

# **FY2005 DEPARTMENTAL ANNUAL REPORT OF CONTINUOUS IMPROVEMENT**

**Department of Information Networking and Telecommunications**

**Fort Hays State University**

## **I. Departmental Overview**

The Department of Information Networking and Telecommunications (INT) offers working, and academic concentrations: Media Studies, Computer Networking and Telecommunications, and Web Development. Both the bachelors of science and the bachelors of arts degrees provide extensive theoretical, hands-on and cutting-edge technology experience. The department offers a concentration in the bachelors of general studies and in the masters of liberal studies. It offers three certificates.

The INT department emphasizes balanced development of technical, analytical, communication, and leadership skills in order to open long-term career options. Information Networking focuses on the concept of the effective use and movement of information. Students in Media Studies and Web Development learn to become the content creators for the media of today and tomorrow. Telecommunications/Networking students learn to create the high powered networks that deliver electronic content. All INT students learn critical skills used to apply information in powerful ways for business, government, education, health care, entertainment and other sectors.

## A. Departmental Mission and Vision Statements

### **Mission Statement**

The following is the mission statement as it appeared in the Proposal to Establish a Department of Information networking and Telecommunications.

The mission of the Department of Information Networking and Telecommunications is:

- (1) to develop and maintain a curricular program based on the converging broadcast, computer, and telecommunications industries and areas of study
- (2) to foster a liberal arts philosophy in all courses and degree programs within the discipline.
- (3) to initiate and maintain relationships between the various broadcast, computer and telecommunications industries and INT for the development of internship and apprenticeship opportunities.
- (4) to posture the department as a leader in information technologies for the purpose of promotion technology development and utilization in the state of Kansas
- (5) to employ a multidisciplinary approach to instruction by developing a challenging curriculum that is practical and applicable to multidimensional market needs

### **VISION STATEMENT**

**The Program in Information  
Networking and Telecommunications  
at  
Fort Hays State University**

#### **I. Rationale**

### ***The “Powershift” Argument: Positioning is Everything***

In Powershift, Alvin Toffler’s third work in his impressive and sweeping trilogy on the concept of worldwide change, he argues that the very nature of power is undergoing a dramatic transformation. This transformation is the product of an accelerating and increasingly pervasive system of wealth creation which finds its origins in the relationship between knowledge and power. The fusing of these two elements is energized by the driving forces of individualism, innovation and information.

**Information**, the most instrumental, is causing shifts of power not only at the global level but throughout our daily existence including “the world of supermarkets and hospitals, banks and

business offices, television and telephones, politics and personal life” (Toffler, 1990). If we are truly entering an era of shifting power based on the potential of information to create knowledge, and thus a new system of wealth and control, **the future belongs to those who can effectively access, distribute, and process information.**

Any lack of preparedness or positioning is limiting and potentially dangerous in a world where the creation of wealth is becoming ever more dependent on the management of an information-related agenda of issues and the availability of first-rate telecommunications facilities and services.

Although infrastructure for accessing information is critical, ultimate success in this global system of wealth creation is tied to **human capital**. As we prepare ourselves to function in the “new economy” of the 21<sup>st</sup> century, our destiny depends on information networking and knowledge-processing skills and capacities. Just as Tocqueville observed in 1832 in his treatise *Democracy in America*, *the future rests heavily on public and innovation in education and training.*

## ***The Regents System and Fort Hays State University***

The Kansas Regents System has a critical role to play in developing a broadly-educated workforce to meet the knowledge-processing needs of this evolving global system of wealth creation. As the university in the Regents System assigned the mission of applying computers and communications-technology to liberal arts education, Fort Hays State University (FHSU) is well positioned to contribute positively and effectively to the concept of lifelong learning in the new information-based economy. To capitalize on the university’s position and the emerging opportunity to assume a leadership role in education for the Information Age, the College of Arts and Sciences has developed new and unique degree programs in Information Networking and Telecommunications.

### **II. The Vision**

There is a popular saying among strategic planners and purveyors of new leadership paradigms such as “liberation management” which goes something like this—*a vision is a journey, not a destination*. In essence, what they mean is that no matter how comprehensive or well-defined, visions are simply reservoirs along a stream of continuous quality improvement. As reservoirs, however, they represent inspirational and thought-provoking holding basins for the brainstorming of dreamers and, at times, lunatics.

#### Definition of Terms

- A) *Information networking*, a complex field, is defined simply and clearly as the *movement and use of information*.

