Information Retrieval Software
Common ISEA Tools
Statement of Objectives (SOO)

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1.0   Introduction

The purpose of this document is to describe the Statement of Objectives covering the acquisition of Information Retrieval software that shall extend the NUWC Keyport Web Integrated Data Environment (WIDE) portal capabilities.

FY05 Capital Purchase Program (CPP)
As part of the FY05 Capital Purchase Program (CPP), the Naval Undersea Warfare Center Division Keyport (NUWCKPT) is procuring new software and integration services to expand Fleet customer access to vastly improved services as: common software capabilities, information access, and user navigation aids that shall be aligned with NAVSEA's Next Generation In-Service Engineering (NGISE) and Virtual In-Service Engineering (VISE) initiatives. The budget range for this product is $200,000 to $300,000.

Common ISEA Tools
The Common ISEA Tools project is fundamentally aligned with strategic concepts along with the Next Generation In-Service Engineering (NGISE) Working Group to develop the information architecture for a Next Generation ISE life cycle support. Project tasks provide common ISE technical information access, tools, and services to address Fleet technical/performance issues. By design, the project is not specific to any one customer, or user group, but shall provide a suite of best value capabilities to support various present and future customers who include:

- Fleet users, both ashore and afloat.
- Program office ISEA support at NAVSEA and NAVAIR.
- Next Generation In Service Engineering (NGISE) Working Group under the sponsorship of the Warfare Centers (WCs) and the executive leadership of the Surface Warfare Logistics and Maintenance (SWL&M) and Undersea Warfare Fleet Material Readiness Product Area Directors (PADs). The working group provides a culture of innovation and collaboration across the Warfare Centers to continuously reduce costs and improve the Warfighter's operational capabilities.
- Multiple Warfare Center users performing both ISE and Integrated Logistics System roles, both government and contracted.

Virtual In-Service Engineering (VISE)
In FY06 NUWCKPT, Naval Surface Warfare Center Pt. Hueneme (NSWCPHD), and Naval Surface Warfare Center Crane (NUWCC) shall be collaborating in a Joint Warfare Center Project named the Virtual In-Service Engineering (VISE). VISE shall be focused on providing Fleet and ISE Users self-serve access to technical data and applications available at all three Warfare Centers. It is planned to deploy VISE to all other NAVSEA Warfare Centers in FY07 and follow-on years.

Problem
The current Web Integrated Data Environment (WIDE) and the future implementation of VISE both depend on the Plumtree Corporate Portal COTS software. Both applications are expected to be used from any location 24 hours a day, seven days a week, to access information and knowledge maintained in a shared technical data environment consisting of a technical managed data repository and common software tools for analysis, decision-making, and future event projection in support of ISE customers. However, the following issues are impacting information architecture of both applications and cannot be easily overcome with the present software as it is envisioned.

- **Information Volume:** There are Terabytes of structured and unstructured technical data on diverse data sources at NUWCKPT and other Warfare centers and it is estimated that nearly 80% of this technical data is hidden and unavailable to most ISE information

consumers (users); limiting these users ability to do their jobs. Additionally, future unstructured information sources including email, Help Desk "Sailor-to-Engineer" sessions, and collaborative video and audio conferencing remain untapped. The overall volume of ISE information is expected to dramatically increase especially after VISE becomes fully deployed at multiple Warfare Centers.

- **Information Readiness:** Often, information retrieval is inadequate, resulting in a greater burden on experts supporting help desk call centers which increases call volume (average handling time). Providing precise and accurate answers that are relevant to a user's question in a very timely manner requires actively managing information. If and when it occurs, personnel typically identify technical documents and diagrams through some type of meta-tagging scheme, and then organized into some taxonomic file structure where it is then managed using manual methods assisted in some cases by software tools. These efforts are extremely time consuming, inconsistent between the personnel managing the information, and costly. An example provided from industry represents typical costs associated with maintaining information readiness; it was estimated that an experienced technical librarian manually processes approximately 50 documents per week that involves categorization for retrieval using enterprise search software. Assuming that NUWCKPT has potentially 100,000 technical data items to be categorized; it would take approximately 2000 man-weeks to complete the categorization.

