



17th ICCRTS: Operationalizing C2 Agility

We Have an App for That: U.S. Military Use of Widgets and Apps to Increase C2 Agility

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Agenda

- ▼ Introduction
- ▼ Strategic Environment
- ▼ Ozone Widget Framework
- ▼ DOD Storefront and PEO C4I Marketplace Overview
- ▼ Widget Governance Process
- ▼ Conclusion

“The new century brought with it a reminder that the world, in fact, is a complex, open system – constantly changing. And change brings with it uncertainty. What we really failed to recognize is that in uncertainty and change, there is opportunity and hope.”

A National Strategic Narrative

Woodrow Wilson International Center For Scholars

April 2011

The World of Futures Analysis

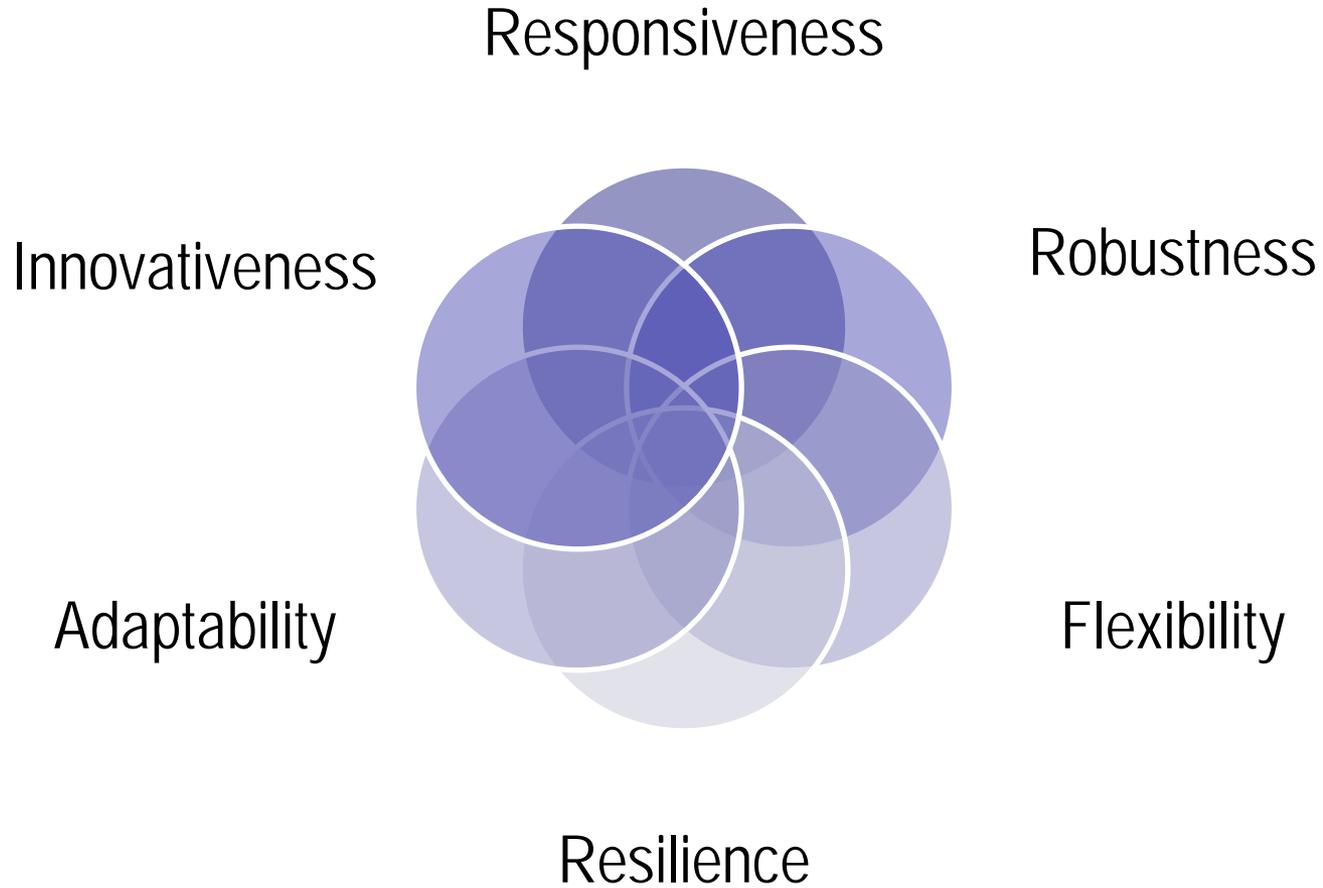


Narrow Implications

- ▼ Increased demand for self- and rapidly- deployable forces that can project power and perform multiple mission types.
- ▼ Naval forces are an ideal means in the current security environment to accomplish a wide variety of missions.
- ▼ Air Sea Battle Concept
- ▼ Agile C2

The global system is likely to continue on its path towards greater complexity and uncertainty.

