
Integrity - Service - Excellence



On-Boarding Capabilities into DISA

**Mr. Brandon Holcomb – BTAS, Inc.
Mr. Cody Humphrey - PESystems, Inc.**

Date: 23 May 12



- **DISA Deployment Infrastructure Options**
 - **Leveraging Existing Investments**
 - **Schedule Transparency**
 - **Governance Challenges for Realizing Cloud Hosting in the USAF**
 - **Rapid Prototyping Success Examples**
 - **DevOps - The Development Support Mission**
 - **Closing Questions to Consider**
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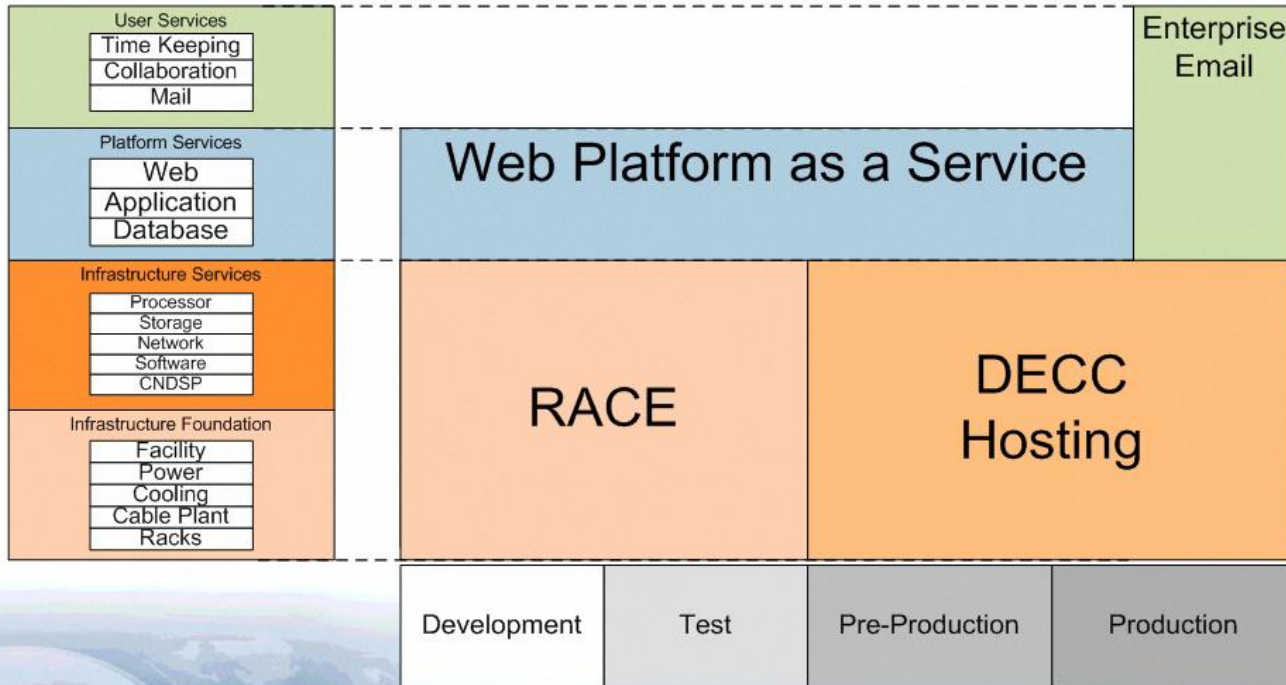


DISA RACE/PaaS Construct – An additional Option for an Existing Function

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Service Categorization to Product Mapping Example



