

PERFORMANCE WORK STATEMENT

FOR THE

**Enterprise Training Management and Delivery System
(ETMDS)**

modernization program for

Learning Management System – Distance Learning (LMS-DL)

Revision 2

**Sea Warrior Program Office
PMW 240**



eSolutions for Sailor and Fleet Readiness

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PERFORMANCE WORK STATEMENT (PWS)
Enterprise Training Management Delivery System (ETMDS)

Part 1 - General Information

1.0 General

1.1 Description/Introduction

The Navy provides an eLearning delivery capability via a system formally designated as Learning Management System – Distance Learning (LMS-DL). Although, it is essential that the core capabilities provided by LMS-DL continue to be delivered, there are a variety of factors making it necessary to conduct modernization (dev/mod) of LMS-DL. The modernized technology that will support LMS-DL has been labeled as the Enterprise Training Management and Delivery System (ETMDS).

The Contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform ETMDS as defined in this Performance Work Statement (PWS) except for those items specified as Government furnished property and services. The Contractor shall perform to the standards in this contract.

Continuously changing and expanding war fighting needs demand an adaptive and flexible system to develop and deliver the workforce needed by the United States Navy to execute its missions. The Navy is ushering in the transformation of the Total Force into a 21st Century activity through management of a workforce that is smaller in number, more affordable, but larger in capability than the force of today. As part of this transformation, the Chief of Naval Operations (CNO) has revamped the Navy's organization, methods, and information technologies employed to train and educate Sailors. The ultimate goal is to transform Navy training into an agile, efficient, and responsive learning environment, developing the professional and personal knowledge and credentials of Sailors so that they succeed in their careers and in life.

Fundamental to this transformation is associating mission requirements to required work (in terms of the required tasks and optimum readiness). The tasks for the work will be defined in granular terms (i.e., Competencies, Knowledge, Skills, Abilities and other characteristics (KSAs)) required to perform each task. The workforce will be developed using the same terminology of KSAs to support accurate matching of worker to work. Intervention strategies to address gaps between the work and worker (training) will be tailored to achieve best FIT and the best cost. In the context of this document, the term FIT should be considered as optimizing the match between the rate, rating and Naval Enlisted Classification (NEC) held by an individual to the demands of a position to which that individual might be assigned. This ETMDS PWS describes Training, Career Management, and Career Development capabilities that support this conceptual framework.

A portion of ETMDS capabilities referenced within this document are already being satisfied via existing Navy e-Learning software applications. Based on a variety of considerations, including the requirement to provide new (or enhanced) capabilities, the Navy has determined that it will be necessary to consider significant changes to the suite of software applications presently employed.

The specific performance requirements defined in the ETMDS PWS were refined and more fully specified from the broader conceptual framework defined in the approved ETMDS Functional Area Description Document (FADD). The FADD presented the totality of capabilities necessary for enterprise level training management and delivery and is represented here in the accompanying FADD Matrix, provided as PWS Technical Exhibit 2. It provides a phased capabilities view, showing both Core and Post-Core capabilities, for reference only. The requirements of the FADD Matrix (PWS Technical Exhibit 2) are presented in body of the PWS. The standards of performance are defined in PWS Technical Exhibit 1, Performance Requirements Summary (PRS).

In order to appreciate the capabilities cited, it is important to understand the following.

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In some cases, a capability cited may not be delivered solely via ETMDS. Delivery of some capabilities will depend wholly, or in part, on the infrastructure within which the applications are instantiated or via the policy and processes governing usage of ETMDS capabilities.

Not all FADD Matrix capabilities will be delivered at the same time, and some might not ever be delivered. Within the FADD Matrix, capabilities that must be available at the initial transition to ETMDS are annotated as “Core”. Capabilities whose delivery can lag the initial ETMDS standup are annotated as “Post-Core”. The exact degree of lag will be determined by factors such as the rate at which training strategy/governance changes and matures as well as financial considerations. Throughout the remainder of this document, the initial phase of transition to ETMDS will be referenced as ETMDS “Phase I”. Phase I will be comprised of all Core capabilities. The point in time at which Phase I capabilities become available to the general user population will be referenced as “Phase I Go-Live”. ETMDS Phase I Go-Live shall occur no later than 30 May 2012. Post-Core capabilities will be delivered in one or more phases after Phase I Go-Live.

1.2 Background

The Enterprise Training Management Delivery System (ETMDS) Program replaces existing shore-side Navy eLearning capabilities, and will provide additional capabilities in the area of Total Force workforce management and development. Navy eLearning provides access to training, education, and professional development information services to authorized users. These authorized users include Department of Navy (DON) active duty and reserve component personnel, Naval Academy Midshipmen, Recruit Delayed Entry Program Personnel, Navy Medal of Honor Veterans, retired Navy and Marine Corps and DON civil servants. These capabilities are also available to other qualified personnel who are registered in the Defense Eligibility Enrollment Reporting System (DEERS) including Disabled American Veterans, qualified family members of Navy active duty, reserve, and retired personnel.

In order to deliver eLearning, the Navy currently uses a commercial Learning Management System (LMS) called Training Server, Version 5.3.1, developed by THINQ Learning Solutions to corporately manage and track shore-side, self-paced computer based training. The LMS provides the vehicle and the means for DON personnel to access training content anywhere there is an Internet connection. Training includes recruit, specialized skills, pre-commissioning for officers, warfare specialty, and fleet individual and team training. The current Learning Content Management System (LCMS) utilized by Navy eLearning to build course content is not being replaced by ETMDS. Additionally, the afloat version of Navy eLearning deployed via the Navy Information/ Application Product Suite (NIAPS) is not being replaced by ETMDS.

The current system architecture is a network of training components that provides a functional and interoperable means for training internally from the Navy Non-Secure Internet Protocol Router Network (NIPRNET), as well as externally from the Internet. The LMS, one of the major applications comprising Navy eLearning, operates within the Continental United States (CONUS). System components are located in existing computer facilities within CONUS. The enterprise hub of the entire network resides at the Naval Education and Training Professional Development and Technology Center (NETPDTC), Saufley Field Data Center, Pensacola, Florida.

The Navy’s Program Executive Office for Enterprise Information Systems (PEO-EIS), Sea Warrior Program Office (PMW 240) will serve as the acquisition agent for ETMDS.

The Sea Warrior Program Office (PMW 240) must replace the existing shore-side Navy eLearning capabilities largely due to the fact that THINQ Learning Solutions has been purchased by Saba Software, Inc. As a result, THINQ will no longer be supported after December 2012. Additionally, ETMDS will provide new capabilities required to support the Navy’s Total Force workforce management and development strategies, as documented in the approved ETMDS FADD, which as mentioned in the previous section is represented here in the accompanying FADD Matrix (Technical Exhibit 2).

The Navy currently provides a portion of those capabilities associated with ETMDS Phase I via a suite of related software applications and services known as Navy eLearning (NeL). The NeL capability is instantiated in an Enterprise Data Center (EDC) located at Saufley Field in Pensacola, FL. The Naval

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Education and Training Professional Development and Technology Center (NETPDTC) is responsible for management of the EDC as well as daily operational support of NeL. The following overview of NeL is provided in order to establish context and define the “as is” environment that will lead to the ETMDS “to be” environment.

The principle software applications and services comprising NeL are as follows:

Learning Management System (LMS) – The NeL LMS is a Commercial Off the Shelf (COTS) product known as Training Server version 5.3.1 – Service Pack 4, originally developed by THINQ Learning Solutions (now SABA Software, Inc.) to corporately manage and track shore-side self-paced computer based training. The LMS provides the vehicle and the means for Department of Navy (DON) Personnel to access training content anywhere there is an Internet connection. Training includes recruit, specialized skills, pre-commissioning for officers, warfare specialty, and fleet individual and team training. The application tier of the LMS operates in a Windows Server 2003 environment while the database tier operates in a Linux 5.3 environment with Oracle 10g.

Rustici Sharable Content Object Reference Model (SCORM) Engine (v2007.1) – A COTS product the function of which is the display and delivery of eLearning content that is conformant with the SCORM. The Rustic SCORM engine has been integrated with both ashore and afloat Learning Management Systems as the standardized SCORM engine in all these environments. The Rustici SCORM engine will continue to be employed in the afloat environment, regardless of the SCORM engine proposed for use as part of any proposed ETMDS solution.

Learning Content Management System (LCMS) - The NeL LCMS is a Commercial Off the Shelf (COTS) product offered by OutStart, Inc., known as Evolution version 2006 – Service Pack 8. The LCMS is utilized by Navy eLearning to build course content and is not anticipated to be replaced by ETMDS. Additionally, the afloat version of Navy eLearning that is deployed via the Navy Information / Application Product Suite (NIAPS) is not being replaced by ETMDS. The application tier of the LCMS operates in a Windows Server 2003 environment while the database tier operates in a Windows Server 2003 environment with Oracle 10g.

Electronic Learning Integrated Authentication and Authorization Service (ELIAAS) – ELIAAS is a Government designed service developed by the NeL Team. It serves as the primary means of providing access control for Navy eLearning. This access control is based on authentication with DEERS. Based on information returned by DEERS, certain restrictions may be placed on those portions of NeL to which individual users will be granted access.

Questionmark Perception - The Naval Education and Training Command recently (NETC) conducted a thorough Business Case Analysis (BCA) relative to the survey and assessment capabilities that would be necessary to support the NETC mission. As a consequence of this BCA, NETC determined that two products were best suited to meet these needs. One of those products is the Corporate enterprise Training Activity Resource System (CeTARS), a GOTS product that has an assessment capability appropriate for certain forms of assessment. The other product identified was the Perception Enterprise Manager/Authoring Manager, version 4.4.1, service pack 3. Perception is a COTS product offered by Questionmark Corporation.

Within the Pensacola EDC, there are multiple instantiations of NeL each of which is scaled and configured for specific purposes with each instantiation being in a logically discrete environment. Those environments are as follows:

Production (PROD) – The NeL main shore-based production delivery environment. PROD is employed to deliver eLearning content to end users in multiple Department of Defense, Department of the Navy and commercial network domains.

Government Content Acceptance Testing (GCAT) –Used to conduct Government sponsor review of final content package for accuracy and completeness before it is deployed within NeL PROD.

Government Acceptance Testing (GAT) – Environment used for final application functional testing and where Information Assurance Vulnerability Alerts (IAVA) updates are applied and tested prior to applying them onto the production environment.

Vendor Versioning Integration Environment (VVIE) –Vendor environment utilized to perform initial unit testing of vendor applications in a fully representative Navy network environment.

Vendor Content Initial Load Environment (VCIL) – Content testing environment used by the NeL content team to load content for LMS package validation testing.

Performance Integration Test Suite (PITS) - Application performance and integration testing environment. PITS functionally mirrors the NeL production platform and is employed for full application integration testing as well as load testing.

Schoolhouse Training Environment (STE) - Training environment used by LMS trainers to train center personnel and administrators.

Navy eLearning also provides the capability of delivering classified training via the Secret Internet Protocol Router Network (SIPRNET). The Navy eLearning SIPRNET capability is hosted in a facility specifically configured for classified operations, also in the Pensacola area.

Continuity of Operations (COOP) - Considering the critical role played by eLearning in formal Navy training environments, it is essential that the eLearning capability be provided in a high availability, high reliability manner. This need has been accommodated in two manners. First, the Pensacola EDC has been designed and configured so as to provide an extremely high degree of availability, fault tolerance and redundancy. Additionally, provisions have been made to allow a transition of the Navy eLearning production delivery capability to a Continuity of Operations (COOP) site at the Great Lakes Naval Station near Chicago, IL. The Great Lakes COOP site would be employed in the event of an unforeseen disaster such as a catastrophic fire or tornado, or other unpredictable event. Additionally, COOP transitions might be employed as a precautionary measure in advance of more predictable events such as a major hurricane. In normal operations, all NeL data is mirrored in near real-time to storage arrays at Great Lakes. In the event of a COOP event, NeL access is temporarily suspended, allowing the mirrored databases at the COOP site to become fully synchronized with production databases at the Pensacola EDC. NeL servers at the COOP site are then activated and pointed at the COOP databases. At this point, NeL service can be resumed from the COOP site. When appropriate, restoration of services to the Pensacola EDC is accomplished via a complementary series of actions.

1.3 Scope

The Contractor shall perform all work necessary to meet the PWS, Performance Requirements Summary (PWS Technical Exhibit 1 PRS), and deliver all Contract Data Requirements Lists (CDRLs) as specified.

The Contractor shall deliver a fully functioning and deployable ETMDS package that the Government can use in standing up ETMDS from a Government facility. The package and supporting documentation will be comprehensive enough to successfully allow package instantiation and data migration by the existing Government workforce.

The Contractor shall provide support, including participating in meetings, providing feedback and related documentation for the following technical reviews and test events in accordance with the PMW 240 Technical Event Process (TEP) Guidebook (RFP Attachment 7). For each technical review listed below, the Contractor shall be responsible for providing the CDRLs annotated for that event in accordance with the specifications for individual CDRLs. The Contractor shall create test cases and conduct testing for all capabilities within the appropriate test plans. (CDRL A0011)

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- System Requirements Review (SRS) (CDRLs A001, A002, A003, A004, A005, A007, B002)
- System Functional Review (SFR) (CDRLs A006, A007, B001, B002)
- Preliminary Design Review (PDR) (CDRLs A008, A009, A0010, B002,)
- Critical Design Review (CDR) (CDRLs A006, A007, A008, A009, A0010, B002)
- Application Test Readiness Review (ATRR) (CDRLs A0011, B002)
- Application Functional Testing (AFT) (CDRLs A0012, A0014)
- Application System Integration Testing (ASIT) (CDRLs A0012, A0014)
- Test Readiness Review (TRR) (CDRLs A0011, A0015, B002)
- Developmental Testing (DT) (CDRLs A0014)
- Production Readiness Review (PRR) (CDRLs A0013, A0016, A0017, B002)

The Contractor shall adhere to the program management practices as defined in the PMW 240 Risk Management Plan, PMW 240 Configuration Management Plan and PMW 240 Schedule Management Plan (SMP) (RFP Attachments 8, 9, 10 respectively) and submit a formal Project Management Plan (CDRL B004).

During the period of performance, it is possible that unpredictable events will arise that call for changes in the characteristics, performance, or interfaces of ETMDS. In such cases, the Government will generate an Engineering Change Proposal. The Contractor shall respond in accordance with the established procedures (CDRL A0018) within the timeframe indicated by the Government.