- B) *Telecommunications* is “sharing at a distance” with a focus on public and private access and transmission technologies, switching systems and storage and processing devices designed to facilitate information networking across barriers and boundaries.

### Some Key Elements of the Vision

**Mission** The program’s primary mission will be to produce information networking managers, leaders, government officials and citizens who can effectively contribute to the success of the state’s telecommunication industry and other existing and emerging forms of economic, social and political organization conditioned by the information world of the 21<sup>st</sup> century.

**Curriculum** The program’s courses are built on a multidisciplinary foundation, drawing on faculty and experts from the fields of:

- Technology
- Business and Organizational Management
- Public Policy
- Social Theory, Communication and Leadership

It draws on resources from the Colleges of Arts and Sciences, Business and Education.

Courses will be offered for a cohesive learning experience from lower division through a senior seminar, along with involvement in the Masters of Liberal Studies program. *Technology* courses focus on the technical means to store, display, retrieve, process and transmit information with emphasis on the needs of the end user of the information, whether the user is an individual, an organization or an institution.

*Management and leadership* courses treat the specific management problems associated with information development, movement and use.

*Policy* courses examine the policy implications of information networking and telecommunications for individuals, organizations and the concerns of local, regional, national and global entities.

*Social theory, communication and other liberal arts* courses provide students with an appreciation and sensitivity for the political and societal implications and impact of information networking and technology.

## **Interactivity/Outreach**

The program's co-curricular, extracurricular and public outreach activities and arrangements provide linkages and opportunities in the following areas:

- Ties to university, local and state economic development efforts
- Opportunities for students to partake in service learning that provide students an opportunity to use their unique skills for the benefit of others and to develop a sense of their abilities to make a positive impact.
- Ties to the American Democracy Project – helping to promote and to disseminate information about the project through communication channels such as television programming, news stories, PSA creation, and website development.
- Ties to state, national and global information networking and telecommunications industries/Corporate partnerships
- Local, state and regional strategic planning efforts
- Grant opportunities and access to worldwide experts (visiting lectures, speakers, researchers, etc.)
- Enhanced student involvement in the form of internships, apprenticeships and special appointments in the world of information networking and telecommunications
- Strengthening the university's commitment to TQM by producing information networkers and navigators who are broadly-educated and appreciate teamwork and the need for lifelong learning
- The potential for recruiting students and faculty on a regional and national level based on unique and innovative programming

### **III. The Outcome**

The authors of Integrity in the College Curriculum (1985) pulled no punches when they described the deficiencies of the typical undergraduate major. In their words...”the major in most colleges is little more than a gathering of courses taken in one department, lacking structure and depth.” Subsequent reports from several higher education associations have echoed this statement.

FHSU has addressed this criticism and infused its own learning community with an innovative structure and set of programming arrangements designed to produce a special kind of graduate, or what Jay Gillette has referred to as the “T”-person. Because information networking is a multidisciplinary field, it requires the attention and participation of people who are more than telecommunications technicians. At a minimum, the information networking manager or government official responsible for telecommunications should have background or expertise in technology, business management and public policy (Gillette, 1991). This “T”-person has skills and technical proficiency not only in *depth*, but develops *breadth* by networking with other people and disciplines to gain expertise in business and the formulation of public policy. The Bellcore Information Networking Institute has identified an additional set of attributes which the “T”-person and knowledge workers should possess (Gillette, 1991):

- A) *Strategy-minded* (they see the big picture including the political, social and economic context of which they are a part)
- B) *Creative/Flexible* (they analyze problems from a fresh perspective)
- C) *Innovative/Adaptive* (they are knowledgeable about new technologies and how to deploy them)
- D) *Persistent* (they go the extra mile, don’t give up and pay attention to detail)
- E) *Cooperative* (they are team players and able to see the end-client’s point of view)
- F) *Competitive/Desire to Improve* (they are aware of marketplace dynamics and organizational realities; they stay ahead of change by initiating change)
- G) *Knowledgeable* (they use theories about the nature and behavior of information to manage its movement and use in a networked society)

In sum, the FHSU program in Information Networking and Telecommunications is designed to reflect an emphasis on liberal learning in an information economy. As a component of liberal learning, the department’s offerings will be aimed at equipping students with the “freedom” to realize their potential in the knowledge-intensive world of the 21<sup>st</sup> century. Understanding the implications of information technology, information networking management and telecommunications public policy will contribute to that potential.

#### IV. References

Association of American Colleges. (1985). *Integrity in the college curriculum: A report to the academic community [of] the findings and recommendations of the Project on Redefining the Meaning and Purpose of Baccalaureate Degrees*. Washington, DC: Association of American Colleges.

Gillette, Jay, ed. (1991). *Contributions in information networking: Toward a field definition*. Morristown, NJ: Bellcore Information Networking Institute.

Toffler, Alvin. (1990). *Powershift: Knowledge, wealth, and violence in the 21<sup>st</sup> century*. New York: Bantam Books.

## **B. Departmental Goals, Objectives, and Strategic Priorities**

The INT has established departmental Meta Goals for five Year Period 2005 – 2010. These are major multi-year goals. They include:

- More faculty (also PhD faculty)
- International enrollment
- Expanded military enrollment (controlled growth)
- Greater footholds in major metropolitan areas for recruitment of traditional students
- 450 undergraduates split among tracks and between on-campus and Virtual College
- 100 graduate students
- Full Masters of Science – perhaps shared with other FHSU IT departments offered through the Virtual College – 90% distance learning students, 10% on-campus; enhanced tuition (w/qualified admission policy)
- Endowed Incentive System for faculty performance
- Endowed Scholarships \$500,000
- Enhance faculty research and scholarship that enhances undergrad education
- New building facilities pulling the INT Department into one building with adequate offices, labs, studios, and work areas.

Specific more immediate goals, objectives, and strategies will be necessary in order to meet these longer term goals.

Objective 1: Increase transfer of both on-campus and distance learning students:

Strategy 1.1 Substantially enhance the look of INT Department website – making it useful and attractive to potential and current students. Substantial content changes were made in FY 06, but the site needs better graphics, more photos, and a link to the new video.

Timeframe: Substantial rework – fall 2006 and continuing updates

Strategy: 1.2 Increase the number of articulation agreements with out-of-region community colleges. Market articulation through the Cisco Academy Conference and Cisco Academy Mid Year Meeting. List articulations on website. INT established four new agreements in FY 06 and ideally can establish another four in FY 07.

Timeframe: February Cisco Academy Mid-Year Meeting and June Cisco Academy Conference

Strategy: 1.3 Target a high school student population for a focused recruitment trip. Perhaps, Maize, Derby, and Wichita North should be a targeted group.

Timeframe: Fall 2006

- bring alumni into classes
- send current students back to their high schools

Objective 2: Continue to recruit graduate students to the MLS in Information Networking and Telecommunications

Strategy: 2.1 Contact Cisco Academy Training Centers and update them with current brochures and information.

Timeframe: Spring, Summer, and Fall 2006

Strategy 2.2 Make and renew contacts at Cisco Academy meetings.

Timeframe: February Cisco Academy Mid-Year Meeting and June Cisco Academy Conference

Objective 3: Take next steps in updating the Web Concentration curriculum.

Strategy 3.1 Integrate new texts and leave Cisco Academy curriculum

Timeframe: Implement Fall 2006

Objective 4: Work to substantially expand content for new KFHS Channel and potentially Nex-Tech cable systems

Strategy 4.1 Work with KOOD to create 13 week series "Doctors on Call."

Strategy 4.2 Work with University Relations to establish PowerPoint information system for KFHS Television.

Strategy 4.3 Work with FHSU Athletic Department to expand athletic event coverage.

Strategy 4.4 Archive and position non-time sensitive programs and make such programs available for playing on KFHS Television.

Timeframe: Initiate late Spring 2006 and continue through academic year.

Objective 5 Investigate China and international Partnerships

Strategy 5.1 Follow the lead of the President, Provost, and Dean. Express willingness and flexibility, but also the need for resources adequate in amount to provide additional quality services.

Timeframe: Continuous.

## **II. Departmental Highlights**

### **A. Departmental Productivity and Other Distinctive Departmental Accomplishments**

The Department of Information Networking and Telecommunications was recognized as a Cisco Networking Academy “Best Practice” for its distance learning effectiveness. Mark Bannister and Mark Rohlf delivered a poster presentation at the Academy Connection Conference in Fort Worth in mid-June 2005. Mark Bannister and Angela Walters were asked to make conference presentations on effective distance learning at the 2006 Academy Connection Conference.

The Department of Information Networking and Telecommunications was recognized with the 2005-2006 Provost’s Award to recognize excellence in the sustainability of recruitment efforts.

The Department of Information Networking and Telecommunications was recognized by Cisco Systems in June 2006 from among 150 nominees for one of nine awards. FHSU was recognized for “Outstanding Demonstration of Relationships in the Cisco Networking Academy Program.”

