CHAPTER 793

2003-2004 Submission
TECHNOLOGY SERVICES PLAN FOR THE LOWER HUDSON REGION

Southern Westchester BOCES
Putnam/Northern Westchester BOCES
Rockland BOCES

Table of Contents

Section 1: Five-Year Summary

The LHRIC plan for technology and learning falls into the priority areas listed below.

Year 1: 2003-2004

- Data for Decision Making – Expand the number of districts using the Data Warehouse, expand the data domains and help districts to use data to improve instruction. Begin development of data readiness tools. Develop technical links connecting Data Mentor to the eScholar warehouse.
- Server Based Computing – Expand the number of districts that convert all or part of their network to server based computing.
- Distance Learning – Implement the Rockland Project, establish a pilot program in Westchester and Putnam.
- Technology Integration – Model Schools. Expand and enhance the offerings.
- Technology Leadership – Enhance and expand the leadership program.

Year 2: 2004-2005

- Data for Decision Making – Expand the number of districts using the Data Warehouse; pilot tools and processes that assist districts in Data Readiness, develop a NYS examination report analysis service; expand the data domains and pilot state reporting and data collection. Develop capacity to scan and analyze Regents reports. Pilot the use of Data Mentor connected to the eScholar data warehouse.
- Server Based Computing – Continue expansion and pilot home access.
- Distance Learning – Evaluate the usage in Rockland and begin implementation in Westchester & Putnam.
- Technology Integration – re-evaluate the Model Schools program
- Technology Leadership – Develop Leadership program for Directors of Technology.

Year 3: 2005-2006

- Data for Decision Making – Expand the number of districts using the Data Warehouse, collect and report all LEAP and STEP data via the warehouse; expand the data domains and add support for NCLB. Expand base of users within districts by expanding data domains. Develop parent and community reports and access. Implement Data Mentor as the universal front-end to the regional data warehouse.
- Server Based Computing – Improve the computer to student ratio by reinvesting TCO savings in expanding access to technology. Develop community and parent desktops to be accessed remotely.
- Distance Learning – Continue development of broadband access in Westchester and Putnam counties. Work with local BOCES Instructional Services to organize and map content to NYS standards.

- Technology Integration – Continue training, auditing, and expand e-Learning. Develop assessments of effectiveness of technology in assisting students in meeting the NYS standards.
- Technology Leadership – Finish first certification cohort.

Year 4: 2006-2007

- Data for Decision Making – Expand the number of districts using the Data Warehouse, continue the collecting and reporting of LEAP and STEP data via the warehouse, expand the data domains as per SED requirements and start transition to maintenance mode. Continue to develop the instructional components and ease of use of Data Mentor/eScholar.
- Server Based Computing – Begin migration of district based servers to the LHRIC.
- Distance Learning – Continue collaboration with local BOCES Instructional Services to build content availability. Build more access capacity in classrooms throughout our school buildings.
- Technology Integration – Continue training, auditing, and expand e-Learning. Develop assessments of effectiveness of technology in assisting students in meeting the NYS standards.
- Technology Leadership – Finish second certification cohort.

Year 5: 2007-2008

- Data for Decision Making – Evaluate the data warehouse and expand its use.
- Server Based Computing – Continue migration of district based servers to the LHRIC.
- Distance Learning – Build more access capacity in classrooms throughout our school buildings.
- Technology Integration – Develop assessments of effectiveness of technology in assisting students in meeting the NYS standards.
- Technology Leadership – Finish third certification cohort.

Section 2: The Regional Planning Process

What is the Planning Process:

1. The LHRIC is committed to seeking input from consortium constituents to guide the development of its regional plan and services. The LHRIC Advisory Committee, composed of district and BOCES representatives from each BOCES region, meets on a regular basis to guide the LHRIC in planning for the future. This group helps inform the 793 plan.

2. Each LHRIC service maintains a user's group that provides input into the development of that service as it moves into the future. This input directly informs items in the 793 plan.

3. The LHRIC administers and publishes a quarterly customer survey to all Superintendents, Assistant Superintendents, Business officials, and Directors of Technology in the region. The candid feedback from these surveys is an important component of our 793 planning.

