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<td>28 APR 2010</td>
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<td>00-00-2010 to 00-00-2010</td>
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<td>AF Architecting CONOPS, Governance, and Federation</td>
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<th>6. AUTHOR(S)</th>
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<th>13. SUPPLEMENTARY NOTES</th>
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<td>Meeting of the Next Generation Air Transportation System (NextGen) Partner Agency Chief/Enterprise Architects and Distinguished Colleagues, 28 Apr 2010, Washington, DC</td>
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Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std Z39-18
USAF Architecture CONOPS and Architecture Governance Process

Architecture Federation
Warfighter Integration

What’s in Play
Problem Statement:
AF leaders make complex decisions on a daily basis affecting the AF Enterprise. However, the second and third order effects of those decisions often impact seemingly disparate portions of the enterprise in fundamental ways (good or bad) that were unforeseen by the decision-maker simply because the relationship data was not available when the decision was made. Architecture can eliminate some of the ‘fog’ of decision-making by defining these relationships in a format the decision-maker can easily understand.

Vision:
As leaders of architecture in the Air Force, we deliver timely, relevant, unambiguous information to support informed decision-making by Air Force leaders to maximize military capabilities while optimizing allocation of resources.

End State:
The AF architecture capability is integrated into AF decision-making processes.
Air Force Architecting Concept of Operations

Version 1.0
December 2009

BOBBY W. SMART, SES
Director, Policy and Resources
Office of Warfighting Integration and
Chief Information Officer

Follow this link to explore on the XC Portal Page

DEPARTMENT OF THE AIR FORCE
WASHINGTON, DC

OFFICE OF THE SECRETARY

MEMORANDUM FOR RECORD

FROM: SAF/XCPA
1800 Air Force Pentagon
Washington DC 20330-1800

SUBJECT: Air Force Architecting Concept of Operations

As the Chief Architect of the Air Force I approve the Air Force Architecting Concept of Operations for immediate use by all Air Force architecting organizations.

My point of contact is Colonel David Gerstap. david.gerstap@pentagon.mil

BOBBY W. SMART, SES
Director, Policy and Resources
Office of Warfighting Integration and
Chief Information Officer

INTEGRITY - SERVICE - EXCELLENCE
Architecting
‘Critical Capabilities’

Effective Decision-Support Capability
- Requirements driven
- Customer focused
- Clear scope and purpose

Functioning Governance Capability
- Reliable Processes
- Fit-for-purpose
- Fit-for-federation

Optimal Build Capability
- Common high standard
- Consistent repeatable processes
- Data is shareable and accurate
Architectures assessed as “fit for purpose” and “compliant”
to ensure decisions stick and adherence to standards

“Fit for purpose” assessment ensures the quality of data in the architecture
supports the decision making process and is good enough to guide the
transformation effort.

Compliance assessment ensures that the architectures are complete and adhere
to the rules of related architectures and the rules of developing architectures.
Want to avoid
Want to enable

Highly cohesive set of capabilities delivered to the field (e.g. MAJCOMs)
Approval Process
(Level 2)

SET-UP:
Charter and Establish ARB

Respond to ARB participation request (named staff)

One-time initial set-up of Architecture Review Board (ARB)

Approval Authority

Receive/review RRP
Generate specific criteria
Negotiate review plan and date

Create arch review prep package
Send arch review prep package

Receive and review arch review package
Post arch review package and confirm meeting
Hold arch review

Generate preliminary findings
Coordinate preliminary findings

Generate final report
Schedule approval session

Schedule approval meet
Attend approval meet
Sign & send
Maintain record

Architect Review Board (ARB)

SendMessage to ARB
Negotiate review plan and date

Receive arch review prep package
Create arch review package
Send arch review package to ARB

Receive arch review prep package
Create arch review package
Send arch review package to ARB

Set meeting
Attend meeting
Send final report

Attend approval meet

Architecting Org (project/team)

Send RRP to ARB
Prepare review request package (RRP)

START: Prepare review request package (RRP)

Receive arch review prep package
Create arch review package
Send arch review package to ARB

Present Architecture
Generate action plan in response to preliminary findings

Generate final report
Schedule approval session

Schedule approval meet
Attend approval meet

Next Step

Integrity - Service - Excellence
AF Compliance Reports

AF Compliance Report
- Reports on the architecture compliance assessment
- Contains detailed assessment of the subject’s current degree of compliance and the required actions to achieve full compliance in cases where full compliance has not yet been reached

