Information Technology Plan

October 2013 through September 2016

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FOREWORD

This Information Technology Plan is a live document that is reviewed periodically and adapted to the evolving needs of Navajo Head Start organization and changing technology. As our staff utilize the technology we deploy, their feedback guides the Navaho Head Start Information Technology Department (NHSITD) to provide further improvements.

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1 INTRODUCTION

1.1 BACKGROUND

Previously supported by Navajo Department of Dine Education (NNDODE) NEIS Information Technology Staff, Navajo Head Start (NHS) established its own Information Technology Department (NHSITD) in May of 2013. This move underlines NHS senior administration's recognition of the importance of a well-planned and custom-designed information technology infrastructure in NHS business.

The initial Information Technology (IT) environment consisted of basic services such as email and domain authentication, provided by NNDODE. These services were subject to interruption due to the fact that NNDODE support had to focus primarily on their own business unit and the needs of NEIS.

With the hiring of Mr. Brent Nelson as the Director of Information Technology in May 2013, a planning effort was initiated to expeditiously build an IT infrastructure that will meet the growing needs of NHS for three to five years in addition to replacing basic services that were currently provided by NNDODE. An additional consideration was the need to address the findings of a Federal Review that had taken place two and a half years prior, which had found deficiencies in the way that NHS had delivered services. Constraints include shrinking organizational budgets, infrastructure deficiencies due to the poor and rural communities being served, Internet bandwidth limitations because of vast geography and lack of infrastructure and an organization culture that does not rely on IT due to poor past performance.

The Information Technology Plan that is outlined in this living document distills remarkable intellectual labor and collaborative process into an executable plan that addresses unique challenges that NHS and Navajo Community face.

1.2 TECHNOLOGY PLANNING TEAM

The NHS Information Technology Plan puts forth a strategic action plan to assist NHS administrative and teaching staff to perform their duties efficiently while improving the teaching process, ultimately raising generations of Navajo children equipped to achieve in K-12 education and in professional life. As such, the Technology Plan requires substantial alignment with organizational objective and feedback and participation from NHS administrators and teachers.

Ultimately owned by NHS Information Technology Department (NHSITD), strategy and approach to technology is possible with the participation of NHS Technology Committee consisting of individuals who broadly represent the NHS program staff and administrative staff. The objectives of the committee include:

- to assist with the development and ongoing revision of NHS three year comprehensive strategic plan,
- to advise on all aspects of institutional planning, and
- to monitor and evaluate the Technology Plan considering technical innovation and changing organizational needs.

The Sr. Administrative Management Committee approves the department's three-year comprehensive strategic plan.

The NHSITD serves as the primary focus for the dissemination of information on technology and for the distribution and implementation of the means for technologically enhanced teaching and learning. Responsibilities of the NHSITD include reviewing, establishing, and maintaining the goals, objectives, strategies and activities in the program's three-year strategic plan so that it will lead the program to a place of technological excellence and accessibility.

Governmental, Higher Education and Business Partners:

Navajo Department of Information Technology

Navajo Department of Dine Education

Arizona State University

University of New Mexico

Mind's Angle, IT Infrastructure Implementation and Consulting Firm

Hatch Computers

Child Plus

Frontier

Property Trac

1.3 TECHNOLOGY PLAN PERIOD

The benchmarks and timelines in this technology plan will guide NHS' implementation and use of technology for a period of three years, from October 2013 – September 2016.

2 NAVAJO HEAD START SERVICES/OBJECTIVES

2.1 HEAD START

Head Start is a federal program that promotes the school readiness of children ages birth to 5 from low-income families by enhancing their cognitive, social and emotional development. Administration for Children & Families; U.S. Department of Health and Human Services; 370 L'Enfant Promenade, S.W. Washington, D.C. 20447.

2.2 NAVAJO HEAD START

Navajo Head Start, the largest Head Start organization in the United States today is a federally funded program operating 4 Head Start Regions; one Early Head Start (I) Crownpoint/Shiprock Region, (II) Fort Defiance Region, (III) Chinle Region, (IV) Tuba City Region, (V) Early Head Start with Window Rock, Arizona as the Central Administration. Navajo Head Start proudly serves two programs; Head Start (HS) and Early Head Start (EHS).

Head Start provides services to children 3-5 years old in center base and home base program options.

Early Head Start provides services to pregnant women, infant and toddlers in center and home base program options.

Navajo Head Start program operates on a 4-1 program option with Fridays as professional development days. . At times the professional development days may be utilized as a makeup day.

Navajo Head Start's Design and Program Option offers children and family's comprehensive child development services through center-base, home-base, and a combination program options for both head start and early head start.

2.2.1 Center-Based Program

Children and families enrolled in center-base program receive a comprehensive child development services in a center-base setting, supplemented with home visits by the child's teacher and other Early Head Start and Head Start Staff.

2.2.2 Home Base Program

Children and their families are supported through weekly home visits and bi-monthly group socialization experiences Program and staffing requirements for each of these options are outlined in the Head Start Program Performance Standards.

2.3 VISION STATEMENT

The strength of children, families and community. Exemplifying high moral principles and commitment to quality services. Dedicated to promoting safe and healthy families.

2.4 MISSION STATEMENT

Navajo Head Start, an early childhood development organization established within the boundaries of the four sacred mountains, utilizing holistic services to empower children, families and

communities to become self – sufficient. Through the practice of cultural skills and language, our children will gain a positive self – identity, strong self-esteem and confidence to become responsible citizens. Our team of dedicated service providers will exemplify high moral principles and commitment to quality services in preparing children to overcome educational and life challenges.

2.5 VALUES AND VALUE STATEMENTS

Children and Families: The strength of children and families are based upon the positive environment of the home. The Navajo Head Start programs will be an extension of the learning environment found in the Hogan. Our staff will continue to support the learning and growth of children by exhibiting Áyóó'óó' ni' (love), Sihasin (hope), Hojooba' (hope), and O'oodl ' (faith) from relationships established through K'e.

Integrity and Accountability: As a service program, Navajo Head Start is granted responsibility from communities to develop the impressionable minds of our youth. Therefore, it is expedient, that Navajo Head Start Staff are committed to exemplifying good moral character and responsibility for the sacred resources entrusted in our care.

Communication: The continuous flow of information is vital for optimal performance of program services. Effective and timely public relations ensures positive dialog between program, families and communities.

Courage and Leadership: Navajo Head Start program will foster the empowerment of staff, families, and stakeholders to uniquely explore and derive innovative advancements to successfully implement technology and high quality programming as a benchmark of early childhood development.

Culture, Language and Spirituality: Navajo Head Start program acknowledges the fundamentals of culture, language and spirituality to establish stability for learning and sustaining the philosophy of early childhood development using the Navajo Basket Model of human growth and development.

Health and Safety: Navajo Head Start is committed to ensure the achievement and maintenance of safe and secure facilities and operations to protect the well – being of staff, children and families. We identify that all staff must collectively work and assume responsibility to immediately identify, report and mitigate any deficiencies that would affect program operations.

2.6 STRATEGIC AREAS OF EMPHASIS

PROGRAM DESIGN AND MANAGEMENT

Goal Statement: Navajo Head Start will design and implement an organizational structure to effectively and efficiently manage the overall Head Start services, through establishing community partnerships, maintaining a highly educated and experienced staff, the use of sound financial management principles, the demonstration of exemplary leadership and shared governance.

FINANCE

Goal Statement: Promote efficient practices to ensure accountability and effective use of resources through the development and implementation of sound fiscal procedures, using technological integrated financial systems, and training in response to Navajo Head Start needs assessment.

FACILITIES / INFRASTRUCTURE

Goal Statement: Navajo Head Start in collaboration with local & regional resources, will create a comprehensive planned land and infrastructure model for the development of comprehensive state of the art facilities.

EDUCATION

Goal Statement: Advance development of bilingual education services with a focus on classroom management, peer mentoring, and supervision of instruction, measurement tools and the development of an in-house certification process for Navajo Head Start.

HUMAN RESOURCES

Goal Statement: Navajo Head Start will recruit, select and hire, highly qualified and competent service oriented workforce, while developing and retaining Head Start Staff with exceptional work environment and benefits, which recognize the commitment and dedication of our service providers.

Eligibility, Recruitment, Selection, Enrollment and Attendance (ERSEA)

Goal Statement: Navajo Head Start will meet family community enrollment needs.

PARTNERSHIPS

Goal Statement: Navajo Head Start will establish and maintain strong partnership collaboration with families and resources to promote a comprehensive Early Childhood Education Program, through Ké.

3 EDUCATION GOALS AND STRATEGY

Improving education is at the heart of NHS Information Technology Plan. This section outlines the NHS education goals and our distinct strategies to fulfill these goals.

3.1 GOAL 1: USE TECHNOLOGY TO IMPROVE TEACHING AND LEARNING

In order to improve teaching and learning, NHS needs to implement technology that will support teachers' daily activities, enrich the process of teaching with interactive graphics and stories as well as retain students' attention for extended periods of time and more importantly, transform the classroom experience by adding fun for both the teacher and student.

3.1.1 Strategy: Basic Audio/Visual Tools in the Classroom

The following components will be deployed at each NHS Center:

1. A flat screen TV or a projector system that will facilitate collective viewing/hearing of course material or Internet content.
   a. TV will be connected to the internet via the wireless infrastructure inside the Center
   b. TV will be integrated with the tabled computers that are in use such that any given tablet or computer will be able to project its screen to be viewed on the TV screen allowing the teacher to demonstrate concepts and present the course material but also for students to demonstrate their skills.
   c. TV will be utilized as a Video Tele Conferencing (VTC) display device during staff meetings, training sessions, community training events etc.
2. Interactive White Boards

3.1.2 Strategy: Utilize Tablets that Improve Education

Tablet computers and hand-held devices are an integral part of daily life as well as one's professional work. Being exposed to this technology in early ages allows our Navajo children to be competitive in their education and professional life. Specialized tablet systems that are highly integrated with curricular content could provide a higher retention and better engagement for both children and teachers.

