

**The Open Group Conference
October 20, 2003**

NCES

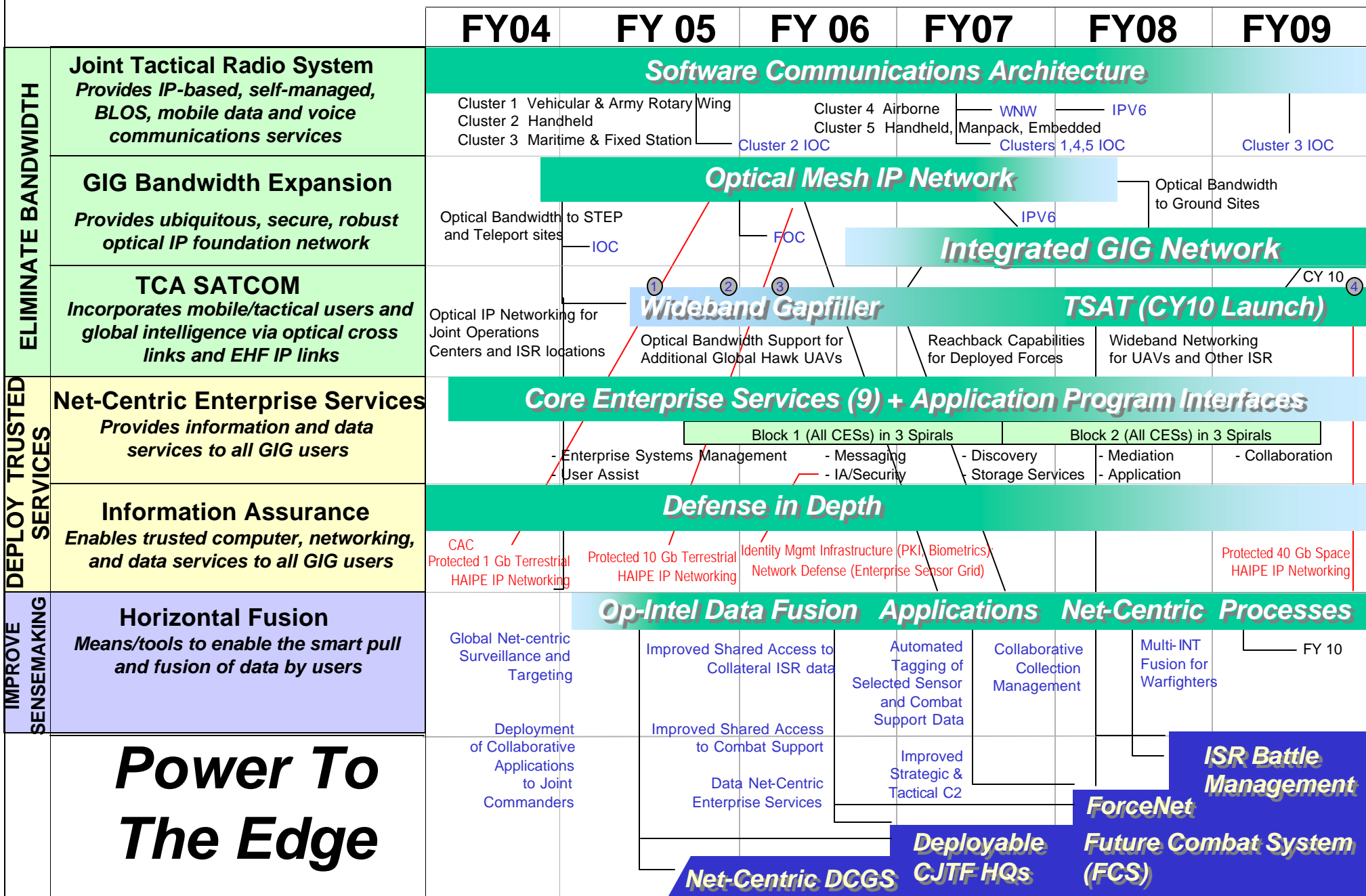
Net-Centric Enterprise Services

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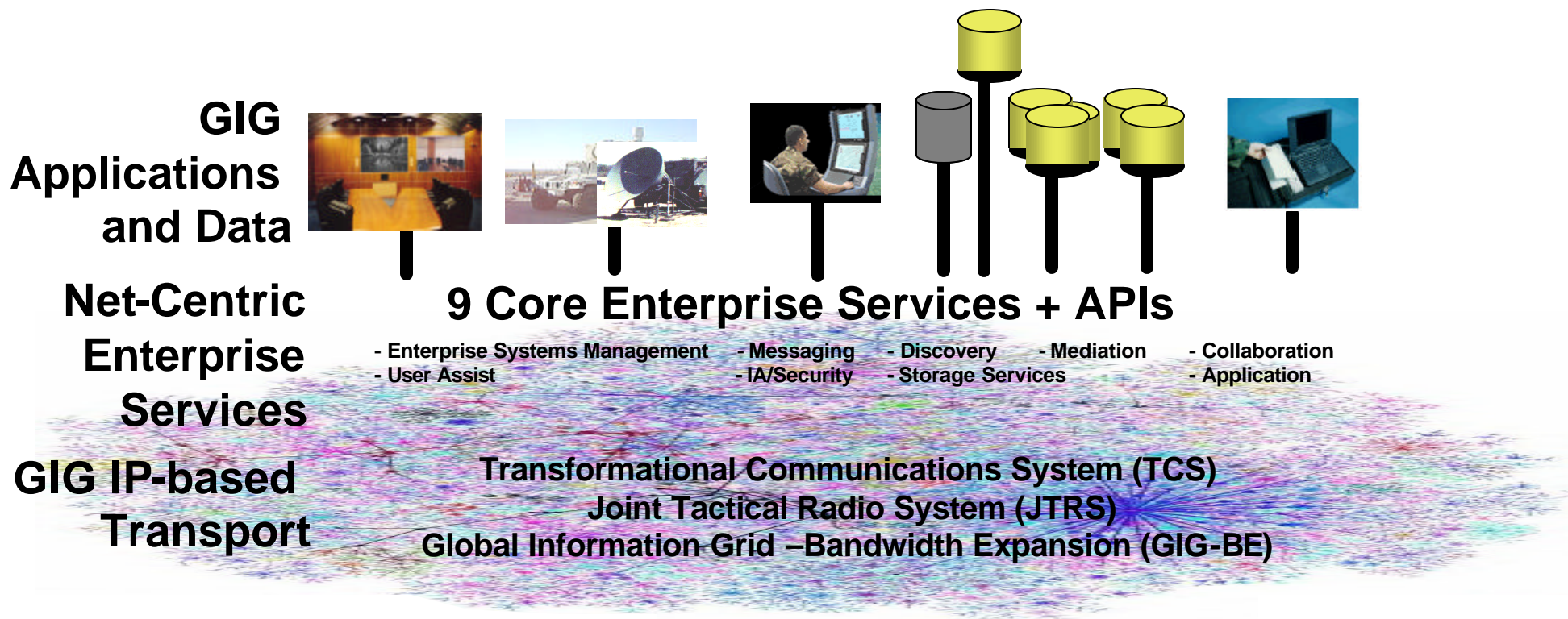
Power to the Edge 

A Roadmap of Key Net-Centric Initiatives



Net-Centric Enterprise Services (NCES)

Enables rapid exploitation of diverse data sources by GIG users in a manner that can be customized to meet specific mission demands



How Enterprise Services Transform IT Systems

- As the transformation takes hold...

- ...applications are built faster, cheaper, with less risk...

