



# Taiwan SRB

Knowledge,  
Information and  
Intelligence –

Global Trends and  
Drivers

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# HP & Defense History

- HP has been supporting Defense and related (Intelligence, Security) agencies, departments, and ministries for over 60 years
- Founder Dave Packard served as US Asst Secretary of Defense
- Carly and HP's Executive Council has been providing consulting to US Secretary of Homeland Security, Tom Ridge, on HP's integration experience – Carly and HP recently received the Private Sector Council Award for her contributions



# The Big Shifts

- All processes and content will be transformed from physical and static to digital, mobile and virtual.
- The demand for simplicity, manageability and adaptability will change how public and private sector work and organize, buy and use technology.
- It's a horizontal, heterogeneous, networked world. Standards are about connection and common language.



# Key market drivers are similar across all geographies and industry verticals



## Market Drivers:

- Modernization and Internet adoption
- Information integration and knowledge management
- Restructuring: privatization and decentralization
- Homeland defence and security, and public safety
- Spending control and optimization

## Information Technology Imperatives:

Integration

Access

Transformation

# Needed: Knowledge and Intelligence community reform

Globally, intelligence communities share similar objectives:

- Detect and analyze patterns / trends / threats
- Share information but protect sensitive sources and methods
- Act in real time to thwart / mitigate threats

Similar issues hamper agencies' abilities to fulfill these objectives:

- The stream of voice, data, and digital images to monitor and analyze is continuing to expand exponentially - faster than the public sector alone can match
- Many intelligence communities are disconnected, "stove-piped" organisations
- Robust trusted systems, particularly trusted Information Technology infrastructures, are not in place
- Obtaining adequate, timely funding is a perennial problem

# Needed: Knowledge and Intelligence community reform (continued)



Sweeping reforms are needed to keep pace with rapid change:

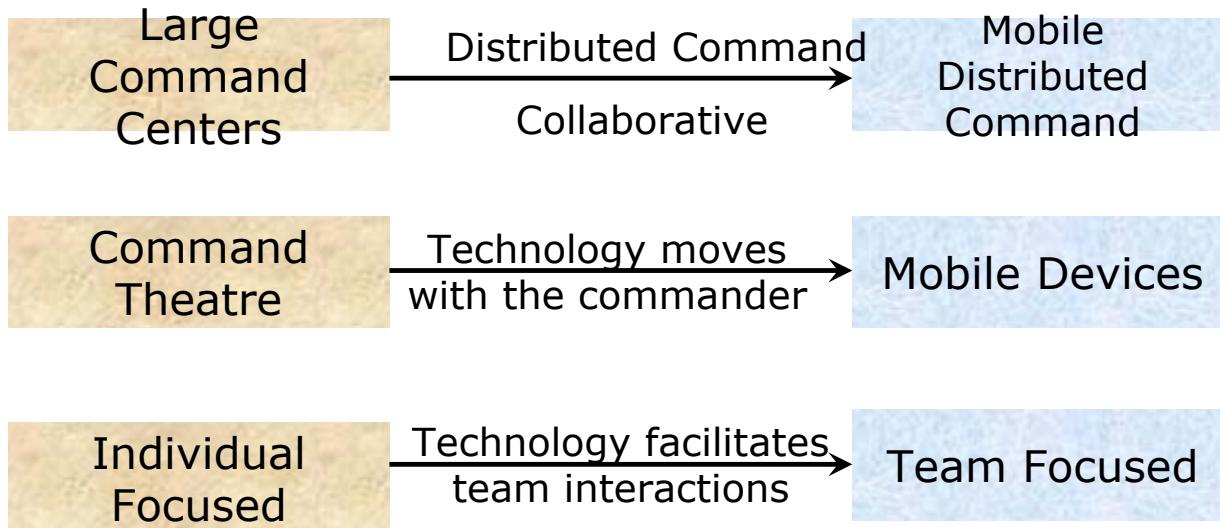
- Replace disconnected organizations with a “single information enterprise”
- Leverage private sector expertise and investments by forming public/private partnerships
- Transform Information Technology into trusted systems based on:
  - **Simplicity:** reduces risk, improves speed and ability in implementing change
  - **Standards:** extends the benefits of simplification through the enterprise
  - **Modularity:** ability to change, manage, and use components collectively and independently
  - **Integration:** facilitates a uniform system that is easy to understand, manage, and modify

