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ABSTRACT
        This document describes Southwest Virginia Community
College's (SVCC's) general technology plan. Goals include: (1) connecting all
on-campus buildings with a fiber backbone; (2) connecting all user spaces to
this backbone with high-speed lines to form an integrated information
infrastructure known as SVCCNet; (3) providing workstations for college
employees that include hardware and software specific to their needs; (4)
enhancing the use of SVCC's Web page and providing Internet services to
faculty, staff, students, and the community; (5) supporting specialized lab
and classroom equipment that will integrate technology into the curriculum;
(6) integrating two-way interactive voice and video into the infrastructure
and supporting innovative uses of distance learning; (7) supporting
professional development of faculty and staff; and (8) promoting a positive
attitude toward the use of technology as a tool to meet the needs of the
future. Many applications of the technology plan are listed such as
instructional modules for asynchronous classroom use. Institutional,
divisional, and departmental plans for new technology are presented,
including Business, Humanities and Natural Science, Engineering, Distance
Education, Learning Assistance Centers, and the library. Infrastructure
hardware and software specifics are also described. (CJW)

Southwest Virginia Community College

Technology Master Plan

Technology Master Plan

August 2000

Southwest Virginia Community College is a two-year institution of higher education established as a part of a statewide system of community colleges. SVCC serves the residents of Buchanan, Dickenson (partial), Russell, and Tazewell counties. The college operates under policies established by the State Board for Community Colleges and the Local College Board. The institution is financed primarily by State funds supplemented by contributions from the participating localities.

Since the 1960's, much has changed at SVCC. We still have the same President, but we do not have the same technology. The influence of technology is everywhere on the campus. As an institution, we could not function in some areas without the use of the computer. As the college has grown and changed over the past thirty years, more formal administration of the college's computer resources was needed.

The Chancellor of the Virginia Community College System set a goal to improve the technology resources available on each campus, and SVCC was requested to prepare a comprehensive technology master plan. The following document is in fulfillment of this request. Comments about the plan should be directed to Dr. Richard Hudson at <richard_hudson@sw.cc.va.us>.

SVCC General Technology Plan

Southwest Virginia Community College's mission statement incorporates the initiation of programs which educate, train, and retrain citizens in our target area with the desire to become a leader in the development and utilization of technology. We are preparing our students to participate in a changing and complex society. Student and employee expectations are changing. Today's competitive climate demands new skills that combine higher education with life-long learning and economic diversity.

Our vision for the future is well grounded in academic excellence. As a campus, we aspire to become a fully integrated educational community. As a faculty and staff we aspire to fully integrate technology into our daily work life. Technology will enhance the way we do business all the way from admissions, to classroom instruction to administrative functions. Comprehensive strategic planning will result in a vision that motivates the college community to move forward with a shared sense of commitment and direction. This vision must be more than a published statement; it must be widely held. Not just a dream - but a reality.

Southwest Virginia Community College's Technology Master Plan will breathe depth and direction into the current technological environment. This document will outline the college's commitment to developing a change that is both ambitious yet attainable over the next two years. Our expectations for the plan should bring:

o renewed enthusiasm for teaching
o an increase in motivating our students

- better classroom instruction techniques
- increased accuracy in reporting results of student learning
- greater visual portrayal of complex subjects
- increased sharing of limited resources
- improved tools for administration
- improved classroom integration of multimedia, sound, graphics, video and animation
- superior teaching materials and resources
- access and use of the Internet as an educational research tool
- improved learning
- world class learning environments

The SVCC information infrastructure will include a series of ambitious, yet attainable goals:

- The College administration will provide leadership and support to make integration a reality. Resources will be available, and all areas of the College will be included in the planning process to ensure maximum participation.
- The plan will focus on the College mission with emphasis on academic innovation.
- All on-campus buildings will be connected with a fiber backbone. Currently Buchanan, Tazewell, Russell, Dickenson, King, and the Community Center are connected with 24 multi-mode and 24 single-mode fibers connecting each building back to Tazewell Hall in a star configuration. The only building remaining to be connected with fiber is the Physical Plant Building.
- All user spaces will be connected to this backbone with high-speed lines to form an integrated information infrastructure known as SVCCNet. Currently all classrooms, laboratories, conference rooms, auditoriums, and offices are connected with Category 5 cable for SVCCNet access and Internet.
- SVCCNet will connect to other network providers such as the VCCSNet and the Internet.
- The infrastructure will support innovative teaching and learning with increased administrative efficiency.
- The infrastructure will extend support for remote access to our off-campus facilities. Currently six of our off-campus sites have access to SVCCNet, two utilizing ISDN dial up, three utilizing ISDN fixed rate, and one utilizing a 56K fixed line.
- The infrastructure will foster a stronger partnership with business and industry. Currently, SVCC has a technology partnership with Xerox.
- The plan will provide workstations for college employees. Workstations will include both hardware and software that will meet their specific needs. This must support the integration of the technology into work processes or workflow. Not every worker needs the same equipment, but we must invest in the proper tools to do the job.
- SVCC will continue to enhance and improve the use of its Web Page and increase the informational resources available to the college community. We purchased a new Pentium III Web Server this year. We will streamline and modernize management processes and systems. The new VCCS contract with People Soft and Oracle will make a system compatible with all VCCS colleges.
- SVCC will support a cooperative agreement to provide Internet service to our faculty, staff, students, and community.
- The plan will support specialized lab and classroom equipment that will integrate the technology into the curriculum and will promote the use of computerized presentations and computerized student messaging.
- The plan will integrate 2-way interactive voice and video into the infrastructure and will support innovative uses of distance learning.
- Every SVCC student will have access to the technology needed to be successful in his or her studies. The College will encourage the use of technology through leading by example. Time and location will cease to be barriers in attaining educational goals.
- Professional development of the faculty and staff will be supported. A formal training program is established for staff and faculty. We offer courses or workshops to all staff and faculty in Word, Excel, PowerPoint, Access, Exchange, Front Page, and

