ANTIOCH UNIVERSITY

REPORT TO THE BOARD OF TRUSTEES

Five-Year Capital Budget

1999-00 TO 2003-04

June 4-5, 1999

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INTRODUCTION

This Five-Year Capital Budget is the second attempt by the University and its Campuses to formalize the process of planning for major acquisitions for a period longer than a single year. In order to focus on a five-year planning period, the Campuses have had to revise their existing processes or introduce new procedures. In several cases, this has been more difficult than was initially thought, and more time will be required before these processes have the involvement and structure originally envisioned.

This Five-Year Capital Budget is concerned primarily with technology and facilities. These two areas constitute the largest locus of investment being made by the University and the Campuses in recent years, and we believe that they will capture the largest part of our capital expenditures in each of the next five years. Technology, in particular, is likely to be the focus of considerable attention at the campuses as each attempts to respond to increasing student demands for greater and greater computer sophistication. In addition, growing campus emphasis is being placed on technology planning and most campuses now have functioning technology committees in place. A University-Wide technology group is in the formative stages and a comprehensive report is anticipated within the next year. In addition to technology and facilities, this Capital Budget contains a third section dealing with all other types of capital acquisition, but expenditures in this third section are primarily for library periodicals and monographs.

The Five-Year Capital Budget is presented on a campus by campus basis. For each of the five years, a narrative description is provided for the facilities, technology and other acquisitions. In addition, a schedule summarizing the items by year and category is provided following the narrative. It is intended that by adopting the 1999-2000 operating budget, the Board of Trustees will simultaneously adopt the capital acquisition plan contained in the first year of the Five-Year Capital Budget.

Antioch University
Five Year Capital Budget
1999-2000 Budget

ANTIOCH COLLEGE

1999-2000 PROPOSED EXPENDITURES

Introduction:

This Capital Narrative describes the proposed expenditures for 1999-2000 that are funded by the College Operating Budget or anticipated gifts. Only a small number of these projects and acquisitions have sufficiently secure funding to permit them to be included in the operating budget. Only funded projects are described here. These projects attempt to meet short term replacement, repair, and renewal needs and are prioritized by safety requirements, student residential needs, and the College's ability to fund. These funded projects may change as the year progresses depending upon any other equipment failures that change our priorities. Additional projects and a partial reporting of deferred maintenance items are included in the capital summary report which may be funded by future gifts or bequests.

I. FACILITIES

A. **Priority 1**: Fire System Upgrades. Through various building renovation projects, many of the fire alarm systems on campus have already been upgraded. This project will upgrade a fire alarm system in a building yet to be determined. $10,000

B. **Priority 2**: Underground Tank Removal. This project is required by the EPA. Permits have been obtained and removal will take place at various locations on campus. $20,000

C. **Priority 3**: HVAC and/or Electrical or Plumbing. This project represents the estimated cost of minor repair and replacements for heating, cooling, electrical, or plumbing equipment. $14,600

D. **Priority 4**: Transformer Replacement: This project is required by the EPA because the transformers contain PCBs. With assistance from the Village of Yellow Springs, two transformers located in the Library will be removed and replaced. $28,000

E. **Priority 5**: Replacement Carpeting and Furniture. Periodic replacement of floor coverings and furniture is essential to maintain the appearance and comfort of student residence halls. Antioch students move in and out of residence halls so often that normal wear and tear is much greater than in other locations. This project will replace a very small percentage of deteriorating furnishings. $10,000

II. TECHNOLOGY

A. The 1999-2000 technology plan includes servers, printers, and other equipment for student computer lab upgrades, equipment for Datatel implementation, and various upgrades and repairs to existing equipment. $32,580

III. BOOKS

A. Annual book acquisitions from restricted gifts or bequests including the Micheners' gift are included in this capital plan. $60,000

Robert H. Devine
President

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch College

1998-99 Base Year Capital Expenditures	Amount	Source
Facilities	156,121	Operating Budget/Gifts
Technology	283,536	Operating Budget/Gifts
Other	60,685	Operating Budget/Gifts
Total	500,342	

1999-00 Proposed Expenditures	Amount	Source
Facilities		
Fire System Upgrades	10,000	Operating Budget
Underground Tank Removal	20,000	Operating Budget
HVAC Improvements	14,600	Operating Budget
Electrical Transformers	28,000	Operating Budget
Furniture Residence Halls	5,000	Operating Budget
Furniture Dining Services	5,000	Operating Budget
Emergency Interior Lighting	5,000	Unfunded
Hot Water Heaters/Tube Bundles	21,068	Unfunded
Carpet Residence Halls	5,000	Unfunded
Condensate Lines & Pumps	10,000	Unfunded
Roof Repairs	113,077	Unfunded
Residence Hall Shower Replacement	18,000	Unfunded
ADA Building Entrances	25,000	Unfunded
Upgrade Exterior Lighting	11,000	Unfunded
Drives and Walkways	10,000	Unfunded
Resurface Parking Lots	25,000	Unfunded
Landscaping	10,000	Unfunded
Window Replacements	117,150	Unfunded
Floor Care Equipment	1,532	Unfunded

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch College

Technology		
Servers, Printers, Lab Upgrades	32,850	Operating Budget
Campus Network	87,750	Gifts
Residence Hall Telephone Service	93,750	Gifts
Other		
Library Books	60,000	Operating Budget
Vehicle Replacement	20,000	Unfunded
Total	748,777	

2000-01 Proposed Expenditures	**Amount**	**Source**
Facilities		
Fire System Upgrades	14,522	Unfunded
HVAC Improvements	108,332	Unfunded
Electrical Transformers	55,000	Unfunded
Emergency Interior Lighting	5,000	Unfunded
Hot Water Heaters/Tube Bundles	24,756	Unfunded
Condensate Lines & Pumps	10,000	Unfunded
Roof Repairs	50,000	Unfunded
Residence Hall Shower Replacement	12,000	Unfunded
ADA Building Entrances	25,000	Unfunded
Upgrade Exterior Lighting	11,000	Unfunded
Drives and Walkways	10,000	Unfunded
Resurface Parking Lots	25,000	Unfunded
Landscaping	10,000	Unfunded
Window Replacements	330,000	Unfunded
Floor Care Equipment	1,532	Unfunded

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch College

Technology		
Servers, Printers, Lab Upgrades	25,000	Operating Budget
Computer Upgrades	120,000	Operating Budget
Residence Hall Telephone Service	93,750	Gifts
Other		
Library Books	60,000	Operating Budget
Mowers	12,000	Unfunded
Vehicle Replacement	10,000	Unfunded
Total	1,012,892	

2001-02 Proposed Expenditures	**Amount**	**Source**
Facilities		
Fire System Upgrades	25,000	Unfunded
Electrical Transformers	55,000	Unfunded
Emergency Interior Lighting	5,000	Unfunded
Hot Water Heaters/Tube Bundles	22,738	Unfunded
Residence Hall Shower Replacement	12,000	Unfunded
ADA Building Entrances	25,000	Unfunded
Drives and Walkways	10,000	Unfunded
Landscaping	10,000	Unfunded
Floor Care Equipment	1,532	Unfunded
Technology		
Servers, Printers, Lab Upgrades	25,000	Operating Budget
Residence Hall Telephone Service	93,750	Gifts

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch College

Other		
Library Books	60,000	Operating Budget
Mowers	12,000	Unfunded
Vehicle Replacements	10,000	Unfunded
Total	367,020	

2002-03 Proposed Expenditures	**Amount**	**Source**
Facilities		
Electrical Transformers	55,000	Unfunded
Emergency Interior Lighting	1,000	Unfunded
Hot Water Heaters/Tube Bundles	22,738	Unfunded
Residence Hall Shower Replacement	12,000	Unfunded
ADA Building Entrances	25,000	Unfunded
Drives and Walkways	10,000	Unfunded
Landscaping	10,000	Unfunded
Floor Care Equipment	1,532	Unfunded
Technology		
Servers, Printers, Lab Upgrades	25,000	Operating Budget
Residence Hall Telephone Service	93,750	Gifts
Other		
Library Books	60,000	Operating Budget
Mowers	15,000	Unfunded
Vehicle Replacements	20,000	Unfunded
Total	351,020	

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch College

2003-04 Proposed Expenditures	Amount	Source
Facilities		
Electrical Transformers	55,000	Unfunded
Emergency Interior Lighting	1,000	Unfunded
Carpet Residence Halls	25,000	Unfunded
Furniture Residence Halls	100,000	Unfunded
Hot Water Heaters/Tube Bundles	22,738	Unfunded
Roof Repairs	100,000	Unfunded
Residence Hall Shower Replacement	12,000	Unfunded
HVAC Improvements	100,000	Unfunded
ADA Building Entrances	25,000	Unfunded
Drives and Walkways	10,000	Unfunded
Resurface Parking Lots	25,000	Unfunded
Landscaping	10,000	Unfunded
Window Replacements	100,000	Unfunded
Floor Care Equipment	1,532	Unfunded
Technology		
Servers, Printers, Lab Upgrades	75,000	Operating Budget/Gifts
Residence Hall Telephone Service	93,750	Gifts
Computer Upgrades	50,000	Gifts
Other		
Library Books	60,000	Operating Budget
Mowers	15,000	Unfunded
Vehicle Replacements	70,000	Unfunded
Total	951,020	

Antioch University
Five Year Capital Budget
1999-2000 Budget

ANTIOCH NEW ENGLAND GRADUATE SCHOOL

1999-2000 PROPOSED EXPENDITURES

I. FACILITIES

A. **Priority 1**: Two year lease renewal for Portsmouth, NH site. Although this is not a capital item, we include it because it substitutes for a facility acquisition. It does not appear on the projects list. Source: operating budget.

II. TECHNOLOGY

A. **Priority 1**: Computer Hardware Replacement. Technology seems to be a perpetual "work in progress," and historically we have employed a strategy of acquisition and replacement based upon need and level of obsolescence. While that kind of yearly planning had a clear rationale, it was never a terribly systematic process. The Technology Task Force has developed a long-term plan to identify the critical issues related to technological development and has crafted a plan for prioritizing replacement, upgrading, and application needs.

For 1999-2000, the capital budget includes $30,000 for computer hardware replacement, particularly machines, which will no longer support certain software applications. In addition, we need to provide some IBM machines and PowerPoint applications for those academic courses (GIS, Statistics, etc.) which need PC's for effective instruction. As our use of technology expands and we implement the requirement that students have home and/or work access to a computer and the Internet, we will

address this issue short-term within the operating budget (see Budget Narrative). Ultimately, there is a human capital issue here, and we will attempt to continue to recognize the seriousness of our staffing inadequacy in future years.

