NEWMAN CATHOLIC SCHOOLS

TECHNOLOGY PLAN

2007-2010

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THE NEWMAN CATHOLIC SCHOOL SYSTEM

Newman Catholic Child Development Center at St. Therese
112 W. Kort Street
Schofield, WI 54476

Newman Catholic Child Development Center at Holy Name
1122 South 9th Ave.
Wausau, WI 54401

Newman Catholic Elementary @ St. Michael
615 Stark St.
Wausau, WI 54403
(715) 848-0206

Newman Catholic Elementary @ St. Mark
602 Military Rd.
Rothschild, WI 54474
(715) 359-9662

Newman Catholic Elementary @ St. Anne
604 N. 6th Ave.
Wausau, WI 54401
(715) 845-5754

Newman Catholic Middle School @ St. Matthew
225 S. 28th Ave.
Wausau, WI 54401
(715) 842-4857

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1130 W. Bridge St.
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1. Introduction

1.1 Mission Statement

1.1.1 Diocesan Mission Statement Introduction

We, Christ's faithful in the Diocese of La Crosse, recognize as our own the mission of the universal Church, one people born of the unity of the Father, the Son, and the *Holy* Spirit. We acknowledge the source of our mission in the Lord Jesus who inaugurated His Church, the Kingdom of God promised throughout the ages, by preaching the Good News: "The time is fulfilled, and the Kingdom of God is at hand." We acknowledge that Jesus, by His words and works, made present to humankind the Kingdom of God; that by dying on the cross and rising again from the dead for the salvation of all humankind, He was constituted the Christ, our Savior, Lord of all forever, that He poured forth upon His disciples, upon the Church, the Holy Spirit, the gift of God's own life, promised by the Father; and that He entrusted to the twelve Apostles, with Peter as their head, the pastoral governance of the Church.

1.1.2 The Diocese Teaching Mission Statement

We acknowledge that the teaching of the Gospel occupies an essential and central place in the mission of the diocesan Church. We recognize that by such teaching, our Lord Jesus Christ is shown to be the center of each individual’s life and of the history of all humankind. We fully acknowledge the right of all the faithful to a consistent catechesis concerning Christ and the Church, and we recognize that the children and young people of the Dioceses, who depend totally on adult believers for the transmission of the faith, have a special right to the teaching ministry of the Church. We acknowledge the foundation of all catechesis in the inspired Word of God, interpreted authentically in the Church.

We dedicate ourselves to a careful and complete program of Catholic education for all the faithful in the Diocese, by which we are stimulated and guarded in proclaiming the faith in communion with Christ and His Church.

1.1.3 Newman Catholic Schools Mission Statement

Newman Catholic Schools provide excellence in education in a Catholic environment and enhance the personal and spiritual growth of our students to meet life's challenges.

1.2 Newman Catholic Schools Philosophy

We, the Newman Catholic Schools, are dedicated to serving the community by providing excellence in education, which enhances the personal growth of our students by promoting the Catholic Faith to meet life's challenges.

In our preschool through twelfth grade programs, we provide a wide variety of experiences that will enable students to become positive, independent and responsible citizens who will continue their lives in the Catholic tradition.

The responsibility of imbuing these Catholic values into the daily lives of our students rests not only on our teaching faculties and supporting families, but also with the entire constituency that composes the Catholic Church.

1.3 Educational Technology Philosophy

The Newman Catholic School's Technology Plan provides guidelines for the systematic acquisition and effective use of current technologies and comprehensive staff development for the implementation of the plan. This plan focuses on the effective integration of technology to improve student performance and enable the students of the Newman Catholic School System to function and compete in an information-based global economy as life-long learners and problem solvers. This plan is designed to enhance the teaching and learning process on an interactive and equitable basis for all students enrolled in Newman Catholic Schools.

1.4 Vision for the Future Regarding Technology

1.4.1 System Vision

The technology vision of the Newman Catholic School System is to ensure that students, staff, and parents become life-long learners through the effective and ethical use of ideas and information. This requires providing students, staff, and parents with the tools necessary to learn with full integration of technology into the curriculum and collaborative efforts of all those who are responsible for student learning.

1.4.2 System Technology Mission

The technology mission of the Newman Catholic School District, in aspiring to meet its vision, is:

- To provide access to current hardware, software, and other technologies that enable utilization of the school district, diocesan, and community resources.
- To incorporate technology by providing excellence in education in a Catholic environment.
- To support the ethical use and interpretation of information acquired through individual and corporate involvement.
- To support the responsible and ethical use of information technology by students and staff.
- To provide meaningful instruction to students and staff regarding the use of technology.
- To apprise parents and community members as to how technology is used in the system.