The Hatch® iStartSmartTM Learning System is powered by the Hatch iStartSmartTM Software Suite [Copyright TX-7396648 and TX-7396647] of education programs designed to increase school readiness skills for all preschool children. It is a foundational instructional technology that uses the latest multi-touch hardware and provides an engaging, play-based approach created using the most current research and state/national learning standards.

The exclusive Hatch iStartSmartTM Software Suite includes Shell Squad Games targeted to skill development in 5 core areas, as well as Henry's Hideout, an interactive exploratory program. The activities scaffold from emerging to developed to support the appropriate development in young children and help prevent the creation of learning gaps. The program is driven by a set of progression rules that move children through the skill areas in a way that ensures a child is ready to move on to a new level or skill. The system includes built-in progress monitoring with fully formatted and printable reports for teachers, administrators, and parents. These reports are an invaluable tool in guiding the focus of additional support through small group instruction.

The Hatch iStartSmartTM Learning System is built around the exclusive ECLaunchTM program. ECLaunchTM is a computer utility program that makes the computer learning center independently accessible for young children and easy to use for teachers. ECLaunchTM is owned, manufactured, and exclusively distributed by Hatch. ECLaunchTM [Copyright TX-0007420029] protects children from accessing developmentally inappropriate material on the computer, protects critical computer files from the curious exploration of young children, and provides safe access to the internet. Hatch configures the computer learning center around the ECLaunchTM user profiles and sets up every software program and hardware component for total compatibility.

The Hatch iStartSmartTM Learning System includes exclusive furniture and hardware. Hatch® holds the exclusive rights per manufacturer to market, sell, and distribute the Hatch® ISS Computer Desk. The exclusive Hatch All-in-One Touch Computer, a powerful, 22" multi-touch system, is designed for young learners and is distributed exclusively by Hatch®.

3.1.3 <u>Strategy:</u> Utilize VTC to Improve Teacher Competencies

NHS will utilize the Video Tele Conferencing (VTC) system to provide the teaching and administrative staff with opportunities to develop their professional skills, keep up with certification requirements, excel in their day to day tasks and seek opportunities to advance their position in the NHS organization. This strategy will ultimately improve education and job satisfaction through the following opportunities that will become available to teaching staff:

1. Provide professional development to staff of Navajo Head Start (NHS) to assist them with administration and center teaching personnel.

2. Provide continued opportunities for graduate degree and certification training.

3. Provide professional development specifically designed for teachers to help students in classroom activities and curriculum goals.

4. Provide new on-line professional development technology resources and on-site workshops (recorder or live), which will be aligned to NHS objectives.

3.2 GOAL 2: PROVIDE APPROPRIATE ACCESS TO ALL STUDENTS

Various technologies that are discussed above as well as any emerging technologies that might be considered in the future to improve education will require one common asset: Access to the Internet. Particularly with the advent of cloud computing and centralized access to content from the cloud or even a portal introduces the strict dependency on fast, reliable and secure Internet connectivity. Once the internet is terminated at the NHS Center, the cabling and switching infrastructure inside the building carries significant weight in delivering the connectivity to each device inside the building whether it is a wireless hand-held device, a TV/projector, multifunction printing device or a computer. Ultimately, availability and quantities of computing devices that are available to students in each Center is of importance in providing access to all students across Navajo Nation.

3.2.1 Internet Connectivity Goals and Strategy:

NHS Centers need Internet access with the following attributes:

1. Fast enough to bear appropriate traffic to meet the demands of applications that are being utilized in the classroom that often times tend to have large multimedia components such as

voice and video to improve student engagement. The vast geographic area that NHS serves includes many rural communities that lack high bandwidth Internet infrastructure and when broadband is available, it may be of prohibitively high price.

2. Reliable enough so our teachers can indeed depend on uninterrupted service so they can start integrating technology into their lesson plans and daily delivery of education.
3. Secure enough so that while they keep an awareness of compliance, this is not an effort that impedes the education delivery.

3.2.1.1   Strategy: Leverage Available ISPs

NHS will engage with most of the ISPs operating in Navajo Nation to investigate the following requirements and preferably sign a single contract that provides the best value to NHS.

1. Bandwidth availability
2. Pricing (including construction costs as well as monthly service)
3. Reliability based on the reputation of each particular ISP and the technology utilized (E.g. microwave, fiber, T1, DSL, MetroE etc)

3.2.1.2   Strategy: WAN in Star Topology for Central Security Management

NHS will build out the Wide Area Network such that each Center has a Point-to-Point connection to the NHS Data Center that is located in Window Rock. All Internet access will go through the central security equipment and software, constantly monitored to prevent access to unauthorized content and catch any security breaches that may be caused by malicious intent or neglect.

3.2.1.3   Strategy: Secure Internet Access for CIPA and HIPAA Compliance

NHS will implement firewall, Internet content filtering and Intrusion Detection/Prevention devices and software in the NHS Data Center to enforce access to appropriate content as well as the necessary audit trail to identify any person(s) violating compliance. For a further discussion of this topic, refer to "GOAL 6: ENFORCE COMPLIANCE WITH FEDERAL REGULATIONS" further down in this chapter.

3.2.2 Center Infrastructure Improvement Goals and Strategy:

Each center must have the basic internal infrastructure to facilitate access to organizational IT resources as well as the Internet content.

3.2.2.1   Strategy: Build Consistent Basic IT Infrastructure in Each Center

NHS will build an IT Infrastructure including the following basic components at each NHS Center:

- A lockable electronics cabinet sized to fir each Center
- An Internet router/ Local Area Network switch (or a combination device for smaller Centers)
- Basic RJ45 (network) cabling for devices that need to be connected on wired network. Cable must be laid according to BICSI standards to prevent electrical or tripping hazards for child safety
- Uninterrupted Power Supply for 20 minutes of operations in case of power outages
- Wireless Access Point(s) to disseminate network services to devices
- Sufficiently stable and safe electrical infrastructure stable

- Optional: WAN Optimization equipment to improve speed of Internet

3.2.3 Sufficient Equipment for All Students

Every NHS student should have a fair opportunity to utilize technology equally to his/her peers in the same classroom as well as in any other NHS Center across Navajo Nation. However, the financial and logistical constraints does not allow each child to receive a tablet or a computing device.

3.2.3.1 Strategy: Pilot Deployments of Technology and Sizing Based on Teacher Feedback

NHS will pilot any new technology with impact on education in a small group of Centers with IT savvy teaching staff to develop:

1. Use cases,
2. Best practices,
3. Deployment recommendations, and
4. Optimal quantities for effective learning experience.

Based on the data obtained from these pilots, the NHS-wide deployments of classroom technology will have a greater chance to hit the success criteria.

3.3 GOAL 3: ENHANCE STUDENT RECORD KEEPING AND ASSESSMENT

Student record keeping is a complex and labor intensive task and a tremendous burden for teachers. However, it is a mission critical aspect of lesson planning, accountability and child development tracking. Paper based methodologies cultivate procrastination, duplication of effort, data loss and inaccuracy.

3.3.1 Strategy: Develop a Mobile App that Works on a Tablet

NHS will commission the development of a mobile app that will simplify the student record keeping process. Teachers will be able to record observations and tips for lesson planning on the spot as they are working with the students. An initial Proof of Concept will include a small but impactful module. Upon measurable success, further modules will be developed. Due to the similar nature of student record keeping in Head Start organizations across the nation, collaborative opportunities exist in the utilization of such an app. Additional features will include:

1. Capabilities to attach recorded videos and sound clips supporting teachers' observations
2. Simplified touch enabled interface
3. Data entry methods minimizing free text and narration based data entry
4. Integration with organizational forms and other systems to prevent duplication and preserve accuracy of information

3.4 GOAL 4: FACILITATE COMMUNICATION (PARENTS/ TEACHERS/ ADMINISTRATORS)

Parent involvement and coordination with administration help teachers attain education objectives. In fact, many NHS teachers indicated to NHS IT Staff that parent involvement is one of the critical

success factors in child development not only from education standpoint but also overall health and normalcy.

3.4.1 Strategy: Utilize NHS Portal for Communication

NHS will develop an Internal Portal as a communication platform primarily for teachers and administrators to share information, communicate and coordinate. Possibilities will be explored to utilize this platform as a mean to communicate with parents in the following ways:

1. Secure access to student data, observations, video and sound clips, lessons plans and activities
2. Once parents are on the portal to look up their child's data, additional event or activity information as well as other participation opportunities may be advertised. This will help parents identify opportunities to better engage with NHS.
3. Parents may also be given an opportunity to provide feedback to NHS Teachers or Administrators.

3.4.2 Strategy: Utilize VTC to Attract Parents to Centers

NHS will develop a Video Tele Conferencing (VTC) system which, among many other uses, could be used to provide after-hour town-house meetings and parent education opportunities to rural communities. Topics may support such critical NHS initiatives as Fatherhood/Male Involvement or Principals of Healthy Diet. Participants will have an opportunity to listen to an expert live and engage in discussions remotely or simply ask questions.

