

NIEM: A Leading Example of Service Oriented Architecture

NIEM, the National Information Exchange Model, is a partnership of the U.S. Department of Justice and the Department of Homeland Security. It is designed to support enterprise-wide information exchange standards and processes that can enable cross-agency collaboration.

Results

The NIEM exchange development methodology results in a common semantic understanding among participating organizations and data formatted in a semantically consistent manner. Agencies are challenged with responding with responding to increasing demands for their services and are spending valuable time manually re-keying data into multiple systems. An example is found in Orange County, Florida where an estimated \$7 Million per year was saved by eliminating redundant entry of arrest information.



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Practical Guide for Federal SOA

The world is changing at an accelerating pace. In some cases, this benefits society; in other cases, it increases the threat. The federal government is characterized, for the most part, by a variety of inhibitors to change, including vertical organizational orientation; bureaucratic culture; budgetary cycles that do not optimize for efficiency, effectiveness, or agility; and very large and diverse current technology base. In particular, the installed base of federal information technology (IT) acts as an “anchor” to slow down (at best) or prevent (at worst) needed changes in government processes and ultimately mission outcomes.

Fortunately, a new paradigm has evolved that can be applied to address this problem - service oriented architecture, or SOA. SOA holds the promise to help agencies reconfigure themselves and their business processes rapidly, as well as modifying their IT assets more easily and effectively to support the reconfigured organization. Improved **business agility** – through sharing and reuse of infrastructure, services, information, and solutions - is a growing requirement in the federal government today and will be increasingly critical in the future.

The net results of broad-based adoption and advancing of SOA capability throughout the federal government will enable:

- **Improved government responsiveness**
- **Simplified delivery of enhanced government services**
- **More efficient government**
- **Information sharing**
- **Transparency, security, and resilience**

Vision: Improving Services from Federal Agencies

The Practical Guide is organized around three perspectives of service orientation that together enable the effective adoption of SOA into a federal organization. For each of these perspectives, we characterize the objectives of a mature SOA capability. These are the objectives that each federal organization adopting SOA should strive to achieve.

- **Service Oriented Enterprise (SOE)**
- **Service Oriented Architecture (SOA)**
- **Service Oriented Infrastructure (SOI)**

The PGFSOA can be found on the Wiki by clicking [here](#).

Enterprise Architecture Annual Assessment Results

In March 2008, OMB assessed 27 Federal agencies' enterprise architectures (EA) against the criteria in the OMB EA Assessment Framework v2.2.

OMB rated each agency in terms of completion of their EA; use of their EA; and the results delivered. OMB uses these annual EA assessments to ensure agencies are maturing, integrating and getting value from their EA activities.

OMB continues to emphasize segment architectures - an approach focusing on core mission or business areas, or specific cross-cutting enterprise services such as information sharing.

In this year's assessment, 25 of 27 (93%) agencies achieved a green rating on their EAs. This is a 19% increase from last year's assessment, where only 20 of 27 (74%) agencies achieved a green rating.

What's New?

The FEA Reference Model Mapping Quick Guide has been updated for budget year FY10. The Quick Guide is a reference document to assist agencies in mapping investments to the FEA Reference Models.

Download the [Quick Guide](#).



Segment Architecture Methodology

Agencies Collaborating via the FAWSG to Develop Methodology for Cultivating and Using Segment Architecture

All Federal Agencies have requirements from the Office of Management and Budget (OMB) to develop and use segment architectures. This set of requirements has spawned an array of innovative practices within the Federal Agencies that are assessed each year. Architects from across the Federal Government are actively participating in the Federal Segment Architecture Working Group (FASWG) to bring together best practices in order to consistently meet OMB requirements, and more importantly to most efficiently deliver results to their respective organizations. The FSAWG was formed in January 2008 as a sub-team to the Architecture and Infrastructure Committee (AIC) of the Federal Chief Information Officer (CIO) Council. The goal of FSAWG is to "leverage existing best practices to develop a methodology and training materials that may be used as guidance for developing and using segment

architectures." The FSAWG will be based on the **FEA Practice Guidance** and will strengthen the linkages between segment architectures and information security and privacy, capital planning and investment control (CPIC), and solution architecture.

The FSAWG is about collaboration amongst the architecture community and

assessed agencies are participating on a volunteer basis.

Volunteers were solicited from through the Chief

Architects Forum. The following agencies are participating:

- Office of Management and Budget (OMB)
- Department of Defense (DoD)
- Department of the Interior (DOI)
- Department of Justice (DOJ)
- Department of Labor (DOL)
- Department of Transportation (DOT)
- Program Manager, Information Sharing Environment (PM-ISE)

- Environmental Protection Agency (EPA)
- Housing and Urban Development (HUD)
- Office of Personnel Management's Human Resources Line of Business (HRLoB)
- Department of the Treasury
- Department of Homeland Security (DHS)

"...efficiently deliver results through Segment Architecture."

Best practice analytical techniques submitted by participating agencies to date have been categorized for ease in potential reuse in the forthcoming methodology.

FSAWG deliverables will include an index of researched practices and methods, a guidance document and website for the methodology; and training and outreach materials to be used openly across the Federal sector. Look for the new methodology and website this summer and future updates in *The Federal Architect*.

