### Fort Hays State University

### 1) Legislative Proposal: Information Assurance

Fort Hays State University will address critical Kansas needs and carry out its Board of Regents mandated mission of "the integration of computer and telecommunications with the educational environment and the work place," by initiating a new emphasis in the Bachelors of Arts and the Bachelors of Science in Information Networking and Telecommunications and expanding its Information Assurance concentration in the Masters of Liberal Studies to provide both face-to-face and distance education.

### 2) Issue Background

#### Need

Kansas businesses, governmental units, hospitals, law enforcement agencies, public safety agencies, the state's growing military sector, the biosciences, and even consumers are highly dependent upon secure digital networks and data storage. E-commerce and routine commercial functions such as accounting, sales, and banking are conducted electronically by businesses.

Governmental units have significant responsibilities for protecting the private data of citizens, preserving tax information, individual identification data such as driver's licenses and social security numbers and operating in compliance with state and federal laws.

Health care providers are making substantial strides in patient care using information technology, but patient records and bioinformation have to be robustly reliable and secure. Bioinformatics and the biosciences are highly dependent upon data analysis, movement, retrieval, and protection.

Law enforcement agencies deal with a plethora of information security needs. Data on crimes, offenders, parolees, vehicles, personal identification information and biometrics are all used daily by leading law enforcement agencies in solving crimes. Law enforcement officials must also address cybercrimes — electronic thefts, child pornography, cyber stalking and cyber threats and abuse using computer forensics. Public safety agencies are digitizing information on key facilities and infrastructure, the locations of explosives and hazardous materials, and response plans. This information must be kept secure, but must also be immediately accessible.

The United States Military is becoming information driven, depending on rapid and secure dissemination of digital information. For example, in Kansas, McConnell Air Force base has become a world data and analysis center for U.S. National Guard intelligence.

Attachment 1 GE+T 1-18-07 Consumers purchase goods and services on-line, bank on-line, maintain personal and financial records on computers and move this data across networks. Consumers are dependent upon businesses protecting their data in a complex and threatening environment. Businesses must provide such security in a cost effective and reliable manner.

Today's Kansas needs highly capable Information Assurance specialists who have expertise in network and information security and computer forensics. These specialists are vital to assure that information dependent organizations and individuals are safe and competitive in a very uncertain world security environment.

### Implementation

Fort Hays State University will initiate a new emphasis in its existing B.S. and B.A. degrees in Information Networking and Telecommunications to provide both face-to-face and distance education in Network and Information Security. It will bolster its current Information Assurance Concentration in the Masters of Liberal Studies. As these are existing degree and concentration programs, the university has previous academic approvals from the Board of Regents. It now needs the fiscal resources to implement this plan.

Fort Hays State University leads the Kansas Cisco Networking Academy System that includes most of the state's community colleges and several technical colleges. This system has provided an effective tool for articulation and transfer. The Information Assurance undergraduate program will be designed and implemented to encourage articulation from two-year institutions.

The Fort Hays State University concentration will align with the National Security Agency (NSA) Committee on National Security Systems (CNSS) standards. Creating the academic knowledge mass necessary to become a NCAEIAE will assure that Kansas has a critical tool for economic competitiveness and capable information technology specialists for government, health care, emergency response, military, and other critical sectors. Such a center is important in positioning Kansas competitively. It will help Kansas play an important role in providing for state and national security.

- 3) Fiscal and Administrative Impact The cost of additional faculty, other operating expenses, and equipment for the Network and Information Security program will be an on-going expenditure of \$532,536.40. Existing administrative systems should be sufficient to accommodate student enrollment and support.
- 4) Impact on other State Agency This proposal will benefit state agencies ranging from the Department of Administration to the Kansas National Guard and Kansas Bureau of Investigation by providing a pool of badly needed talent. It should have no external costs to other agencies and will provide external benefits to agencies needing Information Assurance expertise.

