

**Lincoln Intermediate Unit #12**  
**65 Billerbeck Street**  
**New Oxford, PA 17350**  
**BEN 125772**

**Application for FCC Wireless Pilot Project – EDU 2011, WC Docket No. 10-222**

**Description**

The Lincoln Intermediate Unit #12 (LIU) is an Educational Service Agency in the state of Pennsylvania. We provide products and services to 27 public school districts/vocational-technical schools in the assigned geographic area of Adams, Franklin, and York counties to meet educational needs. The LIU also provides services and programs to non-public schools and community-based organizations.

In the summer of 2010 the LIU began a pilot program offering anytime/anywhere wireless connectivity with four of our member school districts and one cyber school services vendor. The goal of the program is to meet the needs of a diverse, mobile, anytime-learner student population. The program is unique in several ways:

1 – The blending of school district and cyber school services. A student remains a part of the school community with access to all the services provided as if they attend the physical school on a daily basis while having access to educational resources of a cyber school for anytime learning. This meets the needs of a student who is unable to attend classes due to medical necessity; the student who lives in a non-traditional household and transitions between homes; the student who wants to participate in school activities like band, sports teams, clubs, theater, tutoring, advanced chemistry with lab work; the student who has an individual education plan (IEP) department activity; the student who desires an academic subject unavailable in the district due to resource limitations; and many more distinct situations. Students who participate in this program remain subject to the school district's rigorous academic standards. They graduate with a diploma from the school district, not a cyber school. In contrast, many cyber-school-only approaches are based on unplugging the student from the local districts' community and support systems.

2 - IU-based not district based. Being IU-based, the IU aggregates the smaller number of students per district into a multi-countywide effort thru the existing LIU consortium. This results in lower pricing due to volume purchases of educational services. Additionally, economies of scale permit the LIU to leverage existing technology and operational resources to manage the program and develop more sophisticated technology, e.g. specialized VPN connectivity solution, while spreading the cost over a wider group.

The program includes a technology component as well as education/curricula/learning materials and services. The LIU is able to offer these services at reduced rates due to consortium pricing and group or volume purchases.

## **Technology Component**

The technology component consists of netbook computers, with data connectivity 24/7 365 days a year for individual students, with filtering software, managed via a virtual private network (VPN) connection into the LIU's private network and data center.

The netbook computers are equipped with Verizon mobile broadband capability for Internet access. The offered models can change to keep pace with evolving technologies and connectivity. Models currently being used are:

- GATEWAY Model LT2016u; \$49.99
- HP Mini 210-1076NR; \$149.99
- HP Mini 311-1037NR; \$99.99
- HP Pavilion dm1-2010nr; \$199.99

The netbooks are purchased by the school district and remain school property while used by the students. When a student no longer participates in the program, the netbook is returned to the school district.

The VPN connection will configure external users as though they are physically on the LIU's internal network. Individual student account identification and passwords will be required for authentication. All netbooks will be limited to network connectivity via VPN. The VPN deployment is via a Cisco ASA 5510 Adaptive Security Appliance using Cisco's AnyConnect VPN Client on the netbooks for remote access VPN connectivity. Using the AnyConnect Start Before Logon (SBL)/ Pre-Login Access Provider (PLAP) feature will initiate the remote access VPN connection before a user can login to the netbook and gain application access.

Netbooks are delivered to the LIU for installation/configuration of the specialized VPN connection software prior to delivery to school districts for student deployment. The specialized VPN software will manage not only the Verizon mobile broadband device, but also the RJ45 Ethernet and IEEE 802.11 a,b,g,n, wireless services as well. Students connecting via home or public networks, using either a physical network cable or a wireless router, will be directed to the LIU's user login protected network via the specialized VPN connection software.

Once connected, student access to the Internet will be safeguarded via the web traffic filtering software, SmartFilter. The specialized VPN connection software and filtering will ensure compliance with the Childhood Internet Protection Act by establishing boundaries and constraints and monitoring usage thru network tools. Students and parents will be required to understand and sign an acceptable use policy for both the LIU and the school district.