- To provide a safe and secure environment for learning by using Internet Filtering through Secure Computing Smartfilter's Bess edition and Network Address Translation.

2. Background Information

2.1 School/District and Community Demographics

Wausau is the largest community in Marathon County, located in central Wisconsin. The Newman Catholic School system was formed in 1987 through a consolidation of nine independent parish schools into one comprehensive system that includes three elementary schools (PreK-5), one middle school (6-7-8), one high school (9-12) and two child development centers. The student population of Newman Catholic Schools is racially and economically diverse and reflects proportionally the greater Wausau community. The student population of Newman Catholic Schools is approximately 930 and the faculty/staff population is at about 150. Based on the student population of 930, Newman Catholic Schools currently possesses a student-to-computer ratio of 6:1 and the goal is to reach a ratio of 3:1.

2.2 Overview of the Education Technology Planning Process

The Newman Catholic School system has long been committed to technology. It has utilized all available resources over the past fifteen years to bring the needed hardware and software to its students and faculty. It has consistently provided staff development in this area in an effort to keep staff up-to-date and to promote integration of technology into the realm of learning and teaching. After outgrowing the previous DSL/Frame Relay wide area network, Newman Catholic Schools implemented an entirely new WAN with a 5 Meg Teach data line at the head end of the network. In addition to the 5 Meg at the head end, the revamped WAN includes 2 Teach T1 lines, 3 Meg of WAN transport service to connect to the head end and 4 DSL lines. The focus now lays in the replacement and addition of vital equipment so that the district can continue to centralize data storage to local file servers which are backed up each and every day. This includes the replacement of two servers within the district, one of which is used by the Central Office/St. Michael and the other is located at St. Anne. By purchasing additional servers at St. Mark and St. Matthew, the Newman Catholic School system will be right on track as far as centralized data storage is concerned.

A rotation has been established for the purchasing of new computers for the computer labs throughout the district. The plan is to replace at least one lab throughout the district per year. By ranking the computer labs from oldest to newest, this provides us with the information needed to setup the rotation schedule. The next school to receive new computers based on the rotation schedule is the main computer lab at Newman Catholic High School. After this lab has been replaced at the high school, then the rotation starts from the beginning again starting with St. Anne, then St. Matthew, St. Mark, and lastly St. Michael.

System-wide use of e-mail is very important when it comes to communicating valuable information to other staff members within the district. All teachers and staff are given e-mail accounts and are encouraged to check them on a daily basis. WebMail is also available for each staff member so that they can check their e-mail from home or wherever Internet access is available (ex. Library, hotel room).

MailHelper software is used in order to keep unwanted spam/viruses from entering our district e-mail accounts. MailHelper is a web-based tool that filters out all spam/virus related e-mails so that it will not affect the internal network of Newman Catholic Schools. Currently, Solarus hosts all of the staff e-mail accounts that are used throughout the system. The plan is to purchase an exchange server which should provide less e-mail related downtime, not to mention an overall savings in the long term for the system as a whole. By adding an exchange server to the Newman Catholic School system all e-mail account related tasks could then be performed in house, instead of relying on Solarus for e-mail address additions, deletions, password resets and other tasks involving e-mail.

Symantec ghost is used throughout the system to image various computers, particularly lab computers. The overall intention with regards to this software is to buy a server or high-end PC so that a wide variety of images could be stored and accessed when needed. This would involve not only the purchase of the server/high-end PC, but also additional licenses to cover the use of this software district-wide.

Currently, Symantec anti-virus is being used district wide. Newman Catholic High School and the Development & Alumni office are both receiving their virus definitions via a server. In the future it would be advantageous to have all of the schools receive their virus definitions through a server. This way the Technology Coordinator knows that all of the computers should have virus definitions that are up to date.

As far as technology-related purchasing is concerned, all purchases need to be routed through the Technology Coordinator. Dell has been selected as the vendor for the vast majority of PC purchases within the district, while HP has been selected for all printer purchases. These vendors have been chosen based on quality, price and performance. There are several advantages when it comes to single vendor purchasing. One advantage is that fewer images have to be created throughout the district because the number of different models of computers has decreased. Secondly, from a troubleshooting and support standpoint, problems that are linked to certain models can be solved in a timelier fashion. Thirdly, purchasing is a lot more efficient through one vendor and there are a lot more opportunities to save money.

In-house training is by far the most popular form of training within the Newman Catholic School system. Occasionally, the system may turn to outsides sources for training purposes. This form of training is used when there is nobody proficient enough to train on the material in-house.

