68.06	5.795	0.000	0.0%	Yes	No	No	No	No	Yes	5/14/2007	6/11/2007
Union Learning Center	5.989	2.37	3.619	0.000	0.0%	Yes	Yes	Yes	Yes	Yes	Yes	5/21/2007	6/13/2007
Total in Miles	107.700	89.91	17.790	0.000									
Percentage Completion	83.48%	100%		0.0%	10.0%	90.00%	77.78%	77.78%	77.78%	77.78%	88.89%		

Graham Co Schools	0.300	0	0.300	0.000	0.0%	Yes	Yes	Yes	N/A	N/A	Yes	6/4/2007	7/16/2007
Graham Co High/Middle School	12.000	0	12.000	0.000	0.0%	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	7/16/2007
TCCC Annex	0.319	0	0.319	0.000	0.0%	Yes	Yes	Yes	N/A	N/A	Yes	6/4/2007	7/16/2007
Total in Miles	12.619	0	12.619	0.000									
Percentage Completion	0.00%	100%		0.0%	0.0%	0.02%	0.02%	0.02%	100%	100%	100%		

Swain Co Schools	0.000	0	0.000	0.000	95.0%	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	Completed
Swain Co High	2.507	1.06	1.447	0.145	10.0%	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	5/11/2007
Swain Co Middle	1.447	0	1.447	1.375	95.0%	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	Completed
Swain Co W. Elem	4.637	3.19	1.447	0.000	0.0%	Yes	Yes	NO	N/A	N/A	Yes	4/16/2007	5/11/2007
Swain Co E. Elem	9.579	9.29	0.289	0.000	0.0%	Yes	Yes	Yes	N/A	N/A	Yes	4/16/2007	5/11/2007
Total in Miles	18.170	13.54	4.630	1.519									
Percentage Completion	74.52%	100%		32.8%	40.0%	100%	100%	20.00%	100%	100%	100%		

Total Mileage Completed:	83.53%	100.00%		45.97%	45.95%								
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Notes:
95% means all construction is complete only splicing remains.

Appendix C
501 (c) (3) WNC EdNET Inc. Materials

BYLAWS OF THE WESTERN NORTH CAROLINA EDUCATIONAL NETWORK, INC.

These Bylaws have been adopted by the Board of Directors of the Western North Carolina Educational Network, Inc., a North Carolina nonprofit company (the "Company," "the Corporation"), pursuant to Chapter 55A of the North Carolina General Statutes and shall govern the activities of the Company.

ARTICLE I. Board of Directors

Powers and Duties. The Board shall have the powers of and be authorized to serve as the Chief Executive Officer of the Corporation subject to the provisions of these Bylaws. The Board shall have the authority to prepare and adopt bylaws and carry out such other matters as are necessary or desirable for the administration of the Corporation. The Board shall be responsible for overseeing the management and business affairs of the Corporation in compliance with all applicable laws, rules and regulations. The Board shall have the authority to appoint or engage the officers of the Corporation, and shall have the power to contract for the full or partial management of the Corporation with third parties.

Number of Directors. The Board shall consist of ten (10) Directors. One representative shall be elected to the Board from each of the following categories:

- Jackson County Schools
- Macon County Schools
- Clay County Schools
- Cherokee County Schools
- Graham County Schools
- Swain County Schools
- Cherokee Tribal Schools
- Southwestern Community College
- Western Carolina University
- Tri-County Community College

Term of Office; Qualifications. The term of office for any Director shall be one year with no limit on the number of terms a Director may serve.

Removal. Any Director may be removed by the Board of Directors whenever in its judgment the best interests of the corporation could be served thereby, but such removal shall be without prejudice to the contract rights, if any, of the person so removed.

Vacancy. A vacancy due to death, resignation, removal, disqualification or otherwise, may be filled by the Board of Directors. The replacement Director must be a representative from the vacated category and shall serve for the unexpired portion of the term.

Compensation. By resolution of the Board of Directors, the Directors may be paid their expenses, if any, of attendance to various meetings and official functions related to the business of the Corporation, but will not be paid a fixed sum for attendance at each meeting of the Board of Directors or a stated salary as Director.