- **Existing Software:** As with most portal software Plumtree Corporate Portal supplies search functionality that provides basic file retrieval capabilities. Precision, timeliness and relevance demanded by users requires that each individual file be manually updated, or a personal human response (see above). One possible approach is to buy additional software with similar search capabilities for smaller information collections in an effort to reduce the number of extraneous search results. Additional software tools add total ownership costs and compounds the complexity of the portal systems information architecture.

- **User Productivity & Satisfaction:** Technical information that is freely available through the present resources typically requires time-consuming "sorts" through numerous search results to find an answer that is both accurate, and relevant to the query. As a result, many users resort to calling the Help Desk without attempting to solve a problem locally with the technical information and retrieval tools provided, resulting in unnecessarily increasing Help Desk call volume. Inability to find what a user is looking for in a timely manner is a major problem to resolve.

- **Deployment Time:** Past software implementations have taken a great deal of time before users can actually benefit. The CPP project requires implementation be completed by 9/30/05.

Goals

Procurement of Information Retrieval Software that will provide the information retrieval functionality with intelligent classification and categorization capabilities with the necessary implementation services to complement NUWCKPT deployed Plumtree Corporate Portal Software can resolve the stated problem(s) by:

- Reducing total ownership costs / risk by reducing future staffing requirements:
    - *Automating back-en*d infrastructure using probabilistic methodologies to categorize and classify structured and unstructured technical data from a wide variety of sources located at NUWCKPT and at NSWCPHD.
    - Eliminating manual methods required by personnel for content indexing, categorizing, tagging, linking; reduce requirement for costly information taxonomy in order to implement highly effective searches.

- Simplifying the overall information architecture and technology environment by reducing implementation time and potential multiple legacy services and software over time.

- Scaling software to support VISE implementation in accordance with published Distance Support (DS) 2.0 and Fleet standards.

- Improving productivity for ISE customers and support staff by providing relevant information to ISE users in a more timely fashion through the breadth of functionality available via information retrieval software providing the automatic hyper linking of conceptually related information as well as automatic push of personalized information. Search results shall be returned to the user within a web based interface that shall provide users with hyperlinks to resultant Technical Data items. Users shall retrieve automatically categorized and classified technical data through a web based Plumtree interface that supports three different types of searches:
  – Keyword and simple phrase search
  – Parametric – Data browsing by metadata
  – Conceptual and natural language queries

The following goals further state what the project team wishes to accomplish resulting from this acquisition.

- Procure a scalable system based on COTS Software that meet the current and anticipated future needs of structured and unstructured technical data in diverse formats from multiple data sources located in multiple geographic locations.
- Delivery of the Information Retrieval software must meet the project schedule of completion by 9/30/05 to meet CPP Funding requirements.
- The Information Retrieval software shall meet the desired capabilities defined in Table 1.

2.0   Description of Services

2.1   Information Retrieval Software and Hardware

The contractor shall deliver to NUWCKPT Contract Office Representative (COR) Information Retrieval Software that will meet the capabilities listed in Table 1.

Table 1 - Desired Capabilities

Desired Capabilities
Utilizes Probabilistic methodologies for concept based categorization and classification
Automatically categorizes and classifies structured and unstructured data from diverse data sources.
Categorization and classification of diverse multimedia data such as video and audio.
Categorization and classification of images
Utilizes Probabilistic methodologies for the Retrieval of information
Supports Keyword and simple phrase searches
Supports pattern matching contextual, conceptual and natural language queries
Provides guided navigation through parametric selections
Supports Data browsing of metadata
Supports ability to prompt users for more meaningful information to support queries
Query Spelling correction

Desired Capabilities
Dynamic Clustering of results sets
Summarization of Result sets
Result Set Hyperlinking
Programmable API
Web Based User and Administration Interface provided
Support for Portal Software
Support for Portlets

As part of this service the contractor shall deliver to NUWCKPT (COR) the deliverables listed in Table 2.