2.3 Stakeholders and Community Resources

By the nature of the consolidated system, Newman Catholic Schools covers the greater Wausau area as well as much of Marathon County, in terms of where students live. As indicated earlier, a very high percentage of the Newman Catholic School graduates enroll in college, many at the University of Wisconsin Marathon County (UWMC) in Wausau, necessitating a close cooperative relationship with UWMC as evidenced by Dean Massey's letter of support. The ability to access the Marathon County Public Library System from all district buildings is critical for student research.

2.4 How will the plan promote equity?

This technology plan promotes equity in the system by providing all students and staff with equal access to technology. In the elementary, middle and high schools, all

students are required to complete classes on basic computer literacy. Curriculum guidelines mandate that all students demonstrate competency in information processing. Elective technology classes are chose by a diverse population of students and show a balance of students consistent with the greater Wausau area school and community populations.

2.5 Explain how the plan will provide access for teachers, parents and students to best teaching practices and curriculum resources.

A major component of the Newman Catholic Schools Technology Plan is continued acquisition of current technology resources. Acquisitions will provide opportunities for continued staff development, parent education and student instruction and enrichment. The plan will allow teachers to share resources and best practices through the use of the wide area network (WAN) with access to the Internet. The network will provide students a convenient way to access information. The plan will provide opportunities for parents to communicate directly with the school or teachers.

3. Program Goals and Educational Technology Initiatives in Support of Education Improvement

3.1 Assessment of Student and Staff Technology Skills, Knowledge, and Attitudes

Training is another integral part to the success of Newman Catholic Schools. It is very important that all faculty and staff know how to incorporate technology not only for their own benefit, but for the benefit of the students. There are several sources in Wausau that offer various technology training such as Wausau School District, New Horizons, Skyward and North Central Technical College. Whether or not we turn to one of these outside sources for training will depend on the type of training needed. Newman Catholic Schools would most likely turn to in-house training if the need for training involves commonly used programs and devices. Microsoft Word, Power Point, Excel, Outlook and the use of LCD projectors are a few examples of commonly used programs and devices used within the system. If the need were more specific, such as video-on-demand or visual learning, then the district would most likely turn to one of the outside sources listed above.

During the past ten years Newman Catholic Schools has assessed staff as to their skills, knowledge and attitudes about technology. As a result, as series of staff development programs have been conducted on a regular basis and will continue to be held in the future. At Newman Catholic High School, students have been polled in an effort to obtain student input for development of course offerings. Students must demonstrate competency in word processing, spread sheet and database.

3.2 Inventories of software, hardware, facilities, networking and telecommunications capacities

3.2.1 Software

Over the summer of 2006 Newman Catholic Schools purchased the Student Management core PAC (Point and Click) software product from

Skyward. From a district standpoint this software was definitely a need, as opposed to a want. Prior to the implementation of this Student Management software there was no efficient way to share real-time student, family, or staff information. Now that Skyward is in place, every staff member within the system can simultaneously access one database that is used for the entire Newman Catholic School system. The long term savings on employee labor alone by having up-to-date system wide information at their finger tips far out weighed the one time startup cost for this particular software product.

Financial Management and the web-based Family Access module are two additional Skyward software components that Newman Catholic Schools plans on adding in the near future. The current financial management software in place, Hunter Systems Accountrak and School Minder, seems to be geared more towards smaller school districts. Several workarounds have already been used in order to adapt this particular software in order to meet the demands of the Newman Catholic School system. By adding Skywards Financial Management component to the already existing Student Management component, the worries and headaches associated with Accountrak and School Minder would be a thing of the past. Plus, all financial, staff and student data would then be available through one software interface, instead of the existing three. There are several advantages associated with the Family Access module. First and by far the biggest advantage has to due with the online registration capability that should be ready by the fall of 2008. The increase in communication between home and school, real-time access to student information, and not to mention a great public relations tool for school systems are a few other benefits with regards to the Family Access module.

3.2.2 Hardware

In addition to the need for 5 new servers throughout the district including the Exchange server (as stated in section 2.2), there is also the need for LCD flat panel monitors throughout the system. Currently, there is only a handful of flat panel monitors located throughout the system. Now that the price has gone down considerably on flat panel monitors, the goal is to gradually phase out the CRT monitors located within the system. In order to accomplish this goal each new computer that is purchased with a monitor attached will ship with a LCD flat panel monitor instead of the usual CRT monitor. Recent prices quotes received from the Technology Coordinator have indicated that a very minimal price increase is associated with the CRT to LCD flat panel upgrade. The main reason that NCS will be switching to LCD flat panel monitors is because of their low power usage. A conventional 17 inch LCD requires approximately 35 watts to run as opposed to the 90 watts for a 17 inch CRT monitor.

Another goal is to implement a few wireless access points within the system. The actual locations of these are yet to be determined and research still has to be done in order to insure that an economical, safe and secure wireless environment is established. The result of wireless access points will be the addition of more mobile devices such as laptops and pocket pc’s.