## Budget

Legislative	Security
Proposal 07	7

Proj	osal 0	7						
	Sa	lary	Bene	fits 19.12%	H	alth Ins	Tot	al
Network Security Professor	\$	70,000.00	\$	13,384.00	\$	5,794.00	\$	89,178.00
Network Security Professor	\$	70,000.00	\$	13,384.00	\$	5,794.00	\$	89,178.00
INT Temporary Faculty member	\$	45,000.00	\$	8,604.00	\$	5.794.00	\$	59,398.00
Computer Forensics Professor	\$	70,000.00	\$	13,384.00	\$	5,794.00	\$	89,178,00
Upgrade of positions to reflect Ph.D.'s				·		,	•	;- , , , , ,
Shaffer	\$	7,500.00	\$	1,434.00			\$	8,934.00
Walters	\$	7,500.00	\$	1,434.00			\$	8,934,00
Upgrade of chair position to reflect								->-++
department size	\$	2,000.00	\$	382.40			\$	2,382.40
Academic OOE Upgrade							\$	15,000.00
Cisco Networking Academy Program								
Specialist	\$	50,000.00	\$	9,560.00	\$	5,794.00	\$	65,354.00
(12 Month Position)								
OOE Travel, Netlab, Support, Training							\$	30,000.00
Equipment							\$	75,000.00
Total							\$ 5	32,536.40

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# ELLIS COUNTY HIGH TECHNOLOGY CRIME UNIT 600 PARK STREET HAYS, KS 67601

Deputy/Investigator Brad Ricke Ellis County Sheriff's Department 105 West 12<sup>th</sup> Street Hays, KS 67601

Director of Police Ed Howell Fort Hays State University Police 600 Park Street Hays, KS 67601

SRO/ Jeffery W. Ridgeway Hays Police Department 105 West 12<sup>th</sup> Street Hays, KS 67601

Dr. Edward Hammond, President Fort Hays State University 600 Park Street Hays, Kansas 67601-4099

Dear Dr. Hammond

As a founding member of the Ellis County High Technology Crime Unit, I fully endorse and recommend that Fort Hays State University pursue offering an academic program in Information Assurance and Network Security at FHSU.

The Ellis County High Technology Crime Unit is a collaborative partnership among local law enforcement agencies with Federal participation from the FBI's Regional Computer Forensic Laboratory, the Federal Internet Crimes Against Children Task Force and local academic participation and is located on the campus of FHSU.

We are continually involved in issues relating to physical security of network systems in the digital and cyber world that is influenced by connectivity of the Internet and digital networks.

It's obvious that the Internet is a valuable tool and one that is here to stay. Unfortunately, as long as we have the Internet, we also have the array of problems that have emerged and continue to evolve from it (such as Internet related crimes against children, network system intrusions & takeover, hacking, Credit Card Scams/Identity Theft, eFencing), just to name a few.

As technology continues to expand and evolve, the necessity for education and action among law enforcement, the community and academics to combat these issues will also grow. There is a strong need in this area and High Tech High Touch has a different connotation in our environment. Investigators, academics and systems network

administrators are continually faced with challenges to protect our broad technologies from intrusion and cyber crime. I sincerely believe this is a good niche for Fort Hays State University to continue its progressive efforts for a quality education in a rapidly evolving technology world of computer forensics and network security.

Respectfully,

Ed. L. Howell

Director, Fort Hays State University Police



Cisco Systems, Inc. 1302 Nicole Court Fergus Falls MN 56537 Voice 952.967.8361 Fax: 218.998.0788 http://www.cisco.com

July 24, 2006

Edward H. Hammond, President Fort Hays State University 600 Park Street Hays, Kansas 67601-4099

To. Whom It May Concern:

I am writing this letter to encourage and support Fort Hays State University in its efforts to develop both face-to-face and distance learning concentrations in network and information security. It is wonderful that you are building this concentration on an academic foundation developed with curriculum provided through the Cisco Networking Academy System. We at Cisco are pleased that students can develop fundamental knowledge and skills and advanced concepts using the variety of curricula that the Cisco Networking Academy offers.

Fort Hays State University has been a national leader in working with high schools, community colleges and technical colleges to provide articulation and help students understand the career paths available to them. Cisco Systems was proud to recently provide Fort Hays State University with international recognition for its success in building relationships with businesses and the external community.

Your University is doing an excellent job providing critical information technology talent for Kansas businesses and placing graduates in nationally recognizable companies such as Microsoft, Apple, Cisco Systems, Sprint, Berbee, and IBM. All of these businesses depend upon information and network security in order to conduct business efficiently. I applaud your university's efforts to expand your academic offerings in this critical field.

Sincerely,

Clydene Stangvik Area Academy Manager, Central and Mountain States Cisco Systems, Inc.

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# RURAL TELEPHONE SERVICE CO., INC.