1.4 Notional Task/Delivery Order Schedule

The Government contemplates award of an indefinite-delivery/indefinite quantity (ID/IQ), task order based Cost-Plus-Fixed-Fee (CPFF and Firm Fixed Price contract with a period of performance extending 5 years. The Government anticipates at least two phases awarded through separate Task Orders. The first task order is ETMDS Phase I and will include delivery of all Core requirements. Phase I Go-Live (as defined in ...) shall occur no later than 30 May 2012. Post-Core Requirements may be delivered in one or more subsequent task/delivery orders.

1.5 General Information

1.5.1 Quality Control

The Contractor shall develop and maintain an effective quality control program to ensure services are performed in accordance with this PWS. The Contractor shall develop and implement procedures to identify, prevent, and ensure non-recurrence of defective services. The Contractor's quality control program ensures compliance with the requirement of the contract and Quality Assurance Plan (CDRL A0019). After acceptance of the Quality Assurance Plan the Contractor shall obtain the Contracting Officer's acceptance in writing of any proposed change to his QC system.

1.5.2 Place of Performance

The developmental work to be performed under this contract will be at Contractor facilities. Testing and Phase I Go-Live installation work, to include the first critical months following Go-Live, will occur at various government locations. Pending development and acceptance of the formal transition plan, these may include Great Lakes Naval Station, IL, Naval Air Station Pensacola, and Saufley Field, Pensacola, FL.

1.5.3 Post-Award Conference/Periodic Progress Meetings and Reports

The Contractor shall attend a post-award conference (PAC) convened by the contracting activity in accordance with Federal Acquisition Regulation Subpart 42.5. The PAC will take place in Crystal City (Arlington, VA) or Pensacola, FL and is expected to last one day.

The Contracting Officer, Contracting Officers Representative (COR), and other Government personnel, as appropriate, may meet periodically with the Contractor to review the Contractor's performance. At these meetings the Contracting Officer will apprise the Contractor of how the Government views the Contractor's performance and the Contractor will apprise the Government of problems, if any, being experienced.

Appropriate action shall be taken to resolve outstanding issues. These meetings will occur in conjunction with other regularly scheduled ETMDS meetings in person where possible, and where not possible, will be conducted virtually. (CDRLs B002, B003). A monthly Contract Funds Status Report will also be provided (CDRL B0003).

1.5.4 Technical Data, Computer Software, and Computer Software Documentation

The Contractor shall develop, deliver, and maintain all technical data (TD) and computer software/computer software documentation (CS/CSD) consistent with the contract. The quality of the TD and CS/CDS shall be consistent with the standards outlined in this PWS, PRS (PWS Technical Exhibit 1), and CDRL package. The level of detail in the TD and CS/CSD shall be such that, in the absence of any direct support from the Contractor, a third-party Government or contractor team is able to:

- a. Integrate additional hosted applications and functionality to ETMDS;
- b. Successfully complete installations; and
- c. Perform in-service engineering activity (ISEA), application host facility functions, and day-to-day host application support .

1.5.5 Application Independent Capabilities

This section on Application Independent Capabilities (AICs) is provided for additional background and context. The Government does not expect these capabilities will be realized by any specific trait or attribute embodied by the Contractor-provided application(s). In such cases, these AICs will be realized by virtue of Government supplied tools, infrastructure, policy, processes or a combination of the above.

ETMDS shall not interfere with the Government's ability to successfully execute the following activities.

1.5.5.1 Infrastructure Management Capabilities

- Ability to measure the projected impact of new content and new users allowing infrastructure managers to perform required updates in a proactive manner.
- Ability to proactively determine, document, baseline and maintain adequate concurrent user capacity.
- Ability to proactively determine, baseline and maintain maximum network speed and maximum network latency allowance to support documented workload.
- Ability to proactively determine, document, baseline and maintain minimum data storage requirements to safeguard systems from malicious or inadvertent security vulnerabilities.
- Ability to proactively determine, document, baseline and maintain ample security requirements to safeguard systems from malicious or inadvertent security vulnerabilities.
- Ability to proactively determine, document, baseline and maintain systems integration, interfaces, and interoperability requirements as demonstrated by providing documentation as required to complete Joint Interoperability Test Command (JITC) certification or waiver process.

1.5.5.2 Content Development Support

- Ability to track content development projects status (completed, in process, approved for development, etc.)
- Ability to validate and to ensure that as a minimum, provisions of the American Disabilities Act, Section 508 are in strict adherence and that other Training Standards are applied, as necessary.
- Ability to perform acceptance testing on created learning objects with support from testing facilities and Content Administrative System.
- Ability to publish and manage content in the form of learning objects and learning plans within controls of security and format specifications and supported by a Content Administrative System.
- Ability to discover referenced technical information from a technical data repository.

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- Ability to perform operational tests of content and publish from a testing to a production environment.

1.5.5.3 Content Delivery Support

- Ability to deliver learning content and support the delivery of flexible, dynamic blended learning products.

1.5.5.4 Learning Management Capabilities

- Ability to support remediation as required.

Part 2 - Definitions & Acronyms

2.0 Definitions and Acronyms

2.1 DEFINITIONS

The following contains unique definitions, based specifically on use within this document.

CORE. Those capabilities designated as “Core”, which must be present in the initial instantiation of ETMDS, i.e., Phase I Go-Live. The overall architecture, design and product suite must be capable of activating those capabilities designated as “Post-Core” without requiring fundamental redesign and replacement of the Core solution.

PHASE I. Phase I will include delivery of all Core requirements. Phase I will be ordered under the first task order, concurrently with contract award

PHASE I GO-LIVE. The point in time at which Phase I capabilities become available to the general user population will be referenced as “Phase I Go-Live”. Phase I Go-Live shall occur no later than 30 May 2012.

POST-CORE. Those capabilities within the FADD Matrix that may be deployed after Phase I via follow-on delivery orders.

2.2 ACRONYMS

The following contains two lists of ACRONYMS, standard template and unique, based specifically on this document.

2.2.1 Standard Template ACRONYMS

| | |
|--------|--|
| ACOR | Alternate Contracting Officer's Representative |
| AFARS | Army Federal Acquisition Regulation Supplement |
| AR | Army Regulation |
| CCE | Contracting Center of Excellence |
| CFR | Code of Federal Regulations |
| CONUS | Continental United States (excludes Alaska and Hawaii) |
| COR | Contracting Officer Representative |
| COTR | Contracting Officer's Technical Representative |
| COTS | Commercial Off the Shelf |
| DA | Department of the Army |
| DD250 | Department of Defense Form 250 (Receiving Report) |
| DD254 | Department of Defense Contract Security Requirement List |
| DFARS | Defense Federal Acquisition Regulation Supplement |
| DMDC | Defense Manpower Data Center |
| DOD | Department of Defense |
| FAR | Federal Acquisition Regulation |
| HIPAA | Health Insurance Portability and Accountability Act of 1996 |
| KO | Contracting Officer |
| OCI | Organizational Conflict of Interest |
| OCONUS | Outside Continental United States (includes Alaska and Hawaii) |
| ODC | Other Direct Costs |
| PIPO | Phase In/Phase Out |
| POC | Point of Contact |
| PRS | Performance Requirements Summary |
| PWS | Performance Work Statement |
| QA | Quality Assurance |
| QAP | Quality Assurance Program |
| QASP | Quality Assurance Surveillance Plan |

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| QC | Quality Control |
| QCP | Quality Control Program |
| TE | Technical Exhibit |

2.2.2 Unique ACRONYMS

| | |
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| AAP | Abbreviated Acquisition Program |
| ADS | Authoritative Data Source |
| AFT | Application Functional Testing |
| AIC | Application Independent Capability |
| AICC | Aviation Industry Computer-based Training Committee |
| AQD | Additional Qualification Designation |
| ASIT | Application System Integration Testing |
| ATO | Approval to Operate |
| ATTR | Application Test Readiness Review |
| CAC | Common Access Card |
| CDR | Critical Design Review |
| CDRL | Contract Data Requirements List |
| CEU | Continuing Education Units |
| CNO | Chief of Naval Operations |
| COOP | Continuity of Operations |
| COTS | Commercial Off The Shelf |
| CPE | Continuing Professional Education |
| CR | Change Request |
| CS / CSD | Computer Software/Computer Software Documentation |
| DEERS | Defense Enrollment Eligibility Reporting System |
| DIACAP | DOD Information Assurance Certification and Accreditation Process |
| DKO/NEP | Defense Knowledge Online / Navy Enterprise Portal |
| DON | Department of Navy |
| DRRS-N | Defense Readiness Reporting System-Navy |
| DT | Developmental Testing |
| EDC | Enterprise Data Center |
| ELIAAS | Electronic Learning Integrated Authentication and Authorization Service |
| ELO | Enabling learning objects |
| ETMDS | Enterprise Training Management Delivery System |
| FADD | Functional Area Description Document |
| FAM | Fleet Advisory Messages |
| FYDP | Future Years Defense Plan |
| GAT | Government Acceptance Testing |
| GCAT | Government Content Acceptance Testing |
| GOTS | Government Off The Shelf |
| IAVA | Information Assurance Vulnerability Alerts |
| IAVAS | Information Assurance Vulnerability Alerts |
| IAVM | Information Assurance Vulnerability Management |
| IAW | In accordance with |
| IAWF | Information Assurance Work Force |
| ICC | International Common Criteria |
| IETM | Interactive Electronic Technical Manual Development |
| ILS | Integrated Logistics Support |
| IMP | Integrated Management Plan |
| IMR | Integrated Metadata Repository |
| INFOCON | Information Control |

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| IPR | In-Process Review |
| ISEA | In-Service Engineering Activity |
| JITC | Joint Interoperability Test Command |
| JTR | Joint Travel Regulation |
| KSAs | Competencies, Knowledge, Skills, Abilities and other characteristics |
| LAN | Local Area Network |
| LCMS | Learning Content Management System |
| LMS | Learning Management System |
| LMS-DL | Learning Management System – Distance Learning |
| LOS | Learning Objective Statements |
| MFT | Mission, Functions and Tasks |
| MPTE | Manpower Personnel Training and Education |
| MSU | Mandatory Security Updates |
| NAVSEA | Naval Sea Systems Command |
| NCR | National Capital Region |
| NEC | Naval Enlisted Classification |
| NeL | Navy eLearning |
| NETPDTC | Naval Education and Training Professional Development and Technology Center |
| NIAPS | Navy Information/ Application Product Suite |
| NIPR | Navy Internet Protocol Router |
| NIPRNET | Navy Internet Protocol Router Network |
| NMETL | Navy Mission Essential Task List |
| NOBC | Navy Officer Billet Codes |
| OA | Operational Availability |
| ODS | Operational Data Stores |
| PC | Post-Core |
| PC.## | Numbering in part 5 that designates PC |
| PD | Project Director |
| PDR | Preliminary Design Review |
| PII | Personally Identifiable Information |
| PITS | Performance Integration Test Suite |
| PKI | public key infrastructure |
| POE | Projected Operational Environment |
| PROD | Production |
| PQS | Personnel Qualification Standards |
| PRR | Production Readiness Review |
| RFP | Request for Proposal |
| ROC | Required Operational Capability |
| SCA | Secured Context Accelerator |
| SCO | Sharable Content Objects |
| SCORM | Sharable Content Object Reference Model |
| SFR | System Functional Review |
| SIPR | Secret Internet Protocol Router |
| SIPRNET | Secret Internet Protocol Router Network |
| SPAWARINST | SPAWAR Instruction |
| SRS | System Requirements Review |
| SSL | Secure Sockets Layer |
| STE | Schoolhouse Training Environment |
| STIG | Security Technical Instructional Guidelines |
| STIGS | Security Technical Implementation Guides |
| STR | Software Trouble Reports |
| TD | Technical Data |
| TFOM | Training Figure of Merit |
| TLO | Terminal Learning Objects |
| TORIS | Training and Operational Readiness Information Services |

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| | |
|------|---|
| TRR | Test Readiness Review |
| VVIE | Vendor Versioning Integration Environment |
| VCIL | Vendor Content Initial Load Environment |
| XML | Extensible Markup Language |

Part 3 – Government Furnished Property, Equipment and Services

3.0 GOVERNMENT FURNISHED ITEMS AND SERVICES

3.1 Facilities and Services

The Government will provide office workspace to the onsite technical support advisor during post-delivery, and workspace for transient personnel. Internet connectivity to the .COM domain and telephone access will be included as part of this workspace. Contractors will be expected to comply with all relevant policy relative to the use government provided telecommunications capabilities. In the case of telephone access, Contractors shall use this capability in a manner that does not result in any additional direct charges to the government.

3.2 Materials

The Government will provide, or identify the location of publically available, key documents and data necessary to perform. Some applicable documents and data are identified in Part 6 of this PWS and RFP Section J List of RFP Attachments. Additional documents and data may be identified in future task/delivery orders.

3.3 Testing Environment

The Government will provide all necessary tools, equipment, software applications and computer workstations required to conduct the Application System Integration Testing (ASIT) phase as well as all testing phases that follow ASIT. RFP Attachment 11, Architectural Overview, Government Acceptance Testing section, is representative of the general characteristics of the testing environment.

Part 4 - Contractor Furnished Items and Services

4.0 Contractor Furnished Items and Services

4.1 General

The Contractor shall furnish all supplies, equipment, facilities and services required to perform work under this contract that are not listed under Part 3 of this PWS. The Contractor shall provide all necessary tools, equipment and software applications required for a development environment suitable for the proposed ETMDS solution. The Contractor shall also provide all necessary personnel, tools, equipment and software applications required to conduct testing up to, and through, the Application Functional Testing (AFT) phase.

PART 5 - SPECIFIC TASKS

5.0 Designations

5.0.1 Special Designators

In this section, and in the FADD Matrix (PWS Technical Exhibit 2), designations have been made for Core (unmarked items are considered Core) and Post-Core (PC) (marked as PC.## in Part 5). Core items are described in PWS sections 5.1 through 5.12. Post-Core items are described in PWS section 5.13. Application Independent Capability (AIC) items are described for context (in Part 1, Section 1.5.5 of this PWS).

5.0.2 Parenthetical Numeric References

In this section there are instances in which a parenthetical sequence of numbers starting with the number “6” (e.g. 6.1.1.1.4) follows a block of text defining a required ETMDS capability. Sequences of this nature serve as a cross reference to the corresponding portion of the FADD Matrix (PWS Technical Exhibit 2) and should not be viewed as referring to Part 6 of the PWS.

5.1 Basic Services

The Contractor shall provide services as follows:

5.2 Ashore Training Delivery

The Contractor shall be able to deliver services and learning content within the Navy shore enterprise in CONUS, Navy shore enterprise OCONUS and through Internet Service providers to domestic residences and commercial locations. (6.1.1.1.4)

The Contractor shall assume that the majority of ETMDS access will occur via the transmittal authentication information from a portal or other front-end system (e.g. Navy Knowledge Online, Defense Knowledge Online, etc.).

