



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

September 2, 2003

Motion 11788

Proposed No. 2003-0313.2

Sponsors Constantine

1 A MOTION approving the Enterprise-Wide Information
2 Technology (IT) Infrastructure Equipment Replacement
3 Plan for King County.
4
5

6 WHEREAS, the 2003 Budget Ordinance, Ordinance 14517, Section 118, included
7 a proviso requiring the executive to hire a consultant to develop an ITS technology
8 services equipment replacement plan, and

9 WHEREAS, C&M Technology, Inc, a technology consulting firm hired by the
10 executive has completed their work and presented the report, "Enterprise-Wide
11 Information Technology (IT) Infrastructure Equipment Replacement Plan - Review &
12 Analysis - A Revised Approach & Funding Model," and

13 WHEREAS, the technology management board and the business management
14 council, have reviewed and approved the consultant recommendations contained in the
15 equipment replacement plan, and

16 WHEREAS, the chief information officer has reviewed and approved the
17 information technology replacement recommendations of the plan;

18 WHEREAS, the county auditor found that the information technology services
19 division's fixed assets inventory report is incomplete and balances are not reconciled with
20 the financial statements, thus increasing the potential for losing county assets, and

21 WHEREAS, the county auditor made three inventory management
22 recommendations in a management letter on a follow-up review on financial-related audit
23 of information and telecommunications services infrastructure operating and maintenance
24 costs, dated June 23, 2003 as follows:

25 A. Produce a complete and accurate fixed assets inventory report. This report
26 should be produced by the finance and business operations division, in cooperation with
27 the information and telecommunications services division;

28 B. Reconcile regularly the fixed assets inventory report with balances in the
29 financial statements and identify the assets that are not recorded in the fixed assets
30 system. The finance and business operations division should conduct this regular
31 reconciliation; and

32 C. Report to the council in September 2004 on the impact of the IBIS upgrade on
33 the fixed assets system;

34 NOW, THEREFORE, BE IT MOVED by the Council of King County:

35 The Enterprise-Wide Information Technology (IT) Infrastructure Equipment
36 Replacement Plan, Attachment A to this ordinance, is approved as submitted.

37 The executive is requested to produce a complete and accurate fixed assets
38 inventory report and submit the report to council by March 30, 2004. This report should
39 be produced by the finance and business operations division, in cooperation with the
40 information and telecommunications services division.

41 The executive is also requested to reconcile at least quarterly the fixed assets
42 inventory report with balances in the financial statements and identify the assets that are
43 not recorded in the fixed assets system. The executive is requested to produce a status
44 report to council by March 30, 2004, on reconciling the fixed assets inventory report with
45 balances in the financial statement and identification of assets that are not recorded in the
46 fixed assets system.

47 The executive is also requested to report to council by September 1, 2004, on the
48 impact of the Oracle financial software upgrade on the fixed assets system.

49

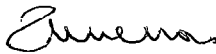
Motion 11788 was introduced on 7/7/2003 and passed by the Metropolitan King County Council on 9/2/2003, by the following vote:

Yes: 13 - Ms. Sullivan, Ms. Edmonds, Mr. von Reichbauer, Ms. Lambert, Mr. Phillips, Mr. Pelz, Mr. McKenna, Mr. Constantine, Mr. Hammond, Mr. Gossett, Ms. Hague, Mr. Irons and Ms. Patterson
No: 0
Excused: 0

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON


Cynthia Sullivan, Chair

ATTEST:



Anne Noris, Clerk of the Council

Attachments A. Enterprise-Wide Information Technology (IT) Infrastructure Equipment Replacement Plan, Final Draft, Dated May 23, 2003, B. Memorandum To: Paul Tanaka, County Administrative Officer, From: David Martinez, Chief Information Officer, Dated May 9, 2003, Subject: ITS Equipment Replacement Plan-Technology Governance Review, C. Memorandum To: Paul Tanaka, County Administrative Officer, From: David Martinez, Chief Information Office, Re: ITS Equipment Replacement 2003 Budget proviso response, Dated June 25, 2003

11788 :

2003 313

Attachment A

**Enterprise-Wide Information Technology (IT)
Infrastructure Equipment Replacement Plan**

Review & Analysis
A Revised Approach & Funding Model

Prepared by:
C&M Technology, Inc.

FINAL DRAFT

May 23, 2003

88711

Enterprise-Wide Information Technology (IT) Infrastructure Equipment Replacement Plan

Review and Analysis
A Revised Approach and Funding Model

Prepared by:
C&M Technology, Inc.

FINAL DRAFT

May 23, 2003

Executive Summary

The Information Telecommunications Services Section of the King County Executive Department contracted with C&M Technology, Inc. to review and report on the enterprise-wide infrastructure network equipment replacement plan and funding model presented to the King County Council during the 2002 budget cycle.

The task for C&M Technology, Inc. was to review and revise the existing equipment replacement plan for technology services; to submit a report of findings based on the review and revision of the equipment replacement plan to meet the needs of the 2003 King County Council proviso; to develop a standard framework for ITS to use for future equipment replacement plans; and to use a this standard framework to write an equipment replacement plan for Printing and Graphic Arts. The equipment inventory included ITS data network components and distributed server equipment and excludes the mainframe, mainframe support equipment and software.

After reviewing the Report and Recommendations: Equipment Replacement Strategy for King County Enterprise-Wide IT Infrastructure and ITS – Technology Services Fund Balance Management Plan, C&M Technology, Inc. made several key conclusions.

The first conclusion is that after conducting research into the equipment replacement practices of other public agencies across America only in a very few cases does an information technology department have an approach to equipment replacement. Most other public agencies rely upon the professional judgment of their IT managers to replace equipment in an *ad hoc* fashion. More importantly, the record is clear that in virtually every other public arena, although funding for equipment replacement is recognized as the primary obstacle to actual equipment replacement, every governmental entity struggles to identify a funding source and further struggles with the commitment to reserving funds on an ongoing basis. King County and ITS should be proud of their efforts to recognize the problem and to deal with it in a realistic manner.

The second conclusion is that many of the recommendations proposed by ITS, if enacted, should promote substantive communications between ITS and customer agencies regarding their needs and expectations and should also have a positive influence on IT governance in King County. The proposal for periodic and routine status reviews and updates to the Technology Management Board (TMB) opens communications on a countywide basis and involves ITS stakeholders in the replacement decision-making process. Moreover, the proposal for annual capital budget process involving TMB can provide feedback and direction to the equipment replacement program. This consideration for the involvement of others in what traditionally has been ITS domain is an important change in philosophy and management.

The third conclusion is that ITS is attempting to manage a very expensive inventory of switches, routers and servers without the benefit of a countywide automated asset management system. Reliance on *ad hoc* databases and spreadsheets cannot provide county government sufficient management level information about what is in the inventory, what the status of the equipment is at any given time, nor the service or repair history of the equipment is.

The fourth conclusion is that ITS correctly identified the factors that influence equipment replacement decisions. The age of equipment, where equipment fits into the network hierarchy, the reliability of the equipment, the ability of the vendor to support equipment, the throughput and technological capacity of equipment, and the demands customer agencies make on the bandwidth and security of the network are all part of the decision-making model proposed by ITS. This demonstrates an understanding of the complexity of the issues and recognition that enterprise-wide infrastructure equipment replacement is both an art and a science.

The fifth conclusion is that the standardization on Cisco Systems, Inc. network electronics for the King County Wide Area Network (KCWAN) is appropriate. Cisco is the industry leader in switching and routing equipment. Their protocols are recognized as being the standard by which equivalent equipment is evaluated. More importantly, the county's reliance on the KCWAN is utter and absolute. The importance of the data transported on the network ranges from routine to life-safety in nature. It is absolutely essential that the network components be reliable. Cisco products and their support ethic provide that mission.

Finally, as earlier noted, while the county is to commended for taking a comprehensive approach to planned and funded enterprise equipment replacement, there is an unfunded liability that needs to be addressed. Accumulated depreciation through 2003 is \$3,932,705 (accumulation of \$3,211,129 from 1997-2002, plus \$721,576 in 2003). Available resources within ITS fund balance will reduce this to \$2,151,925. But overtime, the county will need to balance all of its many priorities and fund this difference, plus the depreciation that continues to accumulate each year. The primary equipment vendor no longer supports over ten percent of the equipment and no longer sells over seventy percent of the equipment. Because for many years equipment replacement was not considered at the outset of equipment purchase and installation, the need has become pressing. Moreover, although the equipment continues to play a central role in the mission of county government, it represents little real value in terms of depreciation.

C&M Technology, Inc. has developed a series of recommendations that are contained in the body of the report. However, the key recommendations are as follows:

One key recommendation is that the equipment replacement model be revised such that it directly incorporates the factors that influence equipment replacement decisions. C&M Technology, Inc. proposes a revision that recognizes the primary mission of ITS to maintain service to customer agencies and the secondary mission of expanding services in a planned and systematic fashion. The revised model, called the Replacement Factors Model, is contained in the body of the report. It should be noted that there is a direct correlation between the current equipment replacement model and the revised model.

When the equipment inventory is divided in half, sixty-three percent (63%) of the equipment at the top of the inventory was previously identified for replacement and was categorized as "failing", "problematic" or at the "end of life" by ITS. Similarly, seventy-one percent (71%) of the equipment at the bottom of the inventory was not labeled as "failing", "problematic" or at the "end of life". Thus, the model that largely relied upon the professional judgment of ITS is borne out by the revised empirical model.

Another key recommendation is that the county adopt the ITS proposal for incorporating equipment replacement review and reporting into the budgetary and governance process.

A third key recommendation is that the county needs to conduct a comprehensive physical inventory of existing network electronics equipment, establish an asset management system and allocate reasonable staffing levels to support that function. This will not only assist the county in the management of the physical assets of ITS, but ensure that sufficient audit controls are in place to successfully manage all of the assets owned by the county.

Another key recommendation is that equipment should be tracked by funding source such that replacement funding can be segregated by rate bucket. This will allow for ITS to provide sufficient detail at the rate bucket level to TMB in the proposed review and reporting relationship

Finally, the last key recommendation is that the county address the unfunded liability (accumulated depreciation less the available equipment reserve fund) for equipment purchased from 1996 through 2002, and that an annual equipment replacement spending plan be developed and funded by an equipment replacement reserve fund.

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Introduction

Due to King County Council concerns over the equipment replacement and funding strategy proposed by the King County Information Telecommunications Services (ITS) Division of the Executive Department during the 2002 budget cycle, a proviso was drafted directing ITS to engage a consultant to review and report on the ITS plan. C&M Technology, Inc. was engaged to undertake the above. This report contains that review and analysis.

It should be noted that this review and analysis covers ITS data network components and distributed server equipment and excludes the mainframe, mainframe support equipment and software. One of the complicating factors relating to this review and analysis is the lack of data one would reasonably expect from a Countywide asset management system. An asset management system can provide the means to develop and maintain an accurate equipment inventory, track status changes of equipment (i.e., in service, spare, surplus, etc.) and provide critical data such as equipment service and repair history.

Many of the components in the Report and Recommendations dated October 2001 as revised July 2002 are a sound description of the forces that affect equipment replacement. This report attempts to add discussion to fully describe the art and the science of equipment replacement.

The Report made some statements with which C&M Technology, Inc. wholeheartedly agrees. For example, the statement that "the viability of the County's infrastructure is critical and requires a predictable funding strategy" is absolutely true. So often, public entities fail to properly budget for the replacement cycle of critical equipment. This phenomenon may occur for any number of reasons. In this instance, ITS conducted an assessment and brought the issue before the Council.

ITS identified two risk scenarios that are unacceptable: purchasing replacement equipment after it has had negative impact on the performance and productivity of client agencies; and purchasing equipment before the need to replace it has emerged. A balance is necessary to maintain a highly responsive and reliable enterprise infrastructure and to maintain a service level equal to the needs and expectations of customer agencies.

ITS proposed the use of depreciation to forecast required funding levels for equipment replacement. Using a straight-line depreciation model will provide King County ITS a mathematical means of defining the existing total funding levels needed of the Enterprise-Wide IT fixed asset base and the ability to smooth out equipment replacement budget allocations over time.

ITS proposed a semi-annual equipment review with the Infrastructure Sub-Team of the Technology Management Board. This review process will add

considerably to the credibility of the ITS assessment, and should be a catalyst for keeping current the critical factors identified in the new replacement methodology.

ITS proposed conducting annual financial reviews to determine fund utilization and balance. This review process will be helpful in monitoring the flow of funds, the reasons for expenditures, and for determining the nature and cause of expenditure variations.

Problem Definition

It is absolutely essential that the terms discussed in this review are totally clear. To that end, C&M Technology, Inc. will define replacement and expansion as it relates to an equipment replacement strategy.

Replacement is required when a given piece of equipment fails or ceases to perform, or when it no longer has the capacity to perform the function for which it was purchased.

Expansion is required when equipment continues to perform and has the capacity to perform the function for which it was purchased, however due to increases in the number of end-users it serves, changes in the bandwidth requirements of software applications and other factors that affect data communications requirements, it no longer provides the level of service required.

Equipment Life Cycle, Warranties and Maintenance Support

At the outset, C&M Technology, Inc. believes that it is also important to fully understand the product sales and support environment provided by the primary manufacturer to ITS and King County. Cisco Systems, Inc., the primary manufacturer of KCWAN network infrastructure equipment, provides a six (6) month notification prior to specific equipment being terminated from manufacture. Equipment that is no longer available for ordering is termed End of Sale.

The standard one-year warranty applies (See Appendix A), and access to Cisco's TAC remains available for five (5) years from end-of-sale date. Moreover, spare and replacement parts are available for that five-year period. In addition, bug fixes, maintenance releases, work arounds or patches for critical problems reported to Cisco are also available for that five-year period. Throughout the end-of-life period, King County must have a fully paid support contract with Cisco.

For equipment not covered under a service contract, King County may add the product to a current contract or purchase a new contract until 12 months after the

end-of-sale date. Contracts that have not been renewed or have lapsed after 12 months of the end-of-sale date are not renewable.

King County generally obtains a one (1) year service contract with each piece of equipment purchased from Cisco off the state contract.

Inventory Analysis

The inventory of equipment has a mix of information. Most of the data descriptions involve the make and model of the inventory item. However, some of the data only describes the function it performs, e.g., Internet server, system management workstation, etc. This becomes problematic when attempting to manage the inventory because the description is insufficient to make equipment management decisions.

The following table describes the number of units, end of sale date and end of support date for inventory items in which there was sufficient make and model information:

Model	Description	Number of Units	EOS Date	End of Support Date
CISCO1602	Cisco 1602 Ethernet/Serial Modular Router W/56k DSU (4-Wire)	43	2/28/2003	2/28/2008
WS-C2924-XL	24-Port 10/100 Fast Ethernet Switch	43	11/1/2001	11/1/2006
CISCO2514	Cisco 2500 2e2t	33	4/30/2002	4/30/2007
WS-C2924-XL-EN	Rw-Port 10/100 Switch (Enterprise Edition)	30		
WS-C2924C-XL	22-Port 10/100 Fast Ethernet Switch With 2 100basefx Uplinks	21	3/26/1999	3/26/2004
CISCO2501	Cisco 2500 1e2t Router	20	4/30/2002	4/30/2007
UPS	APC 1000rm	20		
UPS	APC 1400rm	20		
WS-C4003-S1-82	Catalyst 4003 Chassis, AC P/S, Sup.Eng.I, 80 10/100 FE + 2 GE	15		
CISCO4500-M	Topasy, Cisco4500-M	14	11/25/2000	11/25/2005
CISCO1004	Cisco1004 Ethernet/Isdn Bri/Nt1 Multiprotocol Router	12	12/15/1999	12/14/2004
CISCO1005	Cisco1005 Access Server	11	8/21/2000	8/21/2005
UPS	APC 2200rm	10		
WS-C3016A	Catalyst 3000, 6k, SNMP, STP, VIRT	10		
WS-C1900C	Catalyst 1900 24 10Base T, 1 100basefx, 1 100basefx, 1K MAC	9		
WS-C1924-EN	24 Port 10Mb Switch, 2 100basefx Ports, ISL, CGMP, RMON	9		
Server	Compaq 6500	8		
WS-C1900	Catalyst 1900 24 10baseT, 2 100basefx, 1K MAC	8		
WS-C3016B	Catalyst 3000, 10k, SNMP, STP, VIRT	8		
WS-C5000	Catalyst 5000 Chassis	8		
CISCO7000	Cisco7000 System, P/S & RP	7	11/25/2000	11/25/2005
CISCO1601	Cisco 1601 Ethernet/Serial Modular Router	6	2/28/2003	2/28/2008
UPS	APC 1250	6		
WS-C5509-S3	WS-C5509 Chas, Netflow Sw'ng Sup Eng III, AC P/S	6	6/30/2003	6/30/2008
	Lightstream 1010 Base Configuration, AC Power	5		

Model	Description	Number of Units	EOS Date	End of Support Date
CISCO4000	Modular Multiprotocol Router	5		
Server	Compaq 7000	5		
WS-C4003-S1	Catalyst 4000 Chassis (3-Slot), Supervisor, 1 AC PS, Fan Tray	5		
CISCO2503	Cisco 2500 1e2t1b Router	4	5/31/2001	5/31/2006
Server	Compaq 3000	3		
WS-C3016	Catalyst 3000, 6k, SNMP, STP	3		
	Fluke Cable Tester	2		
	NOC PCs	2		
CISCO2513	Cisco 2500 1e1r2t	2	3/31/2001	3/31/2006
CISCO7000-SSP	Cisco 7000 System, P/S, RP, & SSP	2	5/11/2001	5/11/2006
CISCO7513	Cisco 7513 13-Slot, 2 Cybus, 1 Rsp2, 1 AC Supply	2		
WS-C1201	Catalyst 18 Port 10bt Switch	2		
WS-C1912-EN	12 Port 10MB Switch 2 100baseTx Ports, ISL, CGMP, RMON	2		
WS-C1924-A	24 Port 10Mb Switch W/2 100baseTx Ports; ENT ED Upgradeable	2		
WS-C2916M-XL	16-Port 10/100 Fe Switch With 2 Uplink Slots	2	3/26/1999	3/26/2004
WS-C3020	Catalyst Matrix	2		
WS-C3200B	Catalyst 3200 Switch, Chassis + Supervisor, 8mb, RMON, ENH SW	2		
WS-C5001	Catalyst 5000-Chas, Sprvsr., Ps	2	6/30/2003	6/30/2008
WS-C5500-S3	WS-C5500 Chas, Netflow Sw'ng Sup Eng III, AC P/S	2	6/30/2003	6/30/2008
	Cisco Catalyst 5509	1		
	Cisco Catalyst 5510	1		
	Cisco Catalyst 6500	1		
	DSS Unix System Management	1		
	Motorola NTID (For ISDN, 16 Units At \$230)	1		
	Network General Sniffer (Dolch)	1		
	Network General Sniffer (Fieldworks)	1		
	Network Management Station And Software (Sun Ultra And CWSI)	1		
	Network Monitoring Station And Software (Sun Clone And Network Health)	1		
	Optical Time Domain Reflectometer	1		
	Storageworks Array	1		
	Systems Management Workstation	1		
	Tape System/Tapes	1		
	Time Domain Reflectometer	1		
CISCO2524	Cisco2524 Ethernet/Modular 3-Port Serial Router	1	5/31/2001	5/31/2006
CISCO4000-M	Topasy, Cisco 4000, Memory+	1		
CISCO4500	Obs-Topasy, Cisco 4500	1		
CISCO4700-M	Cisco 4700-M Modular Router-Ac	1		
CISCO7507	Cisco 7507 7-Slot, 2 Cybus, 1 Rsp2, 1 Ac Supply	1		
Server	Compaq 8000	1		
Server	Compaq MI370	1		
WS-C1400	Conc Base System 2 Slots	1		
WS-C2924M-XL-EN	24-Port 10/100 Switch W/Two Module Slots (Enterprise Edition)	1	11/1/2001	11/1/2006
WS-C2924-XL-5PACK	5 Catalyst 2924-XI Switches	1		
WS-C5500=	Catalyst 5500 Chassis - Requires Power Supply Option	1	6/30/2003	6/30/2008
WS-C5505-S3TX	WS-C5505 Chas, Sup III W/2-Port UTP FEC UL, AC P/S	1	6/30/2003	6/30/2008

Model	Description	Number of Units	EOS Date	End of Support Date
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TABLE 1 – ITS INVENTORY SUMMARY FEATURING THE NUMBER OF ITEMS, THE END-OF-SALE DATE AND THE DATE AFTER WHICH THE ITEM WILL NOT BE SUPPORTED BY THE MANUFACTURER.

Of the Cisco equipment in the ITS inventory, the manufacturer no longer sells a full 76.7%. Each of these items has a date certain beyond which there no longer will be support available. More importantly, a full 10.4% of the Cisco equipment is no longer supported. That means that are calls for support to Cisco’s Technical Assistance Center (TAC) are not responsive. (Cisco requires TAC support staff to reference serial numbers prior to providing support. The serial numbers of equipment that is no longer to be supported have been removed from Cisco’s database, thus preventing support from being provided.) In addition, replacement components or parts are no longer available.

Description of the Function the Equipment Performs

Equipment Classification System

There are seven classifications of equipment used to categorize the inventory of equipment in the strategy: (1) Network Routers/Switches; (2) Other Equipment – Networks; (3) Servers; (4) Mainframe; (5) Mainframe Supporting Equipment (Tape Drives, Data Entry, Disks); (6) Racks, Cabinets & Seismic Equipment; and (7) Miscellaneous Equipment.

Proposed New Equipment Classification System

C&M Technology, Inc. proposes broadening the number of equipment categories to more clearly describe the downstream impact of specific types of equipment failure on stakeholder operations.

The following listing of categories should be considered:

1. Core Router
2. Core Switch
3. Firewall
4. Application Server
5. Router
6. Switch
7. Email Server
8. Network Management Equipment
9. Other Servers & Equipment

Core routers and switches serve the “core” of the KCWAN. They are the most critical equipment in terms of supporting every segment of the network. The firewall is the County’s primary means of protection from viruses, worms, and Trojans transported to and from KCWAN by way of the Internet. Application servers generally contain the data of customer agencies and are one of the

primary functions of the network. Routers and switches are network electronics at the building or facility level. Network management equipment allows ITS staff to monitor the performance of the network. Email servers are the key component of countywide email services. Other equipment includes racks, cabinets and seismic equipment in the wiring closets, etc.

The Age and Useful Life of Equipment

Factors Affecting Equipment Replacement

ITS identified two key factors in determining the need to replace infrastructure equipment – the technology and economic life span of equipment. The technology life span of equipment includes functionality and ability to support software application required by business needs. The economic life span of equipment includes repair costs, downtime and negative impact on staff productivity.

Although we will address equipment failure below, it should be noted that across industry most component failures (e.g. a microprocessor burns out) occur within the first six (6) months of installation. Because ITS obtains maintenance contracts on the equipment it purchases, and the vast majority of equipment is warranted against defects for the first year, the County's enterprise infrastructure equipment assets are protected against most failures.

Therefore, although replacement will be required at some point in the equipment life cycle, equipment replacement decisions should also focus upon factors that affect how agencies conduct business, the need for more advanced technology and the impact those changes have on the KCWAN.

Useful Life

As stated before, only in a few cases does infrastructure equipment actually fail. This is an important fact when thinking about the useful life of equipment. Much more frequently the capacity and/or technology within the equipment are outstripped by the demands of end-users and their software and/or hardware.

