A Status Report on the
Northside ISD Technology Master Plan 2002-2012
by Elert & Associates

February 5, 2007

Submitted by
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ACKNOWLEDGMENTS
The following people provided facts, input and feedback that helped make this report possible:

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Lori Jones, Director of Integrated Infrastructure Services
Jana Knezek, Director of Library and Textbook Services
Elizabeth Langer, Director of Technology Training and Development Services
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Introduction

The Northside Independent School District retained Elert & Associates in July 2001 to assist the District in the review of its technology resources and uses, and to help plan for the future uses of technology at Northside ISD. In March 2002, Elert & Associates published the *Northside ISD Technology Master Plan 2002-2012: Implementing Excellence*. The plan, developed in collaboration with more than 36 Northside ISD staff members, delineated recommendations in six categories:

1. Organizational Structure and Communication
2. Integrated Information Systems
3. Infrastructure and Access
4. Staffing and Support
5. Staff Development
6. Technologies for Instructional Programs

The first update was provided to the Superintendent and Board of Trustees on July 7, 2004, approximately 28 months after the release of the plan. That update served two purposes:

1. To provide an update to the Board of Trustees, the Superintendent, and other interested stakeholders on the status of the recommendations set forth in the *Technology Master Plan.*
2. To refocus District and Technology Services leadership on the recommendations presented in the *Technology Master Plan*, so that strategies to achieve those recommendations that have merit could be developed and prioritized.

In the nearly five years since the development and conveyance of the *Technology Master Plan*, **most of the recommendations have been successfully completed**, several are in various stages of planning and implementation and a few have purposefully not been undertaken for a variety of reasons (e.g. prohibitive costs, changes in technology, unachievable due to workload, other District priorities).

Although the *Technology Master Plan 2002-2012* is still an important part of the planning process, **district technology initiatives are now often guided by newer and more relevant planning documents.** These include the NISD District Improvement Plan 2003-2008 and DIP Yearly Activities across all eight priority areas, the NISD 2005-2008 Technology Plan, and the Texas Long-Range Plan for Technology 2006-2020.

The following pages contain a comprehensive status report on all the recommendations contained in the *Technology Master Plan 2002-2012.*

Legend
Generally doing well, firmly established
Making progress, several pockets of innovations
Nothing or little happening

Recommendations and Status Report

Organizational Structure and Communication			
Recommendation with Timeline		**Status July 7, 2004**	**Status February 5, 2007**
A. Leadership and Reporting Structure			
1. (By Spring 2002)	**New Assistant Superintendent Position** Institute a new position equivalent to a Chief Information Officer (CIO) in the business world. This new position, the Assistant Superintendent for Technology, will report directly to the Superintendent.	**Completed.** See attached Job Posting/Job Description. • JoAnne Reddell: July 2002 - June 2004 • Kelly Smith: June 2004 - Present	**Completed.**
2. (July 2002 and ongoing)	**Departmental Restructuring** The two current groups with responsibility for technology – the Instructional Technology Department and the Information and Technology Services Department – would be integrated into one organization led by the Assistant Superintendent for Technology.	**Completed and ongoing.** See attached Organizational Chart. • Realignment of roles and responsibilities across the division, identifying six key areas of Technology Services (Technology Management, Academic Technology, Training and Development, Library and Textbooks, Integrated Information, Integrated Infrastructure) • Strategically filled (or in the process of filling) several key positions, including: Director of Integrated Infrastructure Services (Lori Jones), Director of Training and Development Services (Karen	**Completed.** • Cabinet and Director level structure within Technology Serves firmly established; current Organizational Chart is attached. • Most recently - refined organizational structure in Information Services (coordinator level) and Infrastructure Services (supervisor level) areas to improve service and support across the district

		Short), Director of Acquisitions and Project Management (John Evans), Director of Academic Technology Services (Vacant).	
3. (July 2002 and ongoing)	**Interdepartmental Collaboration** Establish close contact and collaboration between the Technology Department and other departments. These include the Department of Instruction, Food Services, Transportation, Purchasing and Warehouse, Facilities Construction, Academic Standards, Testing and Evaluation, Career and Technology Education, Organizational and Staff Development, Budget and Accounting, Communications, Resource Planning, and Grants and Recognitions.	**Completed and ongoing.** • Provided ongoing technical and instructional support to the Curriculum and Instruction Department for a variety of District-wide content-specific software solutions (ex: Rosetta Stone, RiverDeep, Novanet, Plato, Read 180, Abrapalabra, Earobics, Acces, etc.) • Provided several new, customized training and development sessions for Special Ed Coordinators and Team Leaders, Guidance and Counseling, Bilingual/ESL campus and District staff. • Taught over 155 technology training and development classes at the District-level since September 2004 for staff across the business, facilities, maintenance, and human resources areas, in addition to the classes offered by on campuses by Campus Applications Technologists. • Representatives from across District departments, campuses,	**Completed.** • Close contact and collaboration with other departments firmly established. Prime examples of this include implementation of: o Online testing o Elementary electronic gradebook o Supplementary instructional materials (software and hardware) review and approval process o Curriculum Management System expansion/enhancement o BCHS laptop/technology immersion initiative o Integrated Security Management System o Communications tools for campus administrators o Child Nutrition projects (e.g., free/reduced application processing, point of sale system) o Business/HR projects (Winocular for substitutes,

		and the community gave input to facilitate the development of the District Strategic Improvement Plan for Technology. • Worked with Police Department and Facilities and Operations to identify short-term and long-term needs for upgrade and support of police radio communication system, which will be addressed in Bond 2004. • Researched, procured and implemented a variety of key information sub-systems for district end-users, with others in process: o Substitute Employee Management System (SEMS) for Human Resources o Lifelong Learning Management System (LLMS) for Adult & Community Ed. o eSchools Registration System for Organization & Staff Development o SchoolNet Curriculum Management System (CMS) o Transfinder for the Transportation Department	bank reconciliation application, volunteer criminal background check processing) o Communications Department projects (e.g., FON listserv, website support, online video and broadcast support)

		○ Warehouse and Inventory Management System for Food Services ○ eSped for the Special Education Department ○ TRIAND TPRI for the Elementary Instruction Department ○ Megamation Service and Repair Management System for the Facilities and Operations Department (and Technology Services) • Collaborated with Facilities and Operations to better integrate project management methodologies between our two divisions. • Online Board Agenda, in collaboration with the Communications Department • Meet weekly with Dr. Folks' Senior Staff. • Meet weekly with Dr. Folks' Instructional Cabinet. • Meet weekly with Dr. Folks' Cabinet. • Meet Monthly with Ms. Mora's Instructional Directors.	

4. (July 2002 and ongoing)	**Federal Model** In the federal model structure, technology support personnel are physically located within various departments and support their needs. These technology support personnel will report to the Technology Department, but are experienced with and will focus on fulfilling the needs of the departments in which they are housed. These are not new FTE positions, but rather a reassignment of 12 current staff members.	**Completed and ongoing.** A federal model has been implemented to meet existing NISD needs. This was accomplished with one existing position and six new positions. • Senior Systems Analyst in the Human Resources Department (existing position, Ken Cadena) • Senior Systems Analyst for the Curriculum Management System in the Curriculum and Instruction Department (new position, vacant) • Training and Development Technologist in the Business Office (new position, Belinda Plata) • Training and Development Technologist in the Organizational and Staff Development Department (new position, Frank Erazo) • Training and Development Technologist shared by Human Resources, Student Services, Police departments (new position, Adrianna Carrillo) • Curriculum, Instruction and Assessment Technologist (new position, Roberto Flores) • eChild Specialist for the Special	**Completed.** • Seven Technology Services personnel provide support via the federal model structure. These positions are firmly established and include Training and Development Technologists, Systems Analysts, and Curriculum and Instruction Technologists.