In cases where entry to ETMDS does not take place via a front end application, it shall be possible to gain direct access to ETMDS. ETMDS system administrators will be able to enable/disable this alternate access capability. When enabled, this alternate access capability shall occur via a system configuration page accessible only to specifically designated system administrators. Enabling or disabling shall not require system restart or other disruption to service. It will allow Navy Internet Protocol Network (NIPR) and Secret Internet Protocol Router (SIPR) users, within CONUS and OCONUS, to access ETMDS via presentation of a current Common Access Card (CAC) which will be validated against the DEERS. (6.1.1.1.4)

The Contractor shall provide a capability that allows ETMDS users to be classified as to their category (e.g. active duty Navy, DoD civilian, dependent, ETMDS administrator, etc). The possible values for user category shall not be hard coded into ETMDS and the list of possible values will be configurable after ETMDS delivery via system administrator action. These category values shall be the basis of determining what actions individual users are allowed to take once logged into ETMDS. In part, these category values will be used to identify those users who have administrative rights and which form of administrative rights they can exercise. For users who have no administrative rights, these category values will be the basis for determining which instructional content will be available to individual users. In order to enforce this form of access control, ETMDS shall allow instructional content to be tagged in a manner that identifies which category or categories of users will be allowed access to this content. (6.1.1.2.11) (6.1.3.1.2)

The Contractor shall provide a means for learners to ‘bookmark’ and easily return to the position within the courseware or learning event from where they last viewed the material. (6.1.4.4)

The Contractor shall provide a means for delivering learning assessment either via a native ETMDS capability or via interface to an external assessment mechanism. (6.1.4.5). The Contractor may propose integration with the current Learning Assessment System LAS (currently Questionmark Perception – Enterprise Manager/Authoring Manager, version 4.4.1, Service Pack 3. At a minimum, the following

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assessment item types must be supported: 1) Likert scale, 2) multiple choice, 3) multiple response, numeric questions, 4) true-false, 5) yes-no, 6) drag and drop, 7) hotspot, 8) Adobe Captivate Simulations and 9) Adobe Flash. ETMDS must also provide a mechanism for conducting item analysis of previously used assessment elements as well as support for ad hoc queries and standard reports relative to assessments. .

5.3 Afloat Training Delivery

Although ETMDS will not be directly employed for the shipboard delivery of learning content, it will be necessary for ETMDS to interface with existing external systems that support this capability. Specifically, it will be necessary to generate a flat file from the ETMDS database tier that represents that subset of the ETMDS catalog that is available in the afloat environment along with annotations from the ETMDS catalog that reflect which specific version of the Afloat LMS is required to properly deliver specific catalog items. Additionally, it must be possible for ETMDS to accept and process a flat file representing course completions that took place in the shore environment. Once processed by ETMDS, these course completions would be tagged as afloat completions, but in all other senses would be identical with and intermingled with shore based completions. (6.1.1.1.5)

5.4 Disconnected Delivery

The Contractor shall provide a mechanism for allowing users to access content as a discrete downloadable package that supports learning in an offline environment. Once such a package is downloaded, it shall be possible to access the courseware in a totally standalone mode. In this standalone mode, progress, status and bookmarks will be maintained on the workstation being used for courseware access. Upon completion of the downloaded courseware, it shall be possible for the user to access ETMDS and have completion data and other relevant information inducted into ETMDS. (6.1.2.3.4)

The Contractor shall support a mode of operation in which a local instantiation of ETMDS provides the same courseware launch and delivery core functionality as provided by the primary enterprise ETMDS instantiation. In this mode, the local instantiation of ETMDS would normally be hosted on a smaller server with client access occurring via a local LAN. This core functionality would be available regardless of whether there is connectivity between the local and enterprise instantiation. At points when network connectivity is available, the local instantiation would perform appropriate data exchanges with the enterprise instantiation for completion data and other relevant information. (6.1.2.3.4) (6.1.3.1.3)

5.5 Learning Content Management

The Contractor shall be able to maintain multiple versions of instructional content and apply configurable rule sets to determine under which circumstances specific versions are presented. (6.1.2.1.1)

The Contractor shall provide authorized developers and training managers the capability to conduct discovery on content previously ingested into ETMDS for purposes of identifying required changes, re-use and repurposing of learning content. This will be enabled by support for cataloging, storage, and search and retrieval of learning assets including, but not limited to: raw media assets, enabling learning objects (ELO), terminal learning objects (TLO), lessons, modules, courses, etc. (6.1.2.1.2) (6.1.2.1.4) (6.1.2.2.12)

The Contractor shall provide the capability to ingest courseware delivered from development vendors that provide content conformant to industry standards including SCORM 1.2, SCORM 2004 and Aviation Industry Computer-based Training Committee (AICC), separating associated metadata and conducting validation of the data. (6.1.2.1.3) (6.1.2.2.2) (6.1.2.2.3)

The Contractor shall support the delivery of content employing multiple digital media formats including but not limited to: audio, movies, presentations, spreadsheets, reference documents, animations and simulations. This includes links to all supporting materials within the learning event/course (e.g. technical manuals, standards, specifications, standard operating procedures, etc.). (6.1.2.2.5) (6.1.2.2.6) (CDRL F004)

The Contractor shall support the delivery of assessments that are packaged as SCORM Sharable Content Objects (SCO). (6.1.2.3.5)

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The Contractor shall allow users to search the ETMDS course catalog and self register for specific lessons. At a minimum, this search capability will allow tagging individual catalog items with multiple topics and keywords with a corresponding capability for users conducting a search to enter keywords and categories of their choosing. (6.1.2.3.6) (6.1.4.2) (6.1.4.6) (6.1.4.9)

The Contractor shall allow selected lessons to be tagged so as to allow a user to initiate the self registration process, while still requiring final permission approval from a specifically designated individual(s). This approval, or lack thereof, will be governed by an automated workflow. (6.1.2.3.6) (6.1.4.9) (6.1.5.3.1)

The Contractor shall support the creation of predefined learning plans that can subsequently be assigned to individual users, or groups of users. These learning plans will be comprised of individual lessons delivered via ETMDS as well as other learning events that do not require ETMDS for delivery but for which ETMDS can be used to capture completion (e.g. a lab event). For events not delivered directly via ETMDS, there will be a mechanism that allows specifically designated individuals to record the completion of that event. (6.1.2.3.9)

The Contractor shall provide a capability for users to view the progress made against learning plans assigned to that user. ETMDS users having appropriate administrative rights will be able to view and manage the learning plans of users for which they have responsibility. (6.1.4.7)

The Contractor shall provide visibility to student progress relative to their individual and group learning plan as compared to historic averages for equivalent plans and plan elements. (6.1.4.12)

The Contractor shall allow learners to view test scoring or assessment results while participating in training, whether instructor led, self-paced or a blended learning event. (6.1.2.3.7) (6.1.4.3)

5.6 Training Data Administration and Management

The Contractor shall provide the ability to generate previously defined standard reports as well as ad-hoc reports via a web based interface. These reports will allow data mining and the detection of trends based on learner and instructor performance data as well as facilities and equipment utilization. (6.1.5.4.1) (6.1.5.4.2) As a minimum, ETMDS shall provide the ability to: (6.1.5.1.1 – 6.1.5.1.4)

- deliver course completion and student status metrics
- identify courses with fail or drop rates higher than Learning Center defined thresholds
- assess the average time to complete a course and other statistical data relative to course completion times
- perform item analysis on individual assessment items as well as static tests in order to identify weakness in assessment items or shortcomings in the lessons associated with those items.

5.7 System Performance

The Contractor shall be able to refresh screens between eight seconds (Threshold) and three seconds (Objective). This ability shall be accessed in a manner that reflects a representative daily peak operational load with the application scaled in accordance with vendor recommendations. Measurements will be made in a manner that isolates application performance from external networks and client configuration. (6.1.1.2.13)

5.8 System Performance Monitoring

The Navy has a need to continually track ETMDS system performance and responsiveness as measured from strategically selected geographic locations. Current planning calls for this requirement to be met using Government supplied monitoring tools such as ProactiveNet and EM7. Common to such tools is the ability to perform such monitoring in a non-intrusive manner, typically by monitoring externally visible operating system parameters or by emulating representative end user interactions with the system being monitored. ETMDS shall not contain any design attributes that would preclude this form of monitoring. (6.1.1.2.4) (6.1.1.2.15) (6.1.1.2.14)

5.9 Operational Availability

The background section of this PWS (section 1.2) describes the means by which Navy eLearning currently achieves a Continuity of Operations (COOP) capability. The Enterprise Data Center (EDC) within which ETMDS will be instantiated will employ similar COOP strategy in that: 1) ETMDS data will be mirrored in near real-time to a secondary EDC, and 2) Offline ETMDS servers will be at the ready in the secondary EDC. As a minimum, ETMDS shall be able to operate in this form of COOP implementation without any degradation or lack of functional capabilities. Additionally, the Contractor shall cite any other means by which a COOP capability could be provided, describing any differential requirements for supporting infrastructure, differences in COOP capabilities and differences in the overall level of effort and complexity of establishing and maintaining an alternate COOP approach. (6.1.1.2.3)

The Contractor shall maintain an Operational Availability (OA) at 97% per month (Threshold) with the target of 99% (Objective) assuming reliable connectivity is available. OA is defined as Uptime divided by Total Time. Total Time is defined as Uptime plus Down Time. Uptime is defined as the time when the system is considered to be ready for use (e.g., when the system is operating, in standby, or turned off but available for use). Down Time is the sum of the total time lost for preventative maintenance as well as all unscheduled failures that impair performance of mission essential functions (these failures are defined as operational mission failures). Down Time does not include time lost due to the failure of shared infrastructures not under the cognizance of the ETMDS Enterprise owner (Information Control (INFOCON) restrictions, NIPRNET Shutdown). All time spent performing repair of operational mission hardware failures and operational mission software failures is part of Down Time. Down Time also includes time for logistics delays and fault correction time for software and hardware maintenance. Routine backups and other daily procedures shall be accomplished without Down Time. (6.1.1.2.12)

5.10 Special Requirements

5.10.1 Information Assurance

The Contractor shall conform to Department of Defense Information Assurance (IA) requirements. In order to do so, ETMDS shall support the following abilities: (6.1.1.3.1 – 6.1.1.3.9)

- Ability to work seamlessly with third party anti-virus software.
- Ability to comply with DODI 5200.28 Security Requirements for Automated Information Systems and other appropriate regulations, which deal with Privacy Act and information security.
- Ability to provide controlled access against unauthorized access using identification and authentication as well as encryption.
- Ability to meet and maintain minimum IA standards with appropriately resourced Information Assurance Work Force (IAWF) members having current and appropriate IAWF certifications IAW DoD 8570.01M
- Ability to demonstrate compliance with policy guidance for International Common Criteria (ICC) and use of Mobile Code Technologies in DOD Information Systems and “DOD Firewall Ports, Protocols and Services Policy” CJCSI 3170-01B (E-A-4 (5c), especially the Navy specific UTN Protect Policy.
- Ability to provide user access validation for each individual entering, changing, viewing, or downloading information as a duly authorized person in the ETMDS. The method of access validation will be software based and public key infrastructure (PKI) enabled.
- Ability for vendor to respond to system changes precipitated by Information Assurance Vulnerability Management (IAVM) patch management, Security Technical Instructional Guidelines (STIG) configuration standards or possible vulnerabilities found during scanning using Government required products, currently RETINA and DISA Gold Disk).
- Ability to provide DOD Information Assurance Certification and Accreditation Process (DIACAP) support & input to the ETMDS Project Director (PD) to develop the Certification and Accreditation Package and to support the Government’s efforts to achieve Approval To Operate (ATO) accreditation of applications and systems environments supported under this Contract.
- Must be able to operate in a DEC which has been configured to meet all applicable Security Technical Implementation Guides (STIGS) and Information Assurance Vulnerability Alerts (IAVAS).

5.10.2 Scaling and Load Balancing

The number of simultaneous users that must be supported by ETMDS will necessitate the ability to scale to whatever numbers of servers is required to provide acceptable performance. ETMDS shall not have any architectural limitations that would preclude such scaling. Inherent to this scaling is the ability to load balance by a scheme in which Government provided infrastructure served as a common virtual entry point to ETMDS. The entry point will make a determination as to which server to assign an individual ETMDS user. ETMDS shall issue session cookies to keep an individual user on the assigned server for the duration of his or her session. (6.1.1.1.6)

5.10.3 Capacity and Limitations

ETMDS shall have no architectural limitations that would preclude a minimum of 5,000 concurrent users (Threshold) or up to 8,000 concurrent users (Objective) (6.1.2.3.10). Additionally, ETMDS shall have no architectural limitations that would preclude a minimum of 1,000,000 registered users (Threshold) or up to 1,300,000 registered users (Objective).

ETMDS architecture and design shall have user-to-server ratio of 220 users to one server (Threshold) and 330 users to one server (Objective). The ability to meet this requirement shall be assessed against servers of the same class used in the existing Navy eLearning instantiation. (6.1.2.3.11)

5.10.4 Transition from existing systems

The Contractor shall develop a detailed Software Transition Plan (STrP) defining the method by which operations will be transferred from existing NeL systems to those replaced by ETMDS. To be considered acceptable, such a plan will conform to CDRL A013, contain the following elements and address the following issues:

- All data essential to commence operations using ETMDS will be accurately migrated to ETMDS.
- The amount of downtime shall be kept to a minimum.
- The risk of an unplanned loss of service associated with system cutover will be minimized.

5.10.5 Existing interfaces that must be maintained

Implementation of those ETMDS capabilities delivered after Phase I may result in changes to the suite of applications currently used to provide essential MPTE capabilities. However, in Phase I, the Contractor shall configure ETMDS such that it shall maintain all existing external interfaces. Table 1.1 of the Navy eLearning Interface Control Document (NeL-NAR-Ashore_ICD-20090814) defines those interfaces that must be maintained. (6.1.1.2.2)(6.1.4.8)

5.10.6 Technical Design Requirements

The design of ETMDS should be based, to the degree possible and appropriate, on a Service Oriented Architecture (SOA). Services should be published at a level of abstraction that corresponds to real world activity and recognizable business function. The interface to an individual service should be expressed in a manner that provides no visibility of the implementation details. There should be a high level of abstraction between application tiers.

ETMDS shall be able to operate in an environment where communications with end users takes place using the Secure Sockets Layer (SSL) protocol (port 443) while back end component communications do not employ SSL (port 80). The ETMDS catalog shall be capable of containing courses that are dynamically delivered via the existing Learning Content Management System (LCMS), Evolution 2006 Service Pack 8. ETMDS must provide an interface with the LCMS that will be employed when such a course is selected, allowing that course to be transparently launched and tracked.

