DISA Platform as a Service (PaaS) And RACE

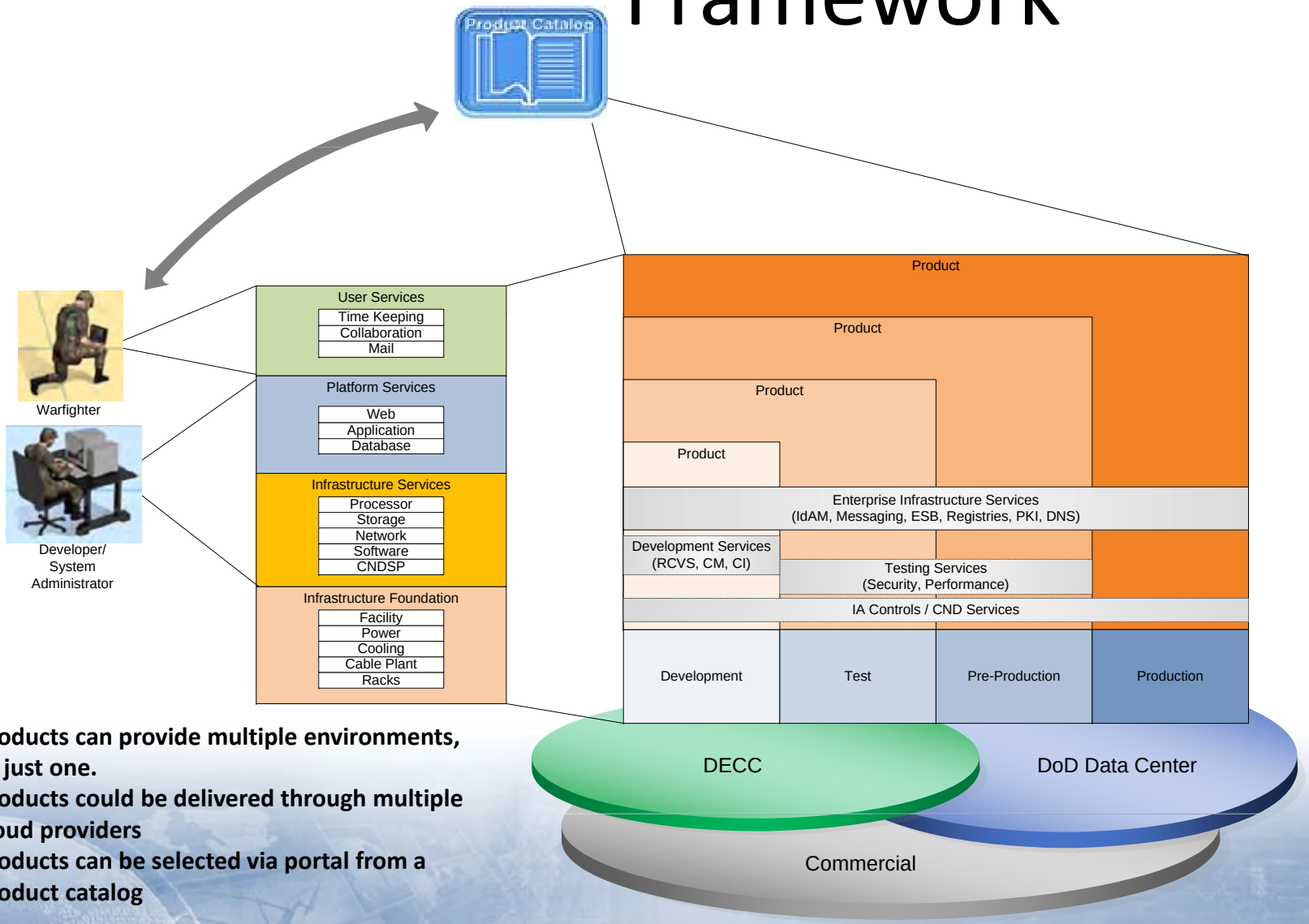
May 2012

Version 1.0

Product Framework Overview

- Enterprise Services must be Product focused with:
  - Discrete retail-based boundaries for ease of consumption by all DOD
  - A price model that enables full cost recovery & self-funded evolution
  - An on-line, interactive self-service Product Catalog
  - A single customer-facing entry-point for all product services
  - Brutal and strict standardization
- Products must use a common suite of infrastructure Support Services
  - System lifecycle environments (Dev, Test, Pre-prod, Prod)
  - Security, Naming, Registries, Messaging, Service Bus…
  - Must be accessible across all system lifecycle environments
- Products should be portable
  - DISA DECCs are not the only available hosting facility