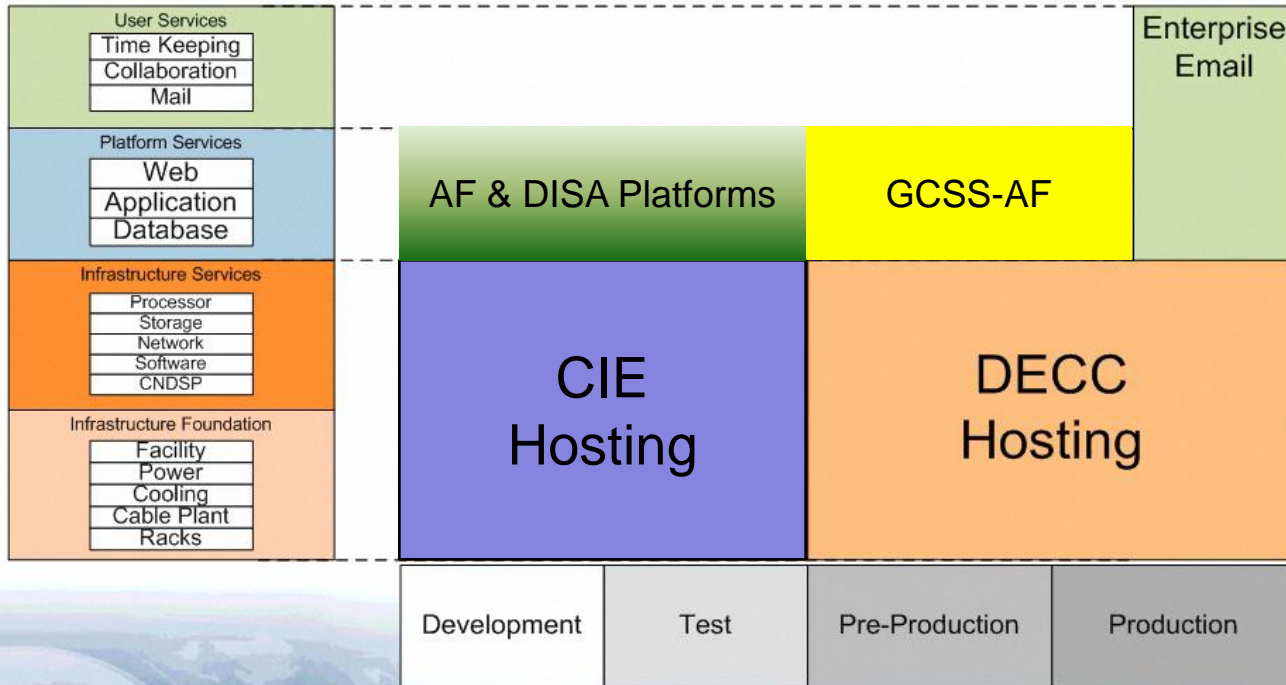


Existing Operational Air Force Infrastructure

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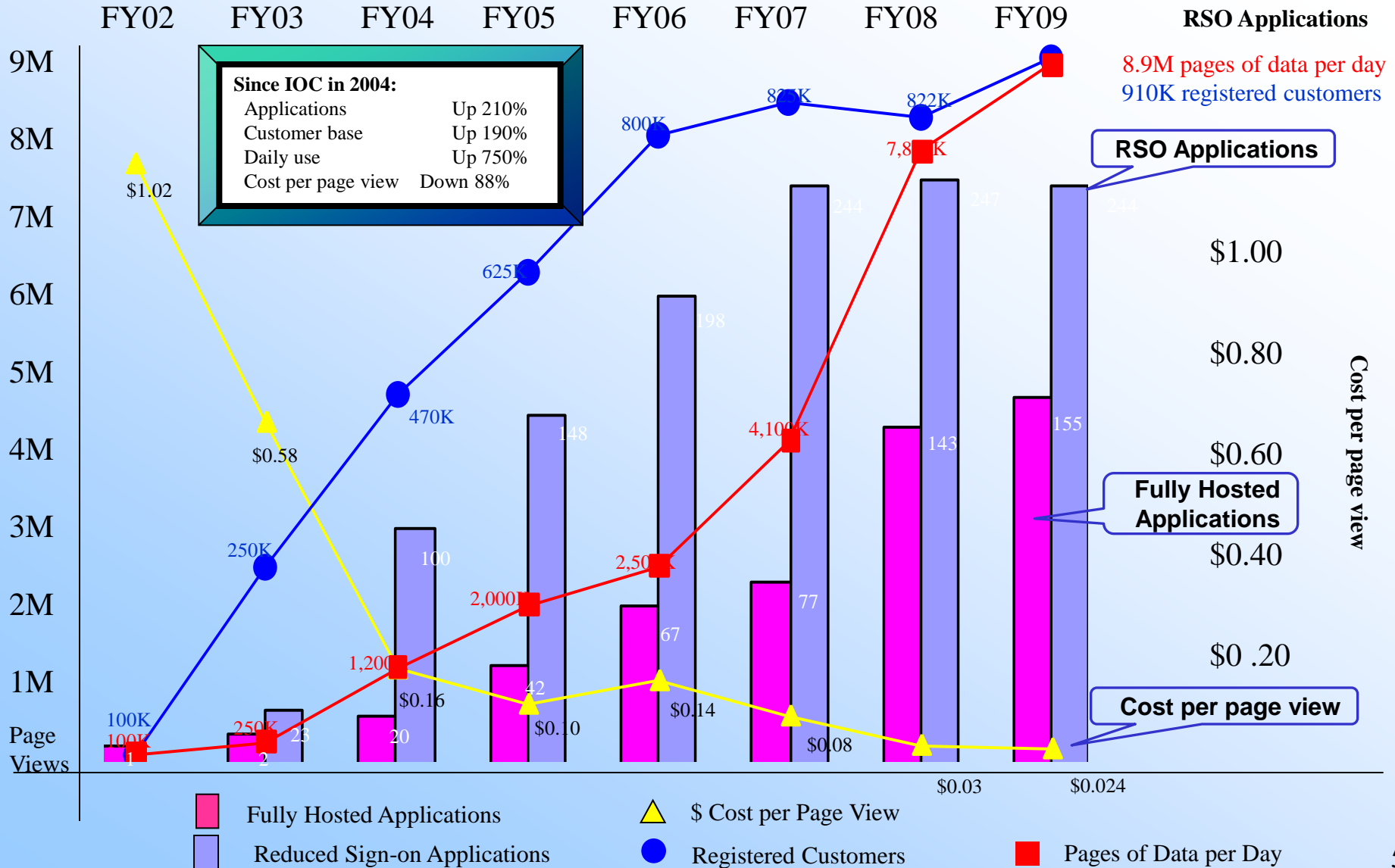
Service Categorization to Product Mapping Example





