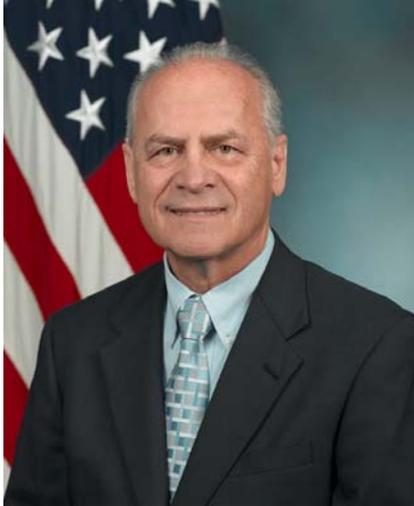




2009 SOA Symposium “Government and Industry Best Practices”

“SOA is a Team Sport”

April 2, 2009



***Dennis E. Wisnosky, DoD BMA CTO &
Chief Architect in the Office of the Deputy Chief
Management Officer***

DoD Business Transformation

Reach of the Business Mission Area

"The Secretary of Defense is responsible for a half-trillion dollar enterprise that is roughly an order of magnitude larger than any commercial corporation that has ever existed. DoD estimates that business support activities—the Defense Agencies and the business support operations within the Military Departments—comprise 53% of the DoD enterprise."

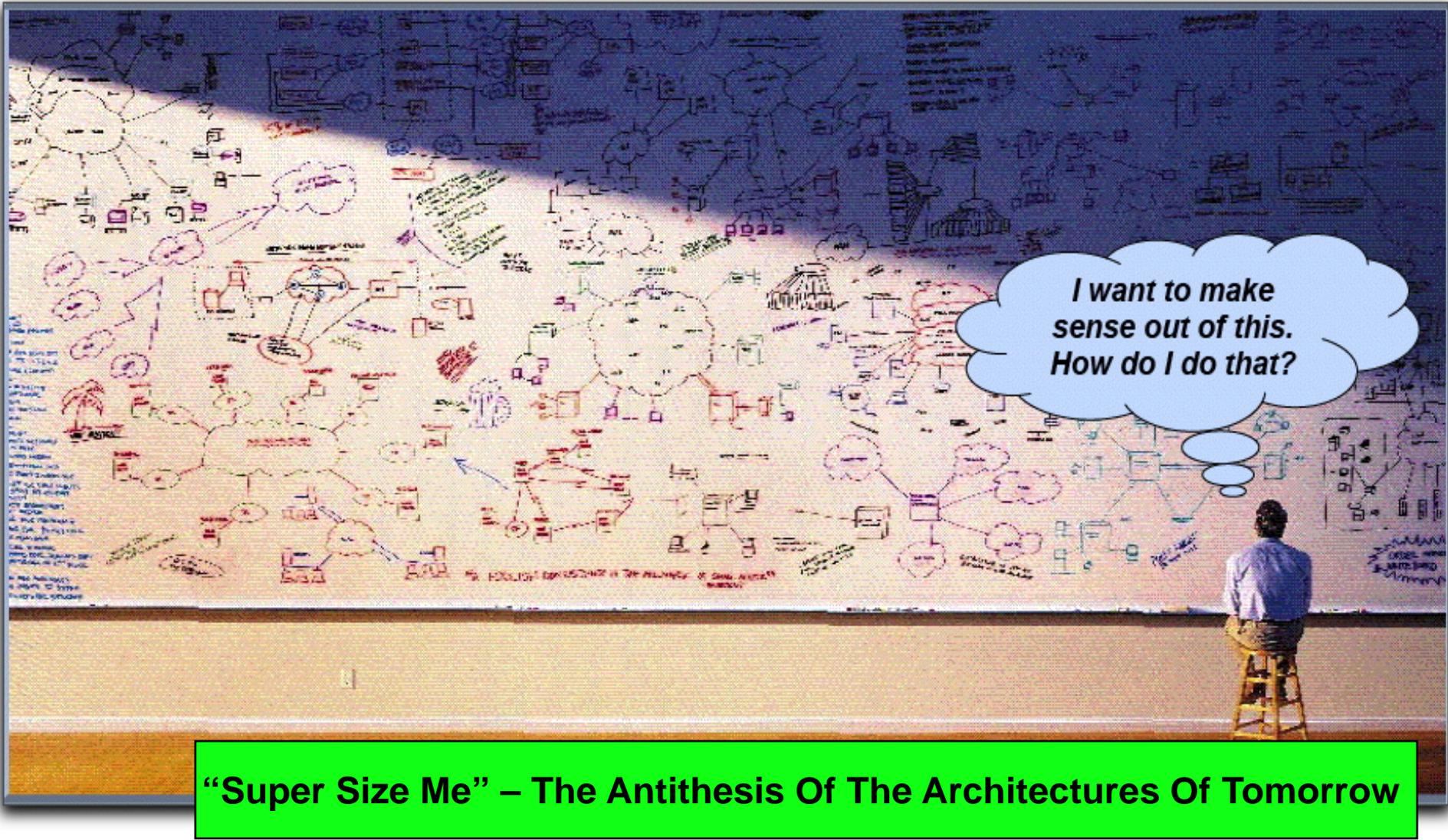
DoD Business Transformation

- Where we were
- Where we are
- Where we are going

DoD Business Transformation

- Where we were
- Where we are
- Where we are going

The Challenge



“Super Size Me” – The Antithesis Of The Architectures Of Tomorrow

“Super Size Me” – Not a Healthy Go Forward Strategy

Software Project success depends upon its size

Project Function Points	Projects Completed Early	Project Completed On Time	Projects Completed Late	Projects Cancelled
10	8%	89%	2%	1%
100	7%	80%	8%	5%
1,000	6%	60%	17%	17%
10,000	3%	23%	35%	39%
100,000	1%	15%	36%	48%

Source: Capers Jones

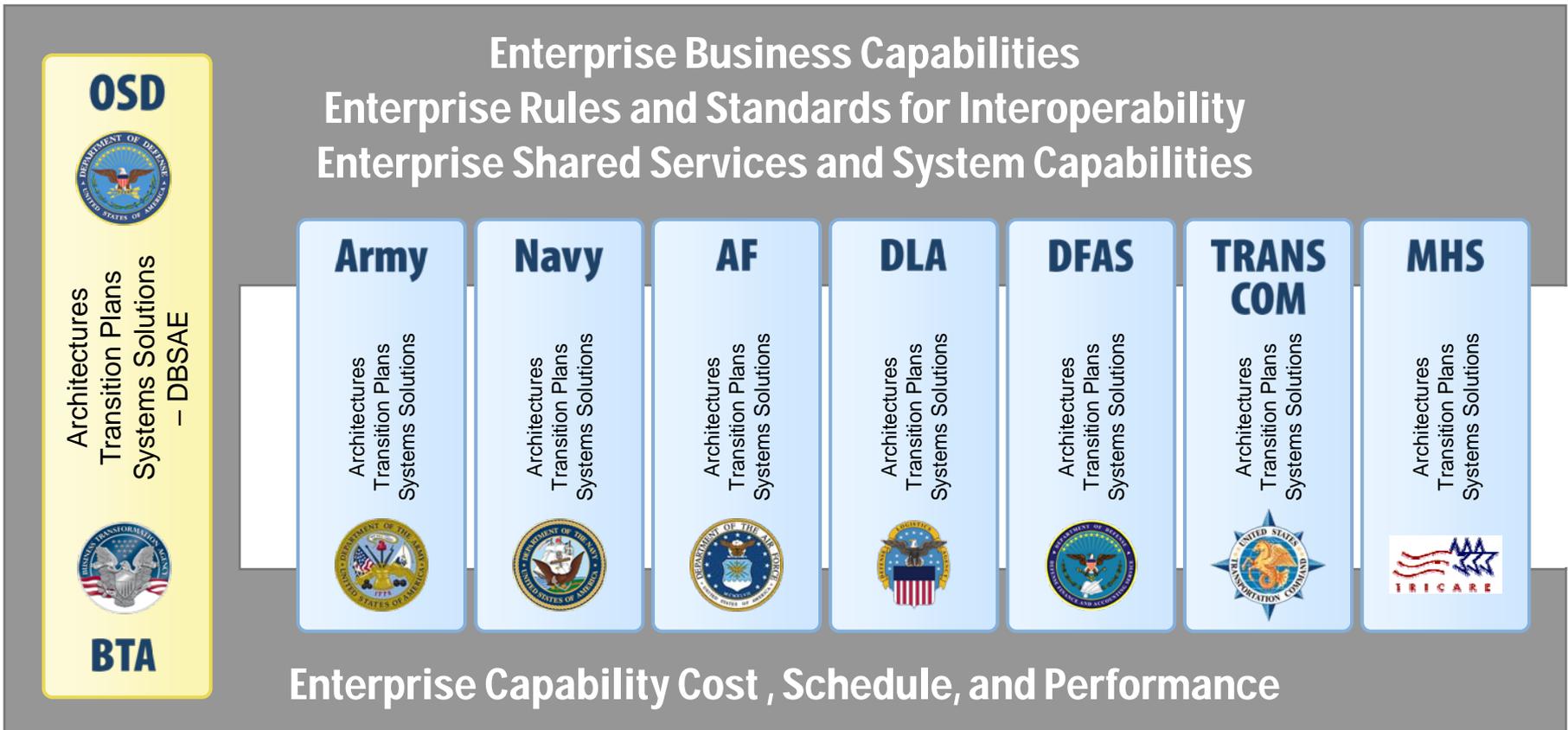
What do we do about this?

“Super Size Me” – Not a Healthy Go Forward Strategy

- Federated Architectures/not Integrated Architectures
- Platoon Sized Teams/not Battalions
- Commodity Based Service Level Agreements/not Perpetual Annuity Contracts
- Services Delivering Capabilities/not Systems Named by Marketing Departments
- “Breaking up is hard to do”

The Details Follow!

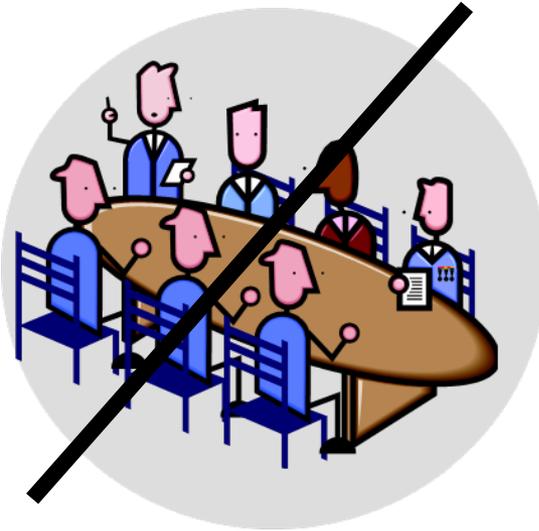
BMA Federation



The DoD Enterprise layer provides the thin “backbone” of common services required for full Departmental interoperability.

Each Component enterprise manages its own architecture but aligns with DoD Enterprise-level standards, business rules, and interfaces.

Platoon Sized Teams/Not Battalions



- Work within DoD Federated Architecture Framework
- Work within SOA Standards
- Deliver Capabilities not Systems
- Deliver Capabilities in months not years



**BCL
Spiral Development**

Commodity Based Service Level Agreements/Not Perpetual Annuity Contracts

➤ *Market place adjusted service boundaries/ interfaces.*



“Services Delivering Capabilities, not Systems Named by Marketing Departments”

Simple DoD Examples:

Single Sign On

Common Contractor Registry

Online Reqs and Certs Application

What is the most difficult?

Federated Architectures/not Integrated
Architectures
Platoon Sized Teams/not Battalions
Commodity Based Service Level
Agreements/not Perpetual Annuity
Contracts
Services Delivering Capabilities/not
Systems Named by Marketing
Departments
“Breaking up is hard to do”



“Breaking up is hard to do”

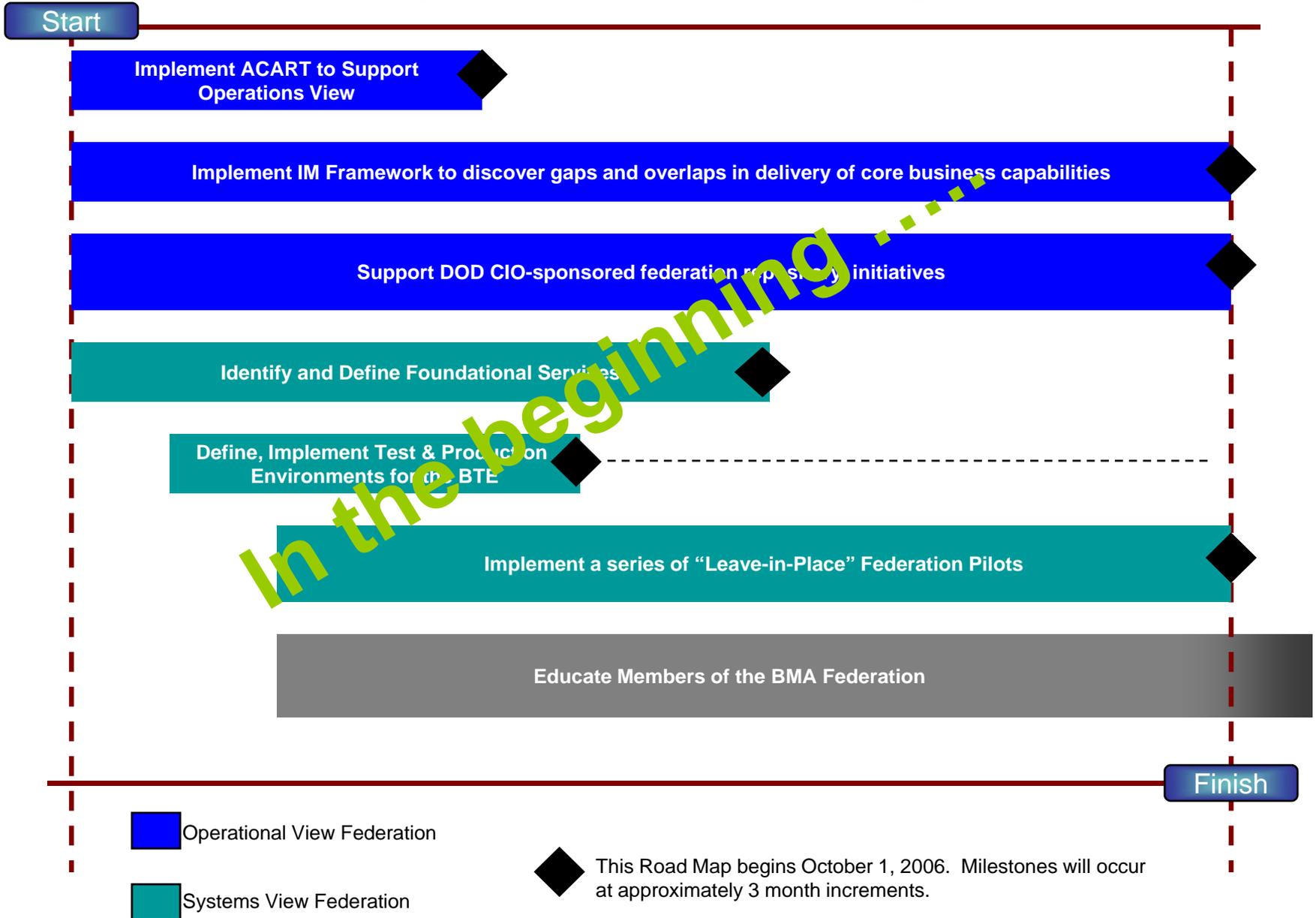
In My Home Town



© 2003 1D Images

We began with a simple plan!

High-Level Roadmap



DoD Business Transformation

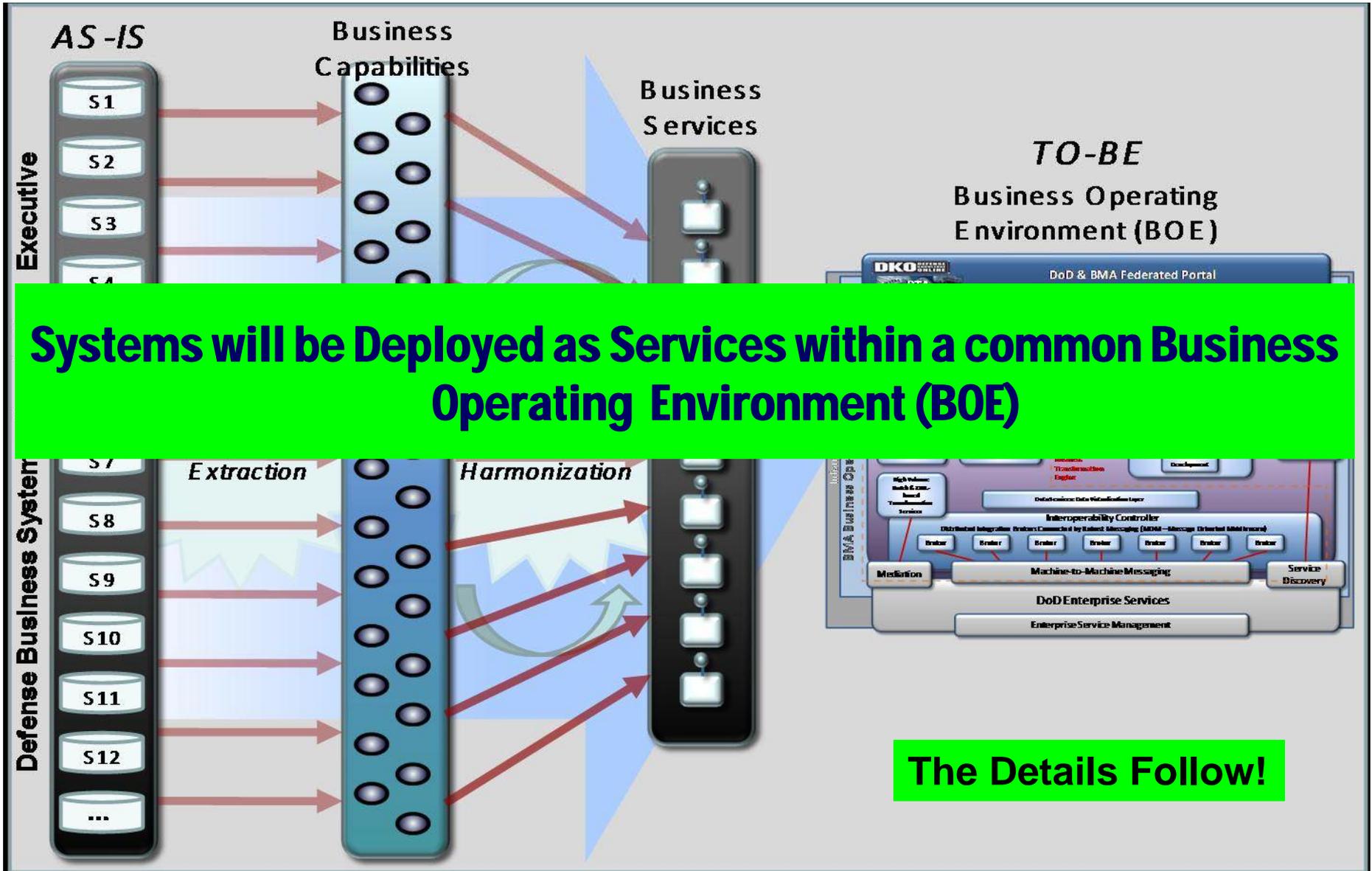
- Where we were
- **Where we are**
- Where we are going

BMA Systems, Interfaces and Transaction Flows



A Drastic Plan!

Current State and Future Vision: It's Happening

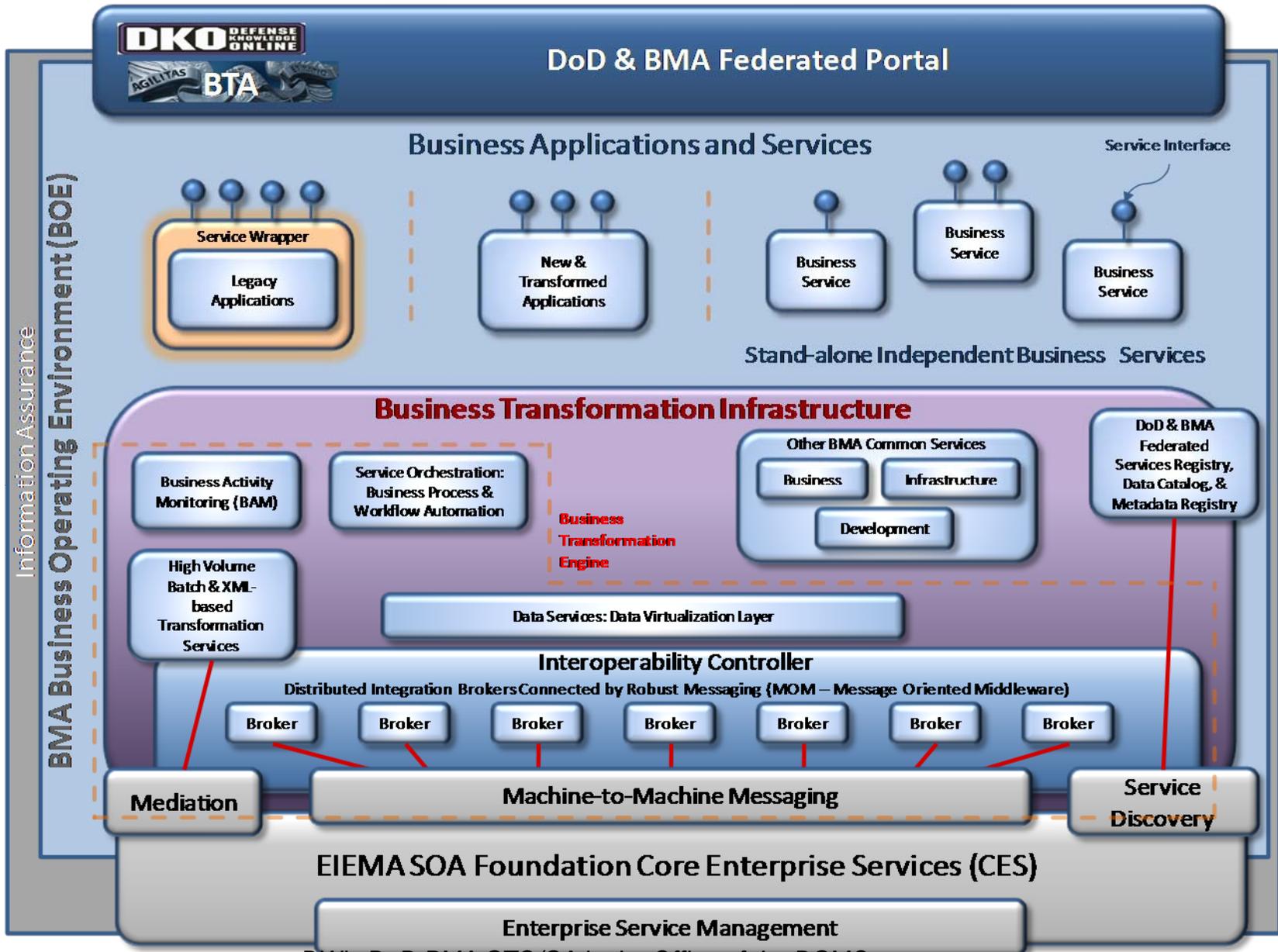


The DoD Business Mission Area (BMA)– Business Operating Environment (BOE)

- A Strategy for implementation of SOA as a primary means to deliver increased capability by improving the efficiency and effectiveness of business operations
 - Phased adoption of SOA
 - Framing individual SOA implementations
- A SOA Design Pattern to be the realization of the BMA for the DoD's vision of the Global Information Grid (GIG)
 - Leverage common SOA infrastructure
- Guiding Principles for delivery of business capabilities
 - Information Assurance
 - Adherence to Standards
 - Data Visibility, Accessibility, and Understandability to Support Decision Makers
 - Loosely Coupled Services
 - Authoritative Sources of Trusted Data
 - Metadata-driven Framework for Separation from Technical Details
 - Support use of Open Source Software
 - Emphasize the use of Service-Enabled COTS
 - Participation in the DoD Enterprise
 - Support Mobility

The BOE Pattern!

More Detailed View of the BOE

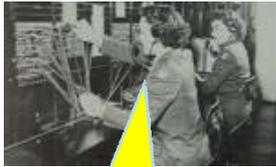


DoD Business Transformation

- Where we were
- Where we are
- **Where we are going**

Where We are in BMA SOA and Where We Want to Go

Ad Hoc,
improvised
connections



**Number
Please?**

Blue Printed
Connections
based on
standards



**You
Connect
how I say
you
Connect**

Orchestrated
Connections



**Same as
Blue Print,
but no
People**

We are
Here!

Event Driven
Connections

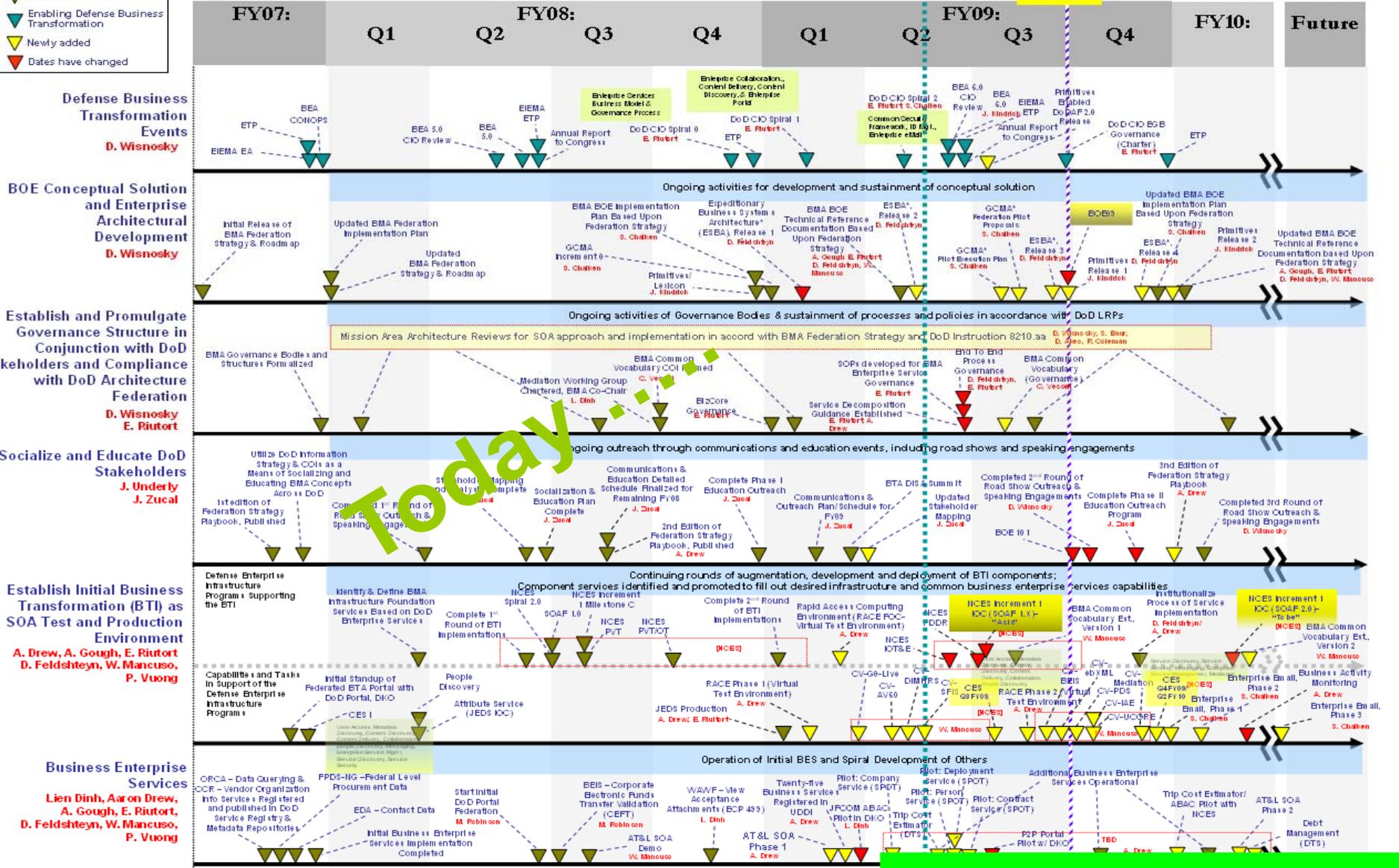


This is a Long Road!

- Milestones**
- ▼ Federation Plan
 - ▼ Enabling Defense Business Transformation
 - ▼ Newly added
 - ▼ Dates have changed

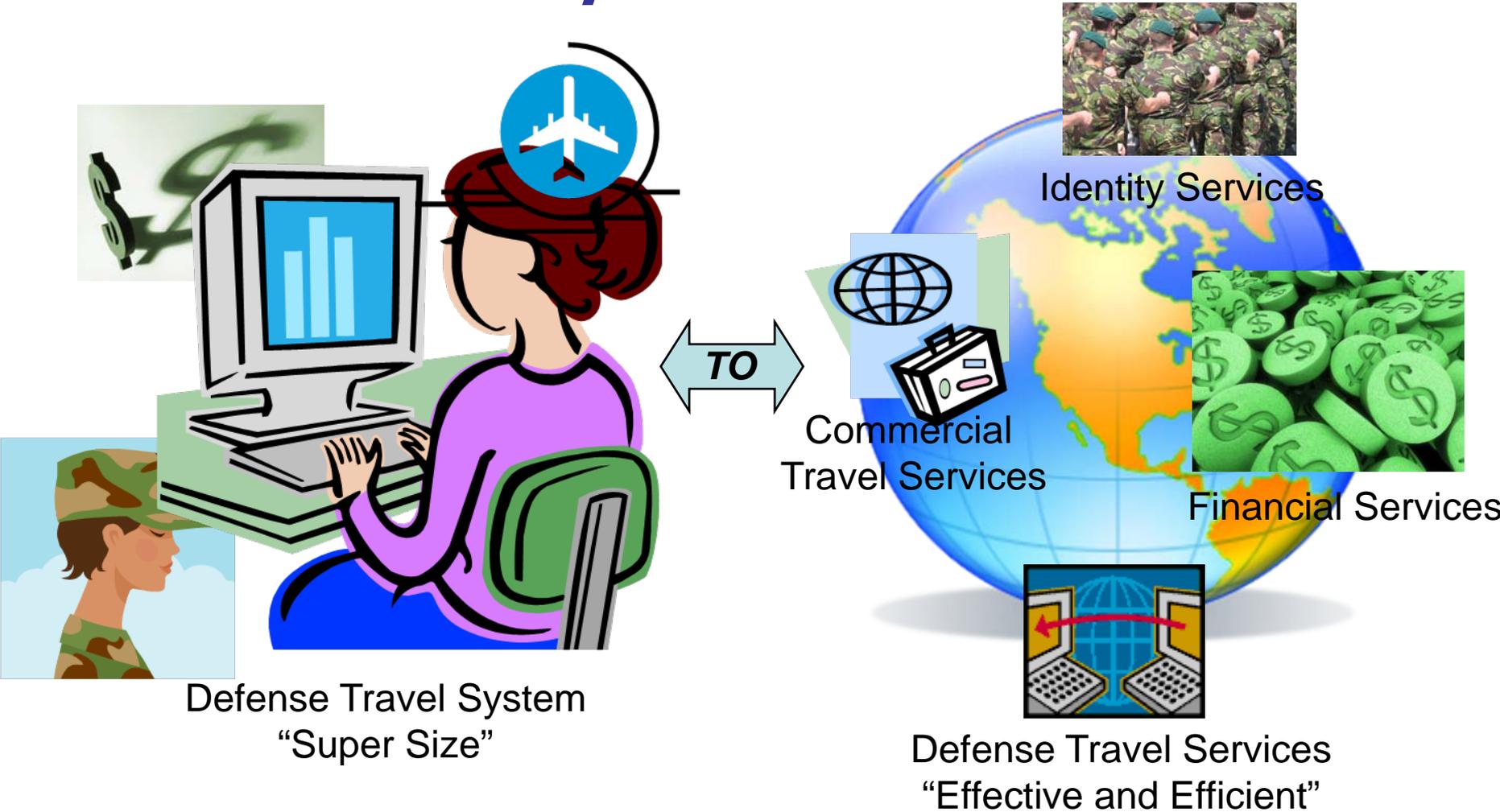
DRAFT Working Roadmap

BMA CTO and CA Office of the DCMO: Systems View Roadmap Timeline, Version 2.4, Extended



Example AS-IS to TO-BE!

