MINUTES OF THE __House__ COMMITTEE ON __Computers, Communications & Technology__

Chairman George Dean

The meeting was called to order by _____ at
Chairperson

__7:30__ a.m./p̶.m̶. on _____January 29_____, 19__91__ in room __529-S__ of the Capitol.

All members were present except:
All Present

Committee staff present: Julian Efird,   Research
                         Mary Cheng, Revisor's Office
                         Mary Valdivia, Committee Secretary

Conferees appearing before the committee:
Others Present: See attached

Meeting was called to order by Chairman Dean at 7:30 AM.

Chairman Dean introduced Dave Larson, Representative of Legislative Services.   Mr. Larson handed out a memorandum entitled Legislative Computerization (Attmt. #1). Mr. Larson did not read the memorandum, but expounded on certain areas. Some of the areas highlighted are listed below.

1)   Project has been undertaken since 1989.

2)   Legislature was surveyed by the leadership and results indicated high degree of interest in computerization. The most desired application was for Word Processing. Legislative Services was instructed to hire individual to manage this project. This was done April 1990.

3)   Andersen Consulting was contracted to do a thorough analysis. They took off from what had been previously surveyed.

4)   Andersen Study was published (Exec. Summary Attm. #2), was presented to the Legislative Coordinating Council; they liked the concept, but felt price tag was too high.   Were asked to see if there could be some modifications made to the study. This was done and adopted the basic philosophy of using microcomputers on the desk tops.

Discussion followed and the following questions were posed.

1)   Why was Andersen picked to do the study?

2)   When you refer to the survey as a basis in a lot of the decisions that were made, what type of computers did the legislators indicate they were currently using, what was the predominant type?

3)   Has the LCC decided how these computers are going to be used the other months when legislature not meeting? Is there going to be a policy the same way that the recorders are handled?

4)   In FY 1991 and FY 1992 we have the DEC computers, what is the Andersen grand total cost for this whole system?

5)   How are we going to get the information for KFIS system to the DEC system, and does that software exist today?

CONTINUATION SHEET

MINUTES OF THE _____House_____ COMMITTEE ON _Computers, Communications & Technology_,

room 529-S, Statehouse, at __7:30__ a.m./p̶x̶m̶. on _____January 29_____, 1991.

A short break was taken at this time. One question discussed
during this break was would Richard Ryan and Mary Galligan feel
comfortable in testifying as witnesses for Computer Redistricting
Plan?

It was mentioned that a computer expert was hired by the
Legislature who used to work for U. S. Census Bureau who might be
able to testify.

Minutes of January 24, 1991, were submitted to the Committee and
approved as submitted.

Meeting adjourned at 8:30 AM. Next meeting is Wednesday,
January 30, 1991, 7:30 AM, Room 529-S.

COMMITTEE: Computer Communic & Telecommunications   DATE: 1-29-91

NAME (PLEASE PRINT)	ADDRESS	COMPANY/ORGANIZATIO
TURNER JEAN		D of A
David B. Dallam		Div of Budget
F Sudermann	WICHITA	WSU
Julie Hein	Topeka	Hein & Ebert
GREGG YOWELL	OVERLAND PARK	APPLE COMPUTER, Inc.

Jan. 29, 1991

To: Computers, Communications and Technology Committee

From: Dave Larson, Legislative Administrative Services

Subject: Legislative Computerization

Background
    The Legislative computerization effort began in FY89 when the Legislative leadership surveyed Legislative members on present computer capability and projected needs. The results of that survey indicated that over half of the membership (56%) was presently using some type of computer and definitely desired more capability (50% wanted a computer and 15% wanted a network connection for an existing computer). The survey revealed that wordprocessing was the most desired application with access to information such as bill status (database access), budget analysis (spreadsheet) and publication of newsletters (desktop publishing) ranking next. It was also apparent from the survey that the Legislature needed some kind of overall computerization plan and management. In April of 1990, the Legislature approved the acquisition of a redistricting system. This system is composed of a server, six workstations and related software. One of the key requirements of the redistricting system was that it have long-term potential to serve the Legislature after the redistricting task was accomplished. The redistricting vendor was chosen recognizing that requirement. In May of 1990, the Legislature hired an individual to manage the planning and implementation of Legislative computerization. The Legislature then contracted with Andersen Consulting to conduct a thorough analysis of existing Legislative computer capability and both current and projected needs.