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GCSS-AF Historical – Lifecycle Cost Realization





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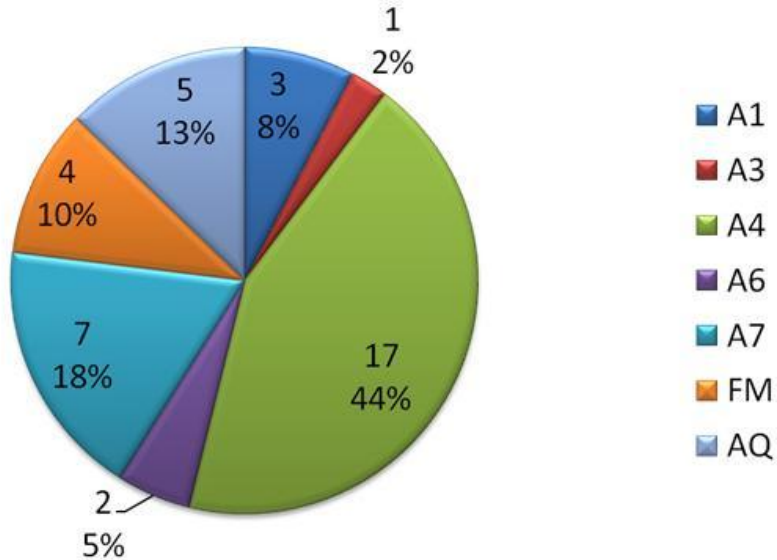
GCSS-AF Managed Applications Hosted in DISA

- GCSS-AF touches the entire AF
- Ready to host more per the Sustainment Posture Process
- GCSS-AF RMB prioritizes application hosting effort to match sustainment funding levels

