
Net Centric Enterprise Services Messaging and Collaboration

Issues and Recommendations

5 March 2004

Messaging and Collaboration Issues

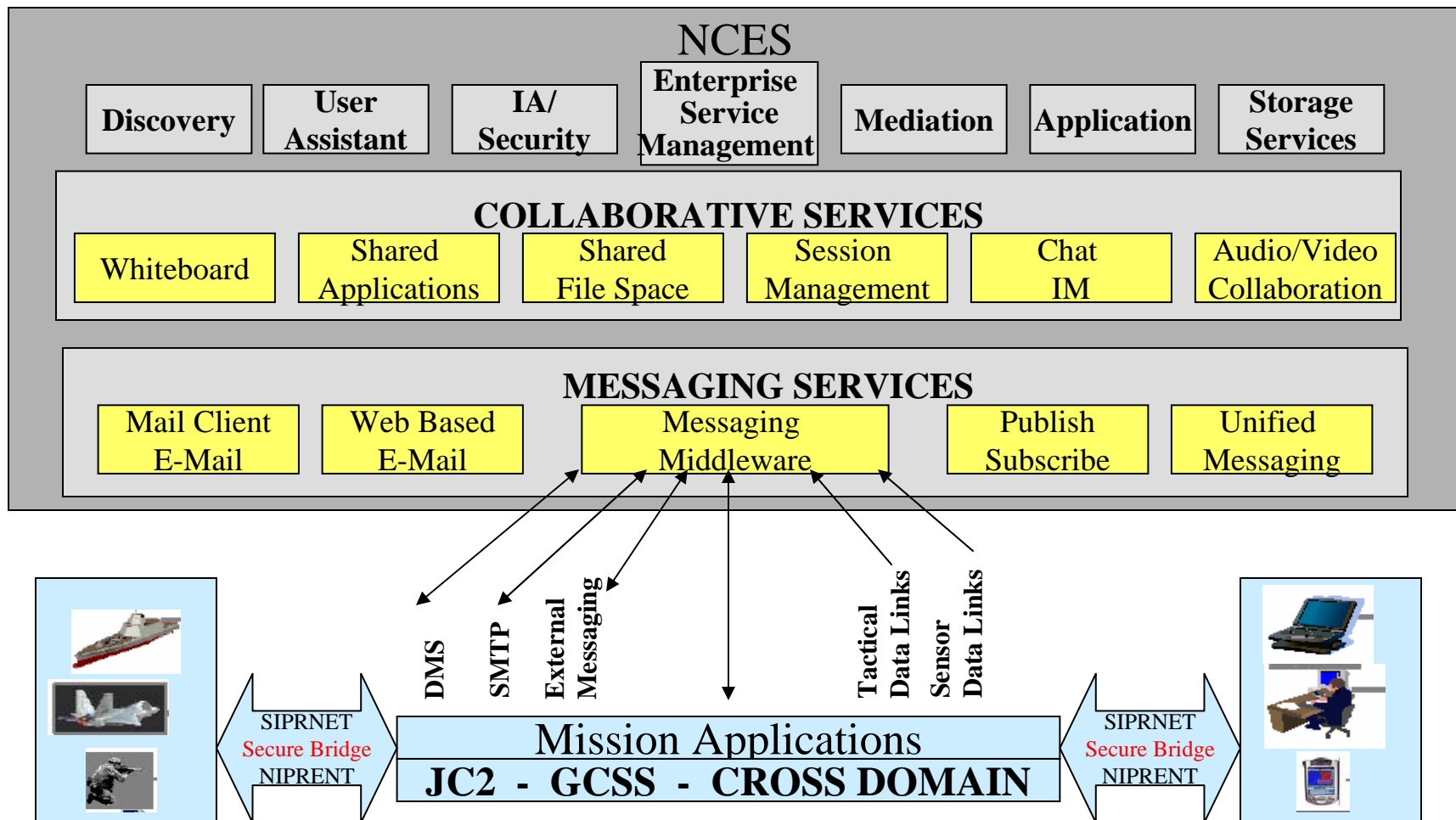
- **#1: Definition**
- **#2: Communities of Interest**
- **#3: Communication**
- **#4: Standards**
- **#5: Risk**
- **#6: Small Companies**
- **#7: Intellectual Property**

Messaging and Collaboration Issue #1: Definition

The messaging and collaboration space requires definition and parameters, to include dependencies between/among the nine core services.

