

**N/MCI Contract N00024-00-D-6000
Awarded 6 October 2000**



**Attachment 13
TFW Operational and Test Portal Upgrade Capability**

Executive Summary

Successful development and deployment of the Task Force Web (TFW) portal upgrade, with support from the Contractor and SPAWAR, shall provide at least 2,000 Navy personnel ashore and 3,000 afloat access to more than 50 Navy- identified applications via the Navy web portal 90 days from contract award. This effort must conform to all security requirements as set forth in the NMCI contract. The Contractor team shall provide integration capability for some applications in accordance with the TFW architecture. The Contractor shall also provide guidance, training, and assistance to application developers, enabling them to produce required interfaces for access via the Navy web portal. The successful development and deployment of these web-enabled applications and the portal environment shall result in greater accessibility and higher productivity of Navy personnel, creating a more cohesive and efficient Navy organization.

To accomplish this aggressive objective, the Contractor shall partner with the government (i.e., OPNAV 09W and SPAWAR) to implement TFW. Specifically, the Contractor shall provide the required ashore infrastructure and support to develop and implement a test portal solution at the Contractor Test Facility and an operational portal upgrade solution at the two established NMCI Network Operations Centers (NOCs). Initially and until 30 April 2002, this upgrade effort shall be limited to a minimum of 2000 users, whereupon version 2.0 portal services shall be provided as a basic seat service at no additional charge. This service does not include the application server infrastructure that needs to support more than 2,000 users. This solution shall be for government purposes only. This includes the infrastructure (hardware, software, engineering, operations and maintenance, help desk, and training) and management of the Contractor portions of this effort. The Contractor shall provide the Navy with a cost effective, practical and reasonable solution within the timeline required; a solution that is open, scalable and accessible across the enterprise. This document provides a listing and a description of those deliverables the Contractor shall provide under this effort.

Portal Upgrade

The Contractor shall develop the overarching architecture as well as the ashore based portions of a portal upgrade that provides application and database access via a portal to TFW participants, including at least 2000 NMCI seats/users, and demonstrate the ability to perform application integration. The Contractor shall develop the migration strategy to accommodate users as the NMCI is implemented across the Navy enterprise. The portal upgrade shall be implemented in a manner consistent with the functional and architectural requirements established by OPNAV 09W including a repository to house the application interface modules. The Contractor shall provide a technology refresh strategy and POA&M to incorporate additional requirements not met in the initial portal implementation.

Operational Portal

The Contractor shall provide an unclassified operational portal leveraging existing NMCI infrastructure. The portal hardware and software shall be identical to the system selected for the Contractor test implementation. The shore sites shall be located in the NMCI San Diego Network Operation Center (NOC), the NMCI Norfolk NOC. The Contractor shall work with the government implementers to develop all necessary agreements and responsibilities to ensure a successful implementation that is seamless between the afloat and the shore implementations. Redundancy of the system shall be provided at each site.

The Contractor shall specify the design down to the "edge-connector" and software load level. The Contractor shall show (by analysis, simulation, similarity, etc.) how the design shall scale across the range of capabilities and domains for an enterprise implementation. Further, the Contractor shall show how the proposed system will mature and evolve in accordance with commercial technology trends and Navy operational requirements and shall not lead to an architectural "dead-end" or vendor lock-in due to unique solutions.

The Contractor shall provide engineering expertise to the afloat integrator, SPAWAR, to support the testing of the classified and afloat portal system. This is essential given that interim authority to operate over SIPRNET is not expected to be granted to the Contractor by the Navy until October 2001 and interim authority to connect to SIPRNET certification is not expected from DISA before mid-November 2001.

The Contractor shall administer the ashore based portions of the portal consistent with applicable SLAs and the Operational Plan identified in paragraph 4.2 below. The Contractor shall provide training to government personnel to enable them to develop application interfaces as well as administer and operate and maintain the classified and afloat portal.

Test Portal

The Contractor shall provide a test portal environment for the testing of applications that access and integrate into the portal system. The Contractor shall conduct the testing of applications for the purposes of maintaining the security and stability of the NMCI. In addition to application integration testing, the test lab shall be used for testing hardware and software upgrades prior to release upgrades to the portal system. The test portal environment shall be the baseline system for all operational sites. The test portal environment shall be fully documented.

Deliverables

Deliverables shall be in Microsoft Office 2000 or Visio formats

1.0 Architecture and Engineering

- 1.1 A top-level architecture of the system shall be established. The architecture shall identify items of hardware, software, and manual-operations. It shall be ensured that all the system requirements are allocated among the items. Hardware configuration items, software configuration items, and manual operations shall be subsequently identified from these items. The system architecture and the system requirements allocated to the items shall be documented. 1st Draft due 30 days after contract award. 2nd Draft due 60 days after contract award. Final Architecture Due 90 days after contract award.

2.0 Engineering

- 2.1 Detailed Design Document – The Contractor shall develop and document a detailed design for the interfaces external to the software items, between the software components, and between the software units. The detailed design of the interfaces shall permit coding without the need for further information. 1st Draft due 30 days after contract award. 2nd Draft due 60 days after contract award. Final Due 90 days after contract award.
- 2.2 Installation and Configuration Instructions. 1st Draft due 30 days after contract award. 2nd Draft due 60 days after contract award. Final Due 90 days after contract award. The Contractor shall establish and document software installation and configuration instructions to include:
 - 2.2.1 Interfaces external to the software item
 - 2.2.2 Security specifications
 - 2.2.3 Human-factors engineering (ergonomics) constraints on personnel, and areas needing concentrated human attention, that are sensitive to human errors and training
 - 2.2.4 Data definition and database requirements

2.2.5 Installation and acceptance requirements of the delivered software product at the operation and maintenance site(s).

3.0 Implementation

- 3.1 Test Portal Implementation – The Contractor shall produce the ashore portal upgrade environment in a test lab implementing the Contractor architecture (including hardware, software, and O&M support). Due 60 days after contract award.
- 3.2 Portal Upgrade Implementation – The Contractor shall produce the ashore portal upgrade infrastructure necessary to implement the Contractor architecture (including hardware, software, and O&M support) in two network operating centers. Due 90 days after contract award.