4. The LHRIC participates in a variety of statewide planning groups such as the Data Warehouse group, the Finance Manager group, Test Scoring group, the RIC Technical Committee, etc. Full participation in these groups allows us to have a broader view of the innovations and directions that others are pursuing around the state. Incorporating the feedback and larger horizon that these groups provide into the 793 plan is an important part of the planning process.

5. The LHRIC has implemented a position called Regional Coordinator. Each Regional Coordinator is assigned to a BOCES region. The Regional Coordinator is tasked to listen to our consortium members and to bring back suggestions and feedback to the directors. This information also feeds into the 793.

6. The LHRIC, at the suggestion of its consortium members holds several Technology Solutions Conferences each year. At these sessions the LHRIC has vendors discuss their latest products and directions. Districts decide which of the products and/or services they would like the LHRIC to pursue and those recommendations inform the content of the 793 plan.

Who is Involved:

Our Advisory Committee is made up of 15 volunteers with 5 coming from each BOCES region. The committee consists of the District Superintendent of each BOCES or their designated representative, a BOCES Board of Education member, a school district Superintendent, an Assistant Superintendent for Business, and a Director of Technology.

Our user's groups are made up of from 3-10 district representatives that are currently users of the affected service.

The LHRIC administers 240 customer surveys, quarterly, to all Superintendents, Assistant Superintendents, Business officials, and Directors of Technology in the region. These 960 annual surveys are an excellent opportunity for our constituents to guide our 793 plan.

Informally, we try to elicit as much participation as we can through quarterly surveys, district conversations with Regional Coordinators, and feedback from Technology Solutions Conferences.

Section 3: Current Context

Mission Statement

To collaborate with districts, agencies and communities to meet their educational challenges by providing regional leadership and cost effective, high quality services.
Southern Westchester BOCES

The mission of the LHRIC is to provide regional leadership and to collaborate with school districts and communities to meet their educational challenges by delivering cost-effective, high quality technology services.
Lower Hudson Regional Information Center

Strategic Direction

The Lower Hudson Regional Information Center continues to value its mission to assist school districts in meeting and exceeding the New York State Standards and Assessments and to enable school districts to administer and manage their schools efficiently and effectively. The LHRIC strives to be the first place our schools turn for technology services and expertise.

The LHRIC continues to address regional issues such as sharing of content knowledge through our ***Electronic Resources***, sharing our schools' staff development resources via our ***Regional Staff Development Database***, and sharing our school's software expertise through the ***Software Preview database***. In addition to these software based sharing solutions we continue to offer the ***Technology Leadership Institute*** which allows districts to share in the expertise, experience, and wisdom of the greatest educational technology visionaries of our time. We recognize the best educational technology users in our region and share their accomplishments with our ***Technology Pioneer Award***, presented at our annual ***LHRIC conference***.

The LHRIC has also pressed forward on our data collection and analysis initiatives. This year we are developing a ***Data Readiness*** service and associated tools. Districts in our region will be able to prepare to submit their LEAP and STEP data via the regional warehouse in 2005. We have begun the background technical work to connect **Data Mentor** with the eScholar database. We have continued to develop our data reporting service with input from the three BOCES instructional professional development leaders in our region. Next year districts will be able to participate in a ***Reporting service*** which will provide them with detailed data on all the state elementary assessments. Districts will also be able to participate in a ***Regents scanning service*** that will provide them with detailed reports on the performance of students on these important assessments. Next year in our region more pertinent and appropriate student

information will be in the hands of more teachers than in any time in history. ***(E-Scholar and Cognos).***

Districts in our region continue to express frustration at the high cost of maintaining their technology infrastructures. This is particularly evident in the yearly replacement cycle of old PC's that has begun to become the norm. Districts are forced into replacing 15%-20% of their old computers each year. The LHRIC has developed a long-term strategy of building instructional infrastructures that do not require replacing old PC's. The LHRIC is continuing its commitment to a server-based, ***Citrix*** approach to new technology purchases. Using this new approach schools will spend less on replacement equipment and less on technical support. In addition, this new server-based computing approach has allowed us to provide teachers access to school resources from home. We are also offering ***LEAP*** software via Citrix, as well as ***Finance Manager***.