In the Report and Recommendations, ITS used the example of pressure to improve desktop service from 10 MB to 100MB service. ITS also mentioned that in the future Gigabit service will undoubtedly be required. The desire for faster speeds is the result of "improvements" in operating systems (Windows 95, 98, 2000, XP, etc.), and additional functions performed by office suite software (Office 97, 2000, XP, etc.), the proliferation of new computer functionality such as desktop-to-desktop teleconferencing and other features that push the demand for faster processing speeds, etc., will require significant replacement of core network equipment.

As each customer agency demands greater capacity to access and transmit information, the need for greater capacity of KCWAN is potentiated across the

network. Most customer agencies of ITS services do not realize that the demand capacity for improvements at the agency level cannot be supported and sustained by KCWAN unless serious collaboration, planning and funding are a reality BEFORE the improvements are implemented at the agency level.

In large measure, enterprise infrastructure equipment replacement has more to do with eliminating bottlenecks than it has to do with equipment failure. But, a word of caution is also necessary. Every item on the equipment inventory can potentially fail without notice and without regard to the performance of other equipment of the same vintage, function or model.

All of this has an impact on the capacity and performance of the network. Thus, although a host of 10MB switches and routers may continue to perform flawlessly for many years, their replacement may be imperative due to advancements in technology as a whole or in specific areas, increased demand on existing infrastructure due to more network users, etc., the need for higher levels of security and higher levels of user performance expectation.

Recovery Period

The basis for determining the funding timeline for cost recovery is based upon broad statements of useful life. Network Routers/Switches are said to have a useful life of 5 years; Other Equipment – Networks a useful life of 3 to 5 years, servers 5 years, mainframe 10 years, mainframe supporting equipment 5 years, racks, cabinets and seismic equipment 10 years and miscellaneous equipment 10 years. Although C&M Technology, Inc. believes that these lifespan estimates are useful as industry guidelines; there are two areas that require clarification.

The first area for clarification is that the range of years for Other Equipment – Networks of 3 to 5 years is not definitive enough to develop a spending plan. C&M Technology, Inc. recommends adopting a five-year life cycle for this range of equipment. There are only five items in the inventory that are classified as Other Equipment – Network. Three items (cable testing equipment) have been reclassified as network management equipment and two items have been reclassified as firewall under the new classification schema. Adopting a five-year lifecycle will meet both the functional and fiscal needs of ITS.

The second point of clarification is due to combining broad categories of equipment in the inventory and generalizing useful life estimates. For example, "Other Equipment – Networks" has a footnote that "some distribution system components can have useful life expectancies of exceeding to 15 years (sic)." These two constructs are in conflict. While the overall useful life for that category remains a range of 3 to 5 years and the lifespan of some equipment in the category is 15 plus years, funding is recovered from customer agencies at a rate that does not reflect the lifespan of equipment. C&M Technology, Inc. recommends removing all equipment from that category that has an estimated lifespan of more than 5 years.

Other King County Equipment Replacement Strategies

In review of the Information Systems Preservation plan developed by the Transit Department, the only mention of lifespan for network electronics is four (4) year replacement of servers. C&M Technology, Inc. recommends that ITS adopt the Transit standard lifecycle for servers for uniformity and to comply with the county's strategic technology plan.

The Transit plan does not discuss guidelines for LAN equipment replacement, nor does the Transit Department address standardized LAN equipment in the plan.

Equipment Standards for Equipment in the Plan

ITS has standardized on Cisco Systems, Inc. products for enterprise infrastructure network equipment. Cisco has a reputation for engineering, manufacturing and supporting network electronics that are high in quality and reliability. Moreover, a large number of professional IT departments across government in America rely on Cisco. One of the extraordinary aspects of Cisco products is that they have proprietary protocols and therefore higher transaction speeds than their competitors.

C&M Technology, Inc. recommends continued reliance upon Cisco Systems and to extend this standard across King County government. The reasons for this recommendation include uniformity, standardized protocols at the equipment level; standardized training and required expertise of support staff, large agency discount pricing and trade-in valuation for replaced inventory.

Prioritization List, Schedule and Budget

Priorities for Equipment Replacement

ITS seeks flexibility in the execution of equipment replacement decisions, which in fact is required. However, equipment replacement decisions should directly address the factors that affect equipment performance, customer expectations and initiatives developed at both the strategic and customer levels. These were listed in the ITS report as (1) Advancement in Technology; (2) Higher Customer Expectations; and (3) Priorities for Equipment Replacement – Emergency Replacements, Opportunistic Replacements, Planned Replacements, and Planned Upgrades.

Equipment to Support New Functional Requirements

The need for new equipment is also based upon how new functions affect replacement. For example, if a customer agency decides to initiate a new e-government service that will require bandwidth that the KCWAN is incapable of providing, this will require acquisition of new equipment to support that function and needs to be included in the equipment replacement strategy. The impacts

could range from none to significant. C&M Technology, Inc. recommends incorporating a methodology for blending the equipment replacement strategy with projects involving enhancement or expansion of services.

Cost of Equipment Failure

When calculating the cost of equipment failure, it is difficult to capture all of the areas in which costs are incurred. Essentially, there are several cost areas that must be addressed. Those costs include the productivity costs of employees who no longer have the ability to communicate, either via email or the Internet; the costs associated with the mission of the agency involved; the costs associated with the public relations; and the costs associated with the political fall-out of a seemingly unresponsive government.

C&M Technology, Inc. has identified the productivity costs of employees if they were no longer served by the KCWAN due to equipment failure. The following table depicts the primary facilities in which County employees are housed, the number of FTEs at each facility and the average salary and benefits paid to County employees (\$32.92) times the number of FTEs.

COUNTY FACILITY	FTE	HOURLY SALARIES & BENEFITS
Central Building	2	\$66
Courthouse	1,188	\$39,105
Yesler	210	\$6,913
RJC	354	\$11,653
Youth Service Center	153	\$5,036
Administration	548	\$18,038
Bank of California	145	\$4,773
King Street	1,365	\$44,931
Exchange Bldg	363	\$11,949
Airport Admin Building	122	\$4,016
Walthev Bldg	24	\$790
Black River	341	\$11,225
Wells Fargo Building	349	\$11,488
Prefontaine Building	15	\$494
Smith Tower	24	\$790
Key Tower	163	\$5,365
TOTAL	5,366	\$176,632

TABLE 2 - THIS TABLE ILLUSTRATES THE NUMBER OF FTES PER COUNTY FACILITY AND THE HOURLY RATE (\$32.92) OF EMPLOYEE SALARIES AND BENEFITS.

The above table is utilized in the following manner. If the router serving the King Street facility were to fail for a period of three (3) hours, the average downtime

per failure experienced in King County, the productivity cost to the county for 1,365 employees would be $\$44,931 \times 3 \text{ hours} = \$134,793$. For the same disruption in the Black River facility, the productivity cost would be $\$33,675$.

If a switch caused the disruption, the cost of equipment failure would be significantly less. At that level, the cost is dependent upon the number of ports on the switch. So, for a twenty-four (24) port switch, the cost for a three hour outage would be $\$790 \times 3 \text{ hours} = \$2,370$. If it were a forty-eight (48) port switch, the cost would be $\$4,740$. However, if it were a chassis switch with 144 ports, the cost for a three hour outage would be $\$4,740 \times 3 = \$14,220$.

On macro level, if service to the core network were disrupted completely shutting down data communications to the KCWAN, the cost for a three-hour failure would be $\$176,632 \times 3 = \$529,896$.

Obviously, an extended failure would have a commensurate increase in productivity costs. However, none of these cost calculations include the costs associated with failure to achieve the agency mission. An example of agency mission cost could be the time delay for communications from the Center for Disease Control and Prevention to the Department of Health about an infectious disease. Obviously, agency mission costs have a much higher potential in terms of life-safety costs than simple calculations of employee productivity. Similarly, the public relations and political costs could be immeasurable.

Added Costs of Not Replacing Equipment

One of the areas in which the County could benefit is trade-in of used equipment. Waiting until enterprise infrastructure equipment is valueless adds to the cost for equipment replacement. Essentially, Cisco Systems, Inc. will offer organizations that are purchasing equipment for replacement the value of the equipment as a trade-in incentive that can be applied to the purchase, even when utilizing the state contract. Equipment that is at end-of-life and those approaching end-of-life do not retain any trade-in value.

Moreover, by retaining obsolete equipment until it is valueless, the County has to handle disposal and/or surplussing. These hidden costs of ownership can be quite high, when taking into account the magnitude of the equipment inventory. However, as the County routinizes equipment replacement funding, there will be purchase cost-savings and cost avoidances available.

The Replacement Factors Model

Model Preparation

The following steps were taken to prepare a revised infrastructure equipment replacement model:

1. Verify that the inventory is up-to-date, relevant and accurate.
2. Reclassify the equipment such that it complies with the recommendation concerning the schema for equipment classification.
3. Determine what equipment is currently in the "spares" category.
4. Develop rationale for each replacement factor.
5. Determine the relationship (beta weights) between replacement factors.

Replacement Factors

Following is a discussion of the replacement factors, the logic behind their use, how coding was accomplished and future factor development, when appropriate:

Functional Criticality

The functional criticality replacement factor is based upon a hierarchy of the King County Wide Area Network (KCWAN) functionality. There are two threads within the hierarchy. The first thread is for switching and routing and the second is for servers.

Due to the physical nature of the KCWAN, every node on the network is connected to the "core network". That is to say that if the core were to become compromised, every node would suffer the consequences of that failure. Similarly, every node within a building is connected to building level routers and switches. If the building level equipment were to become compromised, every node within the building would suffer the consequences of that failure, as well. However, other buildings on the KCWAN would probably not suffer.

In terms of servers, the hierarchy recognizes the importance of data. The purpose of application servers is to generate and store data. Agency-level data supports a variety of core functions within customer agencies. If agency-level data were to become compromised, the mission of that agency may potentially be compromised. Next on the server hierarchy are email servers. The vast majority of County employees have and communicate via an email account provided by ITS. If the email system were to become compromised, user communications could similarly be disrupted. The last server level involves Internet, intranet and task servers. If one of these servers were to become compromised, the impact would be centered on the individual agency, rather than the broader King County workforce.

When combined, these two hierarchical schemes give way to functional criticality on the network such that the core network and data are the top priority; network equipment at the building level and email communications are next; network

management equipment (storage, tape backups, network consoles, etc.) are next in priority; and other servers and equipment are the last priority.

Functional Criticality	Code
Core Equipment & Application Servers	1
Building Routers, Switches & Email Servers	2
Network Management Equipment	3
Other Servers & Equipment	4

TABLE 3 – THIS TABLE ILLUSTRATES THE CODING SCHEMA FOR THE FUNCTIONAL CRITICALITY EQUIPMENT REPLACEMENT FACTOR.

The functional criticality replacement factor addresses emergency replacements, opportunistic replacements, planned replacements, and planned upgrades.

Useful Life

This replacement factor is based upon the number of years equipment has left of functional life, according to industry guidelines for replacement. Industry guidelines for replacement, based upon the age of equipment, also called life expectancy, are determined from the table, below. Then, the number of years each item has been in the inventory is calculated. When the number of years in service is subtracted from life expectancy, the useful life factor is calculated.

$$\text{Useful Life}^1 = \text{Life Expectancy} - \text{Years in Service}$$

Industry guidelines² for replacement are as follows:

Equipment Type	Equipment Life
Network Management Equipment	3 years
Servers	4 years
Routers & Switches	5 years
Other Equipment	5 years

TABLE 4 – THIS TABLE ILLUSTRATES THE INDUSTRY GUIDELINES CONCERNING THE EXPECTED LIFESPAN OF NETWORK-RELATED EQUIPMENT.

The Useful Life replacement factor addresses emergency replacements, opportunistic replacements, planned replacements, and planned upgrades.

¹ The useful life factor will result in negative numbers for a few years because of the age of the equipment involved. Eventually, as funding is stabilized and equipment replacement becomes routinized, the numbers will become positive.

² Source: Cisco Systems, Inc. and vendors of similar equipment.

Network Reliability

This replacement factor is based upon the availability and subscription to a maintenance or service level contract (SLC), combined with the known service history of inventory items. All ITS equipment is supported based upon an SLC. Following an end-of-sale announcement, an SLC will be available for only the ensuing five years. When equipment reaches the end-of-life and the manufacturer no longer produces equipment in that model line, an SLC is no longer available to product owners.

In terms of service history, any reported service history from the period of January 2001 through March 2003 on the model of equipment is combined with the SLC status results in the following network performance-coding schema:

Network Reliability	Code
SLC no longer available, service history	1
SLC no longer available, no service history	2
SLC expires within 5 years, service history	3
SLC expires within 5 years, no service history	4
SLC in place, service history	5
SLC in place, no service history	6

TABLE 5 – THIS TABLE ILLUSTRATES THE CODING SCHEMA FOR THE NETWORK RELIABILITY EQUIPMENT REPLACEMENT FACTOR.

Unlike the Critical Functionality and Useful Life replacement factors, the Network Reliability factor should change over time. ITS currently does not collect service history data on enterprise infrastructure equipment. C&M Technology, Inc. recommends that ITS, in conjunction with Cisco Systems, Inc., capture and maintain service history data by serial number. That data should then be used to code every item in the equipment inventory, rather than coding every item in the same model line.

The Network Reliability replacement factor addresses advancement in technology, opportunistic replacements, planned replacements, and planned upgrades.

Capacity Planning

This replacement factor is based upon initiatives identified in the Strategic Technology Plan (STP) or other capital project plans. Strategic initiatives that affect ITS equipment could also be non-technical in nature. For example, the mandate to install seismic platforms on equipment racks and cabinets was not a project outlined in the STP, however, it is a strategic initiative that affects the whole of County government and will certainly affect the replacement of ITS equipment.

To code the ITS equipment inventory, the STP and the Proposed Technology Business Plan for 2003 were carefully reviewed to determine which inventory items would be affected. It was determined that the core routers and switches, the firewall and it's server and the email servers would be affected by the Network Infrastructure Optimization (formerly Convergence), the Information Security and Privacy and the security aspects of the E-Business strategic countywide projects.

Although it was also determined that the Law, Safety and Justice Integration Program and the Business Continuity projects would affect segments of the KCWAN, it was determined that insufficient information is currently available to identify those segments and targeted equipment on those segments.

The full coding plan for capacity planning is as follows:

Capacity Planning	Code
Current Year Implications	1
Subsequent or Unknown Year Implications	2

TABLE 6 – THIS TABLE ILLUSTRATES THE CODING SCHEMA FOR THE CAPACITY PLANNING EQUIPMENT REPLACEMENT FACTOR.

As more detailed plans are developed, design specifications established and the project sponsors and the affected agency representatives meet, a more definitive listing of affected equipment and the years in which they will become implicated will be determined. At that point, C&M Technology, Inc. recommends that a more differentiated coding scheme such as the following be adopted for this replacement factor:

Capacity Planning	Code
Short-Term Implication (0 to 2 years)	1
Medium-Term Implication (2 to 3 years)	2
Long-Term Implication (3+ years)	3
No Know Implication	4

TABLE 7 – THIS TABLE REPRESENTS THE CAPACITY PLANNING EQUIPMENT REPLACEMENT FACTOR CODING SCHEMA THAT SHOULD BE CONSIDERED WHEN MORE INFORMATION ABOUT STP PROJECTS IS DEVELOPED.

The Capacity Planning replacement factor addresses advancement in technology, emergency replacements, opportunistic replacements, planned replacements, and planned upgrades.

Agency Projects

This replacement factor is based upon the plans for service level improvements initiated at the agency level. These tactical projects can result from a customer agency complying with the strategic direction set by the County’s elected officials, implementing a new software or hardware strategy or piloting a new technology to evaluate its efficacy. In each of these instances it may be likely that there will be “upstream” effects on enterprise-level network equipment.

After reviewing the Proposed Technology Business Plan for 2003, it was determined that in most cases there is insufficient information to identify KCWAN segments that will be affected by these projects. However, it was determined that in most cases, additional capacity and security at the core network would be necessary for these projects to succeed.

The following coding plan will be used for customer project demands:

Agency Projects	Code
Current Year Implications	1
Subsequent Year or Unknown Implications	2

TABLE 8 – THIS TABLE ILLUSTRATES THE CODING SCHEMA FOR THE AGENCY PROJECTS EQUIPMENT REPLACEMENT FACTOR.

Similar to the Capacity Planning replacement factor, as more information becomes available, C&M Technology, Inc. recommends that the following coding schema be considered for adoption for the Agency Projects replacement factor:

Agency Projects	Code
Short-Term Implication (0 to 2 years)	1
Medium-Term Implication (2 to 3 years)	2
Long-Term Implication (3+ years)	3
No Know Implication	4

TABLE 9 – THIS TABLE REPRESENTS THE AGENCY PROJECTS EQUIPMENT REPLACEMENT FACTOR CODING SCHEMA THAT SHOULD BE CONSIDERED WHEN MORE INFORMATION ABOUT TACTICAL AGENCY PROJECTS IS DEVELOPED.

For agency collaboration to occur, C&M Technology, Inc. recommends that agencies consult with ITS whenever a project or proposed project may have network architecture, security or bandwidth implications. C&M Technology, Inc. also recommends that whenever an agency contemplates remote transactions or data to be transferred over the KCWAN that they be addressed in the project plans and shared with ITS prior to being submitted for budget review.

The Agency Projects replacement factor addresses advancements in technology, higher customer demand, opportunistic replacements, planned replacements, and planned upgrades.

The Replacement Factors Model Construct

The Replacement Factors model requires that each replacement factor – Functional Criticality; Useful Life; Network Reliability, Capacity Planning; and Agency Projects – be coded as per the schema above. The coding for each replacement factor is combined with a beta weight for that factor. The beta weight effectively defines the relationship between the factors. Replacement factors are then combined to produce an Equipment Replacement Index. The index column is sorted in ascending order to ascertain the replacement order of equipment. The index is arrayed in such a way as to prioritize equipment replacement with the lowest index number to be replaced first.

The following excerpt from the ITS equipment inventory illustrates how the new replacement model works.

Item Name	Serial Number	Equipment Class	Year	Functional Criticality 25%	Useful Life 25%	Network Reliability 25%	Capacity Planning 15%	Agency Project 10%	Replacement Index
CISCO7000	77017248	Core Router	1996	1	-2	4	1	1	1.00
CISCO7000	77021665	Core Router	1996	1	-2	4	1	1	1.00
WS-C5000	66032997	Switch Router	1997	2	-1	2	2	2	1.25
WS-C5000	66033097	Switch Router	1997	2	-1	2	2	2	1.25
WS-C5000	66033099	Switch Router	1997	2	-1	2	2	2	1.25

Item Name	Serial Number	Equipment Class	Year	Functional Criticality 25%	Useful Life 25%	Network Reliability 25%	Capacity Planning 15%	Agency Project 10%	Replacement Index
WS-C5000	66033102	Switch Router	1997	2	-1	2	2	2	1.25
WS-C5000	66033112	Switch Router	1997	2	-1	2	2	2	1.25
WS-C5000	66033115	Switch Router	1997	2	-1	2	2	2	1.25
WS-C5000	66033116	Switch Router	1997	2	-1	2	2	2	1.25
WS-C5000	66033125	Switch Router	1997	2	-1	2	2	2	1.25
CISCO1005	2389094	Router	1996	2	-2	3	2	2	1.25
CISCO1005	2398272	Router	1996	2	-2	3	2	2	1.25
CISCO1005	2400324	Router	1996	2	-2	3	2	2	1.25

TABLE 10 – AN EXCERPT FROM THE ITS EQUIPMENT INVENTORY DEPICTING THE CODING FOR EACH ITEM IN THE INVENTORY, THE RELATIONSHIP BETWEEN FACTORS AS DESCRIBED BY THE BETA WEIGHT AND THE RESULTANT REPLACEMENT INDEX.

The 2003 ITS Equipment Inventory has been joined with the Replacement Factors Model and has been placed in Appendix B. A replacement index was developed for every enterprise-wide IT infrastructure equipment item in the inventory.

The relationship between the replacement factors is largely determined through the art of equipment replacement. However, the beta weight (percentage) assigned to each factor is based upon a hierarchy of need. The bottom line is that network functional operations and maintenance is the highest priority for ITS staff, while changing the network to comply with future plans, initiatives and projects is the secondary priority.

With this hierarchy of need in mind, the replacement factors that support network functional operations and maintenance are functional criticality, useful life and network reliability. The replacement factors that support compliance with future plans are capacity planning and agency projects. The array of beta weights is twenty-five percent (25%) for functional criticality; twenty-five percent (25%) for useful life; twenty-five percent (25%) for network reliability; fifteen percent (15%) for capacity planning; and ten percent (10%) for agency projects. In terms of the hierarchy of need, network functional operations and maintenance considerations influence 75% of the replacement decisions, while compliance with future plans, initiatives and projects influence 25% of replacement decisions.

Model Maintenance

Both annual and routine maintenance to the model are required. Every time the status of an inventory item is changed, a subsequent change to the replacement model will also be required. C&M Technology, Inc. recommends the following as a step-by-step approach to model maintenance:

1. Assign a single point of contact to maintain the inventory of equipment.
2. Develop a database that includes all of the data elements of the current model, but also includes service history, purchase price, etc.
3. Develop, distribute and enforce an ITS procedure in which every transaction between technician and equipment is to be reflected on the inventory. Transactions should include installation, moves, node name changes, maintenance, etc.
4. Maintain the inventory in real-time such that there is no need to make decisions based upon supposition.
5. Reflect status changes immediately in the model coding whenever an equipment item changes status. For example, if an inventory item receives maintenance, the coding for network reliability is similarly changed.
6. Review the King County Technology Business Plan with the appropriate governance body or equivalent annually and re-code the Capacity Planning and Agency Projects replacement factors as appropriate.

Funding Guidelines

Prior to the 2001 Budget no formalized process existed by which ITS planned and budgeted for enterprise-wide equipment replacement. Equipment was replaced on a case-by-case basis utilizing critical needs analyses developed and presented by ITS management during the annual budget cycle. Therefore, decisions for the replacement of equipment were made based upon the availability of funds in the financial plan rather than on the actual needs of network users.

In order to address the critical nature of the King County network and the need for a rational and predictable equipment replacement program, ITS developed a plan that was presented to the Council in October 2001. Unfortunately, there was not sufficient time for the Council to act upon the plan within the 2002 Budget deliberation process. The plan was revised in July 2002 and is now being further revised for Council consideration in early 2003.

The key elements of the July 2002 version of the equipment replacement strategy and the ITS fund balance management plan provide a sound basis for decision-making. The underlying definitions and formulas contained in the document are now being refined to present a clearer view of current imperatives and to establish projections of long term funding requirements.

Recovery Period

It is important for a public entity such as King County to recognize the limited life of equipment and prepare for its replacement. This is particularly true of the technology equipment that supports almost every aspect of county operations.

King County should pursue its plan for establishing and maintaining an equipment replacement reserve fund that accumulates revenues over time and carries forward through budget cycles. It should be understood and clearly articulated that the equipment replacement reserve fund is proprietary to the replacement network equipment installed and maintained by ITS. The most rational and understandable method for developing an equipment replacement fund is to use depreciation as the cornerstone for assessing annual recovery amounts from each supported department.