3.2.3 Facilities

There are approximately 34 POTS (plain old telephone service) lines throughout the district. Several of these phone lines are indeed Centranet lines.

There are around 8 cell phones used across the system including a Blackberry, not to mention a couple of pagers. As far as long distance is concerned, Powercom is the carrier that the system uses at each building. A DSL line is located at 4 of the buildings and 2 locations have Teach T1 lines. Newman Catholic High School, the head end for the Newman Catholic School network, houses the 5 Meg data line which receives all of the T1/DSL WAN traffic. Solarus, our Internet Service Provider, handles all of the faculty/staff e-mail accounts throughout the district and hosts the Newman Catholic Schools website. MailHelper, an anti-spam and virus filtering service provided by Solarus, is also in place on all faculty/staff e-mail accounts. The system also uses the Secure Computing Smartfilter Bess edition for Internet filtering purposes. All of the above services are listed on the E-Rate services request (form 470).

3.2.4 Networking and Telecommunications Capacities

Now that the new and improved DSL/T1 wide area network centered at Newman Catholic High School is in place, it will be important to assess the overall bandwidth needs for the system. Several wiring projects have also been completed, which greatly improved the network infrastructure of Newman Catholic Schools. Prior to these wiring projects there were several hubs located throughout the district, thus increasing the number hops to the network. Currently, there are only a couple hubs used within the system.

The system will always stay in tune to other options regarding network connectivity. If another ISP has a better deal which would increase are overall bandwidth for the system, than this option should definitely be compared to the current configuration. Now that the entire information technology industry is focusing on mobility, Newman Catholic Schools has and will continue to explore various wireless networking configurations. Wireless access points (as mentioned in section 3.2.2 above) will be researched, discussed and possibly implemented in the near future as long as the portable hardware is readily available to fully take advantage of them. From a wide area network standpoint, wireless communication will be more of a struggle due to the fact that 2 buildings within the system are located between 8 and 10 miles from Newman Catholic High School, the core of the entire Newman Catholic Schools network.

3.3 Current Status of Curriculum and Education Technology Initiatives

The Technology Curriculum committee plans to assist in curricular integration by planning a technology based staff development program, attending workshops about curriculum integration and assisting other staff in attending curriculum integration workshops.

3.4 Explain how the new technology will be integrated into the curriculum

As we strive to keep current in technology, we see staff development in the area of technology as an essential way for it to become integrated into the curriculum. As the Newman Catholic Schools curriculum committees meet to rewrite and update curriculum, they will be asked to include integration of technology at each subject and grade level.

3.5 Explain how the new technology will enhance teaching

New technology will enhance teaching by providing greater access to educational resources and information. Technology such as computers, LCD projectors, digital cameras, scanners, smart boards, video capture cards, etc., will help teachers develop lessons which will add new vigor to an already outstanding curriculum to prepare students for the future. Currently, the system has 3 smart boards in operation, located at the high school, St. Mark and St. Michael. These smart boards give the students the opportunity to learn using a more visual hands-on approach to learning.

3.6 Explain how the new technology will enhance student achievement

Student achievement will be enhanced through greater opportunities to access a broader information base, more problem solving opportunities, and fostering student creativity. Ongoing assessment of student achievement and student participation in technology electives will provide indicators for improved student performance.

3.7 Review of existing professional development activities and structures

Each year a portion of the staff development time is designated for technology instruction. The Diocesan Office for Catholic Schools has provided the opportunity for technology training for teachers and administrators. Newman Catholic Schools has offered after school training sessions after identifying the needs of the staff. Teachers are encouraged to attend technology workshops and conferences. In addition, various staff members with expertise provide training on both a formal and informal basis regarding new equipment and software. Teachers collaborate in planning instructional units integrating the use of technology. Technology integration is included in the agenda for every grade and/or subject or department unit level meetings.

3.8 List resources for ongoing training and technical assistance (list of providers)

We have a Technology Coordinator for the entire system who can help out with a wide variety of issues and concerns relating to technology. There are also computer teachers and classroom teachers in each building with in-house knowledge who are able to assist other staff members. Jeff Dirks, from The Dirks Group, has provided his expertise in setting up a few file servers within the system. In addition to being our Internet service provider, Solarus can also provide assistance as it relates to e-mail, MailHelper, and connectivity concerns. Wausau School District, New Horizons, Skyward and North Central Technical College are a few places that Newman Catholic Schools has turned to in the past for various technology-related training.

3.9 List of print resources (subscriptions), services, software and technicians that are available for support

Subscriptions include Technology Pathfinder, Education Weekly, Association for Supervision and Curriculum Development, Technology in Education, T.H.E. Journal, and PC World. The on-line services provide technology support, as does the Marathon County Public Library and the State of Wisconsin with on-line help.