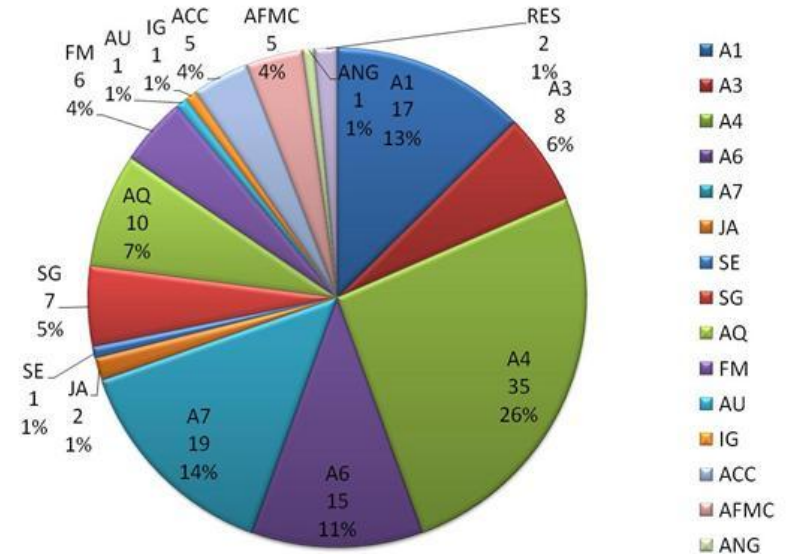


[Link to GCSS apps](#)

44 Hosted Applications
 23 Integrated Logistics Gadgets
 31 ESB Mediations
 60 Business Objects Universe
 13 Cognos Reports
 6 Cognos Cubes
 4 Rich Internet Apps



GCSS-AF Hosted Application by Functional Area



GCSS-AF RSOs by Functional Area



Example Underutilized Service – Akamai Edge Hosting and Web Application Firewall

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Edge Hosting Application Performance Savings

- Recent examination of traffic for Aviation Resource Management System (ARMS) identified potential Edge Caching Savings
- One week to implement and test across all environments, no dev effort

Metric	Value
# requests to origin	757,736
# requests served by GCDS	1,941,730
Bandwidth served from origin	3.35 GB
Bandwidth served by GCDS	38.9 GB
Request Offload	60.98% (1,183,994 requests)
Bandwidth Offload (Actual Bytes)	91.38% (35.5 GB)

HTTP / Layer 7 Attack Protection Web Application Firewall (WAF)



Akamai Platform + WAF



WAF protects GCSS-AF from HTTP(s) attacks such as SQL injections and cross-site scripting

This enables GCSS-AF to block malicious activity in the Cloud, close to the attack source, rather than at the doorstep of the GCSS-AF data center

The WAF service leverages the Akamai platform (65,000 servers) to provide unmatched firewall scalability for the GCSS-AF portal

WAF Statistics

- Items such as: Data Injections, Invalid Protocols, Malformed Requests, Cross Site Scripting, etc
- Metrics from: 30 Dec 11 – 27 Mar 12
 - 6.2 Firewall Rules Triggered
 - ~2.3 Million items warned
 - 648 malicious attempts blocked

Service are:

- In place
- Verified during IWAS Penetration Test
- Hosted in DISA
- Managed by the USAF (GCSS-AF)
- Available for App Dev/Test in CIE



Release Deployment Timelines

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- Process Transparency, Repeatability, Insight are keys to improvement
- Ability to watch workflows, identify current status, quickly identify roadblocks highly desirable

		Ops Time	Hold Time	Adj Ops Time	Releases
Feb	Major	17.7	9.8	9.4	13
	Minor	17.95	11.4	6.5	44
Mar	Major	25.75	10.5	15.25	8
	Minor	10.35	4.78	5.58	40
Apr	Major	65	44	21	6
	Minor	10.29	5.68	4.7	36
May	Major	39	21.5	17.5	4
	Minor	16.25	6.75	9.5	12

PPRR -- Package Installation Proceeding

3- update 1	05/11/2012 Additional releases added to the package (2007-0176 and 2007-0235)-- GCSS120329A	Bailey, Lisa
3- update 2	05/11/2012 Replacement CD created (adding SP 295). Media contains SP 295, 2007-0176, & 2007-0235 -- GCSS120329A.	Bailey, Lisa
4- Release in Preproduction	05/14/2012 Completed Oracle Software load on staging ss31. Put in ticket request with DISA for final scan and turned package over to security.	Stauch, Scott
4.1- PRR - Security Review Complete	05/16/2012 PRR - Security Review Complete	Wortham, John



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USAF App Hosting Governance Challenges

- **Standard Configuration Challenges**
 - Drift due to developer knowledge and impact to mission
 - Everyone has a tool/special requirement
 - Tuning for special needs
 - Legacy App Support

