

# ***Headquarters U. S. Air Force***

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*Integrity - Service - Excellence*

## ***AF IT Services Definition***

***Prepared for:***

***AF IT Services Strategy***

***Industry Forum***



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**3 Feb 04**



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# *Agenda*

- **What We've Done**
- **Where We Are Headed**
- **Description of IT Enterprise Services**
- **How you can help**



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# Overview

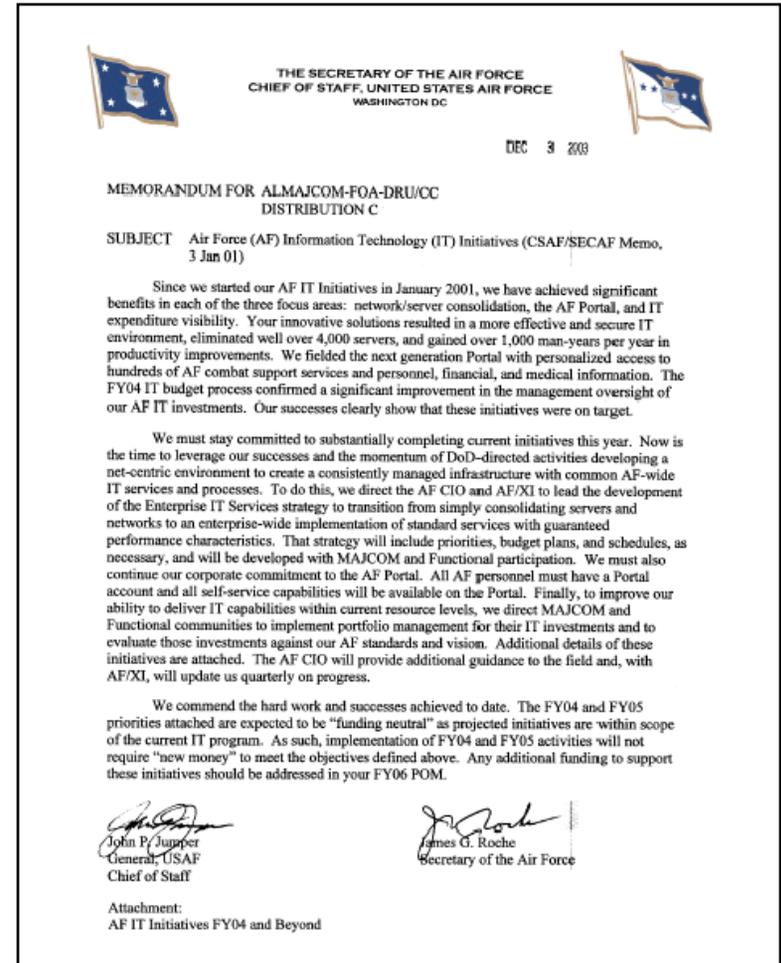
- Server Consolidation – 03 Jan 01 CSAF/SECAF Memo
  - Initial focus on reduction of servers at base level
  - Already benefiting the AF with great progress in four focus areas:
    - Core Services: Email, web, file and print
    - Network Services: On-base networks
    - Desktop Services: single image, remote management
    - Functional Systems: 240+ mission specific applications
- Now – Leverage these efforts and begin the next phase
  - AF definition of standard Enterprise IT Services
  - Standardization and visibility of service levels
  - Definition of appropriate service delivery points
  - Analysis of outsourcing opportunities
- 03 Dec 03 CSAF/SECAF Memo



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# CSAF/SECAF Memo Objectives

- "...**Publish** definitions, standards, timelines and performance levels for IT enterprise services in a **strategic implementation plan by April 2004.**"
- "...**Issue software development guidance** that defines standards for application/service development within the net-centric environment and supports measurement of performance characteristics **by June 2004.**"
- "...**Implement** an AF common standard design architecture, enterprise approach to a **wireless network infrastructure** that is fully integrated with Air Force wired networks **by October 2004.**"
- "...**Develop** user-level **standards** for network, enterprise services, and critical application performance and institute the tools and processes for real-time monitoring, management and display of that performance information available to decision makers and leaders at all levels **by April 2005.**"