3.5 GOAL 5: ENFORCE COMPLIANCE WITH FEDERAL REGULATIONS

The technology infrastructure must facilitate compliance with federal regulations such as HIPAA and CIPA in providing access to private data as well as the Internet content. Our teachers and administrators must be properly trained and equipped with knowledge to monitor and enforce compliance.

3.5.1 Strategy: Implement Systems to Assure CIPA Compliance

NHS will implement firewall, Internet content filtering and Intrusion Detection/Prevention hardware and software in the NHS Data Center to enforce access to appropriate content as well as the necessary audit trail to identify any person(s) violating compliance.

1. **WAN Implemented in Star Topology:** NHS will build out the Wide Area Network such that each Center has a Point-to-Point connection to the NHS Data Center that is located in Window Rock. All Internet access will go through the central security equipment and software, constantly monitored to prevent access to unauthorized content and catch any security breaches that may be caused by malicious intent or neglect. Central filtering and security enforcement will cut costs associated with a Center based implementation and introduce powerful and consistent protection for the entire NHS.
2. **Central Internet Content Filtering:** NHS will deploy centralized Internet Content Filtering solution that is customized to provide protection compliance with CIPA.
3. **Intrusion Detection/Prevention System:** NHS will deploy a solution to detect any internal and external malicious behavior that could potentially compromise private data that

NHS will be holding pertaining to students and parents. As a side benefit, this system will provide an audit trail and clues as to the identity of culprits for forensics research.

3.5.2 <u>Strategy</u>: Implement a Set of Policies and Train Staff

NHS is serious in assuring CIPA compliance. Prior to fully rolling out many of the technology initiatives discussed in the Plan, NHS has engaged CAaNES, a consultation firm that specializes in information security, to obtain a set of organizational policies that govern access to information and security.

1. **Acceptable Use Policy:** This policy provides direction to employees, contractors and other users for acceptable use of the Department's computing resources. As a part of the overall information security policies, this policy highlights for employees areas of common acceptable use of the computer resources and expectations of employees for proper use and care of the computer systems.

2. **Data Classification Policy:** The purpose of the policy is to provide the Department with a clear understanding on confidentiality and sensitivity of data as required by Compliance Laws and business needs. The policy shall outline classification of data that shall determine and define a framework for appropriate use with the Information Security Policies. The policy shall serve as a foundation for the Department's information security policies and shall conform to the federal and local laws.

3. **Information Security Charter Policy:** This policy establishes the information security program and supporting organization structure for the Department. This policy and related information security policies establish mandatory controls to ensure confidentiality, integrity, availability, reliability, and non-repudiation within the Department's infrastructure and its operations. It is the policy of the Department that the Programs abide by or exceed the requirements outlined in this document and related information security policies. In addition, to ensure adequate security, the Programs shall implement additional security policies and procedures as appropriate for their specific operational and risk environment.

4. **Management Security Policy:** The policy establishes directives on the management of security and risks on information and information systems. They policy defines management support, directives and direction towards establishing a security governance program. The policy defines security controls at the management level and includes the following areas:
   - Information security program and plan
   - Allocating resources
   - Security budgeting and staffing
   - Information security governance including security roles and responsibilities
   - Risk management programs
   - Security Assessment and Authorization

5. **Operational Security Policy:** The policy establishes directives for the security requirements necessary for protecting the production environment within Department and Program Agency sites. The policy defines security controls at the operational level and includes:
   - Awareness and Training
   - Configuration Management
   - Contingency Planning
   - Incident Response
   - Media Protection
   - Physical Security

- Personnel Security
- Software Use
- Operations Management

6. **Technical Security Policy:** This policy focuses on the technical security requirements necessary for protecting the production environment in the Department, Program and Program agency sites. The policy defines security controls at the technical level.

Please Refer to Appendix ?? for full copies of above mentioned policies.

3.5.3 <u>Strategy:</u> Train Staff to Monitor and Assure Compliance

Please refer to Appendix ?? for a full copy of the training slides for the staff training program that already been put in place. This mode of training will be fortified with pre-recorded modules that will allow the NHS employees at every level to periodically go through the material and maintain a sufficient level of awareness to maintain compliance. These video will be made available through the NHS portal. Each employee will also be required to read and sign each of these policies as an indication of accountability, as part of employment.

4 PROFESSIONAL DEVELOPMENT STRATEGY

Technology adoption by teaching staff and NHS administrators is where NHS Information Technology Plan will make an impact in the overall organizational success. Professional development is a process of improving staff skills and professional competencies to ensure that Head Start staff are prepared to work effectively and creatively in the communities we serve. Head Start's intention in providing or choosing professional development opportunities is to ensure that staff will continue to learn and grow as early childhood professionals.

The goal of the professional development component is to provide a source of the most current and accurate professional development information in early childhood education. Head Start and Early Head Start staff, families, Federal staff, Technical Assistance (TA) providers, policymakers, and the early childhood learning community at-large can make use of the resources in the professional development components.

NHS believes that training and technical assistance (T&TA) is critical to meeting and exceeding the Head Start Performance Standards, realizing program goals and objectives, determining priorities based on data and systems analysis, and continuous improvement as an agency.

The legislative and regulatory requirements related to staff qualifications, training and development are included in the Head Start Act and Head Start Program Performance Standards. Guidance for the use of quality improvement funds to improve teacher qualifications is included along with information on designing a career development system.

NHS ensures the protection of all confidential information of children and families served, including mental health or other health records, by maintaining them in files and storing them in locked cabinets. Staff are required to use the "Access to File" form and follow the approved Confidentiality Policy. Staff are required to receive training on Health Information Portability Accountability Act (HIPAA) requirements at least once and all staff with access to health information are required to be recertified every 2 years.

NHS ensures technology that filters Internet access to protect against access by adults and minors to visual depictions that are obscene, involve child pornography, or are harmful to minors. Any attempt by staff, parents, or visitors to bypass, defeat or circumvent the blocking and filtering measures is strictly prohibited. It is the responsibility of all NHS staff in charge of children to supervise and monitor usage of NHS's computers, computer network and access to the Internet in accordance with our agency's policy and Children's Internet Safety Act (CIPA).

NHS is CIPA compliant and as required by the State, we have utilized the public forum via our Head Start Policy Council to inform of our Internet Safety Policy and CIPA regulations. Also, we have utilized our internal communication system to disseminate information of update to our Internet Safety Policy. NHS's designated IT representative coordinates with all stakeholders to educate parents, staff, employees, volunteers, or any individuals working with children served by NHS on Internet safety.

NHS will be thriving to provide professional development and mentorship opportunities and a variety of reference materials to ensure that the NHS staff gain the following core skills to effectively use technology:

- Word processing skills
- Web navigation skills
- E-mail and electronic calendar management skills

- Digital cameras, document cameras and operation TV/projector and other A/V equipment
- Computer network knowledge applicable to the agency/organization
- Computer-related storage devices (disks, CDs, USB drives, DVDs, etc.)
- Educational copyright knowledge
- Computer security knowledge (HIPAA/CIPA)
- Spreadsheet skills
- Electronic presentation skills
- Videoconferencing and Microsoft Lync skills for video conversations, instant messaging, desktop sharing and presence indicators
- Web-seminar teaching skills
- File and Document Management & Windows explorer skills
- Multipurpose device (scanner/printer/fax) knowledge
- Downloading software from the web (knowledge including eBooks) (use research based type of tool)
- Knowledge of Mobile Devices, Tablet PCs and Smart Phones
- Microsoft Sharepoint content updates and uploads, document version control and work group area set up and management skills.

NHS professional development goals include:

- Provide professional development to staff of Head Start Programs to assist them with administration of personnel and child care center teaching personnel.
- Provide professional development technology training to Head Start Program staff and administrative staff.
- Provide professional development specifically designed for teachers to help students in classroom activities and curriculum goals.
- Provide new online (e-learning) professional development technology resources (web-based).
- Provide trainings to NHS's staff on Health Information Portability Accountability Act (HIPAA) requirements.
- Provide trainings and resources to NHS's staff/parents/volunteers on internet safety, cyber-bullying, and developmentally appropriate materials to teach children and continuously meet CIPA regulations.

4.1.1 Strategy: Learnkey Online Self-paced Learning System

NHS will purchase a set of subscriptions for and online self-paced learning system that could be utilized by NHS staff to improve their working knowledge pertaining to above core skills. The course contents include audio/visual aids, training videos and reading materials for self-study.

4.1.2 Strategy: Tech Tuesdays for NHS-wide Learning Webinars

NHSITD will organize a continuing webinar series that will be branded as "Tech-Tuesdays". This program will entail the broadcast of an interactive webinar that will be delivered through the NHS VTC system live. Each session will be recorded and archived in the NHS portal for easy on-demand access for those staff members who were not able to make it to a given Tech-Tuesday session. Through clear detailed descriptions and keywords associated with each video, staff members will be able to utilize the "Search" function on the NHS portal to locate any video that is relevant to the task at hand.

4.1.3 Strategy: Technology Champions at Regional Offices

NHS organizational structure establishes four Regional Offices as the administrative hubs for NHS Centers in a given geography. NHS will designate a "Technology Champion" at each Regional Office. The Technology Champion is a person with a special interest in technology and utilizes it to a greater extent than his/her colleagues in the Region. He/she will also be designated as a member of the NHS Technology Committee and become the first line of response to "how-to" questions originating from the Centers under that Regional Office. Technology Champions will receive perks such as additional training opportunities for excellence.

4.1.4 Strategy: Mentorship for Classroom Application of Technology

Our technology partners and equipment/software manufacturers have well established professional development and mentorship programs that focus on providing teachers with training specifically designed to help students in classroom activities and curriculum goals.