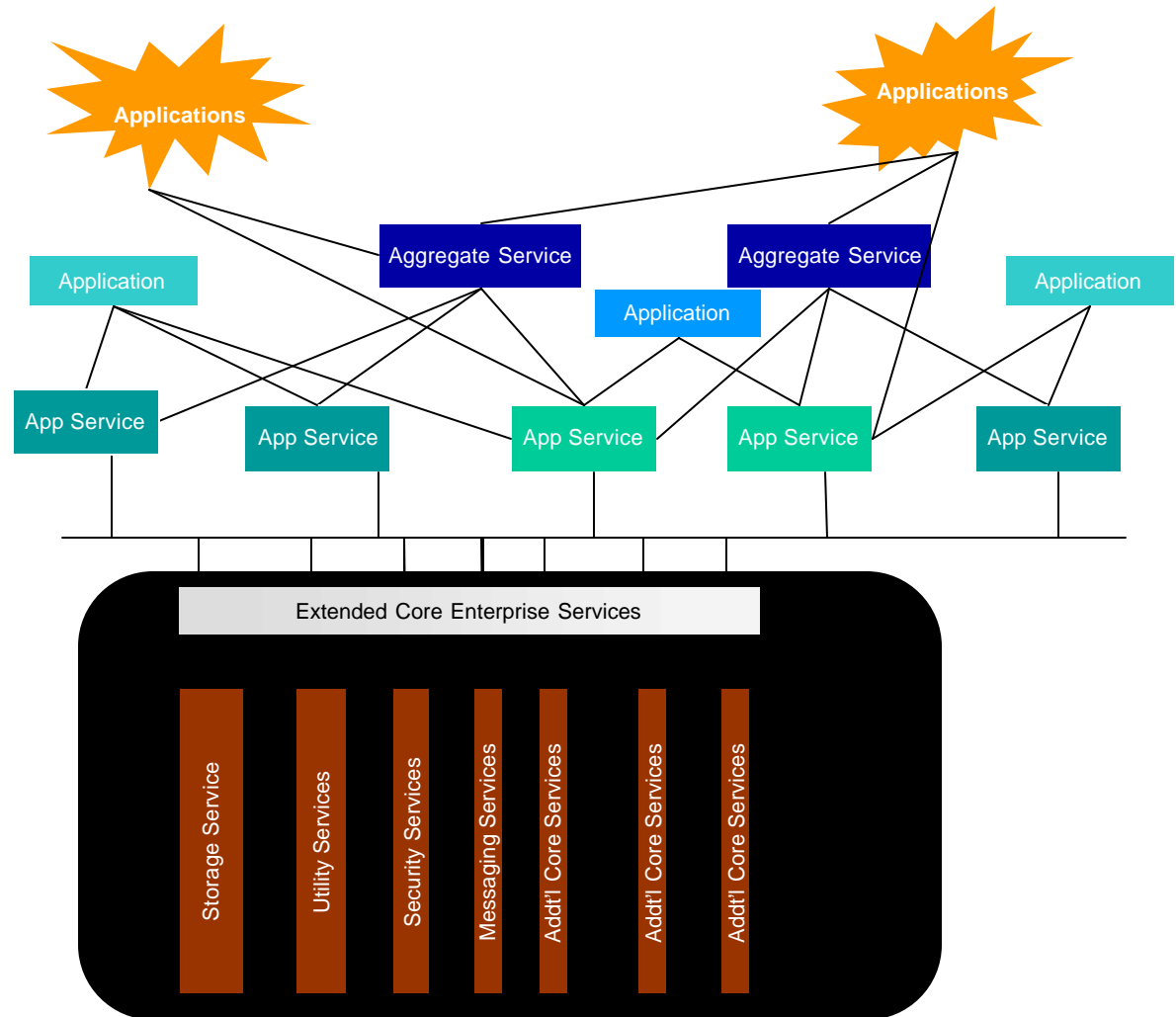
- ...new applications reuse existing application services & provide new ones...

- ...core enterprise services grow in capability & reusability...

- ...new “aggregate” services appear...

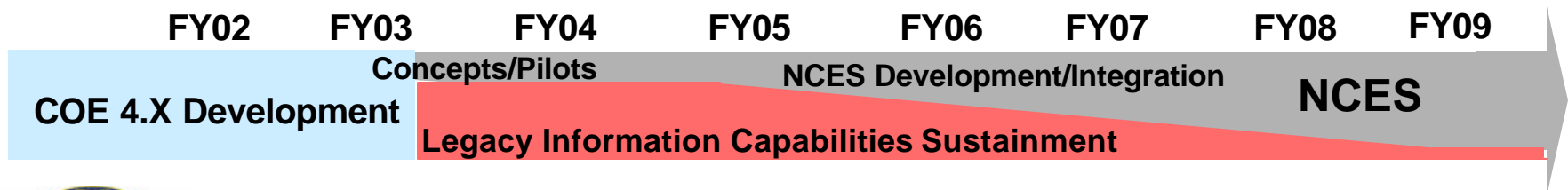
- ...and finally a new generation of adaptive and agile applications


- lightweight and rapidly configured
- with unprecedented reach and power
- lower development cost
- lower development risk
- lower support costs



