



Defense Information Systems Agency

A Combat Support Agency

GIG Technology Areas of Interest

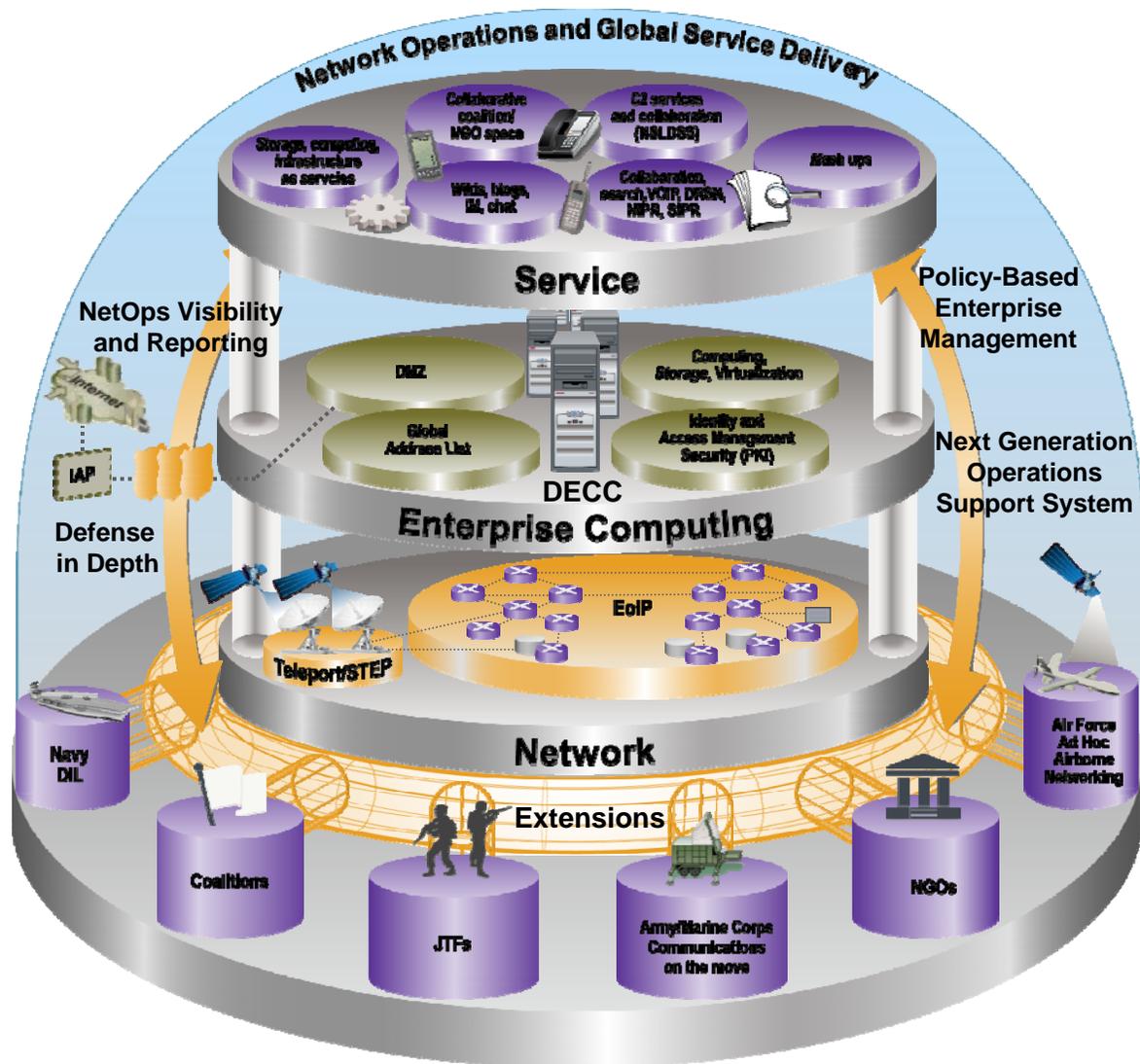
Dave Mihelcic
Chief Technology Officer
7 August 2009



Some Themes

- **Future GIG**
- **Decision Support leveraging Web 2.0**
- **Agile Development (software and systems)**
 - **Forge.mil**
 - **RACE**
 - **Integrated Test Environments**
- **Unified Communication & Collaboration (UCC)**
- **Mobility (wireless)**
- **Summary**

The Enterprise





GIG 2.0 “Game Changing” Characteristics

- **IT Performance and Functionality based on Mission Need**

All users operate within the same environment, however, the functionality available to the user, and how well this functionality performs, is differentiated based on mission need.