Web course design.
- The plan will promote a positive attitude toward the use of technology as a tool to meet the needs of the future and to hold SVCC as a world class provider of higher education in the Commonwealth of Virginia.
- Via the Internet, faculty and staff can access the SVCC homepage and print on any Xerox networked machine from home. They also have access to a licensed copy of Microsoft Office if they so choose.

Applications Plan

The following section provides information about the applications and processes that will use technology. Based upon our assessment, these initiatives can be identified and are mission driven applications (enabled by technology). Technology must be considered as an enabling tool to help meet the objectives of today and prepare us for the future. In addition, there will be other benefits identified from using technology.

- Every student registered will have access to information technology on the campus SVCCNet, the VCCS Intranet, and the world wide Internet. Workstations are available in classrooms, laboratories, and the LRC-library. There are six off-campus sites that have access to SVCCNet, two utilizing ISDN dial up, three utilizing ISDN fixed rate, and one utilizing a 56K fixed line.
- Every employee, who has the need or desire, will have access to information technology on the campus SVCCNet, the VCCS Intranet, and the world wide Internet. Currently 98% of all faculty and staff have a Pentium microcomputer or better on their desk.
- Information Services will be charged with the administration of SVCCNet and the Technology Master Plan. Requests for service should be directed to their attention.
- Distance learning technology will be used to increase educational options by expanding programs and courses offered to increase educational opportunities.
- Instruction will be encouraged that uses network access techniques and resources such as VCCS Intranet or Internet, NOTIS, VIVA, or faculty customer developed modules. The Internet plays a significant role in our plan. Use of video technologies is of great interest to our distance education program. We are involved with TELETECHNET and ODU's distance learning program. We are part of a two-way interactive network in Southwest Virginia.
- Instructional modules for asynchronous classroom use will be developed. Faculty will be encouraged to participate.
- Plans concerning the organization, policies, procedures and further implementation of technology based instructional modules will be developed by the Dean of Instructions staff which is made up of the Directors and Division Chairs. The Dean's Staff will develop these plans in consultation with personnel in their respective divisions and with SVCC's Teaching Learning and Technology Roundtable. The Student Outcomes Assessment Committee will develop plans for outcome measurement with the assistance of personnel from Audio-Visual and Distance Education Services. Assessment will ensure that comparable student learning is documented in technology based instructional modules and traditional classroom contexts.
- The technology support functions of customer services, technical services, and applications services will be a college wide objective. While the administration of these services is housed in Information Services, each faculty and staff member must promote the positive use of technology to make it a reality. Faculty and staff must commit the time and effort to integrate these tools into their daily lives.
- Two technical positions were created and filled in the first year of the plan. These positions are to provide technical support. The Repair Technician Senior position installs, modifies, and repairs computer hardware and software. A WebMaster "technical" support position is responsible for all our web pages and web servers. In the second year of the plan, a "generalist" was added to coordinate and facilitate professional development in technology as well as instructional and administrative technological applications for all faculty and staff. This past year 1999-2000 an Installation and Repair Tech was added to the plan, they are responsible for all telephone installations, Category 5 cable installations, and cabling troubleshooting.

4

This year 2000-2001 we will be adding two P-14 part-time Repair Technicians to assist in computer lab installations, troubleshooting, and upkeep.