		Ed. Department. (new position, vacant)	

Recommendation with Timeline		**Status July 7, 2004**	**Status February 5, 2007**
B. Planning			
1. (May 2002 – May 2003 and ongoing)	**Customer Focus** • Develop a process for defining technology requirements that specifically includes discussions with the user organizations involved. • Perform a semi-annual user survey, asking users to rate their satisfaction with the services of the Technology Department. Use the survey results to focus on areas that need improvement. • Develop customer service quality metrics, and measure on an ongoing basis.	**Progress to date:** • Process includes extensive discussions with user groups (e.g. campus staff, instructional specialists and teacher groups, department directors and staff); vendor presentations for various user groups; development of Request for Proposals with user groups for technology acquisitions; follow-up and support. • Surveyed staff at Beard, Blattman, Ward and Rawlinson regarding implementation of the VoIP pilot. • Provided an opportunity for online and face-to-face feedback related to spring 2003 Bond deployments to staff at all campuses. • Completed and analyzed a wide variety of formative and summative assessments (Work Orders, Suggestion Boxes, online evaluations, e-mail and phone feedback, etc.) of services offered	**Completed.** • Conducted a district-wide Technology Services Customer Satisfaction Survey in 2005 to focus on areas in need of improvement • Conducted surveys (staff, students, parents) to enhance implementation of the Parent Connection • Implemented the Technology Services Customer Interaction Program to facilitate a deeper understanding of campus and department needs in order to continue to provide exemplary service and support. (e.g., Town Halls, service surveys and metrics, focus groups, job shadowing) • Implemented online feedback form for staff attending technology training and development sessions

		in order to effect continual improvement. • Formal customer service quality metrics have not been developed.	
2. (By May 2002)	**Prioritizing** • Assign priority to technology initiatives based on input from the Board of Trustees, the Technology Steering Committee and affected departments/user groups, as well as budget and technical factors.	**Progress to date:** • Prioritizing projects within Technology Services, based upon federal and state legal requirements, District Improvement Plan 2003-2008, DIP Year One Activities across all eight priority areas, Bond 2001 requirements, Bond 2004 requirements, and human and fiscal resources.	**Ongoing:** • Prioritizing projects within Technology Services, based upon federal and state legal requirements, District Improvement Plan 2003-2008 and DIP Yearly Activities across all eight priority areas, Bond requirements, human and fiscal resources, NISD 2005-2008 Technology Plan, NISD 2002-2012 Technology Master Plan • Need to address improved prioritization methods for software installations and new hardware/software evaluations
3. (April 2002 – October 2002 and ongoing)	**Interdepartmental Planning** • Define technology requirements in collaboration with those who will use the system(s). • Select user representatives from	**Progress to date:** • Continue to meet with various groups (teachers, instructional specialists, CITs, etc.) to define requirements for Technology Bond deployments. • Security and Safety Committee includes staff from Technology, Human Resources, NISD Police, Administration, and Facilities. • Conducted numerous	**Completed.** • Interdepartmental planning firmly established and occurs in a variety of settings, including: o Weekly Senior Staff meetings o Weekly Cabinet meetings o Weekly Curriculum and Instruction meetings o Monthly Facilities/Wiring meeting

	affected groups to review each new project management plan created by the Technology Department. Feedback should be in written form, to be followed by an associated written response.	meetings/presentations with interdepartmental staff regarding the Curriculum Management System project management plan, including many opportunities for written feedback. • Integrated Service Delivery Model for deployments (beginning spring 2003 and ongoing) includes technology staff from across service areas, C & I staff, and campus staff.	o Monthly Instructional Directors meeting o Standing project/committee meetings (e.g., gradebook, online testing, C&I and Technology Review, CMS, Data Warehouse, Business/HR system, document management system, Bond 2007)
4. (March 2002 – Fall 2003 and ongoing)	**Data Integrity, Privacy, and Security Policies and Procedures** • Review Acceptable Use Guidelines (AUG) and amend these to include enforceable disciplinary actions for violations. • Review Data Use policies with Board and make any additional required changes.	**Completed and ongoing.** • Reviewed, updated, received approval for Acceptable Use Policies for Electronic Communication and Data Management (CQ Local, CQ Legal), the related Administrative Regulation (TEC-01), Student-Parent Agreement Form, and Employee Agreement Form. All are published in District handbooks (2003, 2004, 2005) and are accompanied by extensive acceptable use training opportunities. • Developed and obtained Cabinet approval for four new Administrative Regulations:	**Completed.** • Annually review, revise, and communicate in a variety of ways (e.g., presentations, handbooks, online training, new employee training) all Acceptable Use policies and regulations • Developed and obtained Cabinet approval for six new Administrative Regulations: o TEC-06 Password Reset Requests o TEC-07 Transfer of Records o TEC-08 District E-Mail Usage Regulation o TEC-09 District E-Mail

		○ TEC-02, User/Workstation Security Measures ○ TEC-03, Technology Standards ○ TEC-04, Acquisition of Technology Equipment and Software ○ TEC-05, Access Control Restrictions for Technology Equipment in MDF/IDF Facilities • Policies and Procedures focus group continues to meet weekly to review, update, cross-reference ALL Technology Services legal and local policies, regulations, guidelines, and procedures.	Retention Regulation ○ TEC-10 Mobile Technology Equipment Security Measures ○ TEC-11 Destruction of Records, Reports or Related Documents • Developed and implemented strategies to ensure data quality and accuracy, including: ○ Quarterly Quality, Usable, Accurate Data (Q.U.A.D.) workshops for data entry personnel ○ Standardized campus names in various information systems ○ Changed course classifications in CMS for all 6th grade courses and CATE courses to ensure accurate data retrieval ○ Implemented annual PEIMS Data Review for program directors and Cabinet ○ Collaborated with C&I to streamline the district's Master Schedule course numbers for 2005-2006 school year

5. (Summer 2002 and ongoing)	**Technology Standards** • Create written standards for personal computers, thin client systems/Internet devices, peripherals, projection devices, desktop video conferencing equipment, video recording and storage media, and personal digital assistant (PDA) and tablet devices. • Delineate which standards must be adhered to District-wide versus those standards that may be set by each campus or department. • Communicate approved standards on an ongoing and proactive basis.	**Completed and ongoing.** • Developed written standards for personal computers, peripherals, projection devices, desktop video conferencing equipment, video recording and storage media, and personal digital assistant (PDA). • Developed and obtained Cabinet approval for Administrative TEC-03, Technology Standards. • Reviewed and modified the standard, as appropriate, for technology campus bond deployments to new and existing schools (six year upgrade cycle). • Standards are published on the Technology Services website and accompanied by extensive training opportunities.	**Completed.** • Continue to review, modify, and publish standards as appropriate

Recommendation with Timeline		Status July 7, 2004	Status February 5, 2007
C. Management			
1. (April 2002 – April 2003 and ongoing)	**Revise Evaluation and Acquisition Process** • Review the current process for evaluating and acquiring software and hardware, and develop an understanding of the reasoning behind it. Ask users for feedback revise as appropriate. • Query other districts of similar size about their evaluation and acquisition processes. • Review Northside ISD purchasing processes and guidelines to determine appropriate technology purchasing procedures. • Work with the Division of Instruction to determine how to evaluate and test instructional software before approval.	**Progress to date:** • Reviewing and planning for new online Technology Proposal System for fall 2004 implementation. • Proactively query comparable districts on a variety of acquisition topics (software licensing, product issues, maintenance agreements, volume purchasing, etc.). • In collaboration with the Purchasing Department, implemented a more streamlined software purchasing process to assist with 1) Ensuring software licensing compliance, 2) Reducing burden on customer and time from purchase to installation, 3) Ensuring media availability for Technical Support Staff • Currently working with Instructional Specialists to perform software technical evaluations. This will be improved upon and	**Ongoing.** • Implemented the INS-03 C&I and Technology Review process for instructional software approval • Strengthened software licensing compliance procedures • Academic Technology staff member incorporated into District Textbook Committee to assist with online and software components • Continuing to work on improvements to current Technology Proposal System and software and hardware evaluation processes and work flows • Acquisition and evaluation processes published and communicated in a variety of ways (e.g., website, Grants Manual, departmental staff meetings) • Online purchasing process to be incorporated into future