In reviewing legacy equipment as a whole, depreciation to date provides decision-makers the dollar extent of the liability. Analysis of the remaining useful life of the same equipment allows each department to project its annual contribution to the equipment replacement reserve fund over future budget cycles.

In addition, using accumulated depreciation of existing equipment provides a current target fund balance for the equipment replacement reserve fund. This core methodology, when paired with supporting fund replacement concepts provides the means through which the fund balance will be maintained at an acceptable level.

It must be clearly understood that using depreciation method for developing and maintaining an equipment replacement fund is merely a defensible, mathematical approach for distributing capital costs equitably over all participating King County departments over time.

The fact that a piece of equipment has been fully depreciated might not necessarily mean that it will be immediately replaced. Nor should the County anticipate that all equipment will remain in place until it has been fully depreciated.

Equipment Inventories and Depreciation

ITS proposed that the straight-line method of equipment distribution be used to determine the funding for enterprise-wide ITS equipment replacement. This will smooth out funding requirements and allow for a more predictable impact on rates. The straight-line depreciation method is consistent with other similar county functions, e.g. Fleet Administration.

The table below describes the equipment classes used to compile inventories of enterprise-wide IT infrastructure along with their recovery periods.

Equipment Class	Recovery Period
Network Management Equipment	3 years
Servers	4 years
Routers, Switches & Components	5 years
Other Equipment	5 years

TABLE 11 – THIS TABLE ILLUSTRATES THE RECOVERY PERIOD BY EQUIPMENT CLASSIFICATION.

In a financial audit transmitted in February, 1999, the King County Auditor made several findings related to cost accounting and budgeting practices in ITS. One of these findings was that ITS billed county agencies on the basis of budget and that this produced excess revenues when budgeted revenues exceeded actual expenditures. Since ITS billed different sets of users for different services there was a resulting uneven flow to fund balance (positive or negative).

Since the Auditor presented the findings ITS has developed a rigorously defined set of "rate buckets" that are used to collect the cost of providing various services. Once the costs are collected in the rate buckets, allocations are made to customer agencies (based upon the level of benefit gained by each agency for that service) for purposes of determining internal service charges to be levied against agency budgets.

Rate Bucket	Purpose	Allocation Basis
Infrastructure by Mailbox Messaging	County-wide e-mail services	E-mail Accounts
Infrastructure by FTE WAN & Networks ADSS Web DCS	Data infrastructure; Helpdesk; Computer Operations; Administration; Network Support Web and E-commerce services	FTE's
Distributed Systems Support DSS	Operate and maintain client servers in ITS operations center	Analyst hours needed to operate/support mainframe applications
Data Center O&M CCS	Application Development and Systems Support; Data Control; Mainframe Rates; Computer Operations; Data Entry; Programming and Data Center support for Client Servers	Analyst hours and a variety of machine resources needed to operate and support mainframe applications

Rate Bucket	Purpose	Allocation Basis
Other	Enterprise-wide Licensing; Contingency; Overhead costs from other ITS agencies	Revenue backed; pass through activities
LAN Client Services	LAN support for client agencies	FTE's allocated per client

TABLE 12 – ILLUSTRATES THE ITS RATE BUCKETS AND THEIR RELATIONSHIP TO PURPOSE AND BASIS OF ALLOCATION.

Not all rate buckets contain an equipment replacement element relevant to the development of an equipment replacement reserve fund. Data Center O&M equipment is not being considered in this process. The replacement of the Mainframe will likely be a County level Strategic Initiative. Other and LAN Client Services are rate buckets utilized to capture costs other than capital costs.

ITS Capital Fund - Initial Fund Balance

In order to assure the availability of adequate resources for equipment replacement the county should establish the equipment replacement reserve fund with an initial allocation of \$ 3,211,129. This dollar amount was calculated by applying straight-line depreciation to the full inventory of existing network equipment.

RATE BUCKET	Depreciation 1997	Depreciation 1998	Depreciation 1999	Depreciation 2000	Depreciation 2001	Depreciation 2002	Accumulated Depreciation through 2002
Infrastructure by Mailbox				\$ 62,500	\$ 181,250	\$ 181,250	\$ 425,000
Infrastructure by FTE							
WAN	\$ 134,548	\$ 182,003	\$ 347,219	\$ 614,472	\$ 657,251	\$ 520,479	\$ 2,455,972
ADDS		\$ 1,750	\$ 4,750	\$ 10,125	\$ 20,141	\$ 18,391	\$ 55,157
DCS					\$ 56,250	\$ 56,250	\$ 112,500
Distributed System Support		\$ 16,250	\$ 27,500	\$ 32,500	\$ 42,500	\$ 43,750	\$ 162,500
TOTAL	\$ 134,548	\$ 200,003	\$ 379,469	\$ 719,597	\$ 957,392	\$ 820,120	\$ 3,211,129

TABLE 13 – THIS TABLE ILLUSTRATES THE ACCUMULATION OF EQUIPMENT REPLACEMENT LIABILITY BY RATE BUCKET THROUGH 2002.

If it is not possible to establish the equipment replacement reserve fund as one-time transaction contributions to the fund can be made in yearly installments, with subsequent years' depreciation of existing and newly installed equipment being addressed as additional dollar requirements.

ITS Capital Fund – Maintaining the Fund

New equipment should be added to the equipment inventory of a specific rate bucket at the time it is purchased. Additions to the inventory will be factor coded as recommended to establish the initial equipment Replacement Index and depreciation schedule. ITS staff will calculate the annual depreciation through

December 31 of any given year based upon the inventory in place on that date. The annual depreciation will be broken down by rate bucket and the appropriate dollar amount will be charged to each supported department. The calculated dollar amount should be transferred to the Equipment Replacement Reserve Fund as soon as is practical. See Appendices D through G.

In order to provide adequate time for departmental budget planning relative to the Equipment Replacement Reserve Fund, a full year's depreciation will accrue to equipment added to the inventory on December 31 of the year following its acquisition. For example if ITS purchases a router in September 2003, the first year's depreciation will not accrue until December 31, 2004.

Depreciation schedules and a report of accumulated depreciation by rate bucket will be prepared annually in order to assure the appropriate management of the of the reserve fund. This detailed information will be in the format presented in the Appendix. The roll-up of this information will be presented in the format illustrated in Table 12.

Replacement of Equipment Not Fully Depreciated

If a department wishes to make changes to its internal systems, and the changes require replacement of network equipment, the specific items of equipment will be identified to the department by ITS along with the cost of replacement ITS will calculate the amount of accumulated depreciation on the equipment being replaced. This dollar amount will be paid from the Equipment Replacement Reserve Fund; the department undergoing the improvements must pay the balance of the cost of the new equipment, if any, from its own budget resources.

Generic Spending Plan Development

C&M Technology, Inc. recommends that the Replacement Factors Model be utilized to develop the equipment replacement spending plan in the following manner:

1. Assuming the model is maintained as outlined below, ITS should review the coding and resultant replacement index for each inventory item such that all relevant information is recorded accurately and that formulas are properly constructed and that calculations are precise.
2. At the appropriate interval in the annual budget development process, the replacement index for each inventory item should be sorted in ascending order.
3. ITS should develop an operational staff capacity plan that takes into account the following:
 - a. Number of appropriate staff and the total number of staff hours in the fiscal year;
 - i. Multiply the total staff hours by the staff availability rate (percentage of time staff is available to work minus the hours

- staff traditionally is on leave – sick, annual, compensatory time, etc.)
- ii. Product is expected staff hours
 - b. The likely replacement models for current equipment;
 - c. Staff skill levels and training needs;
 - d. Estimated time to install, configure and place each new equipment item online; and
 - e. Logistical factors including
 - i. Travel time,
 - ii. Time differential between placing order and receipt of equipment,
 - iii. Equipment breakout time,
 - iv. Supplies distribution,
 - v. The number of staff required for each installation, and
 - vi. How configuration management will be accomplished
4. ITS management should compare the operational staff capacity plan with the potential equipment replacement list to determine how many of the inventory items at the top of the list can successfully be replaced during the ensuing fiscal year. This listing of equipment should be referred to as the draft equipment replacement list.
 5. Next, it will be important to conduct a reality check. This check should determine the congruence between the STP and/or agency tactical project priorities, the operational staff capacity plan and the draft equipment replacement list
 6. If there is congruence, the draft equipment replacement list becomes the proposed replacement list and pricing, including trade-in value and other incentives offered by the vendor, is developed for each inventory item scheduled for replacement.
 7. The Equipment Replacement Reserve Fund should be reviewed to ascertain that there are sufficient funds available.
 8. The full documentation should be forwarded through the budget process.
 9. If there is incongruence between the STP and/or agency tactical project priorities, ITS should review the available options which may include the following:
 - a. Reprioritize the draft replacement list, based upon the STP or agency priorities,
 - b. Defer some equipment replacement until the next fiscal year, or
 - c. Contract for more capacity³.
 10. After the above check is completed, the operational staff capacity plan should be adjusted to ensure that all of the new information is taken into account and that staff capacity is firm.

³ It should be noted that equipment replacement is a zero-sum exercise. Staff capacity is fairly static, however it can be augmented by temporary FTEs, vendor support, or third-party contractual support.

11. The draft equipment replacement list becomes the proposed replacement list and pricing, including trade-in value and other incentives is developed for each inventory item scheduled for replacement.
12. The Equipment Replacement Reserve Fund should be reviewed to ascertain that there are sufficient funds available, that the fund balance has sufficient reserve, and that it complies with County rules for fund administration, etc.
13. An Equipment Replacement Budget should be developed. The budget should be forwarded through the budget approval process.
14. An Equipment Replacement Project Plan should also be developed. The plan should be forwarded through the IT governance process. This plan will include and eclipse the staff capacity plan and should include the following information:
 - a. Which items are to be replaced
 - b. The schedule for purchase and installation, how they will be coordinated to maximize effectiveness and minimize shelf time
 - c. How the items will be installed and by whom
 - d. Training required for staff, when it will be delivered, etc.
 - e. Disposal of out-dated equipment, cost, logistics, etc.
 - f. Repurposing assignments by inventory item
15. An annual report on equipment replacement should also be developed for IT governance describing planned versus actual purchases, fund balance management indicators, logistical problems encountered, changes to network performance metrics, etc.

The following flowchart illustrates the spending plan development process:

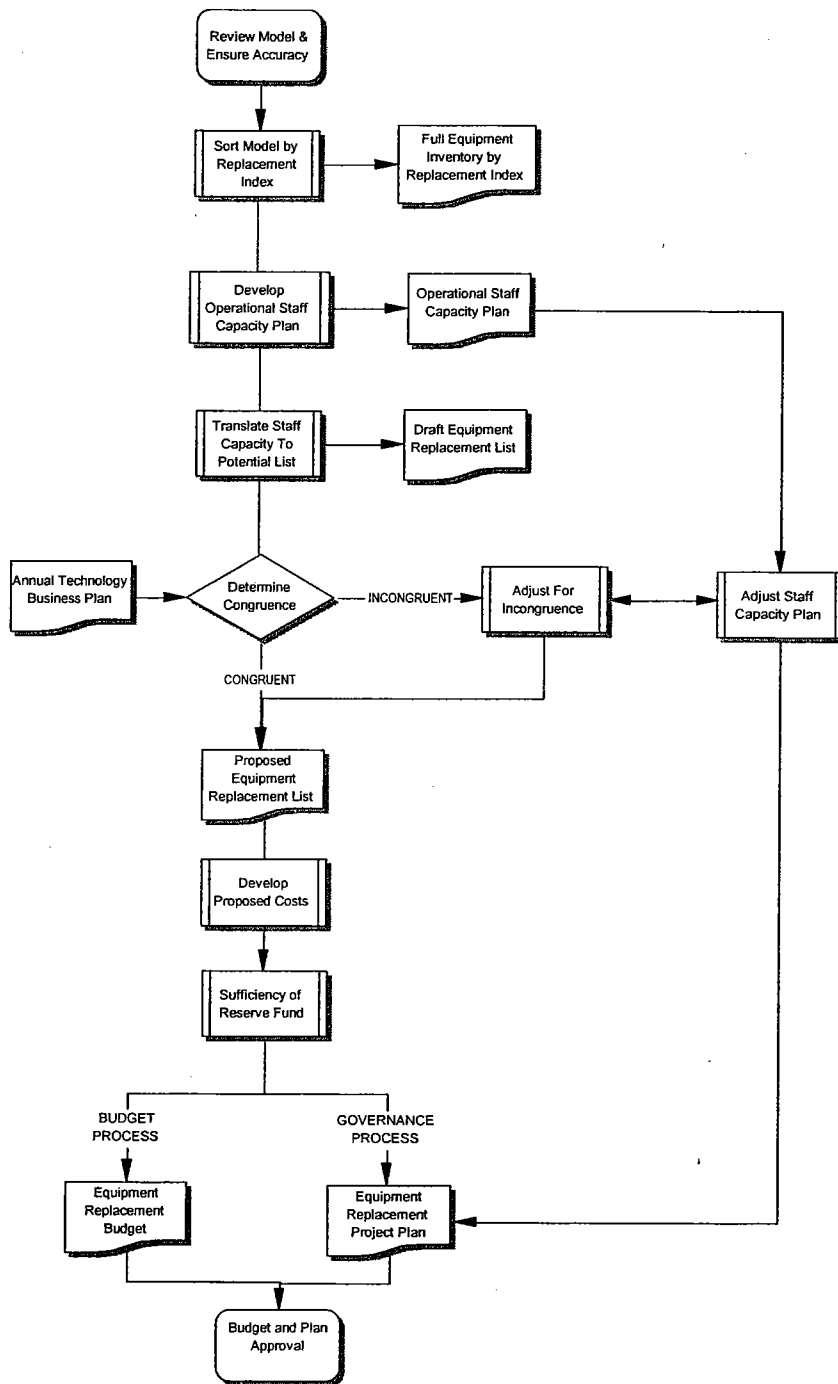


ILLUSTRATION 1 – THIS FLOWCHART DEPICTS THE ITERATIVE PROCESS FOR USING THE REPLACEMENT FACTORS MODEL IN CONJUNCTION WITH THE EQUIPMENT REPLACEMENT RESERVE FUND.

Proposed 2003-2004 Equipment Replacement Spending Plan

The King County Strategic Technology Plan 2003-2005 calls out five priority strategies for which funding should be provided. The five priority strategies include:

- Network Infrastructure Optimization
- Law, Safety and Justice Integration
- Information Security and Privacy
- Business Continuity
- E-Business

Network Infrastructure Optimization

Network Infrastructure Optimization is the cornerstone of the five priority strategies and will impact the success of eighteen other strategic initiatives that will be addressed using existing department resources.

The optimization of the core network will focus on improved equipment, consolidated into fewer functional items capable of supporting data, voice and video service in a single physical environment.

The upgrade should begin with the replacement of most existing 1600 and 2500 series routers. These routers are not capable of supporting Quality of Service that is required in a converged network⁴. In addition to the replacement of the routers, the County should replace out existing 5500 Cisco switches and replace them with 6500 switches. The 6500 series switches are intelligent switches capable of supporting a converged network.

The Law, Safety and Justice Integration

The Law, Safety and Justice Integration strategy may have collateral impact on the County's core network. However, this complex project is more local server and software oriented.

Information Security and Privacy

To secure the King County network the ITS should replace the existing firewall to protect it from outside attack. The existing system is a mid-level system that may not provide the County adequate protection.

In addition to firewall protection, King County should implement a comprehensive approach to security that includes protection from internal hacking. This comprehensive approach would potentially include intrusion detection at the Network, Host and Client level.

⁴ Quality of service and support of a converged network refer to ability of the network electronic equipment to be able to distinguish between data, voice and video traffic and to manage that traffic in a prescribed manner.

Business Continuity

Many aspects of business continuity can be addressed by network infrastructure optimization. For example, IP telephony can provide continuous communication in disaster scenarios, while e-mail and websites are also excellent conduits for communicating with employees and citizens during these events. Wireless telephony is also an option. Storage networking provides backup and recovery of critical data. Wireless hotspots (IEEE Standard 802.11) can also play a role in business continuity by providing adaptability and flexibility.

E-Business

Once the County network has been upgraded and the issues of network security and business continuity have been addressed, most of the equipment side of e-Business will be in place. Consideration must be afforded information caching and load balancing, but the key remaining tasks will be internal systems software development and staff development.

King County IT Equipment Replacement Spending Plan

The recommendations for equipment replacement for 2003-2004 are based upon the functional and statistical analysis of existing equipment developed by C&M Technology, Inc.

The replacement model indicates the items of equipment that will be replaced. However, this does not presuppose a "like for like" replacement. It is likely that significantly fewer items of modular equipment will replace legacy equipment that has reached the end of its useful life. This is due to advances in information technology such a greater ports density on switches, and improved processing speeds.

	PROPOSED SPENDING 2003	FUNDING AVAILABLE 2003	DIFFERENCE	PROPOSED SPENDING 2004	FUNDING AVAILABLE 2004	DIFFERENCE
Section: Messaging						
Infrastructure by Mailbox Total	\$200,000			\$50,000		
Section: WAN & Networks	\$1,465,267			\$734,996		
Section: ADSS Web						
Section: DCS						
Infrastructure by FTE Total	\$1,465,267			\$734,996		
Section: DSS						
Distributed Systems Support Total	\$110,000			\$20,000		
Total Technology Services	\$1,775,957	\$1,780,780	\$4,823	\$ 804,996	\$ 825,214	\$20,218

TABLE 14 – THIS TABLE DEPICTS THE TOTAL SPENDING PROPOSED FOR EQUIPMENT REPLACEMENT IN 2003 AND 2004.

The proposed ITS equipment replacement plan detail for 2003 is located in Appendix H and the proposed ITS equipment replacement plan detail for 2004 is located in Appendix I. It should also be noted that the spending plans submitted were calculated without sufficient knowledge of the capacity of ITS staffing to physically work their way through the equipment replacement process. As a result, there may be significant additional costs and time limitations associated with the staffing required to implement these plans.

Additional Recommendations

In review of the ITS equipment replacement document, C&M Technology, Inc. has developed other relevant recommendations.

Future Refinements to this Process

The report identifies continued refinement of the factors affecting equipment replacement. Specifically, a survey of industry standards for additional replacement criteria considerations and monitoring and documenting the County's experience with replacement are mentioned. C&M Technology, Inc. recommends that this be accomplished with a timetable, due date, assumptions and setting of responsibility to complete this task. In addition, a methodology should be developed to incorporate the new information into the equipment replacement strategy and model.

Equipment Inventory

The County does not have an asset tracking system that is updated on a real-time basis. This lack of definitive information concerning infrastructure equipment is a major stumbling block when managing the physical assets of ITS. C&M Technology, Inc. recommends that King County and/or ITS should invest in an asset management system that serves these and other needs.

C&M Technology, Inc. further recommends that sufficient staff resources be allocated to ITS to both maintain the asset management function and to maintain the replacement factor model.

Customer Agency Functions

ITS has insufficient management-level information concerning the programmatic functions that ITS equipment supports. This has a negative effect on the ability of ITS to make informed decisions about the criticality of equipment, about proposed investments in new or replacement equipment and/or about repurposing strategies. C&M Technology, Inc. recommends that the above information be developed with the assistance of customer agencies.

Equipment Repurposing

Although there are many instances in which infrastructure equipment continues to function sufficiently well to be considered within its lifespan, there is no articulated plan to repurpose equipment in this status. Many public sector IT

departments have a repurposing strategy for equipment that no longer serves the need of one part of the network, but could continue to be useful. C&M Technology, Inc. recommends that an equipment repurposing policy and procedure be articulated by ITS as it relates to equipment replacement.

Staff Development

Although the focus of this project has been equipment replacement, one of the most critical factors not addressed is staff development. Staff required to setup, configure, install and maintain new equipment must have significant knowledge of the network electronics prior to purchase. C&M Technology, Inc. recommends that a staff development plan be developed and implemented as soon as possible to provide the requisite level of staff skill and expertise for the new and expectedly unfamiliar equipment is obtained.

APPENDIX A

**CISCO SYSTEMS, INC. ONE-YEAR PRODUCT
WARRANTY**

Cisco One-Year Limited Hardware Warranty Terms

The following are special terms applicable to your hardware warranty. Your formal Warranty Statement, including the warranty applicable to Cisco software, appears in the *Cisco Information Packet* that accompanies your Cisco product.

Duration of Hardware Warranty: One (1) Year

Replacement, Repair or Refund Procedure for Hardware: Cisco or its service center will use commercially reasonable efforts to ship a replacement part within ten (10) working days after receipt of the RMA request. Actual delivery times may vary depending on Customer location.

Cisco reserves the right to refund the purchase price as its exclusive warranty remedy.

To Receive a Return Materials Authorization (RMA) Number: Please contact the party from whom you purchased the product. If you purchased the product directly from Cisco, contact your Cisco Sales and Service Representative.

For warranty or license terms which may apply in particular countries and for translations of the above information, please visit the following URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/cetrans.htm

78-10747-01C0

Complete the form below and keep for ready reference.