Ex-Officio Members. The Board may appoint one or more representatives to serve as Ex-Officio Members of the Board of Directors to provide advice, counsel and guidance related to the business of the Corporation. Ex-Officio Members may serve for one year terms with no limit on the number of terms a Member may serve. Ex-Officio Members shall have no voting rights and shall serve in an advisory capacity only.

Confidentiality. All Directors and Ex-Officio Members shall be required to execute confidentiality agreements with the Corporation and to be bound by the terms and conditions of those agreements. All Confidential Information shall be approved as such by the Board, clearly identified as such, and, if in documentary form, marked as such on the face of the document. All Directors and Ex-Officio Members shall be additionally required to disclose existing or potential conflicts of interest to the President/Chair in writing.

ARTICLE II. Meetings of the Board of Directors

Regular Meetings. The Board shall meet at such time and at such place as may be determined by the Board to carry on the business of the Corporation. The Board may set the dates and times for regular meetings of the Board, and special notice of these meetings is not required. Any topic relating to the business of the Corporation may be discussed at regular meetings of the Board, and all Directors shall discuss in good faith any topic brought to the Board by the other Directors.

Special Meetings. Special meetings of the Board of Directors may be called by or at the request of the President/Chair or any two (2) Directors. Notice of any special meeting shall be given at least 48 hours before the time fixed for the meeting, by written notice delivered personally or mailed to each director at his or her business address, or by email. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail so addressed, with postage thereon prepaid, not less than 3 days prior to the commencement of the above-stated notice period. If notice is given by email, such notice shall be deemed to be delivered when the email has been sent. Any director may waive notice of any meeting. The attendance of a director at a meeting shall constitute a waiver of notice of such meeting, except where a

director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the board of directors need be specified in the notice or waiver of notice of such meeting.

Meetings by Conference Telephone. Members of the Board of Directors may participate in a regular or special meeting of such Board by means of conference telephone, videoconference, or similar communications equipment by means of which all persons participating in the meeting can simultaneously hear each other during the meeting. A Director participating in a meeting pursuant to this provision is deemed to be present in person at the meeting.

Action without Meeting. Members of the Board of Directors may take action on any matter without a meeting. The action must be evidenced by one or more written consents describing the action taken, signed by each Director, and delivered to the Corporation for inclusion in the minutes or filing with the corporate records. Such consent shall have the same force and effect as a meeting vote and may be described as such in any document.

Quorum. The quorum necessary to conduct any business at any meeting of the Board shall be a simple majority, or six (6) Directors.

Voting. Each Director shall have one (1) vote at all Board meetings. The act of the majority of the Directors present at a meeting at which a quorum is present shall be the act of the Board of Directors. In the event that a Director does not attend any given meeting, s/he may vote by proxy so long as that proxy is given in writing at last 24 hours in advance of any given meeting.

ARTICLE III. Corporate Officers/Committees

Number of Officers; Term. The Directors shall select from their membership the following four (4) Corporate Officers: the President/Chair of the Board of Directors, Vice Chair, Treasurer, and Secretary. Each of the Corporate Officers shall be elected by a majority vote from the membership of the Board of Directors. The term of office for any Officer shall be one year with no limit on the number of terms an Officer may serve. Ex-Officio Members are not eligible to serve as Corporate Officers.

Power and Duties of Officers. The President/Chair shall preside at all board meetings; ensure that the Board functions smoothly and meets its obligations; represent the Board where appropriate; have the authority to carry out the directions of the Board including executing documents and agreements on behalf of the Board; and serve at the Chair of the Executive Committee. The Vice-Chair presides at meetings in the President/Chair's absence; assists the President/Chair in carrying out the role and activities of the Board; and serves as Chair of the Network Management and Applications Committee. The Treasurer shall make periodic financial reports to the Board; assist in the preparation of the budget; make financial information available to Board members; and serve as the Chair of the Finance Committee. The Secretary

shall be responsible for keeping records of Board actions, including overseeing the taking of minutes at all board meetings, sending out meeting announcements, distributing copies of minutes and the agenda to each Board member, and assuring that corporate records are maintained.