Table 2 – Service Deliverables

Deliverable Identifier	Item
1	Correctly sized servers to meet hardware requirements for the supplied Information Retrieval Software, the configuration requirements for NUWCKPT instance of the installation of the software, and the NUWCKPT Hardware / Software Requirements/Standards are listed in Appendix 2.
2	Information Retrieval Software with at least 1000 User and at least 100,000 document licenses.
3	At a minimum the following features shall be supported by the Information Retrieval Software. 1. Ability to prompt user to specify a more meaningful query based on context 2. Support for the use of synonyms in query based retrieval. 3. Automatically offering corrected spelling of words in queries 4. Searches using Legacy keywords, simple phrases, and Boolean relationships 5. Pattern Matching, conceptual, contextual and natural language queries 6. Searches that allow users to navigate using parametric selections 7. Browsing of data by fields and field values 8. Summarization of documents by the first few lines of the document. 9. Summarization of documents by concepts or context 10. Refining of queries by using one or many elements of previous results set as examples. If multiple elements are selected will create a composite conceptual query 11. Query Results sets are grouped (clustered) into related contexts 12. Dynamic hyperlinks that link related documents 13. The automatic tagging, routing or filtering of documents to categorize content based on concepts. 14. Application Programming Interface (API)
4	At a minimum the Information Retrieval software shall be able to access and retrieve data from the following types of Data Sources: 1. Internal and External Web Sites 2. File System supporting Microsoft Office Formats, Adobe PDF, Text files 3. Exchange Servers 4. ODBC compliant Data Sources

All items defined as Deliverable Identifiers 2 through 4 in Table 2 shall be installed and configured by the contractor on the hardware defined as Deliverable Identifier 1 in Table 2. The work to perform this service shall be done at the contractor's location. All deliverables shall meet the

performance criteria defined in Section 3.0 of this SOO and shall be inspected based on the criteria listed in Appendix 1. Contractor shall provide copies of all User, Administrator, and Developer technical information and manuals for the COTS Software that shall be used for the Information Retrieval Software.

2.2   Installation and Implementation of Information Retrieval Software and Hardware

The contractor shall be required to install the deliverables defined in Section 2.2 on the NUWCKPT Network IAW established NUWCKPT Information Assurance (IA) Policies and IAW with performance criteria listed in Section 3.0 of this SOO. References to the NUWCKPT IA Polices are provided in Appendix 4 of this SOO. The contractor shall physically install the deliverables defined in Section 2.1 at NUWCKPT Bldg 1050 Server Room within government provided Server Racks. See Appendix 2 for a description of the government provided Server Racks. The contractor shall setup the Information Retrieval Software to authenticate Users against the Web Integrated Data Environment User database. The contractor shall also implement connections to data sources located at NUWCKPT and NUWCPHD using the Information Retrieval Software components listed as Deliverable Identifier 4 in Table 2 IAW with the performance criteria defined in Section 3.0 of this SOO. See Appendix 5 for a description of the NUWCKPT and NSWCPHD Data Sources. The services defined in this section (2.2) shall be inspected based on the criteria listed in Appendix 1.

2.3   Plumtree Corporate Portal Integration

The contractor shall integrate at the minimum the features defined in Table 2 as Deliverable Identifier 3 sub-items 1 through 7 with the Web Integrated Data Environment (WIDE) an existing government Portal application based on Plumtree Corporate Portal 4.5 WS Software.   The contractor shall provide Plumtree compliant Portlets with source code that shall encapsulate the required functionality. All contractor provided Portlets shall work within the existing WIDE environment and also with the Plumtree Corporate Portal 5.04 which is the target platform for the Virtual In-Service Engineering (VISE). See Appendix 3 for a description of the current NUWCKPT Plumtree Corporate Portal Installation and the targeted Plumtree configuration for VISE.   The Portlets delivered by the contractor shall meet the performance criteria defined in Section 3.0 of this SOO and shall be inspected based on criteria listed in Appendix 1.

2.4   SOO required deliverable milestones

This section lists the deliverables the contractor shall deliver in accomplishing this SOO.
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Table 3 - SOO Milestones

Section	Deliverable	Format	Due Date	Method
2.1	Information Retrieval Software and Hardware	Contractor provided	Within 30 days after contract award	Delivered to NUWC KPT
2.2	Installation and Implementation of Information Retrieval Software and Hardware	Contractor provided	Within 60 days after contract award	NUWCKPT Representative notified upon completion
2.3	Plumtree Corporate Portal Integration	Contractor Provided	Within 90 days after contract award	NUWCKPT Representative notified upon completion

2.5   Inspection, Acceptance & Receipt:

Appendix 1 specifies the criteria for inspection, acceptance and receipt of contract deliverables. Upon delivery of services, the Government shall review and submit comments to the contractor IAW the inspection criteria (Appendix 1). Deliverables meeting inspection criteria shall be accepted by the government for invoice.