5.10.7 Help Desk and Administrator Support Functions

The Contractor shall provide end user online help configured to the system (CDRL F005) as the first line of user support, providing context-sensitive information based directly on the configuration of the application. (6.1.1.2.16) For any problem not resolved via online help, end users will be instructed to contact a Government operated Help Desk. This Help Desk will provide two tiers (Tier 1 and Tier 2) for potential problem resolution. In the event that the issue cannot be resolved within these two tiers, specifically designated Tier 2 personnel will be able to access a Tier 3 Help Desk operated by the Contractor or Contractor representative. Contact with the Tier 3 Help Desk will be made only when there are reasons to believe that there are latent defects to the ETMDS application or other subtleties to ETMDS configuration or usage that are best resolved by the Contractor. (6.1.1.2.17)

5.10.8 System Audit Trail

The Contractor shall enable the ability to recall and trace transactions, inputs, processes, or changes, from source to final disposition as required by law or policy. (6.1.1.2.1)

5.10.9 Privacy Act

ETMDS will be a system of records as defined by the Privacy Act of 1974, 5 U.S.C. § 552a. Accordingly, the Contractor shall comply with all responsibilities and restrictions in the Privacy Act and the Department of Defense and Navy's implementing regulations and policy issuances. Additional information can be found in Section I (FAR clauses 52.224-1 and 52.224-2), DOD Directive 5400.11 and SECNAVINST 5211.5E.

5.11 Logistics Requirements

5.11.1 Software Trouble Reports (STR)

During testing or general operation of ETMDS, the Government may observe anomalies or other unexpected system behavior against fielded software baselines. In such cases, the Government will create and route Software Trouble Reports to the Contractor. The Contractor shall provide technical analysis of Software Trouble Reports (STR) filed against fielded software baselines. In accordance with guidance and direction as specified in the individual Task/Delivery Order, the Contractor shall provide support to include: (CDRL A0018)

- Addressing configuration issues in coordination with the installation teams and support agencies as needed
- Working baseline software issues via change request processes based on feedback from software developers
- Following all processes stored in the process repository to include change request routing and Software Trouble Report/vulnerability checklists
- Reviewing the technical documentation related to baseline software for accuracy and thoroughness; provide updates as needed
- Monitoring and receiving notifications when a new vulnerability or Computer Task Order has been released
- Assisting the Subject Matter Experts to determine which product baselines are affected
- Submitting a Change Request (CR) for each vulnerability affecting software baselines
- Following the Software Support Activity-developed checklist in processing the Change Requests
- Drafting mitigation Fleet Advisory Messages (FAM) and Mandatory Security Updates (MSU)
- Posting patches according to Configuration Management process (RFP Attachment 9) for subsequent Government approval and release.

5.11.2 Commercial off the Shelf (COTS) Manuals

In accordance with guidance and direction as specified in each Task/Delivery Order, the Contractor shall ensure all COTS manuals supplied with off-the-shelf software items along with any supplemental information required to operate and maintain the system are present and complete. The Contractor shall assess the adequacy of the COTS manuals and supplements for the operation and maintenance of the systems under processing ensuring that they conform to the minimal technical content requirements of MIL-HDBK-1221. The Contractor shall immediately notify the Government in writing of any inadequacies

identified in the course of COTS manuals evaluations, and recommend alternative solutions. (CDRL A0015)

5.11.3 Quality Management

The Contractor shall perform integrated quality management of the ETMDS program. The Contractor shall report quality metrics and process improvement activities as part of the Contractor's Progress, Status and Management Report (CDRL B003) and during in process reviews (IPRs). (CDRL A0020) The Contractor shall describe the quality management process in the Project Management Plan (PMP) (CDRL B004). The Contractor shall include, but not be limited to, the following detail regarding quality management.

The Contractor shall address quality for the application development processes and products. The Contractor shall explicitly define and document, through reference or provision, quality assurance procedures, quality control protocols, methods and quality performance metrics for the following subject areas (order does not imply relative priority, importance, or preference):

- a) Project Planning
- b) Project Tracking and Oversight
- c) Design Control
- d) Document Management
- e) Process Control
- f) Process Measurement, Analysis, and Improvement
- g) System/Subsystem Reviews
- h) Configuration Management and Configuration Audits
- i) Requirements Management
- j) Problem Reporting and Corrective Action
- k) Test and Inspection Management (Verification and Validation)
- l) Risk Management
- n) Contract/Subcontract Management
- o) Purchasing and Supplier Agreement Management
- p) System Acceptance

5.11.4 In-Process Review (IPR)

The Contractor shall provide IPRs in accordance with CDRL A0020.

5.11.5 Logistics Reviews

The Contractor shall address Integrated Logistics Support (ILS) as part of the TEP process (RFP Attachment 7). The Contractor shall conduct an ILS Kickoff and regular ILS reviews. ILS reviews will be conducted in concert with other regularly scheduled ETMDS events in person to the maximum extent possible. Where not possible, the reviews will be conducted virtually. The Contractor shall report on cost, schedule, technical progress, and program risks and mitigations as part of logistics reviews including all the presentation materials, meeting agendas, and meeting minutes for the Logistics Kick-off, Quarterly ILS reviews, Technical Manual Reviews, Training Reviews, and Product Support Package Review. This reporting shall be provided via periodic status reports or the meeting minutes for specifically scheduled events (CDRLs B002, B003).

5.11.6 Human Systems Interface (HSI) and Configuration Management

The Contractor shall describe how they will accomplish their HUMAN SYSTEM INTERFACE (HSI) and Configuration Management processes. (CDRL A002 and A005)

5.11.7 Training Packages

The Contractor shall conduct analysis and development of training packages oriented toward administrator training as well as Help Desk training. The Contractor shall design, develop and implement a preliminary administrator training package prior to UAT. The Contractor shall evaluate the preliminary administrator training package evaluation during UAT, make adjustments to the training package based on that feedback, and provide a final administrator training package prior to Phase I Go-Live (CDRLS F001 through F004). This training package shall be evaluated by having the contractor employ it to train up to 16 administrators from the Government work force. After Phase I Go-Live, this initial cadre of trained administrators will

provide the training to all additional administrators. Additionally, the Contractor shall prepare training materials that will be provided to a Government operated Tier 1 Help Desk pursuant to addressing the most common issues that ETMDS end users will bring to the Tier 1 Help Desk. The Tier 1 Help Desk training materials will be delivered prior to Phase I Go-Live (CDRLS F001, F004 and F005).

5.12 Onsite Technical Support

The Contractor shall provide an onsite technical support person during regular business hours, starting at Phase I Go-Live for a finite period of time, estimated at two to four months, to coordinate critical actions between the Contractor and Government. An onsite technical support person may also be needed for a similar amount of time during major activations of post-core capabilities, as indicated in subsequent task/delivery orders.

PC.5.13 Post-Core Capabilities

All subparagraphs in this section relate to Post-Core Capabilities. ETMDS shall be capable of incorporating the following Post-Core Capabilities as executed in Task/Delivery Orders subsequent to Phase I. The Contractor shall implement Post-Core Capabilities with minimal disruption to ETMDS. New capability implementation with planned system downtime must be limited to weekends and no more than one regularly scheduled training period, typically the second shift period on a Friday (normally 1600 CT – 2400 CT). The system should resume normal operation by 0700 Monday. Government Holidays are not considered part of the standard training week for the purpose of planned system downtime. Introduction of new capabilities must maintain data integrity and should result in an efficiency improvement over existing processes, where possible.

PC.5.13.1 Learning Content Management (PC)

This section is Post-Core Learning Content Management. See 5.5 for Core Learning Content Management.

ETMDS shall be able to:

PC.5.13.1.1 ---- intentionally deleted ---

PC.5.13.1.2 develop training content assets, Enabling Learning Objects (ELOs), Terminal Learning Objects (TLOs) and learning plans from instructional design plans, domain knowledge and existing learning content. (6.1.2.2.8)

PC.5.13.1.3 create content (learning plans and learning objects) from a Learning Method Plan, Learning Objectives, and re-usable learning content supported by the Content Administration System and Authoring Systems. (6.1.2.2.9)

PC.5.13.1.4 develop Enabling Learning Objects (ELOs) from Learning Objective Statements, Technical Documentation, and Reusable Content supported by Content Authoring Tools and governed by Content Development Guidance. (6.1.2.2.14)

PC.5.13.1.5 develop Terminal Learning Objects (TLOs) from Learning Objective Statements, Technical Documentation, and Reusable Content supported by Content Authoring Tools and governed by Content Development Guidance. (6.1.2.2.15)

PC.5.13.1.6 conduct Content Effectiveness Evaluations and Surveillance on Approved Content providing Analysis Products and Surveillance Information to modeling and analysis systems. (6.1.2.2.18)

PC.5.13.1.7 deploy intelligent content delivery systems that automatically tailor learning content for different learners with different learning styles. (6.1.2.3.2)

PC.5.13.1.8 provide adapted content to suit a specific learner's profile, role or other stated preference. (6.1.2.3.3)

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- PC.5.13.1.9 assemble content specifically tailored for individual end users. (6.1.2.3.8)
 - PC.5.13.1.10 identify requirements and selected position learning requirements based on rate, rating, and NEC. (6.1.2.3.12)
 - PC.5.13.1.11 assemble learner status for the purpose of conducting gap analyses by retrieving personnel data, training data, current position learning. (6.1.2.3.13)
 - PC.5.13.1.12 deliver content to the learner by creating, de-confliction, prioritizing and scheduling learning event plans, supported by a learning management system and governed by learning event rules. (6.1.2.3.14)
 - PC.5.13.1.13 allow Learners to conduct a gap analysis for training requirements based on rate, rating and Navy Enlisted Classifications (NEC). (6.1.4.10)
 - PC.5.13.1.14 support an individual to track his/her progress in educational endeavors and to develop plans for continuing education. (6.1.4.11)
 - PC.5.13.1.15 --- intentionally left blank ---
 - PC.5.13.1.16 create, schedule and cancel classes. (6.1.5.3.2)
 - PC.5.13.1.17 optimize utilization of training site resources. (6.1.5.3.3)
 - PC.5.13.1.18 manage course scheduling. (6.1.5.3.4)
 - PC.5.13.1.19 manage class schedules. (6.1.5.3.5)
- PC.5.13.2 Training Asset Management**
ETMDS shall be able to:
- PC.5.13.2.1 view inventories, request maintenance, and order Technical Training Equipment (TTE) and other supplies/equipment. (6.1.5.2.1)
 - PC.5.13.2.2 conduct Training Site Capacity Planning. (6.1.5.2.2)
 - PC.5.13.2.3 manage class locations. (6.1.5.2.3)
 - PC.5.13.2.4 manage all assets associated with all class locations (VCRs, projectors, etc.). (6.1.5.2.4)
 - PC.5.13.2.5 manage instructors as a training asset. Ability to coordinate instructor inventory with training requirements by creating instructor inventory plans from instructor requirements and instructor status data, governed by quotas and training policy. Ability to assign instructors to Learning Event schedules. (6.1.5.2.5)
 - PC.5.13.2.6 maintain instructor performance, certification and qualification quotas through use of instructor inventory plans and resume data, supported by assessment systems. (6.1.5.2.6)
 - PC.5.13.2.7 manage resource sources of training assets to produce a resource inventory and resource requirements, supported by a Resource Management System and governed by training policies and resource procedures. (6.1.5.2.7)

PC.5.13.2.8 determine training resource availability and to allocate resources balance seat requests, schedules and the resource inventory to produce resource use plans and resource allocation plans supported by a Resource Management System. (6.1.5.2.8)

PC.5.13.2.9 deploy training resources given resource allocation plans and tracking resource status and resource assignments, supported by a Resource Management System. (6.1.5.2.9)

PC.5.13.3 Training Data Administration and Management (PC)

This section is Post-Core Training Data Administration and Management. See section 5.6 for Core Training Data Administration and Management.

ETMDS shall be able to:

PC.5.13.3.1 register Integrated Metadata Repository (IMR) assets to the DOD registration system for metadata repositories. (6.1.1.1.1)

PC.5.13.3.2 conduct discovery on data stored in the Operational Data Stores ODS via IMR in five seconds (Threshold) or two seconds (Objective). (6.1.1.1.2)

PC.5.13.3.3 abstract business and logic rules away from applications in keeping with the data-centric architectural design. (6.1.1.1.3)

PC.5.13.3.4 manage data and metadata for authoritative data integrity by properly collecting source data and performing quality assurance/quality control and properly loading validated data into Authoritative Data Source (ADS) servers and properly loading authoritative data into ODS. (6.1.1.1.7)

PC.5.13.3.5 update enterprise metadata registries governed by the SCORM specification and ability to manage content versions and configuration within the Content Administrative System. (6.1.2.2.17)

PC.5.13.3.6 manage students via use of student data/metadata as derived from student requirements and student status data, supported by a training management system and governed by policies and quotas, and the ability to perform modeling and analysis on this management data. (6.1.5.4.3)

PC.5.13.3.7 manage instructors via use of instructor data/metadata as derived from instructor requirements and instructor status data, supported by a training management system and governed by policies and quotas, and the ability to perform modeling and analysis on this management data. (6.1.5.4.4)

PC.5.13.3.8 manage training resources via use of training resources data/metadata as derived from resource inventory and resource requests data, supported by a resource management system and governed by resource allocation procedures and policies, and the ability to perform modeling and analysis on this management data. (6.1.5.4.5)

PC.5.13.4 Competency Management (PC)

ETMDS shall be able to:

PC.5.13.4.1 Clearly articulate workforce needs. (6.2.1)

PC.5.13.4.2 Define requirements for individuals' success on a job and at different levels of their career progression. (6.2.2)

PC.5.13.4.3 Increase the likelihood that qualified candidates will be recruited. (6.2.3)

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Focus on the knowledge, skills and abilities that have the most impact on effectiveness and productivity (6.2.4)

PC.5.13.4.4 Guide career development and career management efforts (6.2.5)

PC.5.13.4.5 Identify gaps in current training offerings (6.2.6)

PC.5.13.4.6 Identify specific skill gaps that can be resolved through training (6.2.7)

PC.5.13.4.7 Select appropriate training offerings, curricula, certifications and qualifications using competency models as criteria (6.2.8)

PC.5.13.4.8 Assess the knowledge, skills, abilities, interests and talents of the local workforce in relation to the competency requirements of available jobs to identify excellent matches (6.2.9)

PC.5.13.4.9 Identify available individuals with the position's required skill sets (6.2.10)

PC.5.13.4.10 Customize individual profiles and prepare position descriptions (6.2.11)

PC.5.13.4.11 Eliminate redundancy across training products and improve instructional materials (6.2.12)