		incorporated into the new online Technology Proposal System.	business/HR management system
	• Work with the Division of Instruction to create a process for timely review of ancillary textbook materials that require or include technology systems.	• Currently working with Instructional Specialists to perform technical evaluations of ancillary textbook materials. This will be improved upon and incorporated into the new online Technology Proposal System.	
	• Determine which steps and sign-offs are requirements, separately for software and hardware. • Consider support implications in the overall process – both for staff development and ongoing technical support.	• This will be improved upon and incorporated into the new online Technology Proposal System. • Is/will be incorporated into planning and implementation processes.	
	• Develop a streamlined process for small, incidental requests and grant-based requests. • Create a flowchart for software, hardware and streamlined incidental requests. • If possible, process requests directly into the District's new purchasing system.	• This will be improved upon and incorporated into the new online Technology Proposal System. • This will be improved upon and incorporated into the new online Technology Proposal System. • No action taken.	
	• With input from users, create requisition, approval and notification forms for each process. All of these forms should be able to be completed online and integrated with workflow software.	• No action taken.	

	• Steering Committee reviews processes and forms. • Implement the new evaluation and acquisition process and inform all users of its availability. Use multiple, proactive communications methods. • Provide staff development to all users, beginning with those who will make most frequent use of system.	• No action taken. • No action taken. • No action taken.	
2. (May 2002 – January 2003 and ongoing)	**Personnel Supervision and Management** • Evaluate the workload of current technology staff members and determine whether adjustments need to be made. Factor this into potential requests for additional FTEs. Perform this task annually. • Institute an anonymous ongoing feedback method for employees. • Work with Human Resources to create a personnel review process and an annual review	**Progress to date:** • Workload is continually monitored via written work summaries and other methods. Requests for additional FTE's based on increased workload are made on an annual or as-needed basis. • Online anonymous or signed Suggestion Box on Technology Services Website. Submissions reviewed as needed. • Suggestion Box placed in Lobby of Northside Learning Center. Submissions reviewed as needed. • Annual reviews, including pre- and post- appraisal conferences, have	**Completed.** • Workload is continually monitored; requests for additional FTE's based on increased workload are made on an annual or as-needed basis. • Annual personnel performance appraisals and conferences are completed on time. • Implemented quarterly Technology Services staff meetings in 2004-05 to facilitate communication, collaboration, and collegiality across service areas • Implemented quarterly Recognition Program for Technology Services staff in

	schedule for every member of the Technology Department. Include a process for employee review and response. • Directors should schedule monthly staff meetings. • Institute a quarterly meeting of all department personnel, chaired by the Assistant Superintendent for Technology. • Survey technology staff members regarding their work assignments, styles, and preferences. • Create a quarterly recognition program for technology staff. Use multiple communications methods and make sure that the good news is spread District-wide. • Supervisory personnel to perform and keep records of	been completed or are being conducted across all service areas. • Directors will conduct weekly staff meetings with all personnel under their supervision, beginning July 2004. • Planned for fall 2004. • Climate assessment survey conducted with Technical Support and Telecommunications staff in July 2002. • Work assignments, styles, and preferences, goals, etc. are discussed during individual appraisal conferences. • Annual recognition/appreciation luncheon for campus-based technologists (CIT, CTF, CAT). • May 2004 recognition plaques presented to staff in Academic Technology Services and Training & Development Services. • Plans to begin quarterly or monthly recognition program for Technology Services staff.	2004-05 • Developed and communicated a Shared Vision statement and logo in September 2006 to focus on who we are and what we do • Technology Leadership Team meets weekly to review projects, resolve issues, and coordinate/plan/strategize

	semi-monthly personnel communications per staff member.	• Accomplished formally and informally vial e-mail and written memos.	
3. (Summer 2002 – December 2003 and ongoing)	**Technology Project Management** • Consult with Facilities and Operations (and possibly outside resources) about obtaining, using, and training on the tools and processes for project management. • Select and implement one or more project management tools. Include staff development for Technology Department users. • Create technology management workflow process. • Begin to track every technology project using selected tool(s) • Provide monthly progress reports to management. • Survey users affected by most recent technology projects regarding their opinions on project implementations.	**Progress to date:** • Researched several types of project management tools and processes. • *Microsoft Project* purchased for Technology Services Leadership Team. • Technology management workflow processes are being developed and communicated with each new project. • Projects are tracked and managed using several appropriate methods, matched to the project, audience, etc. (database, spreadsheet, timelines, checklists, calendars/schedules). • Former Assistant Superintendent met monthly with Dr. Folks to report progress on major projects. • Surveyed staff at Beard, Blattman, Ward and Rawlinson regarding implementation of the VoIP pilot. • Provided an opportunity for online	**Completed.** • Projects are tracked and managed using several appropriate methods (e.g., database, spreadsheet, timelines, checklists, calendars/schedules), matched to the project, audience, etc. • Projects are reviewed in weekly staff meetings, project team meetings, DIP quarterly reports, and bond status reports • Implemented an Integrated Service Delivery model for technology deployments with participation of staff from across Technology Services and campus-based personnel to deploy technology efficiently, often at the rate of three campuses per month

	• Annually review the usefulness and effectiveness of project management. Revise and update as needed.	and face-to-face feedback related to spring 2003 Bond deployments to staff at all campuses. • Reviewed and revised utilizing DIP quarterly written reports, Bond project status reports, and customer feedback.	
4. (Immediately – July 2003 and ongoing)	**Operations Management** • Set aside 3-5 hours each week to work on network management tasks, starting with completing the *CiscoWorks* implementation, and followed by updating and creating network documentation. • Communicate with users the reasons for security measures such as passwords, and what can happen when those measures are circumvented.	**Completed and ongoing.** • *CiscoWorks* implementation is underway, with staff allocating 5+ hours per week to this project. Network routers and switches are being monitored by *CiscoWorks* (discovery is complete; working on alarm mechanism—currently only have at MDF level; working on adding IDFs). • Presented District-level Security Overview and Recommendations to Senior Staff. • Obtained Cabinet approval for Administrative Regulations TEC-02, User/Workstation Security Measures and TEC-05, Access Control Restrictions for Technology Equipment in MDF/IDF Facilities. Passwords are also addressed in TEC-01. Training for all users to begin fall 2004. • Have communicated reasons for security measures and	**Completed.** • *CiscoWorks* v.2.5 fully implemented • Increased use of network management tools (e.g., e-Health, Packet Shaper) to monitor network utilization to help ensure maximum performance/bandwidth for critical applications and instructional programs • Consortium for School Networking (CoSN) framework identified for security plan, including self-assessment

		consequences with Human Resources, who have included this material at in-services with District staff. • Security measures are addressed with all new employees at New Employee Orientation (began June 2004), planned for August 2004 Administrator Institute, and will be addressed with campus staff annually via the CIT.	
	• Purchase a network analysis hardware/software device such as a *Fluke OptiView* and train at least four people in its use.	• Evaluation of Network Analysis tools in progress.	
	• Create a comprehensive network security plan. Consider hiring a security specialist to manage the implementation of the security plan.	• Currently identifying areas to be included in a comprehensive network security plan. • Data/Network Security Administrator (Julie Carreon) hired and reports to Executive Director (Diana Goering).	
	• Measure the use of IPX and AppleTalk protocols within the District (both WAN and LANs), and develop a strategy to eliminate these protocols by June 2004.	• No justification at this time for phasing out these protocols. AppleTalk is deployed in Macintosh specialty labs for journalism, photography and high school G/T. Both IPX and IP protocols are deployed appropriately.	
	• Relocate servers to areas where only authorized personnel have	• Where appropriate and possible, District servers are located	

	access.	centrally in areas where only authorized personnel have access. • Obtained Cabinet approval for Administrative Regulation TEC-05, Access Control Restrictions for Technology Equipment in MDF/IDF Facilities.	
5. (June 2002 – January 2003 and ongoing)	**Asset Management** • Ensure there is a process in place to keep the inventory updated. • Use automated software tools to poll systems for identity information between full inventory updates, as needed.	**Completed and ongoing.** • Assets Technician (Selia Espinoza) assigned to inventory updates/maintenance February 2004 • Project Manager (Tracy Rayburn) assigned to track inventory for portable moves/relocations and works with District Inventory Manager on technology capital assets inventory. • *ZENWorks for Desktops* has been deployed and inventory details are currently being collected at each campus.	**Completed.** • Work closely with District Inventory Manager and Purchasing Warehouse staff to track technology assets • Exploring newer, more efficient software tools to augment/replace existing utilization of *ZENWorks for Desktops* to coincide with planned network architecture changes