The netbooks have a 12 month warranty thru the computer manufacturer and Verizon provides 24/7 365 day customer support for connectivity issues. During our pilot

program, the netbook computers have been tested in the 3-county area in southern PA, as well as other counties across the Commonwealth. In addition, network connectivity via the Verizon data plan has been verified in VA, MD, DE, FL, MA, NC, GA, and IL. Verizon and HP customer support have also been tested and response has been found to be satisfactory.

### **Education/Curricula/Learning Materials and Services**

The educational component includes access to Bridgewater Academy, an accredited distance-learning virtual school. Bridgewater Academy provides curriculum, materials, teachers, and a student support component in a turnkey package for students in grades 3 thru 12. Bridgewater Academy meets both PA and Federal education standards.

The school district has the opportunity to identify educational opportunities through Bridgewater and either use them exclusively as the students' educational materials or combine them with educational opportunities through the school district to meet individual student needs in a blended approach. Access to Bridgewater Academy provides an additional academic tool to assist school districts in meeting the needs of students.

The school district is the authoritative entity with regard to the quality of the education experience. The school district uses the same standards and objectives for all students in the district, regardless of participation in the LIU's pilot program. The student receives a school district diploma, not a Bridgewater Academy diploma, when graduation requirements are satisfied.

### **Pilot Program**

To date four (4) school districts are participating in the pilot program and are using the hardware and software to supplement the brick and mortar school classes and activities. The long-term goal of the program is to provide all 27 Local Educational Agencies (LEAs) with a cyber/online learning program based on consortium pricing and group purchase rates. A list of the 27 PA LEAs in Adams, Franklin and York counties is attached (*See Attachment A*). The poverty level based on the percentage of students eligible for a free or reduced price lunch under the national school lunch program yields a current discount rate of 60% for the LIU consortium.

The financial need of the consortium is directly related to the cost of the mobile broadband connection. Current costs are \$50 per month per student. An estimated participation rate of 250 students results in a yearly cost of \$150,000 before E-rate. While not eligible for E-rate funding, the equipment costs, as well as the cost for Bridgewater Academy, are lower due to consortium pricing and volume discounts. They are viewed as cost effective alternatives for textbooks, curriculum development and other student participation costs.

The total costs of the program are listed in the following table:

<b>Cost Item</b>	<b>Non-Recurring Cost</b>	<b>250 students</b>	<b>Annual Recurring Cost per student</b>	<b>250 students</b>
Netbook (ranges from \$49.99 - \$199.99)	\$50 est.	\$12,500		
Internet access (this is the only E-rate eligible expense)			\$600	\$150,000
Bridgewater			\$2,600	\$650,000
VPN asa appliance/software	\$10,000	\$10,000		
VPN consulting services	\$5,000	\$5,000		
Filtering Licenses *				
VPN Licenses *				
<b>Totals</b>		<b>\$27,500</b>	<b>3,200</b>	<b>\$800,000</b>
<b>*no additional costs to this program – Part of the organizational budget</b>				

The LIU is leveraging existing funded resources to provide support to the pilot program. This support provides project management, technical support, customer service, ordering, mailing & vendor invoices, and chargeback billing to school districts. A formal agreement is signed between each participating school district and the LIU (*See Attachment B for the draft that was used for the pilot.*)

The LIU has committed the following resources to the program:

- LIU Program Manager
- LIU staff to support the program
- Firewall software
- VPN ASA 5510 appliance and licenses

School Districts are asked to commit a School District Cyber Education Coordinator

As part of program pre-registration and indoctrination to program users, seminars describing the offering characteristics and procedures are provided to students, teachers, and parents.

To prevent waste, fraud and abuse, the school district will meet with the students yearly in a face-to-face meeting to review program rules and policies. To ensure continued participation and compliance on a daily basis, districts will monitor progress of cyber students and maintain attendance records. When a student terminates program

participation, the data connection will be terminated immediately and access will be restricted or removed as necessary.

The EDU 2011 support for off-premise connectivity will allow for the expansion of the pilot to all 27 school districts. In many cases families are unable to afford equipment and Internet service without assistance. EDU2011 support would enable school districts to meet the needs of economically disadvantaged students for connectivity. Through a group purchase, the cost of equipment is also reduced significantly.

