

ncdic[™]

Network Centric Operations
Industry Consortium



Enterprise Approach



Pat Ryan

Global Government Solutions

CISCO

Agenda

- Not Duplicate Esteemed Speakers
- Come From a Slightly Different Perspective
- Practical Observations from Commercial World
- Concentration on A & A
- Suggestions For Road Ahead



ABCDEF
E 4 0078 BY 0000000 00000000

ARCHITECTURES AND ACQUISITION

How does commercial industry apply?

Investment, cost, R&D, technology change cycles

Why does it matter?

Capabilities, Economies, Innovation, Speed

What should we do?

Manage change better and create better/strategic partnerships

How can we incorporate change over time?

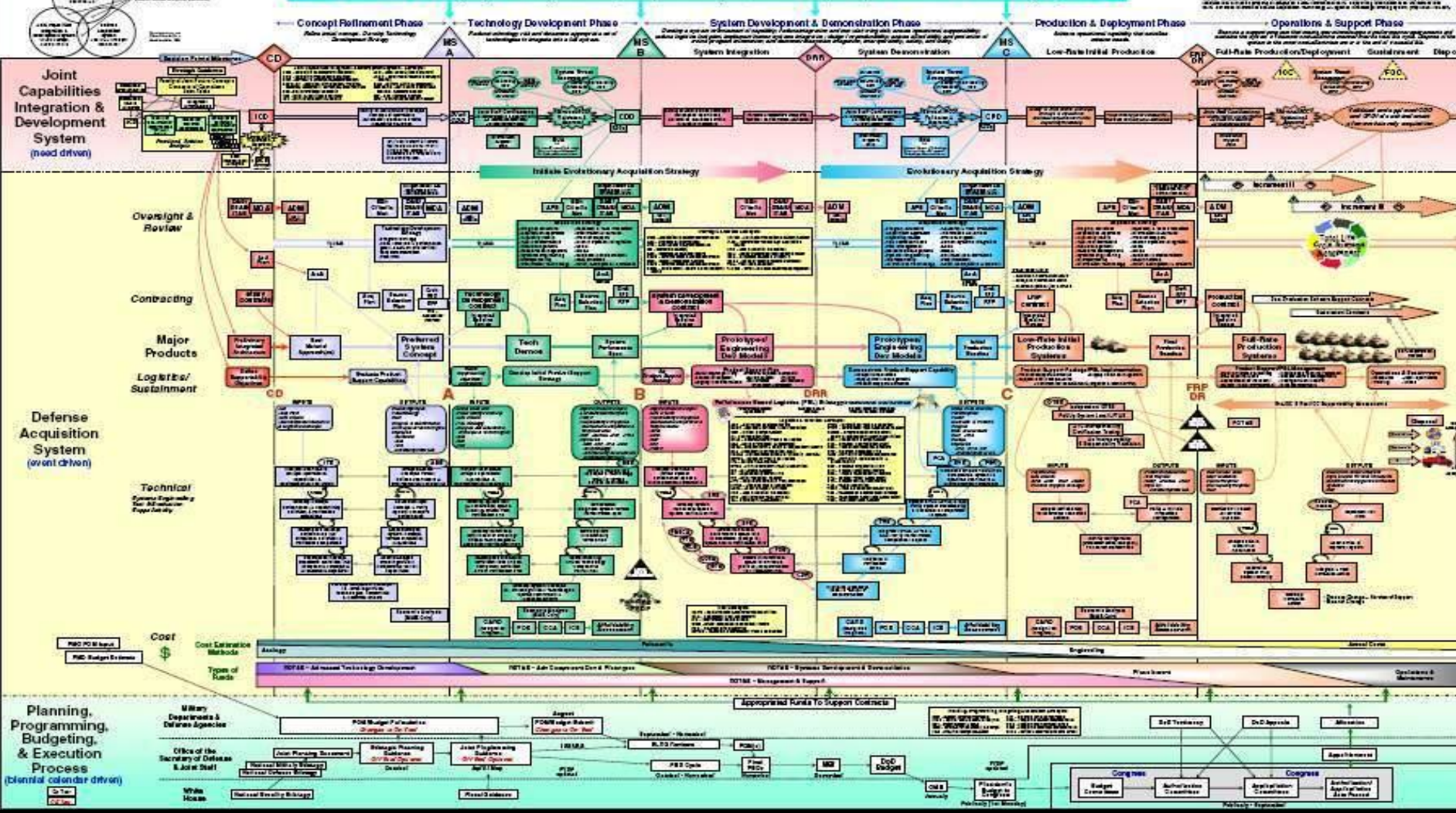
WE STILL DON'T HAVE THIS RIGHT !