In the future five-year capital technology plans, the ULC and the Board may, at a minimum, expect to see hardware and software replacement on an annual basis; a plan to upgrade and reorganize the current Academic Computing Lab, now almost five years old, with perhaps a dozen new stations, new printers, and increased wiring and panels if necessary. For illustration purposes, the following reflect reasonable estimates for future capital expenditures: 2000-01 - $50,000; 2001-02 - $60,000; 2002-03 - $60,000; and 2003-04 - $65,000.

B. **Priority 2**: VCR and Television Monitor Replacement. On an annual basis, we attempt to address the need to upgrade or replace audio-visual equipment that is used for classes, primarily in programs that require an analysis of practice techniques (therapeutic interaction, teaching, etc.). $2500 has been designated for audio-visual purchases in 1999-2000, with the source of funds coming from the operating budget; for display purposes it is included in the "other" category under maintenance and upgrade of the library.

III. OTHER

A. **Priority 1**: Maintenance/Upgrade of Library Collection. $72,500 of estimated capital expense has been budgeted in the 1999-2000 proposal to cover the cost of maintaining journal subscriptions, licensing fees, book acquisitions, CD-ROM data bases, etc. The funding support for this set of purchases will come primarily from the operating budget, with some additional support potentially available from the CEE funds. (It is important to note that the book acquisition line has been frozen or cut for the past several years, creating some problems with the currency of the collection.) This is an annual capital expense and will likely increase over the course of the next five years if for no other reason than inflationary factors.

PROPOSED CAPITAL EXPENDITURES 2000-01 AND BEYOND

I. FACILITIES

A. While we have filled in the Five-Year Capital Budget Summary grid, it is important to acknowledge the fact that we have identified needs and potential expense, realizing that replacement and/or upgrade does not easily translate to a specific timetable. Within the 2000-2004 period:

B. We will continue to assign principal payments to the capital expense section; for amounts, see narrative above. Funding source: operating budget.

C. It is anticipated that we would like to move toward the implementation of Phase II of the "warehouse" renovations and expansion. Specifically, we envision the creation of one large classroom and one very large (4000 square feet) multi-purpose room, which would enable us to hold major conferences and accommodate large gatherings for lectures, etc. Code requirements would necessitate adding more plumbing and another egress. We also believe that this phase would require some roof repairs and/or replacement. Estimated cost: $200,000 -- $250,000. *Funding source: funding of our carry-forward reserves and/or some capital campaign dollars.*

D. Sealing of the present main parking lot and refinishing of the secondary parking lot at the end of Avon Street. The former makes sense as a means of reducing long-term replacement costs and the latter was not done in the original project because of budgetary constraints. It does require attention. Estimated cost for both projects: $12,000--$15,000. Funding source: Probably operating budget.

E. Possible replacement of carpeting in lobby, community room and other high traffic areas. There is not an immediate need to pay attention to this issue, but we are aware that replacement is a real possibility within the next five years. Estimated cost: $10,000- 15,000. Funding source: Probably operating budget.

F. Possible renovation of other major expansion space. It is premature to speculate, but one never knows what is ahead in terms of new program development, grant and contract activity, etc. Funding source: grant or gift.

G. We do not anticipate any major problems with the HVAC systems, roof, windows, Dryvit exterior, etc. over the course of the next five years. Each should have a minimum life of fifteen years before major maintenance or replacement is required. Nevertheless, we would continue to hope that carry forward funding would occur soon, providing some kind of emergency cushion.

H. Painting and other general customary needs are covered annually in the operations budget as part of the "plant" category.

II. TECHNOLOGY

A. See narrative above.

III. OTHER

B. See narrative re: library acquisitions above

Jim Craiglow
President

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch New England Graduate School

1998-99 Base Year Capital Expenditures	Amount	Source
Facilities	422,315	Reserves/Borrow from McGregor
Technology	44,976	Operating Budget
Other	57,709	Operating Budget
Total	525,000	

1999-00 Proposed Expenditures	Amount	Source
Facilities		
Technology		
Computer Hardware Replacement	30,000	Operating Budget
Other		
Library A-V Equipment	2,500	Operating Budget
Library Books	72,500	Operating Budget
Total	105,000	

2000-01 Proposed Expenditures	Amount	Source
Facilities		
Technology		
Computer Hardware Replacement	50,000	Operating Budget
Other		
Library A-V Equipment	2,500	Operating Budget
Library Books	77,500	Operating Budget
Total	130,000	

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch New England Graduate School

2003-04 Proposed Expenditures	Amount	Source
Facilities		
Technology		
Computer Hardware Replacement	65,000	Operating Budget
Other		
Library A-V Equipment	2,500	Operating Budget
Library Books	87,500	Operating Budget
Total	155,000	

Antioch University
Five Year Capital Budget
1999-2000 Budget

ANTIOCH SEATTLE

1999-2000 PROPOSED EXPENDITURES

I. FACILITIES

Antioch Seattle occupied newly renovated facilities in September 1997. The programming for this renovation was completed in 1996 and was adequate for the operations at that time. We have since developed new academic programs, a fully functioning University Relations Office, and a centralized Admissions Office. In addition, we have outgrown our library and student computer lab and are using all classroom capacity several nights per week. We are going to try to make it through the coming year with minor renovations to our existing space. However, depending upon funding, we anticipate expanding into our adjacent 4400 square feet in late 2000 or during the early part of the 2000-01 budget year.

During the 1998-99 budget year we experienced a revenue shortfall and were not able to make progress on some items identified in last year's plan.

A. **Priority 1**: Roof Leak Repairs. The leaks in the roof were not repaired during the construction process. This is our first priority as we are experiencing damage to walls, carpets and ceiling tiles. Minor repairs have been attempted during this year but none have completely stopped the leaks. Funds have been earmarked in the operating budget to cover this expense. $14,500

B. **Priority 2:** Tenant Improvement Allowance in Rental Space. It has become evident that we will need to provide some allowance for tenant improvements to rent our vacant space. Current negotiations

would result in a $40,000 allowance. At this time we are discussing a loan with Central to fund this expense.

C. **Priority 3**: Lobby Upgrade. Prior to moving into our new building, we were able to complete the first phase of furnishing the lobby. We were able to provide some furniture, a small number of plants, and the fountain. The current lobby furnishings are consistent with the original design concept of the space. Since that time, students have requested more seating, in particular more tables and chairs so that they can do collaborative work together. We want to respond to this very reasonable request, and the new furnishings will be selected to match the earlier style and materials. Should sufficient funds be left after furnishings are selected, we will purchase some plants compatible with the original design.

II. TECHNOLOGY

A. **Priority 1**: First Class Stabilization and Upgrade. We continue to experience frequent periods of down time with our FirstClass server. This creates problems with intercampus communications and brings about high levels of student, faculty, and administrative frustration. Dependable operation of e-mail has become too critical to all of us to let this go any longer. We are currently running our first class system on a Macintosh server running the 3.5 version of the software.

B. Analysis: To stabilize our e-mail system we plan to replace the existing Macintosh computer with a Windows based server, and upgrade to the most current version of FirstClass. (Version 5.5) We also anticipate considerable consulting expenses to convert the whole campus to the new version of FirstClass. The University continues to support the FirstClass software for e-mail and conferencing. That eliminates most of the decisions to be made in this upgrade.

C. Proposed Action: We plan to purchase a more robust server, such as a Dell PowerEdge 2300. In addition to the server hardware, we will be upgrading the existing 500 FirstClass user licenses and purchasing 500 additional licenses for the 5.5 version of the FirstClass software. The server choice is a reasonable compromise between higher priced options and our current inadequacies. It will allow room for growth and increased capabilities should we need them in the next two-three years.

A. **Priority 4**: Adequate Computers on Faculty and Staff Desks. Currently, all staff and nearly all faculty have some sort of computer on their desk. Some faculty still have old (four years or more) Macintosh computers that do not have the capability for Internet searches and research. In addition, it appears that we need to anticipate some Datatel users switching to PC's. The process of upgrading computers will be a continuous challenge for the University. Funds will need to be allocated on an on-going basis to assure that faculty, staff, and administrators have functional, up-to-date computers.

B. Analysis: Our new standard for a faculty computer is 5 GB hard drive, 64 MB of RAM, and 300 MHz chip speed. This market changes so rapidly that it is not possible to identify a specific brand and vendor. Comparative shopping is required at the time of each batch purchase.

C. Proposed Action: This year we have budgeted an additional 1% of our student derived revenue to support technology. Approximately $40,000 of that will be dedicated to computer purchases. Some of that will be replacement for breakdowns and some will be dedicated to upgrading computers for key faculty users. We anticipate maintaining (if not increasing) this amount in the budget as an ongoing item to keep up with the need to replace and upgrade computers on an on going basis.

A. **Priority 5**: Integrated On-Line Library Cataloging System. The next step in badly needed improvements to the electronic capability of our library is the purchase and installation of an integrated on-line catalog system.

B. Analysis: Software and hardware to make our card catalog Internet accessible is an important step in the development of our technology and remote library access. This step opens easier on-line access to other regional libraries for our students and is a step toward more integration of the Antioch campuses. The Endeavor Voyager System is in use by New England and our local community college libraries, which makes it the logical choice for us.

C. Proposed Action: We would propose to purchase and install this system with grant funds. Should our application to the local Washington State Library Connectivity Project not prove successful, we would plan to purchase this system with excess revenues next year. $61,600

III. OTHER

A. **Priority 1**: Y2K Compliant Voice Mail. Moving our phone and voice mail system to the new building was not recommended, but we have managed to get two additional years' service from it. Our current voice mail system is not Y2K compliant. As recently as a year ago it looked like we would have to buy a whole new telephone and voice mail system to get the additional capacity and features we need. Estimates for a new system were in the range of fifty to eighty thousand dollars. New upgrades have recently become available that will allow us to keep our existing telephone system and upgrade its capacity as needed. We are researching several voice mail packages that are compatible with our telephone equipment.

B. Analysis: These products have become available so recently that we have not completed our analysis. At the moment we are considering a voice mail system from Lucent Technology and a Lucent Legend compatible product called Active Voice. Both of these products are in the ten to twelve thousand dollar range. A final decision should be made this Spring after further analysis of product features, reference checks of companies, and receipt of final bids.