For example, our VTC vendor Vidyo has the following professional development program that merits a mention:

4.1.4.1 Vidyo Extensive Teacher/Student Training Program

The overall goal of this engagement is to provide a custom user training that will help with the adoption of the new Vidyo portfolio. The following details the specific activities to be performed during the course of the engagement:

a) Define Focus, Goals and Success Criteria of Service Implementation
   i) The Vidyo Senior Consultant will work with Customer to develop a set of realistic and measurable objectives for the Vidyo training rollout. Target user groups will be identified while cultural and technical readiness is assessed to develop a comprehensive launch project plan. A set of metrics will be established to track the progress toward achieving the goals.
b) Communication Plan
   i) The Vidyo Senior Consultant will work with the Customer to develop a formal communication plan. A communication timeline will be developed and a series of sample communications will be provided to the customer for customization.
c) Training Content Customization
   i) Based on findings during the assessment phase Vidyo Trainers will work with Customer to customize existing training content to meet the technical environment and use cases represented by the training attendees. Routine areas of customization include but are not limited to audio policies, scheduling procedures, technical support structure, and specific use cases for the tools included in the scope of this engagement. Vidyo will review the customized training content with Customer for approval. The Customer team reviewing the content will be invited to suggest content changes for all training materials.
d) Comprehensive Live Training Program
   i) Vidyo will provide a blended training program combining both live, online training and recorded training for all participants. All live, instructor-led training sessions will be delivered using Vidyo. Some training modules may include "homework" designed to motivate the user to practice using the tools immediately. The training will focus on providing each employee the skills and understanding of the use of the solutions. All training sessions will include surveys to gauge participant satisfaction with training resources and delivery.

ii) All training sessions will be delivered in English during North America business hours. International training times can be accommodated and quoted at an additional cost.

iii) Language localization available for Registration portal and live/on-demand training. Language localization can be provided and will be quoted and agreed upon as a Project Scope Change to this Statement of Work.

iv) Vidyo will provide Customer with six (6) live, instructor-led training sessions of sixty (60) minutes in length, as determined during the initial consultation.

v) All online instructor led sessions will be limited to twenty (20) participants per session.

e) Reporting and Tracking

i) Vidyo will track participation in training throughout the project. Statistics will include registrations, attendance and non-attendance to each session.

f) User Surveys

i) Vidyo will survey all live training participants to gauge effectiveness of training.

g) Summary Report

i) Vidyo will provide a final report reviewing the results of the scope of the implementation effort, review adoption success with conclusions, and provide recommendations for additional programs, initiatives, and efforts which the Customer should consider going forward.

ii) Should Customer seek additional live training and consulting services, Vidyo will integrate recommendations for follow-on adoption activities within the report.

4.1.5 <u>Strategy:</u> How-to Guides on NHS Portal

NHS will create task based "How-to Guides" that describe step-by-step instructions for top 10 most frequently performed tasks in each solution platform and post these guides on the portal for continued reference.

5 TECHNOLOGY INFRASTRUCTURE ASSESSMENT

As mentioned in above sections, the initial Information Technology (IT) environment consisted of basic services such as email and domain authentication, provided by NNDODE. NHS did not own any component of the technology with the exception of the computers, laptops and printers until late 2013 coinciding with the initial efforts to finalize this Information Technology Plan.

The Technology Infrastructure Assessment was conducted based on the following benchmarks:

1. A reference architecture for an IT organization that encompasses all components of Information Technology Infrastructure based on industry best practices,
2. Federal Review findings from two and a half year prior, pointing out the organization deficiencies and required improvements.

The task of the Technology Committee, in collaboration with our technology partners, to translate the above data to actual affordable IT projects to first relieve NNDODE from the burden of supporting NHS but more importantly to start building a scalable IT Infrastructure that meets short term needs, addresses the Federal Review findings and provides a foundation to support future NHS needs.

5.1 FEDERAL AUDIT

Navajo Head Start (NHS) is taking corrective action in response to a federal audit to ultimately achieve federal compliance as the Grantee. The audit findings are summarized below:

1. Substantial and material failures to designate trained staff or a school nurse at Centers where children are requiring medication because no qualified personnel were available

2. Requirement to implement procedures for the ongoing monitoring of Early Head Start, Head Start and delegate agencies to ensure federal regulations are implemented effectively

3. Requirement to eliminate indoors and outdoors health and safety threats to enrolled children and staff

4. Requirement for management oversight, recordkeeping and communication system to provide a governance model to:

    a. identify safety issues as well as health related concerns related to children health status, medical conditions or medication needs,

    b. maintain strong visibility to these issues so identified safety concerns are promptly addressed,

    c. keep Center and management staff accountable for promptly addressing work orders and for those that are problematic, implement an escalation mechanism for action,

    d. keep track of violation notices, citations etc from outside agencies and internal sources to cross-reference open cases and corresponding corrective action,

    e. enable an effective training and remote resource sharing mechanism to compensate for a vacancy in the position of a resident Health Coordinator at each Center,

f. implement a mechanism of communicating child health data in a format to improve and expedite central office response and facilitate Center follow-up as well as securing private child/parent information to ultimately achieve immediate response to meet enrolled children's preventive and primary health needs in a timely manner,

g. provide management staff and Education Committee members with easy access to up-to-date programmatic, operational, monitoring and financial data and/or monthly reports such that this data can be routinely presented and discussed in committee meetings,

h. provide the field staff and case workers with a modern communication, follow-up and data collection system to facilitate collaboration with parents and health care professionals to obtain determinations from health care professionals as to whether enrolled children were up-to-date on a schedule of preventive and primary healthcare. Assist parents in making necessary arrangements, if and as needed.

5. Implement a governance model that identifies and enforces a body of policies to maintain ongoing compliance with Federal requirements. Implement a staff training and periodic certification system to improve staff awareness of compliance requirements, the accountability and the effective use of communication system to expedite resolution.

5.2 PROFESSIONAL DEVELOPMENT GOALS (WELL TRAINED/ QUALIFIED STAFF)

5. Provide professional development to staff of Navajo Head Start (NHS) to assist them with administration and center teaching personnel

6. Provide continued opportunities for university and certification training

7. Provide professional development specifically designed for teachers to help students in classroom activities and curriculum goals

8. Provide new on-line professional development technology resources and on-site workshops (recorder or live), which will be aligned to NHS objectives

5.3 GOVERNANCE GOALS

1. Integrate information resources across NHS service locations

2. Integrate technology resources to ensure that all NHS staff members can use information resources through a common interface

3. Enhance information content and interactivity of NHS resources.

4. Enhance the skills and knowledge of all NHS staff to access and make use of the NHS information resources.

5.4 SUMMARY OF TECHNOLOGY RESPONSE TO NEEDS

The objective of this document is to clearly define an agency-wide information technology infrastructure initiative to enforce and facilitate the modern communications, training, collaboration, remote sharing of qualified staff and other resources across the agency, as well as access and visibility to monitoring data for corrective action, management and committee oversight:

1. High speed, secure telecommunications/Internet connectivity to each Center

2. Streamlined communication system including:

   a. Video teleconferencing that can be used on any device over any connectivity (staff training, certifications, parent and healthcare professional outreach, follow-through, staff sharing across the vast geographic coverage area of Navajo Nation, professional development training, ongoing compliance awareness and regulatory training, committee meetings without costly road trips)

   b. Email system that is owned and operated by the Agency to assure streamlined communications with all involved staff and external agencies. The email systems must be archived to ensure compliance with federal requirements as well as audit trail.

   c. Telephone system implemented with an agency-wide directory to allow staff to easily connect with each other, collaborate, follow-up and reach supervisory staff easily to report persistent issues for expedited resolution.

3. A secure data center to house the Agency's Child Plus database with high availability and disaster recovery such that it is accessible by all centers, authorized staff and Education Committee at all times to facilitate the information flow and persistent visibility of violations, issues and citations until action is taken.

Assess and establish collaboration opportunities with sister agencies (Department of Dine Education), those agencies which are chartered to provide infrastructure services to Navajo Head Start (e.g. Navajo Telecommunications and Utilities Department) and local providers (E.g. Navajo Tribal Utility Authority, Frontier etc.). An assessment of collaboration with such agencies may reduce costs and expedite implementation.

NNHIT is envisioning the following steps involved in the implementation process that will be finished by September 30th, 2015:

- **Step 1:** Core and Communications Infrastructure Design

  The primary components include:

  o Identify the applicable Federal compliance requirements (FERPA, HIPAA, involved states, internal) – to be addressed in FY2014.

  o Service availability assessment: Evaluate options (costs, features, benefits, risks) to make decisions involving:

    ▪ The datacenter location

    ▪ Internet connectivity speed and types for each Regional Office and two designated Centers – negotiate contracts with future expansion in mind.

  o Blue-prints of detailed design.

  o Site visits to Regional Offices and two typical Centers to determine facility remediation requirements and Wide Area Network connectivity schema.

- **Step 2:** Implementation of the datacenter, initial communications network consisting five Regional Offices and two Centers, and provision of basic data center functions.

- **Step 3:** Technology adoption - User and administrator training will be included for adoption of the new technologies that have been implemented.

5.5 NHS-WIDE INTERNET CONNECTIVITY

The Need: NHS-wide Internet connectivity: Every Center, every Regional Office must be connected to the Internet. The below

Table 1: incorporates a series of lists point out the existing connectivity based on the Region. Those classrooms that show "NO INTERNET" will be connected leveraging the current contract with Frontier Communications where service is available or alternatively by Hughes Interconnect and Skycasters where applicable.