6. (Spring 2002 and ongoing)	**Software Licensing and Distribution** • Install and use the latest version of Novell *ZENWorks* to improve automated software distribution to desktop systems. • Annually, track software-licensing compliance and provide resulting information to department(s) in charge of asset management.	**Completed and ongoing.** • *ZENWorks for Desktops* has been deployed for this purpose. • Project Manager (Tracy Rayburn) assigned to software licensing compliance.	**Completed.** • Exploring newer, more efficient software tools to augment/replace existing utilization of *ZENWorks for Desktops* to coincide with planned network architecture changes • Created and maintain a comprehensive database of software licenses and media storage system from April 2004 to the present
7. (January 2003 – December 2003 and ongoing)	**Fault Management (Disaster Recovery) and Change Management** • Create, put in place, and regularly update and apply both Fault Management and Change Management Plans for all critical technology components and systems.	**Progress to date:** • Have deployed fault management tools on a very small scale (purchased *Concord* product in 2003) to monitor some datacom equipment. Planning to expand the use of product to more proactively manage critical network applications such as voice system. • Planning to finalize Disaster Recovery Plan in fall 2004.	**Completed.** • Using fault management tools to monitor equipment, as well as a service contract to proactively support the management of the voice system. • Monitoring of network elements (e.g. server/switch uptime, processor utilizations) accomplished through implementation of Nagios • Installed server racks and procured initial network equipment (voice and data) required for first phase of redundant site build-up • Implemented clustering solution

			for NetStorage system that provides transparent, automatic failover support for system • Implemented new enterprise backup library on-line; converted back-up for 90 servers to new system to date
8. (June 2002 - June 2003 and ongoing)	**Application Development** • Develop a cooperative process that involves end-user departments, the Technology Department, and third-party application vendors in prioritizing development projects for the 2003 - 2004 school year. • Use a formal procurement processes on large projects to compare in-house and third-party capabilities. • Develop standard software project methodologies. • Evaluate the effectiveness of application development efforts.	**Progress to date:** • Worked collaboratively with other departments to develop District-wide applications, including: o Facilities Usage o Events Calendar o P.D.A.S. Online o Stipend Module o Employee Transaction System • No action taken. • No action taken. • No action taken.	**Completed.** • Worked collaboratively with other departments to develop District-wide applications, including: o Online Budget Submission o Budget Transfer Request o Student Activity Fund Transfer o Online Handbook Acknowledgement for specified staff o Supplemental Pay Module o Volunteer Module o Personal Graduation Plan o Online School Improvement Plan o CMS attendance tracking • Consider/evaluate ASP vs. self-hosted solutions, as appropriate, for applications and systems (e.g., CMC, eSped/eChild) • Work closely with vendors who assist with system

			updates/maintenance for various applications and systems (e.g., UnitedStreaming, RiverDeep, CampusWare/Gradespeed)
9. (No timeline specified)	**Outsourcing Options and Considerations** • Explore the outsourcing of part or all of technology. Among the services to explore for possible outsourcing are: o Technical repair of technology systems, especially end-user computers and printers o Help Desk services o Major upgrades and installation projects o Network security services including: intrusion detection, firewall maintenance, VPN management, anti-virus management, and management of authentication systems o Data center systems/applications	**Progress to date:** • Utilize outsourcing resources to provide technical repair and support for major projects for surge periods (i.e. bond deployments, wireless projects, installation of phone system, etc.); Region 20 information systems	**Completed and ongoing.** • Outsourced hosting of Curriculum Management System and special ed management system • Conducted cost benefit analysis of bringing district shredding operations in house versus outsourcing, with decision to remain outsourced • Exploring additional opportunities for outsourcing (e.g., consultants for district security assessment and software distribution/installation system)

Recommendation with Timeline	Status July 7, 2004	Status February 5, 2007
D. Communication (Summer 2002 – January 2004 and ongoing) • Initiate a periodic (monthly or semi-monthly) email newsletter to users.	**Status to date:** • The Technology Services website is updated regularly and provides a wealth of information on current projects, training and development opportunities, staff, areas of service, presentations, policies and procedures, etc. • Departmental monthly newsletters have been discontinued by Cabinet, but Technology Services will become a regular contributor to *Inside Northside*, a Communications Department newsletter for employees. • The *Monitor* newsletter was published at regular intervals from October 1999 – April 2004, to showcase best practices in instructional technology.	**Completed.** • Implemented Parent Connection, enabling all (ES, MS, HS) parents to view daily grades and attendance, as well as longitudinal academic, enrollment, and assessment data online and news especially for parents • Continued to enhance the Technology Services website to facilitate communications • Contributed several items for Inside Northside, Lessons, Friday Letter to keep the community informed, as well as four technology related broadcasts on InsideNorthside*Radio*
• Convene a "technology council" consisting of users from multiple departments (rotate annually) and Technology Department staff members to meet quarterly to identify problems and discuss how to fix them.	• No action taken.	• Hosted several school districts to discuss and share best practices for NISD educational technology; particpate in Region 20 Technology Directors' meetings
• Create a needs survey form and ask each department to respond twice each year using this form to indicate any new technology needs or requests since the last survey.	• No action taken.	• Continually work towards increased collaboration and communication between Technology Services and all other district departments (see A3 and
• In collaboration with the Facilities		

Department create a communications check-off form for remodeling and/or adding technology systems. For example, one of the check-off items in the process should be to have those who are planning the cabling and closets discuss the items on the form with those who would be served by (or inconvenienced by) those systems. • Work with Communications Department to ensure that technology news is being reported periodically to community stakeholders, together with any requests for practical assistance from local businesses. • Establish contacts at other K-12 districts of similar size to share technology best practices and "what works."	• No action taken. • Technology Services is a regular contributor to *Lessons*, a Communications Department newsletter to parents and community. • Face-to-face, telephone and e-mail contact made regarding a variety of initiatives (security management systems, curriculum management systems, acquisition strategies, Technology Bond programs, etc.) .	B3, above); customer service driven – try to always respond promptly, professionally, and thoroughly to issues and concerns

Integrated Information Systems		
Recommendation with Timeline	**Status** **July 7, 2004**	**Status** **February 5, 2007**
A. Acquire Applications Software Operations/Integrated Applications for Financial and Student Information Systems (January 2003 – September 2005) • Elert & Associates recommends that the existing STMRPC (Region 20) applications be replaced over the next few years. • The SIS should be procured first. • The procurement of the financial/HR package should proceed while the SIS is being implemented.	**Progress to date:** • Migrated from STMRPC to the Region 20 iTCCS Application Service Provider (ASP) solution with applications for business, human resources, student services, and PEIMS. • Funding included in Bond 2004. • Funding included in Bond 2004.	**Ongoing.** • Senior Staff approved plan to acquire a Business/HR Management System prior to a Student Information System as implementation of the Curriculum Management System is meeting immediate data and management needs • Formed cross-departmental team in September; meeting every other week (eight times so far) • Published the Business/HR Information Management System Initiative website, a resource for team members • Continuing research and discovery phase o Prepared and distributed online survey of Texas and large U.S. school districts to gather feedback