DISA Enterprise Product Framework

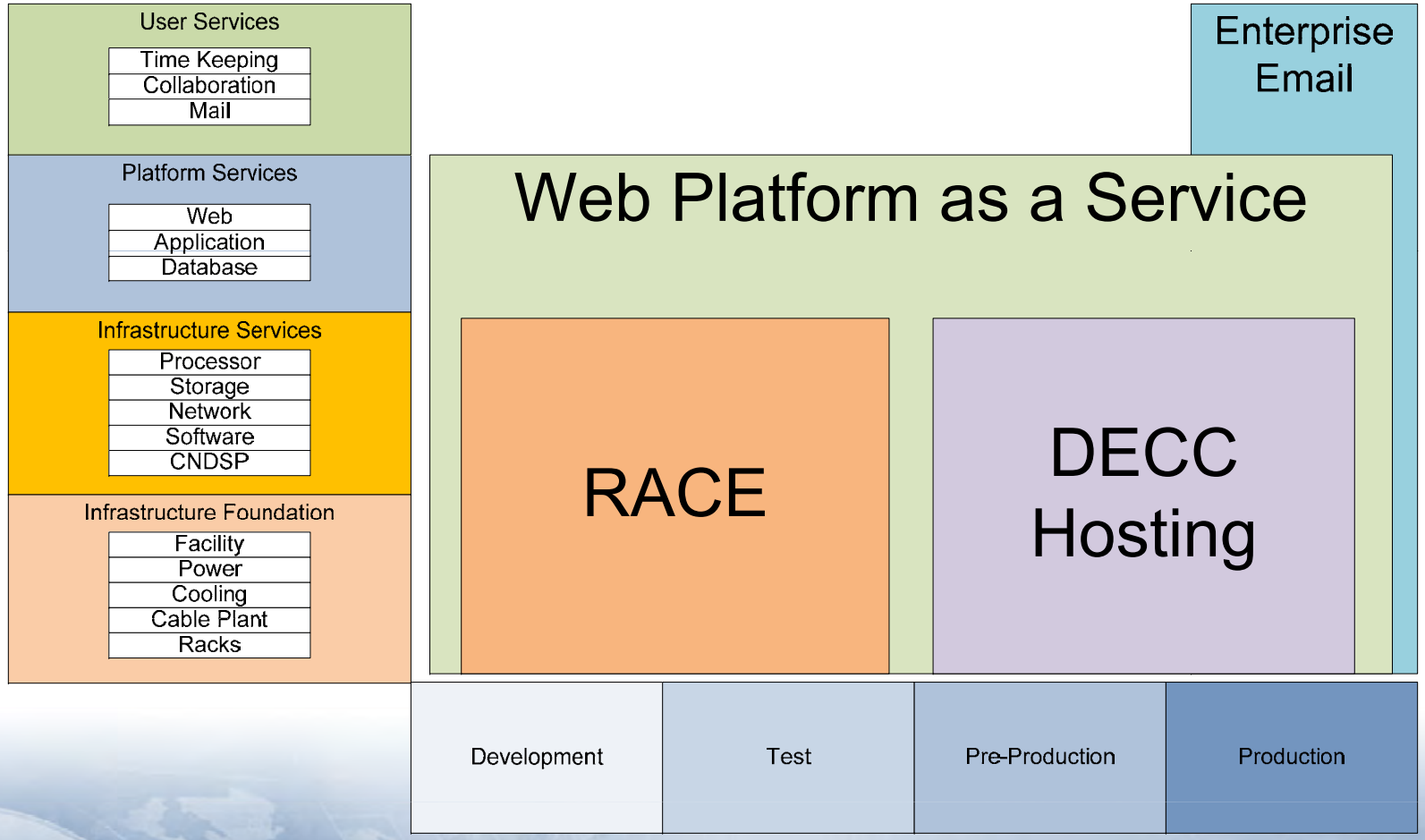


- **Products can provide multiple environments, or just one.**
- **Products could be delivered through multiple cloud providers**
- **Products can be selected via portal from a product catalog**