Your One-Stop Communications, Information and Entertainment Source

September 12, 2006

Dr. Edward H. Hammond, President Fort Hays State University 600 Park Hays, KS 67601-4099

Dear Dr. Hammond:

The purpose of this letter is to encourage Fort Hays State University and the Kansas Legislature to move forward in creating a program in Network and Information Security within the existing Department of Information Networking and Telecommunications. Rural Telephone and its subsidiary, Nex-Tech, work with clients every day who are fighting off security risks. We have teamed with Fort Hays State University to provide network security workshops for rural businesses in Western Kansas and have held such workshops on the Fort Hays State campus and the Garden City Community College campus.

Rural businesses are easy to overlook in the state's economy, but they play a significant role. These businesses depend on providers, such as Rural Telephone and Nex-Tech to supply high-speed Internet and a variety of IT services. Of our 300 employees, more than 60 are alumni of Fort Hays State University. Our growth as a set of companies has been impressive. This success would not be possible without the talent that we are able to hire and to retain in Kansas. Clearly a significant share of that talent has been and will be produced at Fort Hays State University. Our clients need us to provide security solutions, and we need to be able to hire talented individuals with those skills.

Sincerely.

Larry E. Sevier

CEO

LES/Ikw

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IBM Global Technology Services

Global Delivery Center

5600 North 63<sup>rd</sup> St. Boulder, CO 80301

David Graves, Executive I/T Architect

18 September 2006

Dr. Edward Hammond, President

Fort Hays State University

600 Park, Hays, Kansas 67601-4099

Dear Dr. Hammond:

As an Executive IT Architect at IBM and one who understands the task of keeping information secure, I strongly recommend that Fort Hays State University pursue offering an academic program in Information Assurance and Network Security. IBM supports Fort Hays State University in pursuing programs in information security via the IBM Academic Initiative and the Services Science, Management, and Engineering — Information Technology Services Curriculum. These programs may provide avenues of obtaining information security management software and course materials to accelerate the program at Fort Hays State.

Few skills are more in demand than those of information security in the quest to combat the threat of cyber-terrorism.

As evidence of the importance of information security to IBM and our clients, IBM Research division maintains a global staff of PhD scientists in 6 global research centers working in the areas of cryptographic foundations, Internet security, ethical hacking, secure systems and smart cards, sensors & vulnerability analysis, secure payment systems, antivirus, privacy technology, biometrics, java cryptography, multiparty protocols, trust policies, cryptographic hardware and software, digital watermarking, and XML security. Additionally, IBM Global Technology Services provides operational security for IBM and its clients with over 3000 information security professionals that have CISSP, GCIA, GSEC, TICSA certifications and specializations. The operational services include intrusion detection and prevention, incident management, vulnerability scanning and assessment, compliance management, intelligence, email security management, forensic analysis, and others. IBM continually seeks graduates of information security programs to fill the need of skilled security professionals.

Thank you for considering my recommendation that Fort Hays State University pursue the Information Assurance and Network Security program and please call upon IBM to assist in the pursuit if necessary.

Respectfully,

David B. Graves
IBM Global Technology Services
IBM Certified Executive IT Architect

### STOUT & DEINES, INC.

Performance Management

One Financial Plaza Woodbine, Kansas 67492 Phone: (785) 257-3242 Fax: (785) 257-3299

September 25, 2006

Dr. Edward Hammond President Fort Hays State University 600 Park Hays, Kansas 67601-4099

Re:

Information Assurance and Network Security Program

Dear Dr. Hammond:

We are writing to you on behalf of the Kansas Banking industry concerning a proposed program to offer a systematic and rigorous program to Information Assurance and Network Security. There are over 300 banks in the state of Kansas. Each bank has a crying need for information security professionals who have a well grounded background in information security.

In the past five years, we have seen an exponential growth in the regulations and expertise needed to meet the demands of the banking regulators. These people with the rigorous and technical training are hard to find. There is now a need for trained professionals to work in every bank in the state, and the surrounding states as well.

We believe the Information Assurance and Network Security program is needed and will be well received by the banking community.

If I may provide additional assistance, do not hesitate to call upon me.