		○ Team has attended two vendor presentations at NLC • Developed "bank" of requirements from Request for Proposals used by other school districts • Team plans to complete the acquisition phase in spring 2007
B. Acquire a Curriculum Management System (June 2002 – September 2004) • Purchase a packaged system. • The curriculum management system should link to the student information system (SIS) in real time. • The system should allow publication of selected information to the Web for secure viewing by parents/guardians and other interested and authorized stakeholders. • Hire a curriculum management system coordinator.	**Progress to date:** • Purchased a comprehensive Web-based Curriculum Management System from *SchoolNet* in spring/summer 2004, with implementation expected in January 2005. • SIS data will be updated nightly. • Accomplished via the *Outreach* module of the *SchoolNet* solution. • The NISD Curriculum Management System Design Team (Mora, Smith, Goering, McAndrew, Reyes, Collier, Flores, Poth, Orr) is in place and meeting twice weekly (once in a telephone conference with *SchoolNet* staff). Project Coordinator is Roberto	**Completed.** • All CMS modules are fully implemented; content (e.g., curricular resources, lesson plans, web pages, benchmarks, assessment data) continues to expand

	Flores.	
C. Implement Data Center Operation (January 2003 – September 2005) The Data Center Operation includes the systems and hardware needed to run core, mission-critical applications. • Create an RFP specifying the Northside ISD functional requirements and then allow vendors to bid either Northside ISD operated or outsourced operations. • Set a maximum of 85% peak utilization of the physical link to the provider organization, with at least semi-monthly circuit-utilization reporting to the District. The outsourcing agency should also be required to agree in writing that it would increase the bandwidth should that peak measurement be reached.	**Progress to date:** • Funding included in Bond 2004. • Disaster Recovery Plan for mission-critical applications to be finalized, approved and implemented in fall 2004. • Complete. NISD funds a secure GigaMAN (point-to-point Metropolitan Area Network data transport based on Gigabit Ethernet technology) to Region 20, our current data center.	**Completed.** • Completed major District Data Center upgrades, to include over 70 server moves, 6000+ feet of re-cabling, installing switches, routers, network management software tools, racks, flooring, power, AC, etc. • Increased access to the Internet through 500 MB connection to keep maximum peak utilization lower
D. Implement Data Flows and Models (January 2003 – September 2005) • Procure applications that have centralized databases with as comprehensive datasets as possible.	**Progress to date:** • Applications purchased that have centralized databases include: o Substitute Employee Management System (SEMS) o Lifelong Learning Management System (LLMS) o eSchools Staff Development Registration System o SchoolNet Curriculum Management System (CMS) o Transfinder o Warehouse and Inventory	**Ongoing.** • Developed position-based account processing rules to support access to data in iTCCS (Region 20 information systems); expanded Cognos query tool training based on these rules, as well as further development of Cognos reports for District and campus end-users • Launched Data Warehouse Initiative o Received approval and funding support for staff

• A data warehouse strategy should be employed. • Data dictionaries to allow users to access information needed for effective decision making. • End-user query tools that can access data in all critical applications are available as decision support tools.	Management System o eSped o TRIAND TPRI • Funding included in Bond 2004. • The recently purchased *SchoolNet* solution utilizes a data warehouse methodology. • Data dictionaries are available and in use for the Region 20 student information system and the HR/Business information system. • Use of the Cognos query tool has greatly expanded and training is provided for District and campus end-users.	structure to support the implementation of a data warehouse; filled Coordinator, Data Management Services position o Formed cross-departmental team to support data warehouse initiative o Provided formal training through The Data Warehousing Institute to cross-departmental team o Published the Data Warehouse Initiative website as a resource to team members o Surveyed Texas and large US school districts to gather feedback on their current systems using an on-line tool o Developed "bank" of requirements from Request for Proposals used by other school districts
E. Implement Process Workflows (March 2003 – October 2005) • Investigate, develop and implement programs to improve efficiency and productivity via electronic processes.	**Progress to date:** • Helped provide improved efficiency and productivity via electronic processes, via the development of the Employee Transaction System, the	**Completed.** • Many electronic processes/workflows firmly established, with others to come via business/HR management system and document

	Megamation Service and Repair Management System, and back-end support for the Online Board Agenda.	management system
F. Implement Knowledge Management Strategies (March 2003 – October 2005) • Elert & Associates recommends that Northside ISD develop its own portal. The portal would present each user with a customized view of information about Northside ISD that is tailored to the users' needs and responsibilities. The recommend portal could eventually exist in student, parent, teacher, administrator, and campus leader versions, which would be presented with customized information from the District's integrated information systems.	**Progress to date:** • Funding included in Bond 2004. • Examining and discussing critical framework pieces that need to be in place to support a portal solution (e.g. data warehouse, single sign-on, enforcing password criteria, secure self-service for users, etc.) • Portal systems are being researched and evaluated but no decision/timeframe for implementation has been made at this stage.	**Completed and Ongoing.** • Implemented Parent Connection portal • Many online tools for employees are accessible from home, including CMS, WebMail, gradebook, UnitedStreaming, SEMS, eSped/eChild • Many online resources for students are accessible from home, including NetStorage, library databases, UnitedStreaming, grades and attendance viewing

G. Implement Data Access/Document Management (June 2002 – October 2003) • Deploy document management and imaging systems, integrated with the portal.	**Progress to date:** • Funding included in Bond 2001, to be implemented in conjunction with Bond 2004 integrated information systems projects.	**Ongoing.** • Formed cross-departmental team in September; meeting every other week (eight times so far) • Several team members attended ARMA International conference (association for records and information management professionals) in October • Team has attended two vendor presentations at NLC • Continuing research and discovery phase • Team plans to complete the acquisition phase in spring 2007
H. Upgrade and Deploy Network Operating Systems (April 2002 – March 2004) • Upgrade all *Novell* servers to *NetWare 5.1*	**Completed and ongoing:** • All servers were upgraded to *Netware* 5.1 in 2002 except two servers which have been maintained at 4.11 to aid with server recovery processes (Failed Server Procedure). It is expected that this requirement will disappear when migration to *Netware* 6 is completed. All *Netware* 5.1 servers were recently upgraded in June 2004 to the latest Service Pack (SP7) and Directory Services	**Completed.** • Updated NetWare, ZENWorks, and Novell Directory Services • Piloted Microsoft Active Directory at BCHS, Meade, Fisher, Murnin, and Wanke • Implemented secure network file storage for all secondary students • Implemented unique student network logins at BCHS

• Upgrade *ZENWorks for Desktops* to v. 3.2 • Upgrade *NDS (**N**ovell **D**irectory **S**ervices)* to version 8.5 • Pilot *NetWare 6* and create schedule for complete migration	version (7.62C). • *ZENWorks for Desktops* v. 3.2 was deployed in 2003. • Initial upgrades of primary servers (and the Directory) to *EDirectory* 8.7 (rather than 8.5) was completed in 2003, but with mixed results. The *EDirectory* upgrade was put on hold until these issues were resolved. Those servers already upgraded were recently updated to the latest version (*EDirectory* 8.7.3) which appears to have eliminated the issues experienced. (May-June 2004). The upgrade of all servers to *EDirectory* 8.7.3 is scheduled for July 2004. Some servers (older Dell 2300s - approximately 10) are not capable of being upgraded as they do not meet the minimum hardware requirement. They will remain at the latest version of *NDS* 7.6 • Initial upgrades of primary servers *NetWare 6* was completed in 2003, but also with mixed results. The latest Service Pack installed Apr/May 2004 (SP4) seems to have rectified all the problems initially experienced. All new servers are being deployed as *NetWare 6* servers. Upgrades/migrations for all	

	high schools and middle school servers are being scheduled for July 2004. The remaining *NetWare 5.1* Servers (elementary schools and some specialist campuses) will be phased out and replaced with *NetWare 6* servers as they are scheduled for replacement/consolidation during the remainder of 2004-05.	
• Deploy *CIFS (**C**ommon **I**nternet **F**ile **S**ystem)*, a protocol that allows all applications, not just Web browsers, to open and share files across the Internet	• No decision on implementation has been made.	
• Upgrade directory services to *DirXML*	• No decision on implementation has been made. Linked to Portal implementation.	
• Implement student login system (server)	• Study of student login system commenced in 2004 but no results available yet.	
• Re-evaluate use of *NetWare* and *Microsoft* network operating systems	• Both *NetWare* and *Microsoft* Operating Systems are being employed on a "Best Fit" basis.	

