

DON XML – Achieving Enterprise Interoperability

***Overview of Policy, Governance, and
Procedures for XML Development***

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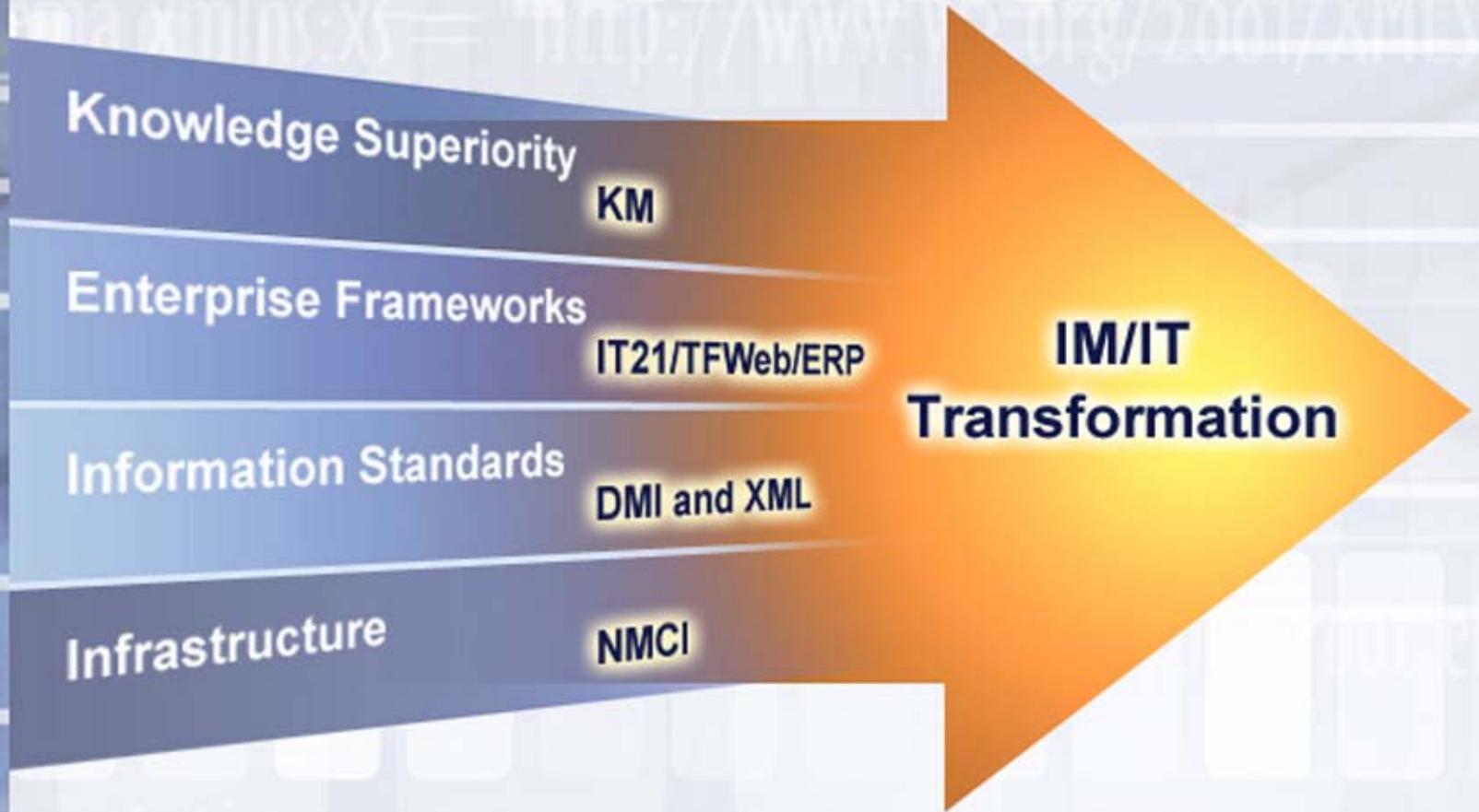
DON
XML

Vision

The Department of the Navy will fully exploit Extensible Markup Language as an enabling technology to achieve interoperability in support of maritime information superiority.

**—Signed by DON CIO
15 March 2002**

Vision— Introduction



Interoperability and systems integration are crucial to achieving maritime information superiority.