- **Reduced Attack Surface**

The number of points where networked information technology systems can be attacked are reduced at the user end devices, at the information and enterprise services, and across the network components.

- **Identification friend-or-foe (IFF) drives access and defense**

People, devices, information, and enterprise services and their relevant attributes are identified and authenticated. This identification, and the strength of their authentication, determines what they have access to, and how they are defended against.

- **IT Engineered for Change**

The acquisition process remains the same, but capabilities are delivered at the pace of the IT “state-of-the-practice” because systems are engineered so they can be adapted to current technology at the time of delivery.



Technology Challenges & Research Initiatives

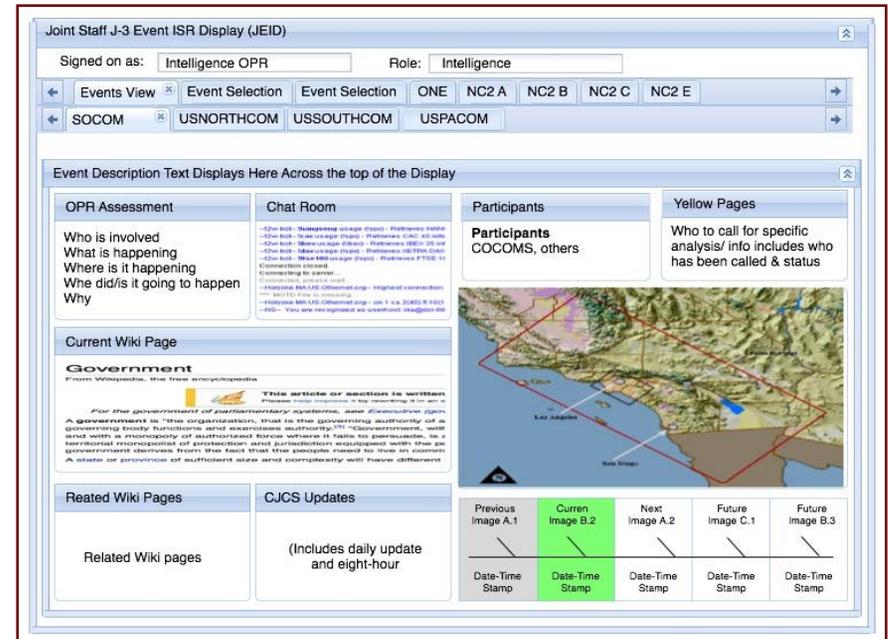
- Always On Network:
Research Initiatives
 - Enterprise-wide Accreditation Process
 - Logical Segmentation NetOps
 - Content Delivery
- Enabling Enhanced Information Sharing:
Research Initiatives
 - Attribute Governance, Management, and Maintenance
 - Expose Attributes in Various Classification Domains
 - ABAC Enablement of Application
 - Self Aware, Self Conforming Applications
- Better, Safer, End-User Devices:
Research Initiatives
 - Improved Identification of Assets
 - Virtual Desktops
 - Device Configuration Engineering and Strategy
 - Safe Browsing
 - E-mail Filtering Gateway



National Senior Leadership Decision Support System (NSLDSS) Mashup

National Senior Leadership Decision Support Service (NSLDSS):

- Developing a rapid situation awareness (SA) to support response, planning, and execution for Senior Leaders in Department of Defense (DoD).
- **Objectives:**
 - Provide accurate, timely, and focused SA of situations, operations, and events of interest around the world
 - Deliver key data to senior leaders regardless of their physical location and display device



‘A mashup is a website or application that combines content from more than one source into an integrated experience’ (Wikipedia).



How Are We Developing the Defense Web 2.0 Environment

1. *Community Publishing*
Wiki (Intellipedia):
(Harnessing Collective Intelligence)

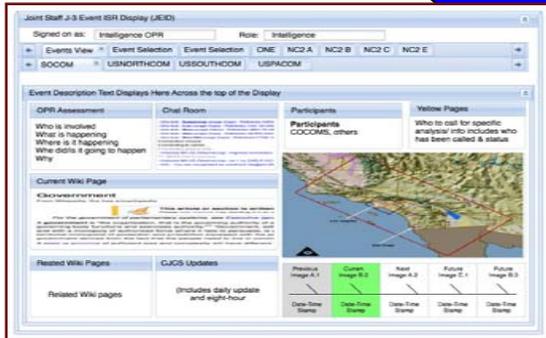


2. *Relationship Building*
Social Networking Service (DEFStar):
(Harnessing Collective Intelligence)

