Selecting DoDAF 2.0 Views and Models for Use in DoD Projects, Their Integration & Analysis

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Agenda

- A short introduction to the FEAC DoDAF Certification Program
- Overview of DoDAF 2.0
  - Changes from 1.5
- Six Step Process for Planning
- Examples
  - Example questions and corresponding views
  - Example planning example

The FEAC DoDAF Program

- FEAC was founded in 2001 and has certified over 1300 architects
- FEAC offers DoDAF education and training that leads to FEAC Certification, which is given by California State University East Bay
- The program consists of five courses, four of which can be taken for graduate academic credit from the Department of Engineering at CSUEB
- Students learn how to plan, develop, model, implement and do EA analysis for an actual DoDAF project throughout the program and delivered as a practicum
- FEAC also offers short workshops and DoDAF boot camps, as well as TOGAF 9 certification courses

The DoDAF Courses

- The five basic FEAC courses are designated by the following course numbers; depending on whether you are taking the program for CEU or graduate academic units:
  - EXSP 8680/ENGR 7806 Framework Basics
  - EXSP 8681/ENGR 7807 Planning for Architecture Development and Use
  - EXSP 8682/ENGR 7808 Framework Views and Models
  - EXSP 8683/ENGR 7809 Advanced DoD Architecture Modeling and Analysis
  - EXSP 8684 DoDAF Practicum/Thesis
- We also provide an Elective TOGAF Course for those wanting TOGAF 8.1.1 Certification, which qualifies those who want to TOGAF 9 to take the Bridging Examination

Organizations that have sent students to FEAC for Certification

Government

Army Def Med Log SS
Army AIMD TRADOC
Air Force HQ OSSG
Air Force AIMD TRADOC
Air Force USJFCOM
Air Force US PACOM
Air Force US STRATCOM
Bureau of Engraving & Printing
City of Glendale, CA
City of Virginia Beach
DOD OSD BMSI
Department of Commerce - NTIA
Department of Commerce PTO
Department of Education SFA
Department of Education HQ
Department of State
DOI CIO
DOI OSM
DISA
HHS -ASBTF-OIRM
FDA
Federal Railroad Administration
FERC
Forest Service
GAO
GSA
IRS
Joint Forces Command
Lawrence Livermore National Labs
National Park Service
Navy ONR
Navy NAVSISA
NASA HQ
NASA Centers
NOAA
Office of the Comptroller of the Currency
OMB
OPM
Security and Exchange Commission
Smithsonian
Treasury - US Mint
USDA HQ
USDA RMA
US Postal Service
US Coast Guard
US Commerce Department
US Patent and Trademark
US PACOM/J2T2
US Senate
University Of Leuven (Belgium)
Veterans Administration
VA Veterans Benefits Administration
White House-EOP

Industry

Aerospace Corporation
AMIT
AMS
Analytics and Mechanics Assoc
Anteon
Apteon
Arinc
BAE Systems
BEA
Boeing
Booz Allen Hamilton
Burk Consortium
CACI
Conquest-Boeing
CSC
Dell
DiamondCluster International
DigitalNet
Eagan McAllister
East Bank Technologies
ERPi
General Dynamics
GroupoActivity (Spain)
Headstrong
Hewlett Packard
IBM
Independent Consultants
Information Dynamics
Johns Hopkins University-APL
Knowledge Code
L-3 Communications
Lockheed Martin Co
Mitre
Northrup Grumman
NTT Data Agilnet (Japan)
Oracle
PacTel
Phase One Inc
Raytheon
RG2
RGS Assoc
Rose International
RSIS
SAIC
Samsung (Korea)
Schafer
Sci Group
ScotCro
SKCC (Korea)
SRA
Stanley Associates Inc
Summaria Sys Inc
Titan
VAAP Technologies

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Goals of this Tutorial

- Understanding how to identify required data and select DoDAF described models based on stakeholder questions