DISA Service Evolution

- DISA will evolve enterprise services into a new “Product Framework”
  - Increased standardization
  - Simplified consumption models
  - Self-sustaining pricing
- Current products such as RACE, Web PaaS, GCDS, will be incorporated into the framework
- New products will be developed and implemented in accordance with framework guidelines

Sample Product Alignment



DISA's Enterprise Infrastructure Services

Provides self-service ordering, provisioning, and administration of IT infrastructure for developing, testing, integrating, and deploying new mission capabilities

Operating Environments (RACE)

Middleware Platforms (PaaS)

Reduces risks for Partners by providing infrastructure products under cloud-based services in secure Defense Enterprise Computing Centers (DECCs), connected to private DoD networks, and under government operations control.

Standardization

IA Controls & CND Services

Increases the velocity for new mission capabilities through faster path to production services

Pre-integrated Enterprise Services

Continuous Lifecycle Environments

DISA's RACE Introduction

What Is It?

- The DISA RACE is an ***IT infrastructure as a service (IaaS)*** product that provides Operating Environments for ***developing and testing*** mission applications
- It provides the DoD with ability to acquire a development and/or test environment through ***on-demand, self-service*** capabilities with Variable CPU, Memory, storage and operating environments
- It offers ***flexible options*** to mix and match Windows and Linux operating environments, processing, memory, and storage capacity
- It is provisioned over DoD Networks with compliance to DoD policies for ***greater assurances of security and privacy***

RACE

RAPID ACCESS COMPUTING ENVIRONMENT

FAST. SECURE. FLEXIBLE.

DISA RACE Features

Basic Services

- Development (Zone B Enclave)
- No accreditation needed to begin
- Accessible over NIPR & Internet
- Full root level access to operating system

Advanced Services

- Test (Zone A Enclave)
- Accelerated accreditation using same OE configuration and STIG as DECC production
- NIPR / SIPR connectivity for end-to-end system integration and user testing

Common Services

- Self-service Portal
- 24-hour provisioning of new operating environment and storage
- STIG'd operating environments
- Central Service Desk

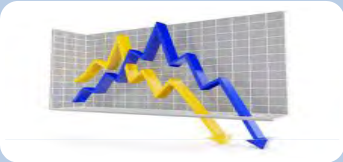
DISA's Web PaaS Introduction

What Is It?

- The DISA PaaS is a transformational approach to advancing the ***Department of Defense's transition to a service orientated, information sharing environment***
- It offers ***a streamlined path to production*** that speeds the delivery of new web-based mission capabilities based on ***Java and .NET technologies***
- It delivers ***cloud-based*** services for the development, testing, and deployment of mission applications in a continuous lifecycle support environment
- It provides all the necessary IA controls and CND services for ***highly secure DoD mission application***s

Application Lifecycle Platform. Highly Secure. Rapidly Delivered

What are the Benefits?



Lower Cost. Cloud-based services are proven to reduce cost with faster acquisition, off-loading of IT installation and administration tasks, and pre-integration of enterprise-level services and technologies

Faster Delivery. PaaS dramatically increases the speed to delivering new mission capabilities through pre-integration with Enterprise Services

