

# NCES

## *Net-Centric Enterprise Services Workshop #2*

### *Meeting the Net Centric Challenge: Industry Recommendations*

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# NCES Workshops DoD & Industry Partnership

- NCES Workshop #1 – November 2003
  - NII and DISA describe the NCES challenges
  - Legacy transformation
  - Evolution to service oriented architecture
  - Policy and program changes
  - Applications to leverage NCES infrastructure
- NCES Workshop #2 – March 2004
  - Industry recommendations to accomplish the net centric transformation
  - Unique opportunity for open dialogue as capabilities are being defined (pre-Milestone A & B)
  - *Hold questions to follow each presentation, 3x5 cards available*



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# BACKUPS



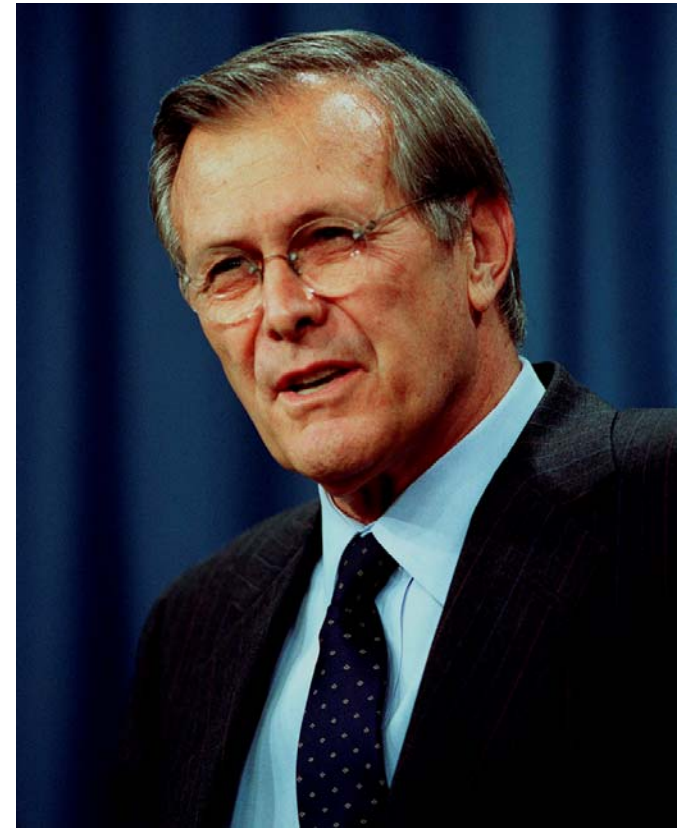
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# Vision for DoD Transformation

**“The two truly transforming things might be in information technology and information operating and networking...connecting things in ways that they function totally differently than they had previously.”**