4.0 Management and Data Reporting

4.1 Reviews

- 4.1.1 Project Status Updates- The Contractor shall provide weekly project status updates to OPNAV 09W staff, in coordination with afloat integrator status reviews, to be held via VTC every Wednesday @1300 Pacific time.
- 4.1.2 Status Reports - The Contractor shall provide weekly status reports to OPNAV 09W staff. Status reports shall identify any issues that could affect portal schedule and performance. Status reports, to include tracking of resources to the Work Breakdown Structure in Microsoft Project, are due prior to the weekly VTCs.
- 4.1.3 Implementation Management Plan - This plan shall evolve over the course of the project and the Contractor shall coordinate inputs into the plan with the OPNAV 09W staff and SPAWAR. 1st draft due 7 days after contract award. 2nd draft due 60 days after contract award. Final due 90 days after contract award. Elements of this plan include:
 - 4.1.3.1 Portal System Evolution - The Contractor shall create a technology refresh plan identifying the key requirements that must be met for the portal upgrade implementations to evolve to support an enterprise rollout following the initial implementation. This plan shall evolve over the course of the portal upgrade effort. This plan shall support the refinement of Government requirements such as the convergence of IT-21/Afloat and NMCI architectures for the successful enterprise implementation of the TFW architecture and make recommendations for the scope and schedule for the portal system evolution, and a supporting cost estimate. This plan is due 3 months after contract award.
 - 4.1.3.2 Risk Mitigation - The Contractor shall provide a Risk Mitigation study for finding ways to mitigate the cost, technical, and management risks associated with the development of the complete architecture.
 - 4.1.3.3 Market Analysis - The Contractor shall provide the Government with analysis identifying economic costs and benefits associated with the proposed implementation. The Contractor shall identify key cost drivers and their anticipated impact on the portal upgrade effort as well as on the ultimate operational portal system.

- 4.2 Operations Plan - The Contractor shall deliver an Operational Plan three months after start of implementation. The Contractor shall coordinate inputs into the plan with the OPNAV 09W staff

and SPAWAR. 1st draft due 30 days after contract award. 2nd Draft due 60 days after contract award. Final due 90 days after contract award. Elements of this plan include:

- 4.2.1 Disaster Recovery - The Contractor shall provide a disaster recovery plan for the portal upgrade implementation that supports redundancy, fail-over and system recovery.
- 4.2.2 Operational Metrics - The Contractor shall support the OPNAV 09W staff in the establishment of operational metrics for the portal upgrade. During initial operations, the metrics shall be collected and used to determine initial changes that may be required. These changes can then be tested in the lab environment. One of the proposed metrics to be collected shall be the number of times an application is accessed and by which organizations. The Contractor shall collect and consolidate operational metrics for NMCI systems and report them at the weekly update meetings (4.1.1).
- 4.2.3 Help Desk – The Contractor help desk shall coordinate with the IT-21 help desk to optimize support for the portal. This help desk shall be available 24 hours a day and 7 days a week. The Contractor shall support the lead integrator in the establishment of help desk support metrics. The Contractor shall collect and consolidate these metrics from NMCI help desks and report at the weekly update meetings (4.1.1).
- 4.2.4 User Activity Metrics - The Contractor shall support the lead integrator in the establishment of user activity metrics. These metrics shall track user access, portal activity and computer-based training use. The Contractor shall collect and consolidate these metrics for NMCI systems and report them at the weekly update meetings (4.1.1).
- 4.2.5 Security Incident Reporting – Data shall include any configuration changes, computer incidents, network incidents, INFOCON status, and intrusion detection reaction alert status. The Contractor shall collect and consolidate this data for NMCI systems and report it at the weekly update meetings (4.1.1).
- 4.3 Plan of Actions and Milestones (POA&M)– The Contractor shall produce a POA&M in accordance with the functional requirements breakdown. This POA&M shall be produced through the NMCI release management process used to implement the technology refresh provisions of the NMCI contract.
- 4.4 Schedule - The Contractor shall provide a consolidated work break down structure and project plan reflecting the Contractor deliverables and tasks. The Contractor elements shall be provided to the OPNAV 09W staff no later than one week after contract award. This plan shall provide those activities required for the success of the TFW portal upgrade implementation over the following periods:
 - 3 months for the implementation of the portal upgrade.
 - 2 months for the initial operations of the portal.

5.0 Training and Documentation

- 5.1 Integrator's conference - The Contractor shall provide an integrator's conference that includes executive level sessions and application interface module developer's sessions. The sessions shall be of sufficient depth to allow a programmer to develop interface modules to access Navy applications and databases. In addition, the Contractor shall produce an interface repository and an interactive development environment to support the rapid development of the required interface protocols and message content for this conference. Executive level sessions are due

15 days after contract award. Application interface module developer's sessions are due 30 days after contract award.

- 5.2 Application certification – The Contractor shall provide training of test site personnel on the application certification process. Due 60 days after contract award.
- 5.3 Afloat Integrator Training – The Contractor shall provide training of afloat integrator personnel responsible for the operation of the afloat installations. Due 60 days after contract award.
- 5.4 End-User Training - The Contractor shall provide e-learning training for TFW end-users.

6.0 Application interface and integration support

- 6.1 Application Interface Support - The Contractor shall field a team of software interface developers knowledgeable in TFW and NMCI architectures, and portal and enterprise application integration technology to work with a selected set of the initial 120 applications. This team shall assist in the migration of the selected applications to the portal system and be responsible for the first set of application interface modules for the selected applications. These modules shall be housed and maintained on the repository established by the Contractor. Support shall begin following the Integrator's Conference (5.1).
- 6.2 Application Developer's Guidance - The Contractor shall build on the government furnished Portal Integration Developers Guidance Version 1.1, dated 2 July 2001, to produce the final application interface guidance. Application Developers shall use this guidance to produce interfaces that are interoperable with the Contractor infrastructure implementation of the TFW architecture solution. Also, this guidance shall support application owners in the migration of applications into the portal system. The Contractor shall evolve this guidance as lessons are learned. Guidance shall be available on-line from 2 weeks after contract award through contract period of performance.
- 6.3 Repository (open source site) – The Contractor shall establish and maintain an interface repository for use by TFW authorized application developers. Also, the Contractor shall provide feedback to application developers on the certification status of their developed interfaces and, if necessary, offer detailed corrective guidance to the application developers should their interfaces fail certification. Available on-line from 2 weeks after contract award through contract period of performance.
- 6.4 Application Certification Plan - The Contractor shall provide a certification plan for infrastructure components necessary to achieve TFW goals. This plan shall be consistent with the current NMCI certification process. Due 30 days after contract award.

7.0 Extent to which the Contractor Approach Can Meet Functional Requirements

The matrix provided below describes the TFW functional requirements. The Contractor is committed to providing the functionality as defined in the matrix below and will upgrade the functional and technical requirements of the existing NMCI portal to provide a standardized Web-based interface to allow sharing and managing of both structured and unstructured information for the operational and test portal capability upgrade efforts.