In looking at other technologies to meet this need, the LIU compared cyber school pricing at \$8,000 per year per student with the \$2,600 consortium price with Bridgewater Academy. The cost of Internet Service via mobile broadband when purchased by an individual is \$50 per month for 5GB and an additional \$10 per GB over 5GB, with taxes and fees additional. This service requires a 2-year contract. The consortium pricing for this service is \$50 per month without taxes and fees for unlimited data and the opportunity to cancel without termination fees should the need arise.

The technology removes the geographical constraints that typically determine where individuals can reside to take advantage of educational opportunities. Access is no longer dependant on family income because the service is now provided as an integral component of educational opportunities from the local school district. Netbooks, although owned by the school district, are issued to individuals for the entire term of the program so taking notes and other uses of the device are an interwoven part of learning activities for assignments and research.

The pilot program addresses two activities identified in Goal 3 - Consulting and Support Services of the LIU technology plan. The 2 activities are Cyber Options Support and Expand Technology-based Resources. (*See Attachment C*)

Cyber Options Support - In 2009, a cyber options report was commissioned to research best practices in the field of online learning and present possible cyber options based on functionality and cost. As a follow-up to the report, a survey was completed by the districts to determine their online learning goals. The following recommendations are based on the input from the districts.

Since most of the districts plan to expand their online learning programs, the IU can support these initiatives by continuing to work with vendors for consortium pricing and providing centrally managed options to reduce duplication of resources. Additional electives for high school students and advanced placement courses were the most requested online courses. Many vendors offer these, and the IU can work to provide these for all the districts.

Expand Technology-based Resources – The LIU is charged with continuously evaluating and assessing the feasibility of new technologies and developing and continuously maintaining a robust compliment of organization/division/program web resources that are

both a) simple and user-friendly--easy to use by non-tech personnel and b) integrated with the existing IU systems/sites.

To date there are only anecdotal and subjective positive comments. With the school year beginning in September, a semester has not yet been completed. To date there are 4 school districts participating with a combined estimate of 50 students enrolled in Bridgewater Academy.

**ATTACHMENT A**

District Entity Number	District Name	Building Entity Number	School Building Name
125737	Chambersburg Area School Dist	18326	Faust Junior High School
		18330	Buchanan Elementary School
		18331	Chambersburg Area Middle Sch
		18332	Guilford Hills Elem School
		18333	Chambersburg Area Sr High Sch
		18334	Coldbrook Elementary School
		18336	Hamilton Heights Elem School
		18337	New Franklin Elementary School
		18340	Falling Spring Elem School
		18341	South Hamilton Elem School
		18343	Stevens Elementary School
		18346	Grandview Elementary School
		18348	Fayetteville Elementary School
		18354	Lurgan Elementary School
		18360	Marion Elementary School
		18380	Scotland Elementary School
		125739	Franklin County Avts District
16060341	Benjamin Chambers Elementary School		
125742	Greencastle Antrim School Dist	18338	Franklin Co Area Voc-Tech Sch
		18349	Greencastle Antrim Elem Sch
		18350	Greencastle Antrim Primary Sch
125745	Tuscarora School District	18351	Greencastle Antrim High School
		18352	Greencastle Antrim Middle Sch
		18361	Mercersburg Elementary School
		18363	Montgomery Elementary School
		18364	Mountain View Elem School
		18365	James Buchanan High School
18366		18366	James Buchanan Middle School
		18378	St Thomas Elementary School

		16059905	Tuscarora School District Central Office
125753	Waynesboro Area School Dist	18376	Mowrey Elementary School
		18394	Fairview Ave Elementary School
		18395	Waynesboro Area Middle School
		18396	Summitview Elementary School
		18397	Waynesboro Area Sr High School
		18398	Hooverville Elementary School
		224186	Waynesboro School District Administrative Office
125755	Fannett-Metal School District	18400	Fannett-Metal Elementary Sch
		18401	Fannett-Metal Jr-Sr High Sch
		16030045	Fannett-Metal School Sd Board Office
125756	Upper Adams School District	18403	Arendtsville Elementary School
		18404	Bendersville Elementary School
		18405	Biglerville Elementary School
		18406	Biglerville High School
125757	Dallastown Area School Dist	18414	Dallastown Elementary School
		18415	Dallastown Area Middle School
		18416	Dallastown Area Sr High Sch
		18530	York Twp Elementary School
		18533	Ore Valley Elementary School
		18546	Leaders Heights Elem School
		18550	Loganville-Springfield School
		16059032	Dallastown Intermediate School
125758	Dover Area School District	18418	Dover Area Sr High School
		18419	Dover Area Intermediate School
		18420	Dover Area Elementary School
		18422	Leib Elementary School
		18423	Weigelstown Elementary School
		18425	Kralltown Elementary School
		204522	North Salem Elementary School
125760	Fairfield Area School District	18430	Fairfield Area Elementary Sch
		18431	Fairfield Area High School
		18432	Fairfield Area Middle School
125761	South Eastern School District	18417	Delta Peach Bottom Elem School