Background

- Net-Centric Enterprise Services (NCES) addresses the approved Global Information Grid (GIG) Architecture requirements for common capabilities to:
 - Task, post, process, use, store, manage and protect information resources *on demand* for warriors, policy makers, and support personnel
 - Facilitate information sharing across systems
- NCES supports:
 - Entire DoD
 - SCI Intelligence Community (through ICSIS IAW DCID/DoD Directives)
 - Conventional and Nuclear Warfighting
 - Business units (e.g., Business Management Modernization Program (BMMP))




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NCES Objectives

- Deliver capabilities-based service infrastructure for ubiquitous access to timely, secure, decision quality information by edge users
- Enable information providers to post any information they hold
- Enable edge users to:
 - rapidly and precisely discover and pull information resources
 - dynamically form collaborative groups for problems solving
- Provide security for, and coordinated management of, netted information resources
- Data interoperability versus application interoperability



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GIG Enterprise Services Scope

Domain & COI Enterprise Services

include levels of services *beyond* the
9 Core, Net-Centric Enterprise Services

Domains and their COI: - Business - Warfighter - Intel
Plus: Cross-Domain COI
Plus: Expedient COI

GIG
Services

Net-Centric Enterprise Services (NCES Program)


FY04-09: \$380M

Milestone B, 2nd QTR FY04

Scope Includes:

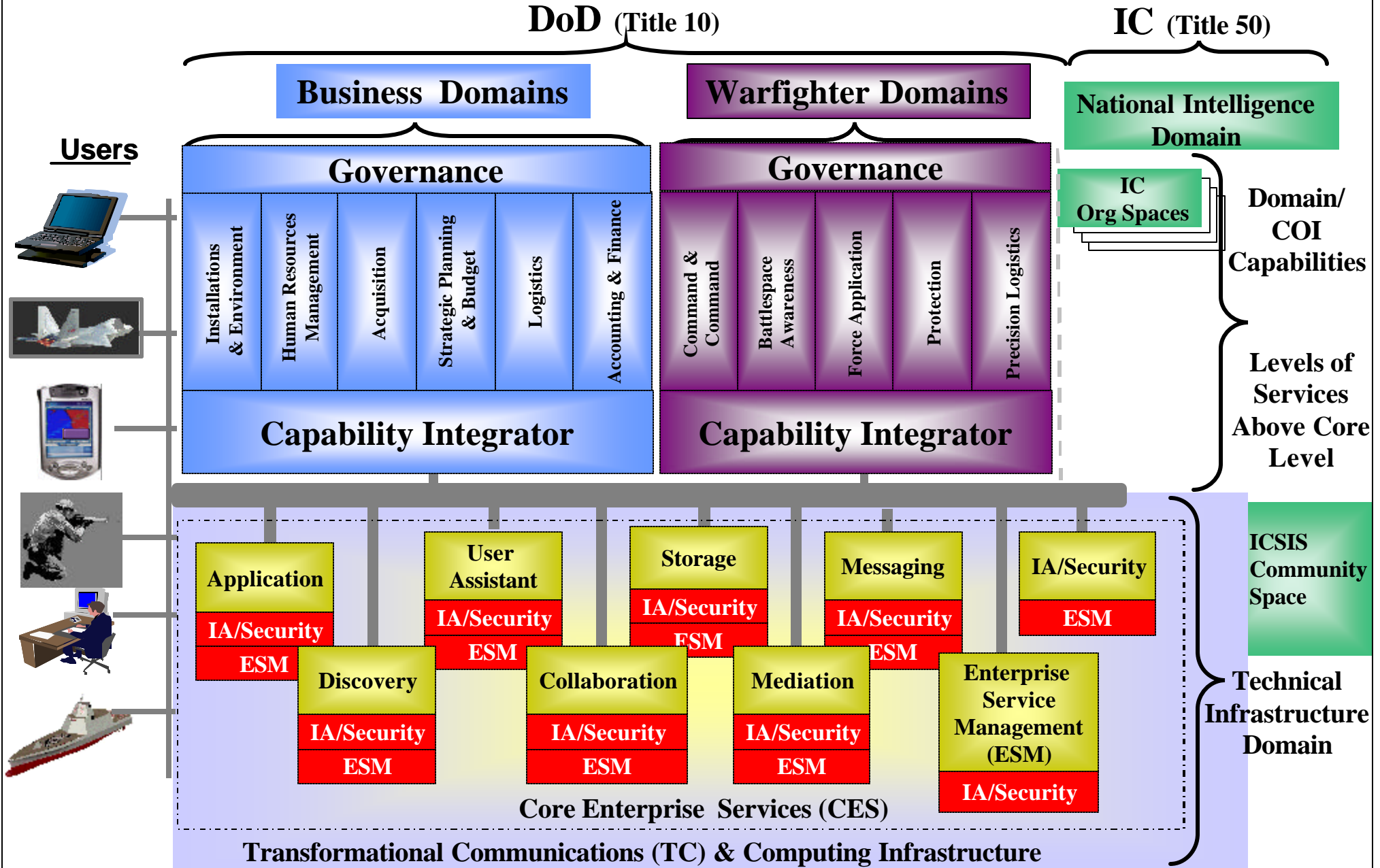
- 9 Core Enterprise Services
- Application Program Interfaces (APIs) for CES