Specifically the NMCI portal:

- Shall support integration of disparate Navy applications and data sources to form a Web-based, service-centric capability
- Shall provide interactions with the Navy applications through a Contractor architected logical repository

- Shall support single sign on capability for portal access
- Shall be customizable to be personalized by the end user and by organizational commands
- Shall allow the end user to be able to subscribe to desired services and have these services provided at each log-on to the NMCI portal
- Shall allow organization commands to be able to tailor the view provided to each user within the command
- Shall provide a standard Navy banner that can be customized with tabs for Navy and organizational command access

These above capabilities, which represent the intent of the functional requirements of the matrix, will be demonstrated in an operational portal to be observed by the DoN.

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

	Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
1	Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
2	Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
2 Navy Enterprise Application Portal Requirements									
2.1 Presentation Requirements									
2.1.1 Personalization									
1		(T)		P	P	P	P	Y1	
2		(T)		Y	Y	Y	Y	Y	
3		(T)		Y	Y	Y	Y	Y	
4		(T)		P	P	P	P	Y1	Cannot support Detach
5		(T)		P	P	P	P	Y1	Size of the pane can not be modified by the user, unless it is a separate browser window. However, number and placement controls are available.
6			(O)	P	P	P	P	P1	Not user modifiable, templates are preset.
7		(T)		N	N	N	N	Y1	
8		(T)		Y	Y	Y	Y	Y	
9		(T)		Y	Y	Y	Y	Y	
10		(T)		Y	Y	Y	Y	Y	Basic portal users can subscribe to any CDA they are authorized to access.
11			(O)	P	P	P	P	P2	Can be achieved by developing connectors that provide subscribe facility.

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
12	The enterprise portal shall retrieve personal configuration settings for each user upon login.	(T)		Y	Y	Y	Y	Y	
13	The enterprise portal shall incorporate the default settings provided by the administrator in the default personal configuration setting.	(T)		Y	Y	Y	Y	Y	
14	The enterprise portal shall provide the users the ability to save or update personal configuration settings.	(T)		Y	Y	Y	Y	Y	
15	The enterprise portal shall notify each affected user of changes to the organizational default settings.		(O)	P	P	P	P	P2	Not on Citrix roadmap, but will be evaluated.
16	The enterprise portal interface configuration shall be based on privileges defined by user, group, and roles .		(O)	P	P	P	P	Y1	Customization at Individual User's level is not available, but Customization at Group Level is available.
17	The enterprise portal shall deny access to unauthorized channels.	(T)		Y	Y	Y	Y	Y	
2.1.2 User Profiling									
18	The enterprise portal shall suggest services based on user or group portal usage patterns.		(O)	N	N	N	N	N	
19	The enterprise portal shall allow users to select the portal user profile option.		(O)	N	N	N	N	Y1	
20	The enterprise portal shall provide administrators with profiling metrics on channel usage patterns.		(O)	N	N	N	N	N	
21	The enterprise portal shall share user roles and privileges information with third-party products.	(T)		P	P	P	P	Y1	
2.1.3 Single Point of Access									
22	The enterprise portal shall support a consistent user interface for all applications.	(T)		Y	Y	Y	Y	Y	
23	The enterprise portal shall support the configuration of a consistent user interface for all applications.	(T)		Y	Y	Y	Y	Y	
24	The enterprise portal shall be accessible to all Navy domains, allowing authorized users access from anywhere, anytime.		(O)	P	P	P	P	Y2	
25	The enterprise portal shall be accessible to groups not in the .mil domain performing transactions with Navy units .		(O)	P	P	P	P	Y2	Limited to those with DoD certs for SSL.
2.1.4 Internationalization									

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

	Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
1	Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
2	Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes
			v1.0	v1.1	v2.0	v1.1	v2.0	
26		(O)	P	P	P	P	Y2	May or may not be additional cost; requires further definition.
27		(O)	P	P	P	P	Y2	May or may not be additional cost; requires further definition.
28		(O)	N	N	N	N	N	
29		(O)	N	N	N	N	N	
30		(O)	N	N	N	N	N	
2.1.5 Multimedia								
31		(O)	Y	Y	Y	Y	Y	Assumed to be true, require clarification
32	(T)		Y	Y	Y	Y	Y	Assumed to be true, may require external product
33	(T)		Y	Y	Y	Y	Y	Assumed to be true, may require external product
2.1.6 Device-Specific Presentation								
34		(O)	N	N	N	N	N	No deployment of mobile devices for 1.0, 1.1. or 2.0 for any pane that supports that format.