# Changing Needs

- Evolving role to defense peace-keepers
  - From theater warfare to conflict resolutions
  - Coordination of international forces and multiple NGO's
- Changing threats
  - Urban Warfare
  - Terrorism
- Network Centric Operations (NCO)
- Critical Infrastructure Protection (CIP)
- Homeland Security Common Operational Picture (COP)

# Digital, Mobile, and Virtual

- Facilitating Paradigm shift
  - Peace-keeping role
  - Urban warfare
- Singapore Defense – Command Post of the Future
  - Field Command Post
  - Facilitates accurate assessment and decision-making



# DoD, NATO and MoD's Mandate Force Transformation through Network Centric Operations (NCO)



NCO translates an information advantage into a decisive warfighting advantage to enable:

- Information sharing
- Shared situational awareness
- Knowledge of commander's intent
- Self-synchronization
- Speed of command
- Increased combat power

US DOD  
Headquarters  
The Pentagon  
Arlington, VA



NATO  
Headquarters  
Brussels  
Belgium



UK MOD  
Headquarters  
London  
England



# NCO extends across countries and agencies



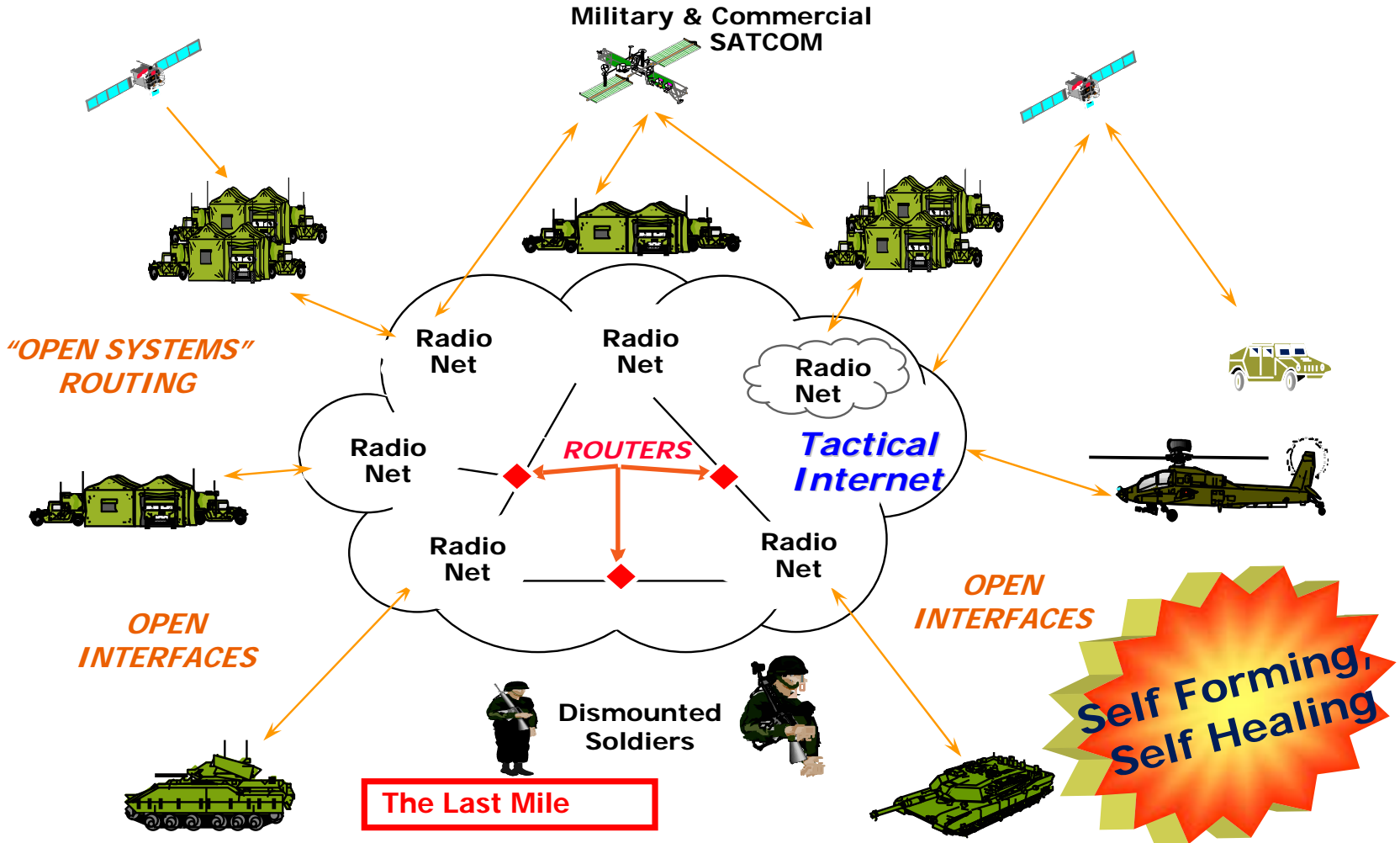
- NCO is the underlying foundation of "Force Transformation" at the DOD and throughout the armed forces of our allies
- New relationships between defense operations abroad and homeland security demand InterOperability and resulting "Shared Awareness"
- NCO results from the new opportunity provided by IT and changes in the Gov't Defense & Security Mission