Product purchased from:

Their telephone number:

Product Model and Serial number:

Maintenance Contract number:

APPENDIX B

ITS ENTERPRISE-WIDE IT INFRASTRUCTURE EQUIPMENT & REPLACEMENT FACTORS MODEL

REPLACEMENT FACTORS MODEL

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality 25%	Useful Life 25%	Network Reliability 25%	Capacity Planning 15%	Agency Project 10%	Replacement Index
	CISCO7000-SSP	77009711	Core Router	1996	1	-2	4	1	1	1.00
	CISCO7000	77017248	Core Router	1996	1	-2	4	1	1	1.00
	CISCO7000	77021665	Core Router	1996	1	-2	4	1	1	1.00
Probe	CISCO4000-M	44547433	Switch	1996	2	-2	2	2	2	1.00
Rjc	WS-C5000	66032997	Switch Router	1997	2	-1	2	2	2	1.25
Rjc	WS-C5000	66033097	Switch Router	1997	2	-1	2	2	2	1.25
Rjc	WS-C5000	66033099	Switch Router	1997	2	-1	2	2	2	1.25
Rjc	WS-C5000	66033102	Switch Router	1997	2	-1	2	2	2	1.25
Rjc	WS-C5000	66033112	Switch Router	1997	2	-1	2	2	2	1.25
Rjc	WS-C5000	66033115	Switch Router	1997	2	-1	2	2	2	1.25
Rjc	WS-C5000	66033116	Switch Router	1997	2	-1	2	2	2	1.25
rjc	WS-C5000	66033125	Switch Router	1997	2	-1	2	2	2	1.25
r1cedarfalls	CISCO1005	2389094	Router	1996	2	-2	3	2	2	1.25
r1vashondisp	CISCO1005	2398272	Router	1996	2	-2	3	2	2	1.25
r1houghton	CISCO1005	2400324	Router	1996	2	-2	3	2	2	1.25
r1pwrentondisp	CISCO1005	2400367	Router	1996	2	-2	3	2	2	1.25
r1pwbowlake	CISCO1005	2400384	Router	1996	2	-2	3	2	2	1.25
r1pwalgona	CISCO1005	2400487	Router	1996	2	-2	3	2	2	1.25
r1enumclaw	CISCO1005	2400680	Router	1996	2	-2	3	2	2	1.25
r1pwfactoriadisp	CISCO1005	2777795	Router	1996	2	-2	3	2	2	1.25
r1phemsKent	CISCO1005	3317347	Router	1996	2	-2	3	2	2	1.25
r1scrap	CISCO2501	25049102	Router	1996	2	-2	3	2	2	1.25
r1phKentig	CISCO2501	25094843	Router	1996	2	-2	3	2	2	1.25

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality 25%	Useful Life 25%	Network Reliability 25%	Capacity Planning 15%	Agency Project 10%	Replacement Index
r1phnorthshore	CISCO2501	25094847	Router	1996	2	-2	3	2	2	1.25
	CISCO2501	25094849	Router	1996	2	-2	3	2	2	1.25
r1phspringwood	CISCO2501	25094851	Router	1996	2	-2	3	2	2	1.25
r1inda	CISCO2501	25102113	Router	1996	2	-2	3	2	2	1.25
spare (confirmed)	CISCO2501	25102115	Router	1996	2	-2	3	2	2	1.25
r1phauburn	CISCO2501	25102117	Router	1996	2	-2	3	2	2	1.25
r1ppraquatics	CISCO2501	25227972	Router	1996	2	-2	3	2	2	1.25
r1pwwashon	CISCO2501	25441500	Router	1996	2	-2	3	2	2	1.25
r1pwwdiamond	CISCO2501	25441506	Router	1996	2	-2	3	2	2	1.25
r1pwwstariake	CISCO2501	25441512	Router	1996	2	-2	3	2	2	1.25
r1pwwskykomish	CISCO2501	25441514	Router	1996	2	-2	3	2	2	1.25
r1pwwfallcity	CISCO2501	25441516	Router	1996	2	-2	3	2	2	1.25
r1pwwissaquah	CISCO2501	25441518	Router	1996	2	-2	3	2	2	1.25
r1pwwbog	CISCO2501	25441538	Router	1996	2	-2	3	2	2	1.25
r1pwwsredmond	CISCO2501	TBD	Router	1996	2	-2	3	2	2	1.25
j/c	WS-C3016B	6480759	Switch	1998	2	0	2	2	2	1.50
j/c	WS-C3016B	6480996	Switch	1998	2	0	2	2	2	1.50
j/c	WS-C3016B	7080651	Switch	1998	2	0	2	2	2	1.50
infra	WS-C3016B	7080885	Switch	1998	2	0	2	2	2	1.50
	WS-C3016B	7081160	Switch	1998	2	0	2	2	2	1.50
	WS-C3016B	7120421	Switch	1998	2	0	2	2	2	1.50
	WS-C3016B	7150334	Switch	1998	2	0	2	2	2	1.50
j/c	WS-C3016B	7200855	Switch	1998	2	0	2	2	2	1.50
	WS-C1924-EN	FAA0144Y038	Switch	1998	2	0	2	2	2	1.50
	WS-C1924-EN	FAA0144Y03E	Switch	1998	2	0	2	2	2	1.50

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
	WS-C1924-EN	FAA0144Z033	Switch	1998	2	0	2	2	2	1.50
	WS-C1912-EN	FAA0149X0BK	Switch	1998	2	0	2	2	2	1.50
	WS-C1924-EN	FAA0150W09Y	Switch	1998	2	0	2	2	2	1.50
Transit/RIO	WS-C1912-EN	FAA0215U057	Switch	1998	2	0	2	2	2	1.50
external DYS	WS-C1924-EN	FAA02225004	Switch	1998	2	0	2	2	2	1.50
external DYS	WS-C1924-EN	FAA0224V0ND	Switch	1998	2	0	2	2	2	1.50
external DYS	WS-C1924-EN	FAA0224X0GQ	Switch	1998	2	0	2	2	2	1.50
external DYS	WS-C1924-EN	FAA0226Y0YG	Switch	1998	2	0	2	2	2	1.50
	WS-C1924-EN	FAA0227V09X	Switch	1998	2	0	2	2	2	1.50
	WS-C1900C	WSC1900CJ7002819	Switch	1998	2	0	2	2	2	1.50
	WS-C1900C	WSC1900CJ7002934	Switch	1998	2	0	2	2	2	1.50
	WS-C1900C	WSC1900CJ7002981	Switch	1998	2	0	2	2	2	1.50
	WS-C1900C	WSC1900CJ7002998	Switch	1998	2	0	2	2	2	1.50
	WS-C1900C	WSC1900CJ7003003	Switch	1998	2	0	2	2	2	1.50
	WS-C1900C	WSC1900CJ7003011	Switch	1998	2	0	2	2	2	1.50
	WS-C1900C	WSC1900CJ7003014	Switch	1998	2	0	2	2	2	1.50
	WS-C1900C	WSC1900CJ7003021	Switch	1998	2	0	2	2	2	1.50
	WS-C1900C	WSC1900CJ7003039	Switch	1998	2	0	2	2	2	1.50
	WS-C1900	WSC1900PS6003434	Switch	1998	2	0	2	2	2	1.50
	WS-C1900	WSC1900PS6026261	Switch	1998	2	0	2	2	2	1.50
	WS-C1900	WSC1900PS6026283	Switch	1998	2	0	2	2	2	1.50
	WS-C1900	WSC1900PS6026314	Switch	1998	2	0	2	2	2	1.50
	WS-C1900	WSC1900PS6030890	Switch	1998	2	0	2	2	2	1.50
	WS-C1900	WSC1900PS6034071	Switch	1998	2	0	2	2	2	1.50
	WS-C1900	WSC1900PS6034102	Switch	1998	2	0	2	2	2	1.50

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
	WS-C1900	WSC1900PS6036862	Switch	1998	2	0	2	2	2	1.50
spare (confirmed)	CISCO2503	25052789	Router	1996	2	-2	4	2	2	1.50
r1phdistcenter	CISCO2514	25094845	Router	1996	2	-2	4	2	2	1.50
r1phnorthrehab	CISCO2513	25095461	Router	1996	2	-2	4	2	2	1.50
	CISCO2514	25107203	Router	1996	2	-2	4	2	2	1.50
	CISCO2513	25243576	Router	1996	2	-2	4	2	2	1.50
r1dcfederalway	CISCO2514	25245721	Router	1996	2	-2	4	2	2	1.50
r1phcedarhills	CISCO2513	25247198	Router	1996	2	-2	4	2	2	1.50
r1dcshoreline	CISCO2514	25250792	Router	1996	2	-2	4	2	2	1.50
r1kcn	CISCO2514	25323018	Router	1996	2	-2	4	2	2	1.50
r1psfallcity	CISCO2514	25323020	Router	1996	2	-2	4	2	2	1.50
r1electionsps	CISCO2514	25323022	Router	1996	2	-2	4	2	2	1.50
r1transitfacil	CISCO2514	25323024	Router	1996	2	-2	4	2	2	1.50
r1dcbellevue	CISCO2514	25326235	Router	1996	2	-2	4	2	2	1.50
r1dcarenton	CISCO2514	25326237	Router	1996	2	-2	4	2	2	1.50
r1dearea	CISCO2514	25327658	Router	1996	2	-2	4	2	2	1.50
	CISCO2503	25332530	Router	1996	2	-2	4	2	2	1.50
r1dcvashon	CISCO2514	25338132	Router	1996	2	-2	4	2	2	1.50
r1dcsw	CISCO2514	25338177	Router	1996	2	-2	4	2	2	1.50
r1dcredmond	CISCO2514	25338179	Router	1996	2	-2	4	2	2	1.50
r1dcissaquah	CISCO2514	25338181	Router	1996	2	-2	4	2	2	1.50
r1deakent	CISCO2514	25368705	Router	1996	2	-2	4	2	2	1.50
	CISCO2514	25368742	Router	1996	2	-2	4	2	2	1.50
r1phfederalway	CISCO2514	25369317	Router	1996	2	-2	4	2	2	1.50
	CISCO2514	25503550	Router	1996	2	-2	4	2	2	1.50

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
r1xdav	CISCO2514	25587699	Router	1996	2	-2	4	2	2	1.50
r1phocolumbia	CISCO2514	25587765	Router	1996	2	-2	4	2	2	1.50
r1pprenton	CISCO2514	25587767	Router	1996	2	-2	4	2	2	1.50
r1phnorth	CISCO2514	25587769	Router	1996	2	-2	4	2	2	1.50
r1phsouthwest	CISCO2514	25587772	Router	1996	2	-2	4	2	2	1.50
r1kcauto	CISCO2514	25628596	Router	1996	2	-2	4	2	2	1.50
r1phkent	CISCO2514	25638808	Router	1996	2	-2	4	2	2	1.50
r1atc	CISCO2514	25683301	Router	1996	2	-2	4	2	2	1.50
r1dysrenton	CISCO4500-M	45500211	Switch	1996	2	-2	4	2	2	1.50
r1kcaairport	CISCO4500-M	45500408	Switch	1996	2	-2	4	2	2	1.50
r1dysbellevue	CISCO4500-M	45512144	Switch	1996	2	-2	4	2	2	1.50
	CISCO4500-M	45512157	Switch	1996	2	-2	4	2	2	1.50
r1pprmercer	CISCO4500-M	45512456	Switch	1996	2	-2	4	2	2	1.50
	CISCO4500-M	45512459	Switch	1996	2	-2	4	2	2	1.50
r1dysburien	CISCO4500-M	45512461	Switch	1996	2	-2	4	2	2	1.50
r1dysnseattle	CISCO4500-M	45512467	Switch	1996	2	-2	4	2	2	1.50
	CISCO4500-M	45519096	Switch	1996	2	-2	4	2	2	1.50
	CISCO4500-M	45519097	Switch	1996	2	-2	4	2	2	1.50
	CISCO4500-M	45519098	Switch	1996	2	-2	4	2	2	1.50
	CISCO7000-SSP	77007527	Router	1996	2	-2	4	2	2	1.50
	CISCO7000	77009960	Router	1996	2	-2	4	2	2	1.50
	CISCO7000	77017247	Router	1996	2	-2	4	2	2	1.50
	CISCO7000	77017267	Router	1996	2	-2	4	2	2	1.50
r1psshoreline	CISCO2524	250019782	Router	1996	2	-2	4	2	2	1.50
r1pssammamish	CISCO2514	250226629	Router	1996	2	-2	4	2	2	1.50

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
	CISCO7000	070010W	Router	1996	2	-2	4	2	2	1.50
r1smith	CISCO2514	TBD	Router	1996	2	-2	4	2	2	1.50
	WS-C5500-S3	69043337	Core Switch	1999	1	1	4	1	1	1.75
	CISCO7513	73013341	Core Router	1998	1	0	5	1	1	1.75
r1westlake	CISCO1004	2044072	Router	1997	2	-1	4	2	2	1.75
r1tunnelsouth	CISCO1004	2044316	Router	1997	2	-1	4	2	2	1.75
	CISCO1004	2055941	Router	1997	2	-1	4	2	2	1.75
r1tunnelnorth	CISCO1004	2060103	Router	1997	2	-1	4	2	2	1.75
	WS-C5001	66005243	Switch Router	1997	2	-1	4	2	2	1.75
	WS-C5001	66029170	Switch Router	1997	2	-1	4	2	2	1.75
	CISCO4000	44504915	Router Card	1996	2	-2	5	2	2	1.75
r1walthev	CISCO4000	44504916	Router Card	1996	2	-2	5	2	2	1.75
r1xsealits	CISCO4000	44504917	Router Card	1996	2	-2	5	2	2	1.75
r1esc	CISCO4000	44509319	Router Card	1996	2	-2	5	2	2	1.75
	CISCO4000	44519273	Router Card	1996	2	-2	5	2	2	1.75
	Atlas		App Server	1997	1	-2	6	2	2	1.75
	Falcon		App Server	1997	1	-2	6	2	2	1.75
	ITS-ESCDEV02		App Server	1997	1	-2	6	2	2	1.75
	DSU/CSU		Network Mgmt	1996	3	-4	6	2	2	1.75
			Network Mgmt	1996	3	-4	6	2	2	1.75
	CISCO7507	76023935	Core Router	1998	1	0	6	1	1	2.00
	WS-C5500=	69005354	Switch	1999	2	1	3	2	2	2.00
kcab4	WS-C2924-XL	FAA0223U06M	Switch	1999	2	1	3	2	2	2.00
kcab4	WS-C2924-XL	FAA0223U06N	Switch	1999	2	1	3	2	2	2.00
kcab4	WS-C2924-XL	FAA0223V06G	Switch	1999	2	1	3	2	2	2.00

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality 25%	Useful Life 25%	Network Reliability 25%	Capacity Planning 15%	Agency Project 10%	Replacement Index
cat8bdystower	WS-C2924-XL	FAA0229X0KN	Switch	1999	2	1	3	2	2	2.00
cat5bdystower	WS-C2924-XL	FAA0229Y0K4	Switch	1999	2	1	3	2	2	2.00
cat4bdystower	WS-C2924-XL	FAA0229Z0K3	Switch	1999	2	1	3	2	2	2.00
4th fl	WS-C2924-XL	FAA0229Z0K6	Switch	1999	2	1	3	2	2	2.00
cat5cdystower	WS-C2924-XL	FAA0231N01Y	Switch	1999	2	1	3	2	2	2.00
4th fl	WS-C2924-XL	FAA0231N022	Switch	1999	2	1	3	2	2	2.00
cat5ddystower	WS-C2924-XL	FAA0231P02H	Switch	1999	2	1	3	2	2	2.00
cat2bdystower	WS-C2924-XL	FAA0231P02J	Switch	1999	2	1	3	2	2	2.00
336-boren	WS-C2924-XL	FAA0231P02V	Switch	1999	2	1	3	2	2	2.00
cat2kcch3w	WS-C2924-XL	FAA0231W00L	Switch	1999	2	1	3	2	2	2.00
336-boren	WS-C2924-XL	FAA0231W02J	Switch	1999	2	1	3	2	2	2.00
cat2kcch8w	WS-C2924-XL	FAA0231X00Q	Switch	1999	2	1	3	2	2	2.00
kcch	WS-C2924-XL	FAA0231X00S	Switch	1999	2	1	3	2	2	2.00
cat6adystower	WS-C2924-XL	FAA0231X026	Switch	1999	2	1	3	2	2	2.00
cat7bdystower	WS-C2924-XL	FAA0231Y035	Switch	1999	2	1	3	2	2	2.00
cat2kcch7w	WS-C2924-XL	FAA0231Z00J	Switch	1999	2	1	3	2	2	2.00
cat3opdtid8	WS-C2924-XL	FAA0235Y0N1	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	FAA0237W0G7	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	FAA0237W0GH	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	FAA0237Z0HZ	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	FAA0241Y0LA	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	FAA0246T08U	Switch	1999	2	1	3	2	2	2.00
cat2key18	WS-C2924-XL	FAA0246Y0CP	Switch	1999	2	1	3	2	2	2.00
cat1key18	WS-C2924-XL	FAA0247W0FY	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	FAA0247W0GK	Switch	1999	2	1	3	2	2	2.00

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	=
cat5key18	WS-C2924-XL	FAA0247X0L8	Switch	1999	2	1	3	2	2	2.00
cat4key18	WS-C2924-XL	FAA0247Y0HH	Switch	1999	2	1	3	2	2	2.00
cat7key18	WS-C2924-XL	FAA0247Y0J1	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	FAA0247Y0J5	Switch	1999	2	1	3	2	2	2.00
cat6key18	WS-C2924-XL	FAA0247Z0HY	Switch	1999	2	1	3	2	2	2.00
cat4opdtda8	WS-C2924-XL	FAA0250S06X	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	FAA0250T05C	Switch	1999	2	1	3	2	2	2.00
cat5opdtda8	WS-C2924-XL	FAA0250V057	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	FAA0250V06H	Switch	1999	2	1	3	2	2	2.00
kcab7	WS-C2924-XL	FAA0251W0E5	Switch	1999	2	1	3	2	2	2.00
kcab8	WS-C2924-XL	FAA0251W0EF	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	TBD	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	TBD	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	TBD	Switch	1999	2	1	3	2	2	2.00
	WS-C2924-XL	TBD	Switch	1999	2	1	3	2	2	2.00
r1northgatec	CISCO1602	5946244	Router	1998	2	0	4	2	2	2.00
r1pprwhitecr	CISCO1601	5978950	Router	1998	2	0	4	2	2	2.00
r1wpwelding	CISCO1601	5979320	Router	1998	2	0	4	2	2	2.00
r1dyseterrace	CISCO1601	5979829	Router	1998	2	0	4	2	2	2.00
r1lkwilderness	CISCO1601	6003395	Router	1998	2	0	4	2	2	2.00
r1psnorthbend	CISCO1602	6043379	Router	1998	2	0	4	2	2	2.00
r1psbldpark	CISCO1602	6043442	Router	1998	2	0	4	2	2	2.00
spare (confirmed)	CISCO1602	6043527	Router	1998	2	0	4	2	2	2.00
r1pslakedolloff	CISCO1602	6043582	Router	1998	2	0	4	2	2	2.00
r1psatu	CISCO1602	6043583	Router	1998	2	0	4	2	2	2.00

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
r1pskingsgate	CISCO1602	6043596	Router	1998	2	0	4	2	2	2.00
	CISCO1602	6043942	Router	1998	2	0	4	2	2	2.00
r1pscovington	CISCO1602	6044117	Router	1998	2	0	4	2	2	2.00
r1streetcar	CISCO1602	6154200	Router	1998	2	0	4	2	2	2.00
r1psmaplevalley	CISCO1602	6223579	Router	1998	2	0	4	2	2	2.00
r1brynmawr	CISCO1602	7082440	Router	1998	2	0	4	2	2	2.00
r1bellevuetc	CISCO1602	7985121	Router	1998	2	0	4	2	2	2.00
r1phrentondent	CISCO1602	8299668	Router	1998	2	0	4	2	2	2.00
r1pprsunset	CISCO1602	8299674	Router	1998	2	0	4	2	2	2.00
r1phsoberceneter	CISCO1602	8299679	Router	1998	2	0	4	2	2	2.00
r1ppdkent	CISCO1602	8299686	Router	1998	2	0	4	2	2	2.00
r1pskenmore	CISCO1602	8300075	Router	1998	2	0	4	2	2	2.00
	CISCO1602	8300077	Router	1998	2	0	4	2	2	2.00
r1pscascadehomes	CISCO1602	8300082	Router	1998	2	0	4	2	2	2.00
r1pprsoos	CISCO1602	8300087	Router	1998	2	0	4	2	2	2.00
r1xlakeforesipark	CISCO1602	9241648	Router	1998	2	0	4	2	2	2.00
r1xtukwila	CISCO1602	9241660	Router	1998	2	0	4	2	2	2.00
r1dasasseatac	CISCO1602	9241667	Router	1998	2	0	4	2	2	2.00
r1xdesmoines	CISCO1602	9241683	Router	1998	2	0	4	2	2	2.00
r1pprsview	CISCO1602	9241696	Router	1998	2	0	4	2	2	2.00
r1pprjuanita	CISCO1602	9241703	Router	1998	2	0	4	2	2	2.00
r1xkirkland	CISCO1602	9241716	Router	1998	2	0	4	2	2	2.00
r1xauburn	CISCO1602	9241789	Router	1998	2	0	4	2	2	2.00
r1xissaquah	CISCO1602	9241916	Router	1998	2	0	4	2	2	2.00
r1xseaport	CISCO1602	9241928	Router	1998	2	0	4	2	2	2.00

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional		Useful		Network		Capacity		Agency Project	Replacement Index
					Criticality	25%	Life	25%	Reliability	25%	Planning	15%		
email/infra	WS-C2916M-XL	FAA0215S03Q	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
inet	WS-C2916M-XL	FAA0220U0EN	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat16bdystower	WS-C2924C-XL	FAA0230W0TV	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat2adystower	WS-C2924C-XL	FAA0230X0XT	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat4adystower	WS-C2924C-XL	FAA0230Z0VF	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
kcch	WS-C2924C-XL	FAA0231W049	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat1kcch3w	WS-C2924C-XL	FAA0231W04B	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
kcch	WS-C2924C-XL	FAA0231W04F	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat1bdystower	WS-C2924C-XL	FAA0231W06C	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
kcch	WS-C2924C-XL	FAA0231X040	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat1kcch7w	WS-C2924C-XL	FAA0231X049	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
kcch	WS-C2924C-XL	FAA0231X04Q	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat1kcch8w	WS-C2924C-XL	FAA0231X04S	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat7adystower	WS-C2924C-XL	FAA0231X07A	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat1kcch7e	WS-C2924C-XL	FAA0231Y04M	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
kcch	WS-C2924C-XL	FAA0231Z04R	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat5adystower	WS-C2924C-XL	FAA0231Z04T	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat3adystower	WS-C2924C-XL	FAA0231Z04W	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat6adystower	WS-C2924C-XL	FAA0231Z06T	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat6adystower	WS-C2924C-XL	FAA0231Z075	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat6adystower	WS-C2924C-XL	FAA0238U13N	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat6adystower	WS-C2924C-XL	FAA0238W124	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
cat6adystower	WS-C2924C-XL	FAA0238Y140	Switch	1998	2	0	4	2	4	2	2	2	2	2.00
r1deaeast	CISCO1602	JAB02474166	Router	1998	2	0	4	2	4	2	2	2	2	2.00
r1pprwesthill	CISCO1602	JAB0247416K	Router	1998	2	0	4	2	4	2	2	2	2	2.00

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
r1xparatrans	CISCO1602	JAB031550LB	Router	1998	2	0	4	2	2	2.00
r1pprscpool	CISCO1602	JAB031550LP	Router	1998	2	0	4	2	2	2.00
r1xbellevue	CISCO1602	JAB0316426V	Router	1998	2	0	4	2	2	2.00
r1kcfairgrounds	CISCO1601	TBD	Router	1998	2	0	4	2	2	2.00
	WS-C2924-XL-EN	FAA0302J05B	Switch	1997	2	-1	5	2	2	2.00
	WS-C2924-XL-EN	FAA0302J05H	Switch	1997	2	-1	5	2	2	2.00
	WS-C2924-XL-EN	FAA0302J05K	Switch	1997	2	-1	5	2	2	2.00
	WS-C2924-XL-EN	FAA0302J05R	Switch	1997	2	-1	5	2	2	2.00
	WS-C2924-XL-EN	FAA0302L00K	Switch	1997	2	-1	5	2	2	2.00
	WS-C2924-XL-EN	FAA0302T0LN	Switch	1997	2	-1	5	2	2	2.00
	Eagle		App Server	1998	1	-1	6	2	2	2.00
r1pwcentral	CISCO4500	45512151	Switch	1996	2	-2	6	2	2	2.00
			Network Mgmt	1997	3	-3	6	2	2	2.00
Penn	Firewall	8A003555697	Firewall	2000	1	2	5	1	1	2.25
Teller	Firewall	8A003555699	Firewall	2000	1	2	5	1	1	2.25
NOCLEAD	Compaq 500	D920CFX10001	Network Mgmt	1999	1	1	6	1	1	2.25
	Keyimc	D847BX560510	Email Server	1999	2	0	6	1	1	2.25
	Support	D945CP31H088	Email Server	1999	2	0	6	1	1	2.25
	Kcmail	D945CP31K098	Email Server	1999	2	0	6	1	1	2.25
	Kcowa	D945CP31K101	Email Server	1999	2	0	6	1	1	2.25
	Kclist	D945CP31K119	Email Server	1999	2	0	6	1	1	2.25
	WS-C5505-S3TX	66507670	Switch	1999	2	1	4	2	2	2.25
	WS-C5509-S3	67502062	Switch	1999	2	1	4	2	2	2.25
	WS-C5509-S3	67502537	Switch	1999	2	1	4	2	2	2.25
	WS-C5509-S3	67502688	Switch	1999	2	1	4	2	2	2.25