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# Progress to Date

- Consolidation nearly complete
  - Central/single provider of email, file/print, web services
  - Improved network management and security
  - Common Desktop implementation
  - Functional applications becoming web based, remotely managed
- Estimated \$200M+ cost avoidance or reallocation per year
- Increased Service Levels
  - Networks more stable - increased uptime - lower failure rate
- Reduced Resources
  - 1000+ equivalent manyears returned to core duties
  - Over 4000 servers eliminated
- Improved Security
  - Rapid deployment of patches/updates
  - Improvement in C4 situational awareness
- Streamlined Networks
  - Centrally managed services, management of network traffic
  - Decrease in network outages and SITREPs
  - Stronger performance, better computer defense posture

***It's not just about saving money...it's about creating an AF-wide enterprise architecture necessary to enable the Warfighting Mission***



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# *Next Steps – IT Initiatives FY04 and Beyond*

- Migrate from base-level to AF enterprise consolidation
  - Increased standardization
  - Implement MAJCOM-level consolidation where appropriate
  - Look to establish common AF enterprise services
  - Establish service level management
- IT Services strategic implementation plan by Apr 2004
  - Identify “what” services should be consolidated
  - Determine appropriate “enterprise consolidation level” for each
  - Define standards and metrics for each service
    - Develop processes to mature standards and metrics and disseminate info
    - Explore concept of Enterprise Service Level Management
  - Analyze outsourcing opportunities
- Align AF efforts with DoD Global Information Grid-Core Enterprise Services (GIG-CES)



# *Industry Contributions*

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- We need your help
- Asking for industry to contribute to strategy development for each service
- Description of What You Have Done
  - What Enterprise Services were Implemented
  - At what level where they consolidated
- Implementation Methodology
- Results
- Best Practices
- Lessons Learned
  - Things we didn't anticipate
  - Policy changes needed for success
  - Cultural issues/challenges faced
- Cost Drivers



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# *Enterprise IT Services Objectives*

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- **Facilitate interoperability**
  - Improve machine-to-machine information exchange to meet warfighter needs
- **Improve ease of technology insertion**
  - Technological change is inevitable
- **Support use of heterogeneous solutions**
  - Allow flexibility to mission needs
- **Reduce costs for operator training**
  - Lack of operator retention
- **Address special military needs**
  - Not sufficiently addressed in commercial world



# “Service” Definition

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- Common utility (“service”) essential for enabling operational capability across Enterprise
  - Enterprise user can rely upon Service being available
  - Node and mission application developers do not build
  - Users and node platform administrators may help to operate/maintain/supply content
- Enterprise control
  - Implies “Air Force” responsibility and management
- Enterprise scale
- Enterprise content, consistency, or connect
- Typically a technical service, but may be tools and process
- Single service specification
  - Goal: least common denominator interface available to all users



# AF Enterprise IT Services

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<b>Discovery</b>			
<b>Mediation</b>			
<b>Enterprise Storage</b>			
<b>Functional Application Hosting</b> Installation Mapping and Visualization Services			
<b>Security</b> Privilege Management Infrastructure                      Key Management Infrastructure			
<b>User Assistance Services</b> Help Desk			
<b>Enterprise Services Management</b> Standard desktop              Remote mgt              Configuration Mgt              Continuity of Operations Comm Transport Mgt              Domain Name Service              Directory services              Network Time Service Identity Management              User Authentication			
<b>Collaboration</b> Audio                      Video                      IM/Chat/WB			
<b>Messaging</b> E-mail services              Tactical Data Link			



## ■ DEFINITION

Set of services that provide the formulation and execution search activities to locate data and metadata assets as well as data and application services within shared space repositories

Enables the formulation of search activities within shared space repositories (e.g., catalogs, directories, registries)

## ■ DESIRED END STATE

A single Air Force discovery service that effectively formulates a discovery search - people, information, services