Ebscohost, Webfeet, Thomson-Gale Infotrac and WISCAT Badgerlink Interlibrary loan are all online services currently being used at the high school. There are several of our parents with technical training who have donated their time to the schools for technical support. Local computer groups have also provided technical assistance and equipment to Newman Catholic Schools.

3.10 Explain how the new technology will enhance teacher training

The new technology *will* give teachers more access to current information and will give them a different and more efficient means of communicating with each other. The inclusion of a smart board in each building, for example, will allow the school to provide a more interactive approach as it pertains to teaching. Presentation software and hardware will make presentations to staff, students and parents more meaningful. St. Matthew and St. Anne are the two schools within the system that do not have a smart board, but the goal is to purchase one for each of these schools this year.

3.11 Describe strategy for using information technologies, including Internet and distance learning

Ongoing staff development in the area of Internet use and distance learning will help teachers gain the background and skills necessary to integrate technology into their lessons. Providing additional Internet capabilities to certain classrooms will provide teachers with the equipment and access necessary to utilize information technology in their lessons. Diocesan administrative meetings will provide opportunities for administrators to plan distance-learning opportunities between diocesan schools. Workshops about information technology and visits to schools with well defined distance learning programs will assist administrators and other staff with the planning and implementation of distance-learning.

3.12 Assessment of current technology support staffing

There are teachers and aides on staff in each building who are available to assist with managing day-to-day computer operations. Newman Catholic Schools also has a Technology Coordinator for the entire system to help with all of the day-to day technology related issues, not to mention performing various projects to help fulfill short and long term goals for the system as a whole.

4. Current Status

4.1 Administrative and management goals and initiatives in relationship to technology

The goals of administrators in Newman Catholic Schools are to establish an efficient, stable, secure, and cost effective networked computing environment. The administration recognizes and supports professional staff members in their efforts to continually seek additional funding for technology and staff development through grant proposals. The system has made a commitment for purchases through the regular operating budget, Home and Schools Associations, yearly fund raising activities, employer matching gift programs, and private and corporate donations.

Funding from these various sources combined have exceeded two percent of our annual budget. Administrators have investigated distance learning with other diocesan schools to supplement and expand the curriculum.

4.2 Communication and information access goals and initiatives

The Newman Catholic Schools communication and information goals involve the use of current technology to increase personal productivity, enhance research capabilities, and improve educational opportunities for the students and staff. Newman Catholic Schools also has the goal of taking an in-depth look at the systems telecommunications layout. Currently, each building has their own independent phone system, but other possibilities exist and will be explored in the near future. The pros and cons of voice-over-ip will be compared to the likes and dislikes of other phone system alternatives.

4.3 Instructional and Curricular Goals and Initiatives

A district goal is to create a continuum in technology education from the elementary level to the middle level to the high school level. Students will be introduced to and will become competent in word processing, database, spreadsheet, multimedia, hypermedia, desktop publishing and electronic information access. In regard to technology, the overall goal is to integrate and interweave content objectives, process skills, technology competence, and applications into each level of the curricular areas in an effort to educate students to become effective problem solvers and critical thinkers.

4.4 Staff Competency Goals in Support of Student Learning in relationship to technology

The curriculum renewal process in Newman Catholic Schools has encouraged teachers and support staff to continue to grow in their knowledge of current educational research. All teachers have been trained in the Dimensions of Learning Model, which enhances the planning and implementation of lessons that develop thinking skills in students at all levels. The system has done additional inservice the last three years focusing on interdisciplinary efforts, multiple intelligence and multicultural experiences.

A few years ago, Newman Catholic Schools conducted a survey of staff members to determine competencies and comfort levels with various hardware and software programs. This led to a series of workshops that focused upon identified needs and interests of the staff over the next two years. Training has been provided by a combination of both representatives from outside agencies, e.g., other school district tech coordinators, consultants, etc., and in-house staff with expertise in particular areas. Since that time all staff members have had the opportunity to attend training sessions on basic word processing, spreadsheet, database and desktop publishing. A number of staff members have become competent in the use of multimedia presentations including the use of scanners, digital cameras, CD-ROMs and video. Another survey will be needed in the fall of 2008 to reassess the current standing of staff members.

Teachers are encouraged to attend workshops that serve individual interests and needs, with monies set aside to assist in covering the cost of attendance. Funding for such attendance comes from the system wide staff development budget, Eisenhower funds and local parent-teacher organizations.