The Interdisciplinary Telecommunications Program at the University of Colorado, Boulder established a graduate scholarship for graduates of the FHSU INT undergraduate program in the amount of \$5000. CU did this out of recognition that some of the best and brightest graduate students in its program in recent years were FHSU INT graduates. FHSU INT is the first program with which the CU ITP has established this type of relationship.

The department established new transfer and articulation agreements with the following colleges in FY 06:

- Central Texas College
- Manhattan Area Technical College
- Pikes Peak Community College
- Texas State Technical College Waco

The INT Department’s intent in establishing relationships with out-of-state community and technical colleges is to build relationships for attracting and supporting distance learning students. A few transfer students from each of these colleges can add up to substantial enrollment.

Students and alumni were hired by companies and organizations including: Cisco, Microsoft, Apple, Berbee, Nex-Tech, Eagle Communications, Sprint, the State of Kansas, and the Scott City School District.

### **B. Performance Indicators**

<b>Key Performance Indicator</b>	<b>Baseline FY2004</b>	<b>Actual FY2005</b>	<b>Actual FY2006</b>	<b>Goal FY2007</b>
<b>Number of New Freshmen</b>	25	25	30	30
<b>Number of Transfer Students</b>	35	15	30	40
<b>Number of Majors:</b>				
Undergraduate (first majors/second majors)	188	182	200	205
Graduate				
Departmental majors	40	40	40	40
MLS students	25	33	24	30
<b>Student Credit Hour Production</b>				
Undergraduate	3716	3683	3612	3800
Graduate	252	348	292	300
<b>FTE Faculty (Headcount)</b>				
Tenured or Tenure-track Faculty (Headcount)	4	5	5	7
NonTenure-Track Faculty (Headcount)	2	1	1	1
Other Faculty (Headcount/Sections Taught)				
<b>Degrees Awarded</b>				
Undergraduate degrees	30	42	28	30
Graduate degrees				
Departmental degrees				
MLS degrees	4	8	9	9
<b>Scholarly Activity (See</b>				

<b>Key Performance Indicator</b>	<b>Baseline FY2004</b>	<b>Actual FY2005</b>	<b>Actual FY2006</b>	<b>Goal FY2007</b>
<b>Section IV for documentation requirement)</b>				
Number of books, book chapters, and <b>refereed</b> articles published	1	3	2	3
Percent of faculty publishing <b>refereed</b> books, chapters, or articles	16%	50%	33%	50%
Number of <b>non-refereed</b> articles and presentations	75	80	108	12
Percent of faculty publishing <b>non-refereed</b> articles or presentations	50%	50%	100%	100%
Number of scholarly performances and other creative activities	2	2	2	2
Percent of faculty in scholarly performances or other creative activities	33%	33%	33%	33%
Total number of external grant applications submitted/percent of faculty submitting	1	1	2	2
Total number of funded external grants/percent of faculty funded	16%	16%	33%	33%
<b>Service Activity</b>				
Percent of faculty meeting acceptable standard of service activity	66%	66%	66%	66%

Key Performance Indicator	Baseline FY2004	Actual FY2005	Actual FY2006	Goal FY2007
Percent of faculty meeting exceptional standard of service activity	33%	33%	33%	33%
<p><b>Assurance of Student Learning</b></p> <p>Outcome/Indicator 1 Pre-Post Test: The INT Department has worked for several years to develop and to refine a pre-post test that is administered in INT300 Foundations of Information Networking and in INT490 Capstone in Information Networking. Statistical improvement of scoring is an important quality measure.</p> <p>Outcome/Indicator 2 INT Student Placement Six Months after Graduation: Employability of students is a market driven indicator of approval of knowledge and skills gained while</p>	<p>In the spring of 2004, seniors were not offered any credit for taking the exam and the instructor believed the results were very unreliable.</p> <p>Employed in Major field or in graduate school 30 of 33 BA and BS Graduates</p>	<p>In the spring of 2005, seniors were required to take the test as part of their grade for INT490. Seniors did well on the 60 point exam. The mean was 53.33 or 88.89%. The test was revised for 05-06 to reflect changes in curricula and technologies. Therefore, year-to-year comparisons are not accurate.</p> <p>Employed in Major field or in graduate school 24 of 27 BA and BS graduates</p>	<p>The 05-06 test was more difficult than the 04-05 test. The tests will not be identical as curriculum and faculty change.</p> <p><b>Pre-Test Fall 2005</b> On-Campus Mean: 54.78% Median: 53% Mode: 50%</p> <p><b>Post-Test Spring 2006</b> On-Campus Mean: 65.5% Median: 66% Mode: 70%</p> <p>T-Test P Value 8.97368E-06</p> <p>Thus, we have a statistically significant difference in the scores of on-campus seniors compared to incoming freshman and transfer students.</p> <p>Employed in Major field or in graduate school 37 of 40 BA and BS graduates</p>	<p>2005-2006 Graduates 30 Goal 95% employed in field or in graduate school</p>