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GIG Enterprise Services

Support real-time & near-real-time warrior needs, and business users



WHAT IS BEING DONE

FY04 Program new start:

Pre-Milestone B activities to include:

- Analysis of Alternatives (AOA)
- Interim Capabilities Document (ICD)
- Capabilities Definition Document (CDD)
- Acquisition Strategy/Test Strategy/Economic Analysis

Governance

- Establish Business, Warfighter, and National Intelligence Domains


Incorporating Lessons Learned

- Horizontal Fusion Enterprise Services (HFES) Quantum Leap 1
- Terrorist Information Awareness (TIA) Enterprise Services (DARPA)
- Operation Iraqi Freedom

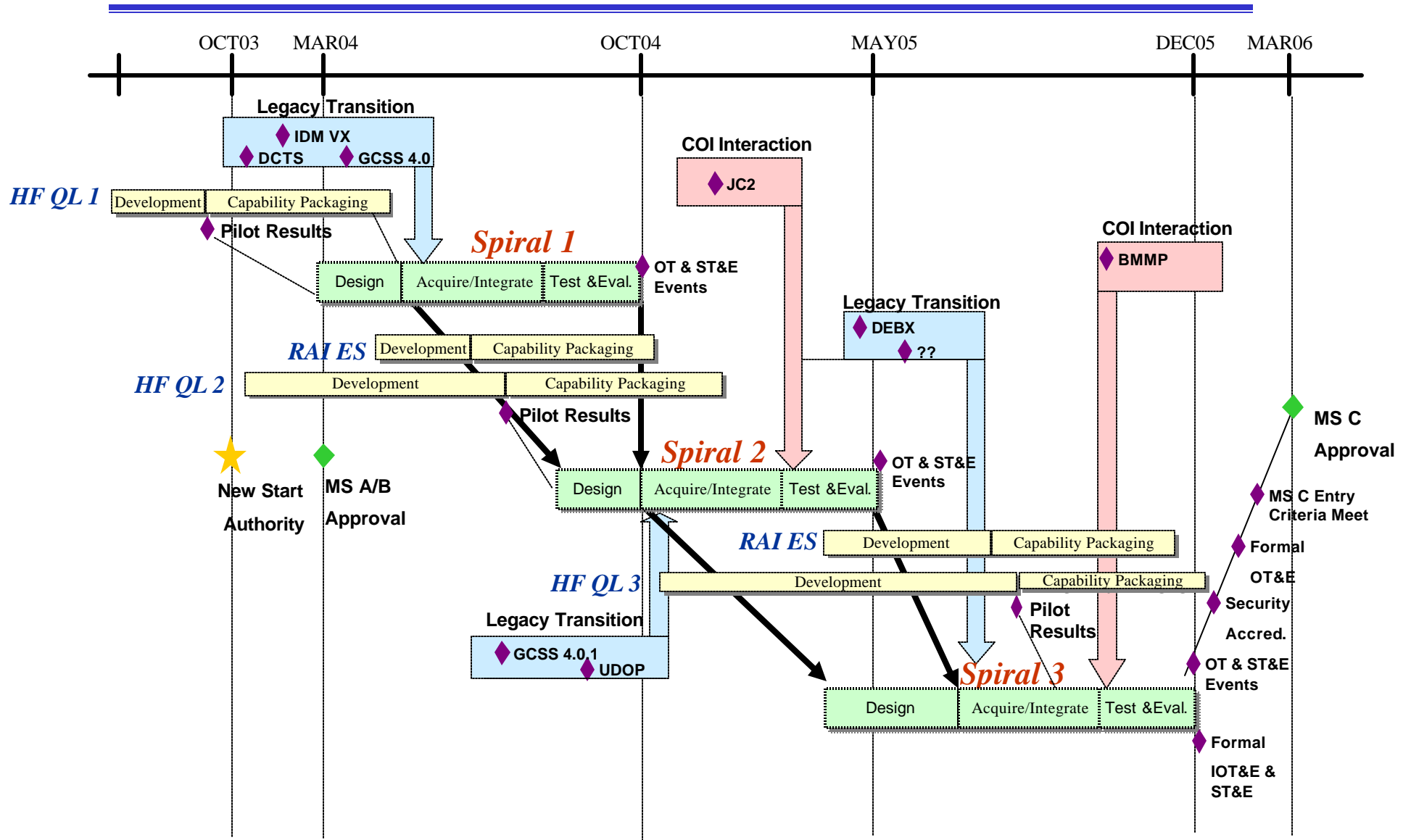
FY04 initiatives

- Rapid Acquisition Initiatives Net-Centric Enterprise (RAI-NC) Services Pilot
- HFES Quantum Leap 2



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Proposed NCES Increment 1 Schedule



Issues

- Graceful legacy transition is important
- Need for extensive teamwork
 - Must be collaborative with other Service/Agency initiatives
 - PSA/Service/Agency leads for COIs
- Deployment strategy needs refinement (centralized, decentralized, federated, integrated)
- Security, Security, Security
- Must consider the “last tactical mile”



Summary

- Net-Centric Enterprise Services (NCES) is a FY04 new start program to develop and field GIG core enterprise services
- NCES is the approach to providing the GIG infrastructure needed for timely, secure, ubiquitous edge user access to decision quality information



BACKUPS



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CES Initial Service Definitions

- ESM
 - The set of services that enable the life cycle management of the information environment and supports the performance of the NetOps activities necessary to operationally manage information flows in the information environment.