- Information Services will be reorganized to incorporate a client server philosophy with more attention to customer service. A work order system has been implemented and a help desk will be part of the reorganization. The new infrastructure will demand changes in the skills needed in the Information Services Department. A WebMaster approach instead of a data entry approach will be encouraged. Staff will become enablers and creators.
- SVCC provides general information via its home page. This page can be accessible through the VCCSNet and the World Wide Web. Widely used college publications such as the College Catalog, Course Schedule, Student Handbook, policies and procedure manuals, Technology Master Plan, Campus Calendars, position announcements, campus maps, minutes of meetings, and other informational items are published. The SVCC WebPages will be the responsibility of the WebMaster with oversight of the Dean of Administration, Information Services Manager, Assistant to the President, and Director of Public Information. Our site is located on the world wide web at: **<http:www.sw.cc.va.us/>.**
- A formal program for professional development in technology will include applications tools and techniques needed to fully integrate technology into our daily lives. The Professional Development Committee will ensure that a wide variety of opportunities are available for both faculty and staff. Formal classes are arranged and faculty/staff are encouraged and supported to take these classes.
- Office suite applications are available for general use by faculty, staff, and students. Most faculty and staff have Microsoft Office, which includes WORD, EXCEL, ACCESS, and POWERPOINT. The College has standardized on Microsoft Exchange Server and Outlook as its common e-mail package, which is pop3 mail compliant. Informed Forms is used for administrative forms management. Students have access to many applications in our labs and in the library.
- General client server applications will be integrated into the current VCCS systems. We are seeking replacements to our suite of administrative applications. Most administrative applications are performed on main frame computers in Richmond. These legacy systems are inadequate and not meeting the needs of the administration. These systems are in the process of being replaced with PeopleSoft, Student Information System (SIS) and Administrative Information System (AIS). The SIS system has a target date of going live Summer Term 2001. The AIS system has a target date of Fall Term 2001. Currently, we have 32 servers available. Many departments are sharing files and working on projects electronically.
- SVCC will use VCCS application models as they are published if they will meet our needs. We will identify additional applications and models for review and publishing.
- E-mail is provided for all college employees. E-mail accounts are available for all students, and this service is provided by the VCCS utility.
- Data archive and recovery has been established for all servers on the campus. This responsibility is charged to Information Services. We also archive and recover data on each workstation via the SVCCNet. A disaster recovery plan is in place.
- To provide much needed instruction in the operation of computers and software applications, the College has begun a professional development program to fill in the gaps between an individual's knowledge and where that individual needs to be in terms of expert operation of computer hardware and software. A subcommittee of the Professional Development Committee has worked to schedule workshops, seminars, and training sessions in topics that are used most frequently by faculty and support staff. Office computers have been upgraded to the most recent version of operating system software and every office has the latest version of Microsoft Office, which includes Word, Excel, Access, and PowerPoint. An organized class is in operation that meets twice a week to teach the software packages needed in the daily operation of the various college offices. A continuing career studies certificate has been approved for awarding to those successfully completing the requirements. As of July 1, 2000 ninety one (91) employees have completed Stage One Introduction To Learning Technology and forty five (45) have completed Stage Two Continuous Learning and Self-Improvement. These are VCCS Technology BASICS Skills professional development initiatives. Southwest Virginia Community College also completed stage one, Introduction to Learning Technology and Building and Improving Competencies and stage two, Technology and the Learning Process and

Continuous Learning and Self-Improvement in fiscal year 1998-99
- The College has conducted campus based Teaching, Learning, and Technology Roundtables to develop new instructional initiatives.
- The President will seek partnerships for leveraging resources with other organizations in the college service area.
- Information systems will be evaluated and retooled for the client server technology. We will focus on many of the following:

Student Information System related applications

- One card (debit card) applications
- Bookstore
- Library copy machine
- Laser printing in classrooms
- Employee and staff ID card (Implemented Fall 1998)
- Tuition and fee payments
- Miscellaneous payments

Student tracking applications via desktop

- Student Intranet and Internet access
- Continuing education applications
- Touch tone applications
- Registration
- Grades, admissions, financial aid, accounts receivable, etc.

Administrative Information System related applications

- Purchasing
- Parking fees or accounts receivable
- Campus Master Plan
- Jobs hot line
- Budget Centers On-Line
- Charge Back System

Instructional Information System related applications

- Asynchronous education modules pilots
- Multimedia pilots - CD-ROM
- Multimedia pilots - continuous video streams
- Discipline data base of knowledge
- Collections of unpublished papers and course content documents
- Learning resources access
- Human Resources will begin a comprehensive records management program to help reduce the long term paper storage of the institution. A scanner, computer and CD drive will be available as a portable document storage station. The CD will have 'WORM' technology, which is 'write once - read many' and is a permanent storage media. Funding for this project is on hold for now.
- Sponsored programs will be included in the technology plan and will follow the direction set forth in this document. However, funding for their hardware and software needs have not been included in this plan and should be provided by their special funds.

Business Division

The use of technology has been very beneficial to the students enrolled in courses through the Business Division. Technology is being utilized to present the material, complete assignments and projects, and prepare students for certification. Currently, we are preparing students for certification as a Microsoft Office User Specialist and/or Microsoft Certified Systems Engineer. The certification exam for the Microsoft Office User Specialist is given at Southwest. The use of technology enables the students to gain an understanding of the theory behind the material by observing Microsoft PowerPoint presentations and classroom demonstrations by the instructor. In addition, the students are gaining valuable real-world experience by applying the technology to real-world business situations simulated in the computer labs. Through these simulations the students can develop the skills and knowledge needed to pass the respective certification exam.

