Network Centric Operations Industry Consortium

www.ncoic.org

Industry working together with our customers

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NCOIC Technical Council Chairman Emeritus
16 April 2007

Approved for Public Release
NCOIC March 9, 2007

NCOIC Goal: to Facilitate Implementation of Network Centric Operations

Members are Global Leaders:

Academic institutions

Air Traffic Management providers

Service providers
Consulting
Engineering
Logistics

Defense suppliers
All military services
Multinational

Government agencies

Human service agencies

Integrators
Commercial systems
Defense systems

IT firms
Communications
Data management
Human-Machine interface
Information assurance

Standards bodies

- **Increase interoperability** within and among systems involved in Interagency and Multinational operations

- **Lower development costs** and increase commonality of design in future systems – tailored standards and best practices

- **Improve application readiness** through more rapid fielding of network centric systems – leverage technical "lessons learned"

- **Reduce systems cost and sustainability** through re-use and commonality – facilitate ease of integration, upgrade, and support

- **Reduce Development Risk** by identifying the common components needed for the network centric environment – Develop them where none exist

- **Improve Application Effectiveness** through new, more focused development on domain specific capabilities

Currently 90+ Member Companies & Organizations in the NCOIC

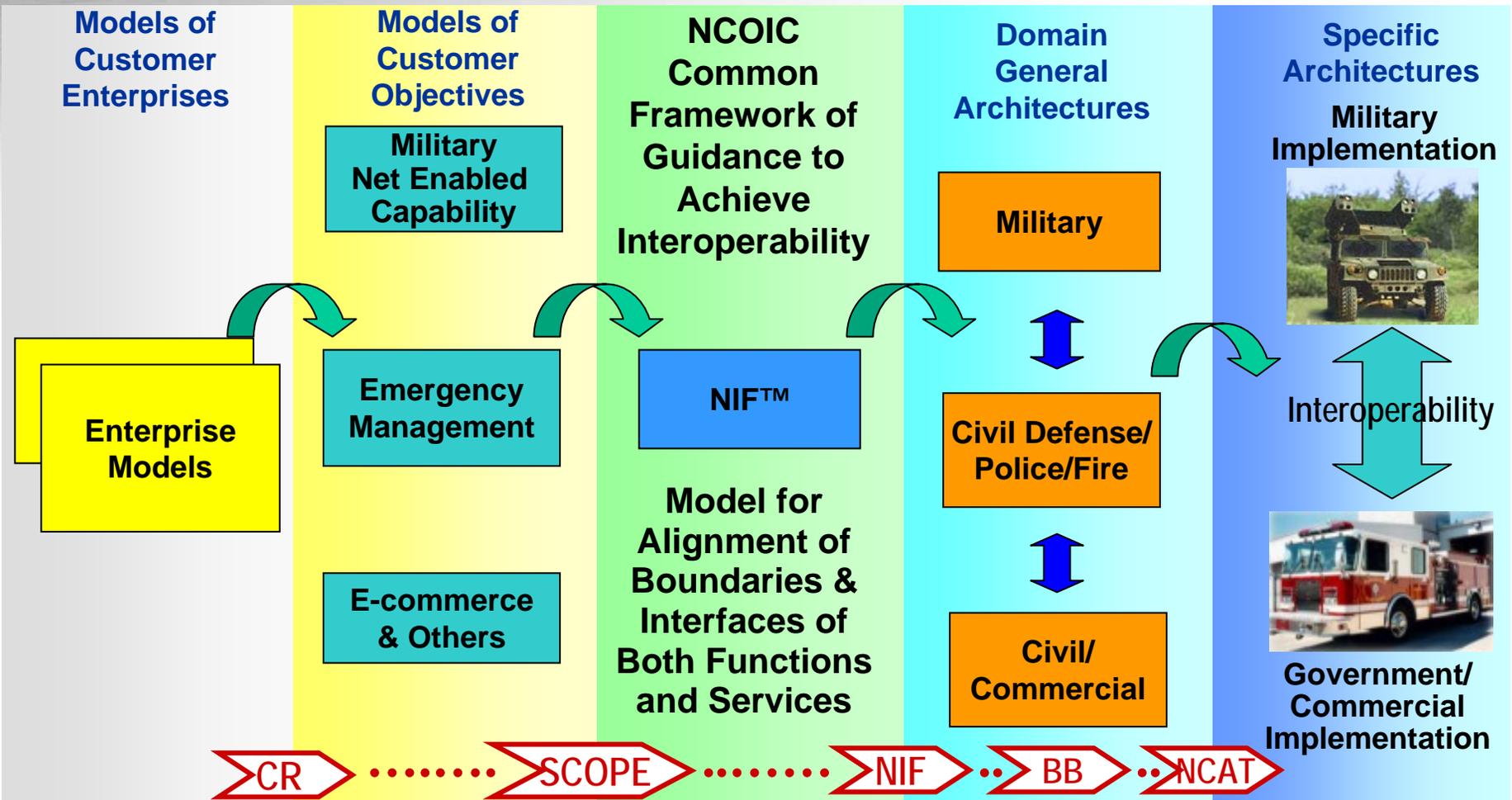**Just a few of the names that you might recognize…**