 - **Type Accreditation**
 - Divergent configurations challenge this ability
 - Even with type accreditation of infrastructure, mission applications will have to accredit their business logic and “environment”
 - USAF and DISA Accreditation Authorities still separate, Data Owner must verify protection of their data

 - **Past Efforts**
 - DII COE – “too hard” on NIPR, somewhat successful for GCCS on SIPR
 - GCSS-AF – lacked management support to enforce standards

 - **What have we changed to make this iteration more successful?**
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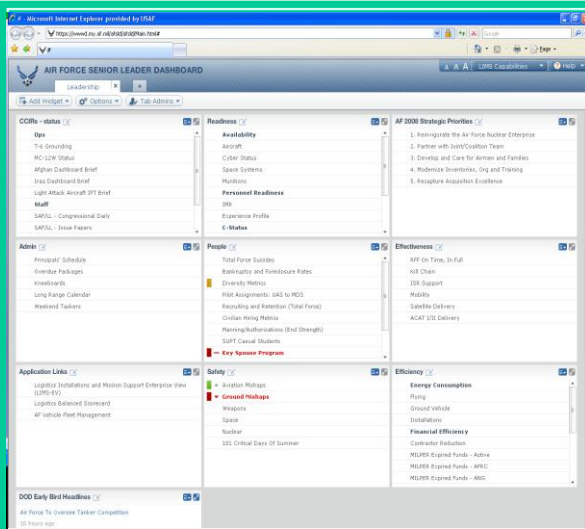
Leveraging The USAF's Investment

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Senior Leader Dashboard

Nuclear Weapons Related Material Positive Inventory Control

GCSS-AF Enterprise 2.0



From pilot to production, this decision-making dashboard was delivered in only 20 weeks at a cost of \$1.23M. Reuse of LIMS-EV components and architecture as the technical backbone capitalized on previous AF investment dollars.

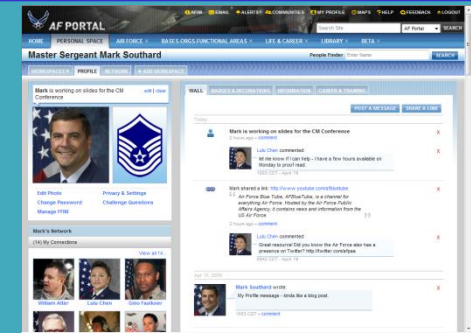
Operational Jun 09

"Securing nuclear assets"



Provides Air Force's first-time ever ability to track NWRM items by serial number. The challenge of data integration from 9 disparate base- and depot-level supply chain and transportation systems was met through effective utilization of cross-functional teams.

Operational 30 Jun 09



Enterprise 2.0 will transform the AF Portal into an effective communication and collaborative tool that helps Airmen work together across time and geographic boundaries.

Enterprise 2.0 should help Airmen:

- Find relevant info at the right time
- Manage and share info globally
- Collaborate synchronously and asynchronously
- Remain engaged with the Organization

Operational May 2010



POC Utilizing Existing Capabilities

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Problem:



A coalition partner has been working on extracting data to interface with UIDES for two years. We have the data, can we leverage existing capability to get this done? Oh yeah, in two weeks and its needs to be connected to an OCONUS non-US installation.



POC Utilizing Existing Capabilities

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Answer:



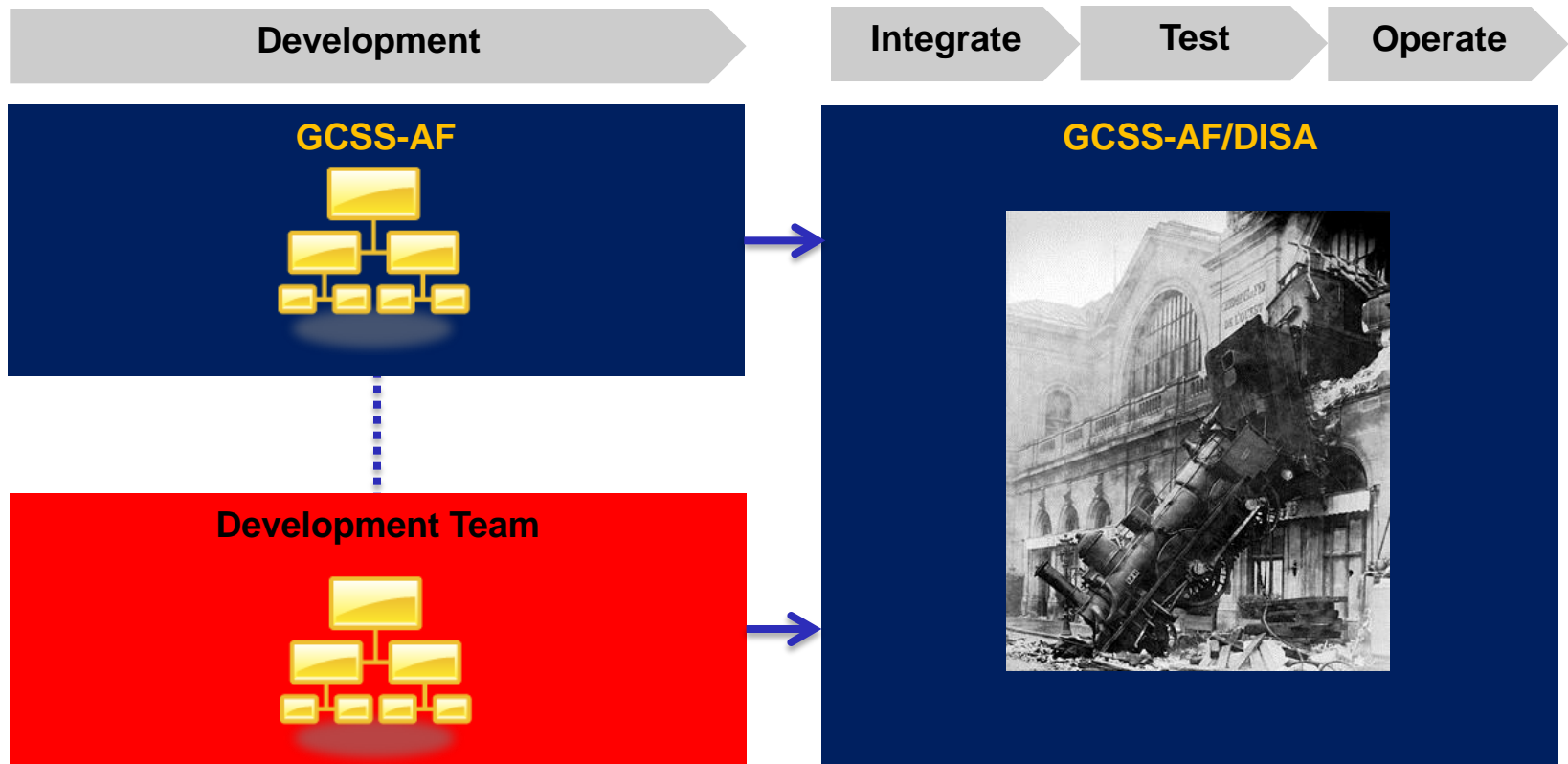
Got it done in 5 days working hand in hand with A4/A7 community and our coalition partners.



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DevOps - The Development Support Mission