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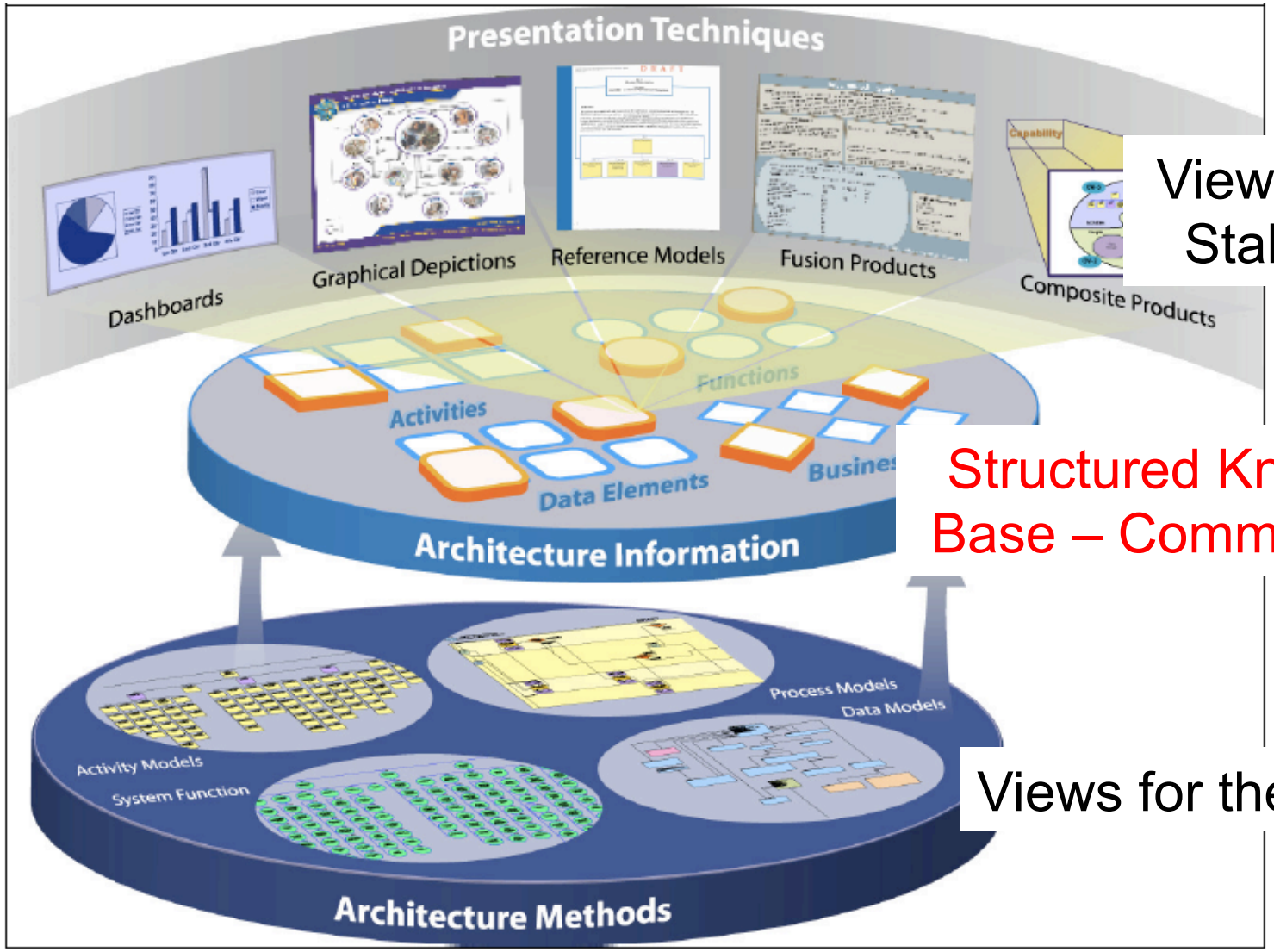
DoD Architecture Framework 2.0

- What it is:
  - Guidance on the types of data and relationships needed to document a DoD architecture in a standard way (new in 2.0)
  - Guidance on format and content for a standard set of *DoDAF Described Models* for describing architectures
  - High level meta-process for using the DoDAF
- What it isn't:
  - A specific architecture
  - A tool
  - A detailed architecture development process