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	+ 25%	+ 15%	+ 10%	=
	WS-C5509-S3	67502969	Switch	1999	2	1	4	2	2	2.25
	WS-C5509-S3	67505586	Switch	1999	2	1	4	2	2	2.25
	WS-C5509-S3	67505612	Switch	1999	2	1	4	2	2	2.25
	WS-C5500-S3	69043351	Switch	1999	2	1	4	2	2	2.25
	WS-C2924M-XL-EN	FAA0303U03V	Switch	1999	2	1	4	2	2	2.25
	WS-C3016A	6061316	Switch	1998	2	0	5	2	2	2.25
	WS-C3016A	6061319	Switch	1998	2	0	5	2	2	2.25
rjc	WS-C3016A	6470337	Switch	1998	2	0	5	2	2	2.25
rjc	WS-C3016A	6470411	Switch	1998	2	0	5	2	2	2.25
rjc	WS-C3016A	6470413	Switch	1998	2	0	5	2	2	2.25
rjc	WS-C3016A	6470417	Switch	1998	2	0	5	2	2	2.25
rjc	WS-C3016A	6470473	Switch	1998	2	0	5	2	2	2.25
rjc	WS-C3016A	6470476	Switch	1998	2	0	5	2	2	2.25
rjc	WS-C3016A	6470481	Switch	1998	2	0	5	2	2	2.25
rjc	WS-C3016A	6470483	Switch	1998	2	0	5	2	2	2.25
	CISCO7513	73013337	Router	1998	2	0	5	2	2	2.25
	DS/20		App Server	1999	1	0	6	2	2	2.25
			Network Mgmt	1998	3	-2	6	2	2	2.25
			Network Mgmt	1998	3	-2	6	2	2	2.25
	Kemail1	D733BLC10114	Email Server	2000	2	1	6	1	1	2.50
	Kemail3	D734BLC10090	Email Server	2000	2	1	6	1	1	2.50
	Kemailx	D738BLC10073	Email Server	2000	2	1	6	1	1	2.50
	Kemail2	D739BLC10524	Email Server	2000	2	1	6	1	1	2.50
	Kemail4	D739BLC10531	Email Server	2000	2	1	6	1	1	2.50
	Kcirms	D847BX560332	Email Server	2000	2	1	6	1	1	2.50

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
	No Name Yet		Email Server	2000	2	1	6	1	1	2.50
	No Name Yet		Email Server	2000	2	1	6	1	1	2.50
	No Name Yet		Email Server	2000	2	1	6	1	1	2.50
	No Name Yet		Email Server	2000	2	1	6	1	1	2.50
kcjail	WS-C2924-XL-EN	FAA0301S01M	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302U05Q	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302U0L1	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302U0L2	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302U0L4	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302U0L5	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302V0LA	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302W0K2	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302W0K8	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302X029	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302X09R	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302X0LH	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302X0LL	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302X0LE	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302Y0M1	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302Y0M5	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302Y0M6	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302Z0KK	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0302Z0MT	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0303X049	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	FAA0303Y04B	Switch	1999	2	1	5	2	2	2.50

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
	WS-C2924-XL-EN	FAA0303Z04J	Switch	1999	2	1	5	2	2	2.50
	WS-C4003-S1	HAD03031372	Switch	1999	2	1	5	2	2	2.50
	WS-C4003-S1	HAD03031402	Switch	1999	2	1	5	2	2	2.50
	WS-C4003-S1	HAD03031971	Switch	1999	2	1	5	2	2	2.50
	WS-C4003-S1	HAD03032025	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	TBD	Switch	1999	2	1	5	2	2	2.50
	WS-C2924-XL-EN	TBD	Switch	1999	2	1	5	2	2	2.50
	Exchpilot	D937DDL1A116	App Server	2000	1	1	6	2	2	2.50
	Application Server		App Server	2000	1	1	6	2	2	2.50
	WS-C3016	5460445	Switch	1998	2	0	6	2	2	2.50
	WS-C3016	5460984	Switch	1998	2	0	6	2	2	2.50
	WS-C3020	6061316	Switch	1998	2	0	6	2	2	2.50
rfc	WS-C3020	6061319	Switch	1998	2	0	6	2	2	2.50
gis	WS-C3016	6470201	Switch	1998	2	0	6	2	2	2.50
infra	WS-C3200B	7080885	Switch	1998	2	0	6	2	2	2.50
transit	WS-C3200B	7370851	Switch	1998	2	0	6	2	2	2.50
	WS-C1924-A	TBD	Switch	1998	2	0	6	2	2	2.50
	WS-C1924-A	TBD	Switch	1998	2	0	6	2	2	2.50
			Network Mgmt	1999	3	-1	6	2	2	2.50
			Network Mgmt	1999	3	-1	6	2	2	2.50
			Network Mgmt	1999	3	-1	6	2	2	2.50
			Network Mgmt	1999	3	-1	6	2	2	2.50
s1rjcgx	L1010-BASE5	68002377	Other Equip	1996	4	-2	6	2	2	2.50
	Media Server		Server	1997	4	-2	6	2	2	2.50
	Media Server		Server	1997	4	-2	6	2	2	2.50

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality + 25%	Useful Life + 25%	Network Reliability + 25%	Capacity Planning + 15%	Agency Project + 10%	Replacement Index
			Other Equip	1996	4	-2	6	2	2	2.50
		SCA050801PN	Switch	2000	2	2	5	2	2	2.75
	ES/40		App Server	2001	1	2	6	2	2	2.75
	WS-C2924-XL-5PACK	BUNDLE5479284	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD00361145	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD00361157	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD00361161	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD00361172	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD00361174	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD00361183	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD00361185	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD00361213	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD00361216	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD03031379	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD03031394	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD03031400	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD03031410	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD03031969	Switch	1999	2	1	6	2	2	2.75
	WS-C4003-S1-82	HAD03031973	Switch	1999	2	1	6	2	2	2.75
			Network Mgmt	2000	3	0	6	2	2	2.75
	Intranet Server		Server	1998	4	-1	6	2	2	2.75
	Internet Server		Server	1998	4	-1	6	2	2	2.75
	Internet Server		Server	1998	4	-1	6	2	2	2.75
	Internet Server		Server	1998	4	-1	6	2	2	2.75

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality 25%	Useful Life 25%	Network Reliability 25%	Capacity Planning 15%	Agency Project 10%	Replacement Index
	Intranet Server		Server	1998	4	-1	6	2	2	2.75
	Intranet Server		Server	1998	4	-1	6	2	2	2.75
		67534612	Switch Router	2000	2	2	6	2	2	3.00
			Switch	2000	2	2	6	2	2	3.00
	Intranet Server		Server	1999	4	0	6	2	2	3.00
	Intranet Server		Server	1999	4	0	6	2	2	3.00
	Intranet Server		Server	1999	4	0	6	2	2	3.00
	Intranet Server		Server	1999	4	0	6	2	2	3.00
	Internet Server		Server	1999	4	0	6	2	2	3.00
	UPS		Other Equip	1998	4	0	6	2	2	3.00
	UPS		Other Equip	1998	4	0	6	2	2	3.00
	UPS		Other Equip	1998	4	0	6	2	2	3.00
	UPS		Other Equip	1998	4	0	6	2	2	3.00
s1dys	L1010-BASE5	68000799	Other Equip	1999	4	1	6	2	2	3.25
s1keytower	L1010-BASE5	68000805	Other Equip	1999	4	1	6	2	2	3.25
s1exchange	L1010-BASE5	68000887	Other Equip	1999	4	1	6	2	2	3.25
s1koch	L1010-BASE5	68000889	Other Equip	1999	4	1	6	2	2	3.25
	Kcrestore	D937DDL1A114	Server	2000	4	1	6	2	2	3.25
	Test Box	D943DDL2K036	Server	2000	4	1	6	2	2	3.25
	Internet Server		Server	2000	4	1	6	2	2	3.25
	Intranet Server		Server	2000	4	1	6	2	2	3.25
	Staging Server		Server	2000	4	1	6	2	2	3.25
	Storage Server		Server	2000	4	1	6	2	2	3.25
	Storage		Other Equip	2000	4	2	6	2	2	3.50
	Tape System/Tapes		Other Equip	2001	4	3	6	2	2	3.75
SPARE	CISCO1005	2400994	Router	1996						

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
SPARE	CISCO1601	5174248	Router	1998						
SPARE	CISCO1602	6043584	Router	1998						
SPARE	CISCO1602	6043960	Router	1998						
SPARE	CISCO1602	6044114	Router	1998						
SPARE	CISCO1602	6044129	Router	1998						
SPARE	CISCO1602	6044196	Router	1998						
SPARE	CISCO1602	8299682	Router	1998						
SPARE	CISCO2503	25052791	Router	1996						
SPARE	CISCO2501	25094853	Router	1996						
SPARE	CISCO2501	25102119	Router	1996						
SPARE	CISCO2503	25332528	Router	1996						
SPARE	CISCO2514	25366173	Router	1996						
SPARE	CISCO2514	25368703	Router	1996						
SPARE	CISCO2501	25441504	Router	1996						
SPARE	CISCO2514	25587774	Router	1996						
SPARE	CISCO2514	25639548	Router	1996						
SPARE	CISCO4500-M	45500409	Switch	1996						
SPARE	CISCO4500-M	45512160	Switch	1996						
SPARE	CISCO4500-M	45512689	Switch	1996						
SPARE	CISCO4700-M	47017523	Router	1996						
SPARE	CISCO7000	77009621	Router	1996						
SPARE	CISCO 2900	FAA0348U042	Switch	1999						
SPARE	WS-C2924C-XL-EN	FAB0517W2AA	Switch	1998						
SPARE	cisco2948G	FOX04467158	Switch	1999						
SPARE	WS-C4003-S1	HAD03031882	Switch	1999						

Node Name	Item Name	Serial Number	Equipment Class	Year	Functional Criticality	Useful Life	Network Reliability	Capacity Planning	Agency Project	Replacement Index
					25%	25%	25%	15%	10%	
SPARE	CISCO1005	2398129	Router	1996						
SPARE	cisco1005	2047943	Router	1995						
SPARE	cat3000	6380711	Switch	1996						
SPARE	2501	25094855	Router	1996						
SPARE	cisco4000	44518800	Router	1996						
SPARE	cisco4000	44519958	Router	1996						
SPARE	cisco4500	45512143	Switch	1996						
SPARE	cisco4500	45537207	Switch	1996						
SPARE	Cisco 4000	45558484	Router	1996						
SPARE	CHAS-7010	50002153	Router	1996						
SPARE	cisco1602	JAB032132GR	Router	1998						
SPARE	cisco1720	JAB04373141	Router	2000						

APPENDIX C

**DEPRECIATION SCHEDULE – INFRASTRUCTURE
BY MAILBOX**

INFRASTRUCTURE BY MAILBOX

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depr	Depr	Depr	Depr	Depr	Depr	Depr	Depr	Depr	Depr	Total
D937DDL1A116	COMPAQ 3000	Application Server	2000	\$ 15,000	4		\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 15,000
D847BX560332	COMPAQ 6500	Email Server	2000	\$ 50,000	4		\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 50,000
D945CP31K119	COMPAQ 6500	Email Server	1999	\$ 50,000	4	\$12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 50,000
D945CP31K098	COMPAQ 6500	Email Server	1999	\$ 50,000	4	\$12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 50,000
D733BLC10114	COMPAQ 7000	Email Server	2000	\$ 75,000	4		\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 75,000
D739BLC10624	COMPAQ 7000	Email Server	2000	\$ 75,000	4		\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 75,000
D734BLC10090	COMPAQ 7000	Email Server	2000	\$ 75,000	4		\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 75,000
D739BLC10531	COMPAQ 7000	Email Server	2000	\$ 75,000	4		\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 75,000
D738BLC10073	COMPAQ 7000	Email Server	2000	\$ 75,000	4		\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 18,750	\$ 75,000
D945CP31K101	COMPAQ 6500	Email Server	1999	\$ 50,000	4	\$12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 50,000
D847BX560510	COMPAQ 6500	Email Server	1999	\$ 50,000	4	\$12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 50,000
D945CP31H088	COMPAQ 6500	Email Server	1999	\$ 50,000	4	\$12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 50,000
D937DDL1A114	COMPAQ 3000	Server	2000	\$ 20,000	4		\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 20,000
D943DDL2K036	COMPAQ 3000	Server	2000	\$ 15,000	4		\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 15,000
				\$ 725,000		\$62,500	\$ 181,250	\$ 181,250	\$ 181,250	\$ 181,250	\$ 181,250	\$ 181,250	\$ 181,250	\$ 181,250	\$ 725,000

APPENDIX D

**DEPRECIATION SCHEDULE – INFRASTRUCTURE
BY FTE (WAN & Networks)**

INFRASTRUCTURE BY FTE (WAN & NETWORKS)

Serial Number	DESCRIPTION	Equipment		Year	Cost	Accum. Dep.				Total
		Class	Class			2002	2003	2004	2005	
77017248	Cisco7000 SYSTEM,P/S&RP	Core Router	Core Router	1996	\$5,000	\$5,000				\$5,000
77021665	Cisco7000 SYSTEM,P/S&RP	Core Router	Core Router	1996	\$5,000	\$5,000				\$5,000
77009711	Cisco 7000 System,P/S,RP, &SSP	Core Router	Core Router	1996	\$5,000	\$5,000				\$5,000
76023935	Cisco 7507 7-SLOT, 2 CYBUS, 1 RSP2, 1 AC SPLY	Core Router	Core Router	1998	\$82,000	\$65,600	\$16,400			\$82,000
73013341	Cisco 7513 13-SLOT, 2 CYBUS, 1 RSP2, 1 AC SPLY	Core Router	Core Router	1998	\$120,000	\$96,000	\$24,000			\$120,000
69043337	WS-C5500 Chas. NetFlow Swrg Sup Eng III, AC P/S	Core Switch	Core Switch	1999	\$48,000	\$28,800	\$9,600	\$9,600		\$48,000
	ADC Kentrox Data Smart DSU/CSUs (52 units @ \$1100)	Network Management	Network Management	1996	\$57,200	\$57,200				\$57,200
	Fluke Cable Tester	Network Management	Network Management	1998	\$10,000	\$10,000				\$10,000
	Fluke Cable Tester	Network Management	Network Management	1999	\$2,000	\$2,000				\$2,000
	Network General Sniffer (Dolch)	Network Management	Network Management	1996	\$30,000	\$30,000				\$30,000
	Network General Sniffer (Fieldworks)	Network Management	Network Management	1997	\$22,000	\$22,000				\$22,000
	Network Management Station and Software (Sun Ultra and CWSI)	Network Management	Network Management	1999	\$45,000	\$45,000				\$45,000
	NOC PCs (2)	Network Management	Network Management	1999	\$8,000	\$8,000				\$8,000
	Optical Time Domain Reflectometer	Network Management	Network Management	1998	\$30,000	\$30,000				\$30,000
	Time Domain Reflectometer	Other Equipment	Other Equipment	1996	\$8,000	\$8,000				\$8,000
2044072	Cisco1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	Router	1997	\$2,000	\$2,000				\$2,000
2044316	Cisco1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	Router	1997	\$2,000	\$2,000				\$2,000
2055941	Cisco1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	Router	1997	\$2,000	\$2,000				\$2,000
2060103	Cisco1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	Router	1997	\$2,000	\$2,000				\$2,000
2777795	Cisco 2500 1E2T ROUTER	Router	Router	1996	\$2,000	\$2,000				\$2,000
2389094	Cisco1005 ACCESS SERVER	Router	Router	1996	\$2,000	\$2,000				\$2,000
2398129	Cisco1005 ACCESS SERVER	Router	Router	1996	\$2,000	\$2,000				\$2,000
2398272	Cisco1005 ACCESS SERVER	Router	Router	1996	\$2,000	\$2,000				\$2,000
2400324	Cisco1005 ACCESS SERVER	Router	Router	1996	\$2,000	\$2,000				\$2,000
2400367	Cisco1005 ACCESS SERVER	Router	Router	1996	\$2,000	\$2,000				\$2,000
2400384	Cisco1005 ACCESS SERVER	Router	Router	1996	\$2,000	\$2,000				\$2,000
2400487	Cisco1005 ACCESS SERVER	Router	Router	1996	\$2,000	\$2,000				\$2,000

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Accum. Depr.				Total
					2002	2003	2004	2005	
2400680	Cisco 1005 ACCESS SERVER	Router	1996	\$2,000	\$2,000				\$2,000
2400994	Cisco 1005 ACCESS SERVER	Router	1996	\$2,000	\$2,000				\$2,000
3317347	Cisco 1005 ACCESS SERVER	Router	1996	\$2,000	\$2,000				\$2,000
5174248	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$1,920	\$480			\$2,400
5978950	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$1,920	\$480			\$2,400
5979320	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$1,920	\$480			\$2,400
5979829	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$1,920	\$480			\$2,400
6003395	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$1,920	\$480			\$2,400
TBD	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$1,920	\$480			\$2,400
5946244	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6043379	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6043442	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6043527	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6043582	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6043583	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6043584	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6043586	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6043942	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6043980	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6044114	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6044117	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6044129	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6044196	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6154200	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
6223579	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
7082440	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
7985121	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
8299668	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740
8299674	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748			\$3,740

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Accum Dep			Total
					2002	2003	2004	
8299679	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
8299682	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
8299686	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
8300075	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
8300077	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
8300082	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
8300087	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241648	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241660	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241667	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241683	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241696	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241703	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241716	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241789	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241916	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
9241928	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
JAB02474166	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
JAB0247416K	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
JAB031550LB	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
JAB031550LP	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
JAB0316426V	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$2,992	\$748		\$3,740
25049102	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750			\$2,750
25094843	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750			\$2,750
25094847	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750			\$2,750
25094849	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750			\$2,750
25094851	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750			\$2,750
25094853	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750			\$2,750
25102113	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750			\$2,750

Serial Number	DESCRIPTION	Class	Year	Cost	Equipment				Total
					Accum	Depr	Depr	Depr	
					2002	2003	2004	2005	
25102115	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25102117	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25102119	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25227972	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25441500	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25441504	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25441506	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25441512	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25441514	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25441516	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25441518	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25441538	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
TBD	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$2,750				\$2,750
25052789	Cisco 2500 1E2T1B ROUTER	Router	1996	\$3,250	\$3,250				\$3,250
25052791	Cisco 2500 1E2T1B ROUTER	Router	1996	\$3,250	\$3,250				\$3,250
25332528	Cisco 2500 1E2T1B ROUTER	Router	1996	\$3,250	\$3,250				\$3,250
25332530	Cisco 2500 1E2T1B ROUTER	Router	1996	\$3,250	\$3,250				\$3,250
25095461	Cisco 2500 1E1R2T	Router	1996	\$3,950	\$3,950				\$3,950
25243576	Cisco 2500 1E1R2T	Router	1996	\$3,950	\$3,950				\$3,950
25247198	Cisco 2500 1E1R2T	Router	1996	\$3,350	\$3,350				\$3,350
25094845	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350				\$3,350
25107203	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350				\$3,350
25245721	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350				\$3,350
25250792	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350				\$3,350
25323018	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350				\$3,350
25323020	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350				\$3,350
25323022	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350				\$3,350
25323024	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350				\$3,350
25326235	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350				\$3,350

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Accum. Depr.			Total
					2002	2003	2004	
25326237	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25327658	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25338132	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25338177	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25338179	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25338181	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25366173	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25368703	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25368705	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25368742	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25369317	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25503550	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25587699	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25587765	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25587767	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25587769	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25587772	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25587774	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25628596	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25636808	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25639548	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
25693301	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
250226629	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
TBD	Cisco 2500 2E2T	Router	1996	\$3,350	\$3,350			\$3,350
250019782	Cisco2524 ETHERNET/MODULAR 3-PORT SERIAL ROUTER	Router	1996	\$2,750	\$2,750			\$2,750
47017523	Cisco 4700-M MODULAR ROUTER-AC	Router	1996	\$25,000	\$25,000			\$25,000
77009621	Cisco7000 SYSTEM,P/S&R/P	Router	1996	\$5,000	\$5,000			\$5,000
77009960	Cisco7000 SYSTEM,P/S&R/P	Router	1996	\$5,000	\$5,000			\$5,000
77017247	Cisco7000 SYSTEM,P/S&R/P	Router	1996	\$5,000	\$5,000			\$5,000

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Account/Depr				Total
					2002	2003	2004	2005	
77017267	Cisco7000 SYSTEM,P/S&RP	Router	1996	\$5,000	\$5,000				\$5,000
070010W	Cisco7000 SYSTEM,P/S&RP	Router	1996	\$5,000	\$5,000				\$5,000
77007527	Cisco 7000 System,P/S,RP,&SSP	Router	1996	\$5,000	\$5,000				\$5,000
73013337	Cisco 7513 13-SLOT, 2 CYBUS, 1 RSP2, 1 AC SPLY	Router	1998	\$120,000	\$96,000	\$24,000			\$120,000
44504915	Modular Multiprotocol Router	Router Card	1996	\$13,360	\$13,360				\$13,360
44504916	Modular Multiprotocol Router	Router Card	1996	\$13,360	\$13,360				\$13,360
44504917	Modular Multiprotocol Router	Router Card	1996	\$13,360	\$13,360				\$13,360
44509319	Modular Multiprotocol Router	Router Card	1996	\$13,360	\$13,360				\$13,360
44519273	Modular Multiprotocol Router	Router Card	1996	\$13,360	\$13,360				\$13,360
44547433	TOPASY,Cisco4000,MEMORY+	Switch	1996	\$13,360	\$13,360				\$13,360
45512151	OBS-TOPASY, Cisco 4500	Switch	1996	\$13,360	\$13,360				\$13,360
45500211	TOPASY, Cisco4500-M	Switch	1996	\$13,360	\$13,360				\$13,360
45500408	TOPASY, Cisco4500-M	Switch	1996	\$13,350	\$13,360				\$13,360
45500409	TOPASY, Cisco4500-M	Switch	1996	\$13,360	\$13,360				\$13,360
45512144	TOPASY, Cisco4500-M	Switch	1996	\$13,360	\$13,360				\$13,360
45512157	TOPASY, Cisco4500-M	Switch	1996	\$3,350	\$3,350				\$3,350
45512160	TOPASY, Cisco4500-M	Switch	1996	\$3,350	\$3,350				\$3,350
45512456	TOPASY, Cisco4500-M	Switch	1996	\$13,360	\$13,360				\$13,360
45512459	TOPASY, Cisco4500-M	Switch	1996	\$3,350	\$3,350				\$3,350
45512461	TOPASY, Cisco4500-M	Switch	1996	\$13,360	\$13,360				\$13,360
45512467	TOPASY, Cisco4500-M	Switch	1996	\$13,360	\$13,360				\$13,360
45512689	TOPASY, Cisco4500-M	Switch	1996	\$3,350	\$3,350				\$3,350
45519096	TOPASY, Cisco4500-M	Switch	1996	\$3,350	\$3,350				\$3,350
45519097	TOPASY, Cisco4500-M	Switch	1996	\$3,350	\$3,350				\$3,350
45519098	TOPASY, Cisco4500-M	Switch	1996	\$3,350	\$3,350				\$3,350
WSC1900PS6003434	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480			\$2,400
WSC1900PS6026261	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480			\$2,400
WSC1900PS6026283	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480			\$2,400
WSC1900PS6026314	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480			\$2,400