Yours truly,

K. Alan Deines

KAD:ech

FIRST DISTRICT KANSAS

COMMITTEE ON AGRICULTURE

CHAIRMAN
SUBCOMMITTEE ON GENERAL FARM
COMMODITIES AND RISK MANAGEMENT

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

COMMITTEE ON VETERANS' AFFAIRS

SIGN UP FOR EMAIL UPDATES: WWW.HOUSE.GOV/MORANKS01

# Congress of the United States House of Representatives

Washington, DC

September 27, 2006

(202) 225–2715 FAX (202) 225–5124

DISTRICT OFFICES:

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SUITE 402
P.O. BOX 249
HAYS, KS 67601-0249
(785) 628-6401
FAX (785) 528-3791

ONE NORTH MAIN SUITE 525 P.O. BOX 1128 HUTCHINSON, KS 67504-1128 (620) 665-6138 FAX (620) 665-6360

> 119 WEST IRON SUITE 603 P.O. 80X 766 SALINA, KS 67402-0766 (786) 309-0572 FAX (785) 827-6957

Mr. Nelson Galle, Chairman Kansas Board of Regents 1000 SW Jackson Street, Suite 520 Topeka, Kansas 66612

Dear Chairman Galle and members of the Kansas Board of Regents:

The advancement of technology has changed our lives. Today, personal information is processed with the use of technology. We rely upon government, non-profits and businesses to utilize our information in a way that maintains informational integrity for our population. As electronic information has become a critical component of our society and economy it is important to provide a skilled workforce to address these important technological needs.

Workers with these technology security skills are important to Kansas businesses. Banks, health care providers, law enforcement agencies, our military, schools, and state and local governments all must find ways to maintain a high level of service while meeting current and future regulatory requirements.

The need for a skilled workforce to provide the proper level of security is often a challenge in rural areas of Kansas. These areas must provide the same level of security as urban areas, but often struggle with limited resources to meet these increasing demands.

I am encouraged to learn that Fort Hays State University is working to develop a Network and Information Security program to meet our society's needs. I am pleased the university is working to meet the curriculum standards established by the National Security Agency and that the program under consideration will offer both on campus and on-line learning options.

I look forward to the development of this new program at Fort Hays State University. Please let me know if I can be of assistance in this worthwhile effort.

Very truly yours,

Jerry Moran

Jerry Moran

JM:mh



September 27, 2006

Dr. Edward Hammond President Fort Hays State University 600 Park Street Hays, Kansas 67601

"Reference: Information Assurance Legislative Proposal

Dear Dr. Hammond:

As a representative of Juniper Networks (US), Inc. focused on the needs of state and local government and education, I am writing you in support of the proposed legislation expanding your current Networking and Telecommunications curriculum to focus on Information Assurance. At no time in history has the need for highly trained information technology security professionals been greater. And that need grows at lightning speed, just as information technologies arrive allowing us to share information across town, across the country, and around the world faster than ever before.

By enhancing its existing program, Fort Hays State University is keeping up with the current demands of the market place. You will be offering your students the opportunity to gain vital training in an area of critical importance to every organization operating in the world today — public or private. In fact, IDC, a global provider of IT and telecommunications market intelligence, expects IT security spending to grow twice as fast as IT spending over the next several years, surpassing \$116 billion by 2007. Companies across all industries place a high priority on safeguarding their data and systems. Growth in these areas is expected to fuel demand for specialists who are knowledgeable about network, data, and communications security.

Juniper Networks prides itself on being a recognized and lauded leader in enabling secure communications over IP networks. We would be pleased to engage with FHSU to investigate any number of ways that we could bring relevance to the expanded curriculum. We look forward to pursuing this opportunity.

Very truly yours,

Michaela D. Mezo

Director, Government and Education, Americas



Heart of America Regional Computer Forensic Laboratory
Briarcliff Three Office Building
4150 North Mulberry Drive, Suite 250
Kansas City, Missouri 64116

Phone: (816) 584-4300 Fax: (816) 584-4348

September 27, 2006

Dr. Edward Hammond, President Fort Hays State University 600 Park Hays, Kansas 67601-4099

Dear Dr. Hammond:

Recently, I was informed that Fort Hays State University is considering offering an academic program in Information Assurance and Network Security. While you will likely received many letters of support for such a project, I would like to share with you a real world issue that we are facing and how the above program would be of great assistance to us.

The Heart of America Regional Computer Forensic Laboratory (HARCFL) is a collaborative partnership among sixteen federal, state and local agencies which provides digital forensic assistance at no-cost to approximately 867 law enforcement agencies throughout Kansas and the western two-thirds of Missouri. As the laboratory's case load has significantly grown over the last few years and as a means to better serve our clients, we have embarked on an initiative to allow law enforcement officers throughout our service area to review digital evidence from their cases at their desktops. When this initiative is complete, we will be the first, if not one of the first laboratories in the country to offer this service.