Targeted Bandwidth: The minimum Internet bandwidth that is needed at each Center is one T1. However, based on the projected reliance on technology, video teleconferencing and rich media to achieve NHS objectives and to truly cause transformation with the classroom materials, Metro Ethernet (where available) will be implemented. In other areas, we will target dual T1 links.

Funding Subsidy and Management of Valuable Internet Bandwidth: NHS is currently paying $101,488.14 for the existing Internet connectivity. This contract will expire in April 16, 2014, allowing NHS to negotiate higher bandwidth as mentioned above and set up the mechanism to take advantage of any available federal subsidy. It is projected that the total agency-wide connectivity at the optimal bandwidth levels will be $250,000 per year. Our plan to manage the cost burden has the following two aspects:

1. **Sustain Funding:** NHS qualifies for a funding subsidy program to offset 85% of the total point to point Internet connectivity costs to reduce the agency-wide annual connectivity costs from approximately $250,000 down to $37,500, saving closely $190,000 a year. Please refer to *Error! Reference source not found.USAC RURAL HEALTHCARE PROGRAM TO PAY FOR INTERNET* further down this planning document for detailed information.
2. **Protect and Preserve:** Current SAS project with Mind's Angle also addresses a critical aspect of Internet bandwidth management. Part of the solution that is about to be purchased and implemented will provide a mechanism for us to filter Internet content to prevent access to unapproved content (such as Internet porn, Internet radio, casual social networking and Youtube content) as well as the majority of the malicious threats that could jeopardize NHS' compliance with HIPAA and other government regulations.

Shiprock Region	Region 1			
Location	**Internet Provider**	**Phone Number**	**LATITUDE**	**LONGITUDE**
Carson	Sacred Winds	505-960-9091	36.535019	-108.012085
Nageezi	Sacred Winds	505-960-6739	36.26236242	-107.7423055
Pueblo Pintado	Frontier	505-655-5414	35.96408898	-107.6472437
Torreon	Shows that have they internet but no phone line		35.77586442	-107.2545083
Thoreau	Sacred Winds	505-905-0139	35.41082275	-108.2041031
Tohajiilee	Sacred Winds	505-908-2253	35.070827	-107.113025
Nenahnezad I II	Sacred Winds	505-960-4068	36.74540466	-108.4113048
Upper Fruitland	Sacred Winds	505-960-0001	36.71448255	-108.3454362
Hogback	Frontier	505-368-1455	36.776404	-108.608458
Shiprock	Frontier	505-368-1400	36.78486264	-108.6553026
Churhrock	Sacred Winds	505-905-5420	35.53306121	-108.5980664
Iyanbito	Frontier	505-905-5420	35.52421528	-108.4735063
Mariano Lake	Frontier Satellite		35.57736379	-108.3243948
Pinedale I II	Frontier Satellite		35.61046708	-108.449346
Smith Lake	Frontier DSL		35.53666717	-108.1360297
Becenti	Frontier	505-786-2277	35.81451559	-108.1654025
Crownpoint I II	Frontier	505-786-2347	35.68461353	-108.1459286
Borrago Pass I II	School		35.57292	-108.005224
Sanostee	Frontier	505-723-2700	36.42672014	-108.8738501
Two Grey Hills	Frontier Satellite		36.23857498	-108.8048036
Red Valley	Frontier	505-653-5998	36.59775925	-109.0594539
Crownpoint Warehouse	Frontier	505-786-2347	35.68461353	-108.1459286

Fort Defiance Region	Region 2			
Location	**Internet Provider**	**Phone Number**	**LATITUDE**	**LONGITUDE**
Baahaali	NO INTERNET		35.395669	-108.650581
Chichiltah	NO INTERNET		35.29178095	-108.9069716
Red Rock I II	Sacred Winds	505-905-2436	35.45556253	-108.7581208
Lupton	Table Top	928-688-4354	35.33880597	-109.0701841
Tsayatoh	Sacred Winds	505-905-8200	35.52264941	-108.9274964
Cornfields	Frontier	928-755-5916	35.65176451	-109.6804515
Nazlini	Frontier	928-755-5906	35.89789903	-109.4445834
Greaswood Springs	Frontier	928-654-3903	35.52839202	-109.8540918
Crystal	Frontier Satellite		36.04329354	-108.9690793
Red Lake	Frontier	505-777-2668	35.90701881	-109.0495648
Naschitti	Frontier	505-733-2810	36.06416917	-108.6857607
Newcomb	Frontier	505-696-3355	36.2831624	-108.7091449
Rock Springs	Frontier	505-371-5101	35.60806274	-108.8287042

Tohatchi	Frontier	505-733-2810	35.85353851	-108.7630352
Twin Lakes	Frontier	505-735-2392	35.70937353	-108.7737404
Rual	Table Top	928-688-2273	35.196412	-109.313557
Klagetoh	Frontier	928-652-2703	35.49944776	-109.5305579
Ganado	Frontier	928-755-5966	35.70625037	-109.5483119
Kindalichii	Frontier	928-755-5928	35.74138302	-109.447308
Ft. Defiance	Frontier	928-729-4138	35.74060357	-109.0739193
St. Michaels	Frontier	928-871-7851	35.65255469	-109.0941678
Sawmill	Frontier	505-729-4378	35.89870343	-109.1658359

Chinle Region	Region 3			
Location	**Internet Provider**	**Phone Number**	**LATITUDE**	**LONGITUDE**
Blue Gap	Frontier Satellite		36.17171985	-109.9445971
Forest Lake	Frontier	928-677-3355	36.29317403	-110.3025116
Pinon I II	Frontier	928-725-3366	36.10176891	-110.2210475
Low Mountain	Frontier	928-725-3704	35.95158774	-110.0896026
Wippoorwill	Frontier	928-725-3506	36.02907729	-110.0806371
Chinle II	Frontier	928-674-2156	36.15343577	-109.5591046
Chile Valley	Frontier	928-674-2157	36.154544	-109.557585
Del Muerto I II	Frontier	928-674-2137	36.186243	-109.439873
Cottonwood	Frontier DSL		36.069509	-109.888875
Dennehotso	Frontier	928-658-3212	36.8407588	-109.8518264
Aneth	Frontier	435-651-3477	37.21471077	-109.1828781
Red Mesa	Frontier	928-656-3660	37.06482636	-109.3638504
Sweetwater	Frontier Satellite		36.85260558	-109.4251664
Round Rock I II	Frontier	928-787-2367	36.50797766	-109.4685398
Many Farms I II III	Frontier	928-781-6381/3616	36.3537249	-109.6200535
Lukachukai I II	Frontier	928-787-2505	36.40892369	-109.2469797
Tsaile	Frontier	928-725-3506	36.23711264	-109.1266687

Tuba City Region	Region 4			
Location	**Internet Provider**	**Phone Number**	**LATITUDE**	**LONGITUDE**
Leupp I II	Frontier	928-686-3298	35.29414505	-111.0051495
Dilkon	Frontier	928-657-8087	35.38563466	-110.3216996
Jeddito	Hopi Telecommunication	928-738-5211	35.77424115	-110.1365917
White Cone	Frontier	928-654-3903	35.56174046	-110.0801516
Tolani Lake	Frontier	928-686-3218	35.43331492	-110.8463998
LeChee I II	Frontier	928-698-3300	36.85807514	-111.4452142
Kaibeto	Frontier	928-673-3409	36.60311526	-111.0745603
Inscription House	Frontier	928-672-2822	36.65122479	-110.7616473

Shonto	Frontier	928-672-2454	36.59345269	-110.6442416
Navajo Mountain	Frontier; have internet through the school	928-672-2335	37.01680237	-110.7967322
Cowsprings	Frontier Satellite		36.4131	-110.841386
Kayenta I II	Frontier	928-697-5590	36.72466743	-110.2547599
Oljato	Frontier	435-727-3215	37.03615612	-110.3146765
Tonalea I II	Frontier Satellite		36.32468623	-110.9520219
Tuba City I II III	Frontier	928-283-3240	36.12591147	-111.2358785
Cameron	NO INTERNET		35.8695454	-111.4165065
Gap	Frontier	928-283-3228	36.303168	-111.457973

Table 1: Center listing indicating location and Internet connectivity. A total of 3 locations with "NO INTERNET" designation as well as two additional sites that are receiving their Internet through either the Chapter house or the local school are planned to be provided with Internet as a high priority initiative.

5.6 IMPLEMENT A SECURE DATA-CENTER TO HOUSE BUSINESS APPLICATIONS, DATA AND PORTAL

Access to Internet alone will not fulfill the desired organizational objectives. It will simply provide a mechanism to access information of three kinds:

1. **Publically available** information from the Internet
2. **Purchased applications** (E.g. Child Plus, PropertyTrac - Computerized Maintenance Management System) or **purchased content** in the form of downloads, updates or subscription (Hatch Computers curriculum, magazines, newspapers and other publication)
3. **Internal content and secure organizational data** such as Email, calendar sharing, organizational portal where all internal and external forms and paper flow intelligence is housed and documents of any sort is stored and shared, any databases, recorded video teleconferencing content, marketing/communications content designed by the NHS internal staff, applications and data geared towards reaching out to parents, all data that is gathered and processed including measurement and statistical data. All of the above require a secure server environment to run critical internal applications, store, backup and archive the data and secure all data and network communications.

The Need: Currently, NHS heavily relies on NNDODE for email and network connectivity. It does not have a data center or any form of computing platforms to house the **Internal content and secure organizational data**, as described above in Item 3. Approximately 60% of the funding allocated to the Mind's Angle SAS will be spent to build the foundation of a centralized data center, to be housed temporarily in NNDIT's data center.