Agile C2



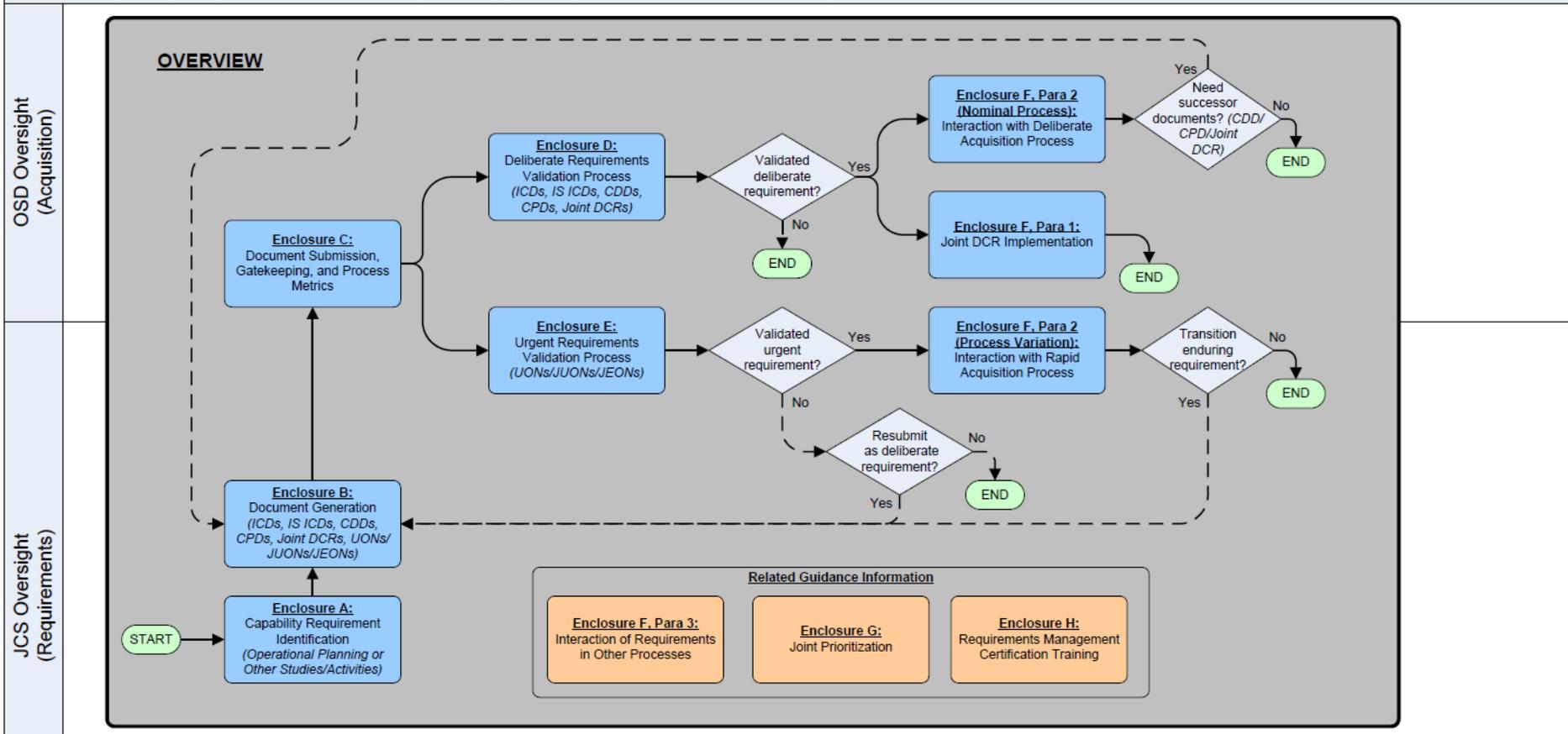
Introduction

- ▼ The commercial world has shifted focus to small flexible mobile code via widgets and other mobile applications
- ▼ IBM's *Global Technology Outlook* for 2006 noted an impending shift toward "situational applications"
 - Rapidly evolving software development paradigm
 - A driving force in delivery of web-based dynamic content
- ▼ Using standard acquisition processes in DOD, by the time new solutions are deployed to the warfighter, the technology is obsolete
