## I. EXECUTIVE SUMMARY

### A. Mission and goals:

The mission of the department is to provide highly reliable Information Technology infrastructure, tools, and services to enable the University to achieve its Academic, Research and Administrative objectives.

Our goals are:

1. Reliable and Secure Systems
2. Teaching and Learning Excellence
3. Technical Innovation
4. Staff Expertise and Professionalism
5. Cost-Effective Use of Resources
6. External and Internal Partnerships

### B. Summary of process used to develop unit goals:

The process commenced with a review of the overall University and Academic Affairs objectives. The ITS Senior Leadership then mapped the goals and objectives of our internal departments with to align with those goals. We produced a concept map depicting common goals and themes from an internal perspective. The Senior Staff then conducted an external scan, looking at the IT Strategic Plans at other Universities for best practices and innovative ideas. Once the College Plans were published the ITS Senior staff analyzed their plans to determine internal ITS objectives and the methodologies to support them. We gathered feedback from our key IT peers across the University and clustered these needs into groups. We combined information we had gathered externally with our internally generated concept map. This clustering produced the overall Goals and objectives for the department. Action plans to achieve these goals were determined during an off-site retreat.

### C. Summary of major goals in strategic plan:

1. **Reliable and Secure Systems.** ITS will ensure that the technology infrastructure of the university is reliable, dependable and secure.

2. **Teaching and Learning Excellence.** The department will provide the tools and expertise to create an environment that supports high quality educational programs.

3. **Technical Innovation.** ITS will actively encourage the investigation of new technologies to support the mission of the University in a time of rapid and unremitting technological change.

4. **Staff Expertise and Professionalism.** The ITS department will create a diverse, service oriented culture that values individual development and teamwork.

5. **Cost-Effective Use of Resources.** ITS will provide the right technology at the right price in a manner aligned with stated University priorities.

6. **External and Internal Partnerships.** The Information Technology Services Department will be a trusted partner for technology use on campus and will support the service mission of the University through active engagement in our region and state.
### D. Summary of new resources required to achieve new goals:

1. **Funding for Network Replacement Project** is essential for the completion of goals 1, 2, 3 and 4.
2. By the end of the planning period, the University will need to have solid plans for an on-campus 10,000 square foot data center in order to achieve goals 1, 2 and 4.
3. **Maintenance and Operations** funding for new buildings as they come on line to support goal 1.
4. **Funding of the Kennedy Renovation Project** at $5.1M is necessary to ensure goals 3, 4, 5 and 6.

### II. ENVIRONMENTAL SCAN/ UPDATES SINCE LAST FIVE-YEAR STRATEGIC PLAN

#### 1-2 pages

| A. Assessment of cumulative progress in meeting goals in current strategic plan: | Goal # 1: Facilitate direct access to electronic information and services anytime, anywhere.  
Met. During this planning period we completed the implementation of Banner, a University Portal (49er Express) and an online reporting data warehouse (Report Central).  
Goal # 2: Provide efficient, effective and quality IT Services for faculty, students, and staff.  
Partially Met. We implemented campus-wide life cycle management for PCs, improved our ability to monitor our systems and implemented industry standard best practices for managing our work. Inadequate facilities and the lack of a standard replacement process for servers and network prevented us from achieving the level of efficiency and reliability necessary.  
Goal # 3: Support the enhancement of teaching effectiveness and student-centered learning in on-campus and on-line learning environments.  
Met. The Center for Teaching and Learning through its emphasis on the Scholarship of Teaching and Learning has focused on effective teaching practices. They have deployed the appropriate electronic tools (Course Management Systems) to facilitate those objectives.  
Goal # 4: Provide IT resources and services to support the University’s Research agenda  
Met. The University Research Cluster provides High Performance Computing to researchers across the campus exceeding 1.5 million CPU hours per year.  
Goal # 5: Deploy technology tools to improve the University’s administrative processes  
Met. Completed the implementation of all contracted Banner modules and the deployment of the Data Warehouse (Report Central) and the 49’er Express Portal. Accomplished two major upgrades to the Banner system. Implemented a research administration post award management system (SAM) and completed first set of web-based workflow projects (EGA).  
Goal # 6: Provide a cost-effective, scalable IT Infrastructure.  
Partially Met. The deployment of a new remote data center and the implementation of our virtualization strategy were not completed during the planning period. The campus network in its current configuration does not meet our objectives for scalability, reliability or cost-effectiveness.  
Goal # 7: Ensure a secure e-learning, e-Research, and e-Business environment.  
Met. The University had no major IT security breaches during the planning period. We successfully completed all audits. |