Key Performance Indicator	Baseline FY2004	Actual FY2005	Actual FY2006	Goal FY2007
<p>The Certified Wireless Network Associate is a new certification in FY2005 tied to INT664 Wireless and Cellular Systems.</p> <p>Outcome/Indicator 3 The Kansas Broadcasters Association administers an awards and scholarship program open to all Kansas colleges and universities. Fort Hays State University INT traditionally does well in these programs.</p>	<p>Curriculum not offered</p> <p>Awards 1<sup>st</sup> Place: 5 2<sup>nd</sup> Place: 3</p> <p>Internship Stipends/Scholarships 6</p>	<p>CWNA 7</p> <p>Awards Honorable Mention: 2</p> <p>Internship Stipends/Scholarships 6</p>	<p>CWNA 3</p> <p>Awards 1<sup>st</sup> Place: 1 2<sup>nd</sup> Place: 1</p> <p>Internship Stipends/Scholarships 2</p>	<p>CWNA 8</p>

**C. Current Quality Initiatives and Results**

FY 2006 Quality Initiatives	Results
<p>Improve the quality of on-line networking and telecommunications courses using NetLab, adding additional media rich content and creating Voice of Internet Protocol (VoIP) remote lab exercises.</p>	<p>- Capabilities of on-line networking classes were enhanced during FY 06. New lab equipment and software upgrades and faculty development of new lab exercises, interactions, and media rich content improved on-line offerings. NetLab increases the efficiency of faculty by allowing individual student settings and exercises to be customized with much greater ease and in less time by faculty. - - The INT Department completed a DVD on "Subnetting" that it began to distribute to its distance learning students and to offer other universities, faculty, and students. - With the help of a Federal Grant and</p>

	Nex-Tech, and Cisco Systems, INT faculty developed VoIP labs in the Fall 2005 semester. Students in the first VoIP class provided substantial feedback and input. Nex-Tech professionals provided expertise and technical assistance.
The INT faculty have examined the survey of student engagement and have agreed to identify additional opportunities to use recognized student engagement tools.	The INT faculty met in a teaching retreat in August 2006 and shared effective instructional techniques, exercises, and literature on teaching and learning. The faculty worked to develop greater awareness and understanding of student engagement tools. The faculty began to seek appropriate opportunities to effectively add additional engagements in classroom and service activities. These activities will not generally require more resources. Some are more time intensive for the faculty member than less engaging teaching techniques.

FY 2007 Quality Initiatives	Responsible Party, Resources, and Plan

### III. Strategic Plan and Opportunities for Improvement for FY2007

#### A. Departmental Reflection of Strengths, Weaknesses, Opportunities, and Threats

Strengths	Weaknesses/Needs
<ul style="list-style-type: none"> <li>- The INT faculty is enthusiastic, knowledgeable, and supportive of students.</li> <li>- INT is successful at personalization of student experiences</li> <li>- INT promotion of cross emphasis adds to student capabilities and balance.</li> <li>- INT has a culture of fiscal responsibility and effective fiscal management.</li> <li>- INT emphasizes experiential learning,</li> </ul>	<ul style="list-style-type: none"> <li>- More graphic skill based classes are needed for media and web students.</li> <li>- Media Studies concentration needs production course for end to end learning (movie, documentary).</li> <li>- INT faces an identity crisis on campus (media confused with communications) need to define INT.</li> <li>- The department has a need to continue to build faculty credentials and depth.</li> <li>- INT has a need to build awareness of</li> </ul>