Andersen Study
    The Andersen Study identified needs, priorities and benefits of computerizing the Legislature. The study also designed a solution and developed a phased implementation strategy. The needs of the Legislature were grouped into three major areas. They are communication, access to information and productivity. The plan proposed by Andersen met all of the needs and criteria of the Legislature.

Plan
    The plan developed by Andersen proposed networked microcomputer technology. The plan also incorporates the redistricting server as a major component which will extend the value of that investment after the redistricting project (post 1992 session). The Legislative leadership upon review of the Andersen study made some revisions to expand the availability of computer technology to more members of the Legislature. The concept was not changed by this action.
    The plan for FY91 and FY92 is to network all support staff and Legislative leadership offices initially. Next, the plan calls for networking all of the Legislative offices. The plan will produce productivity gains to the Legislative secretaries by providing wordprocessing capability. It will produce communications benefits via EMail. It will provide the capability to securely pass exhibits, memos and other written communications (committee minutes, drafts etc) without first printing or duplication. EMail can be used to send agendas and documents to multiple offices simultaneously, saving time and effort in distribution. The plan provides printer sharing in areas where possible. DISC access will also be provided.
    These capabilities will enable the Legislative offices to communicate with each other and provide resources for the Legislator to mange the information workload. The plan provides resources that could be used to enhance constituent services through better communication with constituents and case work tracking.
    Perhaps the biggest benefit will be that the plan provides a framework for all Legislative computerization.
    The plan is designed to phase the introduction of technology into the Legislature in a controlled manner. Office and support staff receive microcomputers early to achieve quick productivity gains and assist in the communications and flow of work. They acquire the experience with technology that will

allow them to be a resource to the Legislator. Training in the use of this technology is planned with each unit acquired and installed. Continuing education will be arranged and incorporated into the Legislative orientation program.

Budget

The budget for FY91 and FY92 is attached. The largest component is the purchases of microcomputers for the Legislative offices, object code 415. The plan calls for 25 new microcomputers to be purchased in FY91 and 109 in FY92. The support staff, for the most part, have microcomputers which the plan will utilize to the extent possible (some of the units are not capable of networking and will need to be replaced). Object code 208 includes the costs for DISC to connect existing telephone wiring into a network. Connections to the DISC mainframe resources are budgeted under object code 263. Object code 372 budgets monies to cover increased data processing supplies. Capital outlay items include the previously mentioned microcomputers and the budgeted amounts for computer software, object code 418.

Budget for Legislative computerization FY91 and FY92

FY91

Object code	Item	Budget	Comments
208	Wiring and access provided by DISC	$17,505.00	
247	Maintenance on computer equipment	$0.00	Under warranty
263	Processing services provided by DISC	$2,475.00	
372	Data processing supplies	$0.00	Utilize office supplies
415	Computer system and support equipment	$177,515.74	25 new units
418	Computer software	$9,073.50	
	Total FY91	$206,569.24	

FY92

Object code	Item	Budget	Comments
208	Wiring and access provided by DISC	$26,272.50	
247	Maintenance on computer equipment	$0.00	Under warranty
263	Processing services provided by DISC	$14,125.00	
372	Data processing supplies	$10,000.00	
415	Computer system and support equipment	$628,304.27	109 new units
418	Computer software	$32,637.00	
	Total FY92	$711,338.77	

FY 93 and Beyond

The Andersen Study recommended several future opportunities that the Legislature should consider. Some of these are (in no particular order):

(a) Networking with the Redistricting system. Utilizing that capacity for future databases. This is projected to begin after the redistricting project concludes. Costs estimated by Andersen study presumed an entire DECNet network. Estimated cost $1,000,000 - $1,300,000 plus a server upgrade estimated to be $320,000 - $370,000. **This option is not being considered at this time.** A network re-design is underway and estimated costs are not final but will be significantly less.