| B. Environmental scan/updates of | The IT environment for Higher Education today is vastly different from the environment of the previous period. The rate of technological change has increased at a seemingly increasing |
challenges, opportunities, and obstacles since last strategic plan:

<table>
<thead>
<tr>
<th>Major trends that affect the ITS Strategic Plan include:</th>
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<tr>
<td>• Rise of consumer oriented technology (Gmail, Iphone, Skype, RateMyProfessor, etc)</td>
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<td>• Changing communication patterns (email, chat, texting, social media, video)</td>
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<td>• Emergence of Social Media as a dominant web application.</td>
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<td>• Software as a Service replacing institutionally owned infrastructure.</td>
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<td>• Virtualization replacing one-computer-one-application model.</td>
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<td>• Dominance of mobile computing (of all sizes and shape) over desktop computing.</td>
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<td>• High performance, low latency networking makes “place” increasingly irrelevant.</td>
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<td>• Intensified IT related regulatory environment (Audit, Credit Cards, Records Retention, Incident Notification, etc)</td>
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<tr>
<td>• Professionalization of IT security threats has led to increased number of more complex and effective exploits.</td>
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<tr>
<td>• Market consolidation resulting in pricing power shifting to ever tighter oligopoly control (Oracle, SunGard, Blackboard, etc)</td>
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<tr>
<td>• Federal regulatory control over personal information continues to increase (Sarbanes-Oxley, HIPAA, Red Flags Rule, etc).</td>
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There have also been changes in North Carolina that present both opportunities and Challenges since the last planning period.

<table>
<thead>
<tr>
<th>Budget reductions and constraints.</th>
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<tr>
<td>Standardization efforts at General Administration related to common authentication plus the beginning of a standard Shared Service Banner implementation.</td>
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<td>S.B 6.08 eliminated our ability to use IT contractors for staff augmentation forcing us to create permanent positions instead.</td>
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<td>S.B 6.11 which requires us to purchase PCs from a standardized contract maintained by General Administration and State ITS.</td>
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<td>Various Executive orders related to record and email retention.</td>
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<td>The award of the BTOP1 grant to MCNC greatly enhances the long term capacity and viability of the statewide network.</td>
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Finally, the University itself has evolved significantly since the last planning period.

| Increased emphasis on the importance of electronic tools to support teaching – including the appreciation for asynchronous tools. |
| The emphasis on interdisciplinary projects. |
| Increased numbers of students on a relatively stable employment base drives the need for creative thinking about how we use technology to improve our processes. |
| The completion of the Charlotte Research Institute has increased the need for technical support staff in the networking group. |
| The use of computational resources in research programs continues to expand. |
### III. NEW STRATEGIC GOALS, ACTION PLANS AND PERFORMANCE OUTCOMES FOR 2010-2015