3.0   PERFORMANCE REQUIREMENTS

The following performance criteria table summary is considered the mission critical items for performance under this contract.

Table 4 - Performance Criteria

ID	Requirement Objective/Description	Section(s)
P	Performance	
P1	Configuration and implementation of all contractor supplied hardware and software meet the NUWCKPT network IA requirements as described in the appropriate references listed in Appendix 4 of this SOO.	2.1
P2	Configuration of all contractor supplied hardware will meet both the Information Retrieval Software and configuration requirements for NUWCKPT instance of the software. NUWCKPT Hardware requirements/standards are listed in Appendix 2.	2.1
P3	The contractor supplied software shall support at a minimum 1000 users and 100,000 documents.	2.1
P8	Contractor provided Information Retrieval Software provides automatic concept based categorization and classification of structured and unstructured data using probabilistic methodologies	2.1
P9	Contractor provided Information Retrieval Software provides keyword, simple phrase, pattern matching contextual conceptual and natural language queries and searches.	2.1
P10	Contractor provided Information Retrieval Software provides automatic concept based categorization and classification of diverse multimedia data such as video and audio	2.1
P11	Contractor provided Information Retrieval Software supplies guided navigation through parametric selections and data browsing of metadata	2.1
P12	Contractor provided Information Retrieval Software provides prompting users for meaningful information to support queries with spelling correction support	2.1
P13	Contractor provided Information Retrieval Software provides dynamic clustering, summarization, and hyperlinking of query result sets	2.1
P14	Contractor provided Information Retrieval Software provides a Web Based user and administration Interface	2.1
P8	Contractor provided Information Retrieval Software provides automatic concept based categorization and classification of structured and unstructured data using probabilistic methodologies	2.1
P4	All hardware supplied by contractor shall meet Server Rack space requirements defined in Appendix 2.	2.2
P5	The amount of time for search results to be returned to a user shall have a minimum acceptable value of 3 seconds and maximum acceptable value of 5 seconds.	2.2, 2.3
P6	Contractor provided Plumtree Portlets meet Plumtree Portlet Standards.	2.3
P7	Contractor provided Plumtree Portlets work both in Plumtree Corporate Portal versions 4.5WS and 5.04.	2.3

U	Usability	
U1	Users can successfully locate the technical information that they seek.	2.2, 2.3
U2	User reading level of software application text and graphics is measurable to 9th grade.	2.2, 2.3
U5	Less than three total mouse clicks are required to complete an action.	2.2, 2.3
I	Interfaces & Interoperability	
I1	Operates within the functional boundaries and capabilities of the Plumtree Corporate Portal framework	2.4
D	Documentation	
D1	Contractor provided Information Retrieval Software Administration, User and Developer Technical information and manuals.	2.1

4.0 GOVERNMENT FURNISHED PROPERTY AND SERVICES

The Government shall provide the contractor access to Government documentation and information for work item performance (Section 2.0). When Government furnished information (GFI) is determined to be advantageous to the Government to transfer for Contractor use, the GFI shall be transferred to the contractor and returned to the government via a DD Form 1149. A government signed signature is required on the DD1149 upon return, and a copy shall be provided to the Government Property Administrator (GPA).

5.0 GENERAL INFORMATION

5.1 Hours of Operation

Normal hours of operation are from 0800-1630 Local Prevailing Time, Monday through Friday, except Federal holidays. Alternate work schedules must be approved by the Contracting Officer Representative.

5.2 Communication

5.2.1   Peer to Peer

Technical 'peer to peer' communications between Government COR and Contractor project personnel is authorized for the accomplishment of tasks per this SOO. All Technical Instruction Letters shall be requested in writing (email is acceptable) to the COR in accordance with Seaport directives.

5.2.2   Contractual

Any communications of a contractual nature to include any proposals for modification of the scope and amount of work shall be addressed only to the Contracting Officer in writing. Only the Contracting Officer is authorized to speak for the Government for any scope changes. Any deviations from the Contract performed by the Contractor shall be at its own risk and expense.

5.3 Overtime

No overtime is contemplated, or authorized, at this time. Any overtime requests must be requested of and approved in writing, in advance, by the Contracting Officer on a case by case basis.