PC.5.13.5 Training Gap Analysis & Reconciliation (PC)

ETMDS shall be able to:

PC.5.13.5.1 Identifying People to Positions Gap (6.3) (PC)

PC.5.13.5.1.1 Provide the ability to compare individuals to positions in a way that support both organizational requirements and individual career desires (6.3.1)

PC.5.13.5.1.2 Match competencies held by the individual to those required by the Navy, the organization, and the position (6.3.2)

PC.5.13.5.1.3 Allow individuals interactive participation in their professional growth and development (6.3.3)

PC.5.13.5.1.4 Provide individuals the ability to develop standardized career paths, including options to support professional growth and development (6.3.4)

PC.5.13.5.2 Assessing Skill Gaps and Delivering Training to Close Gaps (6.4) (PC)

PC.5.13.5.2.1 Identify gaps between individual competencies and other credentials and those required by the Navy, organization, and the position (6.4.1)

PC.5.13.5.2.2 Identify the intervention required to mitigate the gap between the individual and the positions (6.4.2)

PC.5.13.5.2.3 Deliver training and education content based on validated competency requirements (6.4.3)

PC.5.13.5.3 Match People to Position Competencies (6.5) (PC)

PC.5.13.5.3.1 Define competencies at a level that supports efficient matching of people to positions. Linking competencies is essential for matching people to positions. Mapping all

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competencies from the aforementioned Navy Total Force Competencies repository and assigning globally unique identifiers affords the opportunity to automate all gap analysis and matching mechanisms discussed herein (6.5)

PC.5.13.5.4 Prioritize Competencies to Mission Essentiality (6.6) (PC)

PC.5.13.5.4.1 The Navy must have the means to effectively understand and prioritize competencies for new missions and quickly identify individuals with these competencies. This capability will leverage the skills of the Navy Total Force (in particular the Reserve Component) critical to Navy mission success. Competencies must be standardized and mapped across the MPT&E domain. ETMDS must have the ability to seek and match required competencies across Active, Reserve, Government Civil Servants and contractors (6.6)

PC.5.13.5.5 Tailoring Training Content Based on Competencies (6.7) (PC)

PC.5.13.5.5.1 Deliver intervention methods and content (e.g., training) to individuals in a medium appropriate to the individual and the content with sufficient granularity. (6.7.1)

PC.5.13.5.5.2 Compare an individual's current competency regardless of the source (i.e., non-Navy acquired skills and competencies) with those required for the position and deliver just enough of the right kind of training at just the right time. (6.7.2)

PC.5.13.5.5.3 Provide specific position proficiency criteria, a process for proficiency review and validation, testing, and the means for individuals to maintain proficiency. (6.7.3)

PC.5.13.5.5.4 Take advantage of pre-tests to assess competency to avoid subjecting the individual to unnecessary or repetitive training. (6.7.4)

PC.5.13.6 Resume and Credentialing Capabilities (PC)

ETMDS shall be able to:

PC.5.13.6.1 track resumes and credentials on a per user basis which will include but not be limited to: (6.8.1)

- Rate
- Rating
- Navy Enlisted Codes (NEC), Navy Officer Billet Codes (NOBC), Additional Qualification Designation (AQD), Course Completion status
- Industry and Navy Certifications and Licenses

- Navy and non-Navy College Courses, Degrees and Certificates

- Qualifications including Personnel Qualification Standards (PQS)
- Validated Experiential Learning Profiles
- Continuing Education Units (CEUs), Continuing Professional Education (CPE) credits
- Other Personnel Records entries

PC.5.13.6.2 capture information to build a learner resume. (6.8.2)

PC.5.13.6.3 check for and report on expiring certifications or licenses. (6.8.3)

PC.5.13.6.4 notify learners and training managers of expiring certifications/licenses. (6.8.4)

- PC.5.13.6.5 aggregate the number of non-qualified Learners in positions. (6.8.5)
- PC.5.13.6.6 view team training gaps (aggregate to unit/group/etc.). (6.8.6)
- PC.5.13.6.7 view Learner training history, transcripts and other associated training-related personal data. (6.8.7)
- PC.5.13.6.8 record and view college degrees for both military and non-military institutions. (6.8.8)
- PC.5.13.6.9 record and view results of attendance in Navy resident training (A school, C school, etc.). (6.8.9)
- PC.5.13.6.10 record and view industry certifications (e.g. CompTIA, Microsoft, Cisco, etc.). (6.8.10)
- PC.5.13.6.11 record and view earned continuing education units (CEUs). (6.8.11)
Ability to compile learning event results, determine assessment methods and metrics and assess the knowledge and skill of learners for purposes of updating the resume, supported by an assessment system which includes capability for updates by instructors and supervisors. (6.8.12)

PC.5.13.6.12 Perform Resume Gap Analysis (6.9)

ETMDS shall be able to:

- PC.5.13.6.12.1 provide Learners a gap analysis between their resume and position requirements to identify required training events to close the gap between the individual and a requisition. (6.9.1)
- PC.5.13.6.12.2 support the individual's ability to identify learning/training opportunities that can improve his/her potential in current or future assignments. (6.9.2)
- PC.5.13.6.12.3 assess the degree to which a unit's personnel possess the rate, rating, NEC and qualifications required by the unit's manpower document. (6.9.3)
- PC.5.13.6.12.4 determine a learning gap and produce a learning plan though pre-assessments given learner status information a learning gap algorithm and appropriate assessment tools. (6.9.4)

PC.5.13.7 Skills and Work Data Analysis (PC)

ETMDS shall be able to:

- PC.5.13.7.1 produce training task requirements through work requirements and skills data analysis with support from the Content Administration System. (6.10.1)
- PC.5.13.7.2 define training requirements from training task requirements. (6.10.2)

PC.5.13.7.3 determine Learning Objective Statements (LOS) from training requirements and application of the SCORM specification with support from the Content Administration System. (6.10.3)

PC.5.13.7.4 develop instructional design plans from learning object statements, supported by the Content Administration System. (6.10.4)

PC.5.13.8 Capability-driven Manpower (PC)

Navy workforce requirements are based on current and future joint war fighting needs as dictated by national defense strategy and provided by Navy Enterprises. Manpower requirements need to be linked directly to mission essential tasks in order to understand the effect of manpower decisions on readiness. ETMDS shall be capable of mapping all competencies from the aforementioned Navy Total Force Competencies repository and assigning globally unique identifiers affords the opportunity to link directly to the mission essential tasks. A workforce assigned to specific positions based on required competencies obtained from the authoritative competencies data repository provides a clear understanding of how the workforce directly supports a unit's capabilities for mission accomplishment. (6.11)

PC.5.13.8.1 Conduct Continuous Demand Analysis for Manpower Requirements

ETMDS must provide the capability to forecast requirements in both program and budget-level

detail. This includes the capability to support a process for all manpower demand signals that brokers all resource types and facilitates collaborative planning and requirements determination (current and future requirements over the Future Years Defense Plan (FYDP). This must also support requirements prioritization and a corporate process allowing for tradeoffs between resource stakeholders. (6.12)

PC.5.13.8.2 Link Personnel Readiness to Fleet Readiness

A capability is needed to roll-up individual "position readiness values" to the unit, activity, fleet or

enterprise level and provide real-time visibility at the appropriate level. This roll-up should feed

into and be compatible with applicable defense readiness reporting systems (e.g., Training and Operational Readiness Information Services / Training Figure of Merit (TORIS/TFOM) and

Defense Readiness Reporting System-Navy (DRRS-N). Individual and position competencies

could allow performance metrics to record the individual's contribution towards readiness. (6.13)

PC.5.13.8.3 Link Position Performance Measures to Personnel Readiness

ETMDS must have the ability to link position performance provides a direct connection between individual performance and readiness. Elements of this capability include the ability to: (1) identify whether a position is filled ("fill"), (2) determine the extent to which incumbent competences match position requirements, and (3) a composite measure of how the incumbent is

performing against defined position criteria (2 and 3 collectively defining “FIT”). A capability to link an individual’s training, qualifications, credentials, and performance evaluations to a “position readiness value” must be provided. (6.14)

PC.5.13.8.4 Link MPT&E Requirements with War Fighting Enterprise

This ETMDS capability will provide the ability to report personnel and unit readiness in support of Navy missions. Clear relationships will be established between outputs of the war fighting enterprises (and enabling domains) and the capabilities and readiness of the Navy in a common

enterprise tool: DRRS-N. To assist Navy enterprises in efficiently producing capabilities for the

combatant commanders, policy changes will be required to enable a single capabilities determination process for the Navy using Navy Mission Essential Task List (NMETLs) rather than Mission, Functions and Tasks (MFTs) for shore commands and Required Operational Capability/Projected Operational Environment (ROC/POE) for war fighting activities. (6.15)

PC.5.13.8.5 Validate MPT&E Manpower Requirements

A manpower analysis validation capability for the Navy Total Force is needed. This implies the ability to support standardized manpower assessment processes and policies and to provide visibility into how requirements are validated. (6.16)

PC.5.13.9 Effective Navy Total Force (PC)

Navy’s workforce components – active, reserve, civil servants and contractor – are viewed as one integrated team that supports desired war fighting capability. This vision will be supported by providing the means to optimize work assignment across the Navy Total Force and aid individual career growth (6.17)

PC.5.13.9.1 Assign Work Across Active, Reserve and Civilian Components

This capability results from defining positions in terms of required competencies and being able to associate competencies with individuals in the same way for all components. Individuals in any components will have the option to apply for and fill positions in any component (subject to the restraints of law). This can be aided by reflecting proficiency measures, performance standards, credentials/qualifications and leadership qualities the same way across all components. (6.18)

PC.5.13.9.2 Articulate Performance Standards for Each Position

Processes for establishing and validating position-specific standards against measurable objectives

must be incorporated. Once established, all standards for all positions must be made readily visible to all individuals. This must also support quick updates to changes in standards. (6.19)

PC.5.13.9.3 Enable Career Development and Career Management

ETMDS shall provide tools and processes for individuals to explore opportunities for career growth by (1) providing the capability for individuals to evaluate multiple career paths and determine the implications of each, and (2) facilitate formulation of a plan to mitigate any gaps between the individual’s current competencies. (6.20)

PC.5.13.9.4 Manage Emergent MPT&E Requirements

Emergent requirements refer to new requirements occurring within execution or budget years of the FYDP. Emergent requirements could be temporary or permanent. Managing emergent requirements is challenging because they occur outside the normal assessment cycle, typically are high priority, and must be filled quickly. Sea Warrior must therefore provide the capability to

validate and prioritize quickly, balance risk against budget constraints, and determine which emergent requirements must be funded. Once a funding decision is made, Sea Warrior should facilitate determining the best source for emergent requirements (active component, reserve component, civil servants, and contractor). (6.21)

PC.5.13.10 Provide ‘Need to Know’ Access to Personnel Records (PC)

ETMDS shall provide ready access on a “need to know” basis to authoritative personnel, and pay records must be provided, while preserving the personal privacy of that material. Selected

individual records (Navy and non-Navy work experience, placement and entrance examination

scores, licenses, credentials, certificates, qualifications, training and education history, others) must be available to supervisors and HR staff. Additionally, ETMDS must provide the ability to exchange individual record elements with other business processes, including but not limited to, DoD readiness reporting, performance interventions, metrics generation, and recruiting. In addition to providing access, ETMDS must have processes that recognize the need for secure, reliable and rapid means for users and commands to change erroneous or incomplete personal data. (6.22)

PC.5.13.11 Transition among Workforce Components (PC)

A “continuum of service” whereby individuals can make transitions between different workforce components must be supported. This capability must be provided in a way that supports both the Navy’s needs and provides some accommodation of personal desires. This capability will depend on the development of policies supporting transition options at different points in an individual’s career path. (6.23)

PC.5.13.12 Business Process Reengineering (BPR) (PC)

The Contractor shall provide BPR support to review, analyze, and evaluate business systems and user needs, document requirements, define scope and objects, and formulate systems to parallel overall business strategies. This person will be designated as Key Personnel in a subsequent Delivery Order

PART 6 – Applicable Publications

6.0 Applicable Publications (Current Editions)

The Contractor must abide by all applicable regulations, publications, manuals, and local policies and procedures.

6.1 General

DOD 5400.11-R Department of Defense Privacy Program, (14 May 2007)
DOD 8500.01E Information Assurance (October 24, 2002)
DOD 8500.2 Information Assurance Implementation (Feb 6, 2003)
DoD Public Key Infrastructure (<http://iase.disa.mil/pki/index.html>)
Navy Marine Corps Intranet (NMCI) Release Development and Deployment Guide (NRDDG) v2.0, 28 May 2004
DoDI 8510.10--DoD Information Assurance certification and Accreditation Process (DIACAP)
CJCSI 6212.01C--Interoperability and Supportability of Information Technology and National Security Systems
DoDD Directive 8320.02-G -- DOD guidance for Net-Centric Data Sharing
DoD 5239.1--Introduction to Information Systems Security
DoD 5239.2--Terms, Abbreviations, and Acronyms
DoD 5239.3--Designated Approving Authority (DAA) Guidebook
CJCSI 6211.02B--Defense Information System Network (DISN): Policy Responsibilities and Processes of 31 July 2003
DoDD 8100.1--Global Information Grid (GIG) Overarching Policy
SECNAV INST 5211.5E Department of Navy Privacy Program

6.2 Logistics Technical and Training Guidance

Possible guidance materials include, but are not limited to:

6.2.1 Government Documents

Department of Defense (DoD) Specifications

MIL-PRF-29612B - Training Data Products
(Copies of the above DoD Specification can be obtained online from the Acquisition Streamlining and Standardization Information System (ASSIST) Web Site at:
[http://assist.daps.dla.mil/quicksearch/.](http://assist.daps.dla.mil/quicksearch/))

DoD Handbooks

MIL-HDBK-29612-1A - Intentionally Blank
MIL-HDBK-29612-2A - Instructional Systems Development/Systems Approach To Training And Education (Part 2 of 5 Parts)
MIL-HDBK-29612-3A - Development of Interactive Multimedia Instruction (Part 3 of 5)
MIL-HDBK-29612-4 - Glossary (Part 4 of 5)
MIL-HDBK-29612-5 - Advanced Distributed Learning (ADL) Products and Systems (Part 5 of 5)
MIL-HDBK-881A - Work Breakdown Structures for Defense Materiel Items

(Copies of the above DoD handbooks can be obtained online from the Acquisition Streamlining and Standardization Information System (ASSIST) Web Site at:
[http://assist.daps.dla.mil/quicksearch/.](http://assist.daps.dla.mil/quicksearch/))