- ▼ Several programs within the DOD have started similar initiatives that hold the promise of reducing the "heavy lifting" required as part of the current acquisition process

The Current Process

Joint Capabilities Integration and Development System (JCIDS) Process Flow Chart

Capability Requirement Identification (including planning, studies, and other activities)

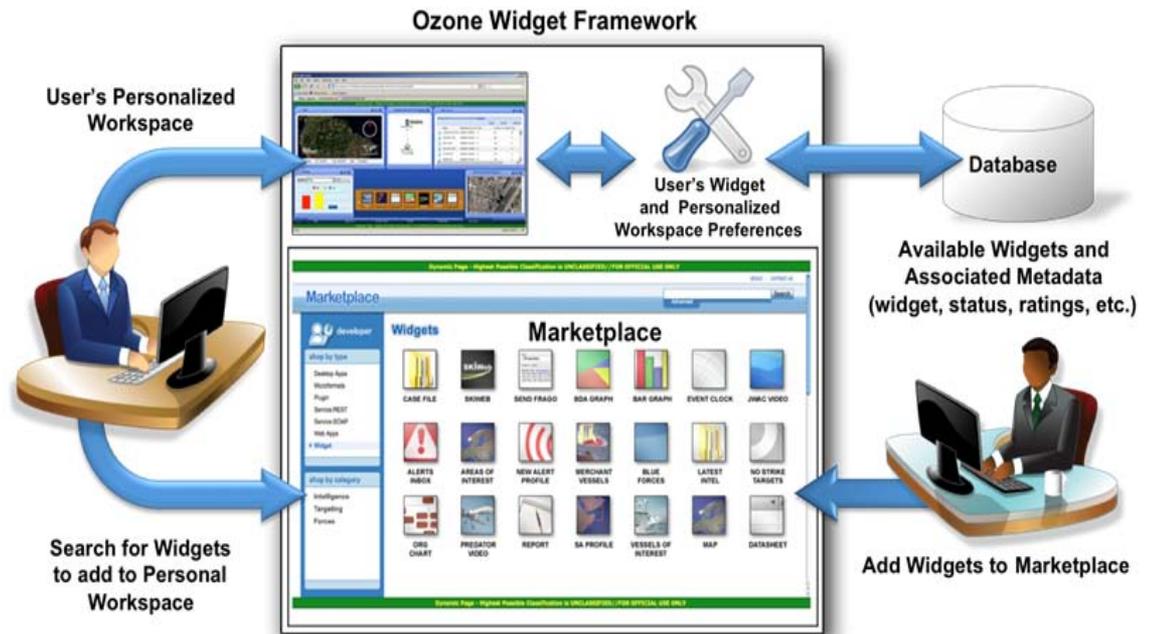


What is a Widget?