Here is the US acquisition cycle

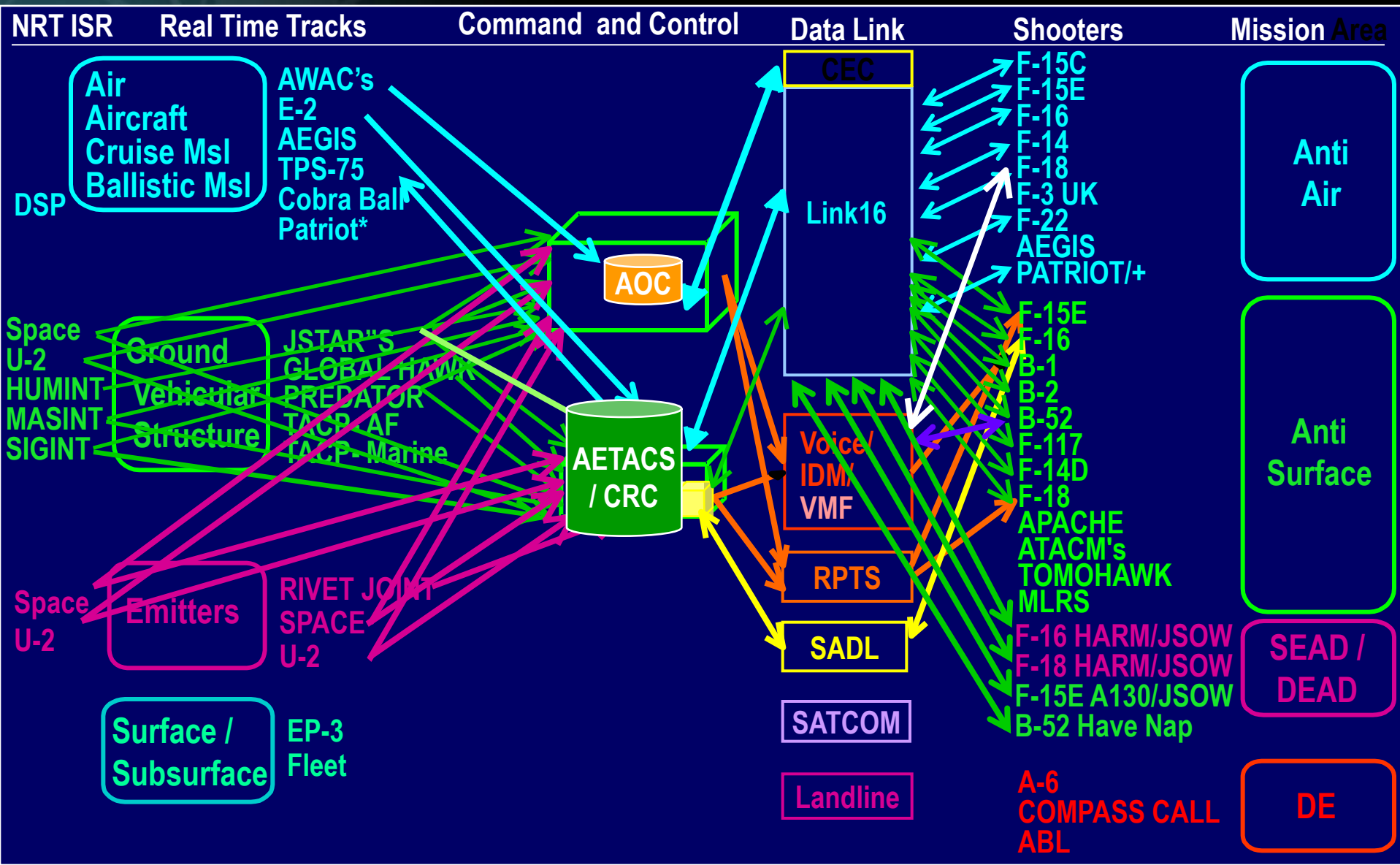
11/11/11 August 2011

Integrated Defense Acquisition, Technology, & Logistics Life Cycle Management Framework