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
35	The enterprise portal shall provide the ability for content distribution automatically tailored for bandwidth or client-type considerations.		(O)	N	N	N	N	N	No deployment of mobile devices for 1.0 or 1.1.
2.1.7 Human Factor									
36	The enterprise portal shall provide natural language interfaces, establishing a reading level standard for content, and developing intuitive navigational tools. (action – 5)		(O)	N	N	N	N	N	
2.1.8 Section 508									
37	The enterprise portal shall comply with Section 508 Web Accessibility Standard of the Rehabilitation Act (29 U.S.C. 794d).	(T)		Y	Y	Y	Y	Y	
2.2 Management Requirements									
38	The enterprise portal shall provide remote access to centralized, browser-based portal and administration services.	(T)		P	P	P	P	Y1	
39	The enterprise portal shall provide ability to schedule administration job.		(O)	Y	Y	Y	Y	Y	
40	The enterprise portal shall provide administrators with the ability to add panes.	(T)		Y	Y	Y	Y	Y	
41	The enterprise portal shall support a distributed architecture.	(T)		Y	Y	Y	Y	Y	
42	The enterprise portal shall support performance, monitoring and metrics tools.	(T)		P	P	P	P	P	Available w/NMCI Enterprise Management Tools
2.2.1 Registry									
43	The enterprise portal shall support a registry containing metadata describing pane modules and pointers to them. Enterprise portal presentation logic interacts with the pane providers through the use of this registry -specified information.	(T)		P	P	P	Y	Y	
44	The registry shall support content management capability such that a search engine may be plugged in and used to index and allow querying of its contents by end users.	(T)		P	P	P	Y	Y	
45	The registry shall support permissions granted to users by mapping the user's Distinguished Name concatenated with the user login information to access controls that enable content. This should allow the selective disabling of and/or hiding of the visibility of the existence of pane modules based on user and group.		(O)	P	P	P	P	Y1	Permissions for Individual User not available
2.2.2. Registry Management									
46	The registry shall provide remote access to a centralized, browser-based management interface allowing administrators to add, remove, and modify registry entries as necessary when pane modules are added, removed, or changed.	(T)		P	P	P	P	Y1	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
47	The administration interface should incorporate basic search capabilities.	(T)		P	P	P	Y	Y	
2.2.3 Repository									
48	The enterprise portal shall support access to the following application server types: J2EE, .net, coldfusion, lotus domino, CGI, Oracle, etc.	(T)		P	P	P	Y	Y	As long as portal can support access
2.2.4 End-user Administration									
49	The enterprise portal shall provide remote access to centralized, browser-based management of user accounts / roles.	(T)		Y	Y	Y	Y	Y	
50	The enterprise portal shall provide administrators the ability to define permissions for individuals, groups, and roles within the organization.	(T)		P	P	P	P	Y	Permissions for Individual User not available, but is available for groups
51	The enterprise portal shall provide ability to track user activities / audit logs.	(T)		P	P	P	P	Y	
52	The enterprise portal shall provide the ability for an administrator to push alerts or notifications to users.	(T)		Y	Y	Y	Y	Y	NMCI v1.0 assumes the use of Integration Broker
2.2.5 Security									
53	The enterprise portal shall support SSL and PKI for all portal infrastructure components.	(T)		P	P	P	P	Y1	Product currently supports SSL for version 1.0. Version 2.0 will provide integrated PKI solution.
2.2.5.1 Authentication									
54	The enterprise portal shall support authentication services via valid Class 3 DoD PKI digital certificate.	(T) Class 3		P	P	P	P	Y1	Dependent upon single sign-on implementation.
55	The enterprise portal shall support authentication services via valid Class 4 DoD PKI digital certificate.		(O) Class 4	N	N	N	N	N	Depends upon DoD support for Class 4 PKI.
56	The enterprise portal shall provide the ability to pass user authentication information from the enterprise portal to the services and applications through the data adaptor.	(T)		P	P	P	P	Y	Assumes the use of SSO product; may not cross IA boundaries.
57	The enterprise portal shall support authentication services via a valid user ID and password.	(T)		Y	Y	Y	Y	Y	
58	Strong authentication shall be required for any user access to the enterprise portal, and all such accesses shall be audited.	(T)		P	P	P	P	Y	Assumes the use of SSO product; may not cross IA boundaries.
59	Error feedback for user authentication shall contain no information regarding which part of the authentication information is incorrect.	(T)		Y	Y	Y	Y	Y	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
60	The enterprise portal shall limit the number of unsuccessful login attempts. The number of unsuccessful logons shall be configurable by an administrator.	(T)		P	P	P	P	Y	Assumes the use of SSO product; may not cross IA boundaries.
61	The enterprise portal shall have the ability to limit the number of concurrent logons. The number of simultaneous logons shall be configurable by an administrator.	(T)		P	P	P	P	Y	Assumes the use of SSO product; may not cross IA boundaries.
62	The enterprise portal security architecture shall support the use of "single sign-on" (SSO).		(O)	P	P	P	Y	Y	May be restricted to a network enclave.
2.2.5.2 Confidentiality									
63	The enterprise portal shall support confidentiality. The portal shall provide a centralized mechanism to enforce access control at or above the object level (i.e., functions, data) based on a subject's (user, applications) valid identification, authentication, roles, and permissions.		(O)	P	P	P	P	Y1	
64	The enterprise portal shall provide one or more mechanisms to permit applications to ensure confidentiality of sensitive transmitted data via data encryption using government-approved means in accordance with appropriate PKI policy. Approved Secure Sockets Layer (SSL) methods shall be used to provide confidentiality of the data in transit.	(T)		P	P	P	P	Y1	
65	The enterprise portal shall provide a capability for centralized user account creation in a heterogeneous environment with the ability to define a unique user identifier and login name (within administrative domain).	(T)		P	P	P	P	Y1	
2.2.5.3 Integrity									
66	The enterprise portal shall support the use of SSL to preserve the integrity of the information while in transition between the client and the server.	(T)		Y	Y	Y	Y	Y	
67	The enterprise portal shall comply with DoD Mobile Code policy.	(T)		Y	Y	Y	Y	Y	
2.2.5.4 Non-repudiation									
68	The enterprise portal shall ensure non-repudiation using digital signatures based on DoD PKI Class 3 or Class 4 certificates and keys. SSL/PKI shall be used for non-repudiation as assurance that the sender of data is provided with proof of delivery and the recipient is provided with proof of the sender's identity, so neither can later deny having processed the data.	(T)		P	P	P	P	Y	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
2.2.5.5 Accountability									
69	The enterprise portal shall provide a mechanism to capture audit logs for selected actions deemed necessary by the system administrator, in order to provide him/her the ability to reconstruct events and determine individual responsibility for security related issues.	(T)		P	P	P	P	Y1	
70	The enterprise portal shall provide an audit mechanism capable of automatically collecting, processing, and identifying security-relevant events that meet security audit requirements.		(O)	Y	Y	Y	P	Y1	TFW change in scope to include servers and users outside the scope of NMCI requires inclusion of additional elements to utilize Active Directory. This capability will only be provided for NMCI users.
71	The enterprise portal shall record for each audit event the following information: date and time of the event, the unique subject identifier (user-id) on whose behalf the subject program generating the event was operating, type of event, success or failure of the event, origin of the request (e.g., terminal ID) for identification and authentication events, name of program or file introduced, accessed, or deleted from a user's address space.		(O)	Y	Y	Y	P	Y1	TFW change in scope to include servers and users outside the scope of NMCI requires inclusion of additional elements to utilize Active Directory. This capability will only be provided for NMCI users.
72	The enterprise portal shall provide end-to-end system and user accountability for all relevant events so that the system administrator will be able to reconstruct the cause of an event and identify the user or system component responsible for the event.		(O)	Y	Y	Y	P	Y1	TFW change in scope to include servers and users outside the scope of NMCI requires inclusion of additional elements to utilize Active Directory. This capability will only be provided for NMCI users.
73	The enterprise portal shall provide access and transmission audit logs strictly controlled to maintain integrity.	(T)		Y	Y	Y	P	Y1	TFW change in scope to include servers and users outside the scope of NMCI requires inclusion of additional elements to utilize Active Directory. This capability will only be provided for NMCI users.
2.2.6 Session Management									
74	The enterprise portal shall maintain session information.	(T)		Y	Y	Y	Y	Y	
2.2.6.1 Caching									
75	The enterprise portal shall support predictive caching, where predictive caching involves employing dynamic data caching or other appropriate data managing schemes.		(O)	Y	Y	Y	Y	Y	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
2.2.6.2 Persistence									
76	The enterprise portal shall support persistence of data, where persistence is the universal mechanism for saving the state of the system to continue the data transmission, after the actual communication has ceased or the metadata has been received.		(O)	Y	Y	Y	Y	Y	The NMCI IF provides data persistence through a message queuing mechanism. Messages published to the integration broker are guaranteed to be delivered to the subscribing application, in the proper sequence and without duplication, even in the case of hardware or network failure. The message queuing mechanism also maintains state information such that messages are received in the proper sequence and without duplication.
2.2.7 On-Line Training/Context-Sensitive Help									
77	The enterprise portal shall provide the ability to integrate an on-line training tool kit.		(O)	Y	Y	Y	Y	Y	
78	The enterprise portal shall provide the ability to collect statistics for integrated computer-based training.		(O)	Y	Y	Y	Y	Y	
79	The enterprise portal shall provide context -sensitive help for portal components.		(O)	P	P	P	P	Y1	
2.3 Service/Data Integration Requirements									
80	The enterprise portal shall support the capturing, viewing, and searching of services/components metadata in XML format.	(T)		P	P	P	P	Y1	For 1.1, manually maintained registry; for 2.0 UDDI and WSDL will be part of technology refresh.
2.3.1 e-mail									
81	The enterprise portal shall support the integration of POP 3/SMTP and IMAP e-mail protocols.	(T)		Y	Y	Y	P	Y1	Will be provided only for NMCI-seated users.
2.3.2 Search									
82	The enterprise portal shall support the integration of a search engine product.	(T)		Y	Y	Y	Y	Y	
	The enterprise portal shall support the following search types:								
83	· Key word (e.g., Technical Terms)	(T)		Y	Y	Y	Y	Y	
84	· Boolean	(T)		Y	Y	Y	Y	Y	
85	· Fielded Searching (e.g., Date, Author, Organization)	(T)		Y	Y	Y	Y	Y	
86	· Full text	(T)		Y	Y	Y	Y	Y	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes
			v1.0	v1.1	v2.0	v1.1	v2.0	
87 · Hierarchical Searching		(O)	P	P	P	P	P	
88 · Natural Language		(O)	N	N	N	N	Y2	
89 · Wild Cards		(O)	Y	Y	Y	Y	Y	
90 · Context/Pattern		(O)	N	N	N	N	Y2	
91 · Query by Example		(O)	N	N	N	N	Y2	
92 · Thesaurus		(O)	N	N	N	N	Y2	
93 The enterprise portal shall provide the ability to construct, modify, and store custom search queries.		(O)	Y	Y	Y	Y	Y	
94 The enterprise portal shall provide a search engine available to all users.	(T)		Y	Y	Y	Y	Y	
95 The enterprise portal shall provide the ability to search within all identified domains (e.g., .mil, .gov, .org, .edu).		(O)	Y	Y	Y	Y	Y	
96 The enterprise portal shall provide the ability to index and search the contents of structured and unstructured file formats to include: · Audio Formats (.aiff / .mid / .wav / .mp3/4) · State Graphic Formats (.gif / .jpeg/ .nitf / .bmp / .tiff) · Video/Animation Formats (.mpg / .mpeg / .ram / .avi / .ra / .fsh / .mov) · Text/Document Formats (ASCII / .pdf / MS Office product formats as natively supported by MSIE/office object inheritance) · Markup Languages (HTML / DHTML / XML / XSL / PDML / SGML) · Compression Types (.zip / .gz / .gnu / .tar / BinHex / MIME / Uuencode)	(T)		P	P	P	P	Y2	
97 The enterprise portal shall limit the ability to search the contents based on user's access privileges.		(O)	P	P	P	P	Y1	
98 The enterprise portal shall provide the ability to view, print, or export the results of a search query.		(O)	Y	Y	Y	Y	Y	
99 The enterprise portal shall support relevance ranking for displaying search results.	(T)		N	N	N	N	Y1	
100 The enterprise portal shall support the selection of different display options for search results including summary, no summary, and number of results per page.	(T)		N	N	N	N	Y1	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
101	The enterprise portal shall provide the ability to display the identification of the source material for a search query response.		(O)	N	N	N	N	Y2	
2.3.2.1 Federated Search									
102	The enterprise portal shall provide the ability to add, delete, and save information source selections for search.		(O)	Y	Y	Y	Y	Y	
103	The enterprise portal shall support searching on multiple information sources.		(O)	Y	Y	Y	Y	Y	
104	The enterprise portal shall support both internal and external search.		(O)	Y	Y	Y	Y	Y	
2.3.2.2 Automated Search Agents									
105	The enterprise portal shall support user-defined search agent (e.g., Spider/Crawler).		(O)	Y	Y	Y	Y	Y	
106	The enterprise portal shall support search agent with multiple notification mechanisms.		(O)	N	N	N	N	Y2	
107	The enterprise portal shall support scheduling of search agents.		(O)	Y	Y	Y	Y	Y	
108	The enterprise portal shall support search agents that highlight incremental change in search query results.		(O)	N	N	N	N	Y2	
109	The enterprise portal shall provide the ability to extract metadata from information sources.		(O)	P	P	P	P	Y2	
2.3.3 Directory Services									
110	The enterprise portal shall support the integration of lightweight directory access protocol (LDAP) V3 or higher version Directory Servers.	(T)		Y	Y	Y	Y	Y	
2.3.4 Document Management									
	The enterprise portal shall support the integration of document management products with the following characteristics:								NMCI IF can support integration between the electronic document management system and portal. Type of support is application specific.
111	§ support content creation and storage in the portal.	(T)		N	N	N	Y	Y	Assume 10% use 100 megabytes and 90% use < 10 megabytes.
112	§ provide typical document management capabilities to include retrieving, sharing, tracking, revising, publishing, and distributing documents.	(T)		N	N	N	Y	Y	
113	§ provide document summarization.	(T)		N	N	N	Y	Y	
114	The enterprise portal shall support content creation and storage in the portal.	(T)		N	N	N	Y	Y	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

	Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
1	Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
2	Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
115	The enterprise portal shall provide typical document management capabilities to include retrieving, sharing, tracking, revising, publishing, and distributing documents.	(T)		N	N	N	P	Y2	
116	The enterprise portal shall provide document summarization.	(T)		N	N	N	N	Y2	
2.3.5 Workflow									
117	The enterprise portal shall support the integration of workflow management products in compliance with the Workflow Management Coalition Reference Model.	(T)		N	N	N	P	P	Assumes the use of Integration Broker
118	The enterprise portal shall share user roles and privileges information with workflow management product.	(T)		N	N	N	N	Y2	Assumes the use of Integration Broker
119	The enterprise portal shall receive and respond to intermediate "state changes" in a business process (e.g., approvals).		(O)	Y	Y	Y	Y	Y	Assumes the use of Integration Broker
120	The enterprise portal shall provide auditing and management services to monitor process flows.		(O)	N	N	N	N	Y2	Assumes the use of Integration Broker
2.3.6 Collaboration									
Ask Steve and James									
121	The enterprise portal shall support the integration of collaboration products.	(T)		Y	Y	Y	Y	Y	
	The enterprise portal shall provide users and administrator ability to create communities that are considered:								
122	· Mandatory Communities - require for a select groups of users		(O)	Y	Y	Y	Y	Y	
123	· Threaded Discussion		(O)	N	Y	Y	Y	Y	Met through public folders and newsgroups.
124	The enterprise portal shall provide collaboration in the context of structured and unstructured information resources, workflow process events, and calendar events.		(O)	N	N	N	N	N	
125	The enterprise portal shall support synchronous and asynchronous collaboration.	(T)		N	N	N	N	N	
126	The enterprise portal shall support the automatic collection and archiving of data and information assets created from collaborative activity.	(T)		N	N	N	N	N	
127	The enterprise portal shall make use of project- or function-based "team rooms," to aggregate resources to support a particular activity at a single on-line location.	(T)		N	N	N	N	N	Access can be provided, dependent upon CLIN
128	The enterprise portal shall allow users to discover whether another user is currently online.	(T)		N	N	N	N	N	
129	The enterprise portal shall allow users to execute collaboration tools within the portal facilitating simultaneous enterprise-wide access, regardless of duty location.	(T)		Y	Y	Y	Y	Y	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

	Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
1	Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
2	Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
2.3.7 Calendar/Schedule									
130	The enterprise portal shall support the integration of calendar products.	(T)		Y	Y	Y	Y	Y	This functionality provided for NMCI seat users only
131	The enterprise portal shall support an integrated calendar/schedule facility to facilitate the sharing, comparing and analyzing of events.		(O)	Y	Y	Y	Y	Y	This functionality provided for NMCI seat users only
132	The enterprise portal shall support flexible contact mechanisms.	(T)		Y	Y	Y	Y	Y	
2.3.8 Decision Support/Business Intelligence									
133	The enterprise portal shall support the integration of business intelligence products with the following characteristics: the ability to view standardized reports and report formats, the ability to view information through multi-axis drill down and charting, and the ability to perform data mining on multiple authorized information sources.	(T)		Y	Y	Y	Y	Y	Support provided, but no tools provided
134	The enterprise portal shall provide the ability to view standardized reports and report formats.		(O)	N	N	N	N	Y2	
135	The enterprise portal shall provide the ability to view information through multi-axis drill down and charting.		(O)	N	N	N	N	Y2	
136	The enterprise portal shall provide the ability to perform data mining on multiple authorized information sources.		(O)	N	N	N	N	Y2	
137	The enterprise portal shall allow for integration of navigable database reports into graphical and textual displays.		(O)	N	N	N	N	Y2	
138	The enterprise portal shall deliver output of structured data requests in HTML as well as transferable and native formats.		(O)	N	N	N	N	Y2	
139	The enterprise portal shall support online analytical processing (OLAP) to perform analysis without having to write complicated structured query language (SQL) statements.		(O)	N	N	N	N	Y2	
140	The enterprise portal shall allow users to "drill down" (Allow users to access data sources through pre-defined or ad hoc query tools)		(O)	N	N	N	N	Y2	
141	The enterprise portal shall provide reports created by a variety of native and third party business-intelligence tools.		(O)	N	N	N	N	Y2	
142	The enterprise portal shall provide a full range of query, report, and analysis capabilities in a highly integrated fashion.		(O)	N	N	N	N	Y2	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
143	The enterprise portal includes native query, reporting, spreadsheet, graphs, and OLAP analysis capability.		(O)	N	N	N	N	Y2	
2.3.9 Remote File Management									
144	The enterprise portal shall provide data access via industry standard file transfer protocols.	(T)		Y	Y	Y	Y	Y	NMCI IF Version 1.0 supports web-based FTP. Also, through the Integration Broker capabilities are provided for publish/subscribe, guaranteed delivery, rules based routing. NMCI users also have access to the Reflections FTP tool. Access to data is limited only by government IA boundary policies.
145	The enterprise portal shall provide automated file conversion.		(O)	P	P	P	P2	P2	Assumes use of Integration Broker
2.3.10 Resource Discovery Requirements									
146	The enterprise portal shall provide mechanisms for publishing new data and services (e.g., publish/subscribe model).	(T)		N	N	N	N	Y1	
147	The enterprise portal shall provide mechanisms for notification of changes to data.		(O)	N	N	N	N	Y2	Depends upon technology refresh.
2.3.11 Content Management Requirements									
148	The enterprise portal shall provide users the ability to subscribe to individual content and service objects or predefined channels of content and services.	(T)		Y	Y	Y	Y	Y	
149	The enterprise portal shall provide the ability to automatically extract metadata from various information sources, enabling users to identify relationships in the information.		(O)	N	N	N	N	Y2	
150	The enterprise portal shall provide the ability to establish event-driven connections to static and dynamic information resources.		(O)	P	P	P	P	P	Supports polling of MSMQ, additional capability provided through integration broker
151	The enterprise portal shall provide synchronization mechanisms for sharing user IDs, user roles, content components (e.g., portlets, gadgets) and content access privileges between different vendors' portal products.		(O)	P	P	P	P	P	Available through integration with SSO product.
2.3.11.1 Data Recovery									
152	The enterprise portal shall support delta change replication and synchronization of portal-maintained data to distributed portals with minimal bandwidth.	(T)	(O)	P	P	P	P	Y1	synchronization delta change

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

	Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
1	Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
2	Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes
			v1.0	v1.1	v2.0	v1.1	v2.0	
153		(O)	Y	Y	Y	Y2	Y2	Assumes the use of additional technologies
154	(T)		Y	Y	Y	Y1	Y1	TFW change in scope to include servers and users outside the scope of NMCI requires inclusion of additional elements to utilize NMCI EMS process and integration with IT-21 EMS
155	(T)		Y	Y	Y	Y1	Y1	TFW change in scope to include servers and users outside the scope of NMCI requires inclusion of additional elements to utilize NMCI EMS process and integration with IT-21 EMS
2.3.12 Metadata Management Requirements (Portal System vs Portal Engine)								
156	(T)		N	N	P	Y	Y	
157	(T)		N	N	N	P	Y	
158	(T)		P	P	P	P	Y	
159	(T)		N	N	N	P	Y	
160		(O)	N	N	N	N	Y1	
161		(O)	N	N	N	N	Y1	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
162		(O)	P	P	P	P	Y1		
163	(T)		N	N	N	P	Y1	Need to enhance so automatic updates of the registry are done with new additions.	
164		(O)	Y	Y	Y	Y	Y		
2.3.12.1 Taxonomy classification									
165		(O)	N	N	N	N	Y2		
2.3.12.2 Multi categorization									
166		(O)	P	P	P	P	Y2		
167	(T)		P	P	P	P	Y2		
2.3.12.3 Metadata standard									
168		(O)	N	N	N	N	N		
169	(T)		Y	Y	Y	Y	Y		
170		(O)	N	N	N	N	N	Pending W3C approval.	
2.3.13 Integration Requirements									
171	(T)		Y	Y	Y	Y	Y		
172	(T)		Y	Y	Y	Y	Y		