5. Technology Design

5.1 Software priorities

5.1.1 Administrative and management software

Our priorities include acquisition and implementation of the Financial Management core component and the web-based Family Access module, integration of testing and assessment software for WAN usage and possibly using some sort of ID badge machine/software so that we can create our own staff ID badges. Network security monitoring and analysis software, such as Cisco Security Monitoring, Analysis and Response System (MARS), would also be very beneficial to the system because the Technology Coordinator would be able to recognize security threats and then define ways to stop them.

5.1.2 Communications and information access

It would be cost effective and a lot more convenient to host our own e-mail, not to mention host our own website using a web server. The Newman Catholic Schools system will always be exploring new ideas and trends in networking such as wireless communication and voice-over-ip.

5.1.3 Instructional and curricular

Our priorities include acquisition and implementation of reference tools, curriculum support software, general applications (word processing, spreadsheet and database), multimedia authoring, presentation creation software, computer assisted instruction software, desktop publishing software, drawing and painting software, web page development software, career guidance software, student data access, grading software, lesson planning tools, and standards and assessment software. The high school is currently in the process of assessing the recent implementation of a plagiarism prevention tool known as turnitin.com. This web-based application allows students to submit their papers to turnitin, which then cross-references their paper with several other papers to check for plagiarism. Thus turnitin acts as a powerful deterrent to stop plagiarism before it starts.

5.2 Hardware, Facilities, and Network Priorities

5.2.1 Hardware: Workstations and peripherals

The plan includes the following priorities:

- Replace the 2 older servers within the district and add an exchange and a web server for system-wide use.
- Supply both St. Anne and St. Matthew with a smart board.

- Research and implement an ID badge machine for the system.

5.2.2 Facilities: Network design

The plan includes:

- Deploy Symantec anti-virus virus definitions via a server at each location.
- From a system-wide standpoint, look into wireless access points, voice-over-ip and other wireless communication options.
- Focus on security by configuring network security monitoring and analysis software, such as Cisco MARS.
- Since St. Mark only qualified for a 768k/128k DSL line due to distance limitations, this building has a definite need for a full 1.544MB T1 data communications line.

5.2.3 Building and Classroom Wiring: Standards

When it comes to wiring we plan to:

- Provide each classroom with telephone communications access.
- Provide upgrades in existing electrical wiring for new installations and improvements to meet all codes.

5.2.4 Operations, maintenance, and upgrade priorities

Priorities in this area include:

- Provide maintenance and operation assistance as a priority, along with the replacement of 20% of the district's computers on an annual basis.
- Purchase new computers for at least one of the districts computer labs per year, which would be factored into to the 20% goal as stated above.
- Phase out CRT monitors by purchasing all LCD flat panel monitors from now on, which would drastically cut down are overall power usage as it relates to computer monitors.
- Improve student-to-computer ratio to 3:1.

5.3 List desired technologies

Now that the recently modified WAN is in place it will be important to occasionally review and analyze the Newman Catholic Schools network scheme to see if it is meeting all of the district's needs. This review and analysis will provide additional options for network improvements, which will allow the system to keep pace with the constantly changing world of technology. Fiber, wireless (both LAN and WAN) and voice-over-ip are just a few options that will have to be researched and compared with the current network infrastructure. Cost, limitations, speed, security, implementation and integration are some of the indicators that would need to be looked at when doing an overall network comparison.

5.4 List provisions for capabilities of these new technologies with existing technologies

Now that a complete Cisco network infrastructure exists, changes or improvements to the network infrastructure can be made a lot easier. A backup connection would definitely improve the overall network infrastructure. This backup connection would only be utilized when the current 5 Meg connection is down. There would not be a single point of failure located within the Newman Catholic School system if this backup connection was established.

Point-to-point direct line of site is by far the most effective wireless implementation. For example, if you were to go up on the roof of Newman Catholic High School and look through binoculars, direct line of site would be classified as being able to see the roof or part of the adjacent building that you would want to extend a wireless signal to. By extending the height of the high school using a tower, Newman Catholic Schools would more than likely be able to receive direct line of site to St. Anne, St. Michael, St. Matthew and Holy Name. The problem comes into play when St. Mark and St. Therese are added to the picture. Both of these schools are between 8 and 10 miles away from the high school, which poses a big problem with regards to wireless limitations. Point-to-point wireless signals are strongest at distances under 2 miles. After this 2 mile distance has been exceeded, signal loss and interference are a few factors that tend to arise.

5.5 List services and grants school is eligible for and how they will impact the technology plan.

In the past, Newman Catholic High School has made dramatic progress towards the realization of its goals largely due to a number of matching grant programs through IBM. These matching grants have allowed Newman to completely rebuild its main instructional computer lab within the last year for a fraction of what it would otherwise cost. Similar grants and private donations have greatly assisted all of the schools across the system in building the LANs that were necessary to implement the WAN. In the future these grants and donations will allow the system to keep up with changes in technology and provide a powerful application experience for its students.