(b) Giving portable computers directly to Legislators. Estimated cost $620,000 - $720,000.

(c) Constituent Services.

(d) Bill and Amendment Drafting, Tracking and Publishing.

(e) Bill Summaries.

(f) Statutes and Regulations.

(g) Voting Records.

(h) Senate and House Calendars and Journals.

(i) Newspaper Article Information.

Items c through i were not cost estimated by Andersen. They were only identified as other opportunities available through the proposed plan.

Kansas Legislature
Computerization Study

August 1990

Executive Summary

ANDERSEN
CONSULTING
ARTHUR ANDERSEN & CO., S.C.

INTRODUCTION

Andersen Consulting was engaged by Legislative Administrative Services under the sponsorship of the Legislative Coordinating Council to identify information and automation needs and their associated systems implications and develop a strategy which:

. Delivers improved information accessibility and sharing.

. Improves operational productivity.

. Leverages the Legislature's current investment in technology to the greatest degree possible.

. Allows for future demands and new technologies.

. Is focused on cost effectively providing business solutions rather than providing a specific type or brand of technology.

. Is phased to accommodate budget constraints.

. Minimizes the Legislature's financial, schedule and technological risks.

. Positions the Legislature to meet its evolving information and automation needs.

The project team consisted of Dave Larson, Director of Computer Services and Dave Andrews, Scott Revare, Jackie Zidek and Judy Kamerer with Andersen Consulting. The project team was guided by a steering committee of Emil Lutz, Director of Legislative Administrative Services; Mark Skinner, Administrative Assistant to the Speaker of the House and Nancy Zogelman, Administrative Assistant to the President of the Senate.

CURRENT SYSTEMS

The current systems of the Legislature could be described as "islands of automation." Several of the legislative support groups have successfully automated portions of their areas. The groups have implemented this automation independently and without a coordinated Legislature-wide plan. This has resulted in a diverse assortment of hardware and software. Many of the existing MS-DOS (IBM-compatible) personal computers (PCs) are obsolete because they do not have the capacity to support current versions of word processing and other software. Some legislators provide computers for themselves or their secretaries, contributing to the diversity of equipment. Recently, the Legislature has contracted to purchase a Digital Equipment Corporation computer-based reapportionment system. Included with this system are six Digital Equipment Corporation workstations and a file server tied together by network hardware and software.

2-2

INFORMATION AND AUTOMATION NEEDS

Several legislators, representatives from leadership functions and representatives from all legislative staff functions were interviewed as part of the project. The project team worked with each legislative function to inventory and prioritize the Legislature's basic and future information and automation needs.

Basic Information and Automation Need: Communications

Currently, legislators communicate with each other and with staff face-to-face, by telephone and through typewritten memos. The current communications process is hampered by telephone tag, reliance on typists to create memos and the delays inherent in distributing paper-based information.

Basic Information and Automation Need: Information Access

Access to information produced within and external to the Legislature will be increasingly important. Most information in the Legislature is only available in paper format, requiring physical distribution and storage. Time spent waiting for paper-based publishing and manual distribution is time spent without required information. With an electronic medium for distributing and sharing available information, information access would be faster, and access to more information would be possible. An example of information needing expanded access in the Legislature is bill status.

Basic Information and Automation Need: Productivity

Legislators and staff need to accomplish a large amount of work in a short time frame. Letters are currently produced using typewriters. More productive ways are needed for creating letters and memos, communicating with other legislators and staff, and accessing required information.

2 - 3

INFORMATION AND AUTOMATION NEEDS (continued)

Future Information and Automation Needs

Once the basic needs are met, other information and automation needs of the Legislature can be addressed. This includes quick and easy access to information such as:

. Constituent Services (Constituent Information and Statistics)

. Bill and Amendment Information

. Bill Summaries

. Statutes and Regulations

. Senate and House Calendars and Journals

. Voting Records

. Newspaper Article Information

The underlying data required to provide this information is available in the Legislature. A systematic method to access the data across the entire Legislature in a straightforward manner is not currently available.

According to a September 1989 survey of Kansas legislators, increased legislative computerization is needed. Only 23% of the legislators responding indicated that all of their information needs are currently being met. Of the responding legislators, 68% said that they would like to have a State-owned computer or a connection point for their own computer if a legislative network were installed.

2-4

SYSTEMS OBJECTIVES

Andersen Consulting and Dave Larson, Director of Computer Services, developed systems objectives to help position legislative systems for the future. These objectives can be summarized as follows:

. Legislative systems must be easy to use and understand.

. The systems architecture must be able to operate in a multivendor environment.

. The system must allow for future applications and expansion without significant cost increases or equipment obsolescence.

. Legislative information must be protected from unauthorized access.

. The architecture must effectively utilize existing equipment and technology to leverage the Legislature's current systems investment.

. The systems must work within the physical limitations of the historic capitol building.

2-5

SYSTEMS IMPLICATIONS

A baseline architecture and set of applications were identified to support the basic information and automation needs. The baseline strategy includes five major components which can be implemented as funding is available. The strategy was developed with the intent of adding, over time, additional capabilities in an integrated, cost-effective manner.

Specific vendors are identified by name for the purpose of establishing costs. It should be noted that the selection of the vendors identified was based on their ability to meet the information and automation needs of the Legislature with today's technology given the identified systems objectives. Other alternatives could be increasingly feasible in the future given the rapidly changing nature of systems technology.

Baseline Applications

The baseline strategy for legislative automation includes the initial implementation of an underlying architecture, or foundation, and the resources needed to support the following basic functions as well as overall information system integration. The baseline applications included in the strategy include:

. Voice Mail
. Electronic Mail
. Word Processing
. Access to DISC Computer Services, including Bill Status and PROFS

These four applications were chosen because they had the most immediate impact on the identified needs of improved access to more information, improved communications and increased productivity.

Voice Mail

Voice mail would leverage the telephone by providing legislators with a method to exchange voice messages with others in the Legislature. Voice mail would allow faster exchange of information and reduce telephone tag.

Voice mail would not be used to automatically answer incoming calls. Instead, users would dial a dedicated phone number and enter their user ID and password to access the system. Any authorized user could review and create messages from any touch-tone telephone, whether it be on the House or Senate floor, at a residence or a public telephone. Callers with no user ID and password could not leave messages on the system.

2-86

SYSTEMS IMPLICATIONS (continued)

A key group of legislators and support staff should be included in a pilot study on the effectiveness of telephone-based voice mail in the Legislature. This would give participants hands-on experience with a voice mail system.

Electronic Mail

Electronic mail is a method of routing memos, short messages and documents from one computer to one or more other computers. This type of communication would allow instantaneous exchange of information between authorized personnel without relying on manual delivery.

Word Processing

Word processing is the electronic creation and storage of text documents. Word processing on computers would replace typewriters and automate repetitive tasks such as filling out forms, typing form letters and corresponding with constituents. Documents could be computer checked for correct spelling of words.

Access to DISC Computer Services

Currently, some computers in the Legislature provide access to bill status, PROFS and other systems that reside on DISC computers. The strategy described in this report would allow any computer on the network to access DISC-based applications.