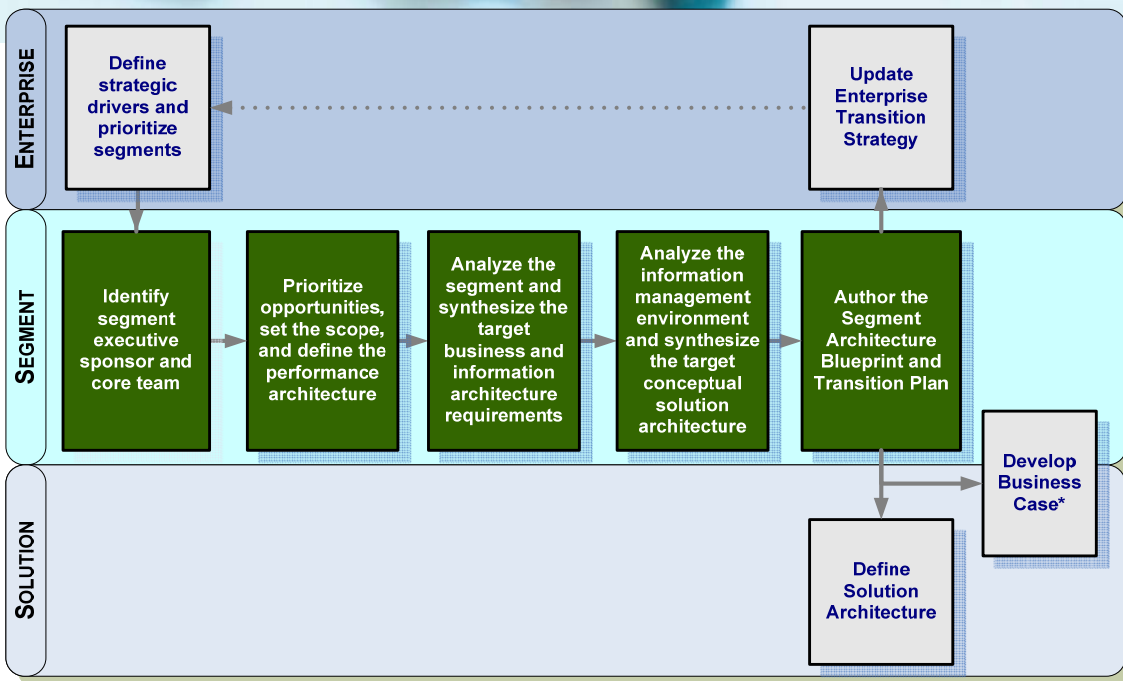
IPv6 Status Update

The IPv6 Working Group of the Architecture and Infrastructure Committee (AIC), in partnership with the Industry Advisory Council (IAC) and the General Services Administration (GSA), is currently in the process of developing guidance for the next phase of Federal IPv6 Transition. The upcoming phase is a progression of the June 30, 2008 OMB deadline requiring Agencies to upgrade their backbone networks to IPv6. This effort, headed by Peter Tseronis (Co-chair, Federal IPv6 Working Group), will address the:

- Future vision of IPv6 in Federal Government;
- IPv6 business value and performance objectives;
- Role of Enterprise Architecture; and
- Architectural and Infrastructure considerations;

Furthermore, the guidance will offer a high-level roadmap and milestones for achieving the IPv6 future vision.

The Working Group anticipates a Q1 FY09 release date, enabling Agencies to integrate IPv6 planning into their Q2 FY09 Enterprise Architecture updates.



Version 0.2

*Note: Business Case may exist at the Segment or Solution level

03/06/2008

This Month's Enterprise Architecture Q&A

Q: Segment Architecture codes were introduced in A-11 recent update. Will further details be released?

A: The Segment Architecture codes will consist of six digits. Each agency will select the first three digits and will register them with the OMB FEA PMO. Further details on the code registration process can be found on www.eao.gov under "FEA in the Budget" section. The link is also available [here](#).



Q: When will the final version of the IPv6 Profile be publicly available?

A: NIST has completed the IPv6 Profile (version 1) [NIST SP500-267] and it was released to the public in early September. In addition, the FAQ was released to accompany the Profile. The IPv6 FAQ and Profile are available [here](#).



Professional Development

The Executive Office of the President offers selected Federal employees the opportunity to experience first hand the development of the federal government's Enterprise Architecture. For a complete description of the program, refer to [Detailed Program \(31kb PDF\)](#).

Individuals interested in applying for the program should contact the FEA PMO at fea@omb.eop.gov.

Upcoming Events

• Architecture and Infrastructure Committee (AIC)

Date: September 18, 2008
Time: 3:00 PM to 5:00 PM
Location: Ariel Rios Building - North (EPA)
1200 Pennsylvania Avenue NW
Washington, DC 20004

AIC will meet in room 5020 of Ariel Rios North.

Directions: Take the Blue or Orange Line to Federal Triangle metro station – Go up three sets of escalators. To your right is Ariel Rios North and to your left is Ariel Rios South.

• ArchitecturePlus

Date: October 7, 2008
Time: 9:00 AM to 12:00 PM (Registration is from 8:30 AM to 9:00 AM)
http://semanticcommunity.wik.is/Federal_Chief_Architects_Forum
Register: <http://www.actgov.org/openregistration>
Location: American Institute of Architects (AIA) Building
1735 New York Avenue NW; 2nd Floor Auditorium
Washington, DC 20006

Directions: Take the Blue or Orange Line to Farragut West - Take the 18th Street Metro exit - walk toward the Mall on 18th Street.

• Enterprise Architecture Conference

Date: September 9-10, 2008
Location: Ronald Reagan Building, Washington, DC
1300 Pennsylvania Avenue NW
Washington, DC 20004
(Conference presentations are available [here](#)).

• Sign Up

Anyone wishing to participate in the Chief Architects Forum and/or ArchitecturePlus, or to be added to their membership lists, should contact Stephanie Powers at stephanie_sonnenfelt@sra.com or Ira Grossman at ira.grossman@dhs.gov