C. Proposed Action: Once a final product decision is made we will make purchase arrangements for purchase and installation this Summer. $12,000.

A. **Priority 2**: Classroom Chairs. When we moved to the new building we purchased 100 chairs after a careful analysis of durability, warranty, price and comfort. At that time we anticipated purchasing 100 chairs per year until all of our old, broken, uncomfortable chairs were replaced. We did not spend those funds this year so we are planning to buy 200 chairs this year. The need has become acute because the breakage rate of our old chairs now has us short of chairs! $20,000.

Toni Murdock
President

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch Seattle

1998-99 Base Year Capital Expenditures	Amount	Source
Facilities		
Technology	20,474	Operating Budget
Other		
Total	20,474	

1999-00 Proposed Expenditures	Amount	Source
Facilities		
Y2K/HVAC Controls	5,500	Operating Budget
Roof, Windows Upgrade	14,500	Operating Budget
Lobby Upgrade	4,000	Operating Budget
Tenant Improvements	40,000	Loan
Technology		
Computer Equipment	73,500	Operating Budget
Computer Instruction Cart	10,000	Operating Budget
On-Line Catalog System	61,600	Grant
Other		
Upgrade Phone System	12,000	Operating Budget
Classroom Chairs	20,000	Operating Budget
Total	241,100	

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch Seattle

2000-01 Proposed Expenditures	Amount	Source
Facilities		
Renovations, Parking Lot Resurfacing	18,000	Operating Budget
Renovation of 4400 Additional sq. ft.	250,000	Reserves
Technology		
Computer Equipment	77,500	Operating Budget
Library Computer System	88,500	Unfunded
Computer Lab Expansion	33,500	Unfunded
Other		
Classroom Chairs	5,000	Operating Budget
Total	472,500	

2001-02 Proposed Expenditures	Amount	Source
Facilities		
Renovations, Parking Lot Resurfacing	18,000	Operating Budget
External Signage	20,000	Operating Budget
Technology		
Computer Upgrades	120,000	Operating Budget
Other		
Classroom Chairs	5,000	Operating Budget
Total	163,000	

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch Seattle

2002-03 Proposed Expenditures	Amount	Source
Facilities		
Renovations, Parking Lot Resurfacing	18,000	Operating Budget
Technology		
Computer Upgrades	70,000	Operating Budget
Other		
Classroom Chairs	5,000	Operating Budget
Total	93,000	

2003-04 Proposed Expenditures	Amount	Source
Facilities		
Renovations, Parking Lot Resurfacing	25,000	Operating Budget
Technology		
Computer Upgrades	70,000	Operating Budget
Other		
Total	95,000	

Antioch University
Five Year Capital Budget
1999-2000 Budget

ANTIOCH SOUTHERN CALIFORNIA

1999-2000 PROPOSED EXPENDITURES

Introduction

During this eight-month period of transition at Antioch University Southern California (AUSC), coterminous with a new presidency, one of the urgent goals of the administration has been to "authenticate" our operations. We are trying to establish what others have called a "culture of evidence" to guide us in our planning and implementation efforts. An evidentiary culture has to apply, above all, to the fiscal operations of the campus.

We have completed an analysis of the five-year Capital Budget for Antioch University Southern California submitted in last year's budget proposal to the Board. It has shown that that document was substantially amiss in its assumptions and knowledge base. In its most significant area -- that of information technology (77% of the proposed $433,000) -- we have come to the conclusion that the approach taken in that budget overestimated the stability and utility of the current technology infrastructure. In other words, we are much farther behind than we anticipated, and we will have to spend much more than proposed (more than likely over a decade, not five years).

To address this reality and produce a meaningful Capital Budget for AUSC means we must take a step back and reconsider the assumptive universe behind this crucial planning process. Thus, we

are submitting now a Capital Budget for 1999-2000 only. Particularly in Los Angeles, we need more time to assess our technological needs. *Antioch University Southern California must develop rapidly and completely a Technology Strategic Plan.*

In addition, as the University Strategic Plan indicates, we will state as a goal purchasing facilities (to the extent possible) in the next five years. With the development of the San Gabriel Valley Center (and its purchase option) and an impending attempt to lease with a purchase option a new facility in Santa Barbara, we must anticipate more than the proposed $100,000 presented last year for furnishings and facilities modifications. Again, a prudent approach is to complete the research process over the next six months as we see what develops with these facilities initiatives. *Antioch University Southern California must develop a complete Facilities Management & Relocation Strategic Plan.*

Our plan is have the main portion of the five-year Capital Budget ready by mid-year (January 2000). If the Board wishes, we can present our considerations for 2000-2004 at that time.

1999-2000 Proposed Expenditures

I. FACILITIES

A. **Priority 1**: Office Furniture and Telecommunications Equipment for San Gabriel Valley Center (Los Angeles)

B. Analysis: Gradually, over the year, we must furnish the new Center with relocated, donated, and/or purchased (new and used) items. We must set up the telecommunications system at this location.

C. Proposed Action: Purchase needed items as feasible. $10,000

II. TECHNOLOGY

A. **Priority 1**: Computers and Software for Teacher Education Program (Regional)

B. Analysis: To comply with California state standards for the new teacher training program, we must dedicate 10 computer workstations to students enrolling in that program.

C. Proposed Action: Purchase required items and set up teacher education program technology facilities in Los Angeles and Santa Barbara. $15,000

A. **Priority 2:** Technology Classroom/Instructional Resource Center (IRC) Workstations (Regional)

B. Analysis: The current Windows computers are mostly based on 486 and 586 processors. The current Macintoshes are obsolete. They are extremely underpowered for usage on the Internet. They cannot run some of the latest application programs.

C. Proposed Action: Purchase 10 computers for use in the Technology Classroom and IRC. $15,000

A. **Priority 3:** Faculty & Staff Computers (Regional)

B. Analysis: There are two current core faculty with inadequate desktop computers in Santa Barbara. This purchase will complete the process of upgrading core faculty with computers capable of full Internet access and the latest version of Microsoft Office. Four new faculty for program initiatives in Los Angeles and Santa Barbara will require computers.

C. Proposed Action: Purchase 6 computers for faculty. $9,000

D. Analysis: Two computers are for Santa Barbara staff who have responsibilities involving desktop publishing and usage of more powerful software than will run on their current systems. They currently have to use another staff computer or computers in the Technology Classroom. Two are for the new staff to support the Teacher Education Program.

E. Proposed Action: Purchase 4 computers for staff. $6,000.

A. **Priority 4:** Instructional Systems: Multimedia Projector & Portable Computers for Classroom Use (Santa Barbara)

B. Analysis: The current video converter to TV monitor setup is inadequate for the class size and sophistication that is currently being demanded by both core and adjunct faculty. A lightweight multimedia projector would provide an ongoing resource for the campus. Academic Services currently rents a projector several times a year for approximately $150/day.

C. Proposed Action: Purchase a multimedia projector for instructional use. $7,000.

D. Analysis: As part of Antioch Santa Barbara's on-going academic technology upgrade, two portable computers for use by faculty would enable more in-class use of computer-aided media. Combined with the multimedia projector, these computers would also allow for full usage of the Technology Classroom. We currently pull computers from there for use in classrooms if an instructor needs an in-class computer.

E. Proposed Action: Purchase 2 portable computers for classroom use. $3,000.

A. **Priority 5:** Servers (Santa Barbara & Los Angeles)

B. Analysis: Santa Barbara needs to upgrade our FirstClass system to the latest version in order to accommodate future distance learning options and to be compatible with the Los Angeles campus. The current FirstClass server computer is inadequate for the increased demands of the newer software.

C. Proposed Action: Purchase a Macintosh G3 computer for use as a FirstClass server. Upgrade existing FirstClass software and licenses to version 5.5 (or latest version). $10,000

D. Analysis: The Antioch Santa Barbara web site is currently housed on the Los Angeles campus. We would like to move it to Santa Barbara so we can monitor and control the site more effectively.

E. Proposed Action: Purchase 1 computer for use as a web server with accompanying software.

F. Analysis: The FirstClass server in Los Angeles must be updated.

G. Proposed Action: Purchase the required hardware and software.

Mark Schulman
President

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
Antioch Southern California

1998-99 Base Year Capital Expenditures	Amount	Source
Facilities		
Technology	28,142	Operating Budget
Other		
Total	28,142	

1999-00 Proposed Expenditures	Amount	Source
Facilities		
Technology		
Computer Equipment - Teacher Ed	15,000	Operating Budget
Instructional Resource Center	15,000	Operating Budget/Unfunded
Faculty and Staff Computers	15,000	Unfunded
Multimedia Projector/Instruction	10,000	Unfunded
Computer Servers	10,000	Unfunded
Other		
SGV Furnishings	10,000	Operating Budget
Total	75,000	

Antioch University
Five Year Capital Budget
1999-2000 Budget

THE McGREGOR SCHOOL

1999-2000 PROPOSED EXPENDITURES

I. Facilities

None.

We had $20,000 of building repairs in the budget, principally to fix a leaky roof, but the problem became an emergency for which we needed an immediate response. We received permission to address this problem in 1998-99. We have no other building expenses budged for 1999-2000.

2000–01 PROPOSED EXPENDITURES

I. Facilities

A. **Priority 1**: Renovation of Office Space on 3rd Floor. We are now at capacity for useable office space in this building. We are beginning a new M.A. program for educational administrators and will need additional office space for faculty and staff. We are also looking at ways to integrate all student services functions. Among other logistical changes, this would mean moving the Admissions offices upstairs with the other Student Services offices. By renovating this area of the building, we will be able to accommodate the new program and move the Teacher Certification offices to this area. This

would then free up space on the main floor of the building which would allow us to move the Academic Dean and the Assistant to the Academic Dean to that area where they would be more accessible for the academic program offices. It would also provide office space for new personnel in the academic programs. We are also proposing a Professional Learning Center (see Technology's narrative) and this would allow us to use the present Admissions office space for that.

B. Analysis: The alternative would be to keep all of the offices where they are now which means that we could not hire sufficient personnel for the new M.A./Licensure program. We also would need to leave Admissions on the main floor, which would prevent us from adopting the "One Stop Shopping" model we are working to achieve. We could not hire any additional staff for any department/program as we have reached our capacity for available office space.

C. Proposed Action: Remodel the space on the 3rd floor of the building. Cost – $125,000 for renovation and $15,000 for new furniture.