Disaster Recovery: With heavy reliance on the data center, there is a dire need to ensure disaster recovery. A well-designed Disaster Recovery (DR) plan will ensure that the organizational data and servers are constantly replicated in real-time from one site to the other such that at any given time, the primary site's demise will trigger seamless resurrection of data and processes at the DR site. Options include:

1. Establish a mutual agreement with DODE for failing over to one another's data center if one fails.
2. Create a secondary data center, housed either at NNDIT or NTUA's Shiprock Data Center.

The systems that have been purchased and implemented:

Description	Qty
MICROSOFT LICENSING (SERVER, EMAIL, SHAREPOINT, DATABASE AND USER LICENSING)	
WINDOWS SERVER DATACENTER PER 2 PROCESSORS 2012 EDITION - Buy 2 for 4 proc and get unlimited virtual machines	2
WINDOWS SERVER USER CAL 2012	400
EXCHANGE STD USER CAL 2013	400
EXCHANGE SERVER ENT 2013	2
VLA SQL SERVER ENT 2012 PER 2 CORE LIC	2
VLA LYNC SERVER 2013	3
VLA LYNC SERVER STD USER CAL 2013 (instant messaging and desktop to desktop communication)	400
ORGANIZATIONAL PORTAL FOR IMPROVED COMMUNICATIONS	
SHAREPOINT SERVER 2013	1
SHAREPOINT STD USER CAL 2013	400
SHAREPOINT ENT USER CAL 2013 UPGRADE	400
SHAREPOINT SOFTWARE HEADSTART PACKAGE (Interdepartmental business process, paper flow and process tracking software package)	1
DEPARTMENTAL MOBILE APPLICATION FOR BUSINESS FORMS ON THE PRIVATE CLOUD	1
REMOTE DESKTOP MANAGEMENT	
KACE K2100S TAA HW based systems deployment appliance, with 100 nodes (225-3770)	1
KACE2100,NODE, Add 1 (331-0457)	400
ProSupport:Software Support & Maintenance for Each Additional Node, 1 Year (938-7566)	400
DESKTOP, EMAIL, WEB SECURITY AND DISK ENCRYPTION SOFTWARE LICENSING	
AE ENDPT PROTEC 12.1 U LIC A ESS 12M	400
ACD DR ENCRYPT PGP 10.3 XPLT A ESS 1YR	100
12 MO CLOUD WEB SEC NEW 50-249U CORP	400
12MO NEW SUB CLOUD EMAIL SEC SUBSCRIP 25-249U 25U INCREMENTS	400
MAIN DATA CENTER EQUIPMENT	
SWITCHING	
NBD PARTS ONLY SUP VDX 6720 16P & 24P	1
VDX 6720 24P SFP+ AC F R AIRFLOW	1
FRU SFP 1GBE COP 1PK ROHS FR418I/FX824/7	10
2 POST RAILKIT	1
CENTRAL FIREWALL	
Cisco ASA 5520 Firewall Edition - Security appliance - 0 / 1 - Ethernet, Fast Ethernet, Gigabit Ethernet - 1U - rack-mountable	1
Cisco SMARTnet extended service agreement	1

CENTRAL INFORMATION STORAGE	
Dell EqualLogic PS6110XV, 10Gb, High Performance, 15K SAS Drives (225-2858)	1
PS6110XV, 14.4TB capacity, 15K SAS, 24x 600GB (342-4517)	1
Dual Controllers, 10Gb, HA with failover (331-6722)	1
EQUIPMENT RACK FOR THE MAIN DATA CENTER	
Dell 4220 42U Rack with Doors and Side Panels, Ground Ship NOT for AK / HI (224-4934)	2
Dell UPS, Rack, 3750W, 4U, HEOnline, 208V, with L6-30P, 2m attached cord (225-2385)non-TAA	2
Dell UPS External Battery Module, Rack, 192V, 3U, for 3750W and 4200W UPS (312-2225) non-TAA	2
CENTRAL DATA BACKUP TAPE LIBRARY	
PowerVault TL2000, LTO4-120HH 800GB/1.6TB, 1 HH SAS Drive (224-0159)	1
Tape Media for LTO4-120 tape 800GB/1.6TB, 20 Pack (341-4628)	1
LTO4-120 WORM Labels, 1 to 60 (330-1130)	1
LTO Tape Cleaner (341-4548) **non-TAA**	1
BACKUP SOFTWARE	
VEEAM BACKUP RPL ENT FOR VMWARE TIER A - LICENSING IS PER SOCKET AND COMES WITH 12X5 SUPPORT FOR 1 YEAR.	4
BLADE SERVER ENCLOSURE AND SERVERS	
Blade Server Enclosure, No Blades, M1000E, PowerEdge (223-3244)	1
PowerConnect M8024-k Managed Switch, 24x10GbE Ports, Redundant Config, TAA only when sold with M1000e (225-3991)	2
VIRTUALIZATION SOFTWARE FOR THE MAIN PRODUCTION SITE	
Open Market - VLA VMWARE VPP L1 VSPHERE 5ENT PLUS 1PROC96GB VRAM ENTITLE PROC	4
Open Market - VLA VMWARE PROD SUP/SUB VSPHERE 5 ENT PLUS 1 PROC 3YR	4
Open Market - VLA VMWARE VPP L1 VCENTER SVR 5 STD VSPHERE 5	1
Open Market - VLA VMWARE PROD SUP/SUB VCENTERSVR 5 STD VSPHERE 5	1
FUNDAMENTAL DISASTER RECOVERY SETUP WITH A SISTER ORGANIZATION	
Open Market - VLA VMWARE VPP L1 VMWARE VCENTER SITE RECOVERY MANAGER 5 STANDARD (25 VM PACK)	1
Open Market - VLA VMWARE PROD SUP/SUB VCENTER SITERECOV MGR5 STD 25VM PK 3YR	1
ELECTRONIC LICENSE CONFIRMATION elec dwnld only	1
DISASTER RECOVERY CUSTOMIZATION, TESTING AND TRAINING SERVICES	1
REGIONAL OFFICES AND CENTERS	
ACCESS POINTS LICENSES FOR A TOTAL OF 106 RAP & 10 WAP	
ARUBA NETWORKS, INC. : Aruba 3400 Controller - 4x 10/100/1000BASE-T (RJ-45) or 1000BASE-X (SFP) dual personality ports, 0 AP support, restricted regulatory domain - US	1

ARUBA NETWORKS, INC. : MODEL 105 WIRELESS ACCESS POINT	10
ARUBA NETWORKS, INC. : Model 105 WAP Ceiling Mount Kit	10
ARUBA NETWORKS, INC. : MODEL 5WN-US REMOTE AP	96
ARUBA NETWORKS, INC. : 1 Port GE 802.3AF Midspan	10
WAN CONNECTIVITY TO THE INTERNET	
C1921 MOD RTR 2 GE 2EHWIC SLOTS 512DRAM	1
1PT T1/FRACTIONAL T1 DSU/CSU WAN I/F CAR	1
SMARTNT 8X5XNBD C1921 MOD RTR 2 GE 2 EHW	1
LAN CONNECTIVITY INSIDE BUILDINGS	
28PT 1G SWCH POE+ 370W W/10G SFP+	3
1YR REM SUP ICX6450	3
BRANCH OFFICE UPS	
Dell UPS, 1000W, 2U, 120V,with 5-15P to C13, 3m input cord (225-2392) - **(floor model)**	7
WAN OPTIMIZATION - HARDWARE TO MAKE INTERNET FASTER	
LICENSE STEELHEAD CXA 1555-L, 50MBPS,300	1
STEELHEAD CXA 1555 GOLD SUPPORT	3
STEELHEAD CXA 255 B010 WITH RIOS	7
VIRTUAL CMC SH MANAGEMENT LICENSE 10-PAC	3
TECHNICAL TRAINING FOR IT ADMIN STAFF (Customized and provided in Window Rock in Customer Facilities)	
CISCO ASA FIREWALL TRAINING	1
VMWARE TRAINING	1
Configuring Windows Server 2012 Active Directory Domain ServiceS	1
Day to day operations and management of Windows Server® 2012 and Active Directory®	1
NETWORKING PRINCIPALS TRAINING AT CUSTOMER SITE, WINDOW ROCK, AZ - 1-DAY	1
BASIC NECESSITIES FOR EACH CENTER	
MULTIPURPOSE PRINTERS	
Dell 2155cdn Laser Printer, 110V, TAA Compliant (225-0035)	96
Basic Hardware Service: Next Business Day Parts and Limited Labor Onsite Response 1-Year (936-5870)	96
Dell 215x/C376x/5130cdn Wireless Network Card, Customer Install (430-0699) non-TAA	96
Dell 215Xcn/cdn Printer Toner Cartridge set of 4: 2,500 Page C, Y, M + 6000 page Black.	10
TV SETS FOR PRESENTATIONS AND VIDEO TELECONFERENCING	
Dell Ultima HD15M to Dual HD15F SXGA Monitor Y-Cable 1 ft (A6968618) non-TAA	20
Dell SmartMount Universal ST650 Tilt Wall Mount for 32 in to 50 in Flat Panels (A0550711)	13
Dell LG 55-inch LED-backlit LCD TV - 55LN5700 1080p 120Hz Smart HDTV (A7012457) non-TAA	20