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

	Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
1	Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
2	Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
173	The enterprise portal shall facilitate this integration using Navy and industry - recognized standards wherever possible to maximize the openness of the enterprise portal architecture.	(T)		Y	Y	Y	Y	Y	
174	The enterprise portal shall provide a general set of capabilities or services to each data adaptor to provide consistency and eliminate the need for the data adaptor to recreate those capabilities in each adaptor (e.g., extend or inherit).	(T)		P	P	P	P	Y1	
175	The enterprise portal shall provide the ability to pass user personalization information from the enterprise portal to the services and applications through the data adaptor in order to influence the output of the data adaptor.	(T)		N	N	N	Y	Y	
176	The enterprise portal shall secure access to each data adaptor using the same security controls that apply to every other object in the enterprise portal.	(T)		Y	Y	Y	Y	Y	
177	The enterprise portal shall support XML or XHTML as output formats from the data adaptor that will be delivered as XHTML to the user's web browser without any additional enterprise portal requirements for client software or browser plug-ins.	(T)		Y	Y	Y	Y	Y	
178	The enterprise portal shall provide access to tools to connect multiple, heterogeneous data stores and apply business logic to web-enabled legacy applications or build new applications.	(T)		N	N	N	P	Y2	Can be accomplished using Integration Broker.
2.3.13.1 Application Programming Interfaces									
179	The enterprise portal shall export an application programming interface (API) such that data adaptors can interact with enterprise portal objects.	(T)		P	P	P	P	Y1	
180	The enterprise portal shall provide sufficient flexibility such that it is possible to develop data adaptors in different programming environments to accommodate both applications with different programming interfaces, and implementers with different skills.	(T)		N	N	P	P	Y1	
181	The enterprise portal shall provide an XML API for integration of services.	(T)		P	P	P	P	Y1	
182	The enterprise portal shall provide an XML-based development environment to aid in the development of data adaptors to be integrated into the enterprise portal.	(T)		N	N	N	N	N	
183	The enterprise portal must support the following technologies: Java 2 Enterprise Edition (J2EE), Enterprise Java Beans (EJB), Java Server Pages (JSP), Active Server Pages (ASP), servlet standards and Common Gateway Interface (CGI).	(T)		N	N	P	P	Y1	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
184	Shall support web-based creation of panes. The creation of content for panes does not have to be web-based; only the selection of content for panes is required to be web-based.	(T)		P	P	P	P	P1	
185	The enterprise portal shall enable end-users to create panes consisting of multiple content items (services).		(O)	N	N	N	N	P1	
2.3.13.2 Programming Languages									
186	The enterprise portal shall support multiple programming languages to include PERL, C, C#, C++, Java, and Visual Basic.	(T)		P	P	P	P	Y	
187	The enterprise portal must support programming/development languages that conform to industry standards.	(T)		P	P	P	P	Y	
2.3.13.3 Development Tool Support									
188	The enterprise portal shall include an Adaptor Development Kit (ADK) that shall include, but not be limited to: documentation, technical support, code samples, helper functions, wizard-like tools, and third party resources for creating new services.	(T)		N	N	N	P	Y	
189	The enterprise portal shall provide a visual development environment and supporting tools.	(T)		Y	Y	Y	Y	Y	
190	The enterprise portal shall include debugger tools that are comprehensive and consistent with the operational environment.	(T)		P	P	P	P	P	
191	The enterprise portal shall contain a consistent set of tools that are available in all operational environments.	(T)		Y	Y	Y	Y	Y	
2.3.13.4 Database Support									
192	The enterprise portal shall provide a direct database interface to commercially available relational databases such that database queries can be constructed and executed directly on the external application databases.	(T)		N	N	N	N	Y2	
193	The enterprise portal shall provide the ability to access application databases utilizing Open Database Connectivity (ODBC) and Java Database Connectivity (JDBC).	(T)		Y	Y	Y	P2	P2	TFW change in scope to include servers and users outside the scope of NMCI requires inclusion of additional elements to meet this capability.
194	The enterprise portal shall provide interfaces to support specific relational database systems to include but not limited to Lotus Notes, Microsoft Access, Microsoft SQL Server, Sybase, SAP R/3, and Oracle.	(T)		Y	Y	Y	Y	Y	Assumes the use of Integration Broker

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

	Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
1	Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
2	Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
195	The enterprise portal shall provide the ability to store user database login and preference information, so that the user can obtain the results of a database query without logging in to the database system separately.	(T)		N	N	N	P	Y1	Assume this is allowed with single sign-on.
196	The enterprise portal shall provide the ability to cache complex database queries so that multiple users can share the same query.	(T)		N	N	N	N	Y2	
197	The enterprise portal shall support the Structured Query Language (SQL) - FIPS 127-2 standard for interaction with existing and future relational databases.	(T)		Y	Y	Y	Y	Y	NMCI IF supports industry standard SQL.
2.3.13.5 Middleware Support									
198	The enterprise portal must be able to integrate with applications or services that do not reside on the same platform; and therefore, must communicate over a network or the Internet.	(T)		Y	Y	Y	Y	Y	
199	The enterprise portal must allow data adaptors to access its components (e.g., repository, authentication server) over a network or the Internet.	(T)		Y	Y	Y	Y	Y	
200	The enterprise portal must provide the ability to interface with applications that support the OMG CORBA, RMI, DCOM, SOAP, ebXML and other messaging protocols to support distributed processing.	(T)		P	P	P	P	Y	
2.4 Quality Requirements									
2.4.1 Performance									
201	The enterprise portal shall support a maximum of 3 million users.	(T) <10,000	(O)	Y	Y	Y	Y	Y	The NMCI IF is scalable.
202	The enterprise portal shall support a maximum of 20,000 services.	(T) <100	(O)	Y	Y	Y	Y	Y	The NMCI IF is scalable.
2.4.2 Scalability									
203	The enterprise portal shall be able to scale up to a maximum of 500,000 concurrent users.	(T) <2000	(O)	Y	Y	Y	Y	Y	The NMCI IF is scalable.
2.4.3 Availability									
204	The enterprise portal shall be available in A0 .9999999999	(T)		P	P	P	P	P	Requirement permits only .0032 seconds of down-time per year. Will support fail-over and redundancy in accordance with NMCI minimum requirements.