2001–02 PROPOSED EXPENDITURES

I. Facilities

A. **Priority 1**: Renovation of the South End of the Basement for Classrooms There is a severe shortage of available classroom space on campus. This renovation would provide us with 6 more classrooms.
B. Analysis: We currently have 3 classrooms for The McGregor School and use the College's classrooms for the majority of our classes. This would give us the ability to offer more classes in the summer for the ELSS program, provide the Weekend College more available rooms on Saturdays, give additional class space for Graduate Management, Teacher Certification, and the new M.A. program.

C. Proposed Action: Renovate the existing space in the basement for additional classrooms. Cost - $100,000 and $10,000 for new furniture

2002–2003 PROPOSED EXPENDITURES

I. Facilities

A. **Priority 1**: Paint and Carpet Rooms 200, 201, 204, 205, 207, 209, 211, 216, 219, 220, 222, 225, 227, 228, 229. These offices have not been painted in many years and it shows. They do not have carpet in them. We are trying to present a professional image to the public and for our students. This would also help morale of the employees in these offices.

B. Analysis: The alternative is not to do this work.

C. Proposed Action: Paint and carpet these offices. Cost - $12,500

2003–04 PROPOSED EXPENDITURES

I. Facilities

A. **Priority 1**: Paint and Carpet Rooms, 230, 231, 232, 233, 234, 235, 236, 237, 238, 240, 242, 244, 246, 253, 257, 259, Lobby, Large Conference Room, Conference Center. These offices have not been painted in many years and it shows. They do not have carpet in them. We are trying to present a professional image to the public and for our students. This would also help moral of the employees in these offices. While the Lobby, Large Conference Room, and Conference Center currently have carpeting, it is starting to show its age and needs to be replaced.

B. Analysis: The alternative is not to do this work.

C. Proposed Action: Paint and carpet the offices and carpet the Lobby, Large Conference Room, and Conference Center. Cost - $15,000

Barbara Gellman-Danley
President

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
McGregor School of Antioch

1998-99 Base Year Capital Expenditures	Amount	Source
Facilities	1,080	Operating Budget
Technology	35,960	Operating Budget
Other	9,134	Operating Budget
Total	46,174	

1999-00 Proposed Expenditures	Amount	Source
Facilities		
Technology		
Y2K Network Equipment	7,000	Operating Budget
Network Server System	24,000	Operating Budget
Desktop Standardization	14,000	Operating Budget
Other		
Total	45,000	

2000-01 Proposed Expenditures	Amount	Source
Facilities		
Renovate 3rd Floor Office Space	140,000	Reserves
Technology		
Expansion of Network Services	12,000	Operating Budget
Upgrade and Expand Student Computer Services	68,000	Operating Budget
Other		
Total	220,000	

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
McGregor School of Antioch

2001-02 Proposed Expenditures	Amount	Source
Facilities		
Renovation of South Basement for Classrooms	110,000	Reserves
Technology		
Network Infrastructure Upgrade	50,000	Operating Budget
Other		
Total	160,000	

2002-03 Proposed Expenditures	Amount	Source
Facilities		
Renovate 2nd Floor Offices	12,500	Operating Budget
Technology		
Non-TCP/IP Printer Replacement	10,000	Operating Budget
Other		
Total	22,500	

2003-04 Proposed Expenditures	Amount	Source
Facilities		
Renovate Offices and Conference Room	15,000	Operating Budget
Technology		
Other		
Total	15,000	

Antioch University
Five Year Capital Budget
1999-2000 Budget

University Administration

1999-2000 PROPOSED EXPENDITURES

I. FACILITIES 1999-2000

A. **Priority 1:** Kettering Building Awning Repair. The Kettering Building was constructed with rigid awnings that extend over the windows on the first, second, and third floors. These awnings are made of metal and some of the soffit panels are seriously corroded as a result of water leakage from above and the lack of surface maintenance to the undersides. For aesthetic and structural reasons, these panels need to be repaired and painted. Further delay will increase the cost and may require complete replacement of some of the awnings.

B. Analysis. It appears that the awnings are an integral part of the brick walls of the building. If they are allowed to further deteriorate, water will begin to enter the interstitial space between the brick sheathing and the interior walls. This will cause corrosion and rot and significantly shorten the life of the building. In addition, the rusting soffit panels detract from the appearance of the building and make it difficult to attract potential tenants to the laboratory space on the second and third floors.

C. Proposed Action. Failure to address this problem will increase costs in the future while the appearance of the building worsens. We recommend that appropriate repairs be made to the soffits as quickly as the budget permits. The cost of these repairs is estimated to be $11,500. This project was part of the 1998-99 Capital Budget but had to be deferred in order to allow emergency replacement of the HVAC unit of the "Machine Shop" building.

A. **Priority 2:** Repair Kettering Building Brick Separation. The south wall of the Kettering Building at the east corner has begun separating and is in need of repair to prevent serious damage. The half-inch wide crack in the brickwork is admitting rain and is expanding with each winter season. There is a possibility that, over time, this crack will widen and a portion of the façade could separate and fall.

B. Analysis. A repair to this fissure at this time will keep the problem from worsening and eliminate corollary damage to the interstitial space and interior walls. If repairs are not made, the situation will worsen and, eventually, a portion of the wall will be lost. At that time, the cost of repair will be significantly greater.

C. Proposed Action. It is recommended that an inspection be made of this area to determine if structural repair needs to be made or if tuck pointing or other action to fill the crack will be sufficient. Assuming that no structural work is involved, this repair is estimated to cost $1,200.

A. **Priority 3:** Kettering Building Pipe Maintenance. The water supply and drain lines in the Kettering Building are almost entirely from the original construction of 1953. Virtually all of the water supply lines are galvanized pipe and this pipe is beginning to rust through in several places. In addition, most of the major shutoff valves have become "frozen" with time and could not be used to turn off the water supply in an emergency. Leaking water has ruined ceiling tiles and floor tiles, damaged lights and other electrical circuits, and could cause major flooding.

B. Analysis. Replacing all of the galvanized pipe in the Kettering Building is neither feasible nor necessary, but certain pipe segments and several of the major valves need to be replaced or repaired. Unless the leaking and weakened pipe segments are replaced, they will continue to leak and cause damage to the building and equipment. If the main valves are not replaced or repacked, they will continue to leak and will not be available to shut off the water supply if there is a pipe break or plumbing fixtures in the building need to be serviced.

C. Proposed Action. It is recommended that a qualified plumbing contractor inspect the piping in the building to determine the full extend of the structural repair needs and to replace or repair pipe

sections and valves that have failed or may fail in the near future. It is estimated that the survey and repair of the most seriously weakened components will cost $4,200.

A. **Priority 3:** Parking Lot Resurfacing. The parking lot on the west and south sides of the Kettering Building is deteriorating and in need of resurfacing. Over the years, a number of utility repairs and other intrusions have opened the surface and left scars that have encouraged water erosion and frost heave. Potholes have developed and the bituminous concrete used for the surface is significantly deteriorated. The condition of the lot was made worse by the removal of two, large underground storage tanks used for fuel oil. The removal of these tanks was required by EPA regulations, but their excavation significantly damaged the lot surface.

B. Analysis. The Kettering parking lot is used extensively by students of the McGregor School and its condition reflects on McGregor and the University. McGregor students who attend class at the Kettering Building are primarily in the Management and Teacher Education Programs. Many teachers first visit Antioch to attend summer programs offered by the McGregor School at the Kettering Building. Their first impressions are formed, in part, by the condition of the parking lot. Resurfacing the parking lot will enable the underlying base material to be salvaged and we can avoid the higher cost of subsurface replacement at a later date. However, an alternative would be to extensively patch and repair the existing surface and seal the entire lot. This action could extend the life of the current surface by two to four years without jeopardizing the subsurface material.

C. Proposed Action. The resurfacing of the parking lot is preferred to more patching and repair. The cost of resurfacing is estimated to be $19,500.

II. TECHNOLOGY 1999-2000

A. **Priority 1:** Internet Router Replacement. The device used by the University to connect our local area network (LAN) to the Internet is called a router. This device handles Web traffic as well as all of the Datatel traffic originating outside of the Kettering Building as it comes across the Internet on its way to the Datatel server. It also handles the reverse function, selectively extracting outbound Datatel traffic from the LAN and sends it out over the Internet to the appropriate campus. The router that has been

in use since the Datatel system was installed is not Y2K compatible.

B. Analysis. Exact consequences of the Y2K router problem are not completely predictable. However, even minor degradations in data transmission or inaccuracies introduced through data handling would be unacceptable. Therefore, a repair or replacement of this router is essential. The computing staff have consulted with Oarnet, our Internet Service Provider, and it is Oarnet's recommendation that the router be replaced. Because of the nature of this device, there is no affective hardware or software "fix" available.

C. Proposed Action. It is the recommendation of the University Administration that a new router be purchased to replace the current router. The cost of the new router will be approximately $3,000.00.

A. **Priority 2:** Datatel On-Line Backup System. The Datatel system has become increasingly important to University operations. Initially, the campuses depended upon Datatel for accounting information and to process payrolls, but additional functions have been added so that today all mission-critical data is processed by the Datatel system. Protecting this data has been an important consideration since the initial installation, but concern for this data has grown as the number of applications being used by the campuses have expanded. Originally, tape backup copies were made each night and moved to a safe location. If the hard drives used by Datatel failed during the day, only a single day's effort would have been lost. Campuses were instructed to retain all input records for at least 24 hours so that any lost input could be reconstructed.

With the addition of the student services modules, Datatel is processing considerably more data and the campuses are inputting data more hours each day. In addition, data input occurs on Saturday during a good part of the year because of weekend activities by the campuses. In addition, because we have campuses in both the Eastern and Pacific time zones, Datatel is frequently in active use for more than fifteen hours each day. In addition to on-line input of critical data for both financial and student purposes, Datatel is also used to produce batch reports that are typically run overnight.

The result of the increased amount of data being input to Datatel, the longer hours of operation, the

increase number of batch jobs needed by the campuses, and the expanding weekend activity mean that it is increasingly difficult to effectively back-up the Datatel data using the current tape system. Back-up sessions have been scheduled for later and later hours, but the volume of data is making it difficult to complete the back-up process before the applications are needed the following morning. In addition, if the Datatel hard drives suffered a catastrophic failure (and all mechanical devices do fail eventually), the campuses would have to construct a very large amount of data. At registration and other critical times of the year, the volume of data to be reconstructed would be huge, and in many cases the campuses would not be able to reconstruct with 100% accuracy. Clearly, a better backup system is required.