I. Update and Implement Email (July 2002 – March 2004) • Complete deployment of *GroupWise 5.5* client software to all campuses • Move *WebAccess* server into network DMZ, and alter firewall configuration, as needed • Review/study provision of email to students • Upgrade to *GroupWise 6* (after *NDS* upgrade) on email servers • Provide *GroupWise* Web client to all users (distribute via *ZENWorks*) • Review email software selection (stay with *GroupWise* or change)	**Completed and ongoing.** • *GroupWise 5.5* was deployed in 2002. • *WebAccess* was implemented via the DMZ in 2003. • Student email study commenced in 2004. Linked to Student Login Project. No results to date. • *GroupWise 6.5* deployed in 2004. • *GroupWise* Web Client not required. *Webmail* access via standard Browser implemented in 2003. • Decision made to stay with *GroupWise*.	**Completed.** • GroupWise 6.5 deployed district-wide; currently migrating to v. 7.0; no plans to change e-mail software • Web-based access to e-mail for employees provided via WebMail • Students utilize Web-based Gaggle e-mail as appropriate

Infrastructure and Access		
Recommendation with Timeline	**Status** **July 7, 2004**	**Status** **February 5, 2007**
A. Acquire/Enhance Wide Area Network (March 2002 – June 2003) • Implement a wide area network • Elert & Associates recommends a bandwidth of at least 100 Mbps to all sites, with higher bandwidth preferred if possible. • Options include leased bandwidth, leased dark fiber, owned wireless connections, a District-owned WAN based on fiber optic cabling, or some combination of these. • In order of preference, Elert & Associates recommends owned fiber, leased dark fiber, and leased circuits. • Create and publish a request for proposal (RFP) for a wide area network, allowing for multiple types of responses (owned fiber as well as leased fiber or leased circuits).	**Completed and ongoing.** • Technology Services provides and sustains a secure, reliable and robust wide area network • All Northside ISD schools have been converted to a gigbit backbone, with 100 Mbps to 60% of student and teachers computers. • Northside ISD leases dark fiber though SBC. • Study will be undertaken regarding best solution for Northside. • Funding included in Bond 2004.	**Completed.** • Upgraded bandwidth of wide area network to 100 Mbps to all sites • Continuing to lease dark fiber from vendor; consideration for purchase of specified links will be made as part of the second site/redundant site implementation plan
B. Acquire/Enhance Local Area Networks (February 2002 –2012) • Upgrade existing LAN electronics & replace in Yrs. 6-10. The network design of choice is a backbone consisting of Gigabit Ethernet, with end-user connections at 100 Mbps.	**Completed and ongoing.** • 60% complete with all campus LAN upgrades (includes all high schools and middle schools and non-E-rate elementary schools).	**Completed.** • Upgraded end-user connectivity to 100 Mbps • Continuing to expand connectivity to the network

• Add wireless networking to portable classrooms • Implement Portable wireless mini-lab w/15 laptops (one per ~500 students) • Implement wireless access in libraries	Remaining 40% of campus LAN upgrades to be completed by December 2004. • Completed deployment of network connectivity to all portables classrooms in December 2003, many with wireless solution. • Have begun to implement Mobile Mini-labs with wireless network cards and access points at all campuses for special projects (e.g. Special Ed, Excel Math Program, Elementary Interventions, and Secondary Science). • Implemented a wireless solution for library inventory for all campuses. • A few campuses purchase wireless Mobile Mini-labs for their libraries with Title I money in spring 2004.	through the deployment of wireless solutions (mobile mini-labs; campus-wide (e.g., BCHS, Esparza) or partial wireless networks on specified wings or floors of the campus facility) • Plan, including cost estimates, is in place to provide wireless network connectivity campus-wide at all campuses
C. Acquire Voice Systems (May 2002 – July 2004) • Develop, publish and evaluate two voice RFPs (Project A - Hardware Systems and Equipment, Project B - Voice Networking/Dial-tone Services) • Implement new voice system • Hire a District specialist to oversee all telecom matters.	**Complete and ongoing.** • RFP published; project awarded to SBC; piloted at Beard Blattman, Ward and Rawlinson in July 2003. • Implementation proceeding well, with expected completion District-wide in December 2004. • Hired Telephone System Manager for VoIP telephone system (Joe	**Completed.** • Completed year-long VoIP initiative on schedule January 1, 2005, adding telephones in over 4,000 classrooms district-wide with savings of $150,000+ annually • Most recently - enhanced the VoIP system with Malicious Call ID feature and 911 call notification

	McMonagle).	
D. Acquire Multimedia/Video systems (Spring 2002 – Fall 2005 and ongoing) • NAC presentation & broadcast system • High school auditorium presentation systems • Board meeting room presentation and broadcast • Press conference area presentation system • District video network • Video conferencing and high school distance education rooms • Streaming video and video on demand • Video studio for high schools • NISD-TV Studio • Graduation video broadcast	**Progress to date:** • Purchased a mobile videoconferencing solution for NAC; plan to install when renovations are complete. • Incorporated into design for O'Connor, Warren and Stevens. • Installed new system in early spring 2004. • No action taken. • Funding included in Bond 2004 to continue to enhance the WAN and LANs, which will support video requirements. • In early planning/discussion phase to determine best solution/framework for District-wide video conferencing. • Purchased 12 video servers in June 2004 with Title II D funds, planning to implement a video-on-demand system for instructional and professional development purposes. • Video production equipment purchased for two Technology Applications labs at each high school. • No action taken.	**Complete.** • Implemented UnitedStreaming digital video-to-the-desktop, aligned to K-12 core and enrichment TEKS, district-wide • Provided professional development for GT teachers and others district-wide in facilitating the creation of student video projects • Implemented video streaming solution to support live broadcasts of U.S. Supreme Court Justice Stevens and video-on-demand for Jay HS SEA Adventure Science project • Implemented Sorenson Video Relay Station for AI students and teachers at Braun Station ES, Stevenson MS, and Marshall HS • Provided expanded video conferencing capabilities and equipment for five campuses and NAC to support teaching and learning • Deployed new presentation and audio system at NAC • Deployed new presentation equipment with management

	• No action taken.	system in Board Room • Supported the deployment of a Tricaster (production and presentation tool) for the Communications Department • Incorporated video vignettes into multiple online professional development resources, using Camtasia and other tools .
E. Acquire/Enhance Cabling Systems (July 2002 – 2012) • Cabling standards update • Portable classroom retrofit • Additional phased cabling projects	**Completed and ongoing:** • Cabling standard updated to Cat. 6E, engineered for 1000 Mbps and speeds with a frequency of up to 550 MHz, the highest data transfer speed currently available. Compatible with 10 Mbps and 100 Mbps networks. • Portable classrooms have been retrofitted with wireless connectivity. • LAN cabling upgrades ongoing to replace older cabling in order to support data and telephony.	**Completed.** • Most recently – planning in place to replace older cabling at five schools in conjunction with E-Rate application process to provide opportunity for cost savings