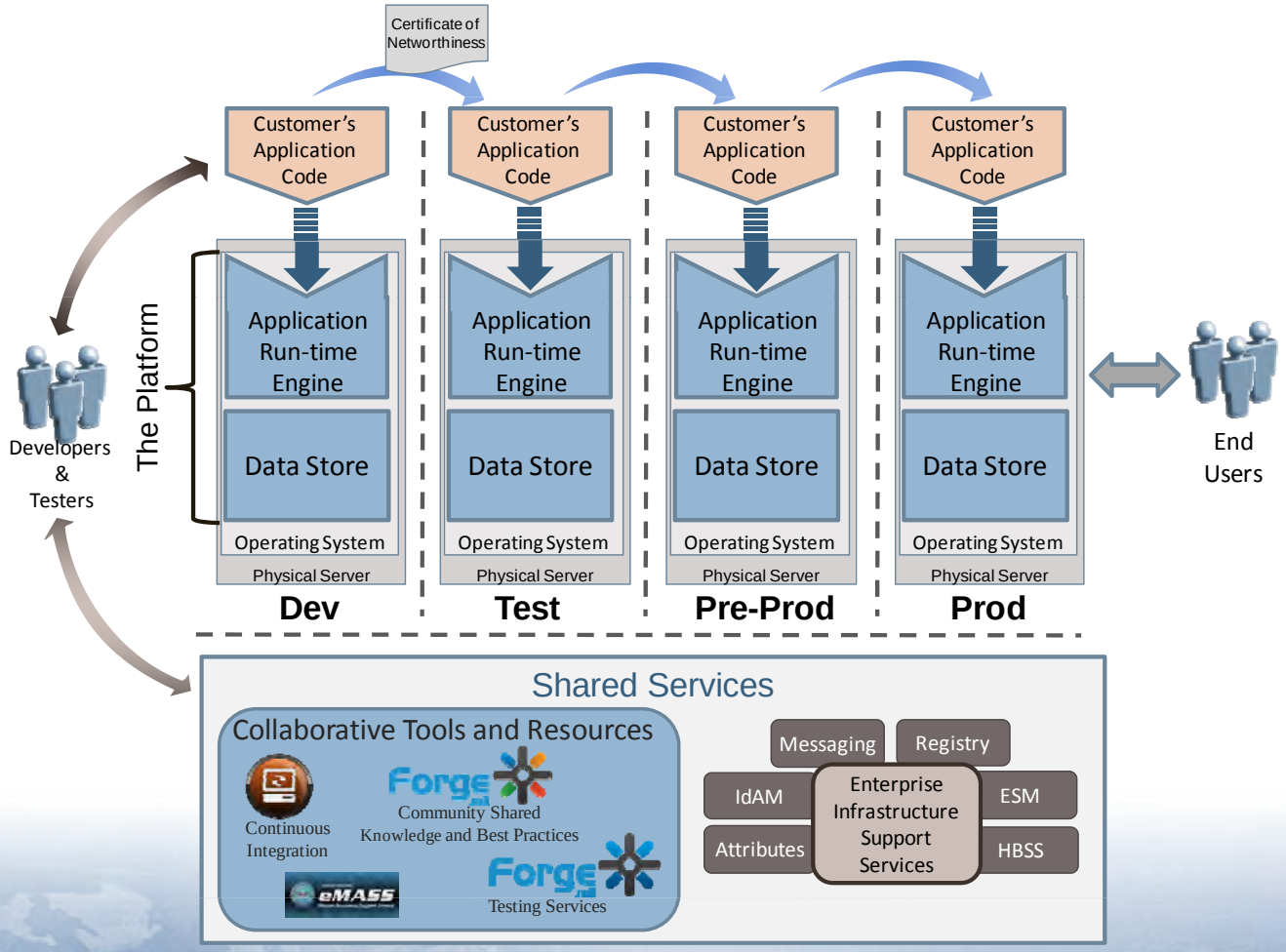
Reduced Risk. PaaS eliminates labor intensive, error prone engineering, integration, and application development by providing a consistent and predictable framework that supports industry standards.

Rapid Prototyping. RACE and PaaS provide capabilities for developers to create and deploy concept applications on the cloud for their customers. It provides a way to demonstrate results faster to end users.

Higher security and interoperability. RACE and PaaS provide fully accredited systems that are compliant with DoD security policies - greater uniformity and standardization brings improved information assurance, security response, system management, reliability and maintainability.