In addition to the grant programs that the schools of the Newman Catholic School system currently participate in, the implementation of the WAN will allow eligibility for a number of additional grant programs, such as E-Rate. As a specific example, E-Rate requires that schools receiving funding must have implemented some type of Internet filtering solution. Internet filtering is one of many benefits at the core of this technology plan. Not only will the services and grants that we are eligible for impact the technology plan, but by consistently revisiting, updating and following the technology plan Newman Catholic Schools will may also qualify for additional services and grants.

6. Educational Technology Implementation Action Plan Timetable (Leadership, Activities, Timeline, Policy, Budget)

The Newman Catholic Schools Technology Plan will be implemented in a series of three phases. Each phase timeframe will be the equivalent of roughly one school year. With the rapidly changing field of technology, it is unreasonable to project beyond a three-phase or three-year cycle.

6.1 Software Procurement

The technology plan plays a very important part in the software procurement process by guiding Newman Catholic Schools towards complete software uniformity at all the schools in the system. Several decisions have already been made with regards to uniform software purchases throughout the NCS system. Microsoft Office, Symantec Anti-Virus, Adobe Acrobat, Skyward Student Management, Windows XP Pro and Windows 2003 server are a few of the uniform software programs currently being used within Newman Catholic Schools.

Procurement of individual programs that will be used only by a specific class will be the responsibility of the school at which they will be used. The Technology Coordinator has to approve all software related purchases so that the NCS system can continue to strive for and support complete software uniformity.

6.2 Hardware, Facilities, and Network Acquisition/Implementation

Hardware will be purchased in accordance with the phases of the implementation plan. The Technology Coordinator, in consultation with classroom teachers and administration, will decide upon subsequent purchases.

6.3 Operation, Maintenance, and Upgrades

In addition to employing an in-house Technology Coordinator, Newman Catholic Schools maintains a working relationship with employees of the Dirks Group in consultation and implementation of network technologies. Solarus employees are also consulted regularly and have assisted with certain WAN projects and issues.

6.4 Professional Development

6.4.1 Staff Expectations

The Newman Catholic Schools administration has developed a series of staff expectations and has implemented an Action Plan for Staff Development. With the view of the teacher as an educational facilitator, guide, co-learner and co-investigator, it is essential that the teacher meet the following set of expectations:

- Is a competent user of technology hardware such as VCRs, photocopiers, and projection and production equipment.
- Can operate a computer system effectively and use software successfully.
- Understands basic fundamental computer terminology, such as desktop publishing and multimedia.
- Is comfortable with basic fundamental disk management, including how to format, transfer information, back up documents and save.
- Demonstrates an ability to solve simple computer related problems and to contact the applicable personnel for solving the more in-depth ones.
- Evaluates and uses computers and related technologies, not merely as tools and resources that support the instructional process, but as the driving force behind an integrated, cross-disciplinary learning environment.
- Uses various peripheral devices; i.e. printers, LCD panels, multi-media projectors, CD-ROM drives, camcorders, scanners, faxes and laptops.

- Demonstrates knowledge and skill in using computer applications for word processing, information access and communication, utility, presentations, graphics, problem solving, and spreadsheets.
- Is familiar with recommended grade level software.
- Evaluates and selects computer software for appropriate instructional applications, and designs and develops student learning activities that integrate technology into the curriculum so as to meet the needs of all students.
- Understands equity, ethical and legal issues as they apply to computing and technology.
- Displays an active participation in the life-long learning of computer technology. i.e. reading professional periodicals, joining user groups, taking courses, etc.
- Instruct students in evaluating information received via the Internet.
- Instructs and guides students in appropriate use of all on-line information, including the Internet.

6.4.2 Action Plan

Newman Catholic Schools has designed and distributed a survey to determine the current level of technology proficiency and need among all staff. The results of that survey will determine how to go about planning further staff development training. In addition, the district will:

- Establish a training schedule that will make it possible for teachers to reach the designated technology goals.
- Create opportunities for staff to share technological expertise.
- Provide the opportunity for teachers to plan units integrating technology into the curriculum.
- Follow up to see how teachers are incorporating technology.
- Inform teachers what level of proficiency is expected of them according to a set timeline. (This might include a chart containing levels of difficulty or advancement.)
- Survey the teachers each year to determine the success level of staff development.
- Maintain a reliable technology support system.
- Provide training following the installation of new software or hardware as deemed necessary or requested by staff.