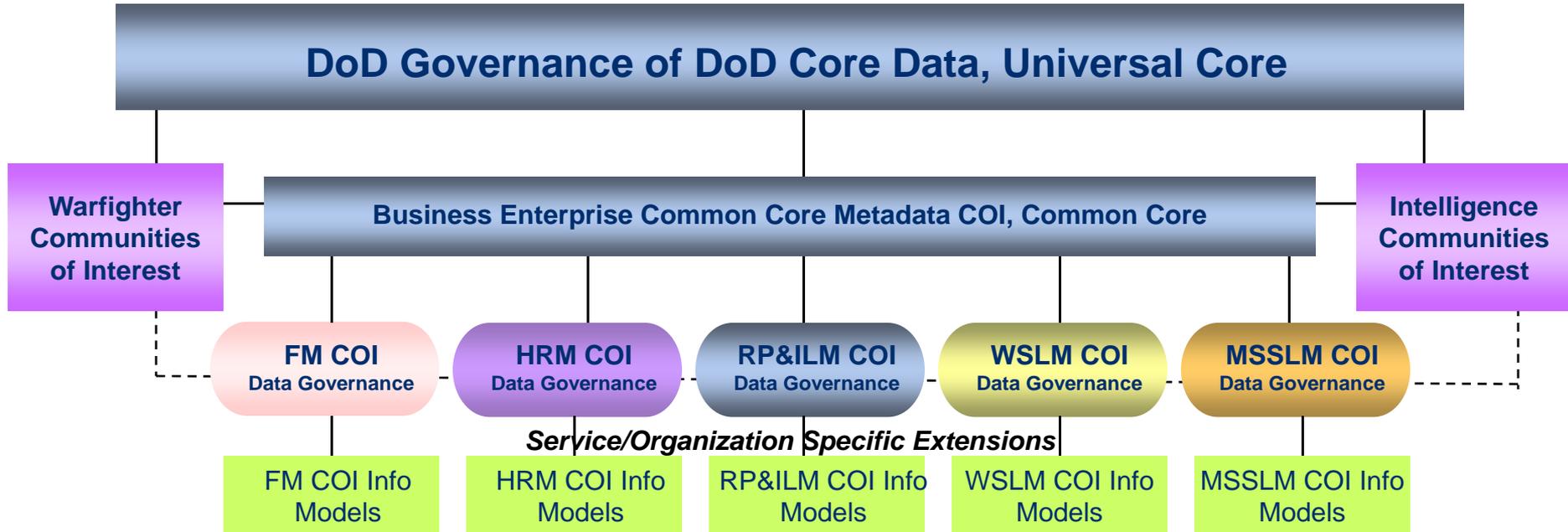
Example BOE Vision



Talking the Same Language!

Common Core Data Schema

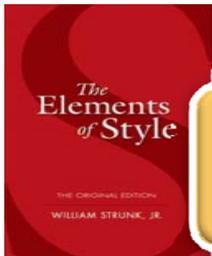
Data Governance



- Applies policy & guidance from DoD CIO & NII
- Common Core data schema to enable information sharing for Business Operations
 - Describes Common Vocabulary for Business Operations
 - Business Common Vocabulary chapters for each Core Business Mission
 - May be extended by Core Business Mission down

Seeing the World the Same Way!

Standards-based Architecture - Primitives



Standard Symbols

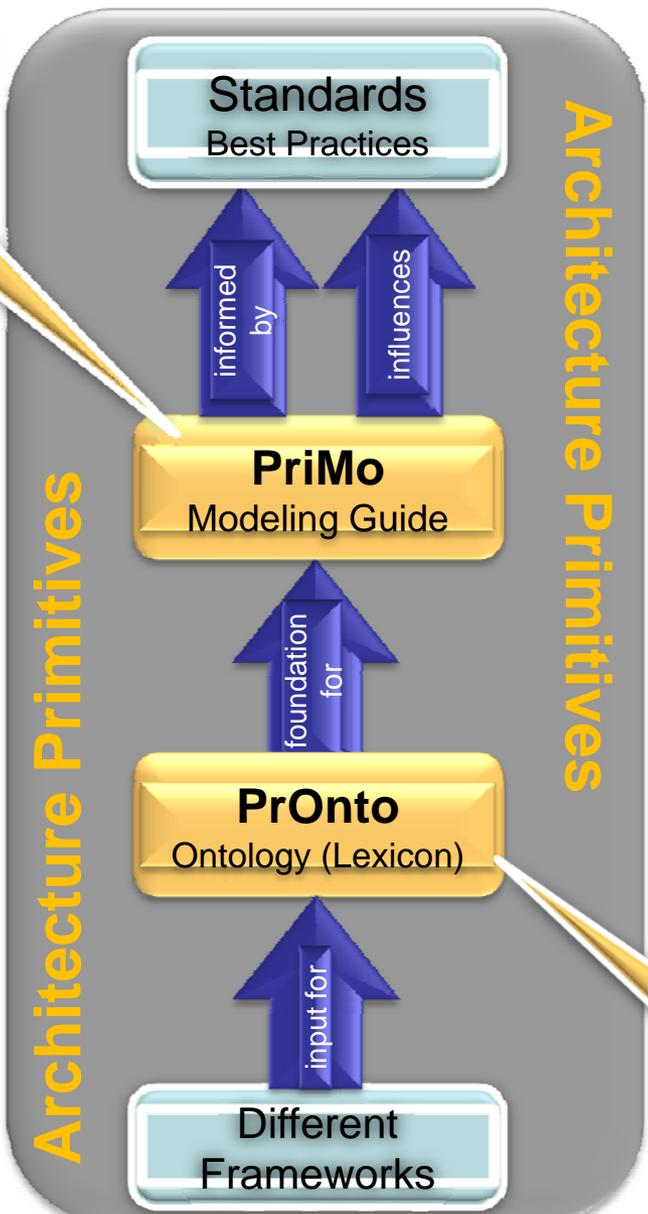
Engineering Language and Symbols:

Resistor symbol

Capacitor symbol

This agreed upon representation of electrical engineering allows a common understanding...