The LHRIC continues to lead the way in offering web-based applications to our schools. In addition to ***IEP Direct*** and ***E-Chalk***; he LHRIC has added a web-based student information system ,***Power School*** ,and a web-based library system ,***OPALS***, to our regional services. We have piloted a major web-based instructional application, ***Odyssey Learning***, for students in our region. As older applications such as Pentamation have been upgraded to be available via the web, we have offered these applications to our districts. We are cooperating with RIC's around the state to identify additional web-based resources that would be useful to our schools. In the area of school safety we are exploring ***Site-Wise*** a product that holds the school emergency plans, maps, and architectural drawings.

Through the use of web-based resources, the LHRIC will be in a position to handle the heightened demand and, beyond that, allow us to drive down costs, increase customer satisfaction, and produce an educational environment where students meet and exceed the NYS Standards.

Districts have asked the LHRIC to help them deal with the many ***network security*** issues that they encounter. The LHRIC continues to maintain a ***firewall*** for the region, as well as regional ***content filtering***, e-mail ***virus scanning***, ***intrusion detection***, and basic **spam filtering** solution. In addition we maintain security on our ***routers*** and ***file servers*** throughout the region, and assist district in performing ***security audits*** and provide ***digital surveillance*** solutions.

The LHRIC is also in process of adopting ***emergency notification systems*** for the region. These systems will allow districts to notify parents via the phone and/or email in the event of an emergency in the district. In addition, we are in the process of putting a ***distance learning network*** into place in Rockland and throughout Westchester. The LHRIC has also negotiated a Transparent LAN Service (TLS) for districts in our region. This service will provide low cost, high

bandwidth (100 mps) Ethernet connections for schools to the LHRIC. Having this bandwidth will allow them to more fully utilize the

As we have stated in the past, the LHRIC does not intend to institutionalize BOCES services at their present levels. As an organization we need to be leading and changing to meet the needs of an evolving market. We continue to invest in the training and re-training of our staff to meet the latest technical challenges, as well as to develop better customer relationship, and leadership skills.

We believe the LHRIC technology consortium is strong and that the strategies described in this plan will maintain and improve the use of technology in our region to meet the NYS standards for teaching and learning.

Section 4: Implementation Plan

Data Warehousing and Decision Support Timeline:

Data Warehouse Implementation Phase 1
Spring 1999
- Install and Test Database
- The LHRIC builds and tests an Oracle database to house data for analysis.

Summer/Fall 1999
- Enrolled (2) school districts in a comprehensive data warehouse that contained much more than LEAP data.

Fall 1999
- Produce LEAP Analysis Cubes
- Produced the first LEAP reports for each district in the region using Cognos cubes.

Winter 2001
- Transition to Statewide use of E-Scholar
    - LHRIC adopts E-Scholar as the product for data storage. E-Scholar is adopted by each RIC in the state providing a single standard for data storage.
- RIC's collaborate and share information statewide.

Data Warehouse Implementation Phase 2
May 2002
- Enrolled (6) additional school districts in a comprehensive data warehouse that contained much more than LEAP data.

Spring 2002
- Transition from Cognos Cubes to Impromptu Reports
- Regional planning committee submits additional requests to the LHRIC for the creation of easy to read reports in Impromptu report writer.

Data Warehouse Implementation Phase 3
Spring 2003
- Increase enrollment in the comprehensive data warehouse from 6 to 12 districts.
- Hire a Data Analyst to direct future report development.
- Standardize on Cognos report catalogs
- Participate in all appropriate statewide committees.

Spring 2004
- Data Warehouse Implementation Phase 3
- Increase enrollment in the comprehensive data warehouse from 12 to 24 districts.
- Data Analyst creates report booklet that outlines and describes what lists, reports and cubes are available to teachers, principals, and district administrators.
- Create data readiness service to prepare for new NYS data collection and reporting requirements
- Create link from eScholar to Data Mentor
- Create a data reporting service to provide districts with detailed benchmark reports on all NYS required tests
- Increase data domains in the warehouse for all participating districts.
- Participate in all appropriate statewide committees.