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Accum. Depr.					Total
					2002	2003	2004	2005	2005	
WSC1900P56030890	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900P56034071	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900P56034102	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900P56036862	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900CJ7002819	Catalyst 1900 24 10BaseT, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900CJ7002934	Catalyst 1900 24 10BaseT, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900CJ7002981	Catalyst 1900 24 10BaseT, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900CJ7002998	Catalyst 1900 24 10BaseT, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900CJ7003003	Catalyst 1900 24 10BaseT, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900CJ7003011	Catalyst 1900 24 10BaseT, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900CJ7003014	Catalyst 1900 24 10BaseT, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900CJ7003021	Catalyst 1900 24 10BaseT, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
WSC1900CJ7003039	Catalyst 1900 24 10BaseT, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0149X0BK	12 Port 10Mb Switch 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0215U057	12 Port 10Mb Switch 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
TBD	24 Port 10Mb Switch W/2 100BaseTX Ports, Ent Ed Upgradable	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
TBD	24 Port 10Mb Switch W/2 100BaseTX Ports, Ent Ed Upgradable	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0144Y038	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0144Y03E	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0144Z033	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0150W09Y	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA02225004	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0224V0ND	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0224X0GQ	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0226Y0YG	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0227V09X	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	\$2,400	\$1,920	\$480				\$2,400
FAA0215S03Q	16-Port 10/100 FE Switch With 2 Uplink Slots	Switch	1998	\$2,636	\$2,108	\$528				\$2,636
FAA0220U0EN	16-Port 10/100 FE Switch With 2 Uplink Slots	Switch	1998	\$2,636	\$2,108	\$528				\$2,636
FAA0230W0TV	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528				\$2,636

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Accum. Depr.				Total
					2002	2003	2004	2005	
FAA0233X0XT	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0233Z0VF	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231W049	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231W04B	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231W04F	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231W06C	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231X040	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231X049	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231X04Q	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231X04S	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231X07A	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231Y04M	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231Z04R	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231Z04T	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231Z04W	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231Z06T	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0231Z075	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0238U13N	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0238W124	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0238Y140	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
FAA0303U03V	24-port 10/100 Switch w/Two Module Slots (Enterprise Edition)	Switch	1999	\$2,636	\$2,108	\$528			\$2,636
FAA0223U06M	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636
FAA0223U06N	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636
FAA0223V06G	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636
FAA0229X0KN	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636
FAA0229Y0K4	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636
FAA0229Z0K3	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636
FAA0229Z0K6	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636
FAA0231N01Y	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Accum Dep			Depr		Total
					2002	2003	2004	2005		
FAA0231N022	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636	
FAA0231P02H	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636	
FAA0231P02J	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636	
FAA0231P02V	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$2,108	\$528			\$2,636	
FAA0231W00L	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0231W02J	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0231X00Q	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0231X00S	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0231X026	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0231Y035	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0231Z00J	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0235Y0N1	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0237W0G7	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0237W0GH	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0237Z0HZ	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0241Y0LA	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0246T08U	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0246Y0CP	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0247W0FY	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0247W0GK	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0247X0L8	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0247Y0HH	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0247Y0J1	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0247Y0J5	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0247Z0HY	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0250S06X	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0250T05C	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0250V057	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	
FAA0250V06H	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636	

Serial Number	DESCRIPTION	Equipment		Accum. Dep.		Dep.		Dep.		Total
		Class	Year	Cost	2002	2003	2004	2005		
FAA0251W0E5	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0251W0EF	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
BUNDLE5479284	5 Catalyst 2924-XL Switches	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302J05B	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302J05H	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1997	\$2,636	\$2,636				\$2,636	
FAA0302J05K	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1997	\$2,636	\$2,636				\$2,636	
FAA0302J05R	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1997	\$2,636	\$2,636				\$2,636	
FAA0302L00K	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1997	\$2,636	\$2,636				\$2,636	
FAA0301S01M	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302T0LN	rw-port 10/100 Switch (Enterprise Edition)	Switch	1997	\$2,636	\$2,636				\$2,636	
FAA0302U05Q	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302U0L1	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302U0L2	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302U0L4	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302U0L5	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302V0LA	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302W0K2	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302W0K8	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302X029	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302X09R	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302X0LH	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302X0LL	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302X0LE	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302Y0M1	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	
FAA0302Y0M5	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527	\$527	\$2,636	

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Accum. Depr.				Total
					2002	2003	2004	2005	
FAA0302Y0M6	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636
FAA0302Z0KK	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636
FAA0302Z0MT	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636
FAA0303X049	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636
FAA0303Y04B	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636
FAA0303Z04J	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636
TBD	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636
TBD	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$1,581	\$528	\$527		\$2,636
5460445	CATALYST 3000, 6K, SNMP, STP	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
5460984	CATALYST 3000, 6K, SNMP, STP	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6470201	CATALYST 3000, 6K, SNMP, STP	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6061316	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6061319	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6470337	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6470411	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6470413	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6470417	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6470473	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6470476	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6470481	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6470483	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6480759	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6480986	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
7080651	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
7080885	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
7081160	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
7120421	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
7150334	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
7200855	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$2,108	\$528			\$2,636

Serial Number	DESCRIPTION	Class	Year	Cost	Accum. Depr.				Total
					2002	2003	2004	2005	
6061316	CATALYST MATRIX	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
6061319	CATALYST MATRIX	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
7080885	Catalyst 3200 Switch, Chassis+Supervisor, 8MB, RMON, Enh SW	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
7370851	Catalyst 3200 Switch, Chassis+Supervisor, 8MB, RMON, Enh SW	Switch	1998	\$2,636	\$2,108	\$528			\$2,636
HAD03031372	Cat4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$7,560	\$2,520	\$2,520		\$12,600
HAD03031402	Cat4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$7,560	\$2,520	\$2,520		\$12,600
HAD03031882	Cat4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$7,560	\$2,520	\$2,520		\$12,600
HAD03031971	Cat4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$7,560	\$2,520	\$2,520		\$12,600
HAD03032025	Catalyst 4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$7,560	\$2,520	\$2,520		\$12,600
HAD00361145	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD00361157	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD00361161	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD00361172	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD00361174	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD00361183	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD00361185	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD00361213	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD00361216	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD03031379	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD03031394	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD03031400	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD03031410	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD03031989	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
HAD03031973	Catalyst 4003 chassis, AC P/S, Sup, Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$8,700	\$2,900	\$2,900		\$14,500
69005354	Catalyst 5500 Chassis - Requires Power Supply Option	Switch	1999	\$48,000	\$28,800	\$9,600	\$9,600		\$48,000
69043351	WS-C5500 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$48,000	\$28,800	\$9,600	\$9,600		\$48,000
66507670	WS-C5505 Chas, Sup III w/2-port UTP FEC UL, AC P/S	Switch	1999	\$48,000	\$28,800	\$9,600	\$9,600		\$48,000
67502062	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$48,000	\$16,000	\$16,000		\$80,000
67502537	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$48,000	\$16,000	\$16,000		\$80,000

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Accum. Depr.				Total
					2002	2003	2004	2005	
67502688	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$48,000	\$16,000	\$16,000	\$80,000	
67502969	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$48,000	\$16,000	\$16,000	\$80,000	
67505586	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$48,000	\$16,000	\$16,000	\$80,000	
67505612	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$48,000	\$16,000	\$16,000	\$80,000	
	Cisco Catalyst 5509	Switch	2000	\$50,000	\$20,000	\$10,000	\$10,000	\$50,000	
SCA050801PN	Cisco Catalyst 6500	Switch	2000	\$100,000	\$40,000	\$20,000	\$20,000	\$100,000	
66033099	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$14,500			\$14,500	
66033102	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$14,500			\$14,500	
66033112	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$14,500			\$14,500	
66033115	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$14,500			\$14,500	
66033116	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$14,500			\$14,500	
66033125	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$14,500			\$14,500	
66005243	CATALYST 5000-CHAS, SPRVSR, PS	Switch Router	1997	\$14,500	\$14,500			\$14,500	
66029170	CATALYST 5000-CHAS, SPRVSR, PS	Switch Router	1997	\$14,500	\$14,500			\$14,500	
67534612	Cisco Catalyst 5510	Switch Router	2000	\$50,000	\$20,000	\$10,000	\$10,000	\$50,000	
	Network Monitoring station and Software (Sun Clone and Network Health)	Network Management	1999	Unknown				\$0	
68000799	LightStream 1010 Base Configuration, AC Power	Other Equipment	1999	\$27,400	\$16,440	\$5,480	\$5,480	\$27,400	
68000805	LightStream 1010 Base Configuration, AC Power	Other Equipment	1999	\$49,080	\$29,448	\$9,816	\$9,816	\$49,080	
68000887	LightStream 1010 Base Configuration, AC Power	Other Equipment	1999	\$49,080	\$29,448	\$9,816	\$9,816	\$49,080	
68000889	LightStream 1010 Base Configuration, AC Power	Other Equipment	1999	\$46,480	\$27,888	\$9,296	\$9,296	\$46,480	
68002377	LightStream 1010 Base Configuration, AC Power	Other Equipment	1996	\$36,000	\$36,000			\$36,000	
	APC 1000RM (20 units @ \$480)	Other Equipment	1998	\$9,600	\$7,680	\$1,920		\$9,600	
	APC 1250 (6 units @ \$600)	Other Equipment	1998	\$3,600	\$2,880	\$720		\$3,600	
	APC 1400RM (20 units @ \$600)	Other Equipment	1998	\$12,000	\$9,600	\$2,400		\$12,000	
	APC 2200RM (10 units @ \$800)	Other Equipment	1998	\$8,000	\$6,400	\$1,600		\$8,000	
66032997	Catalyst 5000 Chassis	Switch Router	1997	\$29,400	\$29,400			\$29,400	
66033097	Catalyst 5000 Chassis	Switch Router	1997	\$29,400	\$29,400			\$29,400	
D920CFX1001	Compaq-Firewall Management Console Server	Network Management	1999	\$8,700	\$8,700			\$8,700	
8A00355697	Nokia IP440	Core Firewall	2000	\$18,706	\$12,470	\$6,236		\$18,706	

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Accum. Depr.				Total
					2002	2003	2004	2005	
8A003555699	Nokia IP440	Core Firewall	2000	\$11,001	\$7,334	\$3,667			\$11,001
2047943	Cisco1005 ACCESS SERVER	Spare	1997	\$2,000	\$2,000				\$2,000
6380711	Cisco Catalyst 3000 Switch	Spare	1996	\$2,000	\$2,000				\$2,000
25094855	Cisco2500 IE2T Router	Spare	1996	\$2,750	\$2,750				\$2,750
44518800	Modular Multiprotocol Router	Spare	1996	\$3,350	\$3,350				\$3,350
44519958	Modular Multiprotocol Router	Spare	1996	\$3,350	\$3,350				\$3,350
45512143	TOPASY, Cisco4500-M	Spare	1996	\$3,350	\$3,350				\$3,350
45537207	TOPASY, Cisco4500-M	Spare	1996	\$3,350	\$3,350				\$3,350
45558484	Modular Multiprotocol Router	Spare	1996	\$3,350	\$3,350				\$3,350
50002153	Cisco7000 Chassis	Spare	1996	\$5,000	\$5,000				\$5,000
FAA0348J042	Cisco Switch 24 10/100 ports	Spare	1999	\$2,800	\$1,680	\$560	\$560		\$2,800
FAB0517W2AA	Cisco Switch 24 10/100 ports	Spare	1998	\$2,800	\$1,680	\$560	\$560		\$2,800
FOX04467158	Cisco Switch 48 10/100 ports	Spare	1999	\$2,400	\$1,440	\$480	\$480		\$2,400
JAB04373141	Cisco 1702 Router	Spare	2000	\$3,800	\$1,520	\$760	\$760		\$3,800
				\$3,252,185	\$2,455,972	\$458,683	\$296,780	\$760	\$3,252,195

**INFRASTRUCTURE BY FTE (WAN & NETWORKS)
ACCUMULATION OF DEPRECIATION 1997 - 2002**

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depr. 1997	Depr. 1998	Depr. 1999	Depr. 2000	Depr. 2001	Depr. 2002
77017248	Cisco7000 SYSTEM,P/S&RP	Core Router	1996	\$5,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$0
77021665	Cisco7000 SYSTEM,P/S&RP	Core Router	1996	\$5,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$0
77009711	Cisco 7000 System,P/S,RP,&SSP	Core Router	1996	\$5,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$0
76023935	Cisco 7507 7-SLOT, 2 CYBUS, 1 RSP2, 1 AC SPLY	Core Router	1998	\$82,000	\$0	\$0	\$16,400	\$16,400	\$16,400	\$16,400
73013941	Cisco 7513 13-SLOT, 2 CYBUS, 1 RSP2, 1 AC SPLY	Core Router	1998	\$120,000	\$0	\$0	\$24,000	\$24,000	\$24,000	\$24,000
69043337	WS-C5500 Chas, NetFlow Swng Sup Eng III, AC P/S	Core Switch	1999	\$48,000	\$0	\$0	\$0	\$9,600	\$9,600	\$9,600
	ADC Kentrox Data Smart DSU/CSUs (62 units @ \$1100)	Network Management	1996	\$57,200	\$11,440	\$11,440	\$11,440	\$11,440	\$11,440	\$0
	Fluke Cable Tester	Network Management	1998	\$10,000	\$0	\$0	\$3,333	\$3,333	\$3,334	
	Fluke Cable Tester	Network Management	1999	\$2,000	\$0	\$0	\$0	\$666	\$666	\$668
	Network General Sniffer (Dolch)	Network Management	1996	\$30,000	\$10,000	\$10,000	\$10,000			\$0
	Network General Sniffer (Fieldworks)	Network Management	1997	\$22,000	\$0	\$7,333	\$7,333	\$7,334		
	Network Management Station and Software (Sun Ultra and CWSI)	Network Management	1999	\$45,000	\$0	\$0	\$0	\$15,000	\$15,000	\$15,000
	NOC PCs (2)	Network Management	1999	\$8,000	\$0	\$0	\$0	\$2,666	\$2,666	\$2,668
	Optical Time Domain Reflectometer	Network Management	1998	\$30,000	\$0	\$0	\$10,000	\$10,000	\$10,000	
	Time Domain Reflectometer	Other Equipment	1996	\$8,000	\$1,600	\$1,600	\$1,600	\$1,600	\$1,600	\$0
2044072	Cisco1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	1997	\$2,000	\$0	\$400	\$400	\$400	\$400	\$400
2044316	Cisco1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	1997	\$2,000	\$0	\$400	\$400	\$400	\$400	\$400
2055941	Cisco1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	1997	\$2,000	\$0	\$400	\$400	\$400	\$400	\$400
2060103	Cisco1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	1997	\$2,000	\$0	\$400	\$400	\$400	\$400	\$400
2777795	Cisco 2500 1E2T ROUTER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$0
2398094	Cisco1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$0
2398129	Cisco1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$0
2398272	Cisco1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$0
2400324	Cisco1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$0
2400367	Cisco1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$0
2400394	Cisco1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$0

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Dep't						
					1997	1998	1999	2000	2001	2002	
2400487	Cisco 1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$400	\$0
2400680	Cisco 1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$400	\$0
2400994	Cisco 1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$400	\$0
3317347	Cisco 1005 ACCESS SERVER	Router	1996	\$2,000	\$400	\$400	\$400	\$400	\$400	\$400	\$0
5174248	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480	\$480
5978950	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480	\$480
5979320	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480	\$480
5979829	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480	\$480
6003395	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480	\$480
TBD	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480	\$480
5946244	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6043379	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6043442	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6043527	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6043582	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6043583	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6043584	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6043586	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6043942	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6043960	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6044114	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6044117	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6044129	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6044196	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6154200	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
6223579	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
7082440	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
7985121	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748
8299668	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748

Serial Number	DESCRIPTION	Equipment Class	Year	Cost					Depr.				
				1997	1998	1999	2000	2001	2002	1997	1998	1999	2000
8299674	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
8299679	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
8299682	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
8299686	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
8300075	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
8300077	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
8300082	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
8300087	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241648	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241660	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241667	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241683	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241696	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241703	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241716	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241789	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241916	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
9241928	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
JAB02474166	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
JAB0247416K	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
JAB031550LB	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
JAB031550LP	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
JAB0316426V	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	\$3,740	\$0	\$0	\$748	\$748	\$748	\$748	\$748	\$748	\$748
25049102	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25094843	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25094847	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25094849	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25094851	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25094853	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$0

Serial Number	DESCRIPTION	Class	Year	Cost	Equipment						
					1997	1998	1999	2000	2001	2002	
25102113	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25102115	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25102117	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25102119	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25227972	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25441500	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25441504	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25441506	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25441512	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25441514	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25441516	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25441518	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25441538	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
TBD	Cisco 2500 1E2T ROUTER	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$550	\$0
25052789	Cisco 2500 1E2T1B ROUTER	Router	1996	\$3,250	\$650	\$650	\$650	\$650	\$650	\$650	\$0
25052791	Cisco 2500 1E2T1B ROUTER	Router	1996	\$3,250	\$650	\$650	\$650	\$650	\$650	\$650	\$0
25332528	Cisco 2500 1E2T1B ROUTER	Router	1996	\$3,250	\$650	\$650	\$650	\$650	\$650	\$650	\$0
25332530	Cisco 2500 1E2T1B ROUTER	Router	1996	\$3,250	\$650	\$650	\$650	\$650	\$650	\$650	\$0
25095461	Cisco 2500 1E1R2T	Router	1996	\$3,950	\$790	\$790	\$790	\$790	\$790	\$790	\$0
25243576	Cisco 2500 1E1R2T	Router	1996	\$3,950	\$790	\$790	\$790	\$790	\$790	\$790	\$0
25247198	Cisco 2500 1E1R2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$670	\$0
25094845	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$670	\$0
25107203	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$670	\$0
25245721	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$670	\$0
25250792	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$670	\$0
25323018	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$670	\$0
25323020	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$670	\$0
25323022	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$670	\$0
25323024	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$670	\$0

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depreciation					
					1997	1998	1999	2000	2001	2002
25326235	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25326237	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25327658	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25336132	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25338177	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25338179	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25338181	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25366173	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25368703	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25368705	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25368742	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25369317	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25503550	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25587699	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25587765	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25587767	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25587769	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25587772	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25587774	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25628596	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25636808	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25639548	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
25693301	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
250226629	Cisco 2500 2E2T	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
TBD										
250019782	Cisco2524 ETHERNET/MODULAR 3-PORT SERIAL ROUTER	Router	1996	\$3,350	\$670	\$670	\$670	\$670	\$670	\$0
47017523	Cisco 4700-M MODULAR ROUTER-AC	Router	1996	\$2,750	\$550	\$550	\$550	\$550	\$550	\$0
77009621	Cisco7000 SYSTEM,P/IS&P	Router	1996	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$0
77009960	Cisco7000 SYSTEM,P/IS&P	Router	1996	\$5,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$0

Serial Number	DESCRIPTION	Equipment Class	Year	Dep.					Cost	
				1997	1998	1999	2000	2001		2002
77017247	Cisco7000 SYSTEM,P/S&RP	Router	1996	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$0
77017267	Cisco7000 SYSTEM,P/S&RP	Router	1996	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$0
070010W	Cisco7000 SYSTEM,P/S&RP	Router	1996	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$0
77007527	Cisco 7000 System,P/S,RP,&SSP	Router	1996	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$0
73013337	Cisco 7513 13-SLOT, 2 CYBUS, 1 RSP2, 1 AC SPLY	Router	1998	\$0	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000
44504915	Modular Multiprotocol Router	Router Card	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
44504916	Modular Multiprotocol Router	Router Card	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
44504917	Modular Multiprotocol Router	Router Card	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
44509319	Modular Multiprotocol Router	Router Card	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
44519273	Modular Multiprotocol Router	Router Card	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
44547433	TOPASY, Cisco4000, MEMORY+	Router Card	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45512151	OBS-TOPASY, Cisco 4500	Switch	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45500211	TOPASY, Cisco4500-M	Switch	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45500408	TOPASY, Cisco4500-M	Switch	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45500409	TOPASY, Cisco4500-M	Switch	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45512144	TOPASY, Cisco4500-M	Switch	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45512157	TOPASY, Cisco4500-M	Switch	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45512160	TOPASY, Cisco4500-M	Switch	1996	\$670	\$670	\$670	\$670	\$670	\$670	\$0
45512456	TOPASY, Cisco4500-M	Switch	1996	\$670	\$670	\$670	\$670	\$670	\$670	\$0
45512459	TOPASY, Cisco4500-M	Switch	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45512461	TOPASY, Cisco4500-M	Switch	1996	\$670	\$670	\$670	\$670	\$670	\$670	\$0
45512467	TOPASY, Cisco4500-M	Switch	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45512689	TOPASY, Cisco4500-M	Switch	1996	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$2,672	\$0
45519096	TOPASY, Cisco4500-M	Switch	1996	\$670	\$670	\$670	\$670	\$670	\$670	\$0
45519097	TOPASY, Cisco4500-M	Switch	1996	\$670	\$670	\$670	\$670	\$670	\$670	\$0
45519098	TOPASY, Cisco4500-M	Switch	1996	\$670	\$670	\$670	\$670	\$670	\$670	\$0
WSC1900PS6003434	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$0	\$0	\$0	\$0	\$480	\$480	\$480
WSC1900PS6026261	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$0	\$0	\$0	\$0	\$480	\$480	\$480
WSC1900PS6026283	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$0	\$0	\$0	\$0	\$480	\$480	\$480