Messaging and Collaboration Services

“An Enterprise Block 1 Perspective”

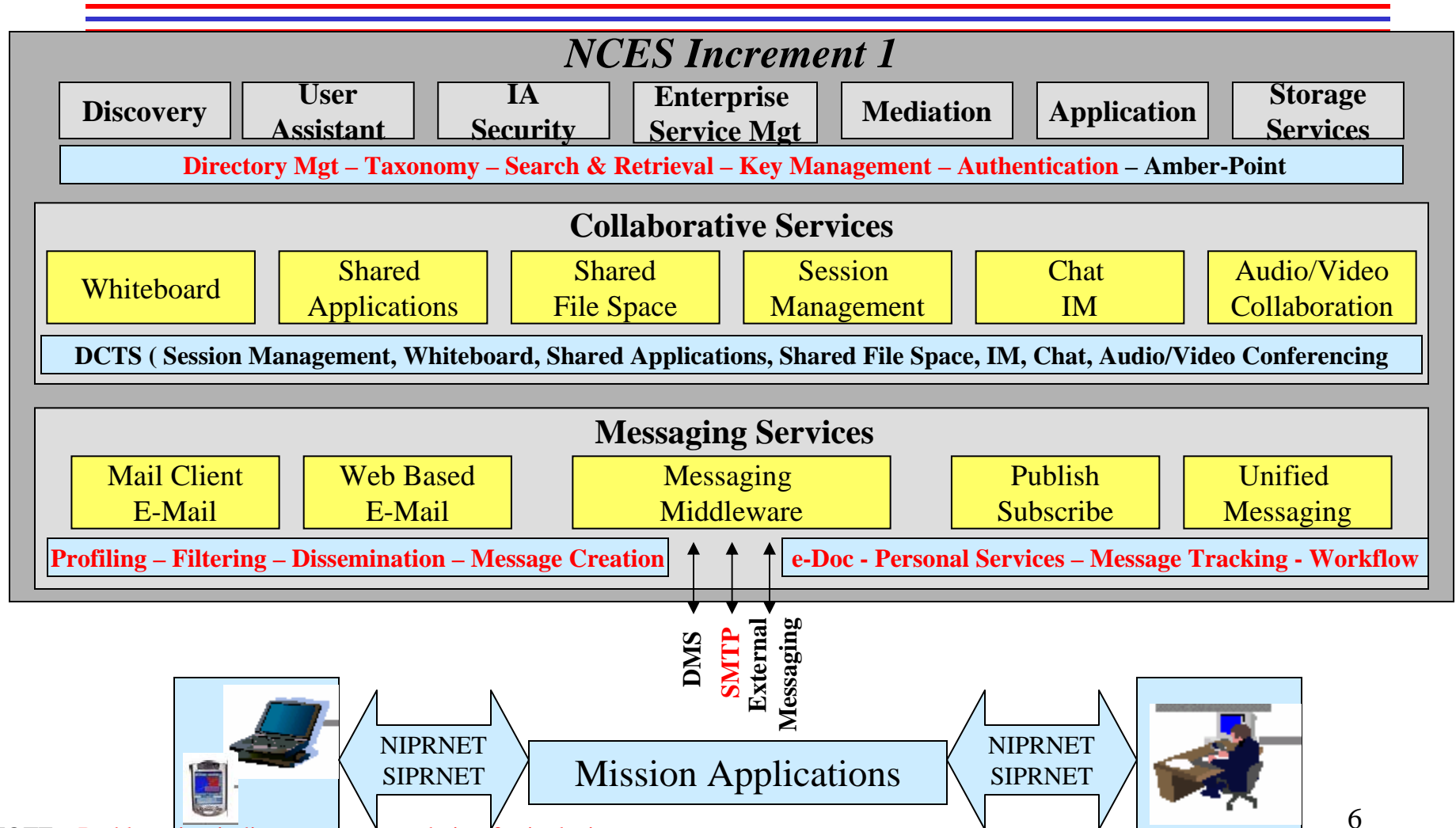


Messaging and Collaboration Recommendations: Definition

- (1) Publish definitive definitions of the NCES Core Services via FEDBIZOPS Request for Information, allowing industry to comment.**
- (2) Define messaging and collaboration capabilities in terms of open industry standards for interfaces and encodings to allow a variety of products that are current and suitable to be incorporated as core services while still enabling enterprise wide interoperability.**
- (3) Approach the objective definitions via a series of operational prototypes each focused to “reach” the possible, build and refine the objective definition/capabilities of the NCES. For instance, the first prototype should leverage existing hardware/software.**

Messaging and Collaboration Services

“Recommendation – Increment 1”



NOTE: Red lettering indicates recommendation for inclusion in increment 1.