5.4 Travel Requirements

A combination of collaboration technologies including Video Teleconferencing (VTC) and email shall be used to the greatest extent possible maybe be required. Travel requirements shall be designated in support of a particular task and shall be tied to the Joint Travel Regulation, VOL II. Specific travel dates and locations shall be identified by a COR-approved Technical Instruction Letters (TDL). Up to three (3) trips for one (1) contract personnel are anticipated for program review(s), technical product evaluation(s) and/or technical meeting with subject matter experts (SMEs). Assume a ten (10) day notification of travel date and location. Notification will be provided by the Technical Instruction Letters.

5.5 Security Requirements

Security Classification of Equipment, Components, Spaces and Documents:

The Equipment, Space or Document is subject to the applicable provisions of DOD 5220.22M, Industrial Security Manual; SECNAVINST 5530.36, Information Security Program Regulation (17 Mar 99); SECNAVINST 5530.30A, Personnel Security Program; Information and Personnel Security Program Manual NUWCDIVKPT 5510 Rev B; the NUWC Information Systems Security Program Manual NUWCDIVKPT 5239.2; and the NUWC Physical Security and Force Protection Instruction NUWCDIVKPT 5530.

- **Spaces: SECRET (Government).** Contractor shall provide Secret Clearances for the personnel assigned to perform these services at time of Contract Award.
- **Equipment: UNCLASSIFIED**
- **Documents: UNCLASSIFIED**

6.0 Future Requirements to be exercised at the discretion of the Government

The procurement described in this SOO is an acquisition focused on delivery of the Information Retrieval Software to NUWCKPT in FY05. This FY05 procurement is directly linked to follow-on procurements as part of Joint Warfare Center spiral development that will occur in FY06 and FY07 as part of the Virtual In-Service Engineering (VISE) project. The following sections detail the type of procurements that are anticipated to occur during the FY06 and FY07 time period.

6.1 Projected FY06 Procurements

The contractor shall provide the following Information Retrieval Software as part of the Virtual In-Service Engineering (VISE) project.

Table 5 - Projected FY06 Procurements

Procurement	Location
2000 User Licenses	NUWCKPT
100,000 Document Licenses	NUWCKPT
Information Retrieval Software and Hardware with services	NSWCPHD and NSWC Crane
6000 User Licenses	NSWCPHD and NSWC Crane
400,000 Document Licenses	NSWCPHD and NSWC Crane

6.2   Projected FY07 and follow-on years Procurements

The contractor shall provide the Information Retrieval Software and related licenses to the following lists NAVSEA Warfare Centers..

Table 6 - Projected VISE Rollouts

Warfare Centers
NSWC Carderock
NSWC Corona
NSWC Indian Head
NSWC Dahlgren
NUWC Newport

7.0 QUALITY

The Contractor is solely responsible for the quality of services provided.
The Contractor is also liable for Contractor employee negligence, and
any fraud, waste or abuse. As part of Program Management, the Contractor
shall utilize a Quality Control Program to ensure that services are completed
in accordance with acceptable principles of internal control, and meet specified, acceptable levels
of quality. The operation of the Quality Control Program must be documented, maintained and
made available to the Task Order Manager (TOM) upon request. At a minimum, the Contractor's
Quality Control Program shall include an internal quality control and inspection system for
required services. The job titles and organizational positions of the individuals who will conduct
the inspections must be specified. There shall be a method to identify deficiencies in services
that may occur. Procedures shall be developed and implemented to correct any deficiency in
services that may occur. There shall be a file of information regarding inspections and other
quality and internal control actions that documents the purpose of the inspection, the results of
the inspection and any corrective action taken as the result of the inspection. Upon request, this
file shall be made available to the Government during the period of performance.

8.0 508 COMPLIANCE

The contractor shall provide products and services that are 508 Compliant.

9.0 COST CONTROLS

The contractor shall provide a monthly status report. The report shall include accomplishments
and expenditures for the previous month.

Appendix 1: Inspection, Acceptance and Receipt Criteria

This appendix specifies the criteria for inspection, acceptance and receipt of contract deliverables. All services provided ur
inspected by the cognizant Contracting Officer's Representative (COR) and accepted if the services meet the requirements
Statement of Work per the acceptance and inspection criteria listed below. Unless contractor revisions are required, accep
accomplished by signature of the COR on the Invoice or DD Form 250, Material Inspection and Receiving Report.

Acceptance Criteria

Timeliness: The service in its specified entirety shall be delivered and made readily accessible to the Government IAW w
performance and milestones specified in the SOO. Late delivery is considered unacceptable and shall be negotiated with t
resolution and Acceptance.

Completeness: All contractor produced items specified with the corresponding service description are included for accep
requirements. Missing service items or missing topical requirements categories for a given document supporting a service v
acceptable until resolved by the contractor at no cost to the government after final delivery.

Inspection Criteria

The contractor shall perform, document and deliver revisions as listed in the table below. The Government will review the
Deliverables meeting inspection and acceptance criteria will be accepted by the government for invoice.

Section	Deliverable	Inspection	Inspection Criteria
2.1	Information Retrieval Software and Hardware	No more than 15 business days after delivery	• All required hardware and software delive defined in Section 2.1 • All required hardware shall meet Informat Retrieval Software sizing requirements an hardware Requirements / Standards defin Appendix 2. • Meets the pertinent performance requiren detailed in Section 3.0 of this SOO • Delivery of all Administrator, User, and De Technical Information and manuals. • Represents all work for this contracted pe performance.

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Section	Deliverable	Inspection	Inspection Criteria
2.2	Installation and Implementation of Information Retrieval Software and Hardware	No more than 21 business days after delivery	• All hardware and software delivered as Se installed on NUWCKPT network in governi provided Server Racks detailed in Append • Meets NUWCKPT IA requirements • All required NUWCKPT and NSWCPHD dat are implemented • Meets the pertinent performance requiren detailed in Section 3.0 of this SOO • Will meet Government Provided Test Plan Procedures • Represents all work for this contracted pe performance.
2.3	Plumtree Corporate Portal Integration	No more than 21 business days after delivery	• Integration meets Plumtree Portlet standa be used in both Plumtree Corporate Porta Plumtree Corporate Portal 5.04. • Integration provides search capabilities fo Retrieval – Lite, Retrieval – Conceptual, a Retrieval – Parametric • Meet acceptance testing performed by Go representatives. • Electronic Copies of all source code devel integration shall be delivered. • Meets the pertinent performance require detailed in Section 3.0 of this SOO. • Will meet Government Provided Test Plan Procedures • Represents all work for this contracted pe performance.

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Appendix 2: NUWCKPT Hardware and Operating Requirements/Standards

The following lists some the standards for the Operating System and Software used at NUWCKPT

Operating System	Comments
Microsoft Windows 2000 Server SP4	Used with existing systems
Microsoft Windows 2003 Server	Used with new systems
Microsoft SQL Server 2000 SP4	
Microsoft Office 2000/2003	
Adobe Acrobat 6.0	PDF support

The following lists the NUWCKPT hardware requirements that shall be met by the contractor provided equipment defined a Deliverable Identifier 1 in Table 2.

Table 7 - Government provided Equipment specifications

Item	Specification
Server Rack Space	1. Fixed shelf 2. Dimensions - 45''in width, 22" in height, and 36" in depth 3. 120V 60 HZ available
Raritan Z-series KVM Switch	Z4200U
Uninterruptible Power Supply (UPS)	**APC Smart UPS Model 2200** 1. Output Power Capacity – 2200 VA 2. Output Power Capacity – 1600 Watts 3. Max Configurable Power – 2200 VA 4. Max Configurable Power – 1600 watts 5. Nominal Output Voltage – 120 V 60HZ nominal 6. Output Connections – 6 NEMA 5-15R

Table 8 - Contractor provided Equipment Specifications

Item	Specification
Raritan Z-Series Equipment	Contractor needs to provide for each server delivered: 1. Product Type: 15-pin D-sub (HD-15) male To 2 x 6-pin mini-DIN (PS/2 style) female, 2 x RJ-45 female 2. Total connectors: 5 3. Interfaces: 1 x 15-pin D-sub (HD-15) male 2 x RJ-45 female 2 x 6-pin mini-DIN (PS/2 style) female 4. Raritan Product ID - UKVMSPD
Servers	Contractor shall need to provide a Workstation form-fit configuration
Network Adapter	100baseTX

Appendix 3: Architecture Description

The Web Integrated Data Environment (WIDE) is an existing government Portal application based on Plumtree Corporate Portal 4.5 WS Software. The architectural description for WIDE is provided in Figure 1 and Table 9.
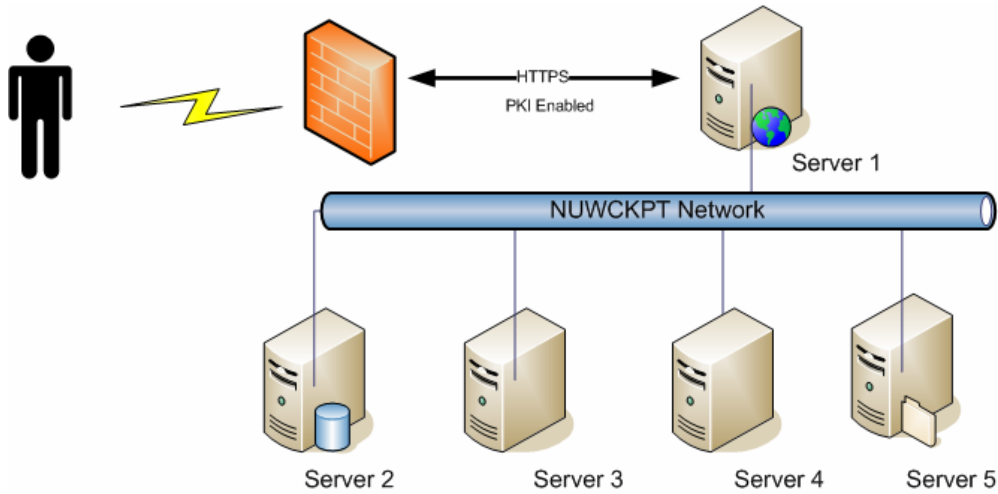
Figure 1 - WIDE Architecture

Table 9 - WIDE Server Description

Server	Description
1	Plumtree Application \ Web Server – Plumtree Corporate Portal 4.5 WS SP1 • Intel XEON™ CPU 1.8 GHZ • 4 GB Memory • Windows 2000 Server 5.00.2195 SP4
2	Plumtree Database Server – Plumtree Corporate Portal 4.5WS SP1 • Intel x86 Family 2 U server • 2 GM Memory • Windows 2000 Server 5.00.2195 SP4 • SQL Server 2000 SP3
3	Plumtree ASP Portlet Server – Plumtree Corporate Portal 4.5 WS SP1 • Intel x86 Family 2 U server • 2 GM Memory • Windows 2000 Server 5.00.2195 SP4 • Plumtree ASP GDK
4	Plumtree ASP.NET Portlet Server – Plumtree Corporate Portal 4.5 WS SP1 • Intel Pentium III CPU 1400 MHZ • 1 GB Memory • Windows 2000 Server 5.00.2195 SP4 • Plumtree Enterprise Web Development Kit (EDK) • Plumtree .NET Web Controls
5	File Server • Intel x86 Family • 1 GB Memory • Windows 2000 Server 5.00.2195 SP4

Server	Description
	• 808 GB RAID 5 Drive

The Virtual In-Service Engineering (VISE) is a future development that will in FY06. VISE will be based on Plumtree Corporate Portal 5.04. The architectural description for VISE in provided in Figure 2 and Table 10.
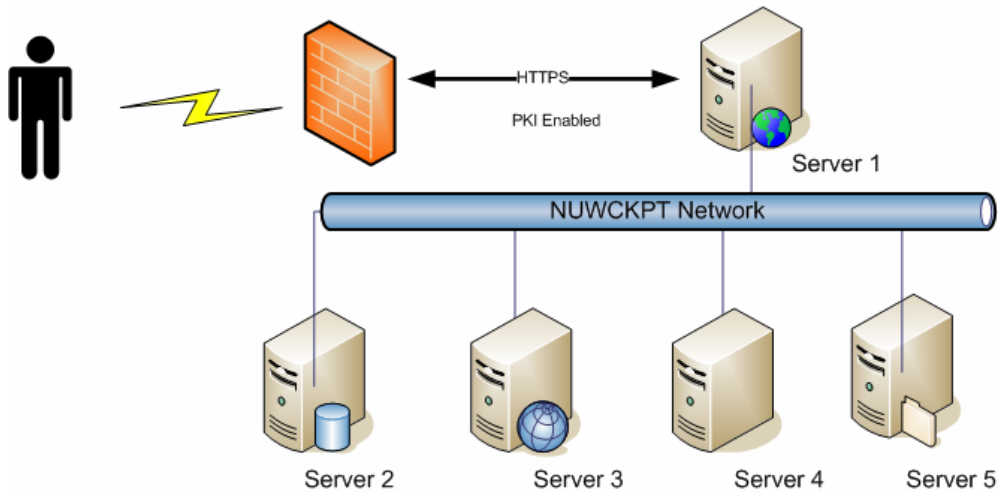
Figure 2 - VISE Architecture