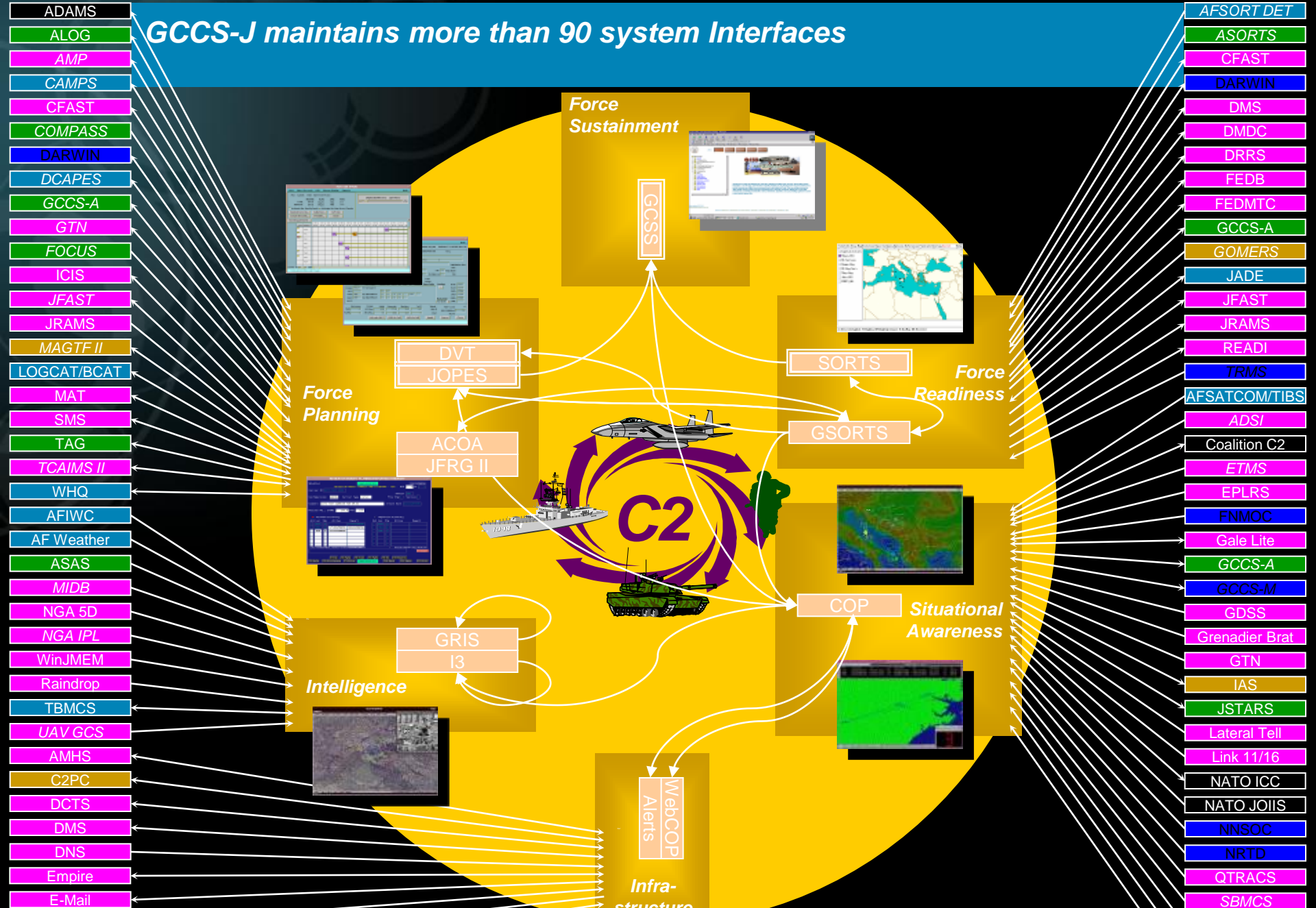
The Milestone Decision Authority may authorize entry into the acquisition process at any point, consistent with phase-specific entrance criteria and statutory requirements