Data Warehouse Implementation Phase 4
Spring 2005
- Increase enrollment in the comprehensive data warehouse from 24 to 36 districts.
- Districts are participating in the Data Readiness process
- Prototypes of state reports are generated from the data warehouse.
- Pilot Data Mentor as the front end to the eScholar database.
- 30% of districts are subscribing to the NYS Reporting service.
- Increase data domains in the warehouse for all participating districts.
- Participate in all appropriate statewide committees.

Data Warehouse Implementation Phase 5
Spring 2006
- Increase enrollment in the comprehensive data warehouse from 36 to 48 districts.
- Districts are submitting LEAP and STEP data to SED via the warehouse. Data Mentor is implemented as the universal front end to the eScholar database.
- Prototypes of state reports are generated from the data warehouse.
- 30% of districts are subscribing to the NYS Reporting service.
- Increase data domains in the warehouse for all participating districts.
- Participate in all appropriate statewide committees.

Server-Based Computer Timeline:

Pilots
Spring 2002

Installed servers and software in 5 schools in the region.
Students and teachers used the software on a daily basis. The pilots were successful in each situation. Four out of five of the pilots were kept permanently and the server-based computing model was expanded in each of the four districts.
Mt. Vernon City School District
Tuckahoe USFD
White Plains City School District
Hendrick Hudson CSD
East Ramapo CSD

Implementation Phase 1
Summer 2002

- The LHRIC develops a server-based computer technical design and implementation team
- Install server-based computing model in the following school districts:

    - Peekskill City School District
    - Blind Brook-Rye UFSD
    - Hastings UFSD
    - Briarcliff Manor USFD
    - Ardsley UFSD
    - Katonah-Lewisboro UFSD
    - Tuckahoe USFD
    - White Plains City School District
    - Hendrick Hudson CSD

- Obtain commitments for 3,675 Server-Based workstations by June 2003.

Implementation Phase 2
Fall/Summer 2003

- The LHRIC reduces Network Support prices on Server-Based based stations installed in the 2002-2003 school year by 50%.
- Obtain commitments for an additional 5,000 Server-Based workstations by June 2004.
- Implement administrative remote access via Server-Based computing.

Implementation Phase 3
Fall/Summer 2004

- The LHRIC reduces Network Support prices on Server-Based based stations installed in the 2003-2004 school year by 25%.
- Obtain commitments for an additional 2,000 Server-Based workstations by June 2004.
- Increase overall number of overall clients on the network by 10%.

Implementation Phase 4
Fall/Summer 2005

- The LHRIC reduces Network Support prices on Server-Based based stations installed in the 2004-2005 school year by 25%.
- Obtain commitments for an additional 2,000 Server-Based workstations by June 2004.
- Introduce remote access via server-based computing to the teaching staffs.
- Increase overall number of overall clients on the network by 10%.

Implementation Phase 5
Fall/Summer 2006

- The LHRIC reduces Network Support prices on Server-Based based stations installed in the 2004-2005 school year by 25%.
- Obtain commitments for an additional 2,000 Server-Based workstations by June 2005.
- Introduce remote access via server-based computing to the teaching staffs.
- Increase overall number of overall clients on the network by 10%.

Distance Learning Timeline:

Planning and Design:
2000-2002

The Rockland County legislature has allocated $1.2 million dollars for a countywide distance learning network. The network has been in the planning stages in Rockland County for several years. The LHRIC, working with the county representatives, Rockland BOCES, and Rockland Community College; has served as the technical and project management resource to the project. High schools, county buildings, public libraries, teacher centers, BOCES, and RCC will be part of the network

Pre-Installation:
Fall/Spring 2002-2003

- The LHRIC reworks the network components and pricing to reflect the latest changes in technology. Rockland BOCES, the Legislature, and Rockland CC target Phase 1 nodes.
- The LHRIC bids, procures, project manages the site preparation for the installation.
- The LHRIC hosts Distance Education conference for the region.
- The LHRIC begins to convert existing FDDI users to Fast Ethernet.