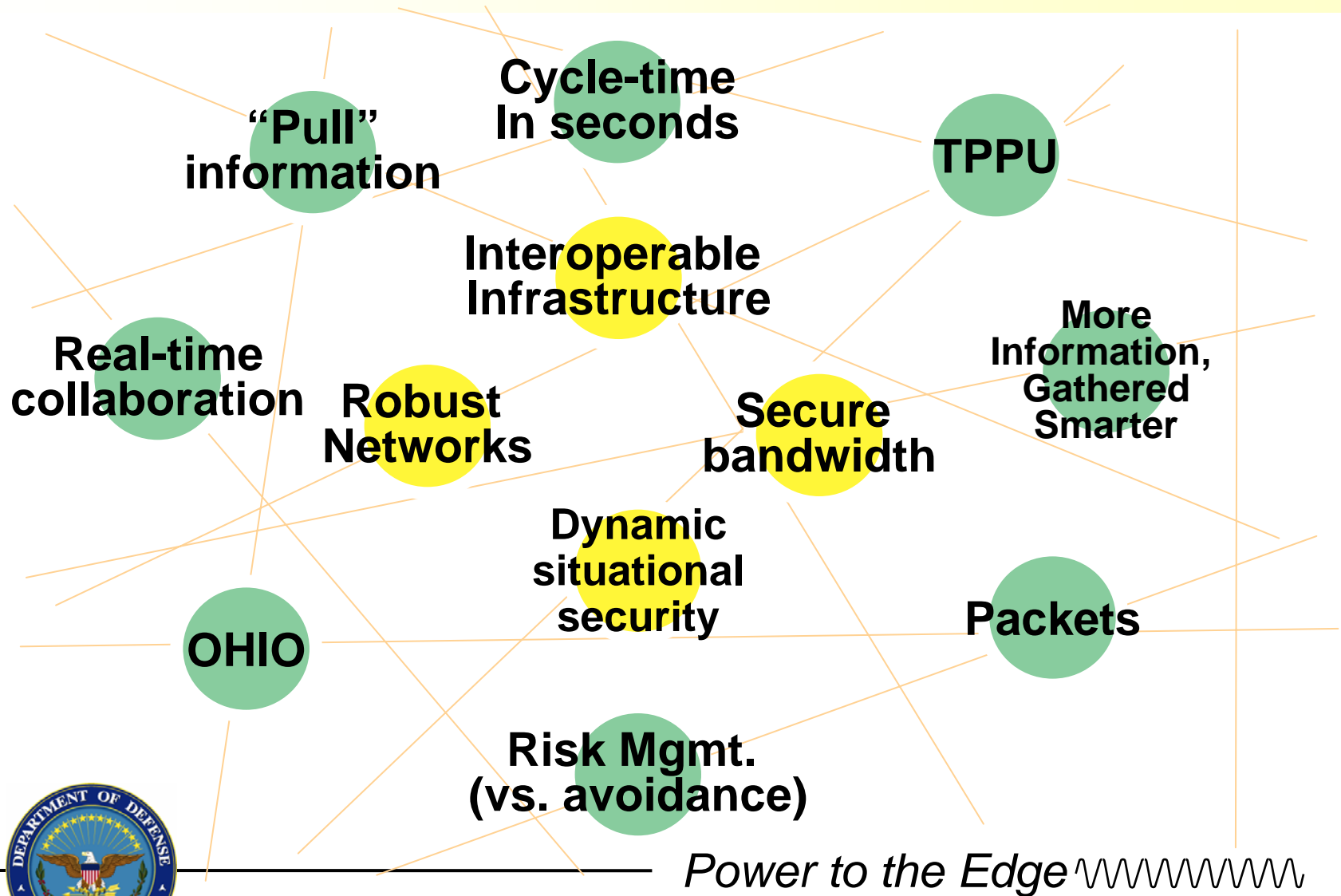
**“And if that’s possible...then possibly the single most transforming thing in our Force will not be a weapon system, but a set of interconnections and a substantially enhanced capability because of that awareness.”**

**Secretary of Defense Donald Rumsfeld,  
9 August 2001**



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# What Is Net-Centricity ?



# Net Centric Vision - *Power to the Edge Users*



## Power to the Edge

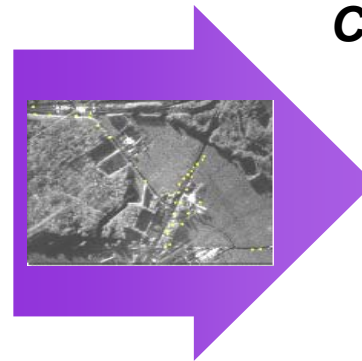
1. Make information available on a network that people depend on and trust
2. Populate the network with new, dynamic sources of information to defeat the enemy
3. Deny the enemy advantages and exploit weaknesses

## 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 (COI) formation

**From**  
Supplier Dominates

**T**ask  
**P**rocess  
**E**xploit  
**D**isseminate



**To**  
Consumer Dominates

**T**ask  
**P**ost  
**P**rocess  
**U**se

**TPPU Actions**  
Parallel v. Sequential

Defines the Transport Layer

Terrestrial, Wireless, Satellite

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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 problem solving
- Provide security for, and coordinated management of, netted information resources
- Data interoperability versus application interoperability