Silo Capabilities		Integrated Solutions, comprehending multiple services/agencies, commands, and countries
Proprietary Technologies		Reusable "COTS" components
Hierarchical/Serial Command & Control		Meshed Decision Making Leveraging Information Superiority

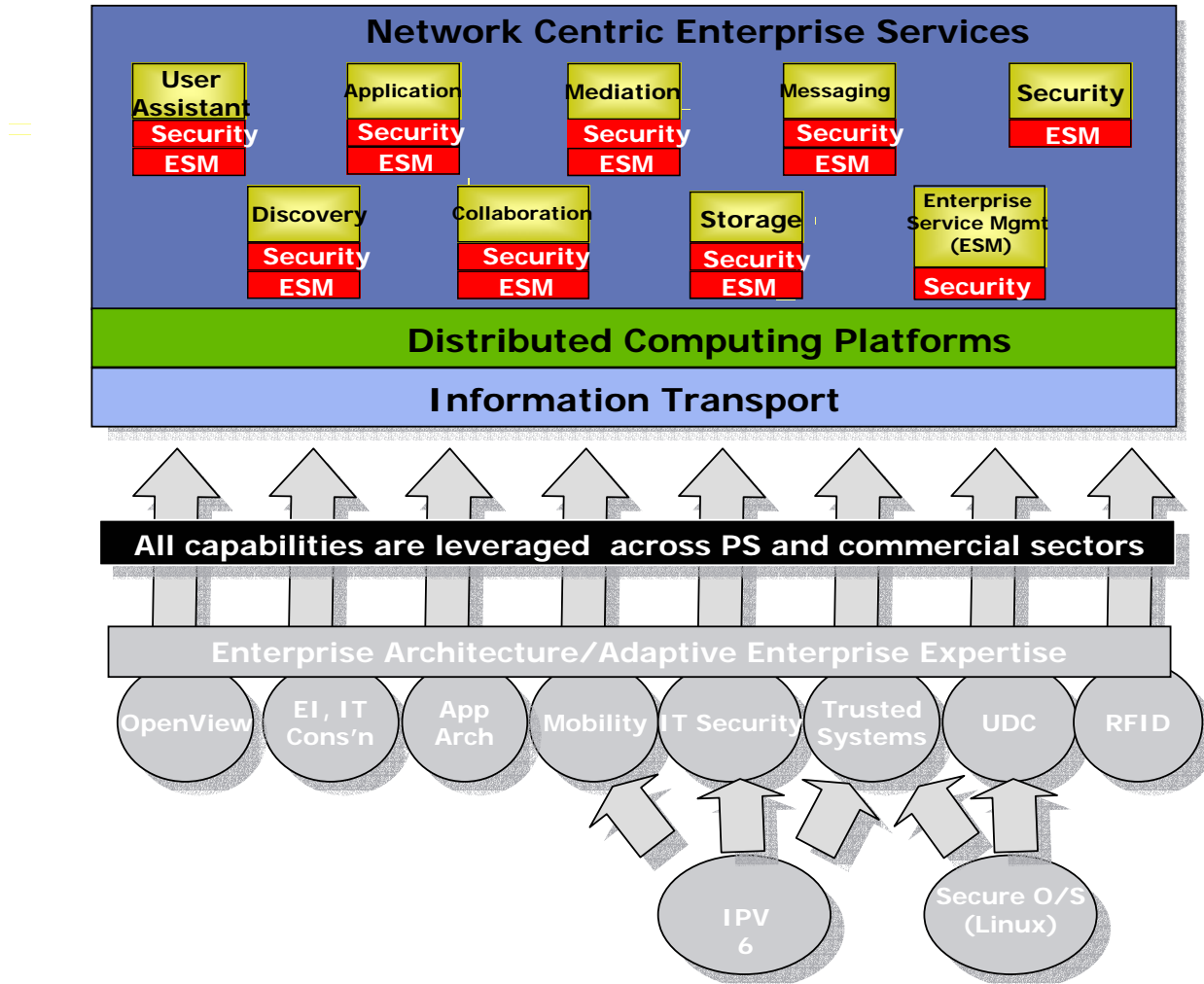




# Army NCO Transformation Network View



# HP enhancing /tailoring current solutions and leveraging future capabilities to address the Infrastructure opportunity

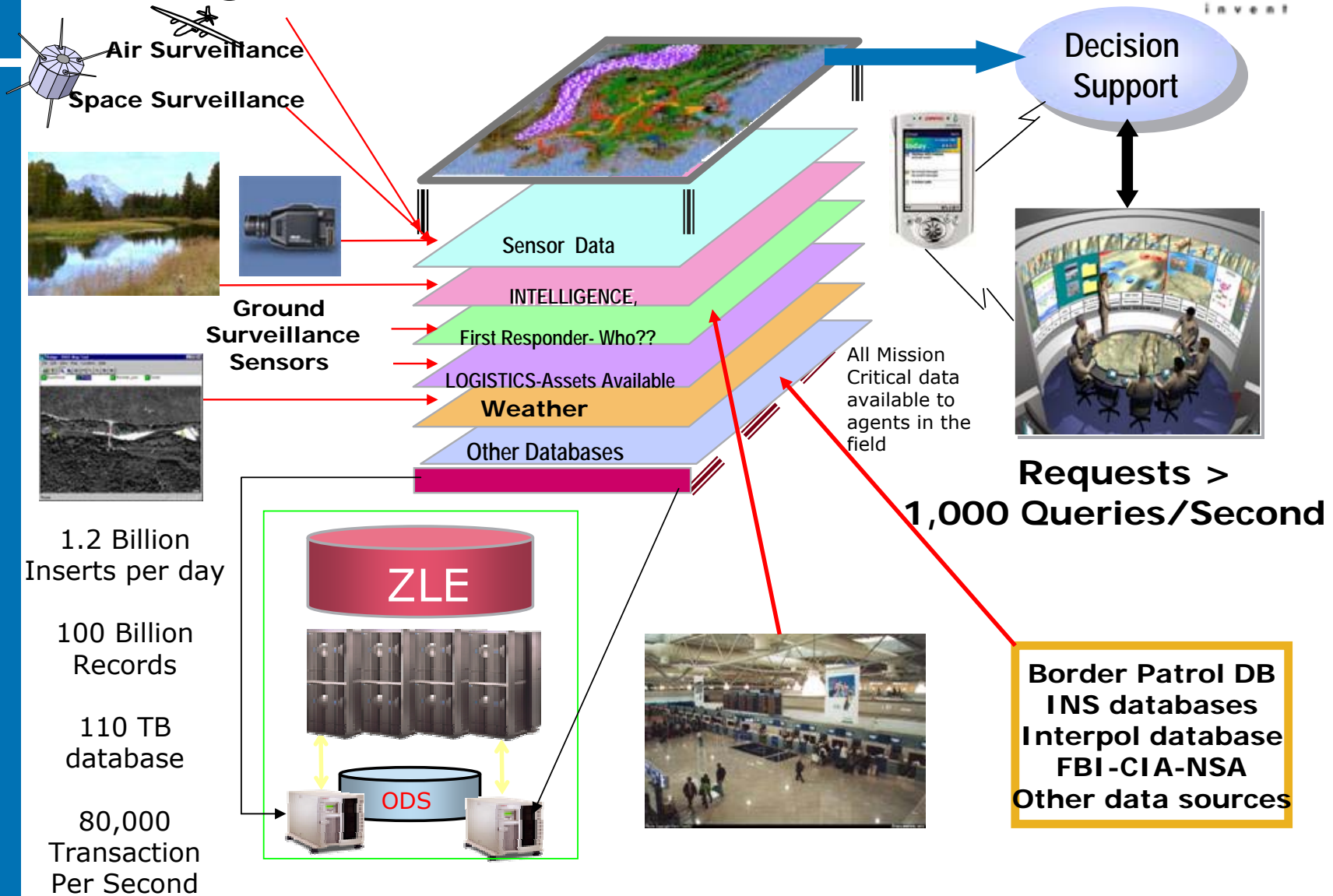