Implementation Phase 1
Fall/Spring 2003-2004

- The LHRIC project manages the installation of Phase 1 in Rockland.
- The LHRIC coordinates with Rockland BOCES so that curriculum planning and design take into account input from content committees.
- The LHRIC develops broadband solutions for districts in Westchester and Putnam counties.
- The LHRIC coordinates the development and linkage of smaller DE networks in the region.

Implementation Phase 2
Fall/Spring 2004-2005

- The LHRIC project manages and installs future phases of the Rockland project until completion. Regular project assessments will be conducted to revise the project plan as needed.
- The LHRIC coordinates the planning for more schools in Rockland to join the project.
- The LHRIC coordinates the addition of schools in Westchester and Putnam to the DE network.

Implementation Phase 3
Fall/Spring 2005-2006

- The LHRIC project manages and installs future phases of the Rockland project until completion. Regular project assessments will be conducted to revise the project plan as needed.
- The LHRIC coordinates the planning for more schools in Rockland to join the project.
- The LHRIC coordinates the addition of schools in Westchester and Putnam to the DE network.
- The LHRIC works with the local BOCES to assess the success of the DE network.

Implementation Phase 4
Fall/Spring 2006-2007

- The LHRIC manages the ongoing needs of the Rockland project. Regular project assessments will be conducted to revise the project plan as needed.
- The LHRIC coordinates the addition of schools in Westchester and Putnam to the DE network.
- The LHRIC works with the local BOCES to assess the success of the DE network.

Technology Integration / Model Schools Timeline:

COSER Approved
June 1998.
Developed Model School COSER and received approval from SED.

Implementation Phase 1
Summer 1999
Implemented Model Schools service with 33% of school districts.

Implementation Phase 2
2001-2002
- Additional 20 schools enroll in Model Schools.
- Model Schools organizes professional development database.
- Model Schools organizes electronic resources service.
- Model Schools organizes online software preview service.

Implementation Phase 3
2002-2003
- Model Schools organizes physical security and network security audits.
- Model Schools organizes technology audits and program audits.
- Model Schools provides Web development tools for districts.

Implementation Phase 4
2003-2004
- Model Schools increases participation in audits, preview service, electronic resources, and the professional development database.
- Model Schools delivers special projects staff development to districts.
- Model Schools offers leadership development for directors of technology.

Implementation Phase 5
2004-2005
- Model Schools continues to increases participation in audits, preview service, electronic resources, and the professional development database.
- Model Schools continues to deliver leadership development for Technology Directors.
- Model Schools delivers special projects staff development to districts.

Technology Leadership Institute Timeline:

Develop and Implement
June, 1998-2000

- Developed the Administrative Technology Leadership service and enrolled (25) school districts in the region.

Implement Phase 2
June 2001-2002

- Added (20) additional districts to the service.

Implement Phase 3
June 2002-2003

- Add (20) additional districts to the service. .
- Directors of Technology Leadership Development and certification.
- Develop and introduce an optional leadership-module to develop leadership capabilities and certification for computer coordinators.

Implement Phase 4
June 2003-2004

- Add (5) additional districts to the service. .
- Directors of Technology Leadership Development
- Implement leadership and certification module for coordinators.

Implement Phase 5
June 2004-2005

- Add (3) additional districts to the service.
- Develop a strategic project that encompasses schools throughout the region .
- Create and market content tools that assist classroom teachers and students.
- Directors of Technology Leadership Development
- Implement second cohort of the leadership and certification module for coordinators.

Section 5: Evaluation

Annual Summary of prior year accomplishments:

Progress has been made in all areas. Of special note are the following:

- Data Warehousing – The LHRIC has continued to add new districts to the data warehouse. In addition, the LHRIC introduced a new set of data analysis reports to help all districts analyze the results of the ELA and Math exams.
- Server Based Computing – Seven districts have implemented this technology.
- In response to the requests of our districts, the LHRIC added support for a PC based financial system and seven districts have converted to it.

Evaluation results for prior year:

Please refer to the Appendix 7 for an explanation of the metrics process that is used at the LHRIC as well as a link to the actual results.

A detailed evaluation of the LHRIC goals can be found at the following link:
2003-04 793 Evaluation

Evaluation Plan for the coming year:

The objectives listed in this plan will be continuously monitored and evaluated to ensure that the LHRIC is on target to complete them as scheduled. Adjustments will be made as necessary to ensure the success of the plan.