#### A. Department Goal #1: Reliable and Secure Systems.

<table>
<thead>
<tr>
<th>B. Relationship of goal to next higher reporting unit goal:</th>
<th>1, 2, 5, 6, 8</th>
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</table>
| C. Action plans to achieve goal: | A. Fully implement High Availability technologies for systems reliability and redundancy.  
B. Create Reliable disaster recovery and business continuity capabilities.  
C. Develop technology lifecycle replacement funding mechanisms for critical enterprise systems.  
D. Implement a Network Modernization Plan to improve reliability and enhance service delivery.  
E. Provide a more secure campus IT infrastructure.  
F. Implement best practice standards for systems management to improve reliability and reduce unplanned outages.  
G. Build an on-campus data center appropriate for a growing research university. |
| D. Effectiveness measures/methods to assess outcomes/goal attainment: | A. The number of unplanned outages decrease annually.  
B. Disaster recovery and business continuity plans are documented and tested.  
C. Critical production enterprise systems are within their expected service life.  
D. The network provides satisfactory wireless coverage for students and improved reliability for faculty and staff.  
E. No unauthorized data releases from centrally managed systems.  
F. Changes to high risk systems are managed through the ITS change control process.  
G. Planning and analysis are conducted to prepare for implementation of a new datacenter. |
| E. Assessment schedule to assess goal: | • Annual assessment of planned and unplanned downtime.  
• Annual Security Assessment report.  
• Annual user satisfaction survey.  
• Network replacement project is completed by 12/31/2011  
• Modern, on-campus Data Center space is available by 6/30/2015 |
| F. Person/group responsible: | Jay Dominick, Vice Chancellor: 1.c; 1.g  
Tom Lamb, CTO: 1.a, 1.d; 1.e  
Robin Weaver, Director Enterprise Information Systems: 1.a; Director IT Plans and Policies: 1.b, 1.f |
| G. Performance outcomes for goal: | Campus IT systems aggressively support the administrative, academic and research missions of the university. |
| H. Resources Required: | 1.d: Network replacement $12.5MM  
1.g: $3MM |

#### ANNUAL REPORT

| I. Annual progress assessment of performance outcomes: |  |
| J. Follow-up plan to make changes as a result of assessment findings: | |
### III. New Strategic Goals, Action Plans and Performance Outcomes for 2010-2015

#### A. Department Goal #2: Teaching and Learning Excellence

**B. Relationship of goal to next higher reporting unit goal:**

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<td>1, 3, 4, 5, 8, 9, 10</td>
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#### C. Action plans to achieve goal:

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<tr>
<td>A. Research, develop and sustain enterprise level instructional technologies that improve student learning while reducing instructional costs.</td>
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<td>B. Provide a student learning environment that is aligned with the pedagogical goals of the University.</td>
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<td>C. Improve teaching and learning experiences by integrating academic technologies with traditional pedagogy.</td>
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<td>D. Develop programs to promote best practices of teaching excellence in both traditional and online pedagogy.</td>
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<td>E. Collaborate with faculty leaders and college IT professionals to access programs, tools, and services that support their teaching and learning needs.</td>
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#### D. Effectiveness measures/methods to assess outcomes/goal attainment:

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<tbody>
<tr>
<td>A. The number of Faculty requests for Learning Management System enhancements that are implemented.</td>
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<td>B. Student satisfaction with the tools and support they receive is measured.</td>
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<td>C. The number of students using technologies provided through the Center increases.</td>
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<td>D. Interaction with faculty increases.</td>
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<tr>
<td>d. Number and quality of SOTL grant applications increase.</td>
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<td>E. Programs and Seminars meet the needs of faculty participants.</td>
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#### E. Assessment schedule to assess goal:

- Student Computing Strategy completed by 6/30/2011
- Annual Assessment of Center for Teaching and Learning programs.
- Online Course Evaluation Pilot complete by 6/30/2011

#### F. Person/group responsible:

- **Jay Dominick, Vice Chancellor:** 2.b
- **Valorie McAlpin, Director of CTL:** 2.a, 2.b, 2.d, 2.e

#### G. Performance outcomes for goal:

- The University is able to meet its goals for academic quality and retention.