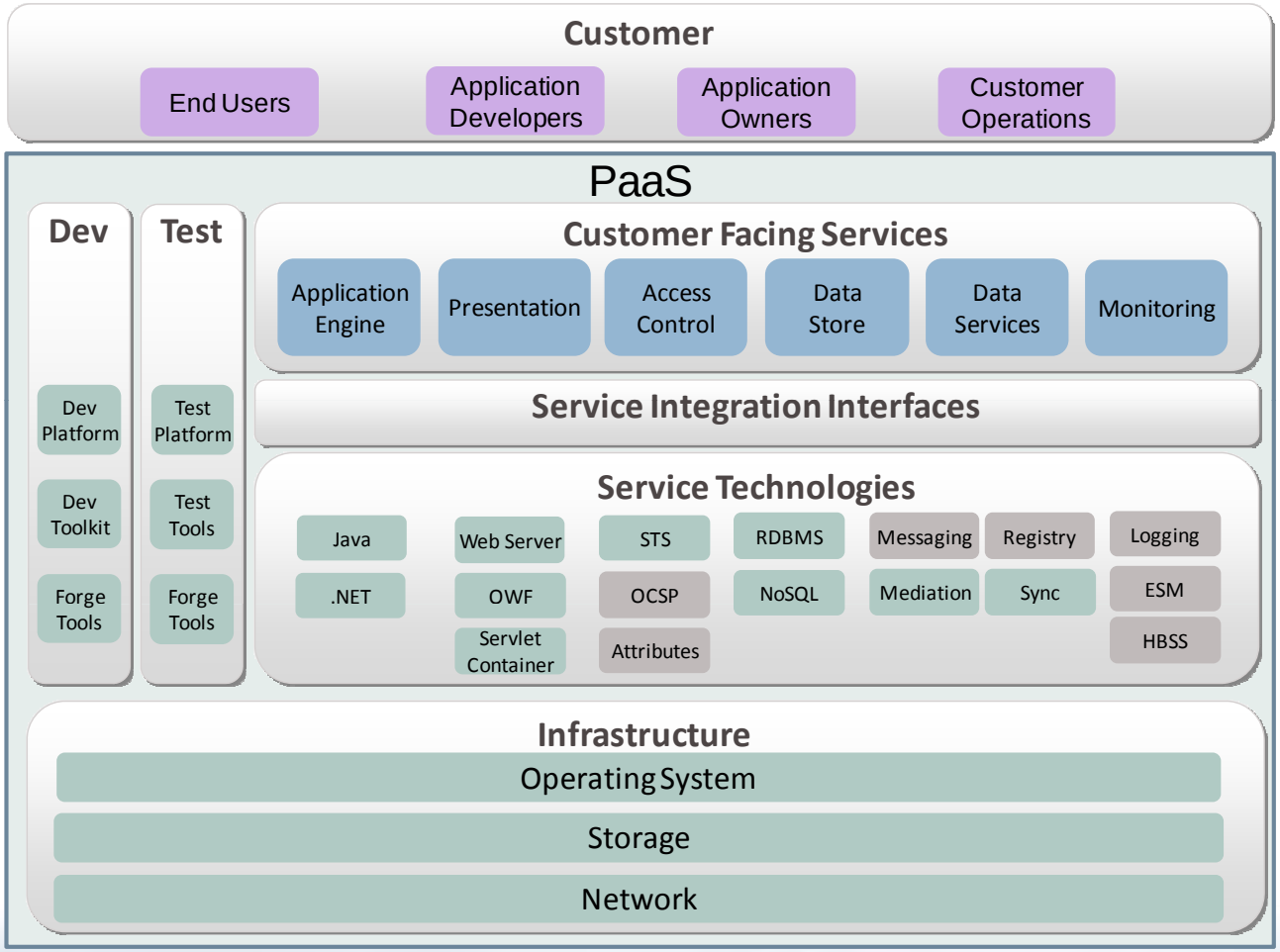
Web PaaS Path to Production

Development can be performed anywhere using the Web PaaS SDK



Supporting Continuous Delivery of Mission Partner Capabilities

Web PaaS Framework



Tenets

- Standards-based
- Maximize Open Source Software
- Vendor Neutrality
- Maximize Enterprise Services
- Portable
- Elastic and Scalable
- Customer Focused

Features

- Continuity of Operations baked in
- Shared situational awareness
- Self-service
- Utility billing
- Rapid path to production
- Pre-integrated Enterprise Services
- Conforms to DOD security standards
- Type accredited

Web PaaS Fee Definitions

One-time Connection Fee

- Recovers the core implementation charge for provisioning the hosting infrastructure, connectivity, DNS registration, and user account configuration

Monthly Reoccurring Fixed Charge

- Recovers the cost for processing resources and licensing required to provision a PaaS instance.