Removal. Any Officer may be removed by the Board of Directors whenever in its judgment the best interests of the corporation could be served thereby, but such removal shall be without prejudice to the contract rights, if any, of the person so removed.

Vacancy. A vacancy due to death, resignation, removal, disqualification or otherwise, may be filled by the Board of Directors.

Committees. The Board may appoint committees from time to time to carry out specific purposes of the Board. Delegation of authority to such committees will be governed by the voting requirements set forth in these bylaws. Standing Committees of the Board shall include the following: Executive Committee; Finance Committee; Network Management and Applications Committee; and Nominating Committee. The President/Chair shall serve as the Chair of the Executive Committee, the Vice-Chair shall serve as the Chair of the Network Management and Applications Committee, and the Treasurer shall serve as the Chair of the Finance Committee. An at-large member of the board may serve as the Chair of the Nominating Committee. Ex-Officio Members may not serve as the Chair of any Committees.

ARTICLE IV. Financial Management

Financial Management. The Board shall be responsible for the financial management of the Corporation.

Bank Accounts; Deposits. The Board and authorized representatives may open and access bank accounts. All funds of the corporation not otherwise employed shall be deposited from time to time to the credit of the corporation in such banks, trust companies, or other depositories as the Board of Directors may select.

Contracts. The Board of Directors may authorize any officer or officers, agent or agents, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the corporation, and such authority may be general or confined to specific instances.

Loans. No loans shall be contracted on behalf of the corporation and no evidences of indebtedness shall be issued in its name unless authorized by a resolution of the Board of Directors. Such authority may be general or confined to specific instances.

Checks, Drafts, or Orders. All checks, drafts, or other orders for the payment of money, notes, or other evidences of indebtedness issued in the name of the corporation shall be signed by such officer or officers, agent or agents of the corporation and in such manner as shall from time to time be determined by resolution of the Board of Directors.

Annual Budget. The fiscal year of the Corporation shall be July 1 to June 30 ("Fiscal Year"). For each Fiscal Year of the Corporation, the Board shall adopt operating and capital budgets and a projected cash flow statement for the Corporation's Fiscal Year, in such form as may be determined by the Board from time to time (the "Annual Budget"). Annual Budgets may be revised one or more times by the Board in its discretion.

Accounting; Books and Records; Financial Statements.

The books and records of the Corporation shall be kept on an accrual basis for tax return preparation purposes and kept in accordance with GAAP and any other accounting standards or requirements, consistently applied, for management reporting and financial statement purposes. For federal and state tax purposes, the Corporation shall be treated as a not-for-profit corporation under 501(c)(3) of the IRS Code.

At all times during the continuance of the Corporation, the Directors and Officers shall keep or cause to be kept, at the principal offices of the Corporation, full and complete books of account. The books of account shall be maintained in a manner that provides sufficient assurance that: (i) transactions of the Corporation are executed in accordance with the general or specific authorization of the Board; (ii) transactions of the Corporation are recorded in such form and manner as will (A) permit preparation of federal, state, and local income tax returns and information returns as required by law, (B) permit preparation of the Corporation's financial statements in accordance with GAAP, (C) maintain accountability for the Corporation's assets, (D) in connection with all debt, permit preparation of such reports, submit such information and performance of such additional duties as may be required of the Corporation by the debt agreements, and (E) prepare and submit for filing all reports as may be required by any regulatory agency having jurisdiction over the Corporation; (iii) access to assets is permitted only in accordance with the general or specific authorization of the Board; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any difference.

In addition to any rights which may be provided under the Act, each Member and each Director shall have the right at all reasonable times during usual business hours to (i) audit, examine and make copies of the books and records of the Corporation, (ii) visit the facilities of the Corporation and (iii) discuss the affairs of the Corporation with its Officers, agents, customers and suppliers. Such right may be exercised through any agent or employee of such Director designated by it or by independent certified public accountants or counsel designated by such member. Each Director shall bear its expenses incurred in any examination made for such Director's account.

The Corporation's independent accountants and auditors shall be selected by resolution of the Directors.