		18433	South Eastern Middle School East
		18434	South Eastern Middle School West
		18435	Fawn Area Elementary School
		18504	Stewartstown Elem School
125763	Gettysburg Area School Dist	212255	Kennard-Dale High School
		18411	Franklin Twp Elementary School
		18436	Gettysburg Area High School
		18437	Gettysburg Area Middle School
		18440	Eisenhower Elementary School
		18443	James Getty Elementary School
125765	Southern York County Sch Dist	219780	Lincoln Elementary
		18444	Southern Elementary School
		18445	Southern Middle School
		18446	Susquehannock High School
		18447	Friendship Elementary School
125767	Hanover Public School District	155850	Shrewsbury Elementary School
		18450	Washington Elementary School
		18451	Hanover Sr High School
		18452	Hanover Middle School
		18453	Clearview Elementary School
125768	South Western School District	18457	Hanover Street Elementary Sch
		18448	Manheim Elementary School
		18455	Baresville Elementary School
		18458	Park Hills Elementary School
		18459	South Western High School
		18460	Markle Intermediate School
		18463	West Manheim Elementary School
125769	Littlestown Area School Dist	16025111	Southwestern Service Center
		18473	Maple Avenue Middle School
		18474	Rolling Acres Elementary Sch
		18475	Littlestown High School
		125769	Littlestown Area School Dist
		16024443	Alloway Creek Intermediate School
		16028255	Maintenance/Transportation Building
125770	Northeastern York Co Sch Dist	18479	Northeastern Middle School
		18480	Orendorf Elementary School
		18481	Northeastern High School

		18482	Mt Wolf Early Lrng Center
		18513	York Haven Elementary School
		18565	Conewago Elementary School
		209536	Spring Forge Intermediate School
		16033154	Northeastern Admin Building
		16039108	Shallow Brook Intermediate School
125772	Lincoln Intermediate Unit 12	18339	Franklin Learning Center
		18438	Hoffman Homes For Youth School
		18524	York Learning Center
125773	Conewago Valley School Dist	16023816	Lincoln Administration Office
		18461	Conewago Twp Elementary School
		18485	New Oxford Elem School
		18486	New Oxford High School
		18487	New Oxford Middle School
		15401553	Conewago Valley Intermediate School
125776	Red Lion Area School District	18409	Clearview Elementary School
		18410	Chanceford Elementary School
		18490	Gable Elementary School
		18491	Red Lion Area Sr High School
		18492	North Hopewell-Winterstown Sch
		18493	Moore Elementary School
		18494	Red Lion Area Jr High School
		18495	Pleasant View Elem School
		18509	Windsor Manor Elementary Sch
		18531	Locust Grove Elementary School
		204185	Red Lion Area Education Center
125779	Spring Grove Area Sch District	16051354	Larry J Macaluso Elementary
		18498	Spring Grove Area Sr High Sch
		18499	Spring Grove Elementary School
		18500	Spring Grove Inter School
		18501	Spring Grove Area Middle Sch
		18506	Paradise Elementary School
		18566	New Salem Elementary School
		16056943	Spring Grove Educational Service Center