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# *Mediation*

## ■ DEFINITION

Transformation processing (translation, aggregation, integration),  
Situational awareness support (correlation and fusion)  
Negotiation (brokering, trading and auctioning services)  
Publishing

## ■ DESIRED END STATE

A single Air Force mediation service that supports information transformation, translation of language and information content, format, and representation to support interoperability among services and users  
Supports operational situational awareness, provides negotiation services, and information publishing



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# *Enterprise Storage*

## ■ DEFINITION

An enterprise strategy for the logical, organized storage and retrieval of information from the information environment

## ■ DESIRED END STATE

Protected storage environments that support the day-to-day and long-term data and information access, archiving, retrieving, staging and delivery of information in multiple locations and operational environments as needed to support AF

Standards based; provide defined and documented interfaces

Provide access to and visibility of all data and information

Timely retrieval, recovery and distribution



# *Functional Application Hosting*

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## ■ **DEFINITION**

A capability to host functional applications on standard platforms consolidated at the appropriate level to meet operational requirements without unacceptable disruption of service

Must be capable of the highest uptime requirements for any resident application and interface seamlessly with the storage service

## ■ **DESIRED END STATE**

A set of standard platforms/nodes capable of hosting multiple functional applications with an inherent capability to monitor performance of the applications and provide real-time status to AF leaders



# *Security/Information Assurance*

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## ■ **DEFINITION**

Information operations that protect and defend information and information systems by ensuring their availability, integrity, authentication, confidentiality, and non-repudiation.

Provide authentication, access management and domain security services. The IAS service interoperates with the other core services to protect the CESs as a whole entity

## ■ **DESIRED END STATE**



# *User Assistance Services*

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## ■ **DEFINITION**

Automated or manual capabilities that assist users to efficiently and effectively utilize resources

Provide presentation capabilities, decision aids and tools to maximize user efficiency and performance of their tasks

Provides the ability to capture and manage user preferences and enables the automatic configuration of the user's information systems environment

Provides context-sensitive, on-line help tools at the user's request

## ■ **DESIRED END STATE**

A user support capability consolidated at the highest level practical to ensure end users are provided necessary support while minimizing the resources required to provide that support. The service will provide a single user touch-point for IT problems



# *Enterprise Services Management*

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## ■ **DEFINITION**

This activity consists of the planning, organizing, coordinating, and controlling the establishment, maintenance, and dissolution of all the capabilities of and services provided by the information environment  
It also consists of performance of all NetOps activities necessary to manage and protect the flow of information within the information environment  
Enables the life cycle management of all the services provided

## ■ **DESIRED END STATE**

Able to automatically obtain operational status, performance, configuration, and security information, and critical process and resource utilization from AFES in near real time



# *Enterprise Services Management*

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- Standard Desktop
- Remote Management
- Configuration Management
- Comm Transport Management
- Domain Name Service
- Identity Management (IM)/User Authorization
- Authentication/Authorization/Global & Single Sign-On
- Identity Protection
- Directory Services
- Continuity of Operations
- Network Time Service (NTS)



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# Collaboration

## ■ DEFINITION

Provides and controls the capabilities that allow real-time synchronous collaborative interactions

Collaboration compliments other services such as Messaging, Mediation and Discovery to provide a comprehensive access to information from anywhere, anytime

Provides users with a range of interoperable collaboration capabilities, based on secure commercial standards

## ■ DESIRED END STATE

A set of collaboration tools based on recognized industry standards accessible across the enterprise to Air Force members with a mission need



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# ***Collaboration***

- Audio
- Video
- Instant Messaging
- Chat
- Whiteboarding



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# ***Messaging***

## ■ **DEFINITION**

Provides services to support asynchronous and synchronous information exchange

The exchange of specially formatted data describing events, requests, and replies to a messaging server, which acts as a message exchange program for client programs

Scalable, available and accessible enterprise-wide

Provide confidentiality, integrity, identification and authentication, and non-repudiation

## ■ **DESIRED END STATE**

A machine-to-machine messaging solution based on recognized industry standards that interface with centrally hosted applications