Defense Information Systems Agency

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Cloud Computing: A perspective

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DISA Computing Environment

- 4,000,000+ users
- 13 facilities
- 445,000 sq ft raised floor
- 34 mainframes
- 6,100 servers
- 3,800 terabytes of storage
- 2,800 application / database instances
- 215 software vendors

Defense Enterprise Computing Centers (DECC)

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"The Cloud"

A style of computing where massively scalable (and elastic) IT-related capabilities are provided "as a service" to external customers using Internet technologies.

What's new?

- Acquisition Model: Based on purchasing of services
- Business Model: Based on pay for use
- Access Model: Over the Internet to ANY device
- Technical Model: Scalable, elastic, dynamic, multi-tenant, & sharable

Computing As A Service

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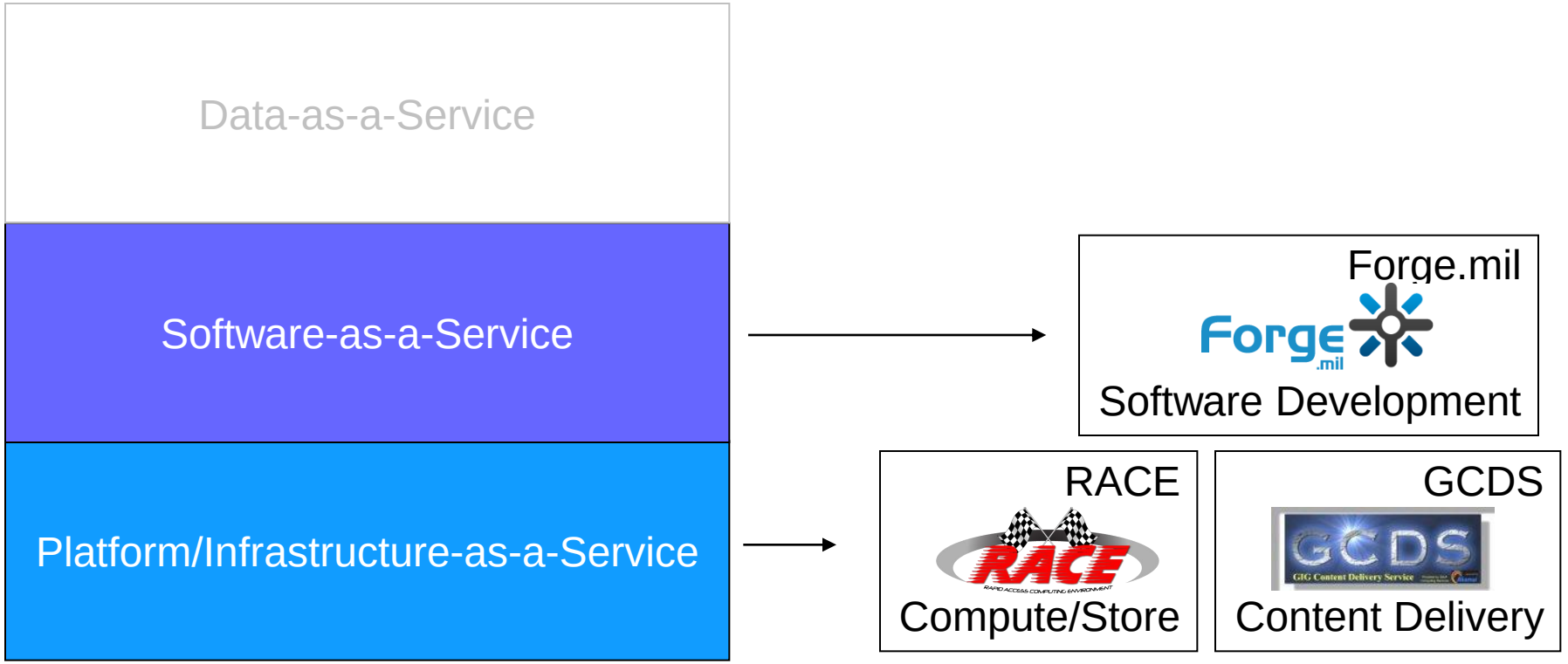
DISA Cloud Services Portfolio



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RACE Drivers…Why Do It

- **Support faster application development/deployment**
  - **Reduce hardware provisioning from months to hours**
  - **Provide standard platforms to encourage standardization**
  - **Developing under security guidelines reduces implementation delays to retrofit security**
- **Reduce development and operating cost**
  - **Self-service model reduces costs**
  - **Standardization reduces support costs**
  - **Centralizing resources in the cloud**
- **Improve overall security posture**
  - **No servers under desks**
  - **Secure facilities**
  - **Uniform application of security guidelines**

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RACE – The Solution

Increased Speed

- 24 hour provisioning
- Online self service
- Credit card acquisition

Increased Scalability

- Increase capacity ~ 24 hours
- "Turn On / Turn Off" monthly
- Capacity on demand

Reduced Risk

- No capital $ needed
- DECC Infrastructure
- Develop under DoD IA standards

Reduced Cost

- Pay only for what you need
- Month-to-month service
- No annual maintenance fees

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RACE Offerings

Today

- **Development/Test**
  - 24-hour automated provisioning
  - Customer root access
  - Ability to promote from Dev to Test
  - Standard CSD Operating Environments
  - Minimized and streamlined accreditation
  - Increase capacity ~ 24 hours
  - Month-to-month service
  - Reduced cost

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- **Production**
  - User self-service provisioning within the PRODUCTION environment
  - Ability to promote from test to production
  - Streamlined/Automated accreditation
  - Pre-established inherited IA controls

FY10 Initiatives

- SIPRNet deployment
- Complete integrate accreditation automation processes
- Continue to refine RACE Portal
- Interface with Forge.Mil Projects
- Complete integration with DISA standardized configuration management system (BladeLogic)

On-going Development Driven By The User Community

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GIG Content Delivery Service (GCDS)

- **The Global Information Grid (GIG) Content Management System (GCDS):**
  - **DoD designated content delivery service**
  - **Managed by the Defense Information System Agency (DISA's) Computing Services Directorate (CSD).**
  - **GCDS is a global platform**
    - **Uses Akamai™ technology, that provides intelligent routing and caching of web-based content.**
    - **Interfaces with web-based applications and portals.**
    - **Requires the local system be configured to allow GCDS to handle communications between it and the Defense Information Systems Network (DISN).**

- **GCDS Cloud Computing Defined:**
  - **Infrastructure as a Service (IaaS) in the DISN Cloud**

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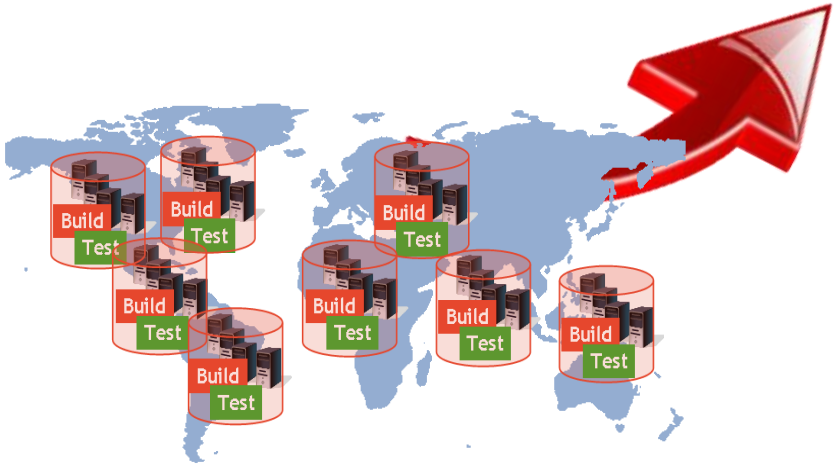
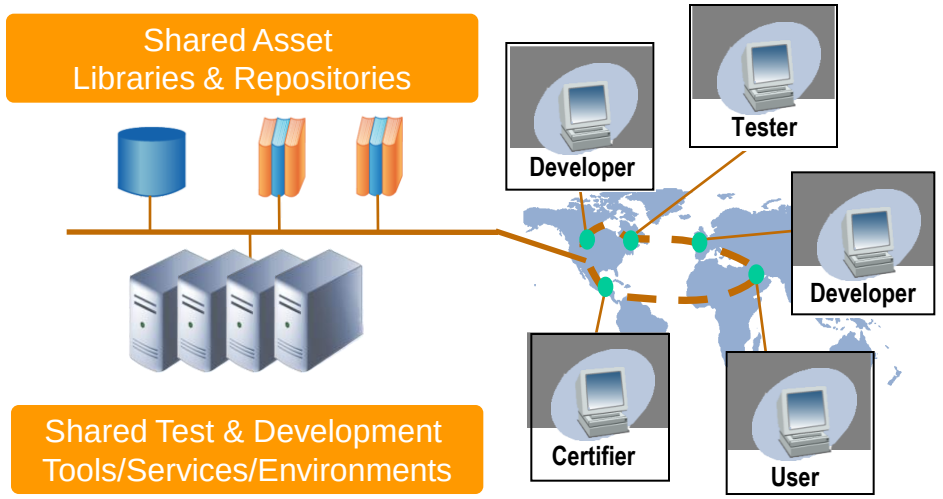
TODAY

- Siloed development environments
- Expensive and time consuming start-up
- Limited exposure, sharing, or re-use
- Duplication of effort





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- Agile development and testing
- Cross-program sharing: software and services
- Early and continuous collaboration
- Integrated approach to development life cycle
- Extensible platform to support delivery of partner capabilities

Software Lifecycle Development

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A collaborative platform to improve DoD's ability to rapidly deliver dependable software and services in support of net-centric operations and warfare

Available Now		**Collaborative software development and reuse**
Q1 FY10		**On-demand application development tools**
Future		**Agile certification process**
		**Common test and evaluation environment**
		**Collaborative development of IT standards**

Driving Innovation Through Collaboration

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Challenges and Barriers

Current

- Balancing Security and Usability
  - User Validation
  - Virtualization; servers, firewalls, networks
  - Access
- Business processes
  - Flexible funding; credit cards, speeding MIPR process
- Cultural inertia
  - Sharing the vision
  - Convincing “Box Huggers”
- Controlling expectations
  - “Why can’t it…..”

Future

- Security optimization
  - “Shared” accreditation
  - Validation of customer applications
  - Integrating Software as a Service
  - Accessing federated and shared services
  - Varying interpretations of security guidelines
- Business streamlining
  - Each Service and Agency has unique processes
  - Funding hurdles; Procurement $ verses Operating $


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