F. Expand Data Systems and Access (Spring 2002 – January 2004) • Authorize additional users to dial-in/remote access system • Select VPN solution • Pilot VPN with 20-30 users • Implement District-wide VPN system	**Progress to date.** • Implemented full VPN access for System Administrators, some Senior Staff, and authorized vendors with maximum security in place. • Selected Cisco VPN. • Piloting with 15-20 VPN users. • No date determined for District-wide implementation.	**Completed.** • Decision made not to deploy District-wide VPN access, and continue full access for System Administrators, Senior Staff, and authorized vendors with maximum security in place. • Access to data systems expanded through intranet and web access, as available
G. Implement Network Security (Spring 2002 – February 2003) • Retain an outside firm to assist in creation of a comprehensive network security plan (include vulnerability assessment) • Hire network security specialist • Test security plan	**Completed and ongoing.** • Sako & Associates performed a vulnerability assessment regarding the physical security of the network and made recommendations aligned with a variety of other security needs for the District. • One Data/Network Security Administrator hired (Julie Carreon), with responsibility for comprehensive network security and ongoing vulnerability assessments. • Tested, implemented, and periodically revised as appropriate.	**Completed.** • Purchased Sourcefire, intrusion detection and prevention system • Consortium for School Networking framework identified for security plan • Request for Proposal to hire outside firm to conduct vulnerability/security assessment complete and coordinating release with Purchasing Department • Continuing to evaluate and upgrade Anti Virus program with each new version release • Implemented improved SPAM filtering processes • Blocked access to web-based e-

		mail systems and other high-risk websites via Internet filtering software
H. Provide Support for Facilities (May 2002 – October 2002) • Web-enabled project management and reporting system • Quality control and access for as-built drawings and product data • District standard for access control and networkable video surveillance system • Annual revision to facility design guides • Provide one location for energy management system operation and scheduling	**Progress to date:** • Products are currently being evaluated. • No action taken. • Draft RFP for Integrated Security Management System; funding for some components included in Bond 2004. • Facility design guides currently being revised by Facilities and Engineering staff, with periodic updates provided to the Wiring Committee. • No longer necessary, as scheduling requests are now done electronically at the campuses.	**Completed and ongoing.** • Integrated Security Management System deployed to ten high schools • Close collaboration with Facilities Department at monthly Facilties/Wiring meetings and frequent design reviews of new facilities • Piloting network management module that controls PC power management settings; potential for significant savings on the district electric bill • Acquisition of enterprise document management system underway to facilitate access to drawings, design standards, and other product data

Staffing and Support		
Recommendation with Timeline	**Status**	
A. Hire Additional CITs (June 2002 to June 2012) • One full time CIT at each of the 10 high schools, 12 middle schools, 45elementary schools, and 16 special schools	**Completed and ongoing.** • As of August 2002, all 74 regular campuses have a fulltime CIT, with the exception of Valley Hi which has a half-time CIT. • Special schools are provided support by stipended Campus Technology Facilitators and one District-level Special Schools Technologist (Larry Stegall).	**Completed.** • All regular campuses have a fulltime CIT • Exploring the possibility of a fulltime CIT at BCHS to better support the one-to-one laptop initiative
B. Hire three (3) FTEs for Troubleshooting Help & Software Support for Users (June 2002 and ongoing) • Two FTEs to interact with student records and financial/human resources systems • One FTE to support use of streaming video, video on demand and desktop video conferencing	**Progress to date:** • No action taken. • No action taken.	**Completed.** • Hired one new Student Systems Specialist • Hired two new Training and Development Technologists to support Business/Finance, HR, Student Services, and PD • Hired two new positions in OSD to support video and online professional development

C. Hire ten (10) FTEs for Installation and Maintenance of Applications and Hardware (timeline linked to implementation) • Three FTEs for installation of technology leveling packages (i.e. technology bond and grant deployments) • Two to three (2-3) FTE mid-level computer repair technicians • Two FTEs in the group that supports both LAN and WAN equipment and system. • Two FTEs to support the voice system implementation • One FTE to manage network security	**Completed:** • Added 13 new FTEs for Installation and Maintenance of Applications and Hardware: o Two System/Network Administrators to support WAN/LAN maintenance o Three Technician II o Two Technician III o One Telephone Systems Manager o One Data/Network Security Administrator o One Telephone Systems Coordinator o Three Telephone Systems Technicians	**Completed.** • Most recently - approved to hire one new Media Presentation Technician Position, now posted • Data/Network Security Manager position filled • Voice System staff includes a manager, system administrator, and four technicians • One repair technician hired to coincide with the opening of each high school • One position added and filled in the LAN/WAN equipment and system group

Staff Development		
Recommendation with Timeline	**Status July 7, 2004**	**Status February 5, 2007**
A. Develop a District-wide set of technology competency checklists for all employees, based on technology use in the classroom and workplace. (June 2002 - May 2003)	**Progress to date:** • Technology Core Competencies Project, based on state and national standards, estimated to be 90% developed (Project Timeline complete, Framework complete, committees meeting regularly, outreach to District department staff underway). • *Technology Core Competencies for Teachers*, *Technology Core Competencies for Administrators*, and *Technology Core Competencies for Auxiliary/Classified Staff* to be presented to Cabinet in July 2004.	**Completed.** • *Technology Core Competencies for Teachers*, *Technology Core Competencies for Administrators*, and *Technology Core Competencies for Auxiliary/Classified Staff* presented to Cabinet, Directors, campus and district administrators, and CITs • Purpose is for employees to self-assess proficiencies and use competencies to guide their staff development • "Living document" - reviewed and revised as needed
B. Provide additional Level-One training classes based on need after employees identify the gaps in their technology skill set. (May 2003 – May 2012)	**Complete and ongoing:** • Redesign of Technology Training and Development Services is complete. Framework categories now include: Technology Jump Starts, Technology Turning Points, Technology-on-Demand, and Technology-to-Go. .Learning opportunities include online modules, study/user groups, tutorials, classes, readings, visits, lesson and	**Completed.** • Implemented new and innovative technology staff development initiatives district-wide: Training on Wheels (district trainers in a zone/cluster model), NetMeeting online-instructor-led classes for small group instruction, and online courses • Collaborated with the Human

	product development, independent learning, coaching and mentoring. • "Level-One" training is now called "Technology Literacy Knowledge and Skills." Learning opportunities in this category have doubled in the past 12 months. • Needs assessment surveys, an analysis of Help Desk calls, and polling of CITs were methods used to identify gaps in skills and training.	Resources Department on a required half-day session for New Employee Technology Training—GroupWise Essentials, Internet Essentials, Intranet Essentials, Novell Network Essentials. All new employees expected to use a computer in the performance of their jobs have received this training since November 2004. • "Level-One" training is now called "Level 100 - Technology Literacy Knowledge and Comprehension." Training materials for this level are currently being revised • An additional level, "Level 200 Technology Literacy Application" is currently being developed. These courses will focus on special topics and role-based training • Audience analysis, review of staff feedback (Voice of the Customer surveys), close analysis of skills in previously developed training materials, and reviewing materials commercially created were methods used to identify gaps in skills and training

C. Create additional Level-Two technology training courses with the cooperation of the Division of Instruction. (May 2002 – May 2012)	**Complete and ongoing:** • "Level-Two" training is now called "Integration Knowledge and Skills." Learning opportunities in this category have doubled in the past 12 months. • Coordinators in the Academic Technology Services area are working closely with C & I Instructional Specialists to plan and deliver integration training. • The eCamp Summer Technology Conference, June 7-10 of 2004, included technology integration training and development sessions for all levels of skills and interests. More than 1,600 sign-ups for approximately 140 sessions were documented.	**Completed.** • Continued and expanded the eCamp Summer Technology Conference, to provide professional development for nearly 2,000 session attendees annually (teachers and administrators) • Implemented the Technology Integration Project Planning & Assessment (TIPPA) model district-wide that includes research, best practices and teacher tools for effectively integrating technology in teaching and learning • Provided extensive district-wide staff development (CITs, librarians, teachers) on library databases and UnitedStreaming integration • Provide continued support for the PAVE (Pathways to Advance Virtual Education) grant, whereby 140 NISD teachers earn an online Masters Degree in C & I with an emphasis on Instructional Technology from Walden University • Providing ongoing curricular technology integration planning and staff development for BCHS teachers