#### H. Resources Required:

- Continued support for Seminars, SOTL and faculty engagement opportunities.
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### III. New Strategic Goals, Action Plans and Performance Outcomes

**A. Department Goal #3: Technical Innovation in Support of the University Mission**

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<tr>
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| C. Action plans to achieve goal:                         | A. Develop an environment to support academic collaboration to include both digital, social and physical resources.  
B. Develop a modern, service-oriented information access strategy to allow improved use of University data.  
C. Develop a streamlined process for managing the digital identity of University constituents  
D. Develop and maintain a first-rate research-centric computing, networking and storage environment.  
E. Implement and sustain state-of-the-art instructional technology systems. |
| D. Effectiveness measures/methods to assess outcomes/goal attainment: | A.  
1. New tools implemented on an annual basis to support faculty and student collaboration.  
2. Number of workshops held to facilitate innovation in teaching and learning increases.  
3. Number of academic projects that use the Kennedy building infrastructure increases.  
B.  
1. Non-used or infrequently used reports are removed from Reports Central and Report Express.  
2. Grants related information can be accessed from a centralized data location.  
3. Goldmine users are polled on the ease of accessing data and results are favorable.  
4. All data pertaining to hiring (SPA, EPA, student) can be accessed from one location.  
5. ITS developed software incorporates re-usable, web-services based technology.  
C. Our core enterprise systems utilize a role-based hierarchy system.  
D.  
1. The Number of Sponsored Research grant applications that include University Research Computing increases from the previous plan.  
2. Usage based metrics increase.  
3. Number of papers published that involved University Research Computing resources increase from the previous plan.  
E. Enhancements to the LMS suite are implemented on a timely basis. |
| E. Assessment schedule to assess goal:                    | • Blackboard discontinued by 6/30/2011  
• Research Visualization White Paper completed by 1/31/2011  
• Mobile Device strategy developed by 12/31/2011  
• Digital Kennedy Plan completed by 12/31/2011  
• Annual review of the number of workshops held.  
• Annual review of storage and CPU hours used for Research Activity |
| F. Person/group responsible:                             | Jay Dominick 2.A, 2.B  
Robin Weaver, 2.B |
| Tom Lamb: 2.C |
| Valorie McAlpin: 2.A, 2.E |
| Chuck Price: 2.D |

G. Performance outcomes for goal: ITS fosters an environment of innovation that supports our academic, research and administrative mission.

H. Resources Required: $125,000 per year for faculty joint appointments in the Colleges.

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### III. NEW STRATEGIC GOALS, ACTION PLANS AND PERFORMANCE OUTCOMES

#### A. Department Goal #4: Staff Expertise and Professionalism

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<th>B. Relationship of goal to next higher reporting unit goal:</th>
<th>8, 9, 10</th>
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| C. Action plans to achieve goal: | A. Develop and maintain succession plans for ITS staff  
B. Develop a strategy that provides skill development necessary to meet the changing IT environment.  
C. Enhance both internal and external communications  
D. Measure IT effectiveness on a continual basis.  
E. Provide a physical work environment that supports collaboration and teamwork through the completion of the Kennedy renovation project.  
F. Support a diverse and inclusive workplace. |
| D. Effectiveness measures/methods to assess outcomes/goal attainment: | A. 1. Requirements for personnel contingency are evaluated and documented.  
2. Personnel contingency plans are created for critical enterprise applications and systems.  
B. Training plans are included in performance management documentation for staff.  
C. 1. All ITS personnel have taken at least one course on communication and teamwork.  
2. ITS website is modernized and generates greater interest resulting in more frequent site visits.  
D. 1. Annual survey is conducted to assess IT effectiveness.  
2. Completed projects include post-implementation assessment.  
E. Kennedy renovation projects proceed according to established plan and complete within the planning period.  
F. 1. Diversity and diversity related topics are covered at ITS staff meetings.  
2. Managers are fully trained in diversity related issues. |
| E. Assessment schedule to assess goal: | Methodology for assessing service effectiveness is complete by 6/30/2011.  
Internal Survey of effectiveness completed annually.  
External effectiveness survey completed bi-annually. |
| F. Person/group responsible: | Jay Dominick, CIO; 4.a, 4.e, 4.f  
ITS Senior Staff: 4.a, 4.b, 4.f  
Communication Manager: 4.c  
Director Plans and Policy, 4.d,  
| G. Performance outcomes for goal: | ITS is able to provide adequately trained and prepared staff to support the critical operational objectives of the University. |
| H. Resources Required: | Communications Manager: $67,000 per year. |
III. NEW STRATEGIC GOALS, ACTION PLANS AND PERFORMANCE OUTCOMES

A. Department Goal #5: Cost Effective Use of Resources

B. Relationship of goal to next higher reporting unit goal:

1, 10

C. Action plans to achieve goal:

A. Standardize on technology where appropriate for economy of scale, campus efficiency, transfer of skills and ease of support.
B. Implement Project Portfolio Management to align IT spending and Resources to University Priorities
C. Pursue an Open Source Software Strategy.
D. Develop a Business Plan for ITS that properly reflects the costs of delivering service.