		16056944	Spring Grove Technology Center
125781	Eastern York School District	18427	Canadochly Elementary School
		18510	Eastern York High School
		18511	Eastern Middle School
		18512	Wrightsville Elementary School
		18569	Kreutz Creek Elementary School
125782	Bermudian Springs School Dist	18515	Bermudian Springs Elem School
		18516	Bermudian Springs High School
		18517	Bermudian Springs Middle Sch
125784	Central York School District	18519	Hayshire Elementary School
		18520	Central York Middle School
		18521	North Hills Elementary School
		18523	Stony Brook Elementary School
		18553	Central York High School
		18567	Roundtown Elementary School
		16023514	Sinking Springs Elementary School
125785	York County Avts	18528	York County Avts School
125787	York Suburban School District	18518	York Suburban Middle School
		18526	East York Elementary School
		18543	Valley View Center
		18545	York Suburban Sr High School
		18549	Indian Rock Elementary School
		16059018	Yorkshire Elementary School
125788	West York Area School District	18552	Wallace Elementary School
		18557	Loucks Elementary School
		18560	Trimmer Elementary School
		18561	West York Area Jr High School
		18562	West York Area High School
		18563	Lincolnway Elementary School
		16024182	West York Area School District Administration Bldg
125790	York City School District	18525	Devers Elementary School
		18535	Goode Elementary School
		18537	Mckinley Elementary School
		18538	Davis Elementary School
		18539	Hannah Penn Middle School
		18541	Jackson Elementary School
		18548	William Penn Sr High School

18555 Ferguson Elementary School  
18556 Smith Middle School  
16051462 York City Sd Administration  
Building

## **ATTACHMENT B**

### Bridgewater Academy Agreement Lincoln Intermediate Unit and «School\_District»

This Agreement (“Agreement”) is entered into this 28th day of August, 2010 by and between the Lincoln Intermediate Unit and «School\_District» for services by **Bridgewater Academy** (the “Service”) as further described herein.

1. **TERM.** The term of this Agreement shall be three (3) years, beginning on August 19, 2010 and ending on August 18, 2013 (“Term”). The Term shall automatically renew upon mutual written agreement of the parties executed no later than thirty (30) days before the expiration of the Term. There is no minimum number of students needed to continue the agreement
2. **THE SERVICE.** For purposes of this Agreement, the “Service” shall mean the Bridgewater Academy including but not limited to access to curriculum, teacher services (to include grading, monitoring progress and academic support for students including direct instruction), placement testing, and all related software and programs utilized to deliver Bridgewater Academy to School and allow School to use Bridgewater Academy.
3. **FEES.** Fees are detailed at the bottom of the agreement. All fees are to be submitted by purchase order to Bonnie Shetter, Technology Services Department at the Lincoln Intermediate Unit, 65 Billerbeck Street, New Oxford, PA, 17350. Purchase orders should include fees based on the school district’s student enrollment forms. Pricing is good for the length of the agreement.
4. **BRIDGEWATER RESPONSIBILITIES.** Bridgewater shall:
  - a. Provide curriculum via the Service for all School’s enrolled students;
  - b. Provide placement tests in the areas of math & language arts (required for full time students);
  - c. Complete all grading for all assignments not automatically graded via the Service;
  - d. Provide access to Bridgewater teachers and technical and support personnel via the Service;
  - e. Document School’s students’ performance with grade reports, transcripts;
  - f. Create and publish the Service’s policies and procedures for all school’s students where such policies and procedures are subject to change from time to time. School is not permitted to alter or override the Service’s written policies. School may implement additional policies which are not specifically addressed in the Service Agreement such as attendance and so forth.
5. **SCHOOL RESPONSIBILITIES.** School shall:
  - a. Provide all necessary supervisory staff at School’s sole cost and expense;

- b. Appoint a single, individual, full-time employee to serve as the primary contact person for communication with Bridgewater (the “Program Coordinator”);
- c. Ensure that the student has the ability to access the Service; in terms of technology and internet connection;
- d. Provide academic counseling for School’s full time students, prescribing course work based upon transcripts, grade reports, and placement test scores;
- e. Provide and account for all student documentation not provided by the Service including but not limited to transcripts, grades, attendance records, consent forms, and health records as they would for a standard student.