Vision— **XML Enabled Services & Applications**

➤ **XML enabled applications**

- **Are based on XML technical specifications**
- **Will employ XML business standards**
- **Play key role in all aspects of systems development, integration, and interoperability**
- **Integral to achieving knowledge superiority**
- **Must be capable of supporting interoperability with legacy systems**

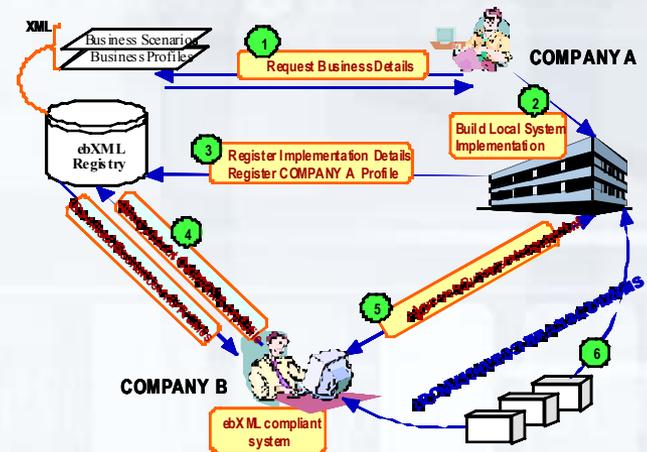
➤ **DON Involvement**

- **Identifying DON requirements through standards efforts**
- **Identifying DON requirements through Alpha and Beta testing of vendor products**

DON must be proactive about providing inputs to XML standards bodies and solution providers.

Vision— Moving Forward with DON IM/IT Initiatives

- The DON must establish XML based protocols as enterprise-wide standards
 - Identify, adopt, deploy single set of platform-independent information exchange protocols (XML)
 - Extend this model to the entire DON enterprise
 - Interoperability WILL BE enhanced
 - Develop distributed registry solution



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The DON CIO is tasked with developing the required governance for establishment of DON-wide XML based protocols.

Achieving the Vision - DON XML Policy

DON XML Policy

- **Formal policy issued by DON CIO 13 Dec 2002**
- **First comprehensive formal XML policy issued in DoD**
- **Replaces Interim DON XML Policy of 06 Sept 2001**
- **Provides significantly more detailed direction than Interim XML Policy**

DON XML Policy (cont.)

Standards and Proprietary Extensions

- **XML Technical Specifications and Business Standards**
 - Production applications shall only use W3C specifications holding Recommended status
 - Make use of other XML specifications from National and International standards bodies, e.g., ISO, IEEE, ANSI, OASIS, UN/CEFACT, IETF
 - Where conflicting, W3C takes precedence
- The DON shall actively participate in Voluntary Consensus Standards organizations, e.g., OASIS, W3C
- DON XML production implementations shall not use proprietary extensions to XML specifications

DON XML Policy (cont.)

Reuse and Order of Precedence

- **Reuse existing XML components**
 - **DON policy to advocate, support, and ensure the development, maintenance, registration, discovery, and reuse of standard XML within functional areas and at the enterprise level**

- **When selecting XML components, adhere to the following order of precedence**
 - **Appropriate Business Voluntary Consensus Standards (BVCSs)**
 - **Federal-level standards**
 - **DoD standards**
 - **DON enterprise standards**

DON XML Policy (cont.)

Developer's Guide, Enterprise Standards, & DoD Registration

- **All DON XML development shall adhere to DON XML Developer's Guide**
- **All DON XML business standards will be at the enterprise level**
- **Adhere to DoD XML registration policy (to be implemented via DON Namespace and Subnamespaces)**

DON XML Policy (cont.)

Additional Information

- **Policy directs Functional Area Managers (FAM) to designate XML Functional Namespace Coordinators (FNC)**
- **DONXML WG tasked with taking necessary actions to implement policy**
- **DON Commands tasked to:**
 - **Work with FNCs to develop standard enterprise XML components**
 - **Participate in the DONXML WG and review the WG products**
 - **Implement the requirements of the policy**

Achieving the Vision - Governance Structure

Why a Governance Structure?