AF Compliance Reports should be
- Reviewed
- Approved
- Retained, and
- Made accessible (e.g., web-posted)
- Controlled by the Air Force Architecture Certification Authority

AF Architecture Compliance Plans
- Condition to achieve full certification in the event of non-compliance; will include:
  - Detailed assessment of the current degree of compliance
  - Key requirements and estimated deadline to achieve compliance
  - Actions needed to achieve compliance and identification of the associated risks and dependencies
AF Architecture
Federation Goals

- Improve interoperation with
  - Joint operations
  - DoD operations
  - AF operations

- Improve investment decisions / resource allocation

- Develop mission-focused architectures with meaningful relationships (interdependencies)

- Support
  - process improvement
  - service orientation, and
  - information transparency
Operational interdependency focused models are a sound foundation for federating

- Operational interdependency focus is based on an “I need/we provide” relationship pairing – i.e. a service focus (process, data, human, ...)
- Operational interdependency focus yields healthy discussion on interdependent touch-points that are performed for the MISSION

So what? Agreement on the interface!

So all I have to do is call you?

Yup, just call this number when you need fuel and bombs loaded!

Right and you just call this number when you need fuel!

I need Plane loaded and fueled

I need Fuel and Bombs to load

We load and fuel planes

We deliver fuel and bombs

ACS

Subject Architecture
Operations
Information
Services
Technology
Standards (Compliance Criteria)

Global Strike

Subject Architecture
Operations
Technology
Standards (Compliance Criteria)

Logistics Support

Subject Architecture
Operations
Information
Services
Technology
Standards (Compliance Criteria)
Making the Connections: Delivering Capability thru the Seams

- Joint and AF C2 Architecture
  - Execute Course of Action
  - Report on COA
  - Report on Readiness

- Global Strike Architecture
  - Load and Fuel Plane
  - Report on Battle space

- Agile Combat Support Architecture
  - Combat Support Processes
  - Combat Support Information
  - Combat Support Services
  - Combat Support Technology

- Air and Space Operations Architecture
  - Maneuver Airborne Assets
  - Position Forces
  - Maintain Network Access

- Force Application Architecture
  - Position Equipment

- Force Management Architecture
  - Define Force Structure

- A1 Personnel Architecture
  - Train Maintenance Staff

- Logistics Architecture
  - Deliver Material to Depot
  - Recover Apparatus

- Cyber Command Architecture
  - Communicate Wirelessly
  - Authenticate User
  - Communicate over LAN
  - Find GFM Service

- Architecture Interface Points Described as SLAs

Integrity - Service - Excellence
Air Force Architectures
(How should they relate in general?)
AF Architecture Descriptions

- Supported Architecture
- Subject Architecture
  - Operations
  - Information
  - Services
  - Technology
- Standards (Compliance Criteria for architectures and/or programs)
- Supporting Architecture

Minimize, generalize, and standardized!
General criteria to be applied to architecture efforts

- Purpose has been documented and verified by users and usages
- Input has been verified as from authoritative source and authoritative source recorded
- Supported architecture interface points and associated standards identified, documented and verified
- Supporting architecture interface points identified, documented and negotiated with provider
- Specific architecture Standards (Compliance Criteria) established, documented, and verified
- Output has been verified as fit for use
Roles in Federation: Who is responsible for what?

- Architecting organizations
  - Create new Architectures that are Fit For Federation (aka Federate-able) out the box
  - Augment existing architectures to be Fit For Federation
  - Get architectures approved
  - Get architectures certified

- SAF/A6PA
  - It is SAF/A6PA’s role to “Federate” the AF
  - SAF/A6PA will federate any architecture that is formally certified
Fit For Federation Enables

- Lower cost of integration and interoperability

- Improved efficiencies and operational effectiveness
  - Reduced redundancy and improved scalability
  - Process improvement, service orientation, and information transparency

- An Interoperable Air Force
  - With other services and coalition partners
  - Defined by operational interdependencies
  - Overall picture of the Air Force
Fit For Federation will be embedded in:
- Air Force Policy Document – AFPD 33-10
- Air Force Instruction – AFI 33-401 or substitute
- Air Force Manual (s) – AFMAM XX-XXX (TBD)
- Air Force Guidance – AF Architecture Framework

Current state constitutes minor updates:
- Air Force Instruction – AFI 33-401 (Interim Change 1)
Backup

Questions?