Department of the Navy (DON) Documents

- MPT&ECIOSWIT-ILE-INTR-1A - Navy Integrated Learning Environment: An Introduction, dated 10 April 2007- <https://ile-help.nko.navy.mil/ile/about/overview.aspx>
- MPT&ECIOSWIT-ILE-GUID-1A - Navy Instructional Systems Design and Instructional Design Process, dated 10 April 2007- <https://ile-help.nko.navy.mil/ile/content/policy/isd.aspx>
- MPT&ECIOSWIT-ILE-GUID-2A - Navy Guidance on Assessment Development, dated 10 April 2007- <https://ile-help.nko.navy.mil/ile/content/policy/assessments.aspx>
- MPT&ECIOSWIT-ILE-GUID-3A - Navy Instructional Content Style Guide: Interactive Multimedia Instruction & Instructor-Led Training, dated 10 April 2007- <https://ile-help.nko.navy.mil/ile/content/policy/styleGuides.aspx>
- MPT&ECIOSWIT-ILE-STD-1A - ILE Presentation Standards, dated 10 April 2007- <https://ile-help.nko.navy.mil/ile/content/policy/styleGuides.aspx>
- MPT&ECIOSWIT-ILE-SPEC-1A - Navy Learning Objective Statements Specifications and Guidance, dated 10 April 2007 - <https://ile-help.nko.navy.mil/ile/content/policy/isd.aspx>
- MPT&ECIOSWIT-ILE-SPEC-2B - Navy ILE Content XML Specification, dated 10 April 2007
- MPT&ECIOSWIT-ILE-SPEC-3A - ILE Content Metadata Guide for Development and Delivery, dated 10 April 2007
- MPT&ECIOSWIT-ILE-SPEC-4C - Navy ILE Technical Specifications and Guidelines, dated 10 April 2007 - <https://ile-help.nko.navy.mil/ile/content/policy/specifications.aspx>
- MPT&ECIOSWITILE PF002 - ILE Process Flow Guidance- <https://ile-help.nko.navy.mil/ile/> (bottom-left link of page)
- NMCI.10011.01.UA0.E - Navy/Marine Corps Intranet (NMCI) Core Build Contents Final Version 2, dated 1 May 2007 - <http://www.homeport.navy.mil/support/support.aspx?page=1518>
- NETCINST 5510.1 - Information Protection Policy for Navy Integrated Learning Environment (ILE) and Navy Knowledge Online-SIPRNET (NKO-S)
- <https://ile-help.nko.navy.mil/ile/content/policy/classification.aspx>

NOTE: The most current Guidance, Policy, Standards, Specifications, Instructions, and Style Guide apply.

Government Regulations

29 U.S.C. 794d

- Section 508 of the Rehabilitation Act – Title 29 – Labor, Chapter 16 – Vocational Rehabilitation And Other Rehabilitation Services, Section 794d – Electronic and Information Technology

(Government Regulations - <https://ile-help.nko.navy.mil/ile/content/policy/section508.aspx>)

Other Government Documents - Department of the Navy Instructions

SECNAVINST 5000.36A

- Department Of The Navy Information Technology Applications And Data Management

SECNAVINST 5720.47

- Department of the Navy Policy for Content of Publicly Accessible World Wide Web Sites

(Copies of the above instructions are downloadable from

<http://doni.daps.dla.mil/allinstructions.aspx>)

6.2.2 Non-Government Documents

Advance Distributed Learning (ADL) Co-Laboratories Standards

SCORM 2004 3rd Edition

- Sharable Content Object Reference Model (SCORM), 3rd Edition

(The above standard and associated documentation is available from <http://www.adlnet.gov/>)

PART 7 - ATTACHMENT/TECHNICAL EXHIBIT LISTING

7.0 Attachment/Technical Exhibit List

Technical Exhibit 1 – Performance Requirements Summary (PRS)

This document summarizes specific Contractor service requirements into performance objectives that relate directly to mission essential items. The column headings include, “Performance Objective, Standard Performance, Threshold, and Method of Surveillance”. The performance threshold briefly describes the minimum acceptable levels of service required for each requirement. These thresholds are critical to mission success. In those cases where an individual FADD Matrix (PWS Technical Exhibit 2) or PWS (this document) item is not explicitly addressed in the PRS, the Contractor shall be responsible for creating test cases for those items with those test cases being included within the appropriate test plan.

Technical Exhibit 2 – Functional Area Description Document (FADD) Matrix

See 1.1 for context and background.

Technical Exhibit 1:

PERFORMANCE REQUIREMENTS SUMMARY

| FADD Matrix Rqmt # | (PRS) Performance Objective (The Contractor shall provide...) | (PRS) Standard | (PRS) Performance Threshold | (PRS) Method of Surveillance | PWS Ref # |
|---|---|------------------------------|------------------------------------|---|--|
| <p>6.1.1.2.2 6.1.4.8</p> | <p>The Contractor shall maintain all existing interfaces during Phase I in Table 1.1 of the Navy eLearning Interface Control Document (NeL-NAR-Ashore_ICD-20090814)</p> | <p>Interfaces maintained</p> | <p>100%</p> | <p>Monthly Reports, IPRs, and Milestone Reviews</p> | <p>5.10. 5 Special Requirements Existing interfaces that must be maintained</p> |
| <p>6.1.1.2.12</p> | <p>The Contractor shall maintain an Operational Availability (OA) at 97% per month (Threshold) with the target of 99% (Objective) assuming reliable connectivity is available. Operational Availability (OA) is defined as Uptime divided by Total Time. Total Time is defined as Uptime plus Down Time. Uptime is defined as the time when the system is considered to be ready for use (e.g., when the system is operating, in standby, or turned off but available for use). Down Time is the sum of the total time lost for preventative maintenance as well as all unscheduled failures that impair performance of mission essential functions (these failures are defined as operational mission failures). Down Time does not include time lost due to the failure of shared infrastructures not under the cognizance of the ETMDS Enterprise owner (INFOCON restrictions, NIPRNET Shutdown). All time spent performing repair of operational mission hardware failures and operational mission software failures is part of Down Time. Down Time also includes time for logistics delays and fault correction time for software and hardware maintenance. Routine backups and other daily procedures shall be accomplished without Down Time.</p> | <p>97 - 99% OA</p> | <p>97% OA</p> | <p>Extrapolate from subcomponents w/ estd track record / extrapolate from footprint less than full scale production environment</p> | <p>5.9 Operational Availability</p> |

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| FADD Matrix Rqmt # | (PRS) Performance Objective (The Contractor shall provide...) | (PRS) Standard | (PRS) Performance Threshold | (PRS) Method of Surveillance | PWS Ref # |
|---------------------------|--|--|--|---|-------------------------------|
| 6.1.1.2.13 | System performance: The Contractor shall be able to refresh screens between eight seconds (Threshold) and three seconds (Objective). | Screen refresh between three and eight seconds time. | Refresh screen time not more than eight seconds. | Run test in an isolated environment such that network latency doesn't contribute meaningful delay (minimum speed of 100 MBPS with less than 20% of available bandwidth being consumed). A subset of the full production server suite will be used with each of those servers being used to support 75% of the maximum users cited by the offeror as a single server capacity. Tests will be executed against 3 representative content samples to be provided by the Navy. | 5.7 System Performance |

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| FADD Matrix Rqmt # | (PRS) Performance Objective (The Contractor shall provide...) | (PRS) Standard | (PRS) Performance Threshold | (PRS) Method of Surveillance | PWS Ref # |
|---|---|--|------------------------------------|---|---|
| <p>6.1.1.3</p> <p>Includes all sub-paragraphs 6.1.1.3.1 through 6.1.1.3.9</p> | <p>Infrastructure Security.</p> <ul style="list-style-type: none"> - Ability to work seamlessly with third party anti-virus software. - Ability to comply with DODI 5200.28 Security Requirements for Automated Information Systems and other appropriate regulations, which deal with Privacy Act and information security. - Ability to provide controlled access against unauthorized access using identification and authentication as well as encryption. - Ability to meet and maintain minimum IA standards with appropriately resourced Information Assurance Work Force (IAWF) members having current and appropriate IAWF certifications IAW DoD 8570.01M - Ability to demonstrate compliance with policy guidance for International Common Criteria (ICC) and use of Mobile Code Technologies in DOD Information Systems and “DOD Firewall Ports, Protocols and Services Policy” CJCSI 3170-01B (E-A-4 (5c)), especially the Navy specific UTN Protect Policy. - Ability to demonstrate off-site switch-over in response to DOD policy regarding Continuity of Operation (COOP). Particulars regarding location, operation and testing shall be detailed in a COOP Plan. - Ability to provide user access validation for each individual entering, changing, viewing, or downloading information as a duly authorized person in the ETMDS. The method of access validation will be software based and public key infrastructure (PKI) enabled. - Ability for vendor to respond to system changes precipitated by Information Assurance Vulnerability Management (IAVM) patch management, Security Technical Instructional Guidelines (STIG) configuration standards or possible vulnerabilities found during scanning, (RETINA and DISA Gold Disk) - Ability to provide DOD Information Assurance Certification and Accreditation Process (DIACAP) support & input to the ETMDS PD to develop the Certification and Accreditation Package and to support the Government’s efforts to achieve Approval To Operate (ATO) accreditation of applications and systems environments supported under this Contract. | <p>DODI 5200.28, Security Requirements for Automated Information Systems, Privacy Act, DoD 8570.01M, International Common Criteria (ICC), CJCSI 3170-01B (E-A-4 (5c)), UTNPP, Security Technical Instructional Guidelines (STIG), DIACAP</p> | <p>Meets standard</p> | <p>Monthly Reports, IPRs, and Milestone Reviews</p> | <p>5.10 1 Special Requirements Information Assurance</p> |
| <p>6.1.2.3.5</p> | <p>The Contractor shall support the delivery of assessments that are packaged as SCORM Sharable Content Objects (SCO). (6.1.2.3.5)</p> | <p>SCORM</p> | <p>Meets standard</p> | <p>Monthly Reports, IPRs, and Milestone Reviews</p> | <p>5.5 Learning Content Management</p> |

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| FADD Matrix Rqmt # | (PRS) Performance Objective (The Contractor shall provide...) | (PRS) Standard | (PRS) Performance Threshold | (PRS) Method of Surveillance | PWS Ref # |
|---------------------------|---|---|---|--|---|
| 6.1.2.3.10 | ETMDS shall have no architectural limitations that would preclude a minimum of 5,000 concurrent users (Threshold) or up to 8,000 concurrent users (Objective). (6.1.2.3.10) | 5,000 - 8,000 concurrent users | 5,000 concurrent users | Extrapolate from subcomponents w/ estd track record / extrapolate from footprint less than full scale production environment | 5.10.3 Special Requirements Capacity and Limitations |
| 6.1.2.3.11 | ETMDS architecture and design shall have user to server ratio of 220 users to one server (Threshold) and 330 users to one server (Objective). The ability to meet this requirement shall be assessed against servers of the same as class used in the existing Navy eLearning instantiation. (6.1.2.3.11) | Server ratio of at least 220 - 330 users to one server. | Server ratio 220 users to one server | Verification against a single server in a test environment with load simulation software | 5.10.3 Special Requirements Capacity and Limitations |
| 6.1.5.1.2 | The Contractor shall enable ability to identify courses with fail or drop rates higher than Learning Center defined thresholds. | Learning Center defined thresholds | Selectable by range of failure/drop rates | Monthly Reports, IPRs, and Milestone Reviews | 5.6 Training Data Administration and Management |

Technical Exhibit 2:

FADD MATRIX

Legend:

1. The designation of an individual requirement as being an “Application Independent Capability” is intended to convey that although the capability in question is required, there is not an expectation that this capability will be realized by any specific trait, capability or attribute embodied by the application(s) proposed by the offeror. In such cases, the capability will be realized by virtue of government supplied tools, infrastructure, policy, processes or a combination of the above.
2. Those capabilities designated as “CORE” must be present in the initial instantiation of ETMDS, i.e., Phase I Go-Live. The overall architecture, design and product suite shall be inherently capable of meeting all “Core” and “Post-Core” capabilities without requiring major modifications even though post-core capabilities will not be activated as part of Phase I. It will be at the sole discretion of the government as to the activation of any “POST-CORE” ETMDS capabilities.

| FADD Matrix Rqmt # | APPLICATION INDEPENDENT CAPABILITY | ETMDS Mod Requirement Description | CORE | POST-CORE |
|---------------------------|---|--|-------------|------------------|
| 6.1 | | Training Delivery. | | |
| 6.1.1 | | General Architecture Capabilities. | | |
| 6.1.1.1 | | Enterprise Data Environment (EDE). | | |
| 6.1.1.1.1 | | Ability to register IMR assets to the DOD registration system for metadata repositories. | | X |
| 6.1.1.1.2 | | Ability to conduct discovery on data stored in the ODS via IMR in five seconds (Threshold) or two seconds (Objective). | | X |
| 6.1.1.1.3 | | Ability to abstract business and logic rules away from applications in keeping with the data-centric architectural design. | | X |
| 6.1.1.1.4 | | Ability to deliver services and learning content within the Navy shore enterprise in CONUS, Navy shore enterprise OCONUS and through Internet Service providers to domestic residences and commercial locations (with CAC enabled access for NIPR and SIPR) both CONUS and OCONUS. | X | |
| 6.1.1.1.5 | | Ability to deliver and track learning content afloat using the existing shipboard delivery capability. | X | |
| 6.1.1.1.6 | | Ability to scale and load balance the system through distribution. Distribution locations shall favor fleet concentration areas for both CONUS and OCONUS. | X | |

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| | | Ability to manage data and metadata for authoritative data integrity by properly collecting source data and performing quality assurance/quality control and properly loading validated data into Authoritative Data Source (ADS) servers and properly loading authoritative data into Operational Data Stores (ODS). | | X |
| 6.1.1.1.7 | | | | |
| 6.1.1.2 | | Infrastructure Management Capabilities. | | |
| 6.1.1.2.1 | | Ability to recall and trace transactions, inputs, processes, or changes, from source to final disposition as required by law or policy. | X | |
| 6.1.1.2.2 | | Ability to participate in information exchange with all of the component systems that comprise ETMDS, as well as selected external systems (e.g. 3rd party systems, career management and distribution system, NTMPS, CeTARS, as denoted in ICD). | X | |
| 6.1.1.2.3 | | Ability to support Continuation of Operations (COOP) in multiple sites for continuation of system when natural disasters or other catastrophic failures. | X | |
| 6.1.1.2.4 | | Ability to continually track system performance and responsiveness as measured from strategically selected geographic locations. | X | |
| 6.1.1.2.5 | X | Ability to measure the projected impact of new content and new users allowing infrastructure managers to perform required updates in a proactive manner. | X | |
| 6.1.1.2.6 | X | Ability to proactively determine, document, baseline and maintain adequate concurrent user capacity. | X | |
| 6.1.1.2.7 | X | Ability to proactively determine, baseline and maintain maximum network speed and maximum network latency allowance to support documented workload. | X | |
| 6.1.1.2.8 | X | Ability to proactively determine, document, baseline and maintain minimum data storage requirements to safeguard systems from malicious or inadvertent security vulnerabilities. | X | |
| 6.1.1.2.9 | X | Ability to proactively determine, document, baseline and maintain ample security requirements to safeguard systems from malicious or inadvertent security vulnerabilities. | X | |
| 6.1.1.2.10 | X | Ability to proactively determine, document, baseline and maintain systems integration, interfaces, and interoperability requirements as demonstrated by providing documentation as required to complete Joint Interoperability Test Command (JITC) certification or waiver process. | X | |
| 6.1.1.2.11 | | Ability to only allow user access to ETMDS capability based on segmentation controls and access privileges. | X | |