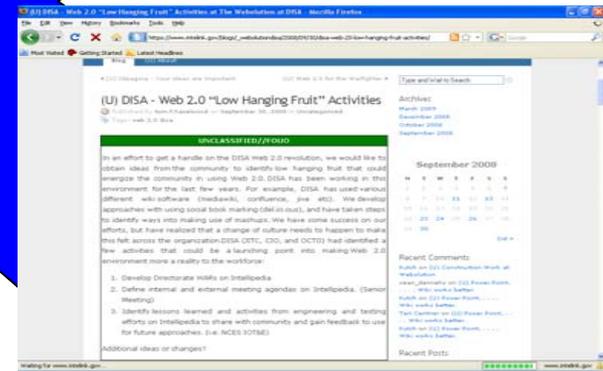


Web 2.0 Environment

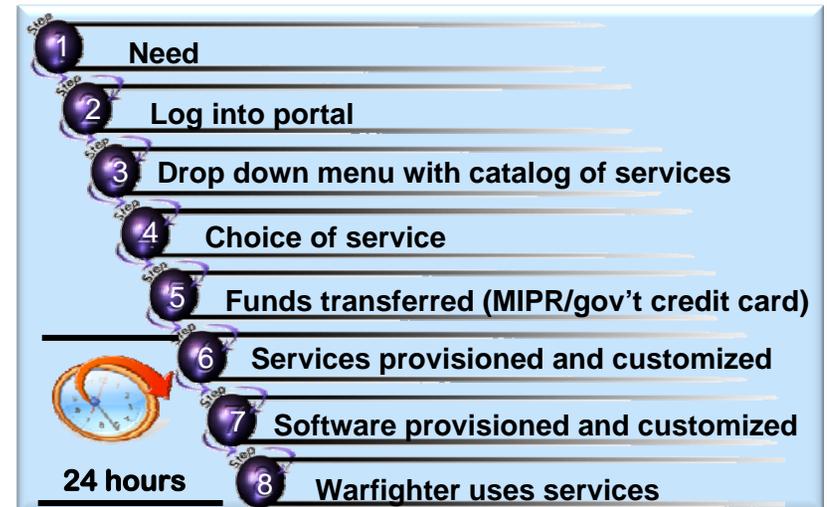
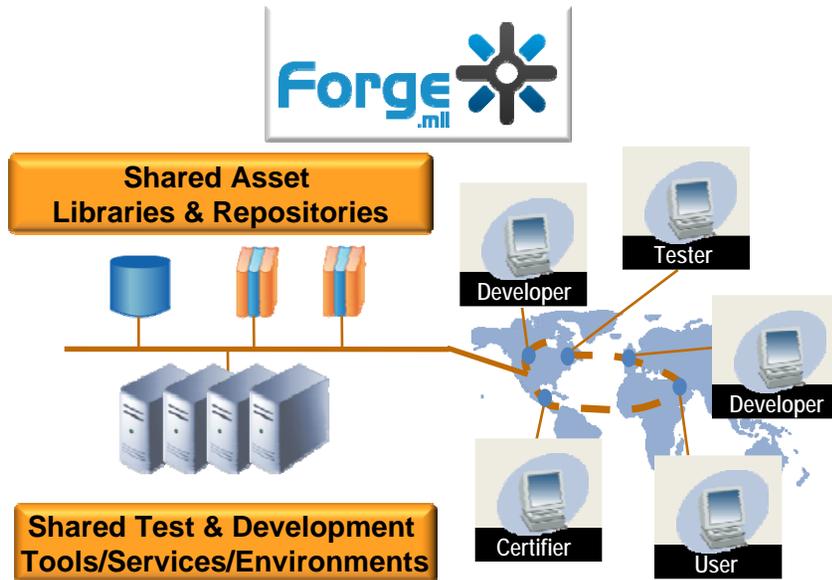
4. *Information Aggregation*
Mashup (NSLDSS):
(Rich User Experience)



3. *Community Discussions*
Blog (Intellipedia):
(Harnessing Collective Intelligence)