- To enable enterprise-wide implementation of XML standards throughout the DON
- To ensure maximum interoperability across XML technology focus areas
- To harmonize business and technical perspectives
- To manage and bind XML aspects of diverse, independent initiatives
- To support user needs while maintaining necessary elements of coordination and control
- To foster coordination and cooperation between implementers, users, key individuals, groups and organizations involved in XML

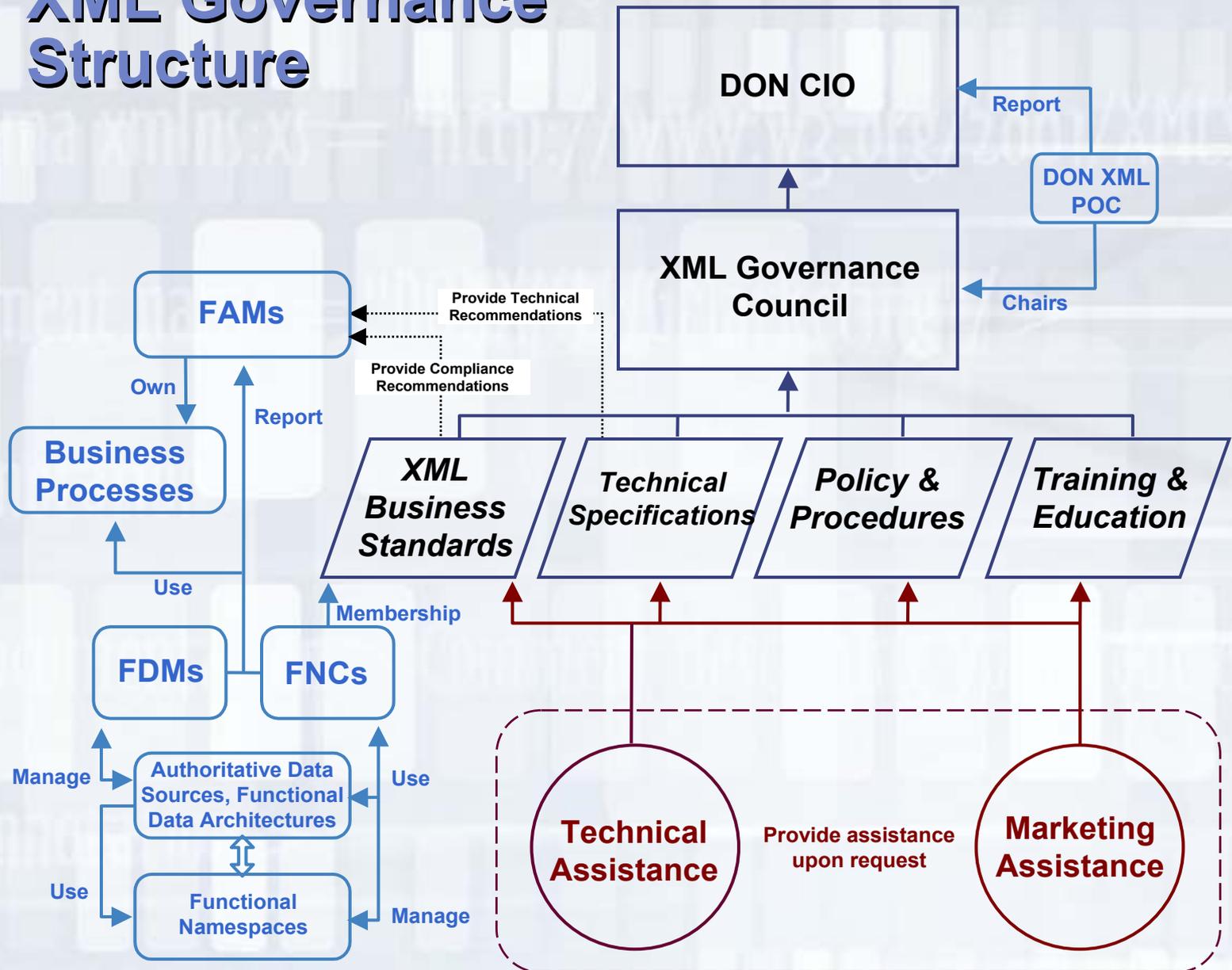
Governance Structure Scope

- **All XML application development within the DON**
 - **Proof-of-concept, and full “programmatic”**
- **All existing implementations of XML**
- **To extent practical, DON use of XML in Joint applications**

Governance Structure Functions

- **Act as focal point for XML within DON**
- **Provide rapid, responsive issue resolution and provide venue for communication within DON on XML issues**
- **Coordinate incorporation of DON XML implementation into DON requirements, budgeting and acquisition processes**
- **Provide oversight of DON XML implementation (enforcement)**
- **Interface with external organizations/activities on XML strategy**
 - **Business Standards - Voluntary Consensus Standards, Federal, DoD, other military components, Etc.**
 - **Technical Specifications – Voluntary Consensus Standards, Federal Enterprise Architecture, GIG, DII**
 - **Policy and Procedures – Federal CIO XML WG, OSD, other services**
- **Carry out or delegate other duties as required to achieve DON XML Vision and implement DON XML Policy**