GCSS-AF Delivery Method – Prior to CIE

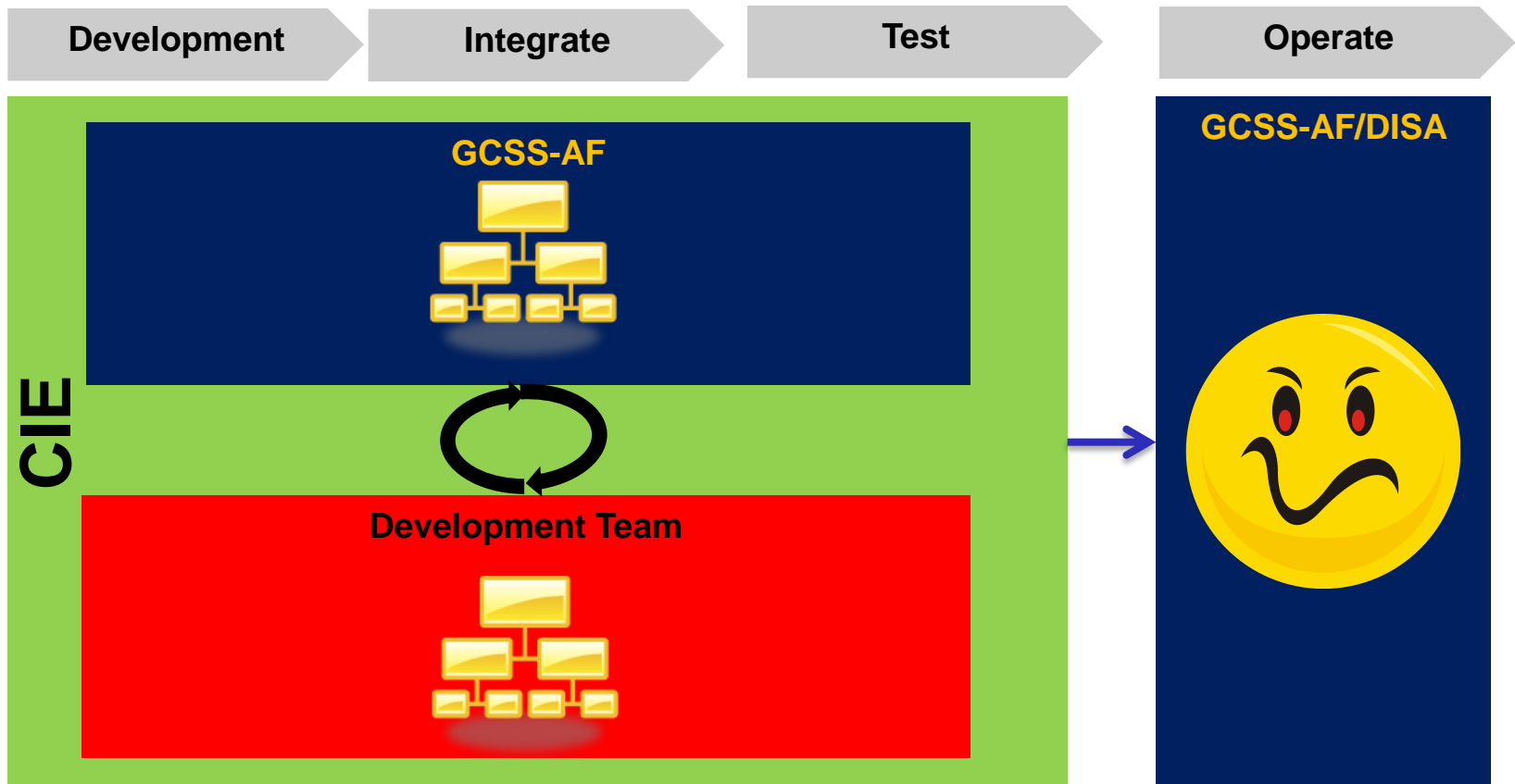




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DevOps - The Development Support Mission

GCSS-AF Delivery Method – After CIE





DevOps - The Development Support Mission

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- 1. Consolidated Center for the Development Community**
- 2. Mission Focus – both yours and your customer’s**
 - Operational Health is not the goal, it should ALWAYS be a given
 - Needs to be about solutions to help you meet cost, schedule and performance
 - Without it, you get “You gave me what I asked for, but not what I want”
- 3. Provide a New Kind of Assistance**
 - Development and operations are interwoven
 - It now requires a new level of visibility, accessibility and assistance
- 4. Drive and Prove Operational Efficiencies and Effectiveness**
 - Services Should be Shared Efficiently and Effectively`

“To tell you the truth, I am a bit shocked by the price. It is substantially lower than we were expecting so I am thinking that we may have missed something.”



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Keys to consider when determining hosting option

■ Release Pipeline Visibility

- GCSS Customer Site – years of developed workflow and customer support tools
- DISA Remedy direct access challenges

■ Schedule Reliability

■ Value Proposition

- GCSS 2 Contract Savings
- Cost Transparency
- Virtualization Savings
- Transition to DISA Capacity Services

■ DevOps relationship



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Contact Info

- **Mr. Brandon Holcomb**
 - BTAS, Inc. – Technical Director
 - P 334.416.5849
 - brandon.holcomb.ctr@us.af.mil

 - **Mr. Cody Humphrey**
 - PES Inc, Southeast Area Lead
 - GCSS-AF Ops Manager
 - P 334.416.5741 (DSN 596)
 - cody.humphrey.1.ctr@us.af.mil
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BACKUP SLIDES