Messaging and Collaboration Issue #2: Communities of Interest

Communities of Interest performance/technical/operational requirements have little definition to date, which makes it difficult to determine needed capabilities and the compatibility of capabilities. Crossover and support of messaging and collaboration within and among COIs and the three domains (business, warfighter, intelligence) have great potential for conflict.

Messaging and Collaboration Issue #2

Communities of Interest (COIs)

Current

Domains

Business	Warfighter
Installation & Environment Human Resource Management Acquisition Strategic Planning & Budgeting Logistics Accounting & Finance (Technical Infrastructure)	Command and Control Battlespace Awareness Force Application Protection Precision Logistics

Nat Intel

Communities of Interest

Institutional	Expedient
Command and Control Logistics Finance Health Affairs ??	Crisis Action Teams Accident Invest. Teams Assessment Teams Etc.

Colors represent duplications and proposed changes

Messaging and Collaboration Issue #2

Communities of Interest (COIs)

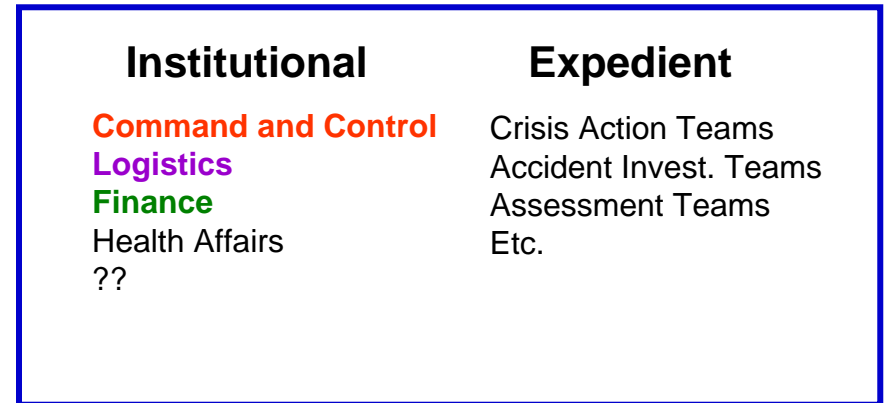
Current

Domains



NCES

Communities of Interest

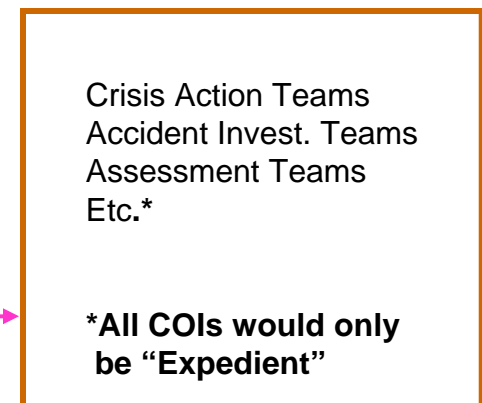


Proposed

Domains



Communities of Interest



Colors represent duplications and proposed changes

Messaging and Collaboration

Recommendations: Communities of Interest

- (1) Conduct an early, rapid study on restructuring Communities of Interest and Domains to determine if the approach suggested above is viable or another approach is better.**
- (2) Designate owners for all domains and assign an owner (e.g., USJFCOM) to oversee the COI Domain (responsible for planning all aspects of a COI). Give the owners power to make things happen, but ensure coordination with the Core owner and with other owners where there may be the need to interact.**
- (3) Specify basic joint/combined requirements for messaging and collaboration between and among all users as addressed above. Incorporate messaging and collaboration needs garnered from OIF/OEF (e.g., 4th ID, 18 ABN Corps) warfighters.**
- (4) Review studies, or if necessary conduct a study, to determine how people are using messaging and collaboration outside DoD. Is it needed, is it essential, what makes collaboration successful or unsuccessful in supporting different roles?**
- (5) Examine evolving commercial standards and capabilities for messaging and collaboration.**

Messaging and Collaboration Issue #3: Communication

Information related to implementation of NCEs from the Office of the Assistant Secretary of Defense, Networks and Information Integration (OASD (NII)), Defense Information Systems Agency (DISA), other government stakeholders and industry advisory groups is fragmented. Industry and the government need reliable program information to make partnership decisions.