Ultimate Goal – XML Governance Structure



DON XML Governance Council

- **Reports directly to DON CIO**
- **Chaired by DON XML POC**
- **Membership (Under Development)**
 - **Chairs of four working level councils**
 - **Fleet representatives (TBD)**
- **Stand-up TBD**

DON XML Business Standards Council (BSC)

- **Chartered by DON CIO Apr 21, 2003**
- **Recently designated DON XML Functional Namespace Coordinators (FNC) make up primary membership**
- **BSC responsible for:**
 - **Coordinating and harmonizing XML components across 23 functional areas**
 - **Apply the DON XML Component Hierarchy**
 - **Ensure maximum exposure to, and coordinated involvement in, business standards VCS organizations (e.g., OASIS)**
 - **Provide business standards compliance recommendations to FAMs**
- **Formal operating procedures nearly complete**

Technical Specifications Council (TSC)

- **TSC Responsibilities**
 - Provide technical guidance to FAMs and DON XML developers
 - Ensure maximum exposure to, and coordinated involvement in, technical specification VCS organizations (e.g., W3C)
 - Maintain list of DON approved XML technical specifications
 - Consolidate DON XML technical requirements for submission to VCS
 - Provide technical compliance recommendations to FAMs
- **Membership (under development)**
 - 8 technology focus areas
 - Single DON organization as lead for each area
 - TBD
- **Charter (under development)**
- **Operating Procedures (under development)**
- **Stand up planned for August 2003**

Other Working Level Councils

- **Policy and Procedures Council (PPC)**
 - Channel architecture development efforts towards a common set of procedures and guidance
 - Ensure enterprise approach
 - Coordinate P&P issues
 - Ensure balance between top-down management and bottom-up creativity
 - Support implementer requirements
- **Education and Training Council (ETC)**
 - Enable collaboration
 - Ensure seamless harmonization between:
 - XML governance structure
 - DON training commands
 - Service training activities
 - Echelon, Functional Area and Organization Level training activities
 - Outreach efforts

XML Development

CDA role

- **Contact your FNC**
- **Respond to XML Data Call Naval Message (to be released Shortly)**
- **Work with FNC to facilitate and refine the registration process**
- **Understand and follow the DON XML Developer's Guide**
- **Use the XML Registry/Repository**
 - **Reuse XML types and fragments whenever possible**
 - **Extend XML only if necessary**
 - **Create new XML types and fragments only as last resort**
- **Use listserves and NKO to communicate to other developers**

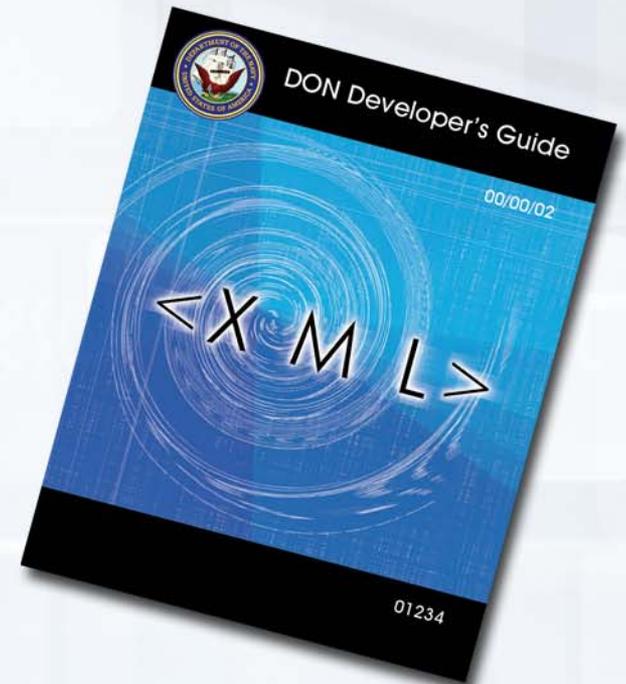
**CDA is key to developing
interoperable enterprise-wide XML**