Technology is also being widely implemented in the web-based courses taught through the division. To complete the courses, the student must use technology. The use of technology includes, the use of email with attachments, the creation of web published documents, discussion forums, chat programs, and the use of various multimedia programs to submit their narrated presentations. The instructors are using the technology to present the material and communicate with the students. The main emphasis is to simulate the classroom environment as closely as possible.

Humanities and Natural Science Division

The Humanities and Natural Sciences Division has made great strides technologically in the last few years, providing the hardware and infrastructure for students and faculty.

The Humanities Computer Writing Center has been outfitted with up-to-date, networked computers, (XX) for student use through classroom and open lab settings. (The Computer Reading/Writing Center has (XX) computers, which will be replaced this year with Pentium III-800's.)

Nearly all of the classes in the division make use of the two computer labs for class meetings when individual computers are required for each student. Activities in these classes vary as widely as accessing the Internet for research, email, courseware (Blackboard or WCB, etc.), to word processing, editing, and collaborative revision. Additionally, the lab is used for open lab hours with students making use of a wide assortment of software programs as well as the Internet. Computer access has opened the world into the classroom and encouraged faculty to make use of technology for teaching. For example, in SPD, REL, HIS, ENG classes, students now prepare PowerPoint presentations as part of their course requirements, a valuable asset when those students enter the job market with additional skills.

The use of technology as an outgrowth of general lab use has impacted on "traditional" classroom presentation as well. Faculty and students make use of the facilities and come to expect the same kind of advances within the general classroom. ETF money, combined with additional institutional funds, has made it possible to equip and operate 2 new Commonwealth Classrooms within the Division, which complement the Instructional Development Lab and the Computer Writing Center and the Reading/Writing Center. These classrooms are equipped with LCD projectors connected to an in-ceiling sound system, a desktop presenter/camera, DVD, VCR, and computer all of which can then be projected onto a wall screen of much larger than normal size. These rooms are in high demand and are used nearly every available day and evening hour.

Faculty office computers are kept up-to-date, making it more likely that instructors will incorporate the kinds of technology skills into their classes that they are expecting students

to be able to demonstrate when they leave SVCC. Many of the faculty have developed for o evolved to teaching with the Internet. They have created some level of web-bases instruction from WebPresence to WebCourse.

Engineering Division

The Engineering Division has used Technology Funds to purchase sixty-eight computers, a server, two printers, digital trainers, microprocessor trainers, and electronic classroom equipment.

Computer Aided Drafting and Design (AAS)- Technology funds have been used to upgrade two labs from 486 computers to P-5 300 Gateway computers. These computers will suppor the most recent version of AutoCAD 2000 and Solid Modeling for students in the Compute Aided Drafting program as well as other three dimensional software packages such as Bob CAD, Edge-CAM, and Master-CAM used in Machine Technology. The larger monitors on these machines make the viewing of sketches and drawings much easier. Funds were also used to purchase a Size D printer that students can use to print draft drawings. Students in the *Electrical/Electronics (AAS)* program also use these labs for various courses such as Electronic Drafting as well as learning to use troubleshooting software such as Electronic Workbench and P-Spice.

Computer Electronics Technology (AAS)- This *new* Associate in Applied Science program will begin in the fall of 2000. Technology funds have been used to equip the Compute Electronics classroom with state of the art computers that can be used for computer repai and network training. Funds were used to purchase "Portable Digital Trainers" that will be used by students both on and off campus to learn how digital circuits work. Microprocesso Trainers were also purchased to enhance the student knowledge of microprocessors. A server was purchased to used for training students in the set-up and maintenance of NT servers.

Cisco Network Training- Technology funds were used to purchase lap-top computers tha are being used for training students to troubleshoot network problems. Computers in the Computer Technology lab will be used to receive the Cisco curriculum over the internet.

Engineering Transfer- Students in the Engineering Transfer program are taking advantage of the new technology by having access to computers that can support software programs such as AutoCAD, Math CAD, Pro-Engineer, and C++.

"Open Lab"- Technology funds have been used to equip an open lab that is being used by students in all programs. The *Environmental Management and Environmental Science (AAS)* students use this lab for research projects over the internet and for Geographic Information System training.

Mobile Electronic Classroom- Technology funds were used to purchase a computer and LCD projected that is cart-mounted. This mobile instructional unit is used by instructors in the smaller labs where traditional electronic classroom equipment is too cumbersome. Many instructors have begun to develop course materials geared for this year.

DISTANCE EDUCATION SERVICES:

The slogan here at Southwest Virginia Community College is often heard as 'Where Grea Things are Happening'. At Distance Education Services 'Great Things are Happening' with the quality of education our students are receiving. The improved quality of education can be attributed to new technologically improved equipment. The Mavica Digital Camera, S VHS camcorder, new computer equipment, and the Edit Editing Program have contributed

to the BCS curriculum in positive ways. By the use of this equipment we can see a better-prepared student as he or she enters the workforce.