- Messaging
 - Provides services to support synchronous and asynchronous information exchange.
- Discovery
 - The set of services that enable the formulation and execution of search activities to locate data assets (e.g., files, databases, services, directories, web pages, streams) by exploiting metadata descriptions stored in and or generated by IT repositories (e.g., directories, registries, catalogs, repositories, other shared storage).
- Mediation
 - The set of services that enable transformation processing (translation, aggregation, integration), situational awareness support (correlation and fusion), negotiation (brokering, trading, and auctioning services) and publishing.

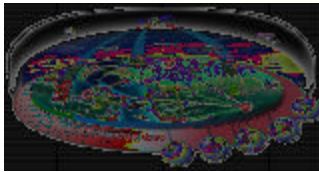


CES Service Definitions (Cont'd)

- Collaboration
 - The set of services that allows users to work together and jointly use selected capabilities on the network (i.e., chat, online meetings, work group software etc.)
- User Assistant
 - Automated capabilities that learn and apply user preferences and patterns to assist users to efficiently and effectively utilize GIG resources in the performance of tasks.
- IA/Security
 - The set of services that provide a layer of Defense in Depth to enable the protection, defense, integrity, and continuity of the information environment and the information it stores, processes, maintains, uses, shares, disseminates, disposes, displays, or transmits.
- Storage
 - The set of services necessary to provide on demand posting, storage and retrieval of data.
- Application
 - The set of services necessary to provision, host, operate and manage the GIG ES assured computing environment.