B. Analysis. RAID (Redundant Array of Independent Drives) is a storage technology that is revolutionizing on-line data storage in computers. Spanning the entire spectrum from personal computers to mainframes, RAID offers significant improvements in availability, reliability, and maintainability of information storage along with higher performance than our current conventional magnetic disk drives. To achieve these performance improvements, RAID uses multiple disk drives.

A disk array is simply a set of two or more identical disk drives connected to a host computer in such a manner as to appear as a single disk unit to the host. The disk array's hardware (or software) manages the data distribution so that the host computer is unaware that it is using multiple disk drives. RAID technology expands upon this simple disk array approach to provide data redundancy and higher performance.

Unlike a single disk drive connected directly to a host computer system, RAID systems spread data across all of the disk drives within the RAID system. Since information that allows the system to maintain data integrity is also stored, the failure of any single drive will not result in the loss of data. Rather, a new drive can be installed and the data reconstituted from the remaining functioning drives. This allows RAID systems to be extremely fault tolerant. The benefit of this feature is that if any single disk in the RAID array fails, the system continues to function without down time or loss of any data. When a disk in the array fails, the system operator is informed and the failed drive can be removed from the array and replaced with a new drive. The RAID system then repopulates the data on the new drive without the loss of any operating time. Although performance will degrade slightly while the new

disk drive is being repopulated, in general, users will be unaware that there has been a problem. This is possible because the redundant data for error correction information is stored separately within the RAID array.

C. Proposed Action. The University Administration recommends the purchase of a hardware RAID solution from Dynamic Computer Products. This system would include an eight bay tower with five drives for a total storage capacity of 45GB on hot swappable disks plus the RAID controller. In addition to the five drives in the RAID array, we would acquire three additional drives to store critical system data and one additional drive for replacement of any drive that fails. The cost of this system is estimated to be $12,000.

A. **Priority 3**: Upgraded Uninterruptible Power Supply. The Datatel server and all of the network components necessary to insure communication between the campuses and the server are powered by electricity supplied by the Village of Yellow Springs. Unfortunately, the power available within the Village is both unreliable and "dirty". During the past twelve months we have had more than four power interruptions of more than ten minutes and numerous interruptions of more than a few seconds. Loss of power in Yellow Springs can interrupt operations at all campuses of the University and needs to be avoided.

B. Analysis. If power line availability in Yellow Springs is 99.7% per year (excluding acts of God), the University will expect about nine hours of annual downtime. When these hours occur during production time for the campuses, considerable interruption of business functions can result. Our greatest concern is that we will experience a power interruption when a campus is registering students or performing some other intensive operation.

Uninterruptible Power Supplies (UPS) are battery devices which are connected between the power source and the computer and other critical network components. When the power fails, the UPS switches to its batteries and continues to provide clean power to the equipment. The amount of time that the UPS can supply power depends on the size of its batteries, and the size of the batteries depends on the price of the unit.

At present, the University uses small UPS units to protect the Datatel server and the primary Internet router, but these units are old and provide very limited support time. In addition, other important devices such as the network print server have no UPS.

One of the existing UPS units was acquired more than ten years ago and is now beyond its projected useable life. Other units are newer but are quite small. At best, they provide about ten minutes of power before we are required to shutdown the server and the network. Because these units lack the capacity to communicate information about their status to the server, an operator must be present to perform a network shutdown if power is out longer than the capacity of the batteries. If the power outage occurs during the late evening or early morning when no computer staff are in the building, the UPS does not prevent a system crash, but only delays it.

C. Proposed Action. The University Administration recommends that UPS units be acquired to insure a minimum of 45 minutes of operating time for the Datatel server, all critical components of the LAN and the Internet router. The unit protecting the Datatel server must be capable of communicating with the server and have the capacity to warn the server that it is reaching the end of its capacity so that the server can perform an automatic shutdown. The UPS units must also have the ability to analyze their condition and to report on battery or other component failure. The total estimated cost of these units is $3,000.

A. **Priority 4:** Internet Firewall Security. Because the University depends upon the Internet to communicate Datatel information between the campuses and the server in Yellow Springs, we are vulnerable to attack. We have implemented a number of security measures to prevent intruders from getting access to our data, and our Internet Service Provider has also implemented measures to prevent hackers from exploiting the Internet, but all of these measures have limitations. In fact, there is no way to provide 100% security when using the Internet, but there are alternatives and there are protocols known as "firewalls" that can be used to protect Datatel data from abuse.

B. Analysis. The most secure means to communicate data between Yellow Springs and the campuses would be to acquire dedicated communication circuits. These circuits are not shared by any other

users and are not accessible from locations other than the campuses. While this approach would provide the highest level of security, it is also the most expensive. A second alternative would be to utilize an Intranet. Although similar to the Internet in may ways, an Intranet is a shared service controlled by a communication company that limits the number of users. It also requires the use of special protocols that reduce the likelihood of abuse. By selecting users who are unlikely to attempt abuse and by using special protective protocols, an Intranet provides a high degree of security. However, because the Intranet uses shared circuits, it is more expensive than the Internet. The third alternative is to employ special protocols that screen all communication directed toward the Datatel server. By using special protocols to identify authorized users, a firewall can prevent all but the most sophisticated intruder from gaining access to the Datatel information.

C. Proposed Action. In order to increase the security of the Datatel data, the University Administration recommends the purchase of appropriate firewall and/or encryption hardware and software. A hardware solution is preferred in order to minimize the load on the Datatel server while maintaining high communication transfer rates. The estimated cost of the firewall is $6,000.

A. **Priority 5**: TCP/IP Printer Spooler Manager. When the Datatel system was originally installed, printing across the Internet was performed using a protocol known as Apple Talk. This protocol was designed to be used on local area networks and, while it can be used across the Internet, it creates excessive Internet traffic and requires special server computers both in Yellow Springs and at each of the campuses to handle protocol conversion. The communication protocol used by the Internet is TCP/IP. This is the protocol used by our local area networks and it is the protocol used by the newer laser printers now being used by the University. In order to effectively use the new printers and TCP/IP, additional software is needed to handle the formatting and distribution of each print job to the requested campus printer.

B. Analysis. Superior printer management and better looking documents and reports are possible using a print spooler. At present, we cannot use TCP/IP to produce admissions documents, grade reports, and other documents that take full advantage of the formatting and font capabilities of our laser jet printers. In addition, the sequencing of print jobs to the various users is not efficiently handled and print delays occur because we do not have an effective spooler. As a result, the Datatel server is

performing unnecessary work to manage print jobs that could be handled by a spooler. The proposed software will give campus users control over their print jobs. It will allow them to cancel jobs no longer needed or to move priority jobs to the top of the que. This capability will save paper, time and tempers.

C. Proposed Action. The University Administration recommends purchasing print spooler management software for all printers using Datatel. Currently, approximately 50 printers receive information from Datatel and the cost for the software would be approximately $7,000.00.

A. **Priority 6**: Windows Systems to Replace Macs. As the Macintosh computers being used by the University Administration become obsolete or fail, they are being replaced with Windows Systems. The three Macs being used by the computing staff are quite old and, more important, are incapable of running the Safari Client software that we will be using to generate Datatel reports.

In addition, the Staff Accountant is continuing to use a Macintosh Quadra 610 machine that was scheduled for replacement in 1998-99. However, because the Administrative Assistant to the Chancellor required a machine that was compatible with the one being used by the Chancellor, the new Windows machine was assigned to her.

B. Analysis. While the three machines being used by the computing staff continue to function, they are no longer completely suitable to the tasks now required of the staff. In addition, most of the machines in the University Administration are now Windows systems and the computing staff need additional access to Windows machines in order to test applications and resolve operating problems. Most important, the computing staff need access to machines that can run the Safari Client report generation software. The productivity of the Staff Accountant will improve when he has a Windows system like those being used by the Controller and the Payroll Director. He performs functions for both of these people and the present incompatibility requires that he use their machines to perform certain operations. In addition, the use of two different operating systems complicates communication when the Controller or Payroll Director need to explain an operation to the Staff Accountant. The Staff Accountant will also be using Safari Client to generate reports for the Chancellor and Vice Chancellor and having this software available on his desktop will make it easier for him to produce these reports

on a timely basis.

C. Proposed Action. In order to improve the operating efficiency of the Computing Staff and the Staff Accountant, the University Administration recommends that four Windows system computers be purchased at an estimated total price of $5,600.00.

A. **Priority 7**: Back-up Printer. The University Administration uses a Hewlett Packard Laser 5 (HP5SI) printer to generate payroll checks, W-2 forms, 1098 Forms, accounting and budget reports, and virtually all other administrative documents. In the course of a year, this printer will generate more than 20,000 copies and the printer is now two and a half (2 1/2) years old. We have had difficulty finding a firm willing to service this machine promptly and, should it fail at a critical moment, we would not be able to generate payroll checks or other needed documents.

B. Analysis. Until this year, the University Administration had a maintenance contract for its HP printer, but the company that had the contract has cancelled because this machine is becoming too expensive to maintain and because we are too remote from their location for them to be able to provide the 24 hour response time that we need. Our efforts to identify another company to provide this kind of maintenance have been unsuccessful. While we believe that there is remaining life in the current HP printer, we also believe that we need an alternative way to print critical documents if our primary printer should fail.

We have considered using some of our smaller HP printers, but these units are not capable of producing checks with the speed that is needed, nor are they capable of handling the signature chip needed to authorize the checks. More important, many of our documents are produced using specialized formats that are stored in the memory of the HP5SI. The smaller desktop printers do not have this capability and could not produce the reports.

C. Proposed Action. The University Administration recommends the purchase of a compatible printer such as the HP Laser Jet 5000N at a price of approximately $2,833. This price includes sufficient memory to emulate the functions of the HP5SI and a signature SIMM.

A. **Priority 8**: Desktop Software Upgrades. The University Administration is using Windows on all of its PCs, but some machines are running Windows 97 while newer machines are running Windows 98. In addition, the University Administration and most of the campuses have standardized on Microsoft products for word processing and spreadsheet work. However, because these products were acquired over a number of years, we have machines operating with very old versions of these products. Sharing documents and spreadsheets has become unnecessarily complex because of the incompatibility of the various versions currently in use.