Baseline Architecture

The effectiveness of basic as well as future automation needs of the Legislature hinges on communication and information sharing. To support the implementation of the strategy described in this report, a computer systems architecture, or foundation, must be established. This architecture would consist of the following components:

Workstations

The baseline strategy includes replacement of 41 older MS-DOS PCs and the addition of 39 Macintoshes. Each of these workstations would be networked to facilitate data sharing. All network users, including selected secretaries and legislators, would benefit from word processing, electronic mail and access to bill status and other DISC-supported systems.

2-87

SYSTEMS IMPLICATIONS (continued)

Network Hardware and Software

To connect workstations within the Legislature, network computer hardware and software would need to be purchased, including a network file server. Digital Equipment Corporation meets or exceeds the established systems objectives and can provide backup processing capabilities when used with the Legislature's Digital Equipment Corporation computer-based reapportionment system. Two or more Digital Equipment Corporation computers can be connected so that if one computer would fail, another computer would take over to ensure that critical processes continue.

Wiring Platform

All networked workstations must be wired to the network server. Because the wiring restrictions in historical buildings such as the capitol make the installation of new wiring expensive, the baseline strategy was designed to require a minimum amount of new wiring. The network described in this report uses a combination of the reapportionment system's fiber optic wiring platform, existing telephone wiring and new wiring.

Exhibit 1 graphically describes the hardware and network components of the baseline strategy. This strategy includes only a portion of the Legislature. Other systems enhancements encompass the rollout and upgrade of workstations and network services to all legislative functions throughout the capitol building.

Future Opportunities

The baseline architecture positions the Legislature to meet its evolving information and automation needs by building a foundation for expansion beyond the applications specifically addressed by this study. The flexibility and expandability of the baseline strategy will enable the future addition of applications previously mentioned such as constituent services, voting records and bill drafts. The future opportunities section of this report discusses some of these applications in more detail.

COSTS AND BENEFITS

This section describes the costs and benefits associated with the implementation of the baseline strategy and system enhancements described in this report. All costs and benefits are based on the systems implications of satisfying the identified information and automation needs.

2-8

COSTS AND BENEFITS (continued)

Implementation Costs

Implementation costs include the hardware, software and human resources to implement the baseline strategy and system enhancements.

The baseline strategy implementation projects can be phased and grouped by component in order to match the costs with available funding.

Phase		Cost ($000)
I.	Voice Mail Pilot	$ 15
II.	Desktop Workstations for New PC Users	350-410
III.	Upgrade Existing Workstations	100-120
IV.	Wiring Platform	100-150
V.	Network Server	320-370

Exhibit 2 describes the cost components in more detail.

The cost to build the foundation for legislative systems is substantial. Adding workstations and wiring the capitol for the local area network comprise the majority of the cost. Workstations are a significant cost because of their sheer number. Network wiring costs are substantial because of the wiring constraints imposed by the historic nature of the capitol building. This alone adds several hundred thousand dollars to the cost of the systems.

Benefits

Legislatures around the country are increasing their levels of computerization to help manage the increasing volume and complexity of information needed to make decisions. Individual PCs are being integrated via local area networks to enable legislators and legislative staff to communicate and share information. The computer networks are also used to tie together different vendors' equipment to further enhance information availability. The increased computerization in other legislatures has increased the availability of software packages that meet key legislative information and automation needs such as constituent services, voting record statistics and bill access.

COSTS AND BENEFITS (continued)

The basic benefits of implementing the strategy described in this report are straightforward:

. Improved communications
. Improved access to more information
. Increased productivity
. More informed decision making

The benefits from implementing this system are enormous but difficult to quantify. It is unlikely that the Legislature will reduce head count as a result of implementing this strategy. Instead, legislators and their staff will get more done--they will be more productive.

Another key benefit that is difficult to quantify is the ability for legislators to make better informed decisions because of the ability to manage the increasing amounts of information.