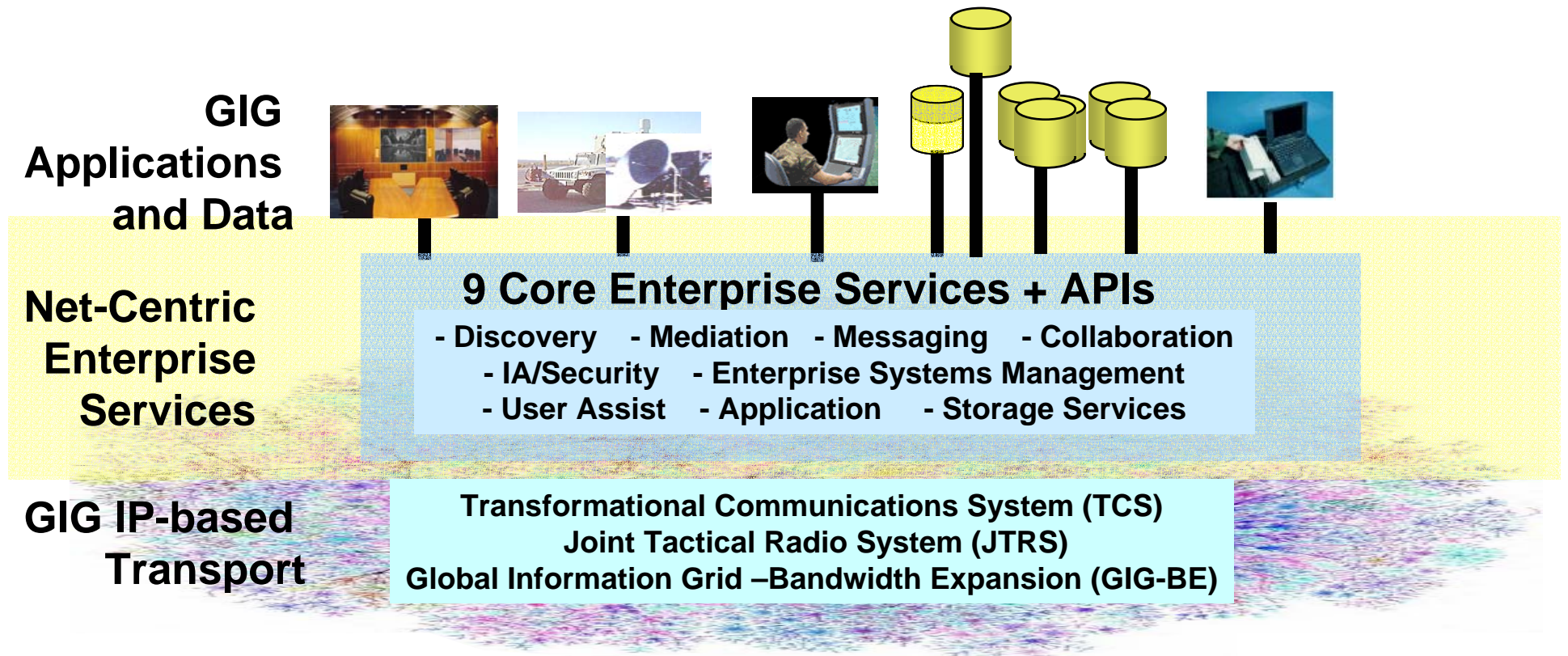


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