Which results in things like this



GCCS-J maintains more than 90 system Interfaces



Maintaining system of systems technical interfaces

1982

Techn

1982

1982

1993



Under Secretary of Defense Lynn

- We will win on the battlefield only by fielding game changing technology
- Enemy now operates at network speed
- There are several changes in warfare we must understand

Duration is driving change, not just scale

Speed of warfare is milliseconds now, must work with capability based analysis vice scenario based analysis

- **Need IT capability to enable all other areas**

Architecture Maturity Levels

The Enterprise Architecture Capability Maturity Model consists of six maturity levels and nine architecture elements. The six maturity levels are shown below:

- None
- Initial
- Under Development
- Defined
- Managed
- Measured

The nine Enterprise Architecture Elements are as follows:

Architecture Process

Architecture Development

Business Linkage

Senior Management Involvement

Operating Unit Participation

Architecture Communication

IT Security

Governance

IT Investment and Acquisition Strategy

**System Test, Launch
& Operations**

TRL 9

**System/Subsystem
Development**

TRL 8

**Technology
Demonstration**

TRL 7

**Technology
Development**

TRL 6

**Research to Prove
Feasibility**

TRL 5

TRL 4

**Basic Technology
Research**

TRL 3

TRL 2

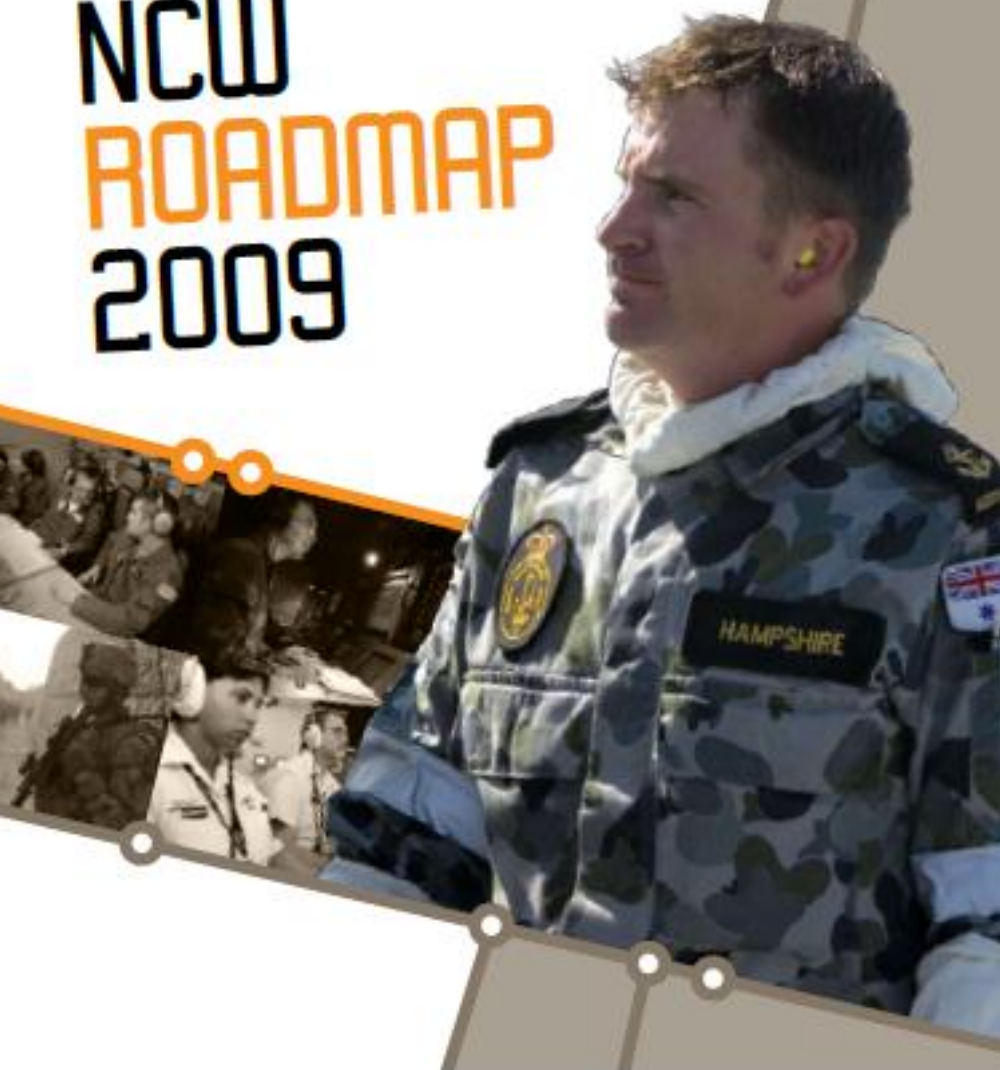
TRL 1





Australian Government
Department of Defence

NCW ROADMAP 2009

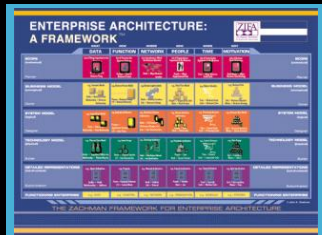


Australian Government
Department of Defence

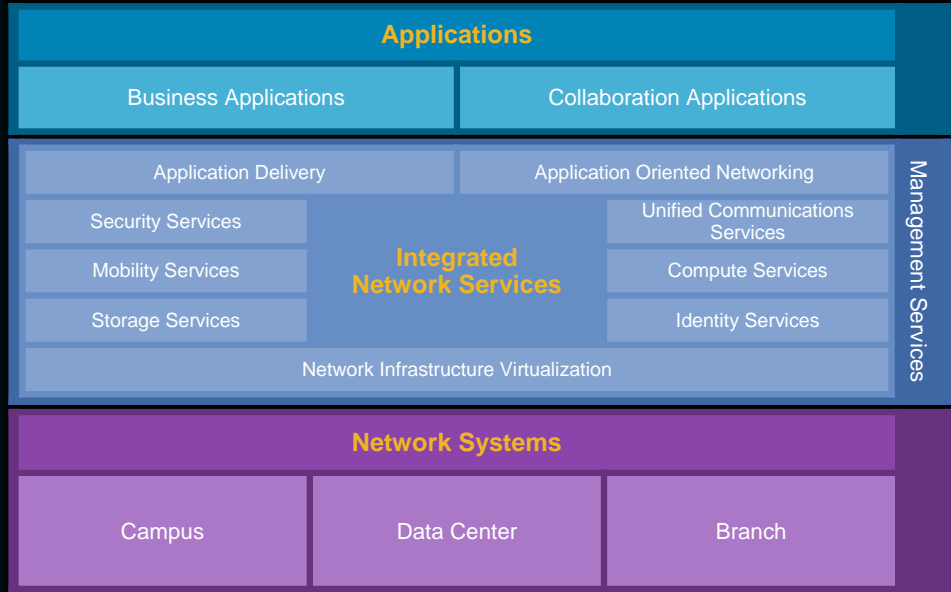
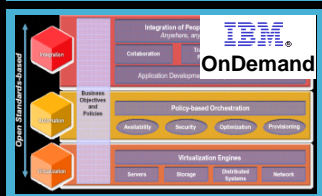
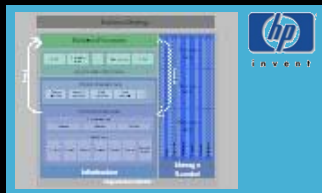
Defence Information and Communications Technology Strategy 2009



