This document describes technology usage, infrastructure and planning for Danville Community College. The Plan is divided into four sections: Introduction, Vision and Mission, Applications, and Infrastructure. The four major goals identified in Vision and Mission are: (1) to ensure the successful use of all technologies through continued training of faculty and staff; (2) to maximize technology to preserve access, improve retention, and increase student success; (3) to provide extended learning opportunities through development of telecommunications capabilities; and (4) to strengthen articulation, cooperation, and collaboration among educational systems and other agencies through integrated technology. The main applications of technology are Internet access, campus-based e-mail, a World Wide Web server, multimedia classrooms, distance education, client server, Virginia Community College System (VCCS) Intranet access, a telephone registration system, and the automation of the college's Learning Resources Center. During the 1996-1997 school year, computer instruction was provided to 2100 students in 135 classes. Planned distance education methods include Web-based courses, interactive video courses, CD-ROM courses, and telecourses. The infrastructure section describes existing facilities and systems, including a table showing number and types of computers at various campus locations. The following upgrades are necessary to meet VCCS standards: upgrading of computers in the learning center, upgrading classroom and administrative computers, furnishing more classrooms with multimedia equipment, and obtaining software. The report contains an activity plan and timeline for future technology improvements. (RDG)
DANVILLE COMMUNITY COLLEGE

INFORMATION TECHNOLOGY GENERAL PLAN

1998-1999
# TABLE OF CONTENTS

- **Introduction** ........................................................................................................... 2
- **Vision and Mission** .................................................................................................. 5
- **Applications** ............................................................................................................. 6
- **Infrastructure** .......................................................................................................... 9
  - Facilities and Resources ............................................................................................ 9
  - Personnel .................................................................................................................. 13
Danville Community College
Information Technology Plan
1998 - 1999

Introduction

Danville Community College is a two-year institution of higher education under the statewide Virginia community College System. DCC's service area includes the City of Danville, Pittsylvania County, and Halifax County. The College, its employees, and students are governed by the policies established by the State Board for Community Colleges and with the support and advice of the Danville Community College Board.

Danville Community College is committed to implementing and sustaining an Information Technology infrastructure which will assist the College in achieving its mission. The challenge is clear, create a student centered environment by increasing access to information, changing processes that directly affect students, and providing new capabilities for students, faculty, and staff. Information resources--including computer hardware and software, communications networks, scholarly information in electronic form, delivery systems, administrative systems, information technology staff, and other related resources--will be made available to meet this challenge.

DANVILLE COMMUNITY COLLEGE STATEMENT OF PURPOSE

Danville Community College is committed to the pursuit of excellence in all of its educational efforts. The College is accountable for providing comprehensive, accessible, flexible, and innovative educational programs and opportunities in general education, college and university parallel curricula, occupational and technical programs, developmental education, continuing education and workforce services, student development, and co-curricular cultural and intellectual activities.

INSTITUTIONAL GOALS

GOAL 1. The College will provide quality educational programs and instruction for the citizens of the service region;

GOAL 2. The College will carry out its commitment to outreach programs for
people within the College’s service region;

**GOAL 3.** The College will carry out its commitment to provide services necessary to assist students in achieving their educational goals;

**GOAL 4.** The College will provide facilities that enhance a quality educational environment;

**GOAL 5.** The College will have an excellent faculty and staff;

**GOAL 6.** The College will obtain and use resources to achieve its purpose; and

**GOAL 7.** The College will strengthen its commitment to partnerships and relationships.

The College’s commitment to information technology will be marked by the following characteristics:

- A campus culture conducive to effective utilization of information technology
- Appropriate access to information technology for its students, faculty, and staff
- Creative use of information technology to enhance student learning and to manage and advance the use of college resources

**Academic Program Support**

Academic programs will be supported by appropriate electronic information resources. These include high-speed communications networks, computing hardware and software, access to external networked resources, electronic scholarly information, library search engines, high-technology classrooms, electronic conferencing facilities, administrative databases, and the like. The institutional environment will encourage faculty to make appropriate and innovative uses of electronic information resources to improve academic programs and encourages students to make appropriate and innovative uses of such resources to further their learning.

**Administrative Support**

The College’s operations and management will be supported by appropriate information resources. Initiatives that make use of information resources to
provide better administrative services and savings will be encouraged and supported by the College Management Team.

**Institutionwide Participation**

The institution considers among its important information resources such organizations as libraries, academic and administrative computing support groups, telecommunications and networking services, and audiovisual and multimedia facilities. The institution recognizes the need for ongoing partnerships and joint planning among these groups, as well as management and technical linkages among them, so as to benefit from their synergy and to avoid duplicative effort.