6.5 Additional Human Resources in Support of Technology

Newman Catholic Schools has made a firm commitment to ensure that the technology available to students will be maintained, upgraded and used in a practical, efficient manner. By training current staff members and by maintaining contracts with local technology firms, a concerted effort is being made to keep current technologies operable and available to all staff and students. A full time Technology Coordinator has been hired to plan and implement major projects, as well as assisting in the day-to-day problems that are presented in an instructional computer lab environment. As a private school system, we are fortunate that a number of clients/parents with expertise in maintenance and repair of the various hardware packages have donated

their time and talents to assist with this job. Other sources available for technical assistance:

- The Dirks Group – Wausau
- Solarus - Wausau
- Dell Hardware Warranty support
- RMM Solutions – Wausau
- Skyward, Inc. – Stevens Point
- Northcentral Technical College - Wausau

6.6 Funding Sources

Various sources of funding are available to private schools. In addition to state and federal programs for which we are eligible, Newman Catholic Schools applies for corporate and community foundation grants for technology. The Newman Catholic Schools budget will provide a regular line item for technology purchases. Sales of SCRIP (gift) certificates are a regular source of funding for NCS projects. This fund has grown to approximately $14,000 per year and is divided among the schools.

Additional funding has been secured through development of the Newman Catholic Schools Endowment Trust and individual gifts to the system. In the past year, for instance, Newman High has received over $25,000 that is earmarked for technology upgrades.

E-Rate funding is another source where Newman Catholic Schools is receiving a discount on all telecommunications lines. This discount, around 35 to 40 percent, saves the district a decent amount of money each and every year.

6.7 Budget Summary and Related Expenses Needed to Implement Plan

Budget Summary

Phase I (2007-2008 school year): Replacement of Old Equipment

This phase focuses on replacing old equipment throughout the district. The total amount budgeted for the 2007-2008 school year (phase I) is $30,000. Below is a list of equipment that will be replaced in this phase:

Current Equipment	Building	Replacing With	Estimated Cost
20 IBM's located in the computer lab	Newman Catholic High School	25 Dell computers w/flat panel monitors	$17,500
Novell Server	NCS Central Office /NCES at St. Michael	Microsoft Win 2003 Server	$8,000
		Total Cost of Phase I	$25,500

Phase II (2008-2009 school year): Adding the Financial Management Core Component

The one and only objective of phase II would be to add the Financial Management core component to the already existing Skyward Student Management core component. The phase II (2008-2009 school year) budget amount is also $30,000.

Software	Building	Estimated Cost	Budgeted Cost
Financial Management Core Component	Primarily for NCS Central Office but would be utilized throughout NCS	$30,000	$30,000

Phase III (2009-2010 school year): Exchange Server, Family Access Module and Access Points

Phase III, which is directly associated with the 2009-2010 school year, will also have a budget amount of $30,000. The first objective of phase III would be to purchase an Exchange server so that the Newman Catholic School system could host all faculty and staff e-mail accounts internally. Next, NCS would add the web-based Family Access module to the already existing skyward arsenal. The last objective of phase III involves researching and configuring a couple of access points within the NCS network. These access points would be positioned in the most critical areas in the system where mobility would be the key solution to success and learning. A few areas that come to mind are the NCHS library and the NCS Central Office conference room.

Equipment/Software	Building	Estimated Cost	Total Cost
Exchange Server	NCS system	$10,000	$10,000
Family Access Module	NCS System	$1,300	$11,300
Windows 2003 Server	Newman Catholic Middle School	$10,000	21,300
Wireless Access Points	NCS System	$3,700	$25,000

7. Monitoring, Evaluation, and Revision of the Educational Technology Plan

7.1 Monitoring and Evaluation Process

The monitoring of the plan will be on-going and achieved through the annual evaluation process which utilizes such tools as staff survey, student survey, and informal discussion and sharing with other Newman Catholic Schools administrators, community members, technical staff, and other outside technology professionals.

7.2 Incorporation of Evaluation Information for Ongoing Planning

Evaluation information from each of the individual curriculum committees, concerning each individual discipline, will be used for ongoing planning. Included will be recommendations for purchase of technology hardware, software and recommendations for in servicing of staff.

7.3 Process and Timeline for Ongoing, Long- Term Planning

As part of the NCA School Improvement Process, the Technology Coordinator will be in a five-year cycle of planning with revisions to the Newman Catholic Schools Technology Plan being made throughout that planning cycle depending upon the availability of resources. Curriculum revisions for integrating technology in each discipline will be ongoing through this school improvement process as well. The Technology Curriculum Committee will work with other curriculum committees to ensure that technology is infused into all curriculum areas.

To ensure that the plan is followed, and that appropriate hardware and software is purchased and installed so that students and staff can benefit from a stable working environment at the beginning of the school year, the following timeline will be followed each year.

End of School		Beginning of Summer		End of Summer		Start of School
Purchase	⇨	Implement	⇨	Test	⇨	Ready to Go