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depr					
					1997	1998	1999	2000	2001	2002
WSC1900PS6026314	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900PS6030890	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900PS6034071	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900PS6034102	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900PS6036862	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900CJ7002819	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900CJ7002934	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900CJ7002981	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900CJ7002998	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900CJ7003003	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900CJ7003011	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900CJ7003014	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900CJ7003021	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
WSC1900CJ7003039	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0149X0BK	12 Port 10Mb Switch 2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0215U057	12 Port 10Mb Switch 2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
TBD	24 Port 10Mb Switch W/2 100BaseTX Ports; Ent Ed Upgradable	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
TBD	24 Port 10Mb Switch W/2 100BaseTX Ports; Ent Ed Upgradable	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0144Y038	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0144Y03E	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0144Z033	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0150W09Y	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA02225004	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0224V0ND	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0224X0GQ	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0226Y0YG	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0227V09X	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	\$2,400	\$0	\$0	\$480	\$480	\$480	\$480
FAA0215S03Q	16-Port 10/100 FE Switch With 2 Uplink Slots	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0220U0EN	16-Port 10/100 FE Switch With 2 Uplink Slots	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depreciation					
					1997	1998	1999	2000	2001	2002
FAA0230W0TV	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0230X0XT	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0230Z0VF	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231W049	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231W04B	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231W04F	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231W06C	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231X040	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231X049	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231X04Q	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231X04S	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231X07A	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231Y04M	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231Z04R	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231Z04T	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231Z04W	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231Z06T	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231Z075	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0238U13N	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0238W124	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0238Y140	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0303U03V	24-port 10/100 Switch w/Two Module Slots (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0223U06M	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0223U06N	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0223U06G	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0229X0KN	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0229Y0K4	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0229Z0K3	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0229Z0K6	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depr					
					1997	1998	1999	2000	2001	2002
FAA0231N01Y	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231N02Z	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231P02H	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231P02J	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231P02V	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231W00L	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231W02J	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231X00Q	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231X00S	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231X026	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231Y035	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0231Z00J	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0235Y0N1	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0237W0G7	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0237W0GH	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0237Z0HZ	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0241Y0LA	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0246T08U	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0246Y0CP	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0247W0FY	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0247W0GK	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0247X0L8	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0247Y0HH	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0247Y0J1	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0247Y0J5	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0247Z0HY	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0250S06X	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0250T05C	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
FAA0250V057	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depreciation					
					1997	1998	1999	2000	2001	2002
FAA0250V06H	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0251W0E5	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0251W0EF	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
BUNDLE5479284	5 Catalyst 2924-XL Switches	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302J05B	24 Port 10Mb Switch,2 100BaseTX Ports,ISL,CGMP,RMON	Switch	1997	\$2,636	\$0	\$527	\$527	\$527	\$527	\$528
FAA0302J05H	24 Port 10Mb Switch,2 100BaseTX Ports,ISL,CGMP,RMON	Switch	1997	\$2,636	\$0	\$527	\$527	\$527	\$527	\$528
FAA0302J05K	24 Port 10Mb Switch,2 100BaseTX Ports,ISL,CGMP,RMON	Switch	1997	\$2,636	\$0	\$527	\$527	\$527	\$527	\$528
FAA0302J05R	24 Port 10Mb Switch,2 100BaseTX Ports,ISL,CGMP,RMON	Switch	1997	\$2,636	\$0	\$527	\$527	\$527	\$527	\$528
FAA0302L00K	24 Port 10Mb Switch,2 100BaseTX Ports,ISL,CGMP,RMON	Switch	1997	\$2,636	\$0	\$527	\$527	\$527	\$527	\$528
FAA0301S01M	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302T01N	rw-port 10/100 Switch (Enterprise Edition)	Switch	1997	\$2,636	\$0	\$527	\$527	\$527	\$527	\$528
FAA0302U05Q	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302U0L1	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302U0L2	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302U0L4	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302U0L5	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302V0LA	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302W0K2	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302X0K8	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302X0Z9	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302X09R	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302X0LH	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302X0LL	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302X0LE	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527
FAA0302Y0M1	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$527	\$527	\$527

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depr					
					1997	1998	1999	2000	2001	2002
FAA0302Y0M5	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$0	\$527	\$527
FAA0302Y0M6	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$0	\$527	\$527
FAA0302Z0KK	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$0	\$527	\$527
FAA0302Z0MT	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$0	\$527	\$527
FAA0303X049	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$0	\$527	\$527
FAA0303Y04B	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$0	\$527	\$527
FAA0303Z04J	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$0	\$527	\$527
TBD	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$0	\$527	\$527
TBD	rw-port 10/100 Switch (Enterprise Edition)	Switch	1999	\$2,636	\$0	\$0	\$0	\$0	\$527	\$527
5460445	CATALYST 3000, 6K, SNMP, STP	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
5460984	CATALYST 3000, 6K, SNMP, STP	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6470201	CATALYST 3000, 6K, SNMP, STP	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6061316	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6061319	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6470337	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6470411	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6470413	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6470417	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6470473	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6470476	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6470481	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6470483	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6480759	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
6480996	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
7080651	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
7080885	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
7081160	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
7120421	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527
7150334	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527	\$527

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depreciation				
					1997	1998	1999	2000	2002
7200855	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527
6061316	CATALYST MATRIX	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527
6061319	CATALYST MATRIX	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527
7080885	Catalyst 3200 Switch, Chassis+Supervisor, 8MB, RMON, Enh SW	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527
7370851	Catalyst 3200 Switch, Chassis+Supervisor, 8MB, RMON, Enh SW	Switch	1998	\$2,636	\$0	\$0	\$527	\$527	\$527
HAD003031372	Cat4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$0	\$0	\$0	\$2,520	\$2,520
HAD003031402	Cat4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$0	\$0	\$0	\$2,520	\$2,520
HAD003031882	Cat4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$0	\$0	\$0	\$2,520	\$2,520
HAD003031971	Cat4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$0	\$0	\$0	\$2,520	\$2,520
HAD003032025	Catalyst 4000 Chassis(3-slot), Supervisor, 1 AC PS, Fan Tray	Switch	1999	\$12,600	\$0	\$0	\$0	\$2,520	\$2,520
HAD00361145	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD00361157	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD00361161	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD00361172	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD00361174	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD00361183	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD00361185	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD00361213	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD00361216	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD003031379	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD003031394	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD003031400	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD003031410	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD003031969	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
HAD003031973	Catalyst 4003 chassis, AC P/S, Sup. Eng. I, 80 10/100 FE + 2 GE	Switch	1999	\$14,500	\$0	\$0	\$0	\$2,900	\$2,900
69005354	Catalyst 5500 Chassis - Requires Power Supply Option	Switch	1999	\$48,000	\$0	\$0	\$0	\$9,600	\$9,600
69043351	WS-C5500 Chas, NetFlow Swrg Sup Eng III, AC P/S	Switch	1999	\$48,000	\$0	\$0	\$0	\$9,600	\$9,600
66507670	WS-C5505 Chas, Sup III w/2-port UTP FEC UL, AC P/S	Switch	1999	\$48,000	\$0	\$0	\$0	\$9,600	\$9,600
67502062	WS-C5509 Chas, NetFlow Swrg Sup Eng III, AC P/S	Switch	1999	\$80,000	\$0	\$0	\$0	\$16,000	\$16,000

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depr					Depr 2002		
					1996	1997	1998	1999	2000		2001	
67502537	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$0	\$0	\$0	\$0	\$0	\$16,000	\$16,000	\$16,000
67502688	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$0	\$0	\$0	\$0	\$0	\$16,000	\$16,000	\$16,000
67502969	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$0	\$0	\$0	\$0	\$0	\$16,000	\$16,000	\$16,000
67505586	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$0	\$0	\$0	\$0	\$0	\$16,000	\$16,000	\$16,000
67505612	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	\$80,000	\$0	\$0	\$0	\$0	\$0	\$16,000	\$16,000	\$16,000
SCA050801PN	Cisco Catalyst 5509	Switch	2000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$10,000
66033099	Cisco Catalyst 6500	Switch	2000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000	\$20,000
66033102	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$0	\$2,900	\$0	\$2,900	\$0	\$2,900	\$2,900	\$2,900
66033112	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$0	\$2,900	\$0	\$2,900	\$0	\$2,900	\$2,900	\$2,900
66033115	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$0	\$2,900	\$0	\$2,900	\$0	\$2,900	\$2,900	\$2,900
66033116	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$0	\$2,900	\$0	\$2,900	\$0	\$2,900	\$2,900	\$2,900
66033125	Catalyst 5000 Chassis	Switch Router	1997	\$14,500	\$0	\$2,900	\$0	\$2,900	\$0	\$2,900	\$2,900	\$2,900
66005243	CATALYST 5000-CHAS, SPRVSR, PS	Switch Router	1997	\$14,500	\$0	\$2,900	\$0	\$2,900	\$0	\$2,900	\$2,900	\$2,900
66029170	CATALYST 5000-CHAS, SPRVSR, PS	Switch Router	1997	\$14,500	\$0	\$2,900	\$0	\$2,900	\$0	\$2,900	\$2,900	\$2,900
67534612	Cisco Catalyst 5510	Switch Router	2000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$10,000
	Network Monitoring station and Software (Sun Clone and Network Health)	Network Management	1999	Unknown								
68000799	LightStream 1010 Base Configuration, AC Power	Other Equipment	1999	\$27,400						\$5,480	\$5,480	\$5,480
68000805	LightStream 1010 Base Configuration, AC Power	Other Equipment	1999	\$49,080						\$9,816	\$9,816	\$9,816
68000887	LightStream 1010 Base Configuration, AC Power	Other Equipment	1999	\$49,080						\$9,816	\$9,816	\$9,816
68000889	LightStream 1010 Base Configuration, AC Power	Other Equipment	1999	\$46,480						\$9,296	\$9,296	\$9,296
68002377	LightStream 1010 Base Configuration, AC Power	Other Equipment	1996	\$36,000	\$7,200	\$7,200	\$7,200	\$7,200	\$7,200	\$7,200	\$7,200	\$7,200
	APC 1000RM (20 units @ \$480)	Other Equipment	1998	\$9,600						\$1,920	\$1,920	\$1,920
	APC 1250 (6 units @ \$600)	Other Equipment	1998	\$3,600						\$720	\$720	\$720
	APC 1400RM (20 units @ \$600)	Other Equipment	1998	\$12,000						\$2,400	\$2,400	\$2,400
	APC 2200RM (10 units @ \$800)	Other Equipment	1998	\$8,000						\$1,600	\$1,600	\$1,600
66032997	Catalyst 5000 Chassis	Switch Router	1997	\$29,400						\$5,880	\$5,880	\$5,880
66033097	Catalyst 5000 Chassis	Switch Router	1997	\$29,400						\$5,880	\$5,880	\$5,880
D920CFX1001	Compaq-Firewall Management Console Server	Network Management	1999	\$8,700						\$2,900	\$2,900	\$2,900

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depr					
					1997	1998	1999	2000	2001	2002
8A003555697	Nokia IP440	Core Firewall	2000	\$18,706					\$6,235	\$6,235
8A003555699	Nokia IP440	Core Firewall	2000	\$11,001					\$3,667	\$3,667
2047943	Cisco1005 ACCESS SERVER	Spare	1997	\$2,000		\$400		\$400	\$400	\$400
6380711	Cisco Catalyst 3000 Switch	Spare	1996	\$2,000	\$400			\$400	\$400	\$400
25094855	Cisco2500 IE2T Router	Spare	1996	\$2,750	\$550			\$550		\$550
44518800	Modular Multiprotocol Router	Spare	1996	\$3,350	\$670			\$670	\$670	\$670
44519958	Modular Multiprotocol Router	Spare	1996	\$3,350	\$670			\$670	\$670	\$670
45512143	TOPASY, Cisco4500-M	Spare	1996	\$3,350	\$670			\$670	\$670	\$670
45537207	TOPASY, Cisco4500-M	Spare	1996	\$3,350	\$670			\$670	\$670	\$670
45558484	Modular Multiprotocol Router	Spare	1996	\$3,350	\$670			\$670	\$670	\$670
50002163	Cisco7000 Chassis	Spare	1996	\$5,000	\$1,000			\$1,000	\$1,000	\$1,000
FAA0348U042	Cisco Switch 24 10/100 ports	Spare	1999	\$2,800					\$560	\$560
FAB0517W2AA	Cisco Switch 24 10/100 ports	Spare	1998	\$2,800					\$560	\$560
FOX04467158	Cisco Switch 48 10/100 ports	Spare	1999	\$2,400					\$480	\$480
JAB04373141	Cisco 1702 Router	Spare	2000	\$3,800					\$760	\$760

\$3,252,185 \$134,548 \$182,003 \$347,219 \$614,472 \$657,251 \$520,479

APPENDIX E

**DEPRECIATION SCHEDULE – INFRASTRUCTURE
BY FTE (ADSS)**

APPENDIX F
DEPRECIATION SCHEDULE – INFRASTRUCTURE
BY FTE (DCS)

INFRASTRUCTURE BY FTE (DCS)

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Years				Accum			TOTAL	
					Depr	Depr	Depr	Depr	Depr	Depr	Depr		Depr
					2000	2001	2002	2003	2004	2002	2003	2004	
COMPAQ 6500		Email Server	2000	\$ 50,000	4	\$12,500	\$12,500	\$12,500	\$12,500	\$ 25,000	\$12,500	\$12,500	\$ 50,000
COMPAQ 6500		Email Server	2000	\$ 50,000	4	\$12,500	\$12,500	\$12,500	\$12,500	\$ 25,000	\$12,500	\$12,500	\$ 50,000
COMPAQ 8000		Email Server	2000	\$ 75,000	4	\$18,750	\$18,750	\$18,750	\$18,750	\$ 37,500	\$18,750	\$18,750	\$ 75,000
COMPAQ ML370		Email Server	2000	\$ 50,000	4	\$12,500	\$12,500	\$12,500	\$12,500	\$ 25,000	\$12,500	\$12,500	\$ 50,000
													\$ -
				\$225,000		\$56,250	\$56,250	\$56,250	\$56,250	\$112,500	\$56,250	\$56,250	\$225,000

APPENDIX G

**DEPRECIATION SCHEDULE – DISTRIBUTED
SYSTEM SUPPORT**

DISTRIBUTED SYSTEM SUPPORT

Serial Number	DESCRIPTION	Equipment Class	Year	Cost	Depr 1997	Depr 1998	Depr 1999	Depr 2000	Depr 2001	Depr 2002	Depr 2003	Depr 2004	Depr 2005	TOTAL
	DSS Unix System Management	Application Server	1997	\$5,000	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$5,000	\$0	\$0	\$0	\$5,000
	CMIS Server (DOF Transfer)	Application Server	1999	\$20,000	\$0	\$0	\$5,000	\$5,000	\$5,000	\$15,000	\$5,000	\$0	\$0	\$20,000
	SQL Server	Application Server	1998	\$45,000	\$0	\$11,250	\$11,250	\$11,250	\$11,250	\$45,000	\$0	\$0	\$0	\$45,000
	Backup Server	Application Server	2001	\$30,000	\$0	\$0	\$0	\$0	\$7,500	\$7,500	\$7,500	\$7,500	\$0	\$30,000
	SQL Server	Application Server	1997	\$45,000	\$11,250	\$11,250	\$11,250	\$11,250	\$11,250	\$45,000	\$0	\$0	\$0	\$45,000
	Heat Web IIS	Application Server	1997	\$15,000	\$3,750	\$3,750	\$3,750	\$3,750	\$0	\$15,000	\$10,000	\$10,000	\$10,000	\$15,000
	Tape System/Tapes	Other Equipment	2001	\$50,000	\$0	\$0	\$0	\$0	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
	Legato Backup Server	Server	2000	\$50,000	\$0	\$0	\$0	\$10,000	\$10,000	\$20,000	\$10,000	\$10,000	\$10,000	\$50,000
				\$260,000	\$16,250	\$27,500	\$32,500	\$42,500	\$43,750	\$162,500	\$32,500	\$27,500	\$10,000	\$260,000

APPENDIX H

**PROPOSED 2003 ITS EQUIPMENT REPLACEMENT
SPENDING PLAN**

King County
Enterprise-Wide IT Infrastructure Equipment Replacement Program
2003

	AVAILABLE FUNDING	DIFFERENCE
Section: Messaging		
Infrastructure by Mailbox Total	\$ 200,000	
Section: WAN & Networks		
Section: ADSS Web	\$ 1,465,267	
Section: DCS		
Infrastructure by FTE Total	\$ 1,465,267	
Section: DSS		
Distributed Systems Support Total	\$ 110,000	
Total Technology Services	\$ 1,775,957	\$ 4,823

RATE BUCKET: INFRASTRUCTURE BY MAILBOX

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	Keyimc	D847BX560510	COMPAQ 6500	Email Server	1999	2.25	\$ 50,000
	Support	D945CP31H088	COMPAQ 6500	Email Server	1999	2.25	\$ 50,000
	Kcmail	D945CP31K098	COMPAQ 6500	Email Server	1999	2.25	\$ 50,000
	Kcowa	D945CP31K101	COMPAQ 6500	Email Server	1999	2.25	\$ 50,000

2003 TOTAL \$200,000

RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	CISCO7000-SSP	77009711	Cisco 7000 System,P/S,RP,&SSP	Core Router	1996	1.00	\$ 5,000
	CISCO7000	77017248	CISCO7000 SYSTEM,P/S&RP	Core Router	1996	1.00	\$ 5,000
	CISCO7000	77021665	CISCO7000 SYSTEM,P/S&RP	Core Router	1996	1.00	\$ 5,000
probe	CISCO4000-M	44547433	TOPASY,CISCO4000,MEMORY+	Switch	1996	1.00	\$ 13,360
rjc	WS-C5000	66032997	Catalyst 5000 Chassis	Switch Router	1997	1.25	\$ 29,400
rjc	WS-C5000	66033097	Catalyst 5000 Chassis	Switch Router	1997	1.25	\$ 29,400
rjc	WS-C5000	66033099	Catalyst 5000 Chassis	Switch Router	1997	1.25	\$ 14,500
rjc	WS-C5000	66033102	Catalyst 5000 Chassis	Switch Router	1997	1.25	\$ 14,500
rjc	WS-C5000	66033112	Catalyst 5000 Chassis	Switch Router	1997	1.25	\$ 14,500
rjc	WS-C5000	66033115	Catalyst 5000 Chassis	Switch Router	1997	1.25	\$ 14,500
rjc	WS-C5000	66033116	Catalyst 5000 Chassis	Switch Router	1997	1.25	\$ 14,500
rjc	WS-C5000	66033125	Catalyst 5000 Chassis	Switch Router	1997	1.25	\$ 14,500
r1cedarfalls	CISCO1005	2389094	CISCO1005 ACCESS SERVER	Router	1996	1.25	\$ 2,000
r1vashondisp	CISCO1005	2398272	CISCO1005 ACCESS SERVER	Router	1996	1.25	\$ 2,000
r1houghton	CISCO1005	2400324	CISCO1005 ACCESS SERVER	Router	1996	1.25	\$ 2,000
r1pwrentondisp	CISCO1005	2400367	CISCO1005 ACCESS SERVER	Router	1996	1.25	\$ 2,000
r1pwbowlake	CISCO1005	2400384	CISCO1005 ACCESS SERVER	Router	1996	1.25	\$ 2,000
r1pwalgona	CISCO1005	2400487	CISCO1005 ACCESS SERVER	Router	1996	1.25	\$ 2,000
r1enumclaw	CISCO1005	2400680	CISCO1005 ACCESS SERVER	Router	1996	1.25	\$ 2,000
r1pwfactoriadis	CISCO1005	2777795	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,000
r1phemsKent	CISCO1005	3317347	CISCO1005 ACCESS SERVER	Router	1996	1.25	\$ 2,000

**RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS**

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
r1scrap	CISCO2501	25049102	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1phkentg	CISCO2501	25094843	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1phnorthshore	CISCO2501	25094847	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
	CISCO2501	25094849	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1phspringwood	CISCO2501	25094851	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1nda	CISCO2501	25102113	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
spare (confirmed)	CISCO2501	25102115	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1phauburn	CISCO2501	25102117	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1ppraquatics	CISCO2501	25227972	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1pwwashon	CISCO2501	25441500	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1pwwdiamond	CISCO2501	25441506	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1pwwstarlake	CISCO2501	25441512	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1pwwskynomish	CISCO2501	25441514	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1pwwfallcity	CISCO2501	25441516	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1pwwissaquah	CISCO2501	25441518	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1pwwbog	CISCO2501	25441538	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
r1ddsdredmond	CISCO2501	TBD	CISCO 2500 1E2T ROUTER	Router	1996	1.25	\$ 2,750
rjc	WS-C3016B	6480759	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	1.50	\$ 2,636
rjc	WS-C3016B	6480996	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	1.50	\$ 2,636
rjc	WS-C3016B	7080651	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	1.50	\$ 2,636

RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
infra	WS-C3016B	7080885	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	1.50	\$ 2,636
	WS-C3016B	7081160	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	1.50	\$ 2,636
	WS-C3016B	7120421	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	1.50	\$ 2,636
	WS-C3016B	7150334	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	1.50	\$ 2,636
rjc	WS-C3016B	7200855	CATALYST 3000, 10K, SNMP, STP, VIRT	Switch	1998	1.50	\$ 2,636
	WS-C1924-EN	FAA0144Y038	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400
	WS-C1924-EN	FAA0144Y03E	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400
	WS-C1924-EN	FAA0144Z033	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400
	WS-C1912-EN	FAA0149X0BK	12 Port 10MB Switch 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400
	WS-C1924-EN	FAA0150W09Y	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400
Transit/RIO	WS-C1912-EN	FAA0215U057	12 Port 10MB Switch 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400
external DYS	WS-C1924-EN	FAA02225004	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400
external DYS	WS-C1924-EN	FAA0224V0ND	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400
external DYS	WS-C1924-EN	FAA0224X0GQ	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400
external DYS	WS-C1924-EN	FAA0226Y0YG	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1998	1.50	\$ 2,400

RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	WS-C1924-EN	FAA0227V09X	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1998	1.50	\$ 2,400
	WS-C1900C	WSC1900CJ700 2819	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900C	WSC1900CJ700 2934	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900C	WSC1900CJ700 2981	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900C	WSC1900CJ700 2998	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900C	WSC1900CJ700 3003	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900C	WSC1900CJ700 3011	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900C	WSC1900CJ700 3014	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900C	WSC1900CJ700 3021	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900C	WSC1900CJ700 3039	Catalyst 1900 24 10Base T, 1 100BaseTX, 1 100BaseFX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900	WSC1900PS600 3434	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900	WSC1900PS602 6261	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900	WSC1900PS602 6283	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900	WSC1900PS602 6314	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900	WSC1900PS603 0890	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	1.50	\$ 2,400

RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	WS-C1900	WSC1900PS603 4071	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900	WSC1900PS603 4102	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	1.50	\$ 2,400
	WS-C1900	WSC1900PS603 6862	Catalyst 1900 24 10BaseT, 2 100BaseTX, 1K MAC	Switch	1998	1.50	\$ 2,400
	CISCO2503	25052789	CISCO 2500 1E2T1B ROUTER	Router	1996	1.50	\$ 3,250
r1phdistcenter	CISCO2514	25094845	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1phnorthrehab	CISCO2513	25095461	CISCO 2500 1E1R2T	Router	1996	1.50	\$ 3,950
	CISCO2514	25107203	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
	CISCO2513	25243576	CISCO 2500 1E1R2T	Router	1996	1.50	\$ 3,950
r1dcfederalway	CISCO2514	25245721	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1phcedarhills	CISCO2513	25247198	CISCO 2500 1E1R2T	Router	1996	1.50	\$ 3,350
r1dshoreline	CISCO2514	25250792	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1kcojgn	CISCO2514	25323018	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1psfallcity	CISCO2514	25323020	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1electionspsi	CISCO2514	25323022	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1transiffacil	CISCO2514	25323024	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1dcbellevue	CISCO2514	25326235	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1dcrenton	CISCO2514	25326237	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1dearea	CISCO2514	25327658	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
	CISCO2503	25332530	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1dcvashon	CISCO2514	25338132	CISCO 2500 1E2T1B ROUTER	Router	1996	1.50	\$ 3,250
r1dcsw	CISCO2514	25338177	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350

**RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS**

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
r1dcredmond	CISCO2514	25338179	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1dcissaquah	CISCO2514	25338181	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1deakent	CISCO2514	25368705	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1phfederalway	CISCO2514	25368742	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1xdav	CISCO2514	25503550	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1phcolumbia	CISCO2514	25587699	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1pprenton	CISCO2514	25587765	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1phnorth	CISCO2514	25587767	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1phsouthwest	CISCO2514	25587772	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1kcauto	CISCO2514	25628596	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1phkent	CISCO2514	25636808	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1atc	CISCO2514	25693301	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
r1dysrenton	CISCO4500-M	45500211	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 13,360
r1kcairport	CISCO4500-M	45500408	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 13,360
r1dysbellevue	CISCO4500-M	45512144	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 13,360
r1pprmerc	CISCO4500-M	45512157	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 13,360
r1dysburien	CISCO4500-M	45512456	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 13,360
r1dysburien	CISCO4500-M	45512459	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 13,360
r1dysburien	CISCO4500-M	45512461	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 13,360
r1dysnseattle	CISCO4500-M	45512467	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 13,360

**RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS**

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	CISCO4500-M	45519096	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 3,350
	CISCO4500-M	45519097	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 3,350
	CISCO4500-M	45519098	TOPASY, CISCO4500-M	Switch	1996	1.50	\$ 3,350
	CISCO7000-SSP	77007527	Cisco 7000 System,P/S,RP,&SSP	Router	1996	1.50	\$ 5,000
	CISCO7000	77009960	CISCO7000 SYSTEM,P/S&RP	Router	1996	1.50	\$ 5,000
	CISCO7000	77017247	CISCO7000 SYSTEM,P/S&RP	Router	1996	1.50	\$ 5,000
	CISCO7000	77017267	CISCO7000 SYSTEM,P/S&RP	Router	1996	1.50	\$ 5,000
r1psshoreline	CISCO2524	250019782	CISCO2524 ETHERNET/MODULAR 3-PORT SERIAL ROUTER	Router	1996	1.50	\$ 2,750
r1pssammamis	CISCO2514	250226629	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
	CISCO7000	070010W	CISCO7000 SYSTEM,P/S&RP	Router	1996	1.50	\$ 5,000
r1smith	CISCO2514	TBD	CISCO 2500 2E2T	Router	1996	1.50	\$ 3,350
	WS-C5500-S3	69043337	WS-C5500 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Core Switch	1999	1.75	\$ 48,000
	CISCO7513	73013341	CISCO 7513 13-SLOT, 2 CYBUS, 1 RSP2, 1 AC SPLY	Core Router	1998	1.75	\$ 120,000
r1westlake	CISCO1004	2044072	CISCO1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	1997	1.75	\$ 2,000
r1tunnelsouth	CISCO1004	2044316	CISCO1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	1997	1.75	\$ 2,000
r1tunnelnorth	CISCO1004	2055941	CISCO1004 ETHERNET/ISDN BRI/NT1 MULTIPROTOCOL ROUTER	Router	1997	1.75	\$ 2,000
	CISCO1004	2060103	CISCO1004 ETHERNET/ISDN	Router	1997	1.75	\$ 2,000

**RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS**

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
			BR/NT1 MULTIPROTOCOL ROUTER				
	WS-C5001	66005243	CATALYST 5000-CHAS, SPRVSR, PS	Switch Router	1997	1.75	\$ 14,500
	WS-C5001	66029170	CATALYST 5000-CHAS, SPRVSR, PS	Switch Router	1997	1.75	\$ 14,500
r1walthew	CISCO4000	44504915	Modular Multiprotocol Router	Router Card	1996	1.75	\$ 13,360
r1xsealts	CISCO4000	44504916	Modular Multiprotocol Router	Router Card	1996	1.75	\$ 13,360
r1esc	CISCO4000	44504917	Modular Multiprotocol Router	Router Card	1996	1.75	\$ 13,360
	CISCO4000	44509319	Modular Multiprotocol Router	Router Card	1996	1.75	\$ 13,360
	CISCO4000	44519273	Modular Multiprotocol Router	Router Card	1996	1.75	\$ 13,360
	DSU/CSU		ADC Kentrox Data Smart DSU/CSUs (52 units @ \$1100)	Network Mgmt	1996	1.75	\$ 57,200
			Network General Sniffer (Dolch)	Network Mgmt	1996	1.75	\$ 30,000
	CISCO7507	76023935	CISCO 7507 7-SLOT, 2 CYBUS, 1 RSP2, 1 AC SPLY	Core Router	1998	2.00	\$ 82,000
	WS-C5500=	69005354	Catalyst 5500 Chassis - Requires Power Supply Option	Switch	1999	2.00	\$ 48,000
kcab4	WS-C2924-XL	FAA0223U06M	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
kcab4	WS-C2924-XL	FAA0223U06N	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
kcab4	WS-C2924-XL	FAA0223V06G	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat4bdystower	WS-C2924-XL	FAA0229X0KN	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat5bdystower	WS-C2924-XL	FAA0229Y0K4	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat4bdystower	WS-C2924-XL	FAA0229Z0K3	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
4th fl	WS-C2924-XL	FAA0229Z0K6	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636

**RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS**

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
cat5cdystower	WS-C2924-XL	FAA0231N01Y	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
4th fl	WS-C2924-XL	FAA0231N022	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat5ddystower	WS-C2924-XL	FAA0231P02H	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat2bdystower	WS-C2924-XL	FAA0231P02J	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
336-boren	WS-C2924-XL	FAA0231P02V	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat2kcch3w	WS-C2924-XL	FAA0231W00L	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
336-boren	WS-C2924-XL	FAA0231W02J	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat2kcch8w	WS-C2924-XL	FAA0231X00Q	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
kcch	WS-C2924-XL	FAA0231X00S	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat6adystower	WS-C2924-XL	FAA0231X026	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat7bdystower	WS-C2924-XL	FAA0231Y035	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat2kcch7w	WS-C2924-XL	FAA0231Z00J	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat3opdda8	WS-C2924-XL	FAA0235Y0N1	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	FAA0237W0G7	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	FAA0237W0GH	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	FAA0237Z0HZ	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	FAA0241Y0LA	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat2key18	WS-C2924-XL	FAA0246T08U	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat1key18	WS-C2924-XL	FAA0246Y0CP	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	FAA0247W0FY	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	FAA0247W0GK	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat5key18	WS-C2924-XL	FAA0247X0L8	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636

**RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS**

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
cat4key18	WS-C2924-XL	FAA0247Y0HH	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat7key18	WS-C2924-XL	FAA0247Y0J1	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat6key18	WS-C2924-XL	FAA0247Y0J5	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat4opdtda8	WS-C2924-XL	FAA0247Z0HY	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
cat5opdtda8	WS-C2924-XL	FAA0250S06X	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	FAA0250T05C	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	FAA0250V057	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
kcab7	WS-C2924-XL	FAA0250V06H	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
kcab8	WS-C2924-XL	FAA0251W0E5	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	FAA0251W0EF	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
	WS-C2924-XL	TBD	24-Port 10/100 Fast Ethernet Switch	Switch	1999	2.00	\$ 2,636
r1northgatetc	CISCO1602	5946244	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pprwhitetr	CISCO1601	5978950	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	2.00	\$ 2,400
r1wpwelding	CISCO1601	5979320	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	2.00	\$ 2,400
r1dys Terrace	CISCO1601	5979829	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	2.00	\$ 2,400
r1lkwilderness	CISCO1601	6003395	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	2.00	\$ 2,400
r1psnorthbend	CISCO1602	6043379	Cisco 1602 Ethernet/Serial Modular	Router	1998	2.00	\$ 3,740

**RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS**

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
r1psbldpark spare (confirmed)	CISCO1602	6043442	Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pslakedolloff	CISCO1602	6043527	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1psatu	CISCO1602	6043582	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pskingsgate	CISCO1602	6043583	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pscovington	CISCO1602	6043586	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1psmaplevalle	CISCO1602	6043942	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1psstreetcar	CISCO1602	6154200	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1psbrynmawr	CISCO1602	6223579	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1psbellevuetc	CISCO1602	7082440	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1psphrentondent	CISCO1602	7985121	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1psprsunset	CISCO1602	8299668	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1psphsbercente	CISCO1602	8299674	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1psphsbercente	CISCO1602	8299679	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740

RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
r1opdkent	CISCO1602	8299686	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pskenmore	CISCO1602	8300075	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pscascadehomes	CISCO1602	8300077	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pprsoos	CISCO1602	8300082	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1xlakeforestpark	CISCO1602	8300087	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1xtukwila	CISCO1602	9241648	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1dasasseatac	CISCO1602	9241660	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1xdesmoines	CISCO1602	9241667	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pprsiview	CISCO1602	9241683	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pprjuanita	CISCO1602	9241696	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1xkirkland	CISCO1602	9241703	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1xauburn	CISCO1602	9241716	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1xissaquah	CISCO1602	9241789	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1xseaport	CISCO1602	9241916	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
	CISCO1602	9241928	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740

**RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS**

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
email/infra	WS-C2916M-XL	FAA0215S03Q	16-Port 10/100 FE Switch With 2 Uplink Slots	Switch	1998	2.00	\$ 2,636
inet	WS-C2916M-XL	FAA0220U0EN	16-Port 10/100 FE Switch With 2 Uplink Slots	Switch	1998	2.00	\$ 2,636
cat6bdystower	WS-C2924C-XL	FAA0230W0TV	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat2adystower	WS-C2924C-XL	FAA0230X0XT	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat4adystower	WS-C2924C-XL	FAA0230Z0VF	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
kcch	WS-C2924C-XL	FAA0231W049	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat1kcch3w	WS-C2924C-XL	FAA0231W04B	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
kcch	WS-C2924C-XL	FAA0231W04F	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat1bdystower	WS-C2924C-XL	FAA0231W06C	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
kcch	WS-C2924C-XL	FAA0231X040	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat1kcch7w	WS-C2924C-XL	FAA0231X049	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
kcch	WS-C2924C-XL	FAA0231X04Q	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat1kcch8w	WS-C2924C-XL	FAA0231X04S	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat7adystower	WS-C2924C-XL	FAA0231X07A	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat1kcch7e	WS-C2924C-XL	FAA0231Y04M	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636

RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	WS-C2924C-XL	FAA0231Z04R	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
koch	WS-C2924C-XL	FAA0231Z04T	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat5adystower	WS-C2924C-XL	FAA0231Z04W	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat3adystower	WS-C2924C-XL	FAA0231Z06T	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
cat8adystower	WS-C2924C-XL	FAA0231Z075	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
	WS-C2924C-XL	FAA0238U13N	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
	WS-C2924C-XL	FAA0238W124	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
	WS-C2924C-XL	FAA0238Y140	22-Port 10/100 Fast Ethernet Switch With 2 100BaseFX Uplinks	Switch	1998	2.00	\$ 2,636
r1deaeast	CISCO1602	JAB02474166	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pprwesthill	CISCO1602	JAB0247416K	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1xparatrans	CISCO1602	JAB031550LB	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1pprscpool	CISCO1602	JAB031550LP	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1xbellevue	CISCO1602	JAB0316426V	Cisco 1602 Ethernet/Serial Modular Router w/56k DSU (4-wire)	Router	1998	2.00	\$ 3,740
r1kcfairgrounds	CISCO1601	TBD	Cisco 1601 Ethernet/Serial Modular Router	Router	1998	2.00	\$ 2,400
	WS-C2924-XL-EN	FAA0302J05B	24 Port 10Mb Switch, 2 100BaseTX Ports, ISL, CGMP, RMON	Switch	1997	2.00	\$ 2,636

RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	WS-C2924-XL-EN	FAA0302J05H	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1997	2.00	\$ 2,636
	WS-C2924-XL-EN	FAA0302J05K	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1997	2.00	\$ 2,636
	WS-C2924-XL-EN	FAA0302J05R	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1997	2.00	\$ 2,636
	WS-C2924-XL-EN	FAA0302L00K	24 Port 10Mb Switch,2 100BaseTX Ports, ISL,CGMP,RMON	Switch	1997	2.00	\$ 2,636
	WS-C2924-XL-EN	FAA0302T0LN	rw-port 10/100 Switch (Enterprise Edition)	Switch	1997	2.00	\$ 2,636
r1pwcentral	CISCO4500	45512151	OBS-TOPASY, CISCO 4500	Switch	1996	2.00	\$ 13,360
			Network General Sniffer (Fieldworks)	Network Mgmt	1997	2.00	\$ 22,000
Penn	Firewall	8A003555697	Nokia IP440	Firewall	2000	2.25	\$ 18,706
Teller	Firewall	8A003555699	Nokia IP440	Firewall	2000	2.25	\$ 11,001
NOCLEAD	Compaq 500	D920CFX10001	COMPAQ - Firewall Management Console Server	Network Mgmt	1999	2.25	\$ 8,700

2003 TOTAL \$1,465,957

RATE BUCKET: DISTRIBUTED SYSTEMS SUPPORT

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	Atlas		DSS Unix System Management	App Server	1997	1.75	\$ 5,000
	Falcon		SQL Server	App Server	1997	1.75	\$ 45,000
	ITS-ESCDEV02		Heat Web IIS	App Server	1997	1.75	\$ 15,000
	Eagle		SQL Server	App Server	1998	2.00	\$ 45,000

2003 TOTAL \$110,000

APPENDIX I

**PROPOSED 2004 ITS EQUIPMENT REPLACEMENT
SPENDING PLAN**

King County
**Enterprise-Wide IT Infrastructure Equipment Replacement Program
 2004**

	AVAILABLE FUNDING	DIFFERENCE
Section: Messaging		
Infrastructure by Mailbox Total	\$ 50,000	
Section: WAN & Networks		
Infrastructure by FTE Total	\$ 734,996	
Section: ADSS Web		
Infrastructure by FTE Total	\$ 734,996	
Section: DCS		
Infrastructure by FTE Total	\$ 20,000	
Section: DSS		
Distributed Systems Support Total	\$ 20,000	
Total Technology Services	\$ 804,996	\$ 20,218

RATE BUCKET: INFRASTRUCTURE BY MAILBOX

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	Kclist	D945CP31K119	COMPAQ 6500	Email Server	1999	2.25	\$ 50,000

2004 TOTAL \$ 50,000

**RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS**

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
	WS-C5505-S3TX	66507670	WS-C5505 Chas, Sup III w/2-port UTP FEC UL, AC P/S	Switch	1999	2.25	\$ 48,000
	WS-C5509-S3	67502062	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	2.25	\$ 80,000
	WS-C5509-S3	67502537	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	2.25	\$ 80,000
	WS-C5509-S3	67502688	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	2.25	\$ 80,000
	WS-C5509-S3	67502969	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	2.25	\$ 80,000
	WS-C5509-S3	67505586	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	2.25	\$ 80,000
	WS-C5509-S3	67505612	WS-C5509 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	2.25	\$ 80,000
	WS-C5500-S3	69043351	WS-C5500 Chas, NetFlow Sw'ng Sup Eng III, AC P/S	Switch	1999	2.25	\$ 48,000
	WS-C2924M-XL-EN	FAA0303U03V	24-port 10/100 Switch w/Two Module Slots (Enterprise Edition)	Switch	1999	2.25	\$ 2,636
	WS-C3016A	6061316	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636
	WS-C3016A	6061319	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636
rjc	WS-C3016A	6470337	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636
rjc	WS-C3016A	6470411	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636
rjc	WS-C3016A	6470413	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636
rjc	WS-C3016A	6470417	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636
rjc	WS-C3016A	6470473	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636
rjc	WS-C3016A	6470476	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636

RATE BUCKET: INFRASTRUCTURE BY FTE
SECTION: WAN & NETWORKS

NODE NAME	Item Name	Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
rjc	WS-C3016A	6470481	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636
rjc	WS-C3016A	6470483	CATALYST 3000, 6K, SNMP, STP, VIRT	Switch	1998	2.25	\$ 2,636
	CISCO7513	73013337	CISCO 7513 13-SLOT, 2 CYBUS, 1 RSP2, 1 AC SPLY	Router	1998	2.25	\$ 120,000
			Fluke Cable Tester	Network Mgmt	1998	2.25	\$ 10,000

2004 TOTAL \$ 734,996

RATE BUCKET: DISTRIBUTED SYSTEM SUPPORT

NODE NAME	Item Serial Number	DESCRIPTION	Equipment Class	Year	Replacement Index	Estimated Cost
DS/20		CMIS Server (DOF Transfer)	App Server	1999	2.25	\$ 20,000

2004 TOTAL \$ 20,000


King County

Office of
Information Resource Management
 M.S. KEY-IA-2300
 700 Fifth Avenue, Suite 1800
 Seattle, WA 98104-5002

May 9, 2003

To: Paul Tanaka, County Administrative Officer

From: David Martinez, Chief Information Officer

Subject: ITS Equipment Replacement Plan – Technology Governance Review

The King County Technology Governance reviewed the “Equipment Replacement Strategy for King County Enterprise-Wide IT Infrastructure”, report dated April 1, 2003, at the April 8, 2003, Technology Management Board meeting and the April 22, 2003, Business Management Council meeting. Both meetings were well-attended with the members raising good points to clarify issues and understand the consultant’s work and recommendations. The proviso that called for the governance review is:

[Section 118 – CIP]

PROVIDED FURTHER THAT: Of the appropriation in Fund 3781 for Project 378206, ITS Equipment Replacement, \$200,000 shall be expended only on purchasing critical capital equipment; no more than \$50,000 shall be spent to hire a consultant to develop an its technology services equipment replacement plan; and \$117,253 shall be expended only on purchasing capital equipment in accordance with an ITS technology services equipment replacement plan, prepared utilizing an outside consultant and submitted by the executive and only after the plan is approved by the council by motion. The plan should be submitted to the council no later than July 1, 2003. **The plan shall be reviewed and approved by the technology management board, the business management council and the chief information officer before the plan is submitted to council.** The plan shall include, at a minimum: an inventory of existing equipment; equipment standards; a description of the function the equipment performs; the age and useful life of the equipment; a prioritization list, schedule and budget for replacement of the equipment; the failure cost of equipment failing or at risk for failure; and a proposal for establishing an equipment replacement reserve. The report must be filed in the form of 15 copies with the clerk of the council, who will retain the original and will forward copies to each councilmember and to the lead staff for the labor, operations and technology committee or its successor.

A re-cap of the discussion from both meetings is provided below in the form of the governance groups’ approval of the recommendations of ITS’ consultants, and the comments and conditions that accompany the approval.

Consultant Recommendation	BMC & TMB Approval & Conditions & Comments
1. Adopt the revised (Replacement Factors) equipment replacement model	Approved with the following comments: <ul style="list-style-type: none"> • Need guidelines on how factors will be applied and changed

Consultant Recommendation	BMC & TMB Approval & Conditions & Comments
<p>2. Adopt ITS proposal for periodic and routine equipment review and reporting to the TMB</p>	<p>Approved with the following <u>comments</u>: Review needs to include:</p> <ul style="list-style-type: none"> • A review of the architectural design of the network • Understanding of where ITS support of the network stops and the departments or other network providers take over (such as the State with the IGN) • Capacity planning analysis • A way to mitigate the cost impact of moves • Understanding of how ITS will address staff capacity for replacing equipment • Information on how maintenance contracts are funded in the operating budget
<p>3. Inventory management</p> <ul style="list-style-type: none"> • Conduct comprehensive physical inventory • Track physical inventory • Staff this function 	<p>Approved with the following <u>conditions</u>:</p> <ul style="list-style-type: none"> • Each of the bullets must be preceded with “Need to”. • Approved in concept, but DES needs to work with the budget office as part of a larger budget prioritization issue to address funding, if they don’t have the funds to manage the inventory properly.
<p>4. Track equipment by funding source</p> <ul style="list-style-type: none"> • Rate bucket segregation • Technology Management Board reporting 	<p>Approved with the following <u>conditions</u>:</p> <ul style="list-style-type: none"> • Wording should be changed to “Track” as shown to the left, instead of “Develop” as originally shown.
<p>5. County should address unfunded liability of equipment purchased between 1996 and 2002</p>	<p>Approved with the following <u>conditions</u>:</p> <ul style="list-style-type: none"> • Approved in concept, but DES needs to work with the budget office as part of a larger budget prioritization issue to address funding.

There were 2 issues called out that should be addressed, but not necessarily included in a revised plan document. One issue relates to a request to analyze bandwidth demand/usage by agency for use in setting rates charged. There is currently no analysis available that would allow ITS to charge agencies differently based on their use of network bandwidth. Since a factor in considering replacement of network equipment relates to the demand for bandwidth, consideration of a more sophisticated charge-back model may be a worthwhile approach. The second issue relates to budgetary considerations of the consultant recommendations for asset management improvements and to provide funding for a “catch-up” amount documented from the depreciation schedules that support the financial planning for equipment replacement.

Finally, an important part of the governance review is that the BMC voiced support of applying the existing, identified funds toward replacing equipment without delay, as proposed in the plan.

It is our expectation that these comments and conditions will be addressed accordingly. In early communications of the work plan for the governance review, it had been agreed that at least one week would be provided to me to review the final package prior to transmittal to the County Council. The expected outcome of that review is a letter of endorsement of the final report that you will be including in your transmittal package to the County Council per the proviso requirements.

A final note on one piece of unfinished business at this point: in both TMB and BMC meetings, I requested a listing of all failed equipment that supports the \$1,000,000 of failing equipment stated in the November, 2002 letter to Dow Constantine supporting the ITS equipment replacement proposal. During our discussions leading up to signing that letter, it was not apparent and at times confusing, what equipment was actually failing. However, in the governance review meetings, the consultants stated that most equipment was not failing and the ITS-T&O manager confirmed that point in the TMB meeting. I will need to get a copy of that information and understand this issue before I will be comfortable endorsing the replacement plan.

Thank you for your support of the technology governance and this review process. I look forward to clearing this proviso and moving ahead with other challenges.

cc: Caroline Whalen, Deputy County Administrative Officer, Department of Executive Services (DES)
Kevin Kearns, Manager, DES - Information & Telecommunications Services Division
TMB members
BMC members

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**King County**

Office of
Information Resource Management
700 Fifth Avenue, Suite 1800
Seattle, WA 98104-5002
M.S. KEY-IA-2300

June 25, 2003

To: Paul Tanaka, County Administrative Officer

From: David Martinez, Chief Information Officer 

Re: ITS Equipment Replacement 2003 Budget proviso response

Thank you for the June 20, 2003 package containing the document entitled "Enterprise-Wide Information Technology (IT) Infrastructure Equipment Replacement Plan: Governance Review and Implementation Strategy dated June 20, 2003. It is my understanding that you will be transmitting that document as Attachment 1 to the Enterprise-Wide Information Technology (IT) Infrastructure Equipment Replacement Plan prepared by C&M Technology, Inc. dated May 23, 2003 along with any other documents needed to respond to the council's proviso.

Based on the consultant's reported efforts and the high-level review of the consultant's recommendations by the technology governance, the IT equipment inventory lists documented in the consultant's report appear to be complete and should provide a good foundation from which to manage the replacement activities going forward, including supporting the immediate replacements indicated. The consultants have also provided a sound methodology to guide ITS in future updates to the equipment replacement plan. I concur and approve the consultant's methodology to guide ITS in future updates to their IT equipment replacement plans.

I appreciate the final section of the "Enterprise-Wide Information Technology (IT) Infrastructure Equipment Replacement Plan: Governance Review and Implementation Strategy" documenting your concurrence with the definitions of failed, non-supported and upgrade that I had provided in one of our meetings. I am confident that we will now be using these definitions for describing categories of equipment in the future and I am relieved to learn that we currently have no equipment that can be categorized as failed. I concur and approve the list of equipment recommended by you and your consultants for replacement (as reported in Appendix H and I in the consultant's report) since it has been determined that current business needs cannot be met with the current equipment's capacity and functionality.

I would appreciate receiving a final electronic version of all materials in the transmittal package so that we can publish it on our web site to bring closure to the governance review.

Please let me know if I can provide additional clarifications of the points raised in the above.

cc: Sheryl Whitney, Assistant County Executive
Steve Call, Director, Office of Management and Budget
Caroline Whalen, Deputy County Administrative Officer
Kevin Kearns, ITS Division Director
Business Management Council members
Technology Management Board members

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