Agile Software Development



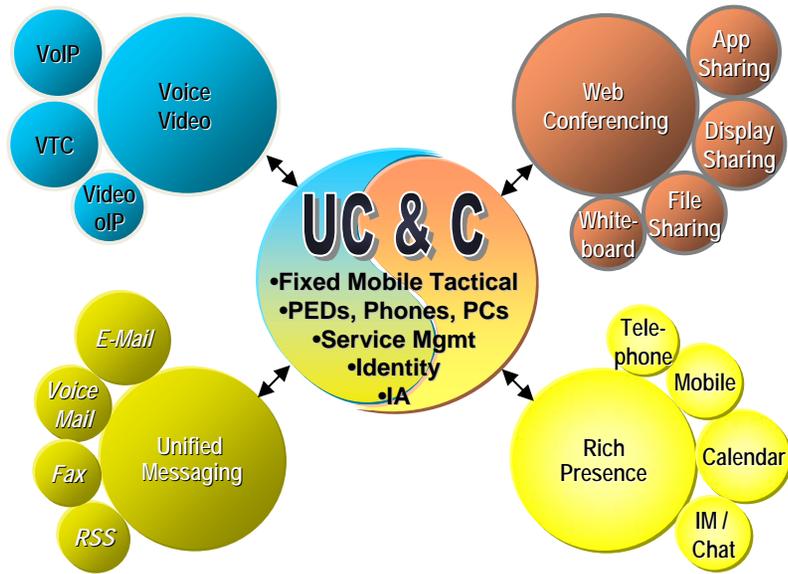
A collaborative platform for rapidly deliver of Dependable software and services in support of net-centric operations and warfare

- Warfighters determine what & how much they use
- Pay for what you use – scale up & down in minutes