<p>from freshman year onward.</p> <ul style="list-style-type: none"> <li>- INT's networking w/ industry: placement with high level companies</li> <li>- Alumni's e-mails to listserv are inspiring for students.</li> <li>- INT takes care of alumni, stays connected, alumni are still important</li> <li>- INT's focus on new technologies and its adaptability continue to keep it relevant and competitive.</li> <li>- INT's connection to local/regional industry is an important strength.</li> <li>- Department's depth of curriculum is valuable.</li> <li>- The industry experience of professors is valuable.</li> <li>- INT has a culture of flexibility and adaptability (on-campus and distance learning course options).</li> <li>- Student involvement (student opinions taken seriously).</li> <li>- Student retention is good (both report data and student perception).</li> <li>- Classes are stimulating, challenging and enjoyable – for both students and faculty.</li> <li>- The steady stream of military distance learning students provides a base of motivated and mature distance learning students.</li> </ul>	<p>career opportunities.</p> <ul style="list-style-type: none"> <li>- INT faces a challenge in diversity recruiting.</li> </ul>
<p><b>Opportunities</b></p>	<p><b>Threats</b></p>
<ul style="list-style-type: none"> <li>- Build awareness of Hays as an a high tech city</li> <li>- Promote the vision of what an INT student can be and share this with current and potential students, counselors, and parents.</li> <li>- Mobile computing initiative</li> <li>- Information Assurance MLS has interest from a nation-wide audience</li> <li>- Tie in with TigerLAN, increase promotion there and industry partnerships</li> <li>- Alumni speakers (could increase in-class speakers)</li> </ul>	<ul style="list-style-type: none"> <li>- Technologies, labs, curricula, and faculty knowledge quickly becomes outdated.</li> <li>- Increased recruitment challenges – a battle against public perception that all IT jobs are being outsourced to India and China</li> <li>- No child left behind redirecting resources from elective high school courses that would lead to INT</li> <li>- High school students have few elective options in web, media, networking and other classes that lead to INT. As a result</li> </ul>

- INT has the opportunity to become involved with international partnerships	Cisco Academies are closing.
--	------------------------------

**B. Opportunities for Improvement**

<b>Short Term OFI</b>	<b>Resources Required</b>	<b>Expected Outcome and Completion Date</b>
Examine recruitment strategies, continue to expand and improve the department website. Continue to improve and to promote Kansas Media, Networking, and Web Competition.	Faculty, administrative assistant, and student employee time.	Continuous.
Develop an additional Web Concentration course to reflect the growing complexity and sophistication of web tools. This course will likely focus on scripting languages.	Time commitment from Angela Walters and Mark Bannister. Input and review of full INT Faculty.	Course proposed to Dean in July 2006. Expected approval in Faculty Senate/Graduate Council approval process – May 2007.
Audit content of the Web Concentration. Build from new base content in INT 250 Introduction to Web	Review of curriculum by INT Curriculum Committee.	Initial study and analysis during Summer 2006. Curriculum to be reviewed by INT Faculty during early Fall 2006.
Develop “Capstone in Information Assurance” course to be used in the MLS in Information Assurance.	Time commitment from Jon Tholstrup and Mark Bannister. Input and review of full INT Faculty.	Course proposed to Dean in July 2006. Expected approval in Faculty Senate/Graduate Council approval process – May 2007.
Audit initial content of	Time commitment from	Initial study and analysis

Information Assurance MLS track and seek to align curriculum with emerging national standards.	Jon Tholstrup and Kevin Shaffer. Input and review of full INT Faculty.	during Summer 2006. Curriculum to be reviewed by INT Faculty during early Fall 2006.
Work with Department of Music to develop a Bachelors of Science in Music Technology.	INT will offer existing courses. INT will support the development and improvement of FHSU music recording facilities.	Curriculum agreed upon in early Fall 2006. A multiple year process of upgrading facilities will begin.

<b>Long Term Strategic Initiatives</b>	<b>Resources Required</b>	<b>Expected Outcome</b>
Develop "Network Security" Concentration at the undergraduate level.	Additional faculty, lab equipment and OOE will be required.	INT will develop a program serving Kansas, but which has a greater draw of distance learning and perhaps international – on-campus students.
Eventually muster the resources to offer an on-line free standing masters degree program in Information Networking and Telecommunications.	Additional faculty, lab equipment, and OOE will be required. This program has the potential to be self-funding after initial start-up due to national demand for distance learning.	INT will develop a well respected, high quality, on-line masters program with a solid curriculum, qualified and competitively compensated faculty, innovative and valuable lab learning experiences, and a large and well qualified student body.

#### **IV. Supporting Materials**

- A. Department Degree Program Affinity Diagram(s)**
- B. Department Staffing Plan**
- C. Bibliography of Departmental Scholarly Activity**
- D. Department Program Assessment Results**

**E. Other Departmental Information – Announcement of Cisco Academy Award**