

# CPET 581 Cloud Computing: Technologies and Enterprise IT Strategies

## Federal IT Strategies and Architectures

Spring 2015

A Specialty Course for Purdue University's M.S. in Technology  
Graduate Program: IT/Advanced Computer App Track

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## References

- [1] Increasing Shared Approaches to Information Technology Services, OMB Shared Approach Memo – The White House, May 2, 2012, [http://www.whitehouse.gov/sites/default/files/omb/assets/egov\\_docs/s\\_haredapproachmemo\\_0502.pdf](http://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/s_haredapproachmemo_0502.pdf)
- [2] Federal Information Technology Shared Services Strategy, May 2, 2012, <https://www.dhs.gov/sites/default/files/publications/digital-strategy/shared-services-strategy.pdf>
- [3] Federal Enterprise Architecture (FEA), <http://www.whitehouse.gov/omb/e-gov/fea>
- [4] Common Approach to Enterprise Architecture, May 2, 2012, [http://www.whitehouse.gov/sites/default/files/omb/assets/egov\\_docs/c\\_ommon\\_approach\\_to\\_federal\\_ea.pdf](http://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/c_ommon_approach_to_federal_ea.pdf)
- [6] Common Approach to Enterprise Architecture, presentation, by Scott Bernard, [http://bigdatawg.nist.gov/uploadfiles/M0197\\_v1\\_3201181507.pdf](http://bigdatawg.nist.gov/uploadfiles/M0197_v1_3201181507.pdf)
- [7] Federal Enterprise Architecture Framework, version 2, Jan. 29, 2013, <http://www.whitehouse.gov/omb/e-gov/fea>
- [8] EA Success Stories, <http://www.whitehouse.gov/omb/E-Gov/EA-Success>

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## Federal IT Shared Services Strategies [1-5]

- **Memo for Federal Agency CIOs: Increasing Shared Approaches to Information Technology Services, Office of Management and Budget, Executive Office of the President, May 2, 2012,**  
[http://www.whitehouse.gov/sites/default/files/omb/assets/egov\\_docs/sharedapproachmemo\\_0502.pdf](http://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/sharedapproachmemo_0502.pdf)
- **IT Service delivery categories: mission, support, and commodity areas**
- **Shared approach**
  - **Improve return on investment**
  - **Close productivity gaps**
  - **Increase communications with stakeholders**
- **Implementation and Enterprise Roadmap**

## Federal IT Shared Services Strategy (cont.)

- **Implementation and Enterprise Roadmap**
  - **(1) Business and Technology Architecture**
  - **(2) IT Asset Inventory**
  - **(3) Commodity IT Consolidation Plan**
  - **(4) Line of Business Service Plan**
  - **(5) IT Shared Service Plan**

## Common Approach to Federal Enterprise Architecture [5]

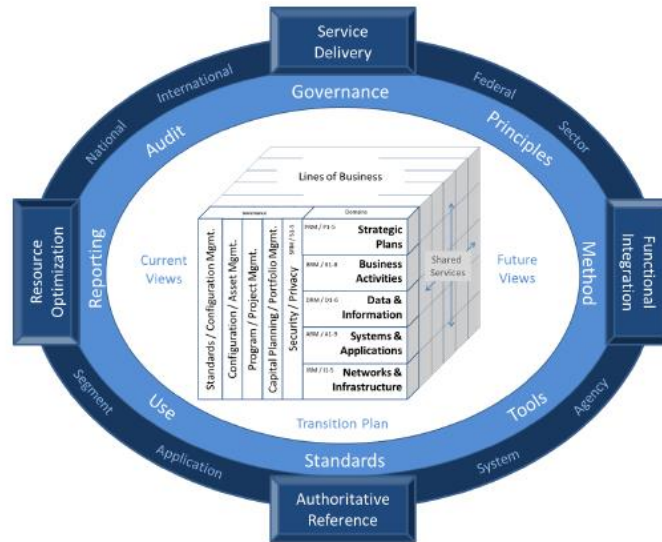


Figure 1. The Common Approach to Federal EA

## Common Approach to Federal Enterprise Architecture [5]

- Four primary outcomes
  - Service Delivery
  - Functional Integration
  - Resource Optimization
  - Authoritative Reference
- Eight levels of scope
  - International
  - National
  - Federal
  - Sector
  - Agency
  - Segment
  - System
  - Application

## Common Approach to Federal Enterprise Architecture [5]

| Architectural Level | Scope                      | Mission Impact      | Planning Detail | Audience             |
|---------------------|----------------------------|---------------------|-----------------|----------------------|
| International       | U.S. & Other Governments   | Global Outcomes     | Low             | All Stakeholders     |
| National            | U.S. - Wide                | National Outcomes   |                 |                      |
| Federal             | Executive Branch           | Government Outcomes |                 |                      |
| Sector              | Multiple Agencies          | Mission Outcomes    | Medium          | Business Owners      |
| Agency              | One Agency Organization    | Mission Outcomes    |                 |                      |
| Segment             | One or More Business Units | Business Outcomes   |                 |                      |
| System              | One or More Systems        | Functionality       | High            | Users and Developers |
| Application         | One or More Applications   | Functionality       |                 |                      |

Figure 2. Levels of Architectural Scope and Impact

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## Common Approach to Federal Enterprise Architecture [5]

- Promote the following design and analysis principles in each of the three primary domains:
  - Strategic Principles
  - Business Principles
  - Technology Principles

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## Federal Enterprise Architecture Framework [7]

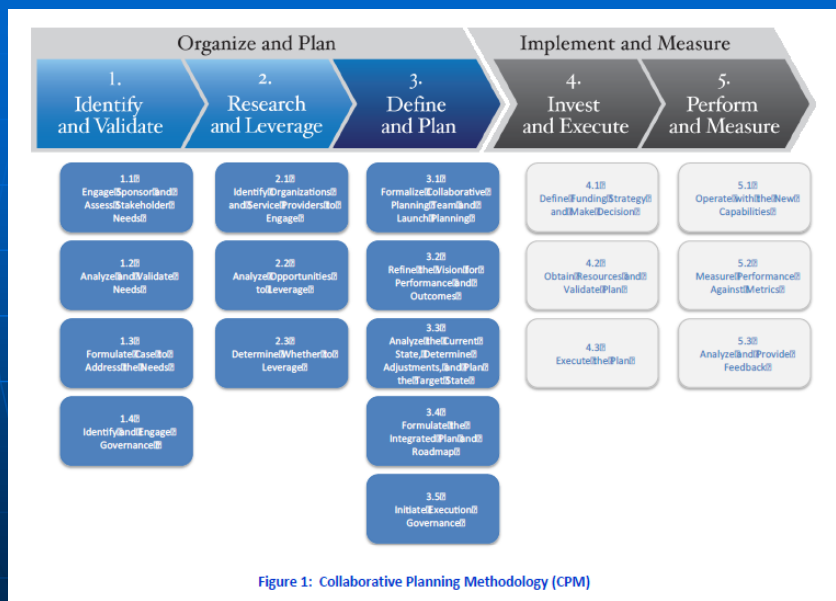
### ■ Six Architecture Domains

- (1) Strategy
- (2) Business
- (3) Data
- (4) Applications
- (5) Infrastructure
- (6) Security

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## Federal Enterprise Architecture Framework [7]



# Federal Enterprise Architecture Framework [7]

## Consolidated Reference Model (CRM)

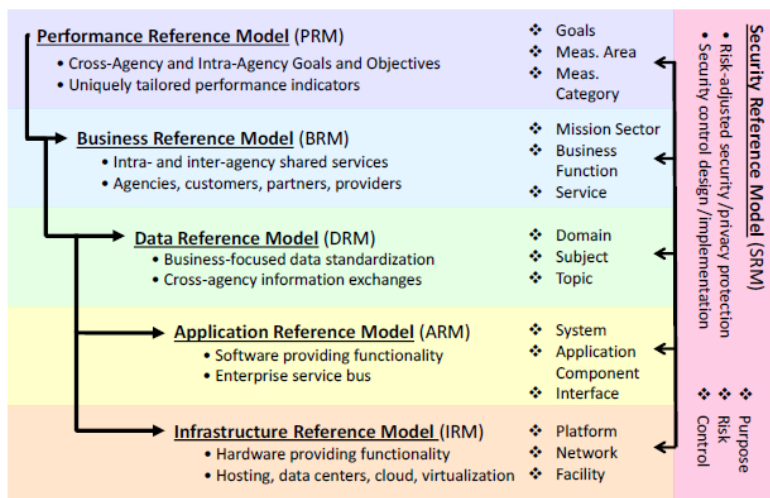


Figure 2: Consolidated Reference Model

## Conclusion and Summary