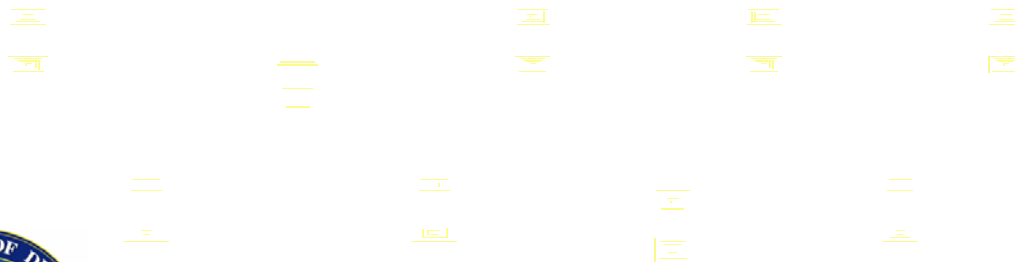
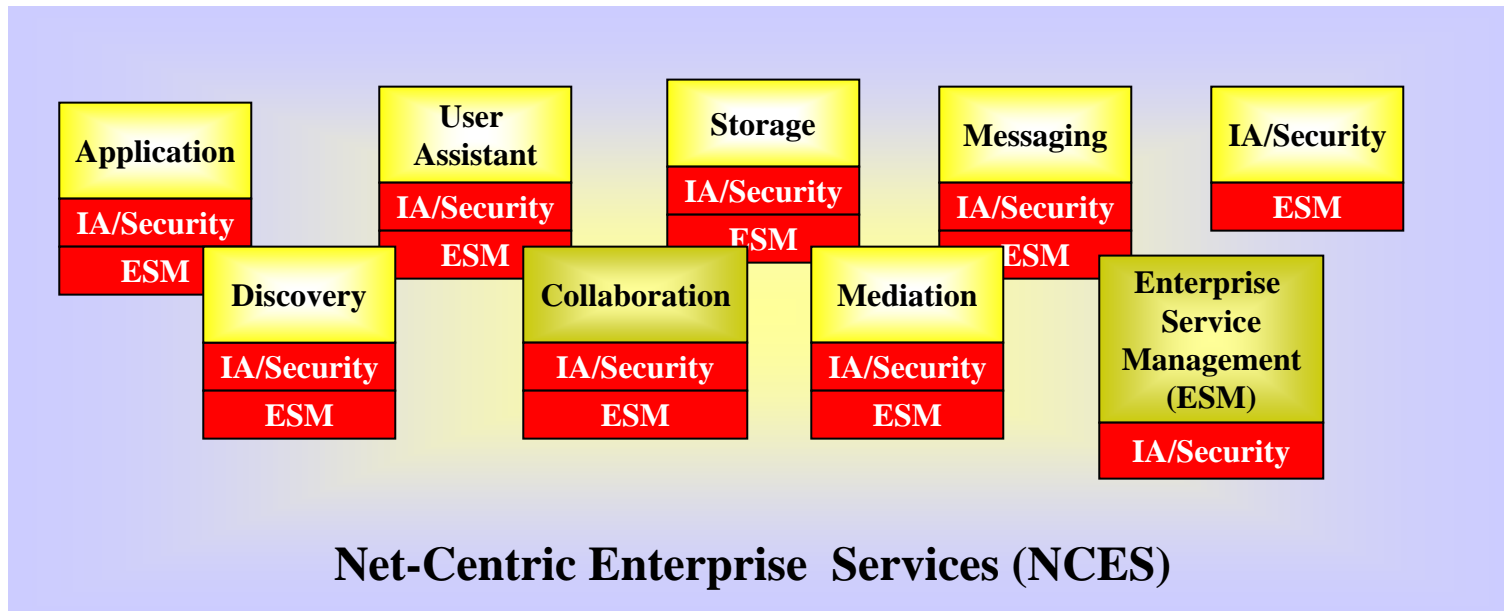
# Net-Centric Enterprise Services (NCES)