COMPUTER ACCESSORIES	
Optoma DC300i - document camera Optoma DC300i - Document camera - color - optical zoom: 9 x - USB - DC 12 V	7
Logitech Stereo Headset H110 - headset with microphone	20
Logitech HD Webcam C615 - web camera Logitech HD Webcam C615 - Web camera - color - audio - Hi-Speed USB	20
VIDEO TELECONFERENCING FOR IMPROVED SERVICE	
VidyoPortal with 1000 Vidyo soft client licenses VidyoPortal 1U, 19" rack mountable, appliance to manage users, system components and meetings for deployments of up to 10,000 registered users, 2,500 active users and 100 tenants. Includes mounting rails. Also includes 1,000 Vidyo soft-client licenses (1 x LIC-SC-1000).	1
VidyoGateway XL, 1U, 19" rack mountable, appliance to connect Vidyo endpoints with Legacy H.323 and SIP Videoconferencing endpoints. Supports up to 5 HD, 15 SD or 25 concurrent CIF connections. Supports up to 50 voice only connections. For use with VidyoConferencing v2.0 or later. Includes mounting rails. NOTE: Connections through the VidyoGateway XL do NOT consume VidyoLine licenses for connectivity through the VidyoRouter.	1
VidyoRouter - for video call management and security VidyoRouter 1U, 19" rackmountable, appliance to host up to 100 concurrent endpoint connections. VidyoRouters are stackable with auto load balancing provided by the VidyoPortal. Includes mounting rails.	2
VidyoReplay - for video call recording and web streaming VidyoReplay 1U, 19" rackmountable, appliance to support webcast to up to 300 concurrent HD viewers, recording for up to 5 concurrent HD sessions or 15 concurrent SD sessions, and content management for recorded VidyoConferences. Separate license, LIC-AAC-SP, must be included with orders for Service Providers that intend to sell VidyoReplay services or bundle VidyoReplay services as part of a commercial offering.	1
720P STANDALONE VIDEO STATION ON WHEELS - WITH CAMERA, SCREEN SHARING AND LED TV. This is made up of the following parts:	7
VidyoRoom HD 110 with PTZ Camera and Speaker Phone	7
VidyoRoom Screen Sharing accessory	7
Cart	7
HD DEVICE LICENSE	20
CLIENT LICENSES FOR SOFT CLIENTS INCL PC, ANDROID, TABLET, MAC, IPHONE, IPAD PLATFORMS	2
Premium three year Partner Silver service coverage for Vidyo system (including HW return & repair, business day 9 AM to 7 PM ET phone support, updates for software components not covered by the Software Maintenance Plan). Level 2 support service provided by Vidyo partner.	1
Premium three year Partner Silver service coverage for Vidyo software (including business day 9 AM to 7 PM ET phone support & software updates). Level 2 support service provided by Vidyo partner.	1
VIDYO CUSTOMIZATION, TESTING AND TRAINING SERVICES	1

5.7 CLASSROOM TECHNOLOGY TO IMPROVE EDUCATION AND SERVICE TO CONSTITUENTS

Based on the feedback from our colleagues involved in the day to day service delivery at the Regional Offices and Centers, the following technology must be present and reliably usable at EACH NHS location:

1. **Internet connectivity:** Please refer to section NHS-WIDE INTERNET CONNECTIVITY above for stated plans.
2. **Secure & Remotely Manageable Internet Router:** This is the device that will make the Internet signal usable inside the building. Part of its function is to help IT staff control Internet traffic and manage security.
3. **Remotely Manageable Switch:** This is the device that takes the Internet signal from the Router and distributes it to the devices inside the building via the blue cable (see below). The switch will also allow all devices inside the organizational network to communicate with each other.
4. **Cabling Inside the Building:** The network signal is conducted through the blue cable we refer to as Ethernet cable. Cabling must be put in place in accordance with IEEE and BICSI standards.
5. **Wireless Access Point (WAP):** Based on the size of each building one or more WAPs may be needed to provide Wi-fi coverage inside the building. While devices such as printers, desktop computers may be connected via the Ethernet cable, most of the classroom content would be delivered over the wireless connection due to the projected reliance on the Hatch tablets, laptops and other mobile devices including Apple and Android devices both tablet or phone. **Security is of the prime importance:** Due to the fact that anyone can access a wireless network if they are in the range, we have to encrypt traffic for compliance and provide user ID and Password to staff, guests and students, each with proper rights to access only the designated data based on their role.
6. **Equipment Rack:** Grounded and centrally located lockable equipment racks will protect equipment from security breach, theft and prevent safety hazards stemming from loose cables or electrical exposure.
7. **Hatch Computers and Tablets:** With special focus on early childhood learning, these computers can make a great deal of impact in the process of teaching as well as the children's learning experience and effectiveness. Purchase process is currently underway.
8. **Shared Network Printer and Toner:** People need to print reports, outreach materials, documents, forms etc. Printers must be manageable. We recommend standardizing on the printer models to prevent the need to purchase a variety of models of toner that could cause an inventory nightmare. It is recommended that the toner inventory is centrally located at each Regional Office and restocked based on reasonable demand to prevent abuse.
9. **Projector and Whiteboards for Communal Learning and Community Building:** A bright projector along with a whiteboard/smartboard screen would improve the education experience tremendously. The larger-than-life viewing area might make it easier to attract the children's attention while providing a communal learning experience. Health education, parent events, professional development classes or even an occasional movie-night may allow the Center staff to reach out to the community and create a living Center that is utilized by the community. Particularly the smartboard technology could have a revolutionary effect in the teaching process as it allows for the use of interactive content to build school-readiness skills.

10. **Mobile Computing Devices for Staff (Notebook Computers and Tablets):** Utilizing the wireless infrastructure, these devices will provide mobility to staff members. Especially with the projected NHS Portal implementation, clip-boards with paper forms will be replaced with these devices. There is evidence that tablets in particular may help novice staff that is resistant to technology due to the use of intuitive hand gestures and point & touch technology to accomplish day-to-day tasks.

Timeline: 2014 - 2 days per Center. The installation tasks will be standardized such that a team of two individuals with lower level technical expertise (lower cost) can accomplish implementation.

96 sites: 6 months with a single implementation team
3 months with two implementation teams
6 weeks with four implementation teams

5.8   ORGANIZATIONAL PORTAL FOR IMPROVED COMMUNICATIONS

The portal will be based on Microsoft's powerful SharePoint Portal Platform. In order to meet NHS' specific needs, the platform will need to be customized. The customization effort will involve all organizational steak-holders such as Ms. Singer, Lamont, Edwina, Shannon, Carlene, Vince, Steve, Alistair, allowing the staff to review the organizational processes with skilled systems-analysts and systems-designers. Often times the end result will be improved efficiency, effective communications and transparent/auditable paper flow.

The portal will allow for the following functionality:

1. Share or protect documents
2. Manage versions of a document and track changes/contributions made to the document by each team member
3. House a library of forms – forms are always the latest version
4. Paper and approval flow automation. The approval and signature process can be programmed for each form determining key staff and measuring response times and allowing the originators of each form to track their documents.
5. Centralized video library of recorded video teleconference sessions, training video or outreach content.

5.9   VIDEO TELECONFERENCING FOR IMPROVED SERVICE

Projected to be funded partly by the RUS grant (please refer to **Error! Reference source not found.**RUS-DLT Grant to Pay for Video Teleconferencing Equipment for further information), a video teleconferencing system will allow all Centers to receive critical education, healthcare services equally, regardless of location. The following are some sues of technology as identified by NHS staff:

1. Video teleconferencing can be beneficial for the Head Start program by utilizing it for Professional Development purposes. Professional Development maintains and improves professional competence, to enhance career progression, keep abreast of new technology and practices, and to comply with professional development requirements for Head Start staff. With the use of Video Teleconferencing, trainers from different organizations, districts, and universities will be able to provide more professional development opportunities as well as reduce travel expenses.

2. Video teleconferencing can also be used by Head Start Teachers to help with furthering their education. Currently, Navajo Head Start is partnering with the Arizona State University (ASU) to provide Head Start Teachers an opportunity to receive a baccalaureate degree in Early Childhood Education. The professors from ASU can teach classes using video teleconferencing so teachers will not have to travel far to attend classes. The use of Video Teleconferencing in this capacity will increase the number of teachers getting their baccalaureate degree. As a result, the quality of instruction given to Head Start students will improve.
3. Per the 45 CFR 1304 requires the Navajo Head Start to provide Health and Nutrition awareness to our staff, children, and parents. Such as;
   a. Trainings (Transportation-Pedestrian, Food Handlers, 1st Aide/CPR)
   b. Health Mandated Trainings (Medication Administration, Injury Prevention, Blood Bourne Pathogen, Lead, Oral Dental Health, etc.,)
   c. Nutrition (Diabetes, height/weight/BMI)
4. Awareness of all aspects for Health/Nutrition is documented that they are being provided on a timely manner. This teleconference/webcam will also provide webinars to our Central and Region offices. We can beyond our Region office and when the local head start programs become 100% connected to internet we can provide trainings on our childplus database and so forth.
5. We are currently in the midst of NHS/Restructure and we can have webinars and teleconferences to reduce cost and travel time to a centralized area.
6. The receiving participants will be our Navajo Head Start personnel, parents, and volunteers.
7. As for Staff Development trainings we collaborate with Navajo Technical College to provide classes to our parents on trainings, such as, parenting skills, GED, and so forth. We can have our cooks obtain classes or instruction on "culinary arts".

6 EXECUTION PLAN

This section outlines NHSITD's approach to deploying the necessary pieces of technology for improved education, productive work environment, compliance and communications. Based on the three year period that this plan spans, concrete objectives and sub projects have been identified and listed by execution time frames.

Project/Strategy	Progress	Budget	Time Frame
INTERNET CONNECTIVITY: High-speed Wide Area Network connectivity for every center, implemented in a star topology for centralized enforcement of CIPA/FERPA compliance	70%	$250,000 per year	Jan 2014 - Oct 2014
• The current Frontier contract is ending in April 2014. Receive new proposal to provide a minimum of T1 connectivity in all sites where T1 is available (via Frontier or other providers) and attain Metro Ethernet where available, particularly at Regional Offices. Issue RFP and secure a new contract for 3 year term.	70%		Jan 2014 – Mar 2014
• Obtain quotations for Internet Access for mobile computers and staff members who travel. Identified a need for approximately 20 of this type of connectivity need. Discuss signal coverage with Frontier, CellularOne and NTUA to find the best service. Issue RFP and secure contract.	30%		Jan 2014 – Mar 2014
• Consider the feasibility of adopting Voice over IP via the existing Microsoft Lync to combine telephone and Internet to save communications costs and provide a uniform text/voice/video communication infrastructure to NHS.	0%		Feb 2014 – Apr 2014
NHS EMAIL SYSTEM: An organizational email system for email communications, calendaring and departmental announcements.	90%	N/A	Nov 2013- May 2014
• Implement the servers, storage, networking and all other aspects of a comprehensive Microsoft Exchange/Outlook email system.	100%	N/A	Dec 2013 - Jan 2014
• Gain executive sponsorship and impose mandatory utilization of the NHS email system for all work related communications. All NHS staff must check their emails and they must stop using public email services such as Yahoo, Hotmail, Gmail, etc.	50%	N/A	Jan 2014 – May 2014

• Provide user training to utilize basic and advanced functionality of email and calendaring.	30%	??	Jan 2014 – May 2014
NHS MESSAGING AND VIDEO SYSTEM: An organizational system for instant communications such as texting, presence, video and computer to computer voice communications to supplement email and telephone and support conference bridging, visual trainings, video broadcasts and community involvement.	80%	N/A	Nov 2013- May 2014
• Implement the servers, storage, networking and all other aspects of a comprehensive Microsoft Lync and Vidyo^{TM} Video Teleconferencing system.	100%	N/A	Dec 2013 - Feb 2014
• Provide user training to utilize basic and advanced functionality of Lync and Vidyo.	30%	??	Jan 2014 – May 2014
• Arrange staff meetings, live video seminars, and training sessions utilizing these platforms.	10%	N/A	Mar 2014 – Jun 2014
• Consider the feasibility of adopting Voice over IP via the existing Microsoft Lync to combine telephone and Internet to save communications costs and provide a uniform text/voice/video communication infrastructure to NHS.	0%	$100,000	Feb 2014 – Apr 2014
NHS PORTAL: An organizational portal for document sharing and improved communications.			
• Portal and the back-end database servers have been installed and is currently being utilized by the NHSITD.	100%	N/A	Dec 2013 - Jan 2014
• Portal to be populated with business forms and made into a useful reference site for the entire organization. Professional development for the adoption for the system.	75%	N/A	Jan 2014 – Jun 2014
• Portal to be customized such that business processes, form flow and other communications are facilitated as a true business resource. Professional development for the adoption for the system. (Initial phase of customization is included in the current contract with Mind's Angle).	30%	N/A	Jan 2014 - Jun 2014
• Portal to be utilized as a tool to connect with parents and community through secure access to child progress and achievement data as well as calendar of events, volunteering opportunities and	0%	$15,000	Jan 2015

resource materials including multimedia and text based content that educates parents.			
FEDERAL REGULATIONS COMPLIANCE: Navajo Head Start must comply with CIPA regulations. The factors to accomplish compliance includes a centralized Internet access for control and necessary software to enforce email and web content filtering.			Jan 2014 – Jun 2014
• Implement Systems to Assure CIPA Compliance – NHSITD has purchased Websense email and web content security. Full deployment is complete.	100%		Jan 2014 – Feb 2014
• Finalized a set of policies and coordinated joint compliance with NNDODE/NEIS. Staff training is pending.	100%		Aug 2013 - Mar 2014
• Train staff in security policies and compliance.	0%	??	Mar 2014 – Jun 2014
PROFESSIONAL DEVELOPMENT: Roll out all implemented systems and train users to utilize the technology in place to the best benefit of the NHS organization.	5%	??	Jan 2014 – Dec 2014
• Design a training and professional development plan to execute in 2014. • Review professional development objectives and identify specific measurable goals of technology literacy. • Training resources needed (outside trainers, internal team members, on-line training resources) • Training schedules and means (Tech Tuesdays, webinars, video seminars, preset sessions etc) • A communication plan • An accreditation system that will reward those staff members who train • Create a mechanism for user reference when needed. This may include 1) Technology champions in each Regional Office whom the staff in the Centers may call upon when IT staff is not available. 2) Recorded or narrated "how to" guides posted on the portal.	5%	??	Mar 2014 – Apr 2014
• Deliver training. Revise model, means, content, pace based on feedback.	5%	??	Apr 2014 – Dec 2014
IT INFRASTRUCTURE AT CENTERS: As the central IT infrastructure is built, the Centers will need to be provided with access to the central IT resources as well as technology facilitation for improving quality of	5%		Jan 2014 – Dec 2014

education and children's safety. Two Regional offices have been implemented.			
For each center the following must be in place: • A lockable electronics cabinet or designated area • An Internet router/ Local Area Network switch • Basic RJ45 (network) cabling with safety in mind • Uninterrupted Power Supply • Wireless for computers, tablets & mobile devices • Sufficiently stable and safe electrical infrastructure • Optional: WAN Optimization for Internet speed • TV/projector for collaborative classroom activity • Digital signage system for announcements on TV • Tablets, mobile devices improving education • Audio/video accessories for Lync & Vidyo	5%	$800,000	Feb 2014 – Dec 2014
DISASTER RECOVERY: As critical and private information is processed and stored in the centralized NHS Data Center (located in Navajo DIT facilities), reliance on the uptime, performance and reliability of the central systems become crucial. In order to assure continuity of NHS business in the event of a disaster or any type of outage, NHS must develop a strategy to fail over to another facility which could provide crucial systems and data until the primary data center is recovered.	5%	??	Jan 2014 – Dec 2014
• Data backups and archival – Data is backed up on tape for archival and recovery.	95%	??	Jan 2014 – Mar 2014
• DR replication and mutual fail over with Navajo Nation DODE. This will require a mutual agreement and each organization's compliance to host one another's critical applications and data in the event that one data center becomes unavailable.	0%	??	May 2014 – Oct 2014
• Ultimately, NHS will obtain a DR site that houses equipment that is owned and operated by NHS staff and is fully dedicated to NHS applications rather than relying on a sister organization and their potential limitations for resources, availability and performance. This will require mirroring of the infrastructure and software that is deployed at the main data center though it could be to a lesser extent. NTUA Shiprock Data Center as well as the potential new dedicated NHS building are candidates for this 2015 project.	0%	$600,000	Oct 2014 – Aug 2015
MOBILE APP TO ASSIST TEACHERS:	20%		

NHS has begun the development of a mobile app that will simplify the student record keeping process. Teachers will be able to record observations and tips for lesson planning on the spot as they are working with the students.			Oct 2014 – Jun 2015
• An initial Proof of Concept will include a small but impactful module. The development process is underway.	30%	N/A	Oct 2013 – Jun 2014
• Based on the success of the POC, additional modules will be developed. While improving efficiency of data collection and correlation, it will also provide an exemplary success story and basic tools for other national Head Start organizations.	0%	$80,000	Oct 2014 – Jun 2015
IT GOVERNANCE AND MANAGEMENT: As NHS increasingly relies on IT, systems need to be maintained, patched and kept up.			
• Routine performance upgrades are needed to improve the capacity of servers and information storage as more and more information is processed and stored.	0%	$100,000	Oct 2014 – Dec 2014
• NHS has deployed modern systems that require a sophisticated level of technical knowledge to support. While the recently hired new staff is trained and are becoming proficient in daily operations, additional support is needed t be acquired from external consultants to augment NHS IT Staff capabilities.	0%	$50,000	Mar 2014 – Dec 2014
• Equipment and software constituting the NHS IT infrastructure is covered by manufacturer's maintenance contracts as well as software update subscriptions to continually improve functionality and security. Annual renewals are due.	0%	$50,000	Oct 2014 – Sep 2015
• As part of the modernization effort, NHS has begun to take advantage of cloud based solutions where it makes sense. The email and web security that are critical components of CIPA compliance are cloud based services and need to be renewed annually.	0%	$20,000	Oct 2014 – Sep 2015

7 TECHNOLOGY PLAN MONITORING & EVALUATION

NHS Technology Plan objectives must be monitored for success. Organizational meetings and brainstorming sessions have guided the methodology that should be utilized for overall evaluation of technology initiatives.

The overall objective of the evaluation is to solicit qualitative feedback from as large of a number of NHS IT users as possible. This feedback must also be easily aggregated into a score card. A periodic electronic survey that could be built into the NHS Sharepoint site will be utilized to solicit the evaluation feedback. The survey must meet the following criteria:

1. Selection from multiple choices measuring the level of satisfaction:
   Example:
   ☺ Satisfied
   ☺ Fair
   ☹ Dissatisfied
2. Questions must be short, easy to understand and respond to, and must be phrased in a way to reveal weakness/strength and areas of improvement.
3. Surveys must be advertised and issued via the existing IT infrastructure (e.g. the NHS email and the SharePoint site) such that the participation in the survey alone would be an indication of the usage of the systems.
4. Frequency of surveys can be limited to semi-annual or annual with initial survey being scheduled in October 2014.