D. Effectiveness measures/methods to assess outcomes/goal attainment:

A. 1. Standard PC purchase process developed and deployed as required by General Administration.
   2. E-procurement and e-Invoicing are implemented to simplify campus purchasing and attain bulk purchase discounts.
B. 1. Projects requiring constrained resources or Central Funds all are approved through Investment Review Board.
   2. Cost/benefit analysis is performed on Portfolio projects.
   3. Project performance is reported regularly.
C. 1. Proprietary Operating Systems are replaced by end of planning period.
   2. Open Source technology is utilized for web content management.
   3. Open Source software and templates are utilized for development process best practices.
   4. Open Source software is used for web-based application development.
   5. Use of Enterprise Content Management System expands on an annual basis.
D. Increase the revenue generated by ITS on an annual basis.

E. Assessment schedule to assess goal:

Virtual Desktop Business Strategy developed by 3/15/2011
Annual report of project value.
Methodology is developed for providing sustained funding for core IT infrastructure.
| F. Person/group responsible: | Jay Dominick, CIO; 5.a, 5.d  
Tom Lamb, CTO, 5.a, 5.b  
Robin Weaver, Director EIM, 5.c  
Pat barber, Director Project Management 5.b |
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<td>G. Performance outcomes for goal:</td>
<td>ITS provides increased level of service within a constrained financial environment.</td>
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<td>H. Resources Required:</td>
<td>Content Management Systems Administrator: $79,000 / year.</td>
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### III. NEW STRATEGIC GOALS, ACTION PLANS AND PERFORMANCE OUTCOMES

#### A. Department Goal #6: Internal and External Partnerships

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<tr>
<th>B. Relationship of goal to next higher reporting unit goal:</th>
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| C. Action plans to achieve goal: | A. Develop internal partnerships for innovation  
B. Deploy an effective committee and advisory structure for ITS that supports campus wide IT governance.  
C. Provide leadership at a State-wide level on IT related matters.  
D. Reach out and engage peer IT leaders on campus. |
| D. Effectiveness measures/methods to assess outcomes/goal attainment: | A.  
  a. Explore the creation of an academic/administrative “innovative technology” group that will investigate and evaluate new technologies.  
  b. Develop an ITS innovation award program.  
  c. Encourage jointly funded positions with Colleges  
B. Manage an appropriate governance structure for computing, campus-wide.  
  a. Support faculty governance through participation in the FITSAC  
C. Provide thought leadership for system-wide committees and at conferences.  
  a. ITS participates routinely in General Administration Software Alliance process.  
  b. ITS participates in the standing committees of MCNC and UNC-GA related to technology.  
  c. ITS is represented at key conferences such as UNC Cause and the Mid Atlantic Banner User’s Group.  
D. Partner with the Colleges on projects of joint interest. |
| E. Assessment schedule to assess goal: | Methodology for assessing service effectiveness is complete by 6/30/2011.  
Internal Survey of effectiveness completed annually.  
External effectiveness survey completed bi-annually. |
| F. Person/group responsible: | Jay Dominick, CIO; 6.a., 6.b, 6.c, 6.d  
ITS Senior Staff: 6.c, 6.d |
| G. Performance outcomes for goal: | ITS is seen as a valued and trusted partner on campus and UNC Charlotte is a leader within the UNC System. |
| H. Resources Required: | Communications Manager: |

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I. Annual progress assessment of performance outcomes:
J. Follow-up plan to make changes as a result of assessment findings: