DoDDS-Europe Technology Plan

"Anytime, Anywhere Learning for the 21st Century"

SY 2007 – 2009

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1. Vision

DoDDS-Europe will ensure that all members of the organization support and promote technology rich 21st Century learning environments. Technology facilitates teaching and learning styles that are unrestricted by time, place, and modality. Technology enabled instruction will capture every learner's attention, breed enthusiasm for learning, and result in standards based highest student achievement.

1.1 Educational Philosophy - Every student attains highest achievement when technology is an integral part of the learning process.

1.2 Providing Equal Access

1.2.1 Every student will have a DoDDS-Europe issued technology device.

1.2.2 Every classroom will have an interactive white board.

1.2.3 Every classroom will have a digital projection device.

1.2.4 Every facility will have wireless access throughout.

1.2.5 Every teacher will have access to digital training through media rich collaborative online tools.

1.2.6 Every student will have the ability to share, display, and collaborate, in a secure online environment.

1.2.7 Every school will enhance community partnerships by sharing student work and school related information electronically.

2. Objectives

2.1 All students will have access to technology that supports learning, curriculum needs and programs.

2.2 All students will interact with curriculum materials through the use of technology.

2.3 All students will become proficient in the use of technology and the associated skills.

2.4 All stakeholders will use technology as a means for expression and communication.

2.5 All users will have training and support focused on the effective use of technology resources.

2.6 All stakeholders will have access to modern and up to date technology.

2.7 All students will develop 21st Century Technology skills needed to enter a global workforce.

2.8 All students will use technology to increase achievement and efficiency.

3. Deployment Strategy

3.1 Phase One

3.1.1 Take ownership of the remaining leased computers and keep them in service for a maximum of two years. Keeping the current leased machines in place will provide additional time to purchase newer technologies.

3.1.2 Continue with infrastructure sustainment and upgrades where required/possible.

3.1.3 Continue with the wireless upgrade. This will begin with an assessment and identification of a prioritized list of schools. An upgraded infrastructure will be critical as newer technologies are implemented.

3.1.4 Acquire technology in the following priorities based on available funding.

Phase I
iPod/Podcasting Pilot
Smart board Bundle
ET/ISS Educator Workstation Bundles
COWs for General Use
PTS - Business Lab(HS)/Computer Lab(MS)/Video Camera(MS/HS) Upgrades
Overhead Projectors w/30' Cables

3.1.5 Purchasing priorities, package detail and distribution processes.

3.1.5.1 iPod Pilot

3.1.5.1.1 Goal: 20 Units Per District

3.1.5.1.1.1 Five Units For Pod Casting

3.1.5.1.1.2 Five Units for Special Education Applications

3.1.5.1.1.3 10 Units for District Wide Application Process

3.1.5.1.2 Distributed based on user application process.

3.1.5.2 SMART Board Bundles

3.1.5.2.1 Goal: ≤ 300 Bundles

3.1.5.2.2 SMART Board with Speakers

3.1.5.2.3 Projector with Ceiling Mount

3.1.5.2.4 Laptop Workstation with Docking Station, Extended Range Keyboard, Monitor, etc

3.1.5.2.5 Extended Length Cables

3.1.5.2.6 Allocated to District Based on Student Population and Further by Application Process

3.1.5.3 Staff Developer Laptop Bundles

3.1.5.3.1 Goal: 162 Bundles

3.1.5.3.2 Laptop Workstation with Docking Station, Wireless Keyboard, Monitor, etc

3.1.5.3.3 Allocated to District and Area Office Based on Percentage of Staff Developers. (If total number bundles can not be purchased, will distribute by Application Process)

3.1.5.3.4 Goal 1:1 Distribution to ISS's, ET's, DSO Generalists

3.1.5.4 General Use MS/HS COWs

3.1.5.4.1 Goal: 191 Total Units based on 1 COW : 75 MS/HS Students

3.1.5.4.2 12 Laptops

3.1.5.4.3 Cart

3.1.5.4.4 Printer

3.1.5.4.5 Projector

3.1.5.4.6 Assigned to Information Center and available for Sign Out

3.1.5.5 Hi-Definition Capable Video Cameras for MS/HS

3.1.5.5.1 Goal: 158 Units (26 Canon XH and 132 Canon HV)

3.1.5.5.2 MS/HS Distribution provided by Education Division

3.1.5.6 Computer Systems to Replace/Upgrade PTS HS Business Lab Equipment

3.1.5.6.1 Goal: 1965 Systems

3.1.5.6.2 Distribution provided by Education Division (If total number of systems can not be purchased, will be allocated to Districts based on percentage of student enrollment)

3.1.5.7 Computer Systems to Replace/Upgrade Equipment in MS Computer Lab

3.1.5.7.1 Goal: 1090 Systems

3.1.5.7.2 Distribution provided by Education Division (If total number of systems can not be purchased, will be allocated to Districts based on percentage of student enrollment)

3.1.5.8 Overhead Projectors

3.1.5.8.1 Goal: 300 Units

3.1.5.8.2 Spare Bulbs

3.1.5.8.3 30' Cables

3.1.5.8.4 Allocated to District Based on Student Population and Further Distributed by Application Process

3.2 Phase Two

Phase II
Extranet Pilot for Each District
Educator Workstation Bundles (Application Process)
Administrator Educator Workstation Bundles
Video Upgrade iMAC Computers
Video Upgrade MAC Pro Computers

3.2.1 Purchasing priorities, package detail and distribution processes.

3.2.1.1 Goal: Single Extranet Pilot Site for Each District

3.2.1.1.1 Used to Showcase Student Work

3.2.1.1.2 Districts Will Assign POC to

3.2.1.1.2.1 Evaluate Effectiveness

3.2.1.1.2.2 Standardize Website Format/Support for DoDDS-E

3.2.1.1.2.3 Incorporate procedures to use existing creativity tools

3.2.1.1.2.4 Establish School Posting Procedures

3.2.1.2 Educator Laptop Bundles

3.2.1.2.1 Goal: 500 Bundles

3.2.1.2.2 Laptop Workstation with Docking Station, Wireless Keyboard, Monitor, etc

3.2.1.2.3 Allocated to District Based on Percentage of Educators and Further by Application Process

3.2.1.2.4 Goal 1:1 Distribution

3.2.1.3 Administrator Education Laptop Bundles

3.2.1.3.1 Goal: 75 Bundles (1:1 Distribution)

3.2.1.3.2 Laptop Workstation with Docking Station, Wireless Keyboard, Monitor, etc

3.2.1.3.3 Allocated to District Based on Percentage of Administrators and Further by Application Process

3.2.1.4 iMAC Computers to Upgrade/Replace MS/HS Video Programs

3.2.1.4.1 Goal: 170 Computers

3.2.1.4.2 Distribution provided by Education Division (If total number of systems can not be purchased. Will be allocated to Districts based on percentage of student enrollment)

3.2.1.5 MAC Pro Computers to Upgrade/Replace MS/HS Video Programs

3.2.1.5.1 Goal: 26 Computers

3.2.1.5.2 Distribution provided by Education Division (If total number of systems can not be purchased. Will be allocated to Districts based on percentage of student enrollment)

3.3 Phase 3

Phase III
Video Studio Upgrades
Front Row To Go (aka Radium)
COWs for Team Use (Application Process)
TI Navigator 32 Systems + In focus
Video Pilot One in Each District for Conversion to Hi-Def
Kurzweil (Network Version)
Microsoft Update to XP All Workstations
Upgrade of CAD Workstations
Additional Laptops to reach one-to-one ratio (to include support staff at area office, district and schools)

3.3.1 Purchasing priorities, package detail and distribution processes.

3.3.1.1 MS/HS Video Studio Equipment Upgrades

3.3.1.1.1 Goal: 40 Studio Upgrades

3.3.1.1.2 Lights

3.3.1.1.3 Cables

3.3.1.1.4 Microphones

3.3.1.2 Front Row To Go (aka Radium) Portable Public Address Systems

3.3.1.2.1 Goal: 900 Systems

3.3.1.2.2 10 per School

3.3.1.3 COWs For Team Use

3.3.1.3.1 Goal: 100 Units

3.3.1.3.2 12 Laptops

3.3.1.3.3 Cart

3.3.1.3.4 Printer

3.3.1.3.5 Projector

3.3.1.3.6 Allocated to District Based on Student Population and Further by Application Process

3.3.1.4 TI Navigator 32 Systems for MS/HS

3.3.1.4.1 Goal: 55 Systems

3.3.1.4.2 32 Calculator System

3.3.1.4.3 Projector

3.3.1.4.4 Allocated to District Based on Student Population and Further by Application Process

3.3.1.5 Hi-Definition Video Studio Pilot

3.3.1.5.1 Goal: Five (One per District)

3.3.1.5.2 Configuration Based on Dr. McIntire's Proposal

3.3.1.6 Kurzweil Text Reader Software Program (Network Version)

3.3.1.6.1 Goal: 90 (1 Copy per School)

3.3.1.7 Upgrade Microsoft PC Software

3.3.1.7.1 Goal: Upgrade to at least XP Version on all PC's

3.3.1.8 High End CAD Computers for HS Labs

3.3.1.8.1 Goal: 467 Computers

3.3.1.8.2 Deployment Based on Total Replacement

3.3.1.8.3 DoDEA Annual Software Lease Renewal Allows Version Upgrades – Not Required

3.3.1.8.3.1 Most Current Version Taxes Our Best PC's

3.3.1.8.3.2 Current Systems Will Run Older Versions

3.3.1.8.4 Some AutoCAD Pathways Being Removed and May Affect Requirement

3.3.1.9 Laptop Systems

3.3.1.9.1 Goal: 20,000 Systems (1:1 Distribution)

3.3.1.9.2 Area, District, and School Support Staffs

3.3.1.9.3 Students

3.4 Emphasize teacher training for the IWB, P&L implementation.

3.5 Increase public awareness of current DoDDS-E technology efforts to internal and external stakeholders.

3.6 Continue to develop the wireless infrastructure upgrade in each district, standardize the implementation structure, update facility requirements manual for wireless.

3.7 Complete the deployment of technology as funding availability allows and tie to supporting ongoing curriculum buys at the time. In the absence of new curriculum buys, complete deployment based on the unfinished priorities from this plan.

4. Minimum Equipment Specifications

4.1 Video Projectors and Interactive White Boards (Use specs from FY06 ITRA)

4.2 Tablet PC

4.2.1 1 GB RAM

4.2.2 80 GB HD

4.2.3 Intel Core 2 Duo T7300 2.0 GHZ

4.2.4 Multi-Format DVD-RW Internal

4.2.5 14” screen

4.2.6 1 Serial Port

4.2.7 3 USB Ports, 1 IEEE1394 (Firewire)

4.3 Printers

4.3.1 Specs – From FY 05 ITRA

4.3.2 Network capable

4.3.3 Laser

4.3.4 Voltage 220V or 110V

4.3.5 USB Port

4.3.6 Parallel Port

4.3.7 IP version 6 compliant

4.4 Laptops

4.4.1 Battery Life 8+ hours

4.4.2 1GB RAM

4.4.3 80 GB HD

4.4.4 Intel Core 2 Duo T7300 2.0 GHZ

4.4.5 8x Multi-Format DVD-RW Internal

4.4.6 15.4” Screen

4.4.7 1 Serial Port

4.4.8 4 USB Ports, 1 IEEE 1394 (Firewire)

4.5 Laptop workstation configuration will include the Laptop (4 above) along with the following items:

4.5.1 Port Replicator

4.5.2 17” TFT Flat Panel Digital Monitor

4.5.3 Wireless Keyboard, Extended Range

4.5.4 Wireless Optical Mouse, Extended Range

4.5.5 Locking Cable (Optional)

4.6 Desktop Computer (CAD and Business)

4.6.1 Intel Core 2 Duo E6750 2.66 GHZ

4.6.2 4 GB RAM

4.6.3 500 GB HD

4.6.4 16x Multi-Format DVD-RW Internal

4.6.5 20” Wide Screen

4.6.6 4 USB Ports, 1 IEEE 1394 (Firewire)

4.6.7 19-in-1 Media Card Reader

4.6.8 Parallel Port

4.7 iPod

4.7.1 Video Capable

4.7.2 80GB Drive

4.7.3 Charger

4.7.4 Microphone

5. Funding Strategy

DoDDS-Europe will fund the initial equipment from the Director's Technology Funds or any other source for curriculum purchases that may become available. All consumables will be funded by the districts and schools.

6. Acquisition Process

6.1 Perform a lease vs. purchase assessment on laptops, printers, video projectors, interactive white boards, workstations, and network components.

6.2 In order to maximize competition and value for our dollars, the procurement process will be handled open market. This will allow the international community to participate in the competition.

6.2.1 Determine the best procurement strategy (Lease vs. purchase)

6.2.2 Develop the requirements package: AF9, IGCE, and SOW

6.2.3 For any purchased or leased equipment, vendor will provide full scope of on-site implementation and 3-year on-site warranty maintenance.

6.2.4 DoDDS-Europe should investigate the use of vendor buy back programs of existing network components to leverage the remaining usefulness of equipment.

7. Service and Support

7.1 Video Projector

7.1.1 Three Year Replacement

7.1.2 Purchase Additional Bulbs

7.2 Tablet PC

7.2.1 Four Year Hardware Support

7.2.2 Three Business Days On-Site Support

7.3 Printers

7.3.1 Three Year On Site Warranty

7.3.2 Three Business Days On-Site Support

7.4 Laptops

7.4.1 Four Year Warranty

7.4.2 Three Business Days On-Site Support/Exchange

7.5 Interactive White Boards

7.5.1 Five Year Warranty

7.6 Desktop Computer (CAD and Business)

7.6.1 Four Year Warranty

7.6.2 Three Business Days On-Site Support

8. Gaining Support

Technology facilitators (ETs, ISSs, ISs) will be responsible for developing resources that communicate technology policies, technology committee guidance, and implementation plans for all stakeholders.

8.1 Parents & Community

8.1.1 Become familiar with the new National Educational Technology Standards (NETS) and the DoDDS-E technology plan through information provided by technology facilitators (NETS link will be published on each school web page).

8.1.2 Attend meetings such as IAC, SAC, PTSA, SILT and installation meetings where new technologies are demonstrated and experienced.

8.1.3 Access on-line resources and other forums that share how students are using technology in school.

8.2 Administrators

8.2.1 Provide awareness training outlining all steps of the rollout, school level decisions and facilitation of the DoDDS-E technology vision implementation.

8.2.2 Make copies of the Technology Plan available to all staff members.

8.2.3 Provide awareness training. The Focus Group Members will prepare a revised plan and the IT Division will develop Power Point Presentations to be used to at districts/schools.

8.3 Teachers

8.3.1 Attend and participate in meetings where new technologies are modeled.

8.3.2 Gather and share research-based information on how technology integration supports highest student achievement.

8.3.3 Participate in co-teaching opportunities.

8.3.4 Share best practices.

8.4 Technology Committee

8.4.1 Ensure effective implementation based on information and guidance from DoDDS-E on the technology plan.

8.4.2 Make recommendations to administration on all matters related to the reallocation and distribution of existing hardware to meet program needs and support highest student achievement.

8.4.3 Make recommendations to the administration on matters related to technology infusion.

8.4.4 Document and share “best practices” between Districts and other committees.

8.4.5 Publish technology information in school newsletters and the school web site.

9. Professional Development

Part I – Staff Developers

9.1 All staff development in DoDDS-E will be conducted using 21st Century techniques of standards based instruction infused with the technology envisioned for use with all students in line with the NETS standards adopted by DoDEA.

9.1.1 Building level administrators are included in the information flow with detailed information on staff development goals, training roll out, and deployment outcomes.

9.1.2 It is vital the technology facilitators (ETs, ISSs, and ISs) be included in the roll out plan to ensure program integrity.

9.2 Training needs to involve two phases:

9.2.1 Establish Effective Levels in Operation, Troubleshooting, and Maintenance

9.2.1.1 Interactive White Board

9.2.1.2 Laptop/Notebook

9.2.1.3 COW

9.2.1.4 Software

9.2.1.5 Other available technologies

9.2.2 Infusing Technology in the Curriculum

9.2.2.1 Deployment

9.2.2.1.1 Ensuring user confidence

9.2.2.1.2 Technology

9.2.2.2 Best Practice – students using technology to increase student learning.

9.2.2.3 Model Lessons

9.2.3 The lead teacher model will be used to implement teacher-training programs in conjunction with educational technologists.

9.2.4 Lead teachers, ETs, ISSs, and ISs will be provided training and resources for infusing technologies into standards based curriculum.

9.2.5 Co-teaching, peer observations and demonstrations will be used as models for teacher training.

9.2.6 Training will be scheduled in conjunction with rollout plans for disseminating technologies in the schools.

9.2.7 DoDDS-E Training models will provide for Study Group support and optional Graduate Credit for Staff Development.

9.2.8 Awareness of 21st Century standards, technologies and research-based information supporting student achievement on technology instruction.

9.2.9 Use of adopted curricular software and hardware to deliver the standards based curriculum.

9.2.10 Assessment techniques for monitoring and reporting student achievement using 21st Century technologies.

Part II - School Level Staff Development

9.3 All staff development in DoDDS-E will be conducted using 21st Century techniques of standards based instruction infused with the technology envisioned for use with all students.

9.4 Delivery Model

9.4.1 In the ES the lead teacher model will be used to implement teacher-training programs in conjunction with educational technologists. Lead teachers will be provided training, resources and release time for infusing technologies into standards based curriculum.

9.4.2 In the MS/HS the face-to-face model will be used in conjunction with educational technologists. Administrators, Supervisors and Division Chiefs will be provided training, resources and release time for infusing technologies into standards based curriculum.

9.4.3 Other instructional models will also be used, such as Blackboard communities, online courses, and modular training.

9.5 Co-teaching, peer observations and demonstrations will be used as models for teacher training.

9.6 Training will be scheduled in conjunction with rollout plans of disseminating technologies in the schools.

9.7 Skills addressed in the above training model.

9.7.1 Awareness of 21st Century standards, NETS standards, technologies and research-based information supporting student achievement on technology instruction.

9.7.2 Use of new software and hardware to deliver the standards based curriculum.

9.7.3 Assessment techniques for monitoring and reporting student achievement using 21st Century technologies and NETS standards.

10. Technological Infrastructure

10.1 To support mobile access across a campus, a wireless infrastructure must be installed throughout the school. DoDDS-Europe schools currently have a wired network in place and that network will be the foundation for a wireless network. The wired network will provide the connectivity needed to install wireless access points throughout each school. DoDDS-Europe should investigate the use of vendor buy back programs of existing network components to leverage the remaining usefulness of this equipment.

10.2 The following steps are needed to make DoDDS-Europe a completely wireless environment by 2012.

10.2.1 Identify a prioritized list of enduring schools based on known end state.

10.2.2 Determine a standard configuration for wireless installation compliant with DoD wireless regulations.

10.2.3 Mandate all future technology acquisitions to be compliant with the standard.

10.2.4 Select a single vendor under a long term contract to accomplish the task.

10.2.5 Perform a site survey in each school to include testing signal strength and availability of electrical power.

10.2.6 Schedule the installations, coordinate any disruptions with the school and minimize those disruptions.

10.2.7 Continue the DoDDS-Europe project to increase Internet bandwidth at all sites.

11. Evaluation

11.1 DoDDS Customer Satisfaction Survey includes questions to measure whether parents and students perceive DoDDS schools as technologically modern and effective.

11.2 All facilities have access to appropriate technologies as defined by a clearly articulated roll-out plan that is measurable.

11.3 School level technology committees regularly assess resources and progress of technology integration efforts and digital communication systems among stakeholders (parents, students, teachers).

11.4 Continuous School Progress (CSP) plans will include a technology component.

11.5 Attention will be given to measure the impact of technology environment on student performance and health.

11.6 District Educational Technologists will work closely with school-level educational technologists, information specialist and school technology committees to collect data that measures the effectiveness and scope of staff development.

11.7 Staff development is provided to support technology integration efforts.

11.8 All students in grades 4-12 will receive a DoDDs-E Net e-mail account and will have the option of using digital lockers (DoDDS-E Net).

11.9 Information will be gathered on the iPod Pilot regarding the implementation into programs and how the systems were used by the applicants.