ARTICLE V. Liability; Confidentiality

Liability. No Director, Officer or Agent of the Corporation shall be personally liable for any debts, liabilities and/or other obligations of the Corporation

Confidentiality. From time to time the parties may share with each other Confidential Information. "Confidential Information" shall mean any information that is not public information including without limitation, any specifications, requirements, drawings, documents, reports, plans, methods, or systems without regard to the form, whether written, verbal or electronic, and any associated business planning or technical information. A party receiving Confidential Information ("Recipient") shall use the Confidential Information only for the purposes associated with the business of the Corporation. Recipient will share the Confidential Information only with persons who are authorized to receive it by the owner of the Confidential Information and shall not disclose Confidential Information to any other party. Upon termination of the Corporation, upon the request of the disclosing party, Recipient shall destroy or return all Confidential Information. All Confidential Information shall be marked "Confidential" (or contemporaneously indicated to be "Confidential" if not in tangible form).

ARTICLE VI. Termination; Amendment

These Bylaws may be amended at any meeting of the Board, provided written notice of the proposed amendment has been sent to each Board of Director at least 10 days prior to the meeting. These Bylaws shall govern the activities of the Board until terminated by the unanimous written consent of the Board of Directors of the Corporation..

These Bylaws are effective as of April XYZ, 2007.

Attest:

XYZ, President/Chair of Board

XYZ, Secretary



Proposed Network Management Plan

Western North Carolina Educational Network, Inc. PARTNERS

Jackson County Schools
Macon County Schools
Clay County Schools
Cherokee County Schools

Graham County Schools

Swain County Schools
Cherokee Tribal Schools
Southwestern Community College
Western Carolina University
Tri-County Community College

Advisory Members

Southwestern NC Planning & Economic Development Commission
Western Region Education Service Alliance (WRESA)

Mission Statement:

The mission of the Western North Carolina Educational Network, Inc. is to build and maintain a high capacity, broadband, educational data network in Western North Carolina

I. Purpose of Plan:

The purpose of this plan is to provide an organization framework for a collaborative organization of like-minded schools forming the Western North Carolina Educational Network, Inc.

Objectives are:

- A. To establish a collaborative of partners for the purpose of enhancing the use and continued maintenance and development of fiber technology.
- B. To facilitate capacity building and use of the installed broadband technology to include future sites and site changes for the continued enhancement of teaching and learning.
- C. To ensure that the fiber ring will be able to remain current with networking technologies.

Maintenance and updating of the software and configurations for the regional wide area network will be a key issue for the future of the Western North Carolina Educational Network, Inc. As a result, collaborative members must proactively plan for ongoing operations, upgrades and potential changes to meet new challenges.

This management plan serves as a foundation to resolve major issues to ensure the successful operation of the Western North Carolina Educational Network, Inc.

II. Changes to this Plan

This plan may be amended by a 2/3 vote of the Board of Directors of the Western North Carolina Educational Network, Inc. at any regular or called meeting at which a quorum is present. Board members must be given notice of proposed amendments at least two weeks before the meeting at which they are considered.

III. Western North Carolina Educational Network, Inc. Management

Management of the Western North Carolina Educational Network, Inc. will be conducted through a collaborative management partnership between seven partner school systems, two community colleges and a university. Members include Cherokee County Schools, Cherokee Tribal Schools, Clay County Schools, Graham County Schools, Jackson County Schools, Macon County Schools, Swain County Schools, Southwestern Community College, Tri-County Community College and Western Carolina University. The Southwest Commission and the Western Regional Education Service Alliance (WRESA) are advisory members. A representative of the Charter School members will also be invited. This Collaborative provides vision and shared resources in support of the Western North Carolina Educational Network, Inc. The network management plan will be coordinated by this collaborative partnership.

IV. The Corporation

The Western North Carolina Educational Network, Inc. will be established as a 501-C-3 corporation. Initially the registered agent for this corporation will be

Roger Wiggins
Southwestern Commission
125 Bonnie Lane
Sylva, North Carolina

V. Operational Procedures

A. Employees

- 1) An Administrative Director will coordinate all management activities of the Western North Carolina Educational Network, Inc. He will report directly to the Board of Directors.
- 2) A Supervisor will oversee the technology functions of the fiber ring and coordinate management, upgrades, and technology changes with the entity partners. He will report to the Administrative Director, but attend Board of Directors meetings at the discretion of the Board. At the discretion of the Board of Directors this position may be filled by contracting with an internal member of WNC EdNET after offering a bid proposal to all members of WNC EdNET.

B. Management Process

- 1) The decision making process will be consultative and collaborative as much as possible. The Administrative Director will schedule meetings with the Board of Directors for purposes of decision making, planning, progress reporting, data gathering and making recommendations. Announcements, agendas and minutes will be an integral part of the meeting process.
- 2) The Administrative Director and his staff will coordinate the day-to-day operations of the Western North Carolina Educational Network, Inc. with the guidance and assistance of the Southwest Commission Executive Director, WRESA Executive Director and the Board of Directors.
- 3) The Southwest Commission Finance Officer will maintain expenditure records, process payments, and track the use of all grant funds. Periodic finance reports will be made to the key referent groups. The accepted practices and approved accounting and budgeting procedures used by the Southwestern Commission will be used with the Western North Carolina Educational Network, Inc..
- 4) All encumbrances will need the approval of the Board of Directors. All payments will be based on prescribed documentation and approved budgeted items and amounts.

C. Routine Maintenance

- 1) Each school district will be responsible for all maintenance, repairs, and fiber cuts for the LAN and star of that school district.

- 2) Routine network maintenance to the ring will be performed by the Technology Director and his staff. Annual allotments from each school district of the group will be used to fund the maintenance functions. Each school district will pay an amount (*This area needs to be completed to match the Continual Funding Method chosen*).
- 3) The following list will server as examples of duties to be handled under Routine Maintenance:
 - a) Configuration implementation and maintenance of routers including SONET technology
 - b) Troubleshooting and minor replacement of cable runs
 - c) Recommendations for internal switch, wireless bridges, and wireless access point purchases
 - d) Recommendations for configurations for LAN hardware
 - e) Software upgrades for switches and router hardware
 - f) Security recommendations

Network Monitoring

Network Monitoring will be handled by a committee comprised of technology personnel from the member school districts. The time dedicated for personnel to monitor the network will be donated by the school districts. This committee will be appointed by the Board of Directors.

Operational Guidelines

The Technology Director will give quarterly written reports to the Board of Directors regarding the health, security, and maintenance issues of the network.

- 1) The Board of Directors will meet at least on a quarterly basis to review and discuss the reports of the Technology Director. At the discretion of the Board, the Technology Director may be called upon for an oral report or additional information.

If, at any time, the Technology Director deems immediate action is necessary that will cost in excess of \$1,000, the Board of Directors will be convened for their consideration and possible action.

Major Problems

Major problems, such as fiber cuts to the ring will be reported to the Board of Directors as soon as possible by either the fiber vendor or the Technology Director. The members of the Board of Directors will then consider the various options for solving the problem and choose a solution by majority vote. If an allotment is deemed necessary, each school district will pay an amount (*This area needs to be completed to match the Continual Funding Method chosen*). If a cable cut or other problem is determined to be chargeable back to an individual or company, appropriate action will be taken to attempt a full recovery of these funds.

Additional Sites

When a school district requires that an additional site be added to the star structure for that school district, they will be solely responsible for all costs associated with that addition. They will also be responsible for all maintenance for LAN activities to these additional sites.

When a school district requires that an additional site be added to the ring, they will be solely responsible for all costs associated with that addition. However, once these initial monies have been paid and the construction is completed, that additional fiber mileage and equipment will become part of the Western North Carolina Educational Network, Inc. and be automatically included in the maintenance plan that is outlined above.

Technology Advancements

If a partner of the Western North Carolina Educational Network, Inc. feels that a technology advancement should be implemented on the network, that school district will request a meeting of the Board of Directors to discuss the advancement and any associated costs. Consultants may be called in to advise this group regarding the advancement. The members of the Board will then consider the options and choose a solution by majority vote. If an allotment is deemed necessary, each school district will pay an amount (*This area needs to be completed to match the Continual Funding Method chosen*)



Suggested Budget for Western North Carolina Educational Network, Inc.