**6. PROGRAM COORDINATOR’S RESPONSIBILITIES.** School’s Program Coordinator shall:

- a. Submit appropriate fees for all School’s students and submit to Lincoln Intermediate Unit according to this Agreement and any applicable invoices;
- b. Coordinate placement testing of all School’s students and communicate with Bridgewater regarding results and appropriate course assignments; mainly forwarding the introductory email to the student family.
- c. Communicate directly with School’s students’ parents on all School-related issues including but not limited to test results, course assignments, graduation requirements, lesson plans, completion of daily course work, study habits, and so on. School understands and agrees that Bridgewater will not communicate directly with School’s students’ parents;
- d. Supervise School’s students’ work including but not limited to proctoring tests, monitoring weekly student work via the weekly report to ensure compliance with lesson plans (the Service may block access to tests to ensure academic integrity. Program Coordinator will contact Bridgewater to request student access to such tests.)

**7. STUDENT COURSE ASSIGNMENT PROCESS.** All School’s full time students (maximum of 12

classes) must complete placement tests before Bridgewater will assign any courses. School shall provide to Bridgewater a copy of each student’s educational transcripts before administration of placement tests. If transcripts are not available upon registration, School may temporarily provide to Bridgewater a copy of the most recent completed grade report, but School shall submit student’s transcripts to Bridgewater within thirty (30) days of each student’s registration date. The Service’s advisors will review students’ placement test scores and grade reports and assign initial courses accordingly. Transcript content or a student’s inability to master course material may require Bridgewater to adjust course assignments. Bridgewater need not confirm a graduation course of study until Bridgewater receives said transcripts. School shall communicate to School’s students’ parents that Bridgewater reserves the right to adjust student academic plans. Students enrolled in less than four (4) courses may complete placement tests, but are not required to do so and will be enrolled in requested courses without receipt of transcript or grade reports.

**Pricing Information:**

Customer Full Time Student:

\$2600.00 a Year for a Student with a Maximum of 12 Classes

Part Time Student:

\$250.00 a ½ Credit or Semester Equivalent Class

\$500.00 for a 1 Credit Class

If you are an Odysseyware customer, there is a \$200.00 Discount for full time students.

**Agreement Signatures**

\_\_\_\_\_  
«Name», Superintendent  
«School\_District»

\_\_\_\_\_  
Date

\_\_\_\_\_  
Executive Director  
Lincoln Intermediate Unit

\_\_\_\_\_  
Date

\_\_\_\_\_  
Regional Director  
Bridgewater Academy

\_\_\_\_\_  
Date

bms/bridgewateragreement8-2010

## *ATTACHMENT C*

Excerpted from **Educational Technology Report** dated **Tuesday, September 22, 2009**

**Entity:** Lincoln IU 12

**Address:** 65 Billerbeck St, PO Box 70, New Oxford, PA 17350-0070

### **Goal: 3. Consulting and Support Services**

**Description:** Provide a variety of consulting and support services that enhance the administrative and instructional delivery of our customer organizations.

#### **Strategy: Improved Use of Information Technology**

**Description:** We will build capacity in all programs and services through the integration of information technologies and resources and through provision of professional development associated with their uses.

#### **Activity: Cyber Options Support**

**Description:** In 2009, a cyber options report was commissioned to research best practices in the field of online learning and present possible cyber options based on functionality and cost. As a follow-up to the report, a survey was completed by the districts to determine their online learning goals. The following recommendations are based on the input from the districts.

Since most of the districts plan to expand their online learning programs, the IU can support these initiatives by continuing to work with vendors for consortium pricing and providing centrally managed options to reduce duplication of resources. Additional electives for high school students and advanced placement courses were the most requested online courses. Many vendors offer these, and the IU can work to provide these for all the districts.

We plan to continue bringing in vendors for demos and broadcasting them via the videoconferencing bridge. In addition to live presentations, the IU can record the vendor presentations and have them available through IUTube.

The IU will evaluate the feasibility of researching vendors and producing a report comparing the features and costs of some of the major providers of online courseware to help the districts evaluate market options.

We want to help the districts stay current in the field of online learning by providing resources, best practices, and training.

We will evaluate the option of providing online courses hosted on the IU server that all of the students in IU12 could access.

If enough districts are interested and schedules can be coordinated, we can facilitate the sharing of teachers to teach live classes to students at different districts via the videoconferencing bridge.