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| 6.1.1.2.12 | | Ability to maintain an Operational Availability (OA) at 97% per month (Threshold) with the target of 99% (Objective) assuming reliable connectivity is available. Operational Availability (OA) is defined as Uptime divided by Total Time. Total Time is defined as Uptime plus Down Time. Uptime is defined as the time when the system is considered to be ready for use (e.g., when the system is operating, in standby, or turned off but available for use). Down Time is the sum of the total time lost for preventative maintenance as well as all unscheduled failures that impair performance of mission essential functions (these failures are defined as operational mission failures). Down Time does not include time lost due to the failure of shared infrastructures not under the cognizance of the ETMDS Enterprise owner (INFOCON restrictions, NIPRNET Shutdown). All time spent performing repair of operational mission hardware failures and operational mission software failures is part of Down Time. Down Time also includes time for logistics delays and fault correction time for software and hardware maintenance. Routine backups and other daily procedures shall be accomplished without Down Time. | X | |
| 6.1.1.2.13 | | Ability to refresh screens between eight seconds (Threshold) and three seconds (Objective). This ability shall be accessed in a manner that reflects a representative daily peak operational load with the application scaled in accordance with vendor recommendations. Measurements will be made in a manner that isolates application performance from external networks and client configuration. | X | |
| 6.1.1.2.14 | | Ability to perform system administration and maintenance making use of monitoring and test systems, system administrators and controlled by service level agreements and DoD/DoN Network and Systems Administration Policies. | X | |
| 6.1.1.2.15 | | Ability to conduct test and evaluation of systems and networks through monitoring and test systems. | X | |
| 6.1.1.2.16 | | Ability to provide end user on-line help. | X | |
| 6.1.1.2.17 | | Ability to provide help desk functions to system administrators for system operation support. | X | |
| 6.1.1.3 | | Infrastructure Security. | | |
| 6.1.1.3.1 | | Ability to work seamlessly with third party anti-virus software. | X | |
| 6.1.1.3.2 | | Ability to comply with DODI 5200.28 Security Requirements for Automated Information Systems and other appropriate regulations, which deal with Privacy Act and information security. | X | |
| 6.1.1.3.3 | | Ability to provide controlled access against unauthorized access using identification and authentication as well as encryption. | X | |

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| 6.1.1.3.4 | | Ability to meet and maintain minimum IA standards with appropriately resourced Information Assurance Work Force (IAWF) members having current and appropriate IAWF certifications IAW DoD 8570.01M | X | |
| 6.1.1.3.5 | | Ability to demonstrate compliance with policy guidance for International Common Criteria (ICC) and use of Mobile Code Technologies in DOD Information Systems and “DOD Firewall Ports, Protocols and Services Policy” CJCSI 3170-01B (E-A-4 (5c)), especially the Navy specific UTN Protect Policy. | X | |
| 6.1.1.3.6 | | Ability to demonstrate off-site switch-over in response to DOD policy regarding Continuity of Operation (COOP). Particulars regarding location, operation and testing shall be detailed in a COOP Plan. | X | |
| 6.1.1.3.7 | | Ability to provide user access validation for each individual entering, changing, viewing, or downloading information as a duly authorized person in the ETMDS. The method of access validation will be software based and public key infrastructure (PKI) enabled. | X | |
| 6.1.1.3.8 | | Ability for vendor to respond to system changes precipitated by Information Assurance Vulnerability Management (IAVM) patch management, Security Technical Instructional Guidelines (STIG) configuration standards or possible vulnerabilities found during scanning, (RETINA and DISA Gold Disk) | X | |
| 6.1.1.3.9 | | Ability to provide DOD Information Assurance Certification and Accreditation Process (DIACAP) support & input to the ETMDS PD to develop the Certification and Accreditation Package and to support the Government’s efforts to achieve Approval To Operate (ATO) accreditation of applications and systems environments supported under this Contract. | X | |
| 6.1.2 | | Learning Content Management Capabilities. | | |
| 6.1.2.1 | | Learning Content Repository. | | |
| 6.1.2.1.1 | | Ability to manage and maintain version control of learning content. | X | |
| 6.1.2.1.2 | | Ability for developers and training managers to conduct discovery on the contents of the repository for purposes of identifying required changes, re-use and repurposing of learning content. | X | |
| 6.1.2.1.3 | | Ability to ingest courseware delivered from development vendors, separating associated metadata and conducting validation of the data. | X | |
| 6.1.2.1.4 | | Ability to support cataloging, storage, and search and retrieval of learning assets including, but not limited to: raw media assets, enabling learning objects (ELO), terminal learning objects (TLO), lessons, modules, courses, etc. | X | |
| 6.1.2.2 | | Content Development Support. | | |
| 6.1.2.2.1 | X | Ability to track content development projects status (completed, in process, approved for development, etc.) | X | |

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| 6.1.2.2.2 | | Ability to import final content and metadata from 3rd party curriculum development tools that export to industry standards including SCORM 1.2, SCORM 2004 and Aviation Industry Computer-based Training Committee (AICC). | X | |
| 6.1.2.2.3 | | Ability to support SCORM packaging and the Content Metadata requirements of SCORM that allows all content to be packaged in a highly transportable and industry-supported mode. | X | |
| 6.1.2.2.4 | X | Ability to validate and to ensure that as a minimum, provisions of the American Disabilities Act, Section 508 are in strict adherence and that other Training Standards are applied, as necessary. | X | |
| 6.1.2.2.5 | | Ability to support content developed in multiple formats to engage the learner taking advantage of various multimedia including but not limited to: audio, movies, presentations, spreadsheets, reference documents, animations and simulations. | X | |
| 6.1.2.2.6 | | Ability to support incorporation of links to all supporting materials within the learning event/course (e.g. technical manuals, standards, specifications, standard operating procedures, etc.). | X | |
| 6.1.2.2.7 | | Ability to produce an instructional design plan by analyzing skills and work data from work requirements and skills data. | | X |
| 6.1.2.2.8 | | Ability to develop training content assets, Enabling Learning Objects (ELOs), Terminal Learning Objects (TLOs) and learning plans from instructional design plans, domain knowledge and existing learning content. | | X |
| 6.1.2.2.9 | | Ability to create content (learning plans and learning objects) from a Learning Method Plan, Learning Objectives, and re-usable learning content supported by the Content Administration System and Authoring Systems. | | X |
| 6.1.2.2.10 | X | Ability to perform acceptance testing on created learning objects with support from testing facilities and Content Administrative System. | X | |
| 6.1.2.2.11 | X | Ability to publish and manage content in the form of learning objects and learning plans within controls of security and format specifications and supported by a Content Administrative System. | X | |
| 6.1.2.2.12 | | Ability to discover existing content for repurposing. | X | |
| 6.1.2.2.13 | X | Ability to discover referenced technical information from a technical data repository. | X | |
| 6.1.2.2.14 | | Ability to develop Enabling Learning Objects (ELOs) from Learning Objective Statements, Technical Documentation, and Reusable Content supported by Content Authoring Tools and governed by Content Development Guidance. | | X |

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| 6.1.2.2.15 | | Ability to develop Terminal Learning Objects (TLOs) from Learning Objective Statements, Technical Documentation, and Reusable Content supported by Content Authoring Tools and governed by Content Development Guidance. | | X |
| 6.1.2.2.16 | X | Ability to perform operational tests of content and publish from a testing to a production environment. | X | |
| 6.1.2.2.17 | | Ability to update enterprise metadata registries governed by the SCORM specification and ability to manage content versions and configuration within the Content Administrative System. | | X |
| 6.1.2.2.18 | | Ability to conduct Content Effectiveness Evaluations and Surveillance on Approved Content providing Analysis Products and Surveillance Information to modeling and analysis systems. | | X |
| 6.1.2.3 | | Content Delivery Support. | | |
| 6.1.2.3.1 | X | Ability to deliver learning content and support the delivery of flexible, dynamic blended learning products. | X | |
| 6.1.2.3.2 | | Ability to deploy intelligent content delivery systems that automatically tailor learning content for different learners with different learning styles. | | X |
| 6.1.2.3.3 | | Ability to provide adapted content to suit a specific learner's profile, role or other stated preference. | | X |
| 6.1.2.3.4 | | Ability for delivery of content to be used offline, which allow developers to bundle content into discrete, downloadable packages that allow for learning in an offline environment, yet maintains a means for update of progress reporting to the Electronic Training Jacket. In the disconnected state, the courseware shall be capable of operating stand-alone (e.g., from a CD-ROM) or from a Distance Support Server where a local LAN shall provide connectivity. The same courseware launch and delivery core functionality shall be available in an ashore, afloat, or in a forward deployed instantiation. | X | |
| 6.1.2.3.5 | | Ability to treat assessments as Source Content Objects (SCO). | X | |
| 6.1.2.3.6 | | Ability for Learners to view catalog offerings and sign-up for courseware. | X | |
| 6.1.2.3.7 | | Ability for learners to view test scoring or assessment results while participating in training, whether instructor led, self-paced or a blended learning event. | X | |
| 6.1.2.3.8 | | Ability to assemble content specifically tailored for individual end users. | | X |
| 6.1.2.3.9 | | Ability to assemble and display learning plans to individuals. | X | |
| 6.1.2.3.10 | | ETMDS shall have no architectural limitations that would preclude a minimum of 5,000 concurrent users (Threshold) or up to 8,000 concurrent users (Objective). | X | |
| 6.1.2.3.11 | | ETMDS architecture and design shall have user to server ratio of 220 users to one server (Threshold) and 330 users to one server (Objective). The ability to meet this requirement shall be assessed against servers of the same as class used in the existing Navy eLearning instantiation. | X | |

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| 6.1.2.3.12 | | Ability to identify requirements and selected position learning requirements based on rate, rating, and NEC. | | X |
| 6.1.2.3.13 | | Ability to assemble learner status for the purpose of conducting gap analyses by retrieving personnel data, training data, current position learning. | | X |
| 6.1.2.3.14 | | Ability to deliver content to the learner by creating, de-confliction, prioritizing and scheduling learning event plans, supported by a learning management system and governed by learning event rules. | | X |
| 6.1.3 | | Learner Services Capabilities. | | |
| 6.1.3.1 | | Courseware Launch. | | |
| 6.1.3.1.1 | | ETMDS Access: ETMDS shall support access and authentication via the following mechanisms: 1) transmittal of authentication information from a portal or other front-end system (e.g. Navy Knowledge Online, Defense Knowledge Online, etc.), 2) direct access to ETMDS via CAC/PKI with associated DEERS validation | X | |
| 6.1.3.1.2 | | Ability to provide access to following DoN categories: Active, Reserve, Retired, Civil Service, Dependents, and Contractors; active duty Coast Guard; and any other member serving with the Navy in a joint capacity. | X | |
| 6.1.3.1.3 | | Courseware launch and delivery shall be possible while operating in a synchronous or Asynchronous environment whether afloat or ashore. The connected state is where the system is physically connected to an external network infrastructure (e.g., NMCI, One-Net or the Internet). The disconnected state is where the system is stand-alone and not regularly connected to an external network infrastructure. | X | |
| 6.1.4 | | Learning Management Capabilities. | | |
| 6.1.4.1 | X | Ability to support remediation as required. | X | |
| 6.1.4.2 | | Ability for Learners to view catalogs offerings and sign up for courses | X | |
| 6.1.4.3 | | Ability for learners to view test scoring or assessments results while participating in training, whether instructor led, self paced or a blended solution | X | |
| 6.1.4.4 | | Ability for learners to 'bookmark' and easily return to the position within the courseware or learning event from where they last viewed the material. | X | |
| 6.1.4.5 | | Ability to provide assessment via internal mechanism or interface to external assessment. | X | |
| 6.1.4.6 | | Ability for courseware and associated catalogs to be easily searchable by topic or keyword. | X | |
| 6.1.4.7 | | Ability to manage learner lesson plans and record of progress. | X | |
| 6.1.4.8 | | Ability to update progress reporting to the Electronic Training Jacket. | X | |
| 6.1.4.9 | | Ability for self- and sponsor-supported enrollment for learning events or online courses launched within the ETMDS. | X | |

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| 6.1.4.10 | | Ability to allow Learners to conduct a gap analysis for training requirements based on rate, rating and Navy Enlisted Classifications (NEC). | | X |
| 6.1.4.11 | | Ability to support an individual to track his/her progress in educational endeavors and to develop plans for continuing education. | | X |
| 6.1.4.12 | | Ability to have visibility to student progress relative to their individual and group learning plan relative to historic averages. | X | |
| 6.1.4.13 | | Ability to interoperate with other commercial or Joint Learning Management Systems to share student data as appropriate. | X | |
| 6.1.5 | | Enterprise Training and Education Management Capabilities. | | |
| 6.1.5.1 | | Enterprise Courseware Trend Analysis. | | |
| 6.1.5.1.1 | | Ability to deliver course completion and student status metrics based on industry standards. | X | |
| 6.1.5.1.2 | | Ability to identify courses with fail or drop rates higher than Learning Center defined thresholds. | X | |
| 6.1.5.1.3 | | Ability to identify problems with tests. | X | |
| 6.1.5.1.4 | | Ability to assess the average time to complete a course. | X | |
| 6.1.5.2 | | Training Asset Management. | | |
| 6.1.5.2.1 | | Ability to view inventories, request maintenance, and order Technical Training Equipment (TTE) and other supplies/equipment. | | X |
| 6.1.5.2.2 | | Ability to conduct Training Site Capacity Planning. | | X |
| 6.1.5.2.3 | | Ability to manage class locations. | | X |
| 6.1.5.2.4 | | Ability to manage all assets associated with all class locations (VCRs, projectors, etc.). | | X |
| 6.1.5.2.5 | | Ability to manage instructors as a training asset. Ability to coordinate instructor inventory with training requirements by creating instructor inventory plans from instructor requirements and instructor status data, governed by quotas and training policy. Ability to assign instructors to Learning Event schedules. | | X |
| 6.1.5.2.6 | | Ability to maintain instructor performance, certification and qualification quotas though use of instructor inventory plans and resume data, supported by assessment systems. | | X |
| 6.1.5.2.7 | | Ability to manage resource sources of training assets to produce a resource inventory and resource requirements, supported by a Resource Management System and governed by training policies and resource procedures. | | X |
| 6.1.5.2.8 | | Ability to determine training resource availability and to allocate resources balance seat requests, schedules and the resource inventory to produce resource use plans and resource allocation plans supported by a Resource Management System. | | X |