Power to the Edge Users



Power to the Edge

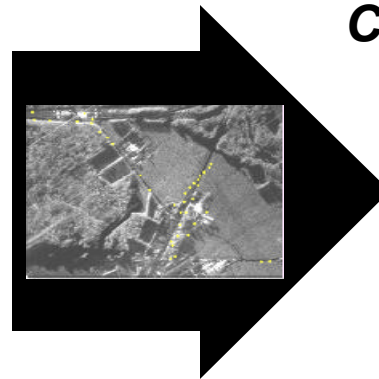
1. Make information available on a network that people depend on and trust
2. Populate the network with new, dynamic sources of information to defeat the enemy
3. Deny the enemy advantages and exploit weaknesses

Net-Centricity Payoffs

- Faster Decision Making/TPPU cycles
- Smarter Decisions based on . . .
 - Access to more quality information
- Better Collaboration based on . . .
 - Shared Battlespace Awareness
 - Rapid Community of Interest formation

From
Supplier Dominates

Task
Process
Exploit
Disseminate




To
Consumer Dominates

Task
Post
Process
Use

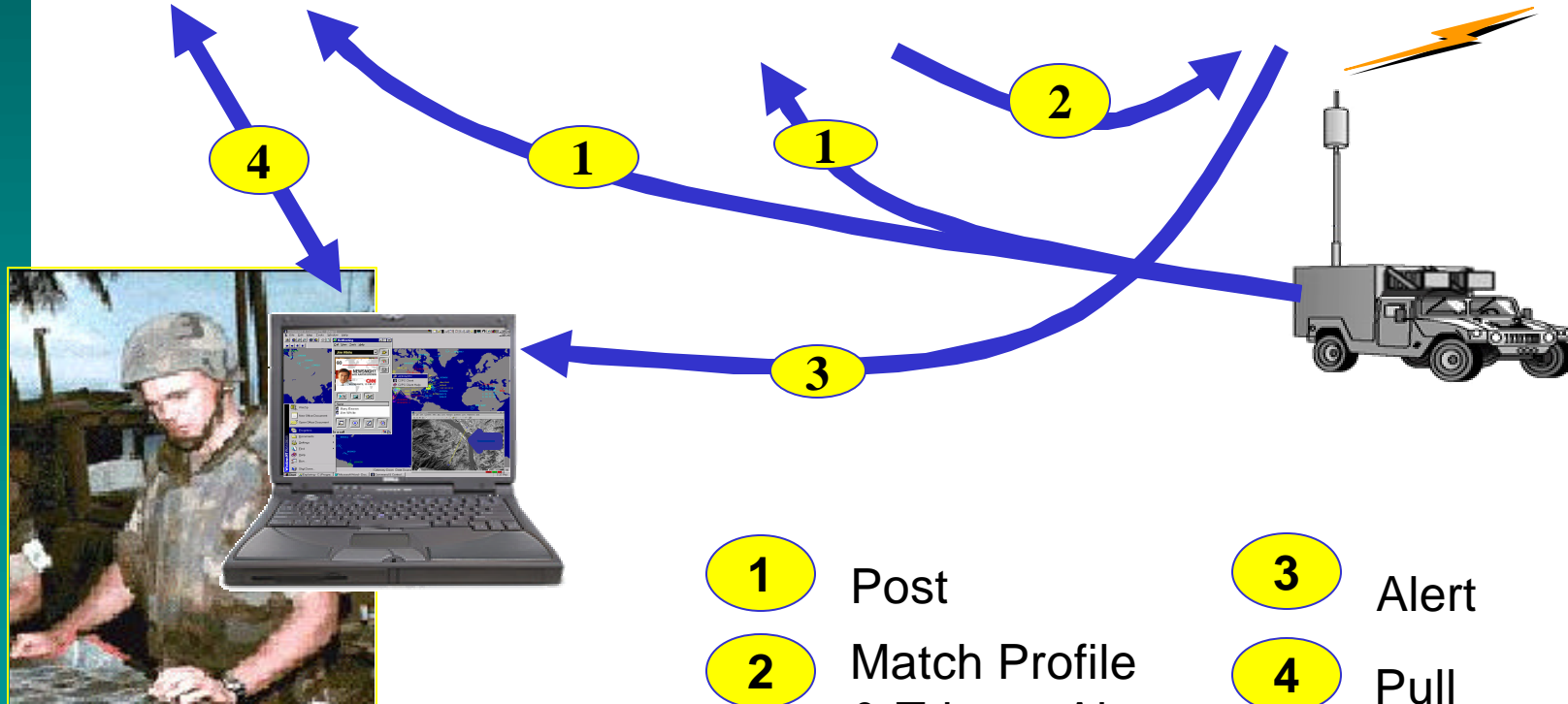
TPPU Actions
Parallel v. Sequential

TCA Defines the Transport Layer



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How NCES works (Warfighter Vignette)