Advisory Council Members

- Chairman — Honorable Keith R. Hall
- Headquarters, Department of the Army — LTG Steven W. Boutelle, USA
- Joint Staff — VADM Nancy E. Brown, USN
- UK MoD — AVM Stuart D. Butler, RAF
- Australian Defence Organisation — MAJGEN David H. Chalmers, ARA
- Department of Homeland Security — Honorable Jay M. Cohen
- American Red Cross — Mr. Steven I. Cooper
- Defense Information Systems Agency — Lt Gen Charles E. Croom, Jr., USAF
- Italian MoD — Maj Gen Pietro Finocchio, ITAF
- Office of the Secretary of Defense — Dr. Vitalij Garber
- German MoD — Mr. Uwe H. Giesecke
- NATO Allied Command Transformation — Maj Gen Koen Gijsbers, RNLA
- NATO Headquarters C3 Staff — Maj Gen Georges D'Hollander, BE AR
- Advisory Council Chair Emeritus — Honorable Paul G. Kaminski
- Independent — General Harald Kujat, GE AR (Ret.)
- Naval Network Warfare Command — VADM James D. McArthur, Jr., USN
- Office of Director of National Intelligence — Honorable Dale W. Meyerrose
- Swedish MoD — Maj Gen Staffan Näsström, RSAF (Ret.)
- Office of the Secretary of the Air Force — Lt Gen Michael W. Peterson, USAF
- Federal Aviation Administration — Mr. Mark T. Powell
- French MoD — BGen Blandine Vinson-Rouchon, DGA
- National Geospatial-Intelligence Agency — Mr. Steven P. Wallach
- NATO C3 Agency — Mr. Dag Wilhelmsen
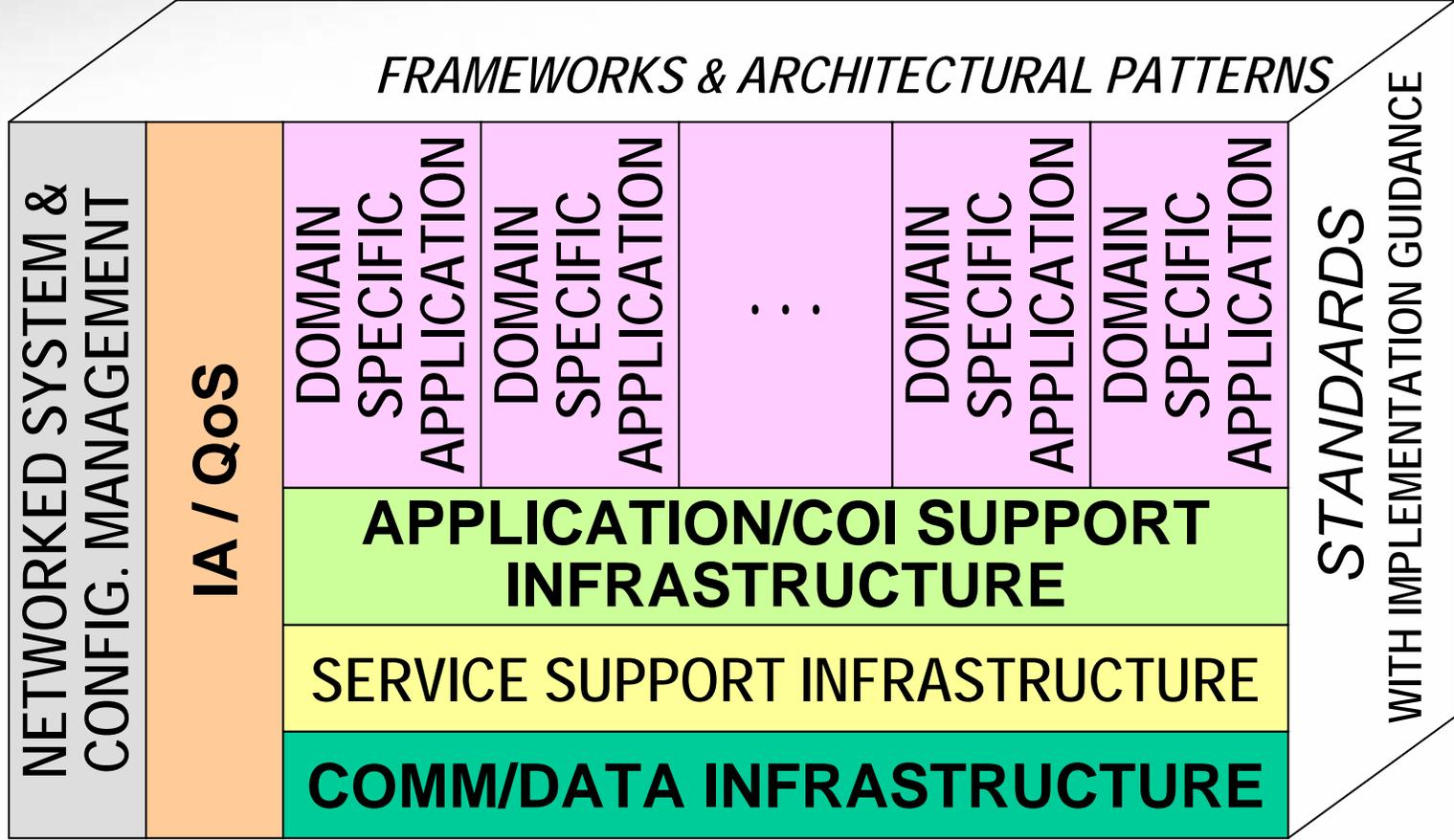- US Joint Forces Command — LTG John R. Wood, USA

NCOIC Key Deliverables

- Systems, Capabilities, Operations, Programs, & Enterprises (SCOPE)
  - Characterization of commercial, civil, and government agency requirements for interoperable systems

- NCOIC Interoperability Framework™ (NIF)
  - Recommendations for open standards and their patterns of use to obtain interoperable systems

- Building Blocks
  - Catalog of COTS & GOTS products compliant with NIF recommendations

- Network Centric Analysis Tool™ (NCAT)
  - Netcentric analysis of system architectures, including System-of-Systems and Federation of Systems architectures