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



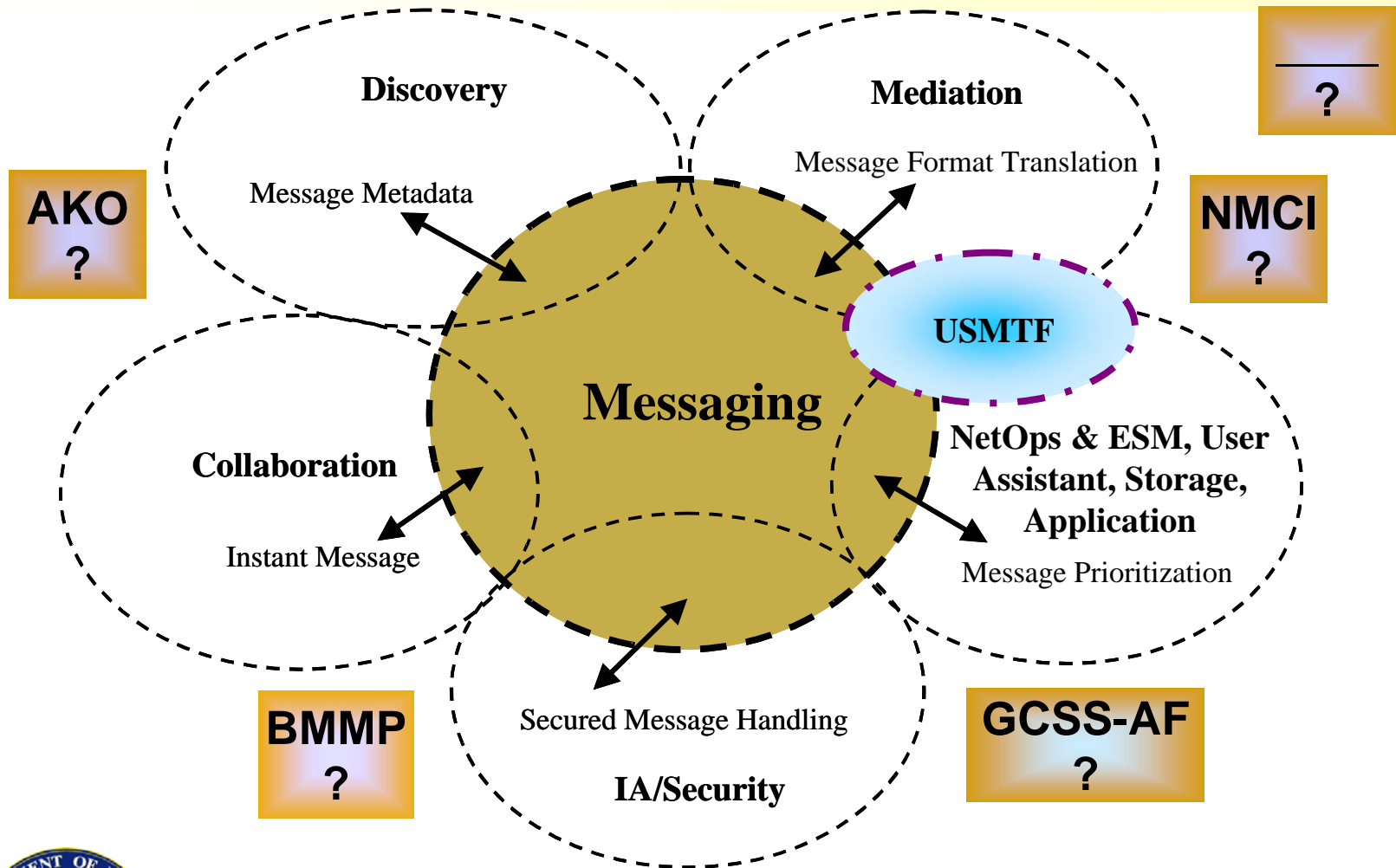


# 9 Core Enterprise Services