<u>Budget Item</u>	<u>Monthly Amount</u>	<u>Annual Amount</u>
Office Rent	350.00	4,200.00
Utilities (Elect./phone)	85.00	1,020.00
Receptionist Salary	880.00	10,560.00
Administrative Director Salary	4,166.67	50,000.00
Technical Director Salary	5,833.33	70,000.00
Accounting	500.00	6,000.00
Insurance (including Health & WC)	1,250.00	15,000.00
Travel Expenses	150.00	1,800.00
Office Supplies	25.00	300.00
Technician Cell Phone	80.00	960.00
Miscellaneous Supplies	425.00	5,100.00
Consultant Expenses	200.00	2,400.00
Totals	13,945.00	167,340.00
<u>Office Equipment Initial Purchase</u>		
Desks, file cabinets	1,000.00	
Fax, copier, etc.	1,500.00	
Computers	3,500.00	
Total Equipment	6,000.00	

Budget and equipment item expenses may be greatly reduced by donations from members and partners of WNC EdNET, Inc.

Appendix D

- **SONET Justification**
- **Sample Equipment List**

Appendix D

SONET Justification

Why SONET?

Below are listed things we believe to support the Technology Committee's unanimous decision in selecting SONET transport to further the goals of WNCEDNET. These are in no particular order. Both the strength and priority that these are held will vary from person to person on the committee.

- Carrier Class equipment
- Superior error correction and payload calculation
- Independence of LEA networks
- Scalability (particularly 15454), upgradable to DWDM
- Flexibility
- Easier integration to other systems
- Gives us more options
- 5 year warranty on Cisco equipment
- Availability of experts
- Handles voice
- Less risk of catastrophe when adding or changing configuration (more manageable)
- More adaptable for creative and innovative projects without endangering ring function
- Ring maintenance and configuration is less convoluted.
- Offers possibility of directly connected storage solution (possibly for developing a regional learning repository)
- Can guarantee QOS via circuits
- Gives the option of multiple levels of service (i.e. Voice Data, Video)
- Lower operational costs. Less operational complexity.
- Node costs are economical when compared apple-to-apples to comparable Ethernet, i.e. 2-7600 routers for RPR.
- Proven resilience is performed at the hardware level with actual sub 50 millisecond switch time.
- Able to deploy DWDM totally or partially, same chasis, same processors, same software, without learning curve.
- Complete standards compliant to enable connection to carrier networks.

Appendix D

Sample Equipment List

Types and estimated costs of electronic equipment and installation needed for WNC EdNET:

ITEM	Cost Each	# Needed
Electronics - Ring and Stars		
Cisco SONET 15454 (OC192) (included maint 1yr)	\$ 88,494.20	10
Cisco WS-3750G-12S Core Switch (1 per sch district)	\$ 6,666.30	7
Cisco WS-C3560-24TS-E Edge Switch (1 per school)	\$ 2,716.90	41
GE SFP,LC connector LX/LH transceiver (sch x 2)	\$ 497.50	82
Patch Panel	\$ 125.00	48
Core Panel	\$ 550.00	7
Pigtails	\$ 10.00	244
HandHolds/Egress	\$ 450.00	70
Fiber Patch Cables	\$ 28.00	126
Backup Power	\$ 5,000.00	6
Fiber Converter (Fiber->RJ45)	\$ 450.00	3
Termination reimbursement (mileage, etc)	\$ 308.00	66
Core & Edge Installation Programming	\$ 1,000.00	48

Appendix E
Related Volunteer Contributions

Appendix E

Related Volunteer Contributions

Significant contributions have been committed to support this project to include:

- Leonard Winchester has donated contract negotiation services and will help with the equipment procurement process.
- Andy Gibson has donated fiber-splicing services needed for connecting the respective sites to the fiber transport infrastructure.
- Jim Campbell has donated his services for SONET box installation and training.
- The Technology Coordinators will maintain the connections from the central office core switch to the respective field sites.
- The Carlton family has donated the fiber link to Cashiers.
- The Southwestern Community College has assisted with providing some fiber for the ring.