The Mavica Digital Camera has improved the student's ability to bring high quality MPEG's and still images to the Web. The use of the MPEG function of the digital camera has increased the speed in which a student can bring high quality video into a web page. This feature allows more time for the student to improve instructionally on the concepts of video production.

The introduction of the S-VHS Camcorder has helped the students design and develop a higher quality video for their class. In addition, the added use of the S-VHS camcorder, along with the standard VHS recorder, has widened the students experience with varying types of video equipment.

The new computer equipment has been a definite asset to the BCS program. With these new faster computers we have been able to delve deeper into the technology of streamlining audio. Web based delivery of education has become a big issue with today's faculty. Better ways of enhancing the learning experience are always our number one concern. Research has shown that when more of the senses, i.e., seeing, hearing, and touching are incorporated into the learning process we retain more of what we study. With the use of this equipment we are now streamlining PowerPoint lessons via the Internet.

The use of the Edit Editing Program has enabled students to edit videos that look much more professional. Through the use of this program students are exposed to advanced editing techniques. The techniques learned here at SVCC will be the deciding factor in what type position the student will receive at graduation.

In the last year Southwest has expanded it course offerings in our Distance Education Center. These courses may be taken over video, through the electronic classroom or the internet. From July 1, 1999 through June 30, 2000,the department managed the institution's distance education program offering 182 courses serving 3,104 students. Most of these video and internet courses are produced by SVCC faculty and staff.

When we say, 'Where Great Things are Happening', we mean it! We have been empowered with the technology to make a difference in the lives of our students. Looking into the future we see students prepared to face the challenges that lie ahead – challenges they can handle because they were prepared! They were prepared due to the technology that SVCC has acquired.

LEARNING ASSISTANCE CENTER:

The Learning Assistance Center is a comprehensive learning center providing our users help with identifying and utilizing the resources they need to meet their learning needs. Our mission in the lab is to help make students' academic dreams become a reality. During Spring 2000, the Learning Assistance Center of Southwest Virginia Community College received eight (8) Gateway 2000 GP7-600 computers. Our computers in the lab offer many opportunities for students, faculty/staff and community members. Access to internet through Explorer or Netscape and word processing either through Novell Office (WordPerfect) or Microsoft Office (Microsoft Word) is available on all computers. Also, programs such as Access, Excel, FrontPage, Publisher and PowerPoint are installed on every computer in the lab.

A student in the nursing curriculum can access their notes and assignments or they can practice their nursing techniques through Nursing Simulations. Tutorials are available in Algebra, Anatomy and Physiology, English, Keyboarding, Math, Nursing and Study Skills. Students or community members wanting to prepare for the GED test are able to visit various websites for GED enhancement or they are able to practice basic reading, grammar or math skills through our Skills Bank computer program. LASSI (Learning and Study

Strategies Inventory) is installed on the computers to help identify at-risk characteristics to allow teachers and advisors to offer various teaching techniques and study tips for the student. Also, there are many different types of career planning tools available on the computer. Exploration of career options can be obtained through a career planning toolbox that includes Career Finder, Discover, VA View and What Color is Your Parachute for students needing career direction or additional information about their current career paths.

The arrival of the new technology received in Spring 2000 has increased the Learning Assistance Center's level of service. Whether writing a term paper, setting up a database, researching the internet, building basic skills or improving current skills, identifying at-risk characteristics or exploring career possibilities, the Learning Assistance Center offers current and beneficial information to help students achieve academic success.

LIBRARY:

Part of the mission of SVCC Library is to serve as a focal point for research and study and to provide students, academic personnel, and community users access to informational resources. Within this framework of research, study, and resources, computer assisted applications have assumed a major role. For faculty, college students, and staff development, the computer technology purchased for the Library has enhanced our ability to provide the most up-to-date access to Internet resources – particularly the ability to download large files and graphics that cannot be accommodated by older technology. The new computers present the newest versions of word processing, spread sheets, and database applications that represent the current classroom standards. Student access to new technology is expanded because the Library is open during evenings and weekends, times when computer labs are closed and when computer labs are inaccessible due to class schedules.

New technology impacts staff professionalism and the ability of staff to provide a higher level of service to faculty and students. The declining availability of human resources is somewhat countered by expanding automation and revising work routines to substitute technology to store and manage information. The new technology in 1999-2000 upgraded two library services: interlibrary loan and reference.

The expanding body of available full-text periodicals and reference materials that can be located with the new technology is resulting in a slow decline in the volume of ILL requests; however, the new computer technology allows more rapid location and receipt of needed materials from other libraries. The new computer for reference services includes faster response times and greater storage capacity. As technology permeates all facets of library services, the need for reference librarians increases. The exponential grown in the amount of information requires that reference librarians be available to guide students in perfecting their research skills, to select among the thousands of resources which ones provide reputable and pertinent information, to be available as resources for faculty and students to locate information and answer factual questions, and to demonstrate the use of the new technology.