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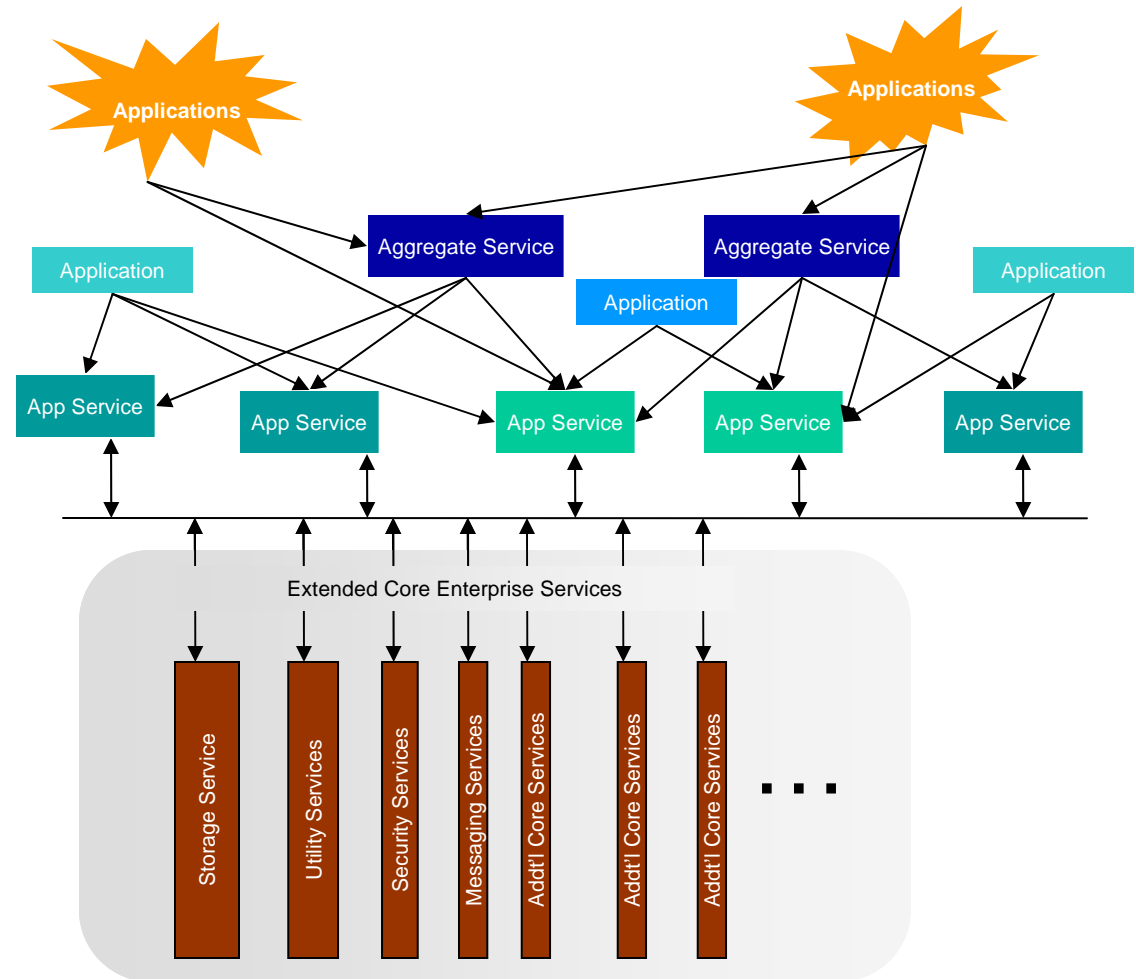
# NCES Infrastructure enabling Net Centricity