The process that we will use to monitor theses objectives will be:

1. The use of the standard LHRIC metric process as described in Appendix 7

2. A review of the actual implementation schedules that are developed and the monthly benchmarks that are established by the service area manager.

Finally, the LHRIC will review the actual results in each area and use this information to judge the success of the plan.

Section 6: Assurance Form 1

Assurance of Cooperative Planning

I assure that my BOCES participated fully in the development of this regional plan to provide technology services for addressing the priority needs of school districts.

Signatures of Participating BOCES District Superintendents

BOCES Served:

Southern Westchester BOCES

Putnam/Northern Westchester BOCES

Rockland BOCES

District Superintendent Signatures:

Ronald Smalls

Donald McKenzie

Dr. Jim Ryan

Section 7: Assurance Form 2

Assurance of Cost-Benefits of New Technology Services and Cost-Effectiveness of Existing Services

The proposed new technology services must be analyzed to determine the cost-benefits of providing these services on a regional basis. All BOCES District Superintendents must sign Form 2 assuring that the new technology services had their cost benefits examined and that the cost effective template process, as required by the 1999 legislation, was followed within their regions. I assure that:

- The new technology services provided to the school districts in the region as described in this plan have been reviewed for their cost-benefits.
- The cost effectiveness template process, as required by the 1999 legislation, was followed for all new technology purchases.
- I had the opportunity to participate in the budget review process.

BOCES Served:

Southern Westchester BOCES

Putnam/Northern Westchester BOCES

Rockland BOCES

District Superintendent Signatures:

Ronald Smalls

Donald McKenzie

Dr. Jim Ryan

Section 8: Applications/Services

Information regarding applications and services should be provided using the format, the common metric, Co-Ser numbers and categories mutually agreed to by the RIC Directors and the Department, updated to reflect any changes for this Center. All applications and services provided in the 7710 and 6360 Co-Sers should be included, indicated by number.

The Western New York RIC in cooperation with SED is currently finalizing this section. When completed, a profile of all of the RICS and there supported hardware and software will be included in this secton.