Implementation of the Information Technology Plan will enable the College to expand the use of technology to improve instruction, communication, and services to our campus and off-campus clientele.
VISION

By employing effective and efficient use of technology, Danville Community College endeavors to better serve the needs of the citizens of the service region by creating a learning environment without barriers of time, distance or economic advantage which will provide expanded education, access, productivity, and quality. The College will:

- Ensure the successful use of all technologies through the continued training and retraining of faculty and staff.

- Maximize use of technology to preserve open access, improve retention, and increase student success in community college programs and thereby ensuring greater accountability.

- Provide extended learning opportunities through development of telecommunications capabilities.

- Strengthen articulation, cooperation and collaboration among all educational systems and other agencies through the integrated use and sharing of technology.
Applications

This section identifies major systems/applications that the College is developing through the use of information technology.

Internet Access

Students and college staff are provided with Internet access. Linking people through the Internet will extend the ability to share information and grow in knowledge. Applications in both the academic and administrative areas are numerous.

During the 1996-97 academic year, formal information skills instruction or point-of-use instruction in the use of NOTIS, VIVA databases, the Internet, and CD-ROM databases was provided to approximately 2100 students in 135 classes. Other educational uses include the following:

- Nurses access CINAHL and Health Reference Source (VIVA) to research nursing theory and diseases
- Business students use Internet to do business profiles
- Information System Technology classes researched financial data on local business and careers (VIVA and Internet)
- Electronic students use the Web to research how to build an electrical generator

Campus Based E-Mail

Communication capability is mission critical. E-Mail, utilizing the Virginia Community College System (VCCS) utility, is available to students, faculty, and appropriate staff. Expanded use of E-Mail will increase effectiveness and efficiency in all college operations. Students will be able to use the E-Mail system to communicate with other students, faculty, and counselors. College employees will have improved communication flow within the College, with students, with vendors, and with external partners.

Worldwide Web Server

The College has established a web site which is enhancing the College's instructional and administrative capabilities. Projected use includes all areas of the College.

Advancement/public relations--The web site serves as an electronic point of access to a wide range of information including: admissions, financial
aid, calendars, directories, campus maps, college publications, bulletin boards, etc. The web site is being used as a marketing tool and establishes a competitive presence that will provide information and services to off-campus constituencies.

Instruction--Faculty have created an interactive multimedia environment that extends the content of the syllabus, enriches classroom discourse, promotes communication among class participants and enhances learning opportunities. Distance learning opportunities are being expanded as faculty develop web based courses that can be accessed in an asynchronous mode.

Student Services--The web server will enable the College to post timely information that students will be able to access from both on- and off-campus. This information will include announcements concerning class schedules, special events, cancellation of classes because of weather conditions, and other information of importance to students.

Administrative--The administration will use the web to improve communications with college employees and the public. Calendars, publications, handbooks, and similar material will be made available on web pages.

Multimedia Classrooms/Laboratories

The College is in the process of equipping 50% of the classrooms and laboratories with multimedia capabilities. Network wiring has been extended to campus classrooms and laboratories. Media fusion, that is the blending of voice, data and video capabilities is providing faculty with the tools to enrich the learning experiences of their students.

Distance Education

New technology has enabled the College to move away from the traditional classroom to a learning environment that is as flexible as possible to service the needs of students and business. The distance learning format offers non-traditional students the opportunity to continue their education while meeting the needs of the families and employers. Planned course development methods include:

Web based courses--courses accessible in an asynchronous mode will be made available on the college web server. Developmental Trigonometry and Statistics courses are currently being developed.

Interactive Video Courses--The College will expand the use of compressed video equipment (V-TEL) to provide a broader curriculum for
both on-campus and off-campus students. Agreements with businesses and industries will allow the College to deliver courses to employees at their work sites. Courses that have been developed and offered include English Literature, Music Appreciation, Math for Allied Health, Calculus, College Chemistry, Personal Wellness, and Statistics. Courses under development include U.S. History, Business Mathematics, Precalculus, and Early Childhood Education.

**CD-ROM Courses**--CD-ROM based courses such as “Microsoft’s Windows 95 Starts Here” will allow students to move at their own speed through course materials.

**Telecourses**--Faculty will continue to develop video courses utilizing the College's excellent video production studio facilities. “Personal Wellness” and “Job Search Strategies” have been developed and offered. Other asynchronous courses offered by the College include “Marketing” and “Introduction to Business.”

**Client Server Technology**

The use of client-server technology has improved the effectiveness and efficiency of college staff. Software cost has been reduced by allowing all college staff access to suite applications located on file servers thus reducing the need for duplicative copies of software. Data file and document sharing has enabled staff to create, analyze, and collaborate in new ways.