# Homeland Security – Critical Infrastructure Protection (CIP)



- Assets & infrastructure vital to national security, governance, public safety, public health & economy
- Physical assets
- Cyber assets
- Supporting infrastructure
  - Including energy, water, health care, transportation, treasury & finance, communications, manufacturing, etc.
- Emergency-preparedness communications / high-speed communications
- Information systems infrastructure
- Cooperation & shared responsibility between public & private sector

# Homeland Security COP in Real-Time



# Defense, Intelligence & Security Solutions



Defense

Intelligence

First Responders

Critical Infrastructure  
Protection

Border, Trade and Ports

Command & Control / Common Operational Picture

Identity Management / Biometrics

Collaborative / Adaptive

Infrastructure / Security / Mobility

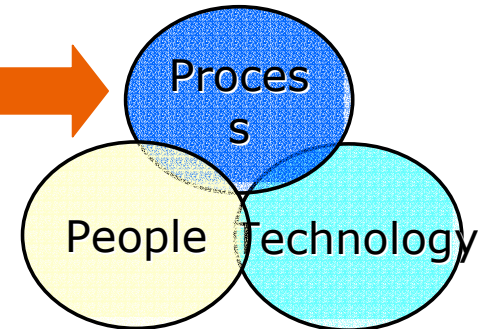
# HP's collaborative strategy – best practices



Public/Private sector partnerships provide leverage of best-in-class expertise. HP partners with worldwide Independent Software Vendors and Systems Integrators to provide industry leading Security and Defence solutions.

Government challenge: Collaboration Provides: Result: Integration!