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

	Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
1	Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
2	Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes	
			v1.0	v1.1	v2.0	v1.1	v2.0		
2.4.4 Reliability									
205	The enterprise portal shall support the integration or configuration of high-availability capabilities that include fault-tolerance.	(T)		Y	Y	Y	Y	Y	
206	The enterprise portal shall support the integration or configuration of high-availability capabilities that include automatic failover.	(T)		P	P	Y	P	Y	
207	The enterprise portal shall support the integration or configuration of high-availability capabilities that include load-balancing.	(T)		Y	Y	Y	Y	Y	
2.4.5 Usability									
208	The enterprise portal vendor shall provide installation, maintenance, training, support, and documentation for the portal products.	(T)		Y	Y	Y	Y	Y	
209	The enterprise portal shall provide ease of installation and sufficiency of documentation.	(T)		Y	Y	Y	Y	Y	
210	The enterprise portal shall provide ease of use of administrative functions and tools for managing users, managing services, use of web interface or windows interface.	(T)		Y	Y	Y	Y	Y	
Section 3 Vendor/Product Life Cycle Requirements								Ask Vendor to validate these.	
3.1 Vendor									
3.1.1 Vendor Responsiveness									
213	The enterprise portal vendor shall have 24 x 7 worldwide technical support via telephone and e-mail.	(T)		Y	Y	Y	Y	Y	
3.1.2 Cost Negotiation potential									
214	The enterprise portal vendor shall support an enterprise license for the enterprise portal and all associated infrastructure.	(T)		Y	Y	Y	Y	Y	
3.1.3 Client list									
215	The enterprise portal vendor shall provide a list of client references to include at least three representatives from government and at least three from industry featured on the Fortune Global 500.	(T)		Y	Y	Y	Y	Y	
3.1.4 Business Plan/Value Proposition									
216	The enterprise portal vendor shall demonstrate that the enterprise portal product is an integral part of their strategic vision.	(T)		Y	Y	Y	Y	Y	

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

	Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
1	Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
2	Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes
			v1.0	v1.1	v2.0	v1.1	v2.0	
3.2 Products								
3.2.1 Backward Compatibility								
218	The enterprise portal product shall support backward compatibility for at least one version.	(T)		Y	Y	Y	Y	Y
3.2.2 Platforms supported								
219	The enterprise portal shall support the following operating systems: Solaris, Window NT, Window 2000, XP, HP-UX, and Linux.	(T)	(O) Linux, XP	P	P	P	P	Y1
3.2.3 Open Standards Support								
220	The enterprise portal vendor must demonstrate an understanding of technology trends and their plan to support emerging standards.	(T)		Y	Y	Y	Y	Y
221	Besides those standards mentioned elsewhere in this requirements document, the enterprise portal shall also support the following standards: XML Schema, XHTML, HDML, WAP, VoiceXML, and i-Mode.		(O)	P	P	P	P	Y1
222	The enterprise portal shall support the following web servers: iPlanet, Web Logic, Apache, and Microsoft IIS.	(T) w/o iPlanet	(O)	P	P	P	P	Y1
4.0 Deployment Constraints								
223	Layers 1-3 infrastructure shall be in place to accommodate a Navy-wide deployment independent of the Navy Marine Corps Intranet (NMCI), IT-21, or deployed IP infrastructure within the context of a coordinated security model.							
224	Facilities shall be identified (i.e., heating, ventilation, and air conditioning (HVAC), electricity, footprint, and security mechanisms, both physical and logical).							
225	Application servers/repositories shall be distributed throughout the network or centralized as determined by the service provider/implementing agency, and as coordinated through the Task Force Web Information Technology (IT) Governance Board.							
226	Data engines shall be accessed by major claimants and replicated within the context of a coordinated/approved data/information flow model.							

Convention:

Y: Supported

N: Not Supported

P: Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes
			v1.0	v1.1	v2.0	v1.1	v2.0	
227		Specific issues of bandwidth management/limitations shall be the purview of the layer 1-3 service provider and shall be addressed in the replication concept of operations (ConOps) by those providers.						
228		The enterprise portal shall have a repository and registry of all available ashore and afloat services as approved by the Task Force Web IT Governance Board.						
229		The Task Force Web IT Governance Board shall establish appropriate performance metrics to (Note, no additional text is provided, so unsure of meaning)						
5.0 Program Management Requirements								
5.1 Vendor Deployment Requirements								
230	(T)	The vendor shall provide worldwide customer support.	N	N	N	N	Y1	Will provide coverage for NMCI users, only.
231	(T)	The vendor shall not be required to coordinate schedule for implementation with any US Navy facility, whether ashore or afloat.	Y	Y	Y	Y	Y	
5.2 Program Management Requirements								
232		The implementation agent shall be responsible for submitting a deployment checklist to the Task Force Web IT Governance Board for review, approval, and selection.						
233		The implementation agent shall provide a single point of contact (POC) for engineering support and coordination.						
234		The implementation agent shall provide an engineering site plan for deployment.						
235		The implementation agent shall ensure that user registration within the directory is complete.						
236		The implementation agent shall construct both a master plan of action and milestones (POA&M) and site specific POA&Ms for portal implementation.						
5.2.1 Ashore Requirements								
237		The implementation agent shall coordinate schedules with the applicable Task Force Web schedule coordinator and apply for access as per NMCI guidelines.						

Convention:

- Y:** Supported
- N:** Not Supported
- P:** Partially Supported

Color & Notes Legend:

- Requirement that will be implemented in v1.1 of NMCI (Nov, 2001)
- 1 Technical refresh will be used to identify new product to address this requirement in v2.0 at no cost.
- 2 Some additional elements may be required which may result in additional costs.

Requirement	Thres- hold	Ob- jective	NMCI			TFW		Notes
			v1.0	v1.1	v2.0	v1.1	v2.0	
238 The implementation agent shall adhere to all applicable WEN security requirements, including the following: <ul style="list-style-type: none"> · All personnel shall possess required security clearances · Submission of visit requests shall be in consonance with US Navy requirements to each ashore activity · All personnel shall observe all local security policies when performing their duties 								
5.2.2 Afloat Requirements								
239 The implementation agent shall coordinate schedules with the IT-21 block schedule coordinat or for installation and system operational verification test (SOVT).								
240 The implementation agent shall adhere to all applicable Web Enabled Navy security requirements, including the following: <ul style="list-style-type: none"> · All personnel shall possess required security clearances · Submission of visit requests shall be in consonance with US Navy requirements to each afloat activity · All personnel shall observe all local security policies when performing their duties 								
241 The implementation agent shall coordinate afloat implementation activities (portal, registry, and repository) with identified responsible Naval computer and telecommunications area master station (NCTAMS) facilities.								
Total Threshold Requirements Addressed TFW v1.1 Release 125 90% Total Objective Requirements Addressed in TFW v1.1 Release <u>44</u> <u>54%</u> Toal Requirements 221 Grand Total 169 76%								
Requirements fully met in TFW v1.1 Release:								
Threshold 77 55% <u>Objective</u> <u>21</u> <u>26%</u> Total 98 44%								
Partially met in TFW v1.1 Release:								
Threshold 48 35% <u>Objective</u> <u>23</u> <u>28%</u> Total 71 32%								