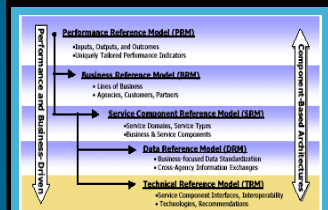
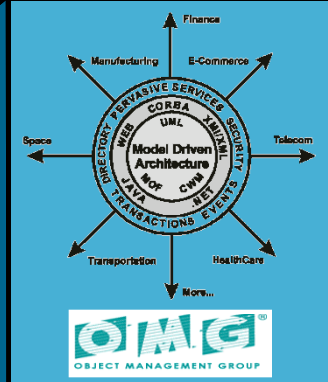
The Networks role in the Enterprise Architecture : The Mission Fabric



Zachman Framework



Networks are shown as black boxes, yet each architecture requires an intelligent network fabric to realize full potential



The Network as a Service-Delivery Platform



Enable the network beyond transport, as a mission-critical platform for convergence, service delivery, and business transformation



Network becomes a keystone in delivering an enterprisewide, service-based architecture



Leverage success of IP network; its ability to consolidate capabilities and improve service delivery



Promote standardization



Provide investment protection through a scalable platform

The Vision

- A Single Community Level Mission Fabric
 - Enabling New Mission Capability
 - Enhancing Mission Agility
 - Maximizing Resource Expenditures
- Key Capabilities of the Vision
 - Shared Resource – One Core Architecture
 - Shared Data – New Mission Capabilities
 - Shared Services – Time to Market and Agility
 - Collaboration – Making it Happen

SUGGESTIONS

- Speed and Agility
- Embrace Good Change and reward it – don't drive it out !
- Major issue is acquisition – buy what you want, not what you get at the end of an outdated, long, weapon systems model
- Help change the industry – military model – you are the drivers of this model
 - Let Companies do what they do best
 - Understand Business – what drives parts of industry
 - NCOIC a good model
- Match the architectures, acquisition, outcomes and rewards together

THANK YOU



Cisco Enterprise Architecture Provides the Platform for Smart+Connected Government

New Enterprise Architecture Approach



Enables seamless connectivity to promote productivity



Provide real-time engagement to bring interactions closer to employees and citizens