- ▼ Lightweight
- ▼ Single-purpose
- ▼ User configured
- ▼ Web-enabled application
- ▼ Provides summary information or a limited view into a larger application
- ▼ Also used alongside related widgets to provide an integrated view

Ozone Widget Framework

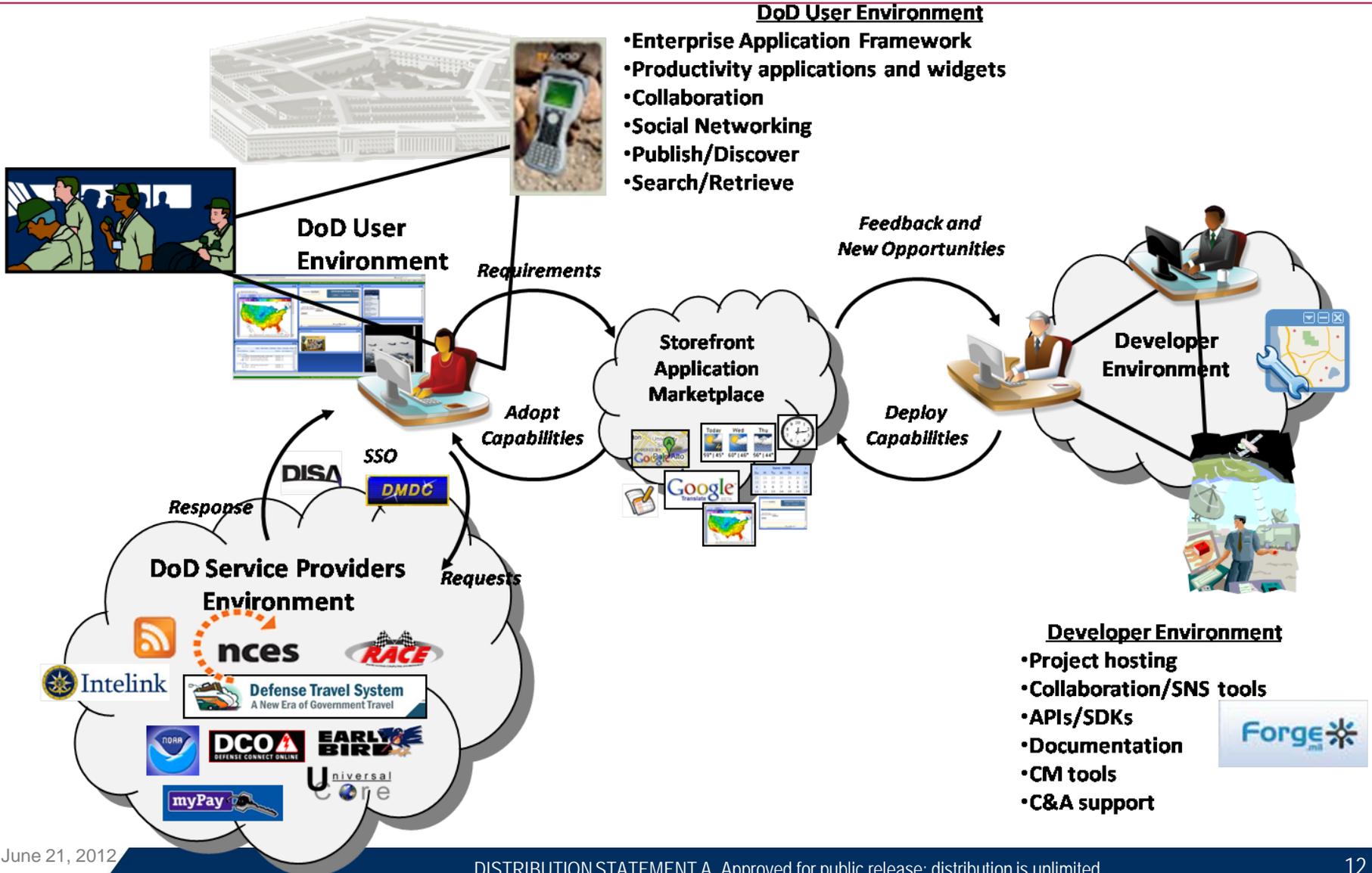
- ▼ A platform that offers infrastructure services to simplify the development of workflows and presentation-tier application integration
- ▼ It is also a layout manager for the operation of widgets on a single web page