Table 10 - VISE Server Description

Server	Description
1	Plumtree Application \ Web Server – Plumtree Corporate Portal 5.04 • Intel CPU 1.8 GHZ • 4 GB Memory • Windows 2003 Server
2	Plumtree Database Server – Plumtree Corporate Portal 5.04 • Intel CPU • 2 GM Memory • Windows 2003 Server 5.00.2195 SP4 • SQL Server 2000/2005
3	Plumtree Content/Workflow/Collaboration/Document Server – Plumtree Corporate Portal 5.04 • Intel CPU • 4 GM Memory • Tomcat Web Server 4.1 • Windows 2000 Server 5.00.2195 SP4 • Plumtree Content Workflow Server 6.0 • Plumtree Collaboration Server 4.0
4	Plumtree ASP.NET Portlet Server – Plumtree Corporate Portal 5.04 • Intel Pentium III CPU 1400 MHZ • 1 GB Memory • Windows 2000 Server 5.00.2195 SP4 • Plumtree Enterprise Web Development Kit (EDK) • Plumtree .NET Web Controls

Server	Description
5	File Server/ Plumtree Collaboration Server Archive • Intel x86 Family • 1 GB Memory • Windows 2000 Server 5.00.2195 SP4 • 808 GB RAID 5 Drive

Appendix 4: Government References

The following is a list of pertinent government references that will impact the services detailed in the SOO. Copies of these references shall be made available to contractors upon their request.

a.   PROMULGATION OF NAVY-MARINE CORPS UNCLASSIFIED TRUSTED NETWORK PROTECTION (UTNProtect) POLICY R 26172Z NOV 02
b.   NAVY-MARINE CORPS UNCLASSIFIED TRUSTED NETWORK PROTECTION (UTNProtect) POLICY , Ver 1.0
DATED 31 Oct 02 (FOUO)
c.   Status of UTNProtect Temporary Exception Requests Undergoing Risk Assessment by PMW 161 as of 23 Dec 03
d.   Section 4.2 of NAVY-MARINE CORPS UNCLASSIFIED TRUSTED NETWORK PROTECTION (UTNProtect) POLICY : BASELINE SETTINGS As Of 31 Dec 04 (Updates 1 Jul 04 Ver)
e.   Section 4.3 of NAVY-MARINE CORPS UNCLASSIFIED TRUSTED NETWORK PROTECTION (UTNProtect) POLICY : AUTHORIZED TEMPORARY EXCEPTIONS TO BASELINE SETTINGS AS 1 March 2005 (Updates 31 December 2004 Version)
f.   Section 4.3 of NAVY-MARINE CORPS UNCLASSIFIED TRUSTED NETWORK PROTECTION (UTNProtect) POLICY : AUTHORIZED TEMPORARY EXCEPTIONS TO BASELINE SETTINGS AS 1 April 2005 (Updates 1 March 2005 Version)
g.   Section 4.3 of NAVY-MARINE CORPS UNCLASSIFIED TRUSTED NETWORK PROTECTION (UTNProtect) POLICY : AUTHORIZED TEMPORARY EXCEPTIONS TO BASELINE SETTINGS AS 1 May 2005 (Updates 1 April 2005 Version)
h.   NUWC Keyport Instruction KPT 5239-10 – Password Management Policy (Revision NR, 28 March 2005)

Appendix 5: NUWCKPT and NSWCPHD Data Sources

This appendix list the Data Sources that will be required to be connected to the Autonomy IDOL Server installation described in Section 2.2 of this SOO.

Table 11 - NUWCKPT and NSWCPHD Data Sources

Data Source	Type	Quantity	Location
C40FS2	Windows File Server	1	NUWCKPT
Plumtree 4	Windows File Server	1	NUWCKPT
EDMICS	Oracle Database Server	1	NUWCKPT
Microsoft Exchange 2000	EMAIL	5	NUWCKPT
LIDOL	Internal Web Site	1	NUWCKPT
Sailor to Engineer	Web Site	1	NUWCPHD