Recognizing that the information to be reviewed concerns ongoing investigations, law enforcement sensitive information and at times contraband, network security is paramount. We are also seeking to disseminate this information <u>via</u> a conduit that is known to, trusted by, and readily accessible to all law enforcement.

As both our system and the deployment system are transferring very sensitive information, all entities require that they have their own network security in place for obvious reasons. As the layers of encryption, password protections, etc. are added by each system, network security increases. Unfortunately, latency and other problems also increase, denigrating and detracting from the end-users experience; which at times can defeat the whole purpose of the underlying project.

At the present, we are enmeshed in attempting to find methods and means by which to incorporate the security features of the involved systems into a seamless product that will enhance and promote the end users' experience and facilitate the transfer of law enforcement sensitive information. Due to the lack of expertise in this area, we are faced with a "trial and error" methodology, which is extremely time consuming and hindering.

The above is but one example of the problems being experienced by not only our laboratory, but throughout law enforcement and the business community. While we have a staff of highly trained computer experts, none have a background that can be called upon to quickly and easily resolve the absence of network security connectivity. As such, there is a true lack of education and experience in this area and it appears that it would be of great benefit to Fort Hays State University to pursue a program and to offer degrees regarding this aspect of emerging computer science.

We appreciate you time in reading the above and affording us the opportunity to comment on this worthwhile initiative being considered by your University.

Sincerely,

Director

Pat Roberts, Kansas, Chairman John D. Rockefeller IV, West Virginia, vice Chairman

ORRIN G. HATCH, UTAH MIKE DEVINE, OHIO CHRISTOPHER S. BOND, MISSOURI TRENT LUTT, MISSISSIPPI OLYMPIA J. SNOWE, MAINE CHUCK HAGEL, NEBRASKA SAXBY CHAMBLISS, GEORGIA CARL LEVIN, MICHIGAN DIANNE FEINSTEIN, CALIFORNIA RON WYDEN, CREGON EYAN BAYN, INDIANA BARBARA A. MIKULSKI, MARYLAND RUSSELL D. FEINGOLD, WISCONSIN

BILL FRIST, TENNESSEE, EX OFFICIO HARRY REID, NEVADA, EX OFFICIO

JAMES O. HENSLER, JR., STAFF DIR! CTOR AND CHIEF COUNSEL ANDREW W. JOHNSON, MIND SITY STAFF DIRECTOR KATHLEEN P. MCGHEE, CHIEF CLERK

# United States Senate

SELECT COMMITTEE ON INTELLIGENCE WASHINGTON, DC 20510-11475

September 28, 2006

Dr. Edward Hammond President "Fort Hays State University "600 Park Hays, Kansas 67601-4099

Dear Dr. Hammond:

I applaud the leadership of you and your faculty in shaping Fort Hays State University into an institution known across the nation as a sterling example of "High Tech/High Touch." Your efforts are benefiting Kansas and the nation alike.

I have long believed that both our ability to compete in the global arena and our ability to ensure that we are able to meet and overcome emerging threats to our nation and our interests depend in no small part on educating and shaping bright minds and on pursuing leading edge research. For these reasons, Kansas universities and schools must be highly competitive in math, science and technology.

As Chairman of the Senate Intelligence Committee I am very aware of the nature of the threat to our information technology infrastructure. We, as a highly developed country, depend upon this infrastructure. Information assurance - the protection of our networks and databases through network and information security tools and techniques - is vital.

The National Security Agency (NSA) has developed a set of academic curricula standards for information assurance and is encouraging leading universities across America to adopt these curricula. Universities that offer a curriculum that aligns with the NSA Committee on National Security Systems (CNSS) standards can earn the status of National Center of

Dr. Edward Hammond September 28, 2006 Page Two

Academic Excellence in Information Assurance Education. Kansas is one of a minority of states that does not have such a center. This is also true of our neighbor to the east – Missouri. Colorado's center is at the Air Force Academy and is, by necessity, focused on academy cadets. As a result, we have a gap in information assurance expertise in the middle part of the country. To be highly competitive in math, science, and technology our state and perhaps the region requires leadership in this segment of technology.

I urge Fort Hays State University to offer an academic program that aligns with CNSS standards and to provide the resources and leadership to become a National Center of Academic Excellence in Information Assurance.

Sincerely

Pat Roberts