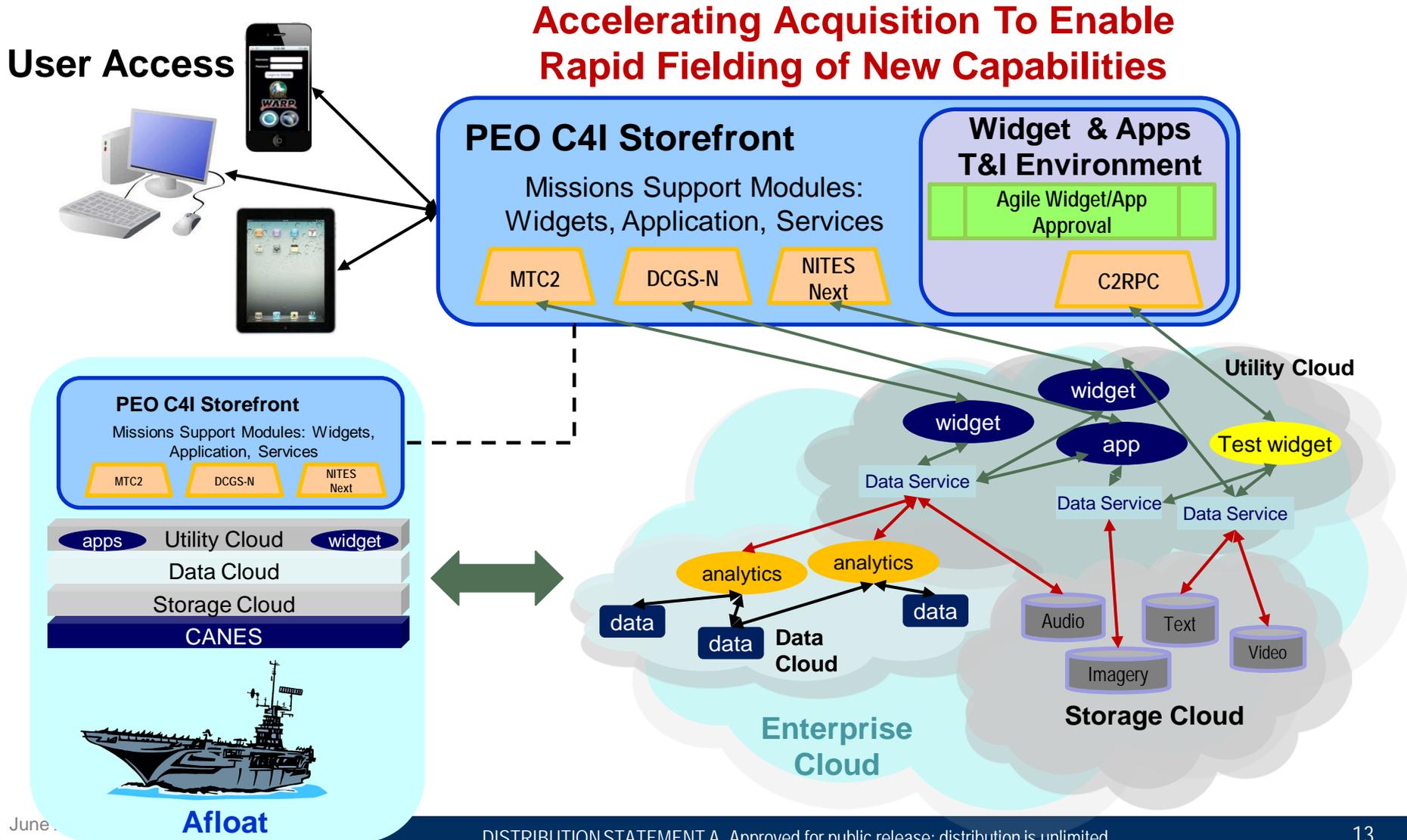
DOD Widget Efforts

- ▼ DOD Chief Information Officer Storefront Pilot
- ▼ National Security Agency Denver Store
- ▼ Global Command and Control Systems – Joint
 - Joint Command and Control Common User Interface (JC2CUI)
 - Integrated, Imagery and Intelligence
- ▼ Command and Control Rapid Prototyping Continuum
- ▼ Integrated Intelligence Architecture
- ▼ Defense Common Ground Station Army & Army Mission Command
- ▼ Defense Intelligence Information Enterprise Framework (Di2E-F) Quick Response Capability

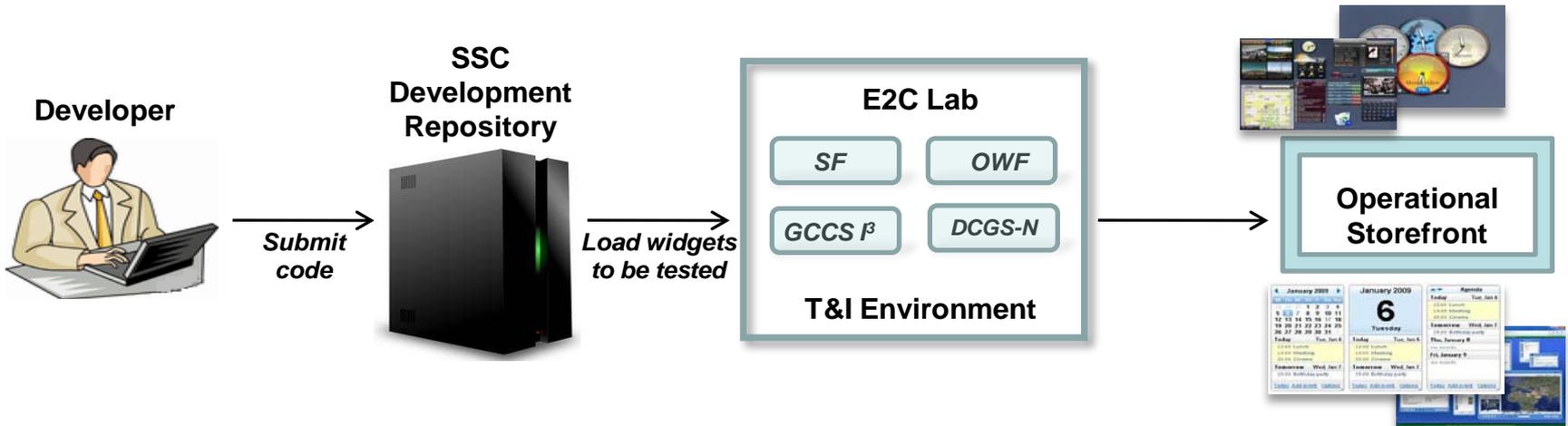
DOD Storefront OV-1



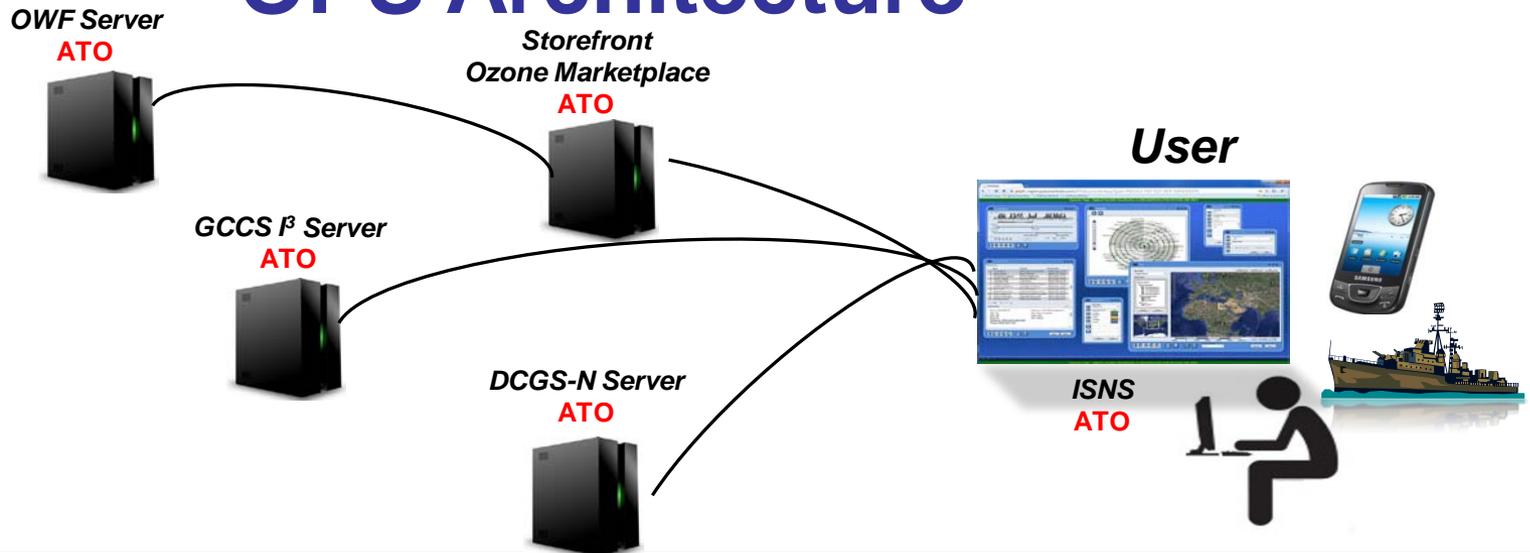
PEO C4I Storefront & Navy Cloud



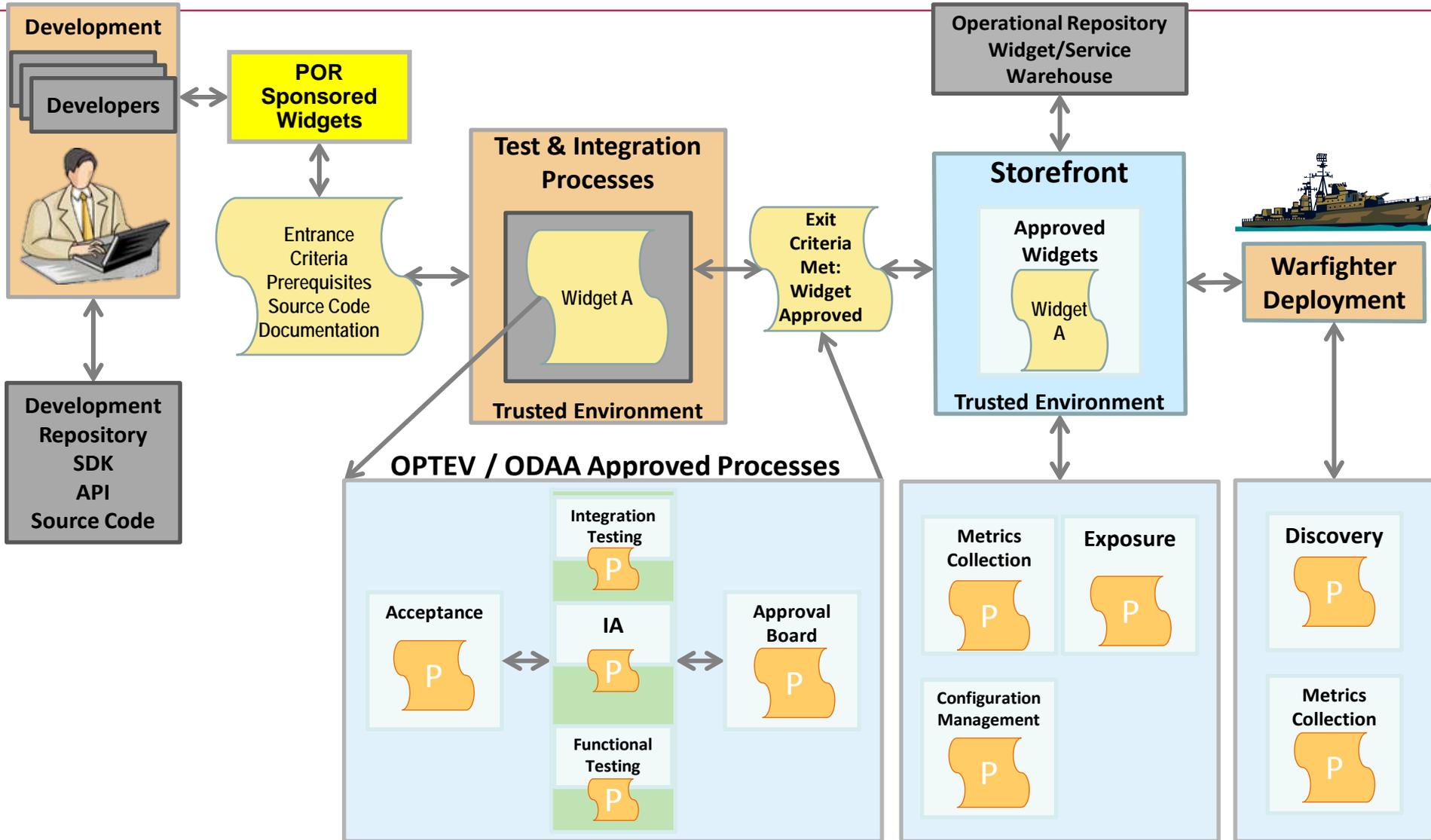
Widget Lifecycle and Operational Architecture