Infrastructure Plan

The SVCCNet has been designed as a local area network that is fully functional and connected to the local, state, and international digital arena. The design is based on maximum performance. Currently our network topology is based on a FDDI backbone using fiber optic cabling. This backbone spans most of the major buildings on campus. An older Apple LocalTalk network is also in place and provides service to the remaining buildings. We will expand this topology to a fully integrated switched ethernet and category 5 UTP

copper connections.

- Cable, conduit, wire closets meet guidelines as published and accepted by the VCCS. Our fiber terminates in each building to a patch panel. The retrofitting of our existing buildings has resulted in non-standard wire closets as walls etc. are already in place. Underground conduit systems campus wide have included all telecommunications media and future expansion is possible.
- Campus network electronics meet and exceed the guidelines published by the VCCS and the industry.
- The college connection to VCCNet meets the guidelines of the VCCS.
- The SVCCNet servers and services will meet guidelines of the VCCS.
- All classrooms, laboratories, conference rooms, auditoriums, and offices on campus are wired for accessibility to the campus network.
- Information Services is the administrative office on the campus that is responsible for the technical support of the SVCC network and the faculty/staff workstations. Their Support staff is in place and the roles and responsibilities are clearly established. Current staff includes:

  Information Services Manager Full Time

  Computer Operations Technician Sr Full Time

  Installation/Repair Technician Sr Full Time

  SVCCNet Manager Full Time

  Computer Network Support Sr. Full Time

  Wiring/Cabling Voice/Video/Data Full Time

  Graphics/CAD Programmer Part Time

  Installation/Repair Technician Part Time

  Installation/Repair Technician Part Time

- Classroom and office desktop microcomputers will meet or exceed the VCCS guidelines.

College Technology Spending Plan

The following is the SVCC College Technology Spending Plan for fiscal year 2000-2001. The spending plan contains the details about technology projects and proposed expenditures.

I. **ASSESSMENT OF CURRENT STATUS**
   A. **Network Status**
      0. The current SVCC Campus Network is in a state of change as a more modern switched infrastructure is being implemented to replace the current shared FDDI Ethernet network. At this time both technologies are running in parallel with a majority of the traffic still being handled by the shared FDDI/Ethernet technologies. In fiscal year 1998-99 we

purchased a Cisco Catalyst 5500 Chassis with 96 100MB Switched Ethernet connections, and 5 Cisco 2924 Ethernet switches taking us to a total of 216 100MB switched Ethernet ports. In fiscal year 1999-2000 we purchased (2) Cisco Catalyst 6009 Chassis , (1) Cisco Catalyst 6006, and three 48 port 100MB Ethernet modules bringing our total of 100 megabit switched Ethernet connections up to 360. These new ports were installed in Tazewell and Buchanan Halls providing improved throughput for our administrative and web based graphics arts areas.

1. There are 24 single-mode and 24 multi-mode fibers installed underground in PVC conduit in place between our major buildings providing growth for the future. The Physical Plant Building currently uses ethernet with copper, however the building is not connected with fiber.

1. The physical wiring system is a star design configuration with the hub located in Tazewell Hall. This design allows for multiple configurations with simple jumper changes.

B. Desktop Status

With the increased demand for access to campus-wide networks and the Internet, SVCC has invested a large percentage of its past budgets in computing resources. About 20% of the computers are Macintosh and 80% Windows based. We currently have a computer for everyone who has asked which is about 99%. While many are old and not meeting all the needs, each of the current computers have access to on campus e-mail and the internet. Over 10% of the computers barely meet the VCCS standard and will need to be replaced over the next year. All of the College computer labs are Pentium or higher processors. This plan will certainly utilize any existing technology that can be recycled; but, we will invest heavily in new technology for our primary mission - teaching. We have many off-campus sites with labs, classrooms and offices that also need to be upgraded.

C. Server/Services Status

SVCCNet currently has (12) Windows NT, (4) Windows 2000, (2) Novell, (11) Unix, and (3) Apple Macintosh servers located on campus. Five additional NT and one Novell servers are located at our off-campus sites. Some of these servers have been in service for over five years and have limited storage. There is some distribution of common applications. We have an extensive clip art library that is used by the campus for publications. The Macintosh servers will not meet the new specifications and will be replaced in this plan. Our network allows peer-to-peer networking so that most workstations can act as servers or clients. This feature has improved our networking ability.

II. IDENTIFICATION OF INITIATIVES

The budget is in rank order but we reserve the flexibility to adjust ordering rank to improve our plan. The figures show that we have more requests than we have dollars and we hope as an institution to fund the needs that have been submitted as part of the plan. Change is so rapid that we will try to evaluate each item of the plan as to the merit and the state of the technology as orders are prepared. We are using **96%** of the total

Technology and Obsolete Equipment budget in our Technology Master Plan. The detailed budget is in a separate Excel Spreadsheet.