Section 9: Additional Information

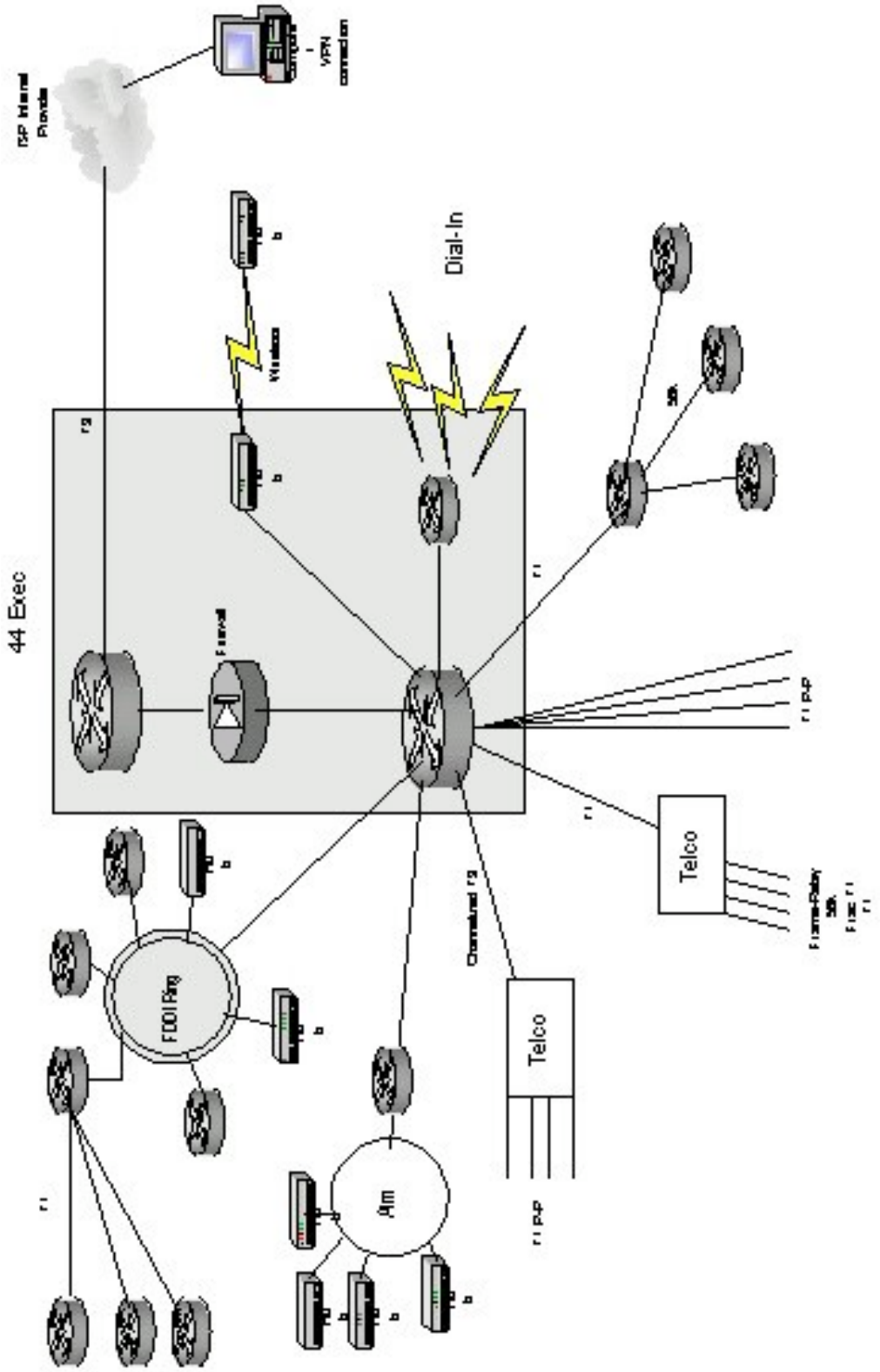
Appendix 1: Hardware

Appendix 2: Software

Appendix 3: Online Applications

The above three items will be included within the RIC profile in Section 8.

Appendix4: Network(s)



Appendix 5: Staffing

Appendix 6: Finances

Southern Westchester BOCES Budget 2002-2003
http://www.swboces.org/pubs/pdf/SWBBUDGET2002-20031.1.pdf

Southern Westchester BOCES Services Guide
http://www.swboces.org/pubs/pdf/sglast.pdf

Appendix 7: Other

The LHRIC metrics process:

> We believe we can be an organization synonymous with excellence and our schools' first choice for technology solutions and expertise.

In order to achieve our mission the LHRIC holds itself accountable in three areas:

1. Do the schools' perceive of the LHRIC as an organization synonymous with excellence?
2. Does the LHRIC meet or exceed specific quality standards for each service it provides?
3. Do the employees of the LHRIC feel it is a satisfying place to work?

In order to measure our schools' perceptions of the LHRIC, we administer a quarterly survey to all Superintendents, Business Officials, and Directors of Technology. We believe that in order to meet our goal to become the first place our schools turn for technology solutions and expertise, we must work to maintain and improve the overall perception of the LHRIC.

To insure we provide high quality services we measure our daily performance against a set of standards created by our staff with input from our customers and approved by the LHRIC Advisory Committee. Each service has its own set of standards and uses its own method of collecting data on the success of the staff in meeting those standards.

Finally, we measure the satisfaction levels of our staff because we believe that in order to provide quality services we must have staff that is satisfied with its work and its working environment. We believe demoralized and unhappy staff will provide low levels of service to the schools.

Internally, measuring our performance provides us with a continual source of feedback for improving our services. It also helps us work more closely with our employees to create an environment that leads to high quality performance.

Externally, our metrics provide us with a way to ground assessments regarding our success in achieving our mission. It is our goal someday to be able to report, "Ninety percent (90%) of the school administrators in the region report that the LHRIC is an outstanding organization and provides leadership through cost-effective, high quality technology services."

The LHRIC Report Card
http://www.lhric.org/report/index.html