**VCCS Intranet Access**

Improvements in VCCS Internet access has enhanced administrative functions. Applications include--CARS, CIPPS, FRS, PMIS, and an automated textbook ordering system. Student services will benefit from the use of more efficient student tracking systems (SIS).

**Telephone Registration**

Implementation of a telephone registration system will provide students with more convenient services while improving staff efficiency.

**Learning Resources Center Automation**

Utilizing the VCCS Intranet the College’s Learning Resources Center has expanded services to students, faculty, staff, and community users. These services include VIVA and NOTIS. A 22 workstation networked learning assistance laboratory provides access to the Internet. In addition, 16 computers with network connectivity are available in the library to provide users with NOTIS and VIVA access.
Infrastructure

Facilities and Resources

Existing

Distance Education

Danville Community College has an outstanding facility to support the distance education initiative. The 30,000 square foot Learning Resources Center provides a 1100 square foot production studio, control room, two electronic classrooms, screening room, and other support areas. A third electronic classroom is located in the Wyatt building. Equipment available for the production and delivery of distance education courses includes:

- Television Video Production System
  - Cameras (3), switcher, tripods, monitors, character generator, recording decks, and associated equipment

- Television Production Audio System
  - Mixers, microphones, and associated equipment

- Desktop Video Editing System
  - Switcher, controller, decks, computer, and associated equipment

- Video Duplication System
  - Decks, switcher, test, and associated equipment

- Three (3) C/KU Satellite systems

- Compressed Video Units (V-TEL) located on-campus and at Halifax High School

- Compressed Video Units (V-TEL) will be located in Northern Pittsylvania County and the City of Danville.

Campus Connectivity - Wiring

The College has a 10 BaseT Novell Network utilizing a star configuration. Interbuilding connectivity is provided by fiber. Intrabuilding wiring is category 5. All administrators, staff and on-campus faculty offices are equipped with voice and data connections. All classrooms and laboratories have data/voice capability as well.
Campus Connectivity - Network Electronics

Network electronics consists of the following:

- 10 24-port 10Base T hubs
- 2 6-port Fiber hub
- 4 586 File servers
- 2 486 File servers
- 1 Router/Switch

Wire Closets

The entrance wire closet houses equipment which provides connectivity to Bell Atlantic fiber, the web server, main file server, and the 6-port fiber hubs. This closet conforms to VCCS requirements. However, secondary wire closets (4) while being adequate will not conform to VCCS standards.

Voice Mail System

The College telephone system provides voice mail capabilities for on-campus faculty and staff.

Learning Resource Center (LRC)

The LRC is equipped to provide NOTIS, VIVA, and Internet services. In addition the LRC has a 22 station networked lab available for student and community use. Software applications, utilized in instructional programs, are available on the Network server.

Multimedia Classroom

Twenty (20) classrooms/laboratories are equipped with LCD projection equipment. The computers used in conjunction with the LCD projection equipment are Pentium multimedia.
Classroom Computer Workstations

The College has 332 computer workstations available for student use.

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>NO. COMPUTERS</th>
<th>TECHNOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TAYLOR</td>
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<td></td>
<td>TEMPLE</td>
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<td>122</td>
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<td></td>
<td>Math/Physics Lab</td>
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<tr>
<td></td>
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<td>LAC</td>
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<td></td>
<td>OFF-CAMPUS</td>
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<tr>
<td></td>
<td>CEC</td>
<td>16</td>
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<tr>
<td></td>
<td>Gretna</td>
<td>14</td>
</tr>
</tbody>
</table>
Faculty/Administration Computer Workstations

Listed below are the computer workstations available for faculty/administration use:

Faculty (including Administrators)

68  586 Multimedia

Staff

40  586 Multimedia

Computer Software

The College has sufficient computer software for both administrative and instructional use. However, the demand for instructional software is in constant flux. Administrative software consists primarily of word processing applications (WordPerfect, Word) and spreadsheets (Excel, Lotus 123). Netscape is used as the Internet browser.

Needed to Meet VCCS Standard

Distance Education

Meets standard/additional compressed video sites to be installed in Pittsylvania County and City of Danville

Campus Connectivity

Meets standard

Network Electronics

Meets standard/upgrades of 6 hubs planned

Learning Resources Center Commonwealth Classroom

9 Pentium Workstations to replace 486 machines

Classroom Computers

Meets standard/upgrade of 49 units planned in 1998-99

Administrative Computers

Meets standard/upgrade of 8 units planned in 1998-1999

Multimedia Classroom Equipment

Twenty (20) classrooms/laboratories are equipped with LCD projector equipment. The remaining classrooms and laboratories will require multimedia equipment to meet VCCS standards. Two (2) additional systems to be purchased in 1998-99.