- DoDAF 2.0 serves as the foundation for architecture primitives
- Use Cases being developed and used to drive pilots



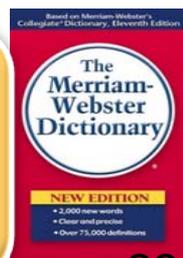
Music Language and Symbols:

Music Scale symbols

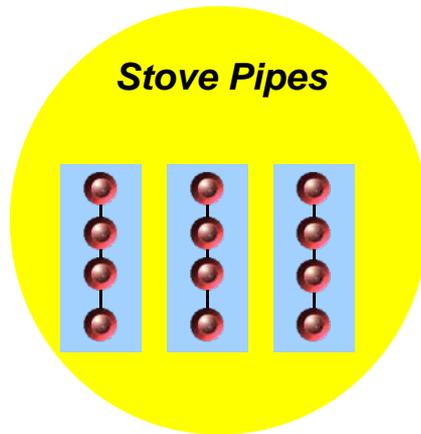
Notes symbols

This agreed upon representation of music allows a common understanding...

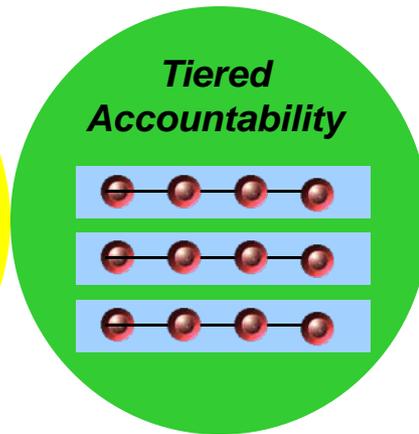
Standard Language (terms and And Then!



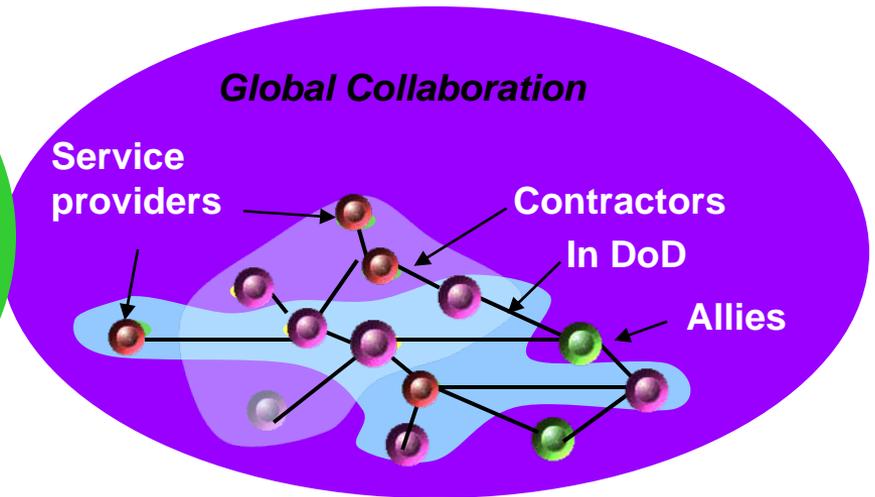
Agile, Adaptive, Net-Centric Organization



Was



IS



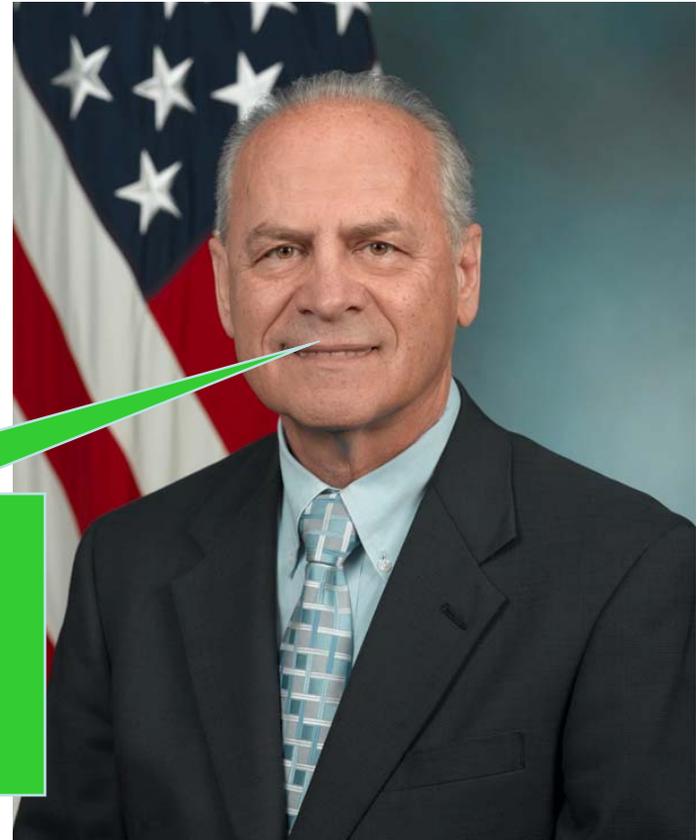
“To Be”

We are Aligned with the Times!

The Administration Says ...

- President Obama signed Open Gov EO on Day One
 - Transparency, Participation, Collaboration
 - Innovation key to performance improvement (CTO, CPO, CIO)
 - “Back-End” reform to enable streamlining
- Data Distribution can lead to radical shift
- Fiscal realities demand radical cost savings with improved performance in agency computing platforms
- Cloud have proven effective in State governments
 - DC, Arizona State U, California Pub Utilities

Thank you!



Dennis.Wisnosky@osd.mil