OPS Architecture



Proposed Widget Governance Process



Conclusion

- ▼ **DOD must modify its acquisition philosophy to get new capabilities in the hands of the warfighter**
 - Light weight mobile applications
 - Access to services and data sources
 - Streamlined processes for accredited PORs
 - Allows rapid fielding of associated Widgets
 - PEO C4I Marketplace and accompanying Widget Governance Tool
 - Cost effective and expedient
 - Provides trusted and secure capabilities

- ▼ **The future of warfare is information dominance and speed to capability can provide the tactical or strategic advantage our warfighters need**

Presenter Contact Information

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BACKUPS

Consensus Strategic Drivers:

Globalization will increasingly characterize the international system

Demographic pressures will continue to undermine stability

Resource concerns will come to dominate global competition

Emergence of new power centers will lead to a multi-polar world

Non-state actors' influence will continue to rise

Failing states will increasingly threaten global security

C2 Defined

- ▼ Department of Defense: The “exercise of authority and direction by a properly designated **commander** over assigned and attached forces in the accomplishment of the mission”
- ▼ Navy Perspective: The central figure of C2 is the **commander** who “commands by deciding what must be done and exercising leadership to inspire subordinates toward a common goal”

Widgets in Action – Sample Widgets

▼ GCCS-J I³ Sample Widgets

- I³ Common Geospatial Display Widget
- I³ Vessels of Interest Widget
- I³ Maneuver Unit Widget
- I³ Latest DMOB Equipment Widget
- I³ Naval Activity Widget
- I³ Channel List Widget, I³ Blue Forces Widget
- I³ AOB Widget
- I³ Recent Activity Widget
- I³ Targeting Widget
- I³ Naval Order of Battle Tracking
- I³ Motion Imagery Viewer

▼ DCGS-A Sample Widgets

- Common Admin Widget
- Common Help Widget
- Common Query Widget
- Common Map Widget
- Coordinate Conversion Widget
- DIB Query Widget
- plus over 50 additional widgets
 - Weather
 - HUMINT
 - IMINT
 - Geospatial
 - Alerting tools