Computer Software

To meet the VCCS standards, the College will need to obtain a significant amount of
software including:
Office Suite Applications
E-Mail Software
Telephone Registration Software

The College plans to upgrade software as appropriate

**Commonwealth Conference Room and Conference Center**

The College is planning to purchase a compressed video conferencing system and dedicate a facility for these activities in 1999.

**Dial-In Access to VCCS Intranet**

The College has purchased appropriate technology to provide dial-in access for College employees to the VCCS Intranet. Students have dial-in Internet access through local providers (Gamewood, Peoples Mutual).

**Personnel**

**Professional Development**

The College has in place a professional development plan which provides faculty and staff the opportunity to participate in both credit and non-credit self-improvement activities. In addition, each academic year, the College offers several professional development activities which focus on the use of emerging technologies.

**Teaching, Learning, Technology Roundtable (TLTR)**

The College has appointed 24 faculty and administrators to the TLTR. This group will address the technology needs on the campus that impact teaching and learning, as well as the innovative, exciting way technology can be used in the classroom.

**Organization**

The College computer support organization consists of three (3) staff positions and a Dean. The Dean reports to the President and has overall responsibility for the technology infrastructure. The three staff positions are Programmer, Installation and Repair Technician Senior, and Program Support Technician. These positions will enable the College to provide the support necessary to achieve the goals and objectives of the VCCS Technology Plan.

**Consortia Arrangements**

Danville Community College is a member of the Old Dominion University TeleTechnet Consortium. The College is a designated receiving site for ODU TeleTechnet offerings. The College provides a KU satellite system, electronic classroom, administrative offices, and student access to LAC networked computers.
Year 2000 Compliance

Danville Community College has developed a plan for addressing the Year 2000 compliance issues. Critical systems have been identified and assessed. The College anticipates no problems in meeting Year 2000 compliance.

Information Technology Security Policy

Danville Community College has developed an Information Technology Security Plan in accordance with COV-95 standards.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Target Implementation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purchase and install desktop computers and software for classrooms/labs in conformance to maintenance schedule</td>
<td>49 computers by January 1999</td>
</tr>
<tr>
<td>2. Expand the College Web site to include appropriate faculty prepared web pages</td>
<td>On-going</td>
</tr>
<tr>
<td>3. Insure that adequate technical and generalist technology support is available for instructional development.</td>
<td>August 1998</td>
</tr>
<tr>
<td>4. Purchase and install additional hubs/switches</td>
<td>6 by January 1999</td>
</tr>
<tr>
<td>5. Purchase and install multimedia equipment in classroom and laboratories</td>
<td>41 by July 1998</td>
</tr>
<tr>
<td>6. Utilizing VCCS utility; create a POP 3 E-Mail system for College employees; implement dial-in access for College employees</td>
<td>January 1999</td>
</tr>
<tr>
<td>7. Coordinate with local providers (Gamewood, Inc; People Mutual) dial-up Internet access capability for students (TCP/IP - PPP Protocol Compliant)</td>
<td>Start date July 1998</td>
</tr>
<tr>
<td>8. Purchase and install equipment and software for telephone registration system</td>
<td>January, 2000</td>
</tr>
<tr>
<td>9. Develop and implement a technology professional development plan which ensures employees are trained and kept current in the use of new technology</td>
<td>August 1998</td>
</tr>
<tr>
<td>10. Develop and offer CVN courses</td>
<td>August 1999</td>
</tr>
<tr>
<td>11. Develop and offer web based courses</td>
<td>January 2000</td>
</tr>
<tr>
<td>12. Utilize Internet resources to enhance courses in business, history, and technologies</td>
<td>January 1999</td>
</tr>
<tr>
<td>13. Install video conferencing equipment in Northern Pittsylvania County and City of Danville</td>
<td>January 1999</td>
</tr>
<tr>
<td>14. Complete Year 2000 review and action program as outlined by the Council for Information Management</td>
<td>January 1999</td>
</tr>
<tr>
<td>15. Complete COV95-1 disaster recovery plan</td>
<td>January 1999</td>
</tr>
<tr>
<td>16. Provide a Commonwealth Conference Room equipped with compressed video conferencing equipment</td>
<td>September 1999</td>
</tr>
<tr>
<td>17. Provide a Commonwealth Conference Center</td>
<td>September 1999</td>
</tr>
</tbody>
</table>
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