- Unconnected, inefficient:
  - People
  - Process
  - Technology
- Expert advice and consultative support
- Best-in-class solutions and partnerships
- Simplified, faster solution selection, time to market
- On mission, on budget deliverables



# Summary

- Information and intelligence sharing are critical to the safety of citizens around the world
- Reforms are necessary to enable the intelligence community to move toward a single information enterprise based on a trusted Information Technology infrastructure
- Through public/private partnerships, the public sector can improve its effectiveness by leveraging best practices from and collaboration with the private sector
- Integrated solutions that provide information in a secure manner are key to the evolution of global cross-border collaboration



i n v e n t

# Public Sector segment



Defense and security: improve national and citizen safety

- Defense
- (Homeland) Security
- Intelligence
- Public safety, law enforcement
- Multi/international s, i.e. NATO



Government services and administration: improve efficiencies and service levels

- Multi/international, i.e. UN, EU, World Bank
- National, central, federal
- State, province, region
- Local



Health and wellness: reduce cost and increase patient safety and quality of care

- Payers
- Providers
- Life sciences (incl. medical products, research institutions, biotechnology)
- Multi/internationals, i.e. WHO



Education: enhance the learning experience for teachers and students

- K-12
- Higher education
- Continuing education

# NCO began in 1999 as a Framework for Improving “Force Effectiveness”

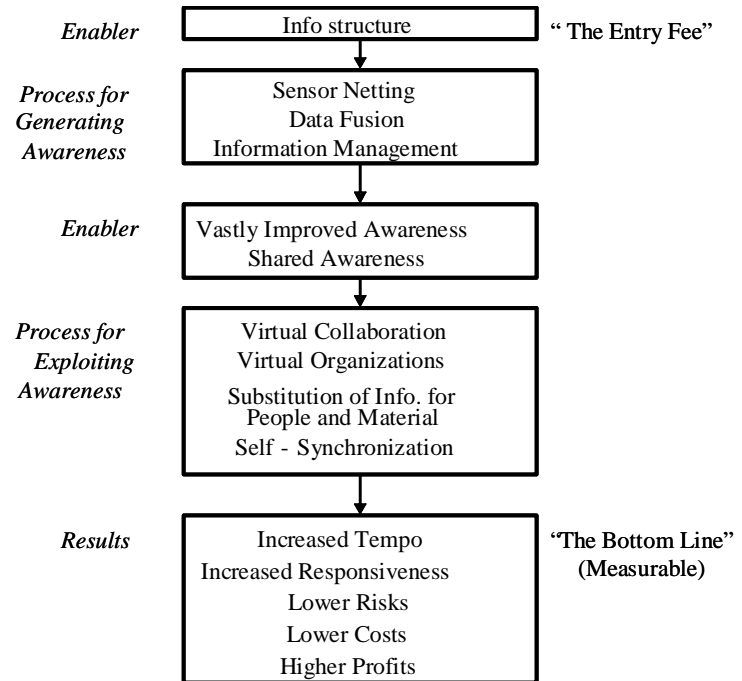
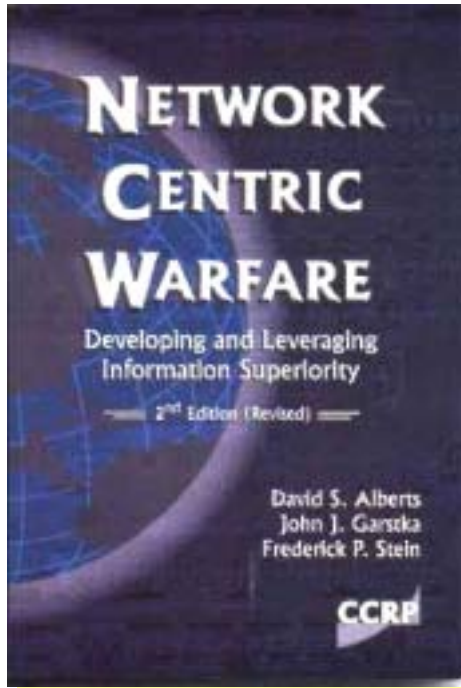


Figure 6. The Network Centric Enterprise

## NCW Foundation (1999)