B. Analysis. There are approximately 20 machines that need to be upgraded to Windows 98 and 20 machines that do not have the current version of Microsoft Office. An alternative to upgrading all of the machines would be to standardize on one of the older versions of the software and only upgrade those machines that do not have this version. Then, all machines would be configured to use the older version of the software when saving documents. In this way, all machines could share documents using the "lowest common denominator" of the software. While this would be less costly than upgrading all of the machines, it would limit users to the features available in the older versions. Many of the new features would be lost when documents were saved in the older version which would mean that users could not use them unless they save the documents in the newer formats. If they did this, they could not share these documents with anyone running an older version of the software. This problem is not insurmountable, but it would continue the inconvenience and confusion that is currently experienced.

C. Proposed Action. In order to standardize the operating system and software being used by the University Administration, it is recommended that all PCs be upgraded to Windows 98 and that all machines be upgraded to the most current version of Microsoft Office. The estimated cost of this software is $4,000.

A. **Priority 9:** Video Conference Teaching System. Considerable progress has been made in recent years in the development of video conferencing hardware and software. Although this equipment does not work well over standard telephone lines, it appears to function adequately on the Internet and quite effectively on local area networks. This technology will be used increasingly for

administrative purposes and promises to have important applications for Antioch teaching programs.

B. Analysis. The price of video conferencing hardware and software has decreased as the quality of the products has increased. Sophisticated compression algorithms are now used to provide near full-motion video over relatively slow communication channels.

In order to become more familiar with this equipment, its limitations, and its promise, the University should begin experimenting on a very limited basis. Initially, the equipment should be installed in the University and campus administrative offices and used as much as possible to determine how well these products function at various times and to various places.

C. Proposed Action. The University Administration, in support of the efforts of the New Technology Committee, recommends acquiring various types of hardware and software such as CU See-Me as a way of beginning to discover how this equipment can be used to advance Antioch's teaching programs and administrative activities. We propose that $20,167 be committed to this project in 1999-2000.

2000-01 PROPOSED EXPENDITURES

I. FACILITIES 2000-01

A. **Priority 1**: Rehabilitation of Kettering Heating Units. The Kettering Building with the exception of the front addition occupied by the Chancellor and Vice Chancellor, the Kettering Building is heated and cooled using a single pipe system that supplies heated (or chilled) water to wall units in each of the laboratories and offices. These units contain a radiator and a two speed blower to circulate air past the radiator. In addition, each unit contains a drip pan and a drain connection to handle condensate when the unit is being used for cooling. These units were installed when the building was built in 1953 and have had little or no attention since that time.

B. Analysis. Several of the motors are no longer capable of multi-speed operation and some have failed completely. The valves used to regulate the hot water supply to the units are not operating, and many

are leaking. The drip pans used to collect condensate when the units are used for cooling have rusted through, and the drain lines have become clogged with debris.

Although most of the laboratories have more than one wall unit, there have been sufficient numbers of failures that much of the space on the second and third floors cannot be adequately heated or cooled. These units are structurally sound, but they need rehabilitation rather than replacement. Rehabilitation will be far less expensive than replacement, and the units on the first floor that have already been rehabilitated are proving very satisfactory.

C. Proposed Action. The University Administration recommends that all window heating units in the Kettering Building be inspected and rehabilitated. The rehabilitation should restore full functioning of the blower motors, replace the drip pans, and completely clean the radiators and drain lines. The estimated cost of this rehabilitation is $11,800.

II. TECHNOLOGY 2000-01

A. **Priority 1**: On-line Registration. Students across the country are becoming increasingly familiar with the advantages of various on-line registration and records systems. The earliest of these systems utilized the touch-tone telephone to allow a student to interact directly with a computer in order to complete registration and/or check his or her academic records. More recently, the Web has become increasingly popular. The advantages of on-line registration are that students can complete registration on a time schedule that is convenient to them, rather than on one that is convenient to the campus. On-line registration can be made available 24 hours each day, 7 days per week. For undergraduates, this can mean the ability to stay a week longer at a summer job or co-op position, and for adult students, it means greater convenience by avoiding a special trip to the campus.

In order to remain competitive for both undergraduates and adult students, the campuses of the University will need to offer on-line registration to our students. At present, Datatel software supports telephone registration, but additional hardware and telephone lines would be needed. Because we operate at multiple locations, we would need to duplicate the hardware and telephone lines at each campus or arrange for students to register at Yellow Springs using 800 numbers.

B. Analysis. Touch-tone registration is proven technology that is accessed by students using the familiar touch-tone telephone. Because touch-tone is available in most homes, offices and other locations, it is currently the most accessible way for a student to register. However, the increasing availability of desktop computing, both in the home and the office, and the growing number of connections to the Internet, suggest that Internet registration will be even more accessible to students in the near future.

If the availability of desktop computing increases as it has in the past several years, the attractiveness of Internet registration will be very high. Because the touch-tone registration systems must rely on a voice-response unit to interface the computer with the student, there is a severe limitation on the amount of information and the type of information that can be easily communicated to a registering student. The Internet, on the other hand, provides an opportunity to convey large amounts of information graphically in a very short period of time. The relationship between the time, faculty and location of various classes can easily be presented to the student in a highly understandable form. In addition, the Internet registration alternative does not require the purchase of specialized voice-response units or other hardware. It does require appropriate software that can interface with the Datatel database to present the material appropriately. At present, software of this type is being developed but is not currently available.

C. Proposed Action. At this point, the touch-tone registration system with 800 service to Yellow Springs is available, but it is the far less attractive of the two alternatives. Rapid changes in Internet technology, the expanding number of personal computers, and the completion of Datatel software for Internet registration all suggest that the Internet option will prevail by 2000-01, if not sooner.

2001-02 PROPOSED EXPENDITURES

II. TECHNOLOGY 2001-02

A. Priority 1: Video Conference and Teaching System. Video conferencing products are beginning to appear on the market that take advantage of the high-speed data carrying capacity of the Internet. The equipment to allow personal computers to process two-way video and audio signals simulta-

neously already exists and is certain to get better as computer chips improve. Video conferencing for administrative and teaching purposes has not come into broad use because the Nation's telecommunication system is not capable of handling the high-speed data transmissions needed to make video conferencing acceptable. Video conferencing within buildings where the rooms are connected by a local area network are quite useful; the pictures are clear and the motion is fluid, but when the same signals are carried over the Internet and then through the local telephone system, the limited capacity of the circuits greatly degrades the quality of the images and voices.

To make video conferencing successful for teaching, higher speed communication channels are needed.

B. Analysis. The exploding popularity of the Internet has made it all but unusable at some times because of the high congestion at some hubs. This is being remedied through the introduction of better routing techniques and more circuits connected through faster switching centers. Getting the high-speed communication traffic to individual homes is likely to be improved by any of four different technologies. The oldest of the high-speed communication links to the home is the ISDN phone line that can deliver data at 128Kbps. The next fastest technology is a satellite link. Using the small satellite dishes that have become common for television, a service called DirecPC can provide down link transmission of data at 400Kbps. However, the up link signal still requires a traditional telephone line. For two-way video conferencing, this would not be a significant improvement, but it would greatly improve teaching situations that can function with a transmitted video image and an audio response circuit.

The newest technology is called Digital Subscriber Line (DSL) and it uses the existing copper wires connecting homes to greatly increase transmission speeds. Rather than convert digital information to and from sound waves the way that a conventional PC modem does, DSL uses digital signal processing technology to send and receive data at frequencies above the voice band. This means that a home telephone equipped with DSL could provide a normal voice circuit while at the same time providing a high speed, two-way data circuit. Asymmetric DSL is capable of sending data upstream at speeds ranging from 64Kbps to 768Kbps. The downstream channel would receive data at rates

between 1.5 to 8Mbps. Symmetric DSL would divide the band width evenly to provide two high-speed video links between the classroom and the home.

A fourth technology is cable TV. Cable, which already reaches an exceptionally large number of American homes, has the capability of carrying data both upstream and downstream. Unfortunately, in most parts of the country the cable TV system was constructed only to carry downstream information and the electronics of these cable systems will need to be re-fitted to provide two-way communication. At the moment, in most places the TV cable is used to deliver a very high speed downstream signal while subscribers must use their regular telephone lines for upstream transmissions. Eventually, this will change and customers will have two-way circuits capable of supporting high-quality video conferencing. When fully operational, a cable TV data circuit could receive and deliver data at speeds up to 36 Mbps.

Antioch has been experimenting with the use of the Internet as a way of extending campus services to students who, for one reason or another, cannot attend classes at regular times because of work commitments or distance. The difficulty with the Internet is that it provides no direct human interaction and this makes it very difficult to transmit Antiochian values. Two-way video and audio are not a substitute for direct one-on-one conversation, but they are vastly superior to the communication that results from reading words on a screen as they are entered by a person you have not met and cannot see.

C. Proposed Action. The success of video conferencing for teaching purposes depends on the availability of high-speed communication links to the homes and offices of potential students. Until high-speed data links to the home are available at reasonable cost, there is little reason to think that two-way video instruction can be made to work for most students. While it is true that compression technology has improved greatly and will improve even more, the cost of such equipment is prohibitive for a large number of students.

Administrative conferencing, however, which uses the Internet to link locations, has become a reality. By experimenting with this equipment now, we will understand its capabilities and limitations. Then,

by 2001-02 we should be able to install two-way video conferencing equipment at reasonable cost and begin to use it effectively for distance learning.

2002-03 PROPOSED EXPENDITURES

II. TECHNOLOGY 2002-2003

A. Priority 1: Electronic Library Server. Increasing numbers of periodicals and a number of monographs are currently available in electronic form. This number is expected to increase and become available for desktop use, but these services will not be free. Virtually all material that currently finds its way into print is in digital form. The only reason this material is not widely available on the Internet is that no effective means has been developed to compensate the creators of the intellectual property or those who have invested the funds necessary to make the material available. Various approaches have been suggested to permit payment for broader use of periodicals and monographs in electronic form, and it is likely that this accounting problem will be resolved early in the next century.

The current approach for making electronic material available is a subscription fee. By paying for a subscription, an institution is authorized to gain access to a particular periodical and, in the case of universities, allow students to access the material. It is possible that this approach may expand with more individual publishers making their material available electronically. Alternatively, distribution or consumer consortia may be formed to acquire the material for electronic distribution. Regardless of how the material is made available, it is likely that there will be a need for a single point to enable Antioch users to gain access to this material.