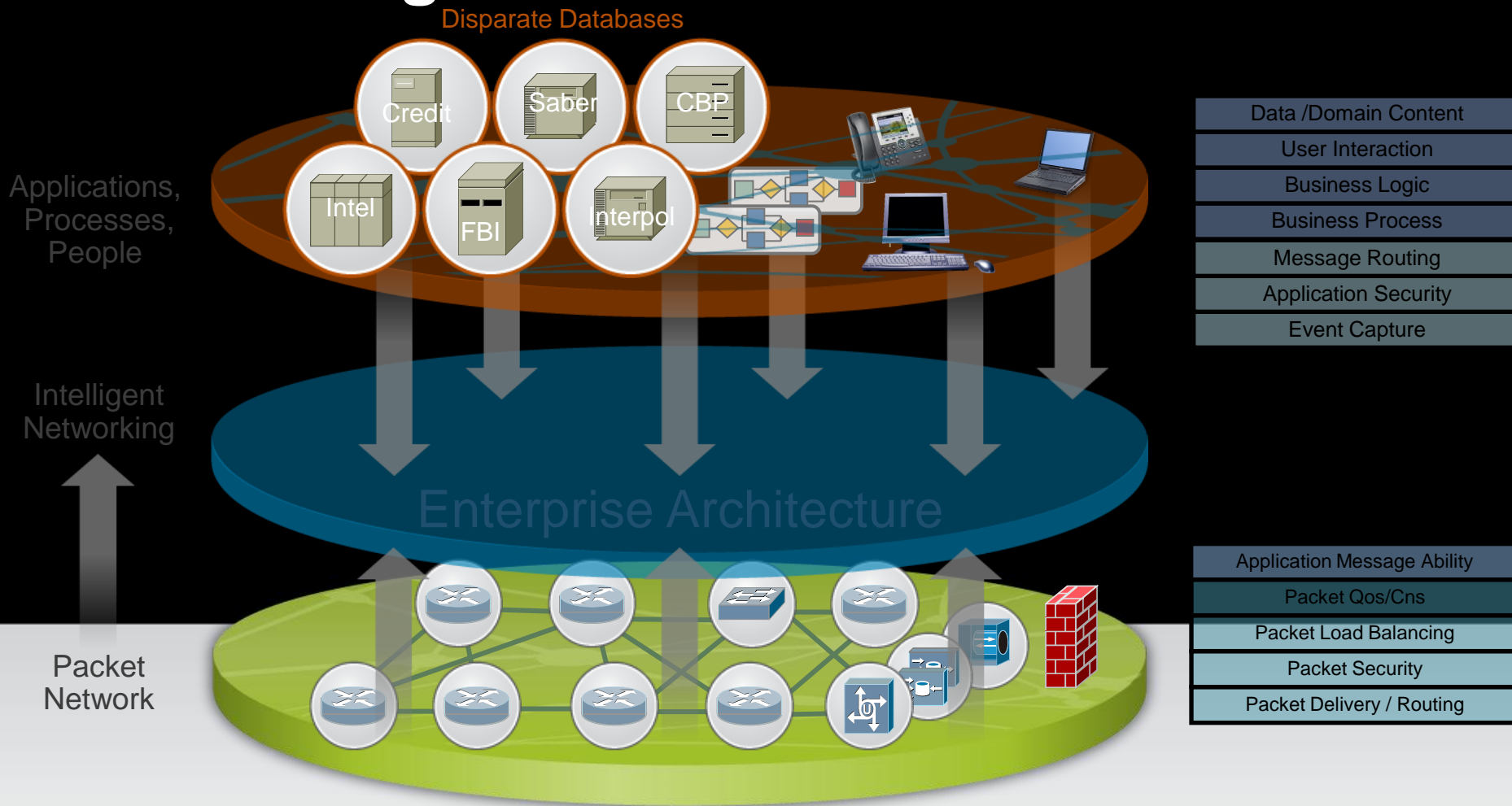
Offer ubiquitous access to resources that help government agencies thrive

Links government agencies, citizens, and resources efficiently

Mission Fabric value proposition

- ▶ **The Fabric is Pervasive.** Common denominator element that touches every aspect of IT operations.
- ▶ **The Fabric is Transparent.** Network-based services can be applied neutrally and non-invasively to any part of the landscape without introducing costly integration overhead.
- ▶ **The Fabric provides Scale.** The network is inherently federated by design, allowing it to scale seamlessly from 1 to millions of nodes with minimal overhead or management impact.
- ▶ ***The Fabric is an Evolution of the Network: By adding infrastructure services to the network, they immediately become available across the entire enterprise, avoiding the 'silo effect' and constraint of point solutions.***

Keystone Approach for Border Data Interchange



Transparent to applications layer
Extends existing network value

Improves visibility, security, performance
Lower TCO, better decisions