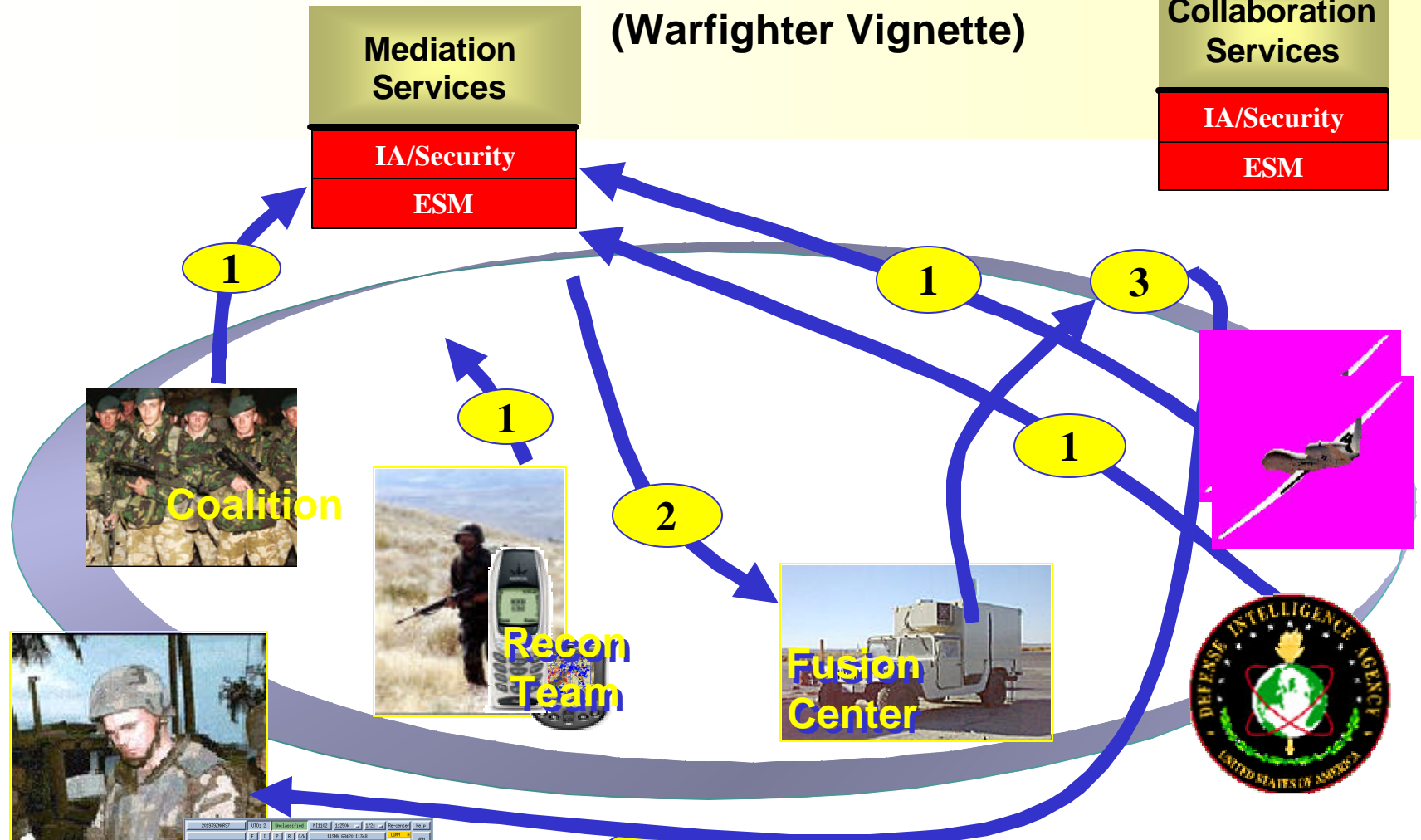
- 1** Post
- 2** Match Profile & Trigger Alert
- 3** Alert
- 4** Pull



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How NCES works (Cont'd)

(Warfighter Vignette)



- 1** Report
- 2** Deliver Visibility of Available Data
- 3** Continually Share Estimate

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