The reason why a single point of access is needed is that passwords for each employee and student are unlikely to be available from the providers. Rather, providers will sell a single institutional authorization which, typically, would be assigned to a library. If each campus subscribes independently, we will have six separate subscriptions for each electronic information source. However, if we have a library server connected to each campus library through the Internet, the library server can hold the subscriptions and make the connection to the information provider.

In addition to providing connectivity for the libraries, the library server could also handle off-campus connections by our students. That is, if students are authorized, they could use the Library server to gain access to all of the electronic material for which the University has subscriptions.

B. Analysis. It is not possible to accurately predict how electronic library services will be provided in 2002-03, but it is likely that a central library server will be required. There is a chance; however, that the delivery service will recognize individual users and some method will be developed to bill them directly. To make this effective, the Internet will need to develop the equivalent of "electronic small change" so that the providers of service can collect a few pennies for each transaction. At present, however, no practical means for collecting such small amounts has been devised.

   It is also possible that the cost of Internet service will be changed from a flat rate to a volume-based approach. If this occurs, it may be more economical to provide library servers at each campus rather than at a central location. Therefore, the decision to acquire a library server will depend on several factors which are not known at this time.

C. Proposed Action. Long-range planning for distance education as well as resident education needs to consider the way in which library resources will be provided. In the event that periodicals and monographs become widely available in electronic versions, the University needs to be able to provide access to its students and staff. If the economic structures make it cost-effective to use a Library Server, the University should move to acquire one.

2003-04 PROPOSED EXPENDITURES

II. TECHNOLOGY 2003-04

A. **Priority 1**: Replace Datatel Server. The current Datatel server was installed in early 1998-99 and will have been in operation for five years. Although we expect the server to be functioning well in 2003-04,

the anticipated growth in the use of the Datatel system, particularly the increased use of the Safari Client report generator, will be taxing the processing capacity of the server.

B. Analysis. Slow response time is unacceptable to campus users because so much of their daily activity depends upon promptly exchanging data with the Datatel server. Student admission and registration functions depend upon prompt processing of data, as do the payroll and accounting operations of the campuses. If the Datatel server cannot promptly process these transactions, considerable inefficiency will develop throughout the University.

   The major question is not whether to replace the server, but whether to stay with Sun Microsystems or select another vendor. The University has a considerable personnel investment in the Sun operating system and before we change to another manufacturer, we will need to evaluate the costs of the transition. In addition, we have equipment and software that may or may not operate properly with a server produced by another manufacturer. All of these factors become important in the decision to change vendors.

C. Proposed Action. When it becomes apparent that the existing server is nearing overload, a cost analysis should be conducted comparing the products available from Sun Microsystems and other vendors to determine whether there is a cost advantage to changing manufacturers. Also, this analysis should evaluate the relative benefits of the various products being offered by Sun. Under no circumstances should the University permit Datatel response time to degrade.

Glenn Watts
Vice Chancellor and
Chief Financial Officer

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
University Administration

1998-99 Base Year Capital Expenditures	Amount	Source
Facilities	29,396	Operating Budget
Technology	48,396	Operating Budget
Other	2,208	Operating Budget
Total	80,000	

1999-00 Proposed Expenditures	Amount	Source
Facilities		
Kettering Building Awning Repair	11,500	Operating Budget
Kettering Building Brick Repair	1,200	Operating Budget
Kettering Building Pipe Maintenance	4,200	Operating Budget
Parking Lot Resurfacing	19,500	Operating Budget
Technology		
Internet Router Replacement	3,000	Operating Budget
Datatel On-Line Backup System	12,000	Operating Budget
Upgraded Uninterruptible Power Supply	3,000	Operating Budget
Internet Firewall Security	6,000	Operating Budget
TCP/IP Printer Spooler Manager	7,000	Operating Budget
Windows Systems to Replace MACS	5,600	Operating Budget
Back-up Printer	2,833	Operating Budget
Desktop Software Upgrades	4,000	Operating Budget
Video Conference Teaching System	20,167	Operating Budget
Other		
Total	100,000	

2000-01 Proposed Expenditures	Amount	Source
Facilities		
Rehabilitation of Kettering Heating Units	11,800	Operating Budget

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
University Administration

Technology		
On-Line Registration	18,500	Operating Budget
Other		
Total	30,300	

2001-02 Proposed Expenditures	**Amount**	**Source**
Facilities		
Technology		
Video Conference and Teaching System	49,000	Operating Budget
Other		
Total	49,000	

2002-03 Proposed Expenditures	**Amount**	**Source**
Facilities		
Technology		
Electronic Library Server	13,500	Operating Budget
Other		
Total	13,500	

2003-04 Proposed Expenditures	**Amount**	**Source**
Facilities		
Technology		
Replace Datatel Server	20,000	Operating Budget
Other		
Total	20,000	

Antioch University
Five Year Capital Budget
1999-2000 Budget

WYSO RADIO

1999-2000 PROPOSED EXPENDITURES

I. FACILITIES 1999-2000

A. **Priority 1**: WYSO Office Wing Renovations. During 1998-99, Antioch University and WYSO contributed the funds necessary to renovate WYSO's office wing in the basement of the Sontag-Fels Building, including the newly restored Performance Studio. However, the plans for this renovation were mostly agreed upon and budgeted before Antioch installed its new manager at the station. New management, in consultation with the administration, agreed that three offices in the WYSO wing (not originally slated for renovation) would, at some future date, need to be restored. WYSO proposes to renovate these offices appropriately.

B. Analysis. To consolidate WYSO's broadcast and business operations in a single and professionally useful and presentable location is required for the station's continued growth and development. It is planned that one of these offices will become the station's conference room (especially needed when WYSO wishes to meet with business underwriting clients and to host other strategic planning meetings with other project-oriented partners). The other offices need to be renovated to provide office and storage space for a current staff member who presently has no space available in the offices that have just been renovated.

C. Proposed Action. WYSO has not had the opportunity to determine the costs of the proposed renovations. However, the station is hopeful that it may be able to arrange a trade-out of on-air underwriting and website acknowledgement to an area contracting firm(s), to get these renovations accomplished. Otherwise, WYSO will solicit bids for this work and, in consultation with the Antioch administration and the WYSO Resource Board, determine an appropriate course of action for the execution of this project.

II. TECHNOLOGY 1999-2000

A. **Priority 1**: Acquire Three Computers. WYSO needs new computers to conduct its broadcast and business operations.

B. Analysis. WYSO does not presently have enough computers for all of its staff. Of the five computers it does have, four are horribly antiquated. The station did own one additional computer which suffered a hard drive crash rendering it permanently inoperable. WYSO, like any other organization, needs computers to operate its business effectively and efficiently. Without enough computers for all the staff who require them --- let alone computers adequate to accomplish tasks in a timely manner --- is an obvious productivity deficit. This situation presents WYSO with an understandable conundrum: the station is charged by Antioch to create the most self-sufficient environment it can for the operation of the broadcast service but, WYSO can only achieve so much without the appropriate tools. Simply put, the relatively small investment in, at least, three new computer systems can increase staff productivity dramatically which, in turn, will produce increased returns to the station's bottom line, thereby taking WYSO several large steps closer to establishing a truly self-sufficient operation.

To be more specific, WYSO will need to acquire or purchase a new IBM-based PC no later than the start of the first quarter to accommodate the station's installation of its new membership database/management software program. The company supplying this software has scheduled installation and training for July 1999 and WYSO presently does not own a system to accommodate the needs of this new system. Additionally, the Development Department does not have a system adequate to meet the demands of their work load. WYSO's Development Director has improved the station's bottom line dramatically in a little over a year's time on the job. Development has

demonstrated its ability to continue producing impressive results. If this department had an up-to-date computer system, it is without doubt that WYSO could witness a return on this investment in record time. Finally, WYSO's News Director must have a computer dedicated to researching and developing stories and features. Presently, the News Director must queue up with the rest of the staff to get time on the station's one and only computer sufficient to meeting this need (a computer which is also dedicated to the functions of the Operations Director, the Public Affairs Director, and the General Manager). This is clearly a highly undesirable situation.

C. Proposed Action. WYSO would like to think that there may be major corporations in the Miami Valley which has a need to turn over relatively late-model computer systems as part of their regular course of doing business. It is additionally hoped that, if such companies exist in the area, they have established programs for donating this equipment to not-for-profit organizations throughout the region. If such programs exist, WYSO would like to take advantage of them to address at least some of the needs stated above. However, the time and energy necessary to identifying these firms may not make sense from a cost/benefit analysis. Even if it did, the process required and/or the waiting period necessary for approval and acquisition may be too lengthy. Assuming this proposed action cannot bear fruit, WYSO will attempt to acquire grant funding from local trusts and/or other sources. However, WYSO recognizes that this approach, too, may not produce results (or, produce results to meet the station's current timetable). Accordingly, WYSO has budgeted the funds necessary to purchase at least two computer systems. It should be noted here that management would prefer to allocate those funds budgeted for Equipment toward the purchase of production equipment necessary to the broadcast functions of the station.

A. **Priority 2**: Purchase/Install U.P.S. for Transmitter. WYSO needs to purchase and install an uninterrupted power supply (UPS) unit at its transmitter site. Dependant on the unit that is selected, the station will then be able to determine specific requirements for installation.

B. Analysis. In last year's budget report, WYSO indicated that Antioch College had given the station a used generator (which might have served the same function as a UPS). Unfortunately, WYSO's transmitter and tower site only has one-phase power available to it. The donated generator requires three-phase power to function properly. At this writing, it is not known whether the Dayton Power and

Light Company (DP&L) would supply the appropriate three-phase power lines as part of normal service or whether WYSO would have to incur the costs of running such lines. If the latter, these costs have yet to be determined. However, it was reported to the Trustees last year that the costs of installing the donated generator alone would have been approximately $15,000 (funds which were not budgeted in 1998-99). Management expects that the costs of purchase and installation of a more reliable and easier to operate (especially from remote locations) UPS makes more sense from both a technological and business operations standpoint. As in last year's report, WYSO (just like other broadcast entities) must be able to assure service to its listeners on a 24/7 basis. Failing to meet this standard lowers the station's Time Spent Listening (TSL), as measured in the Arbitron radio ratings, and it erodes listener confidence in WYSO's service. A UPS is, frankly, a standard cost of doing business in the broadcast world and should be considered a necessity for WYSO as soon as it is possible.