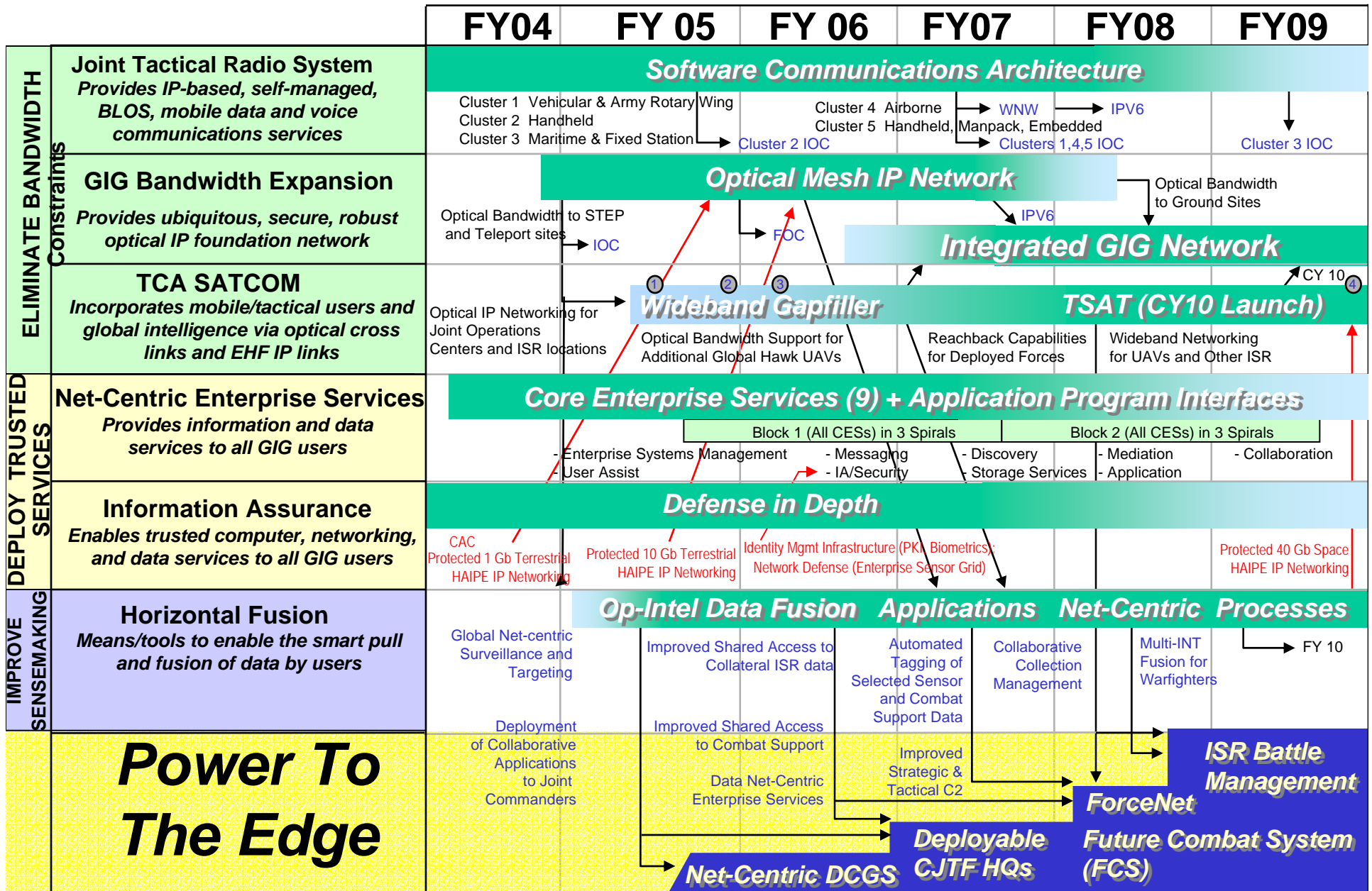
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# How Enterprise Services Transform IT Systems

- 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



# A Roadmap of Key Net-Centric Initiatives



# 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.



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# 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.



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## DoD – Industry Advisory Partnership

- Managing complexity and risk – develop Industry partnerships to help solve difficult problems
- NCES Workshop #1 – DoD describes the net centric transformation challenge for DoD to Industry
- Challenges include legacy transition, deployment strategy, extensive teamwork, **security!**
- Challenges impact policy, requirements definition, programs, and engineering
- NCES Workshop #2 – Industry recommends approaches to meet the challenges
- DoD to consider Industry recommendations
- Establish Industry Advisory Committee through AFEI



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## Summary

- **NCES is the approach to providing the GIG infrastructure needed for timely, secure, ubiquitous edge user access to decision quality information**
- **Net-Centric Enterprise Services (NCES) is working towards 2004 Milestone A and Milestone B decisions**



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