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| 6.1.5.2.9 | | Ability to deploy training resources given resource allocation plans and tracking resource status and resource assignments, supported by a Resource Management System. | | X |
| 6.1.5.3 | | Student Scheduling Capability. | | |
| 6.1.5.3.1 | | Ability to allow Learners to electronically submit training request as well as automated workflow for related approval process. | X | |
| 6.1.5.3.2 | | Ability to create, schedule and cancel classes. | | X |
| 6.1.5.3.3 | | Ability to optimize utilization of training site resources. | | X |
| 6.1.5.3.4 | | Ability to manage course scheduling. | | X |
| 6.1.5.3.5 | | Ability to manage class schedules. | | X |
| 6.1.5.4 | | Training Data Administration and Management. | | |
| 6.1.5.4.1 | | Ability to generate standard and ad hoc reports on a scheduled or on-demand basis. In general, all report generation toolsets shall offer web-based interfaces. | X | |
| 6.1.5.4.2 | | Ability to develop reports on learner, instructor, facilities data | X | |
| 6.1.5.4.3 | | Ability to manage students via use of student data/metadata as derived from student requirements and student status data, supported by a training management system and governed by policies and quotas, and the ability to perform modeling and analysis on this management data. | | X |
| 6.1.5.4.4 | | Ability to manage instructors via use of instructor data/metadata as derived from instructor requirements and instructor status data, supported by a training management system and governed by policies and quotas, and the ability to perform modeling and analysis on this management data. | | X |
| 6.1.5.4.5 | | Ability to manage training resources via use of training resources data/metadata as derived from resource inventory and resource requests data, supported by a resource management system and governed by resource allocation procedures and policies, and the ability to perform modeling and analysis on this management data. | | X |
| 6.2 | | Competency Management. | | |
| 6.2.1 | | Clearly articulate workforce needs | | X |
| 6.2.2 | | Define requirements for individuals' success on a job and at different levels of their career progression | | X |

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| 6.2.3 | | Increase the likelihood that qualified candidates will be recruited | | X |
| 6.2.4 | | Focus on the knowledge, skills and abilities that have the most impact on effectiveness and productivity | | X |
| 6.2.5 | | Guide career development and career management efforts | | X |
| 6.2.6 | | Identify gaps in current training offerings | | X |
| 6.2.7 | | Identify specific skill gaps that can be resolved through training | | X |
| 6.2.8 | | Select appropriate training offerings, curricula, certifications and qualifications using competency models as criteria | | X |
| 6.2.9 | | Assess the knowledge, skills, abilities, interests and talents of the local workforce in relation to the competency requirements of available jobs to identify excellent matches | | X |
| 6.2.10 | | Identify available individuals with the position's required skill sets | | X |
| 6.2.11 | | Customize individual profiles and prepare position descriptions | | X |
| 6.2.12 | | Eliminate redundancy across training products and improve instructional materials | | X |
| 6.3 | | Identifying People to Positions Gap. | | |
| 6.3.1 | | Provide the ability to compare individuals to positions in a way that support both organizational requirements and individual career desires | | X |
| 6.3.2 | | Match competencies held by the individual to those required by the Navy, the organization, and the position | | X |
| 6.3.3 | | Allow individuals interactive participation in their professional growth and development | | X |
| 6.3.4 | | Provide individuals the ability to develop standardized career paths, including options to support professional growth and development | | X |
| 6.4 | | Assessing Skill Gaps and Delivering Training to Close Gaps. | | |
| 6.4.1 | | Identify gaps between individual competencies and other credentials and those required by the Navy, organization, and the position | | X |
| 6.4.2 | | Identify the intervention required to mitigate the gap between the individual and the positions | | X |
| 6.4.3 | | Deliver training and education content based on validated competency requirements | | X |
| 6.5 | | Match People to Position Competencies. | | |
| | | Competencies need to be defined at a level that supports efficient matching of people to positions. Linking competencies is essential for matching people to positions. Mapping all competencies from the aforementioned Navy Total Force Competencies repository and assigning globally unique identifiers affords the opportunity to automate all gap analysis and matching mechanisms discussed herein | | X |
| 6.6 | | Prioritize Competencies to Mission Essentiality. | | |

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| | | Navy must provide the means to effectively understand and prioritize competencies for new missions and quickly identify individuals with these competencies. This capability will leverage the skills of the Navy Total Force (in particular the Reserve Component) critical to Navy mission success. Competencies must be standardized and mapped across the MPT&E domain. The Competency-based system must have the ability to seek and match required competencies across Active, Reserve, Government Civil Servants and contractors | | X |
| 6.7 | | Tailoring Training Content Based on Competencies. | | |
| 6.7.1 | | Deliver intervention methods and content (e.g., training) to individuals in a medium appropriate to the individual and the content with sufficient granularity. | | X |
| 6.7.2 | | Compare an individual’s current competency regardless of the source (i.e., non-Navy acquired skills and competencies) with those required for the position and deliver just enough of the right kind of training at just the right time. | | X |
| 6.7.3 | | Provide specific position proficiency criteria, a process for proficiency review and validation, testing, and the means for individuals to maintain proficiency. | | X |
| 6.7.4 | | Take advantage of pre-tests to assess competency to avoid subjecting the individual to unnecessary or repetitive training. | | X |
| 6.8 | | Resume and Credentialing Capabilities. | | |
| 6.8.1 | | Ability to track resumes and credentials on a per user basis which will include but not be limited to: <ul style="list-style-type: none"> • Rate • Rating • Navy Enlisted Codes (NEC), Navy Officer Billet Codes (NOBC), Additional Qualification Designation (AQD), Course Completion status • Industry and Navy Certifications and Licenses • Navy and non-Navy College Courses, Degrees and Certificates • Qualifications including Personnel Qualification Standards (PQS) • Validated Experiential Learning Profiles • Continuing Education Units (CEUs), Continuing Professional Education (CPE) credits • Other Personnel Records entries | | X |
| 6.8.2 | | Ability to capture information to build a learner resume. | | X |
| 6.8.3 | | Ability to check for and report on expiring certifications or licenses. | | X |
| 6.8.4 | | Ability to notify learners and training managers of expiring certifications/licenses. | | X |

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| 6.8.5 | | Ability to aggregate the number of non-qualified Learners in positions. | | X |
| 6.8.6 | | Ability to view team training gaps (aggregate to unit/group/etc.). | | X |
| 6.8.7 | | Ability to view Learner training history, transcripts and other associated training-related personal data. | | X |
| 6.8.8 | | Ability to record and view college degrees for both military and non-military institutions. | | X |
| 6.8.9 | | Ability to record and view results of attendance in Navy resident training (A school, C school, etc.). | | X |
| 6.8.10 | | Ability to record and view industry certifications (e.g. CompTIA, Microsoft, Cisco, etc.). | | X |
| 6.8.11 | | Ability to record and view earned continuing education units (CEUs). | | X |
| 6.8.12 | | Ability to compile learning event results, determine assessment methods and metrics and assess the knowledge and skill of learners for purposes of updating the resume, supported by an assessment system which includes capability for updates by instructors and supervisors. | | X |
| 6.9 | | Resume Gap Analysis. | | |
| 6.9.1 | | Ability to provide Learners a gap analysis between their resume and position requirements to identify required training events to close the gap between the individual and a requisition. | | X |
| 6.9.2 | | Ability to support the individual's ability to identify learning/training opportunities that can improve his/her potential in current or future assignments. | | X |
| 6.9.3 | | Ability to assess the degree to which a unit's personnel possess the rate, rating, NEC and qualifications required by the unit's manpower document. | | X |
| 6.9.4 | | Ability to determine a learning gap and produce a learning plan though pre-assessments given learner status information a learning gap algorithm and appropriate assessment tools. | | X |
| 6.10 | | Skills and Work Data Analysis. | | |

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| 6.10.1 | | Ability to produce training task requirements through work requirements and skills data analysis with support from the Content Administration System. | | X |
| 6.10.2 | | Ability to define training requirements from training task requirements. | | X |
| 6.10.3 | | Ability to determine Learning Objective Statements (LOS) from training requirements and application of the SCORM specification with support from the Content Administration System. | | X |
| 6.10.4 | | Ability to develop instructional design plans from learning object statements, supported by the Content Administration System. | | X |
| 6.11 | | Capability-driven Manpower. | | |
| | | Navy workforce requirements are based on current and future joint war fighting needs as dictated by national defense strategy and provided by Navy Enterprises. Manpower requirements need to be linked directly to mission essential tasks in order to understand the effect of manpower decisions on readiness. The capability of mapping all competencies from the aforementioned Navy Total Force Competencies repository and assigning globally unique identifiers affords the opportunity to link directly to the mission essential tasks. Further, a workforce assigned to specific positions based on required competencies obtained from the authoritative competencies data repository provides a clear understanding of how the workforce directly supports a unit's capabilities for mission accomplishment. | | X |
| 6.12 | | Conduct Continuous Demand Analysis for Manpower Requirements. | | |
| | | The capability must be provided to forecast requirements in both program and budget-level detail. This includes the capability to support a process for all manpower demand signals that brokers all resource types and facilitates collaborative planning and requirements determination (current and future requirements over the Future Years Defense Plan (FYDP). This must also support requirements prioritization and a corporate process allowing for tradeoffs between resource stakeholders. | | X |
| 6.13 | | Link Personnel Readiness to Fleet Readiness. | | |

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| | | <p>A capability is needed to roll-up individual “position readiness values” to the unit, activity, fleet or enterprise level and provides real-time visibility at the appropriate level. This roll-up should feed into and be compatible with applicable defense readiness reporting systems (e.g., Training and Operational Readiness Information Services / Training Figure of Merit (TORIS/TFOM) and Defense Readiness Reporting System-Navy (DRRS-N). Individual and position competencies could allow performance metrics to record the individual’s contribution towards readiness.</p> | | X |
| 6.14 | | Link Position Performance Measures to Personnel Readiness. | | |
| | | <p>The ability to link position performance provides a direct connection between individual performance and readiness. Elements of this capability include the ability to: (1) identify whether a position is filled (“fill”), (2) determine the extent to which incumbent competences match position requirements, and (3) a composite measure of how the incumbent is performing against defined position criteria (2 and 3 collectively defining “FIT”). A capability to link an individual’s training, qualifications, credentials, and performance evaluations to a “position readiness value” must be provided.</p> | | X |
| 6.15 | | Link MPT&E Requirements with War Fighting Enterprise. | | |

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| | | This will provide the ability to report personnel and unit readiness in support of Navy missions. Clear relationships will be established between outputs of the war fighting enterprises (and enabling domains) and the capabilities and readiness of the Navy in a common enterprise tool: DRRS□N. To assist Navy enterprises in efficiently producing capabilities for the combatant commanders, policy changes will be required to enable a single capabilities determination process for the Navy using NMETLs rather than Mission, Functions and Tasks (MFTs) for shore commands and Required Operational Capability/Projected Operational Environment (ROC/POE) for war fighting activities. | | X |
| 6.16 | | Validate MPT&E Manpower Requirements. | | |
| | | A manpower analysis validation capability for the Navy Total Force is needed. This implies the ability to support standardized manpower assessment processes and policies and to provide visibility into how requirements are validated | | X |
| 6.17 | | Effective Navy Total Force. | | |
| | | Navy’s workforce components – active, reserve, civil servants and contractor – are viewed as one integrated team that supports desired war fighting capability. This vision will be supported by providing the means to optimize work assignment across the Navy Total Force and aid individual career growth | | X |
| 6.18 | | Assign Work Across Active, Reserve and Civilian Components. | | |
| | | This capability results from defining positions in terms of required competencies and being able to associate competencies with individuals in the same way for all components. Individuals in any components will have the option to apply for and fill positions in any component (subject to the restraints of law). This can be aided by reflecting proficiency measures, performance standards, credentials/qualifications and leadership qualities the same way across all components. | | X |
| 6.19 | | Articulate Performance Standards for Each Position. | | |
| | | Processes for establishing and validating position□specific standards against measurable objectives must be incorporated. Once established, all standards for all positions must be made readily visible to all individuals. This must also support quick updates to changes in standards | | X |
| 6.20 | | Enable Career Development and Career Management. | | |
| | | Sea Warrior will provide tools and processes for individuals to explore opportunities for career growth by (1) providing the capability for individuals to evaluate multiple career paths and determine the implications of each, and (2) facilitate formulation of a plan to mitigate any gaps between the individual’s current competencies | | X |
| 6.21 | | Manage Emergent MPT&E Requirements. | | |

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| | | Emergent requirements refer to new requirements occurring within execution or budget years of the FYDP. Emergent requirements could be temporary or permanent. Managing emergent requirements is challenging because they occur outside the normal assessment cycle, typically are high priority, and must be filled quickly. Sea Warrior must therefore provide the capability to validate and prioritize quickly, balance risk against budget constraints, and determine which emergent requirements must be funded. Once a funding decision is made, Sea Warrior should facilitate determining the best source for emergent requirements (active component, reserve component, civil servants, and contractor). | | X |
| 6.22 | | Provide ‘Need to Know’ Access to Personnel Records. | | |
| | | Ready access on a “need to know” basis to authoritative personnel, and pay records must be provided, while preserving the personal privacy of that material. Selected individual records (Navy and non-Navy work experience, placement and entrance examination scores, licenses, credentials, certificates, qualifications, training and education history, others) must be available to supervisors and HR staff. Additionally, the ability to exchange individual record elements with other business processes, including but not limited to, DoD readiness reporting, performance interventions, metrics generation, and recruiting must be provided. In addition to providing access, processes that recognize the need for secure, reliable and rapid means for users and commands to change erroneous or incomplete personal data must be provided. | | X |
| 6.23 | | Transition among Workforce Components. | | |
| | | A “continuum of service” whereby individuals can make transitions between different workforce components must be supported. This capability must be provided in a way that supports both the Navy’s needs and provides some accommodation of personal desires. This capability will depend on the development of policies supporting transition options at different points in an individual’s career path. | | X |