C. Proposed Action. WYSO will discuss the three-phase power issue with DP&L and determine whether these lines can be run, on what timetable, and if any costs would have to be incurred by this customer to accomplish the task. The answers to these concerns will enable management to determine an appropriate proposal. One way or the other, this project will be costly. Management anticipates submitting a report on this matter to the WYSO Resource Board for consideration for inclusion in a package of proposed capital improvements. It is then expected that the several capital improvement projects will receive priority rankings, enabling the Board to establish an overall goal for a major capital campaign.

A. **Priority 3**: Webcasting. WYSO needs to keep pace with its industry colleagues by offering its broadcast service (as well as ancillary broadcast products) on the World Wide Web (WWW) via audio streaming.

B. Analysis. To maintain a competitive edge and to positively exploit the service, public relations, and income generation opportunities of the Internet, WYSO should establish a netcasting presence on the WWW. Many public radio stations are operating relatively sophisticated websites that include the streaming of their broadcast signal, as well as offering non-broadcast audio services (e.g., during the Senate impeachment trial of President Clinton, many NPR-member stations did not offer NPR's gavel-

to-gavel coverage over their broadcast airwaves but did make it available to their listeners by streaming that audio content over their websites).

C. Proposed Action. WYSO management, in consultation with the Antioch administration, has begun discussions with several netcasting firms to identify ways in which WYSO could establish a netcasting presence for little or no cost. In exchange, WYSO hopes an appropriate business relationship with one of these firms will improve the design of and public services provided via WYSO's website, as well as allowing the station to create a new revenue stream by taking advantage of the website's commercial opportunities.

III. OTHER 1999-2000

A. **Priority 1**: Matching Funds for OETNC Project Proposals. As reported in WYSO's budget narrative for 1999-2000, the station submitted three project proposals to the Ohio Educational Telecommunications Network Commission (OETNC) for consideration by that body for state grant support. Just prior to the preparation of this report, WYSO learned that all of the station's projects were included among those that OETNC will recommend for funding by the Ohio legislature during the next legislative session.

B. Analysis. Since OETNC provides 40% of all project costs, WYSO must raise the other 60% from other sources.

C. Proposed Action. Assuming legislative approval, WYSO anticipates being awarded $58,118 from OETNC. The remaining $87,178 must be raised by WYSO. Management is already working with the Development Committee of the station's Resource Board to develop a plan of action to secure $50,000. It is anticipated that the remaining $37,178 of the local match can be secured through other grant sources.

2000-01 Proposed Expenditures

I. FACILITIES 2000-01

II. TECHNOLOGY 2000-01

A. **Priority 1**: Digital Conversion. WYSO must convert as much of its production and air chain as possible to digital equipment to create greater efficiencies and a more cost-effective operation. Additionally, and perhaps more importantly, the station must ready its broadcast service for the radio industry's anticipated conversion to digital transmission.

B. Analysis. While the Federal Communications Commission (FCC) has already established a digital broadcast standard and a timetable for conversion to digital transmission for the television industry, the FCC has taken no similar action for radio. However, it is expected that a digital audio broadcast (DAB) standard and a conversion timetable will be established sooner rather than later. Without an established standard, it is probably premature for WYSO to consider an investment in a new transmitter that can easily be adapted to accommodate DAB. However, conversion of all other equipment required for production and transmission to the transmitter facility should take place over the course of the first few years of the new century. Besides readying WYSO's production and broadcast facilities for DAB, digitizing the station's shop is sensible business. Purchasing and repairing analog equipment is now more costly that similar costs for digital equipment. Further, radio production on analog equipment is extraordinarily more time consuming than production on digital equipment. Analog equipment is also less reliable and offers significantly fewer creative opportunities. Accordingly, the longer WYSO continues to rely on its analog equipment, the costlier is its operation and the less competitive is its air sound and overall broadcast service.

C. Proposed Action. WYSO will endeavor to identify grant funding to accomplish as much of these digital conversion needs as possible. However, even if the station can identify and successfully secure such funds, they are unlikely to cover 100% of all needed project costs. Accordingly, WYSO anticipates the need to obtain local matching funds and/or the entire costs of purchase and installation of equipment through a major capital campaign.

WYSO management believes that the costs of purchase and installation of a digital transmitter may be provided by either OETNC, a special initiative of the U.S. Commerce Department's Public Telecommunications Facilities Program (PTFP), or a combination of the two. OETNC is requesting funds from the Ohio legislature, during its 2000 session, for the digital conversion of Ohio's public television stations. If approved, a precedent would be set for state support for digital conversion funding, thereby making it that much more likely that Ohio's public radio stations could secure similar support when their time comes to convert to DAB. Were OETNC and/or PTFP to provide conversion funding, it is unclear at this writing how much or when these funds would become available. Under the best scenario, however, WYSO would expect to have to raise some local matching funds for such a project. Once again, it is premature to speculate about total project costs or the amount of outside funding that could be obtained.

WYSO would prefer to delay the purchase of a new transmitter until the FCC determines a DAB standard and a conversion timetable. Waiting gives the station the opportunity to make the most effective purchase of this very expensive item. Nonetheless, this stance does not come without risk. The station's current transmitter is not a model commonly used in the radio industry and it has a number of serious deficits in its design and function. And WYSO does not presently have a working back-up transmitter. This is a troubling situation. All stations, television or radio, are wise to own redundant equipment to assure the delivery of a seamless broadcast service. Management will keep abreast of developments with the FCC, lobby with its industry colleagues for the creation of support funding from OETNC and PTFP, consult with its chief engineer, and report any and all actionable information to the Antioch administration and the WYSO Resource Board.

A. **Priority 2**: Acquire New Computers. WYSO will need additional computers to conduct its broadcast and business operations.

B. Analysis. WYSO will require additional new computers to accommodate the needs of station personnel, continue in its efforts to streamline and thereby make more productive and efficient station operations, and to witness further improvements in the business and broadcast service. Besides providing up-to-date equipment for office functions, WYSO would like to install computers in its master

control and production studios to make more efficient the preemption and distribution of the station's logs, program information, etc. The establishment of a local area network (LAN) would further improve operations by making available, directly in the studio environment, access to the Associated Press wire service, the Public Radio Satellite System's DACS messaging system, the Internet, etc.

C. Proposed Action. WYSO anticipates having some funds available in its 2000-01 budget to devote towards some aspects of this project. Equipment and installation may also be secured through trade-out(s) of on-air underwriting and website acknowledgements with area computer retailers. Additional funds may be raised through grants funding and/or a major capital campaign.

III. OTHER 2000-01

2001-02 Proposed Expenditures

I. FACILITIES 2001-02

A. **Priority 1**: Establish Dayton Studio. As WYSO grows its regional news/public affairs service, it will make good business and broadcast sense to establish a studio facility in the city of Dayton.

B. Analysis. WYSO anticipates increasing its local/regional production of news reports, features, documentaries, etc. Operating a Dayton-based studio allows greater opportunities for interviewing guests and producing pieces.

C. Proposed Action. WYSO will pursue a collaborative relationship with its Twin Signals Project partner, WDPR (Dayton Public Radio). WYSO believes it is reasonable and likely that it can establish a Dayton studio within the WDPR complex and work with them on a joint project to secure the funds necessary to establish this facility. (It should be noted here that, as per the new mandates that the Corporation for Public Broadcasting established for public broadcasters a few years ago, WYSO will seek additional collaborative opportunities with its public broadcasting colleagues. The CPB, through its Future Fund, has demonstrated its willingness to support stations that work to combine certain

station functions and, thereby, create new cost savings and efficiencies for the public broadcasting industry.)

II. TECHNOLOGY 2001-02

A. **Priority 1**: Digital Conversion. (as above)

III. OTHER 2001-02

2002-03 Proposed Expenditures

I. FACILITIES 2002-03

A. **Priority 1**: Establish Digital Editing Suite(s). As WYSO grows its regional news/public affairs service, it will make good business and broadcast sense to establish enhanced opportunities for producers to work on pieces by providing additional studio space to do this work.

B. Analysis. WYSO anticipates increasing its local/regional production of news reports, features, documentaries, etc. Creating mini-studio(s), digital editing suite(s), in which producers can edit and mix pieces further enhances WYSO's output and provides additional opportunities to improve the station's airsound. Further, expansion of production opportunities will allow WYSO to eventually accommodate artist-in-residence programs to benefit both WYSO and Antioch students (e.g., a collaborative venture between WYSO and Antioch College's Documentary Institute).

C. Proposed Action. WYSO may obtain funds through major donations, grants, and/or collaborative fundraising opportunities it pursues with appropriate divisions at Antioch College.

II. TECHNOLOGY 2002-03

A. **Priority 1**: Digital Conversion. (as above)

III. **OTHER 2002-03**

2003-04 Proposed Expenditures

I. **FACILITIES 2003-04**

II. **TECHNOLOGY 2003-04**

A. **Priority 1**: Digital Conversion. (as above)

III. **OTHER 2003-04**

Steve Spencer
General Manager

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
WYSO-FM

1998-99 Base Year Capital Expenditures	Amount	Source
Facilities	12,800	Operating Budget
Technology	9,101	Operating Budget
Other		
Total	21,901	

1999-00 Proposed Expenditures	Amount	Source
Facilities		
WYSO Wing Renovations	2,500	Operating Budget
Technology		
Computer Equipment	10,000	Operating Budget
Uninterruptible Power Supply for Transmitter	12,135	Gifts
Webcasting Equipment	8,000	Gifts
Other		
Total	32,635	

2000-01 Proposed Expenditures	Amount	Source
Facilities		
Technology		
Digital Conversion	Unknown	Grants
Computer Equipment	4,500	Operating Budget

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
WYSO-FM

Other		
Matching Funds for OETNC Projects	87,178	Gifts
Total	91,678	

2001-02 Proposed Expenditures	**Amount**	**Source**
Facilities		
Establish Dayton Studio	10,000	Grants
Technology		
Digital Conversion	Unknown	Grants
Other		
Total	10,000	

2002-03 Proposed Expenditures	**Amount**	**Source**
Facilities		
Technology		
Digital Editing Suite	40,000	Gifts/Grants
Digital Conversion	Unknown	Grants
Other		
Total	40,000	

ANTIOCH UNIVERSITY
Five-Year Capital Budget Summary
Projects above $10,000
WYSO-FM

2003-04 Proposed Expenditures	Amount	Source
Facilities		
Technology		
Digital Conversion	Unknown	Grants
Other		
Total	0	