Development Process

- **Notify your FNC of the intent to develop**
 - **Notification allows for other functional areas to assist by providing already developed fragments and reduces duplicative efforts**
 - **Facilitates harmonization efforts before registration**
- **Develop compliant XML**
 - **Use DON XML Developer's guide**
- **Submit XML to FNC for harmonization via DON Functional Subnamespaces in DoD Registry**
- **FNC submits XML to Business Standard Council for approval**
- **DON registers XML standards under DON Namespace in DoD Registry**

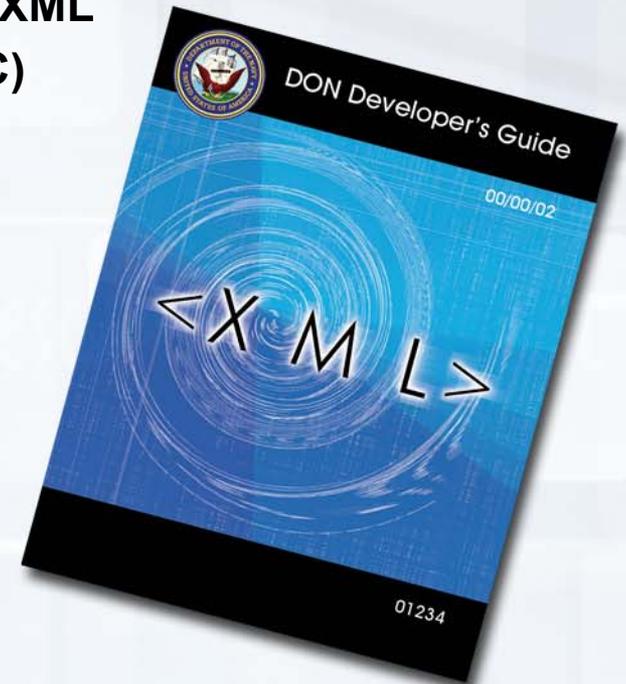
DON XML Developer's Guide

- **Version 1.1: Published on 1 May 2002**
- **Provides general development guidance for the many XML initiatives currently taking place within the DON**
- **Provides guidance in areas such as the following:**
 - **Use of XML specifications**
 - **XML component selection/creation**
 - **XML Schema design**
 - **XML component naming conventions**
- **Version 2.0 under development**



The Guide Layout

- **Uses RFC 2119 Terminology to express recommendations**
 - Requirements: **MUST (NOT), SHALL (NOT), REQUIRED**
 - In Guidance, implementation is at PM discretion
- **Available on line at: <http://quickplace.hq.navy.mil/navyxml> (click on “library”) and on NKO DON XML Enterprise Collaboration Center (ECC)**
- **41 Pages**
 - Guidance
 - Explanation
 - Examples
 - Appendices – Draft Status



Next Steps

- **Contact the appropriate FNCs**
- **Understand the Developer's Guide**
- **Evaluate your XML against the Developer's Guide**
- **Join the XML community through listserves, NKO**
- **Additional guidance is coming soon!**
 - **XML Registration process**
 - **XML Developer's Guide v2.0**
- **Participate in upcoming DONXML Work Group Meeting, 22-24 July in DC Area**
 - **Continue work on DON XML Developer's Guide v2.0**
 - **Continue work on stand-up of DON XML Governance Structure**

Resources & Point of Contact

- **FNC**
POC info attached and available on NKO

- **Navy Knowledge Online**
<http://www.nko.navy.mil>

- **DON XML Quickplace**
<https://quickplace.hq.navy.mil/navyxml>

- **DON XML Work Group Listserve**
Developer's Guide - <http://mail.fedworx.org/devguide.html>
General Work Group Announcements - <http://mail.fedworx.org/donxmlwg.html>

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Questions?

Back up

Functional Namespace Coordinator

FNC Responsibilities

- **Develop and manage DON XML enterprise and functional area namespace(s)**
- **Adhere to higher level policy and guidance requirements**
- **Implement DON XML strategy and processes**
- **Assist PMs and other systems developers with production of:**
 - **Standard markup**
 - **Schema components**
 - **Schemas**
 - **Stylesheets**
 - **Namespace associations**
 - **Core Components & Business Information Entities**
 - **Required Metadata**

FNC Responsibilities (con't)

- **Ensure PMs and developers only define XML components for information they produce and is the authoritative source**
- **Promote Authoritative Source Data (ASD) and ASD based XML component use**
- **Ensure that DON requirements are filtered up to the Voluntary Consensus Standards**
- **Manage XML components. In conjunction with FDM**
 - **Reconcile functional area and cross-functional XML tags, element and attribute names, and required metadata with core components, as they become available**