Messaging and Collaboration

Recommendation: Communication

- (1) Establish a Net-Centric Enterprise Services Registry, open to government and industry and managed by an independent organization such as AFEI**
- (2) Populate the registry with information describing:**
 - Project objectives and organization**
 - Point of contact for information**
- (3) Mandate registration of related DoD programs and demonstrations/initiatives (e.g., ACTDs)**
- (4) Establish/continue an independent forum, where industry experts can discuss current issues and make recommendations as to the best approach to take.**

Messaging and Collaboration Issue #4: Standards

NCES will support information exchanges between national security entities at all levels in government – it will support policy, war-fighter, intelligence, business and coalition Communities of Interest. A common set of standards must be carefully vetted across domains and “communities of interest” to ensure that viable technical solution can be implement at each level.

Messaging and Collaboration Issue Recommendations: Standards

(1) Establish Standards Framework

(a) Group into communities with common technical & operational requirements.

(b) Categorize in terms of internal & externally accessible capabilities

(c) Define internal capability standards at the system/community level

(d) Define externally accessible capability standards at the next higher level

(2) Influence Standards to accommodate changing requirements

(a) Invest resources to assure GIG requirements are addressed.

(b) Engage with standards bodies

(c) Promote collaboration between standards bodies

(3) Establish/expand an interoperability testing program to:

(a) Assure standard can be implemented

(b) Verify standard does what it was designed to do

Messaging and Collaboration Issue #5: Risk

New and emerging standards have risk. Risk can include government acceptance, market place delivery, time-to-market, stability/scalability of platforms, and ability of system developers to deliver a working system.

Messaging and Collaboration

Recommendation: Risk

- (1) Use mature standards when available. Provide a migration plan to mature standards when they are not. Even an immature standard has potential for benefit. Avoid proprietary interfaces or protocol implementations. Vendors will support open standards if there is a customer demand for them.**
- (2) Promote efforts to reduce risk by establishing interoperability and compliance testing regimes (e.g., OpenGroup, OGC, NGA). Partner as appropriate.**
- (3) Address how to blunt the hacker threat when using commercial standards and widely fielded commercial applications for the war fighter domains**

Messaging and Collaboration Issue #6: Small Companies

Small companies, which are typically leading edge and niche companies, may have significant technology to contribute but are unable to invest resources upfront at will.

Messaging and Collaboration

Recommendation: Small Companies

- (1) To encourage innovation, fund a series of pilots in each of the broad areas. (Applicable for all sizes of companies!)**
- (2) Include incentives for small and niche companies/companies throughout the acquisition process, including specific topics within the SBIR program.**
- (3) Provide incentives to large companies and integrators to partner with high tech/niche companies to “incubate” new and better technology.**
- (4) Help Small Businesses’ awareness of the NCES Registry (Recommendation for Issue #3) as an entry with large companies and integrators.**

Messaging and Collaboration Issue #7: Intellectual Property

Core Enterprise Services should be non-proprietary and open source? If so, requiring COTS vendors to deliver intellectual capital (i.e., source code) will probably remove most commercial vendors from participation, as there will not be a business case.

Messaging and Collaboration

Recommendation: Intellectual Property

- (1) Structure deliverables and requirements to provide open interfaces based on commercially/governmentally agreed-upon standards.**
- (2) Executable code delivered with well defined non-proprietary APIs should be sufficient.**
- (3) Determine if this requirement applies to commercial code or only to code developed under government contract.**
- (4) Consider the option of proprietary source code being placed in escrow.**

Summary

Issues and Recommendations surrounding these issues:

- #1: Definition**
- #2: Communities of Interest**
- #3: Communication**
- #4: Standards**
- #5: Risk**
- #6: Small Companies**
- #7: Intellectual Property**

Next Steps/Continued Communications*

- **Submit “more complete” White Paper discussing this presentation**
- **Provide COTS product listing to accomplish our recommended Increment #1 (Slide 6) for inclusion in Quantum Leap II with lessons learned applied in Oktoberfest**

*** Recommendation: “Establish/continue an independent forum, where industry experts can discuss current issues and make recommendations as to the best approach to take.”**

Key Participants

- Kathy DiMaggio, VP, Federal Systems, Sigaba
- Charles Heazel, Chief Technologist, Lockheed Martin M&DS
- Arnold C. Rausch, Senior Mgt Analyst, Eagan, McAllister Associates, Inc
- Richard Quintana, SAIC
- Jerry Bennis, Program Acquisition Executive NGTI
- Kelly Brown, EMSolutions, Inc
- Richard Young, Microsoft