I. LIST OF EXPECTATIONS

At the end of the June 2001, it is expected that Southwest Virginia Community College will have achieved the following "list of expectations."

A. Desktop/Classroom
1. Each full time faculty and staff member's workstation will meet technical or useful life definitions as established by VCCS guidelines.
2. The College will only purchase the most recent state of the art computers. Existing computers will be evaluated and if usable in any location, will become part of this plan. Executive level administration will ask and determine needs for their respective areas.
3. All on-campus microcomputers will be connected to the campus network. Off-campus computers may connect via modem to the SVCCNet or the Internet.
4. Faculty and staff members will use general office microcomputer tools on a regular basis to communicate with each other and with students.
5. The College will design Commonwealth Classrooms that will meet the following: Create a minimum of two classrooms on campus that meet Commonwealth Classroom guidelines
6. One compressed video classroom on campus, currently Southwest has two.
7. One microcomputer for each 7% of student FTEs for student, currently Southwest is operating at 22% however 10% of those computer barely meet the minimum VCCS guidelines. This will be corrected this year, 2000-2001.

B. Network
1. The campus network meets VCCS guidelines for cable and service levels. The retrofit of existing wire closets will require exceptions to the guidelines due to current walls and structures.
2. The campus network is accessible in all campus locations (offices, labs, classrooms, auditoria, etc.).
3. The campus network is connected to VCCSNet following the System Office instructions. The campus will follow guidelines for electronics and network services for connection to VCCSNet thereby insuring operability and volume discount pricing for all participants.

C. Servers
1. SVCC has a home page. A new Pentium III WEB server was purchased this year. Home pages will be managed for public relations and content accuracy. They will provide general college information services.
2. Network operating system (NOS) servers will meet VCCS guidelines.
3. E-mail (POP3 compliant) will be available for every faculty and staff.
4. Registration for services (e.g., E-mail) will follow the on-line registration application model, which includes directory services, security, etc.
5. Impact and risk assessments have been completed to identify appropriate security, firewall, and disaster recovery processes that need to be installed based upon application models. This completes requirement to follow CIM's policy statement.
6. We will participate in the definition of business rules and requirements for a new student information system and administrative information

13

system.

D. **Support**

   1. Computer literacy continues to be a driving force at SVCC. The College has committed past resources to buy hardware and software at sufficient levels to operate a successful system. The next phase is the attendant training of personnel to be competent operators of the system. The College views this professional development component as an on-going activity necessary for the whole system.

   2. The Professional Development Committee has been charged with the task of providing opportunities for faculty and staff to obtain needed training updates. The Committee views this charge as very important and one that will enhance the productivity of the total institution. The availability of such training is vitally important to the successful operation of the automated network of information currently being mandated by technological change.

   3. The organizational considerations for functional support have been assessed and will remain at the institution in Information Services. All staff will be functionally within the same department while they may be housed in various locations on the campus. Distance learning will continue to be a part of AV. As the digital technology improves in the future each workstation will have the power to show full motion video and stereo audio. We will move away from the traditional AV, as we know it and each workstation will have the capability to hear and view any media, at any time. This will eliminate the need for old technology but will bring a new need of available information resources. SVCC is part of a venture with the Southwest Education and Training Network.

   4. Each faculty and staff member at SVCC has executed an Information Technology Employee Ethics Agreement and the VCCS Computer Ethics Guideline is available in many college administrative offices and the Library. The Guideline is also posted in all labs where computing is conducted as well as being published, in condensed form, in the College Catalog.

The following policies are part of this plan:

- Copyright compliance will be enforced.
- E-mail and other data files that are usually considered private will only be accessible by a member of Information Services. This information will remain confidential and will only be reviewed if requested from the President or Dean.
- Sharing of instructional modules within VCCS will be encouraged.
- Guidelines for proper credit and payments of instructional modules are defined in the VCCS policy manual.
- Ownership of instructional modules developed at the College on College time is the property of SVCC.
- Personal home pages are not acceptable on College computers using Commonwealth resources. Individuals are encouraged to contact a local provider.
- Computer games are not permitted on College computers.