The major benefits are described below:

Improved Communications

Communications between legislators and constituents would improve dramatically. The strategy would provide three communications methods: voice mail, electronic mail and FAX machines.

Voice Mail

Telephone communication is critical to legislators. Telephones are frequently used and readily available. Voice mail would leverage the telephone by providing legislators with a method of exchanging voice messages with others in the Legislature. Features and benefits of voice mail include improved accessibility of messages and faster exchange of information to single individuals or several personnel at one time. Access is strictly controlled through touch-tone identification numbers.

Electronic Mail

Electronic mail is a method of routing memos, short messages and documents from one computer to one or more other computers. This method of communication would provide several benefits:

COSTS AND BENEFITS (continued)

. Memos and other messages could be exchanged and reviewed without printing. Therefore, paper costs could be reduced.

. Electronic mail documents could be stored on the computer, which could reduce physical file space requirements.

. Distribution lists could be developed for any electronic mail message. This feature would be ideal for communications within a committee, party or the entire Legislature.

. Electronic mail would be distributed instantaneously.

. Electronic mail messages could be accessed only by the person to whom the message is addressed.

. An audit trail of communication can be maintained if desired.

FAX Machines

The Legislature already utilizes FAX machines. An increase in the number of computer-compatible FAX machines around the capitol will allow easier exchange of paper documents with locations outside the capitol.

Improved Access to More Information

The baseline strategy described in this report would allow authorized legislative personnel to access bill status and other DISC mainframe-based information from any workstation. In addition, the baseline strategy would support addition of future applications that would allow legislators to access information provided by legislative support functions such as committee minutes and Senate and House calendars and journals.

Increased Productivity

Improved communications and electronic access to information would increase productivity in the Legislature. In addition, desktop computers with word processing and other software would provide productivity improvements throughout the Legislature, especially for personnel currently using typewriters. The benefits of automated word processing are most significant for repetitive tasks such as filling out forms, typing form letters and corresponding with constituents.

COSTS AND BENEFITS (continued)

More Informed Decision Making

Faster access to and electronic management of increasing amounts of information would help legislators and staff make more informed decisions. Computer-based access to and analysis of facts, statistics and reports would allow legislators to review them any hour of the day, wherever they have access to a computer.

Many legislatures are increasing their levels of automation and availability of computer-based information to legislators, legislative staff and constituents. Implementing the baseline systems architecture described in this report would position the Kansas Legislature to increase its effectiveness, efficiency and provide the opportunity for electronic information exchange with other state legislatures.
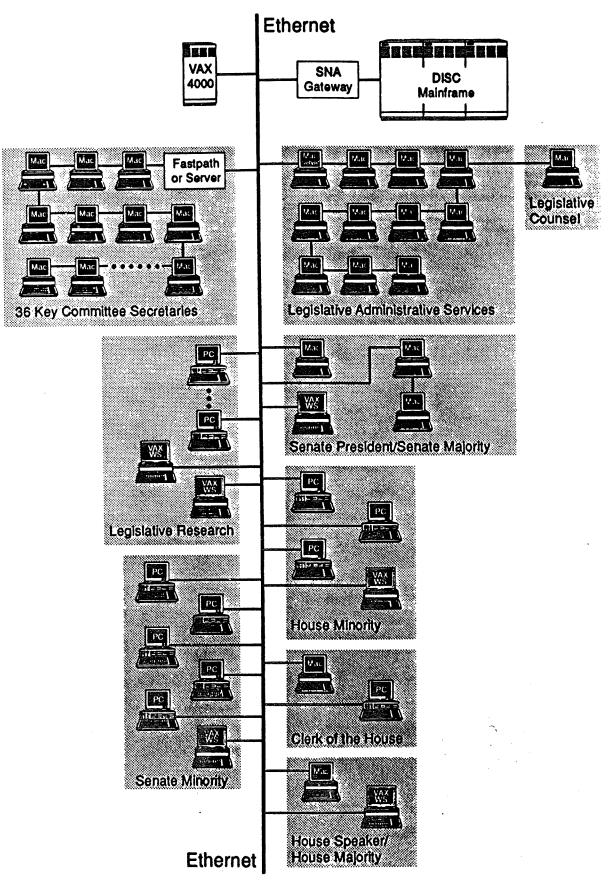
2-12