D. As the Integrated Management System is put into place, create training to link the instructional curricula, curricular-integration strategies, assessment and technology. (timeline linked to implementation)	**Progress to date:** • The CMS Design Team is incorporating this into the implementation plan. Training will begin in January 2005.	**Completed.** • Trainer-of-Trainer model was used for SchoolNet Certification training of 125 trainers, completed summer 2005. • Phase I – Align, training completed Fall 2005 • Phase II – Account Benchmarks, training completed Spring 2006 • Phase III – Account Lesson Plans, training completed Fall 2006 • Phase IV – Outreach Webpages – training to begin Spring 2007 and continue through Fall 2007.
E. Hire two additional staff development personnel to create and provide training. (May 2002 – May 2012)	**Completed.** Accomplished in the last twelve months by adding two FTEs and realignment/ reassignment of three others: • Director of Technology Training & Development (Karen Short, realignment) • Training & Development Analyst (Jack Funkhouser, new) • Training & Development Technologist (Laura Castillo, realignment) • Training & Development Technologist (Adrianna Carrillo, new)	**Completed.**

	• Web Development & Training Specialist (Marlo Brown, reassignment)	

Technologies for Instructional Programs		
Recommendation with Timeline	**Status July 7, 2004**	**Status February 5, 2007**
A. Establish a continuum of performance-based technology standards and assessments for students, incorporating the Technology Application TEKS into the *Northside ISD Academic Standards 2002-2003*. (March 2002 – May 2012)	**Progress to date:** • Completed vertically aligned Northside ISD Elementary Technology Standards/ Essential Skills for K-5 Technology Applications in summer 2003. • These standards and assessments remain separate from the NISD Academic Standards, but were written and reviewed by NISD K-5 teachers and CITs.	**Completed:** • Developed and implemented K-12 Library Skills Scope and Sequence • Published Elementary Application Training Guide technology literacy lessons into the CMS system, where they may be accessed in the Align materials component • Plans in place to upload additional Technology Applications and Library Skills curricular components to the CMS • Implemented Connected Tech (online textbook adoption), including professional development, Technology Applications, Grades 6 • Implemented SRA TechKnowledge (online textbook adoption), including professional development, for Technology Applications, Grades K-5

		• Implemented an annual K-12 NISD Digital Media Fair in May 2003, where more than 1,100 student entries (digital products connected to learning) are submitted and evaluated for the "Digi Awards"
B. Purchase Internet devices rather than more expensive personal computers for some locations like libraries. (March 2002 –May 2005)	**Progress to date:** • No Action taken.	**Ongoing.** • Significantly increased students' access to technology and the Internet by: o Re-purposing older computers following campus-wide technology bond replacements o Implementing wireless laptops and carts as funding becomes available (e.g., Title I, Title II, SSI)
C. Purchase two mobile carts of portable data-entry/word processing devices for each elementary school and each middle school. (March 2002 – May 2005)	**Progress to date:** • Each middle school has one mobile cart of 30 AlphaSmart word processing devices.	**Completed.** Keyboarding and word processing skills are effectively addressed in the following ways: • Elementary level: district-created keyboarding instructional materials for grades K-3, Kid Keys program in the computer labs to use with K-2 students, All the Right Type program to use with students in grades 3-5, online Connected Tech

		curriculum includes a keyboarding component. Students receive keyboarding and computer literacy instruction in a rotation fashion. • Middle school level: one cart of 30 AlphaSmart keyboarding devices (includes a keyboarding program), district-created keyboarding curriculum, Mavis Beacon keyboarding program in two computer labs, online Connected Tech curriculum includes a keyboarding component called Typing Pals. Using the various resources provided, keyboarding instructional time is addressed in various ways at the campuses to best meet their needs (e.g. a rotation fashion similar to the elementary model, integrated into the SFA (Skills for Adolescents) class, woven into an advisory period, through a Computer Literacy class, etc.). • High school level: a one-semester keyboarding class (not required), BCIS curriculum includes a keyboarding instructional unit, using the MicroType Pro program.

D. Provide an up-to-date multimedia computer and projection device for every library. (September 2002 – May 2004)	**Completed.** • Every library has received a digital projector and a high-end laptop. This will continue for new schools, as well.	**Completed.**
E. Expand the number and content of Technology Application-credit classes. Use the computer labs currently allocated to keyboarding classes. (June 2002 – May 2012)	**Completed and ongoing.** • All high schools offer Multimedia, Web Mastering, and Computer Science I. Most offer Digital Graphics & Animation, Desktop Publishing, Computer Science II, Independent Study (e.g. Multimedia II). Two high schools offer Video Production. • Each comprehensive high school has two Bond-funded Technology Applications labs with specialty hardware and software required to teach the eight Technology Applications courses. • Keyboarding is still taught on some high school campuses, but is no longer required.	**Completed.** • The most widely offered Technology Applications classes are Multimedia, Web Mastering, and Computer Science I. Also popular are Desktop Publishing and Independent Study in Technology Applications. Computer Science II, Digital Graphics & Animation, and Video Technology are offered at two high schools each, with new sections seen at Jay HS for 2006-07. Alternative HS also offers three Tech Apps classes.
F. Obtain additional on-line courses to be offered to Northside ISD students. (March 2003 – May 2012) • Hire one Instructional Designer to obtain additional online content	**Progress to date:** • Web Mastering Online remains the only online course offered to students outside the regular school day. • Excel Academy uses the online NovaNet curriculum with students who attend on-campus.	**Ongoing.** • Summer 2007 curriculum writing teams will be developing a one-semester online Health class (especially targeting upperclass AVID students) and a one-year Music Appreciation class, both to be offered August 2007

		• Plato software is used as an online solution for high school credit retrieval, and may be implemented summer 2007 in the middle school STEPS program, as well

Summary

Irrefutably, the *Northside ISD Technology Master Plan: 2002-2012 by Elert & Associates* has greatly influenced and facilitated technology planning in the Northside Independent School District. The *Technology Master Plan* served as the foundation and cornerstone of the *Northside ISD Strategic Plan for Technology 2003-2008*, the *Northside ISD Technology Plan 2004-2005 and 2005-2008* approved by the Texas Education Agency, and the *Technology and Security Bond 2004* program. The six categories of technology solutions, with recommended projects and estimated budgets, provided in the *Technology Master Plan* have been invaluable as we rolled out new technology initiatives.

Some of the timelines set forth in the *Technology Master Plan* proved to be unrealistic, in light of financial challenges, organizational changes, high student growth, new legal requirements and other issues faced by the District in the past five years. Stakeholders must realize that this was a 10 year plan and timeline adjustments were necessary and beneficial to the District.

Technology Services will continue to review and evaluate the implementation of the *Technology Master Plan* as Northside ISD continues to grow in size as well as in its utilization of technology across the organization. This report will undoubtedly provide necessary feedback to allow technology planning and implementation processes to adapt to instructional, administrative, operational and technological changes. This report, as well as future formal and informal evaluations, will allow Technology Services to remain focused on important technology initiatives that will advance the effective use of technology throughout the District. Finally, this report will afford new opportunities for discussion and thinking among staff and other stakeholders to ensure that the Technology Services Division in successful in supporting the mission, strategies, and beliefs of the District.

Attachments

- Technology Services Organizational Chart