**Person Responsible Timeline for Implementation Resources**

Steyer, Terry	Start: 7/1/2010 Finish: Ongoing	\$75,000.00
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**Status:** Not Started — Upcoming

**Activity: Data Center Virtualization**

**Description:** Virtualization shifts the notion of a server from a strictly physical concept (one physical server on one hardware chassis) to a flexible software emulation that spans numerous servers over one physical chassis or even multiple servers across multiple physical chassis yielding a many-to-many relationship. Migration to this concept provides significant cost savings (equipment and electricity savings are readily apparent) as well as various operational advantages (ease of maintenance, reliability through failover and so forth). To implement this approach, virtual server platforms will be established in centralized locations. A cost would be defined for the IU and users to ‘purchase/lease’ the asset for usage. As it stands today, the ‘central locations’ would probably be at each of the three Lincoln learning Network (LLN) aggregation points—York-YLC; New Oxford-IU Main office; and Chambersburg-FLC. This placement would provide service at the main IU locations and the ‘head end’ of each LEA/LLN subscriber’s network.

**Person Responsible Timeline for Implementation Resources**

Steyer, Terry	Start: 7/1/2010 Finish: Ongoing	\$105,000.00
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**Status:** Not Started — Upcoming

**Activity: Exemplary/Best Practices Showcase**

**Description:** In many cases, simply having the information about innovative practices doesn’t translate into an understanding of, an ability to, or a desire to apply this understanding in new situations. To address this issue, we plan to create a forum through which educators can share their ‘best practices’ for technology integration. Potentially using rich media, this forum would provide a mechanism for educators to see innovation in action. For example, the incorporation of universal design for learning with assistive technology innovations would assist differentiated instructional delivery. Positive behavior can be modeled in the real-life setting illustrating not only the required skills but also the feasibility of implementing them to enhance learning. A system will be created to assess suggested best practices and ensure that the ‘best of the best’ is provided for wide spread dissemination.

**Person Responsible Timeline for Implementation Resources**

Steyer, Terry	Start: 7/1/2010 Finish: Ongoing	\$50,000.00
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**Status:** Not Started — Upcoming

### **Activity: Expand Technology-based Resources**

**Description:** As new technology innovations are introduced into the organization, technical resources must be expanded. The following are planned activities to meet this need:

- Increase bandwidth available to all LIU stakeholders for communication and information sharing among those stakeholders.
- Establish new and continue existing relationships with state and educational service agency organizations to plan and implement state-wide and/or intra IU networks [PAIUnet] to include a state-wide education network, expanded access to Internet 2, and so forth.
- Continuously evaluate and assess the feasibility of new technologies to provide wide-area network connections between the LIU facilities as well as with our client agencies (private wired/fiber networks, wireless, and emerging technologies).
- Increase bandwidth connections to satellite offices and LEA's to which LIU staff are assigned.
- Integrate and centralize networking administrative resources. Provide support for regional, satellite, and internal phone communications.
- Expand the number of training room computers and increase computer accessibility for training in all locations.
- Define and implement continuous monitoring and management capabilities for all LIU technology assets to increase reliability and availability and reduce or eliminate downtime.
- Expand and evolve the current integrated messaging system (including voice/E mail, fax, instant messaging, and so forth) with universal, web-based access by all LIU staff and stakeholders. Implement mobile, network-connected PCs/smart phones with universal access to online resources and messaging services such as email.
- Assure e-mail access to all LIU staff and stakeholders in all locations where IU staff are working.
- Implement processes/products to enable remote access to electronic internal resources for example, file synchronization via Group Policy, terminal services, or a Virtual Private Network (VPN) solution.
- Develop and continuously maintain a robust compliment of organization/division/program web resources that are both a) simple and user-friendly--easy to use by non-tech personnel and b) integrated with the existing IU systems/sites.
- Develop/repair a web-based IEP system which is reliable, user-friendly, and effective for all IU staff and stakeholders.
- Investigate and implement if feasible a means to connect IU employees located in district locations directly to the LIU network using some sort of Virtual Private Network (VPN) or IP tunneling approach..

#### **Person Responsible Timeline for Implementation Resources**

Steyer, Terry	Start: 7/1/2010 Finish: Ongoing	\$3,712,502.00
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**Status:** Not Started — Upcoming