Baseline Architecture
Overview

Ethernet

VAX 4000

SNA Gateway

DISC Mainframe

Fastpath or Server

Mac

Legislative Counsel

36 Key Committee Secretaries

Legislative Administrative Services

PC

VAX WS

Senate President/Senate Majority

Legislative Research

PC

VAX WS

House Minority

PC

VAX WS

Clerk of the House

Senate Minority

House Speaker/ House Majority

Ethernet

Exhibit 1

Systems Implications
Cost Summary

Phase	One-Time Cost	Annual Cost
Baseline Strategy (components can be implemented individually)		
I. Voice Mail Pilot	$ 15,000	$ –
II. Desktop Workstations for New PC Users	350,000 – 410,000	35,000 [1]
III. Upgrade of Existing Workstations	100,000 – 120,000	–
IV. Wiring Platform	100,000 – 150,000	50,000 – 60,000
V. Network Server	320,000 – 370,000	30,000
Administration and Support	–	40,000
Training	24,000 – 36,000	8,000
Optional Systems Enhancements (components can be implemented individually)		
Workstation Rollout		
Workstations for Secretaries and Staff	$ 560,000 – 680,000	$50,000 – 60,000 [1]
Workstations for Legislators	620,000 – 720,000	50,000 – 60,000 [1]
Upgrade Network		
Add FAX Machines to Network Configuration	50,000 – 100,000	2,000 – 7,000
Network Upgrade–Telephone Wire [2]	270,000 – 310,000	70,000 – 90,000
Network Upgrade–Fiber Optic Wire [2]	1,000,000 – 1,300,000	100,000 – 120,000
Connect Legislative Post Audit to Ethernet Backbone	20,000 – 30,000 [3]	2,000 – 3,000 [3]

[1] These annual cost approximations assume that maintenance contracts are used. Significant cost savings could be achieved by maintaining equipment on a case-by-case basis.

[2] Only one of these two options would be implemented.

[3] This does not include wiring to capitol building.

Exhibit 2

A LEGISLATOR'S GUIDE TO ACRONYMS AND LEXICON
FOR COMPUTING, COMMUNICATIONS, AND TECHNOLOGY
Release 1.01

DISC	Division of Information Systems and Communications
COMPUTER	Machine which processes information
SOFTWARE	Computer programs (instructions) which perform certain operations
HARDWARE	Physical piece of computer equipment
IBM	International Business Machines computer vendor
UNISYS	Merged Sperry-UNIVAC and Burroughs computer vendor
APPLE	Computer vendor
MAINFRAME	Large central computer usually serving many users
CRT/VDT	Cathode ray tube/Video display terminal
PC	Personal computer (such as IBM or Apple brands)
DOS	Disk operating system, such as MS-DOS used by IBM-compatible PCs
MAC	Macintosh PCs using a disk operating system which differs from MS/DOS used by IBM-compatibles
FIBER OPTIC	Non-metallic telecommunication cable for voice, data and video
GIS	Georgaphical Information System
NETWORK	Interconnection of computer(s) and other hardware
KFIS	Kansas Financial Information Systems project (IBM-compatible) software development
STARS	Statewide Accounting and Reporting System new KFIS software (IBM-compatible)
CASK	Central Accounting System for Kansas software (UNISYS) which preceded STARS
KAHRS	Kansas Automated Human Resources System (proposed) KFIS software for a new personnel/payroll system
KIPPS	Kansas Integrated Personnel and Payroll System current software (UNISYS)

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/5

2-4