**Agile Development
And Testing**

**Rapid, Standard, Self-Service Capabilities
Self-provisioned Data Processing & Storage**

Unified Communications & Collaboration

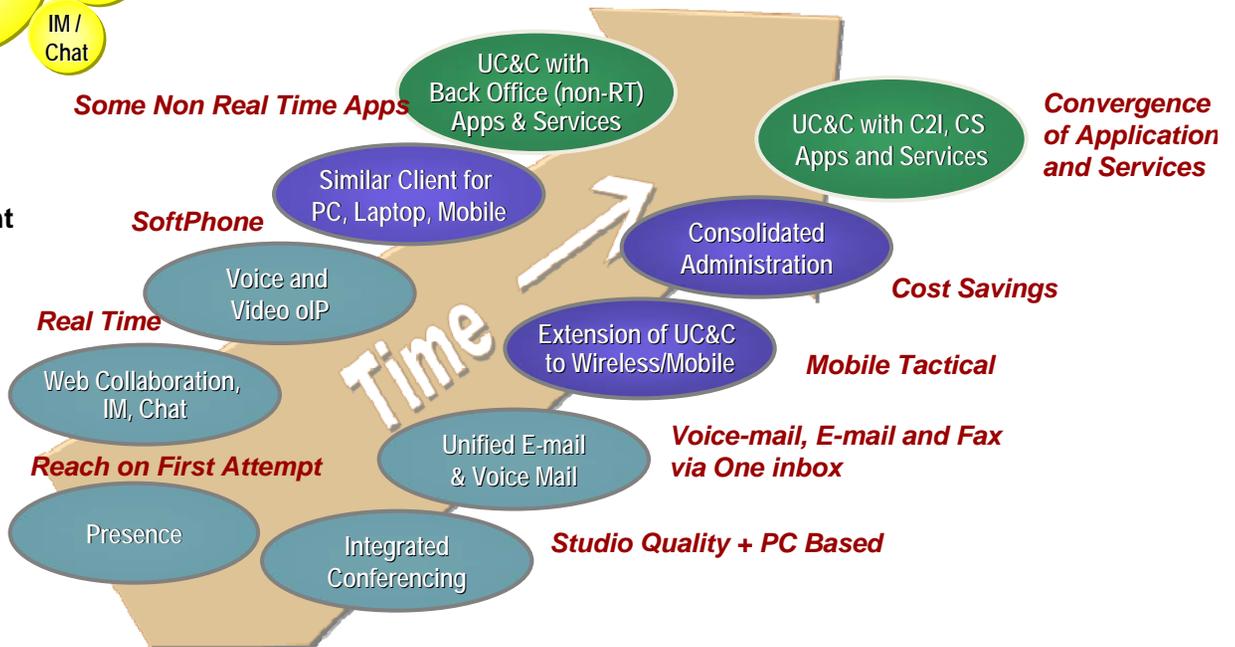


UC&C Capability Evolution

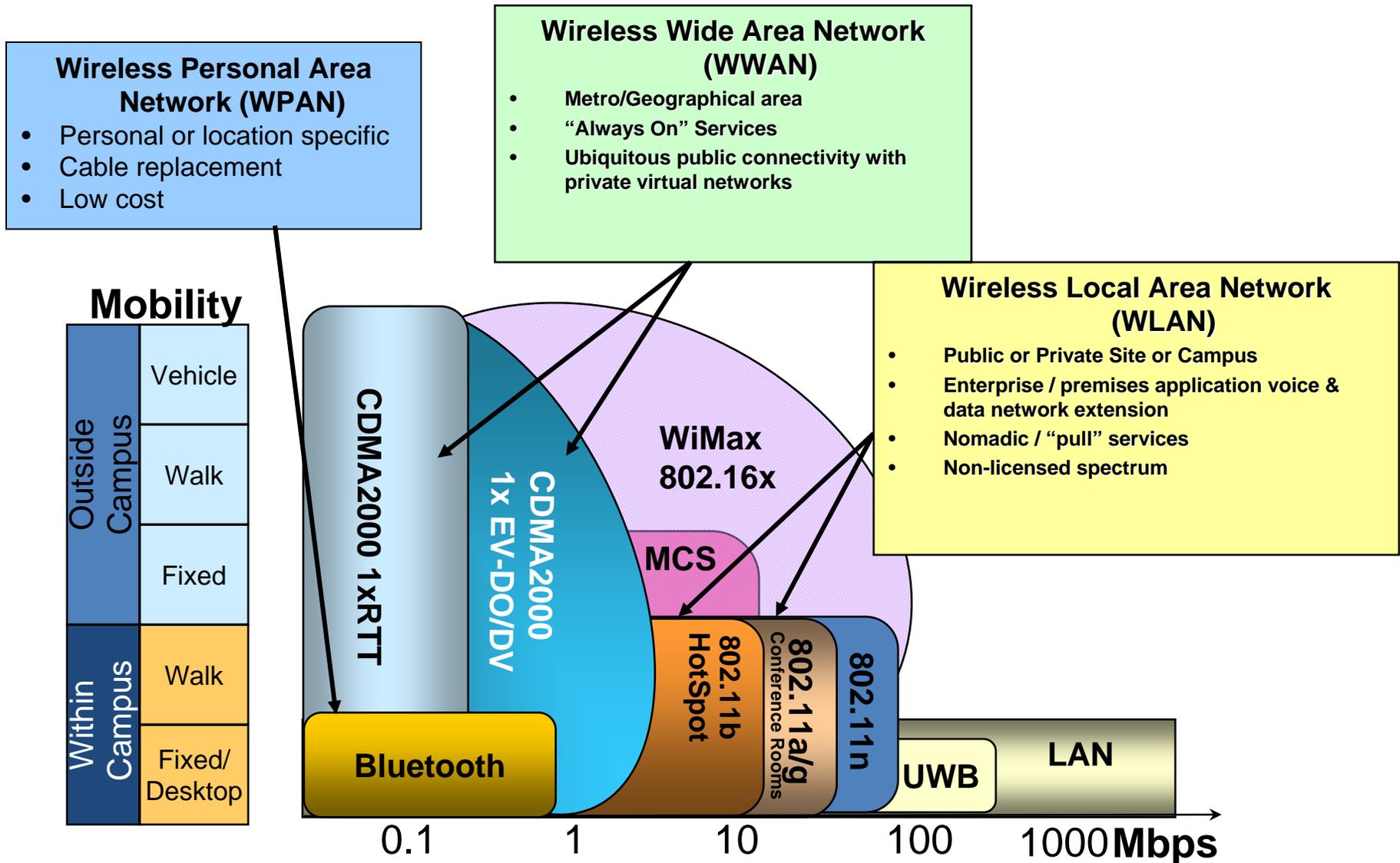
More Effective Decision Making
Improved Situational Awareness
Faster Access to Subject Matter Experts
Reduced Travel, Time and Cost Saving

Unified Communications and Collaboration (UC&C)

- Access to the right information and the right person over any device or application the first time.
- Convergence of all forms of audio, video, web and desktop communications, built on an IP network
- Means to integrate real-time unified messaging, collaboration



Mobility - Wireless Landscape





Summary

- **Focused technology for:**
 - Reduce operations cost of the GIG Core segment
 - Management of the GIG Intermediate/Edge segments
 - New services via Unified Communications
 - Speed of deployment
- **DISA is actively looking to industry to explore new technologies and concepts via JCTD's, CRADA's, BAAs and other partnerships**

JCTD = Joint Capability Technology Demonstration

CRADA = Corporate Research And Development Agreement

BAA = Broad Agency Announcement