Appendices

The following documents are available upon request in the Office of the Dean of Administration at SVCC:

Appendix A: Faculty/Staff Memos and Requests

Appendix B: Workstation Analysis

Southwest Virginia Community College

Prty	Division	Description	Unit Cost	Qty.	Total Cost
1	Information Services	ATM Line	60,000.00	1	60,000.00
2	Information Serices	FileServer PeopleSoft App Server	20,000.00	1	20,000.00
3	Information Serices	FileServer PeopleSoft WEB Server	20,000.00	1	20,000.00
4	General College	Salaries and Fringes (4) Full-Time and (2) Part-Time Technology Positions			207,375.00
5	Business Division	Microcomputer	1,729.00	24	41,496.00
6	Humanities Division	Microcomputer	1,700.00	24	40,800.00
7	General College	Microsoft Contract	12,500.00	1	12,500.00
8	Information Services	Cisco 48 Port 100MB Switch	8,800.00	4	35,200.00
9	Math & Science Division	LCD Projector	4,000.00	2	8,000.00
10	Humanities Division	LCD Projector	4,000.00	1	4,000.00
11	Humanities Division	Document Camera (ELMO)	1,200.00	1	1,200.00
12	Information Serices	System Backup Campus	10,000.00	1	10,000.00
13	Math & Science Division	Microcomputer	2,000.00	4	8,000.00
14	Information Serices	Microcomputer	2,000.00	5	10,000.00
15	Humanities Division	Microcomputer	2,000.00	1	2,000.00
16	Distance Education	Microcomputer	2,000.00	1	2,000.00
17	Distance Education	VTEL Upgrade	2,200.00	2	4,400.00
18	Math & Science Division	Computer Scanner	600.00	1	600.00
19	Information Services	Cisco Works	10,000.00	1	10,000.00
20	Information Serices	Rack Dell for Servers w/UPS	5,500.00	1	5,500.00
21	Information Services	Fileserver Dell PowerEdge Power Amp	3,000.00	2	6,000.00

22	Information Services	Laser Printer	6,400.00	1	6,400.00
23	Math & Science Division	Color Printer	600.00	1	600.00
24	Information Serices	Tapeback System for Servers	10,000.00	1	10,000.00
25	Math & Science Division	Digital Camera	900.00	1	900.00
26	Business Office	Microcomputer Laptop	3,600.00	1	3,600.00
27	Business Office	Laser Printer	3,500.00	1	3,500.00
28	Human Resources	Microcomputer Laptop	3,600.00	1	3,600.00
29	Distance Education	S-VHS to VHS Duplication System - 1 x 10	6,587.00	1	6,587.00
30	Engineering Division	Cisco 5 Station Router Kit	12,000.00	1	12,000.00
31	Distance Education	S-VHS Player	3,000.00	2	6,000.00
32	Engineering Division	Router Lab Support Equipment	3,000.00	1	3,000.00
33	Engineering Division	Cisco Certified Network Prof. Training Station	28,000.00	1	28,000.00
34	Continuing Education	Microcomputer	2,000.00	5	10,000.00
35	Engineering Division	RF LANS (Receiver + 10 cards)	10,000.00	1	10,000.00
36	Distance Education	Digital Tape Recorders and Players 3 Panasonic AJD 450 DVC Pro VTPs and 2 Panasonic AJD 440 DVC Pro VTRs.	37,100.00	1	37,100.00
37	Engineering Division	Printer	1,500.00	1	1,500.00
38	Engineering Division	Fiber ST and SC Kit	1,916.85	1	1,916.85
39	Student Services	Microcomputer	2,000.00	4	8,000.00
40	Engineering Division	Fiber Polishing Unit	1,274.24	1	1,274.24
41	Library	Microcomputer	2,000.00	4	8,000.00
42	Library	Printer	5,000.00	1	5,000.00
43	Distance Education	Fileserver Dell PowerEdge 4400 with RealServer	26,000.00	1	26,000.00
44	Dean of Instruction	Microcomputer	2,000.00	1	2,000.00
45	Community Center	Laser Printer	1,500.00	1	1,500.00
46	Evening Programs	Laser Printer	1,500.00	1	1,500.00
47	Library	Microcomputer (Macintosh)	2,000.00	4	8,000.00
48	Distance Education	Microcomputer with Premiere and Targa capture card	4,000.00	4	16,000.00
49	Distance Education	Microcomputer with streaming media	8,000.00	1	8,000.00
50	Math & Science Division	Printer	600.00	1	600.00
51	Distance Education	Video Information Player	1,875.00	1	1,875.00

52	Math & Science Division	Digital Camera	800.00	1	800.00
53	Student Services	Microcomputer Laptop	3,600.00	1	3,600.00
54	Math & Science Division	Video Camera	800.00	1	800.00
55	Engineering Division	LCD Projector	4,000.00	1	4,000.00
56	Engineering Division	Microcomputer	2,000.00	1	2,000.00
57	Learning Center	LCD Projector	4,000.00	1	4,000.00
58	Library	Microcomputer	2,000.00	4	8,000.00
59	Library	Microcomputer	2,000.00	4	8,000.00
60	Humanities Division	Digital Camcorder	1,000.00	1	1,000.00
61	Continuing Education	LCD Projector	4,000.00	1	4,000.00
62	Continuing Education	Document Camera (ELMO)	1,200.00	1	1,200.00
63	Distance Education	LCD Projector	4,000.00	1	4,000.00

Last Updated on 8/13/00
By Teresa Pruett

17