- Collaborative demonstrations between government and industry bodies

NCOIC Key Technical Deliverables

Models of Customer Enterprises	Models of Customer Objectives	NCOIC Common Framework of Guidance to Achieve Interoperability	Domain General Architectures	Specific Architectures
	Military Net Enabled Capability		**Military**	**Military Implementation**
Enterprise Models	**Emergency Management**	**NIF™**	**Civil Defense/ Police/Fire**	Interoperability
	E-commerce & Others	**Model for Alignment of Boundaries & Interfaces of Both Functions and Services**	**Civil/ Commercial**	**Government/ Commercial Implementation**

> CR .... SCOPE .... NIF .. BB .. NCAT

NCOIC Technical Deliverables Work Together Assist in Achieving Interoperable Systems

FRAMEWORKS & ARCHITECTURAL PATTERNS

NETWORKED SYSTEM & CONFIG. MANAGEMENT

IA / QoS

DOMAIN SPECIFIC APPLICATION

DOMAIN SPECIFIC APPLICATION

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DOMAIN SPECIFIC APPLICATION

DOMAIN SPECIFIC APPLICATION

APPLICATION/COI SUPPORT INFRASTRUCTURE

SERVICE SUPPORT INFRASTRUCTURE

COMM/DATA INFRASTRUCTURE

STANDARDS WITH IMPLEMENTATION GUIDANCE

NCOIC Technical Roadmap

Develop the Strategy, Mission, & Vision / *Define our Approach*	*Deliver Tools, Building Codes, and Building Blocks to Influence Acquisitions*	*Maturing Relationships and Focusing Deliverables*	*Candidate Future Activities*
2004-2005	**2006**	**2007**	**2008**
2004 (28 Members)	86 Members	93 Members	Membership growth

• Consortium formation	• Establish IPTs to produce building codes
	  – NATO
	  – S&RL
	  – MECI
		• Net-Enabled Emergency Response	• Domain-specific projects

• NCOIC position paper	• Government memberships	• M&S and Demo interoperability	• Semantic Framework
• Member recruitment	• NCAT v2	• NCAT automated	• Enabling guidance for Military and Civil Scenarios
2005 (48 Members)	• Mobile Networking Overview	• Interoperability exercises	• Development of Patterns & Frameworks
• Gov't and industry initiatives database	• NIF v1 content & NIF v2 concepts	• Ground systems architectures	
• Lexicon	• Building Blocks database	• NIF v2 completion	
• SCOPE	• SCOPE Model refinement	• Frameworks & patterns (PFCs)	
• NCAT v1		• CRADAS/MOUs	
• NIF v1		• Swedish FMV design rules	
		• IA Framework	
		• Building Blocks Certification	
Establishing and Organizing	*Analyzing options and creating tools*	*Refining tools and producing deliverables*	*Influencing usage and standards adoption*

What Customers Are Saying:

- "NCOIC and DISA are pursuing similar and complementary paths in developing network centric capabilities and addressing information assurance challenges. We are looking forward to working side-by-side as an NCOIC member with the many world-class technology organizations actively involved in NCOIC's groundbreaking work." *Lt Gen. Charles E. Croom, Jr, USAF, Director of DISA*

- "In cooperation between NATO and industry, NCOIC is proving to be of critical importance !" *Marshall Billingslea, ASG/DI NATO, ACT Industry Day, AFCEA-Chapter Europe*

- "The American Red Cross is very pleased to be a newer member of the NCOIC because we fully support the work the Consortium is doing to enable emergency communications interoperability across the defense environment and now with the public safety and emergency responder sectors. NCOIC efforts will improve the ability of emergency response teams around the world to more quickly and effectively respond to natural and man-made disasters. The result will be lives saved that would otherwise be lost, and a greater sense of global partnership to enable public preparedness and response." *Steve Cooper, CIO, American Red Cross*

- "NATO can only be successful in this NNEC enterprise if NATO and its Allies work together with industry from the beginning." *Major General Georges d'Hollander, vice-chairman of the NATO Consultation, Command and Control Headquarters Board*

Net-Enabled
Future

Stovepiped
Systems,
Point-to-Point
Networks