Transaction Charge

- Recovers the cost for the Shared Services infrastructure, management infrastructure, sustainment labor, and technology support and maintenance
- Transaction is defined as any HTTP(S) GET or HTTP(S) POST

Start Today

Contact the DISA RACE Team at race@disa.mil or the DISA Web PaaS Team at paas@disa.mil for additional information

www.DISA.mil

http://www.facebook.com/USdisa

@USDisa

SDK is available at https://software.forge.mil/sf/projects/javapaas

DISA
A Combat Support Agency

QUESTIONS

DISA
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DEFENSE INFORMATION SYSTEMS AGENCY

Web PaaS Software List

PaaS Component	Purpose	Solution
Web Platform	Run-time execution environment for web application and web services code	JBoss Enterprise Application Platform Microsoft .NET
Presentation	Presentation management & visualization engine for user interface layout	Tomcat Microsoft IIS Integrated Web Frameworks Ozone Widget Framework
Security Token Service	Web Service that issues security tokens. Converts identity attributes into a standard SAML 2.0 security token that is shared with web applications and services.	Ping Federate
Data Store	Persistent data storage	Oracle MySQL Enterprise (Default) Oracle Enterprise Server 11g Microsoft SQL Server 2008
Protocol Mediation	Protocol mediation services to allow web applications and services to access legacy data sources using exposed services	Talend ESB
Service Integration Interfaces	Integration web services to abstract underlying service technologies to avoid vendor lock-in	Hibernate OCSP NCES clients
Management	Monitor health and status of web platform and data store, and provision new instances	JBoss Operations Network MySQL Enterprise Manager

PaaS Catalog

PaaS One Time Connection Charge	$ 1,277.11

The Following PaaS Pricing includes Development, Test, and Production Environments

Item	Fee per Month
Small	$ 1,477.00
2 Core X 2GB Memory Application	
2 core X 4GB Memory DB	
Medium	$ 2,592.00
2 Core X 4GB Memory Application	
4 core X 8GB Memory DB	
Large	$ 5,210.00
4 Core X 8GB Memory Application	
8 core X 16GB Memory DB	

Usage Fees

Resource	Fee
Content Delivery per 1,000 Transactions	$ 0.10
STS Content Delivery per 1,000 Transactions	$ 0.20

For Additional Information - PaaS@disa.mil

Optional Add-on Services

Item	Fee per Month
Additional App Server	
Additional Small	$ 502.00
Additional Medium	$ 502.00
Additional Large	$ 1,255.00
High Availability	
Small	$ 1,241.00
Medium	$ 2,388.00
Large	$ 4,904.00
Pre-production	
Small	$ 1,477.00
Medium	$ 2,592.00
Large	$ 5,210.00
Oracle 11g Database	
Small (2 core x 4GB memory)	$ 1,901.00
Medium (4 core x 8GB memory)	$ 3,802.00
Large (8 core x 16GB memory)	$ 7,603.00
Microsoft SQLServer 2008	
Small (2 core x 4GB memory)	$ 676.00
Medium (4 core x 8GB memory)	$ 1,352.00
Large (8 core x 16GB memory)	$ 2,704.00
Microsoft SQLServer Data Analysis(SSAS/SSRS)	
Small (2 core x 4GB memory)	$ 746.00
Medium (4 core x 8GB memory)	$ 1,864.00
Large (8 core x 16GB memory)	$ 3,728.00
Storage *(Per GB with COOP)*	$ 5.00
Protocol Mediation	$ 539.00

Pricing should be used for planning purposes only. Subject to change due to final approval by the DISA Director and customer adoption rate.