DoDAF V2.0 Vision



Views for Other Stakeholders

Structured Knowledge Base – Common Model

Views for the Architect

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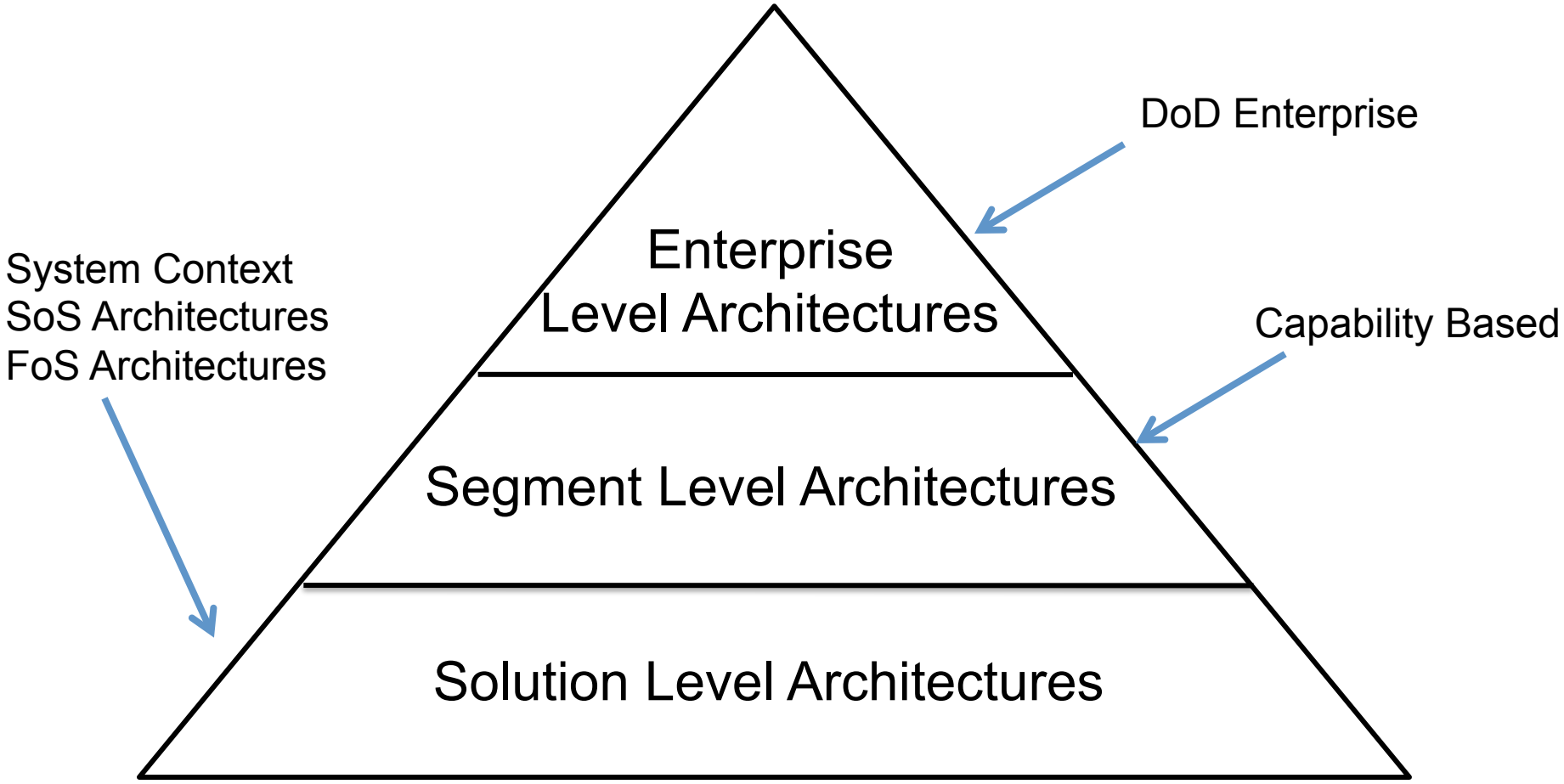
Levels of Architecture



DoDAF V2.0 Viewpoints

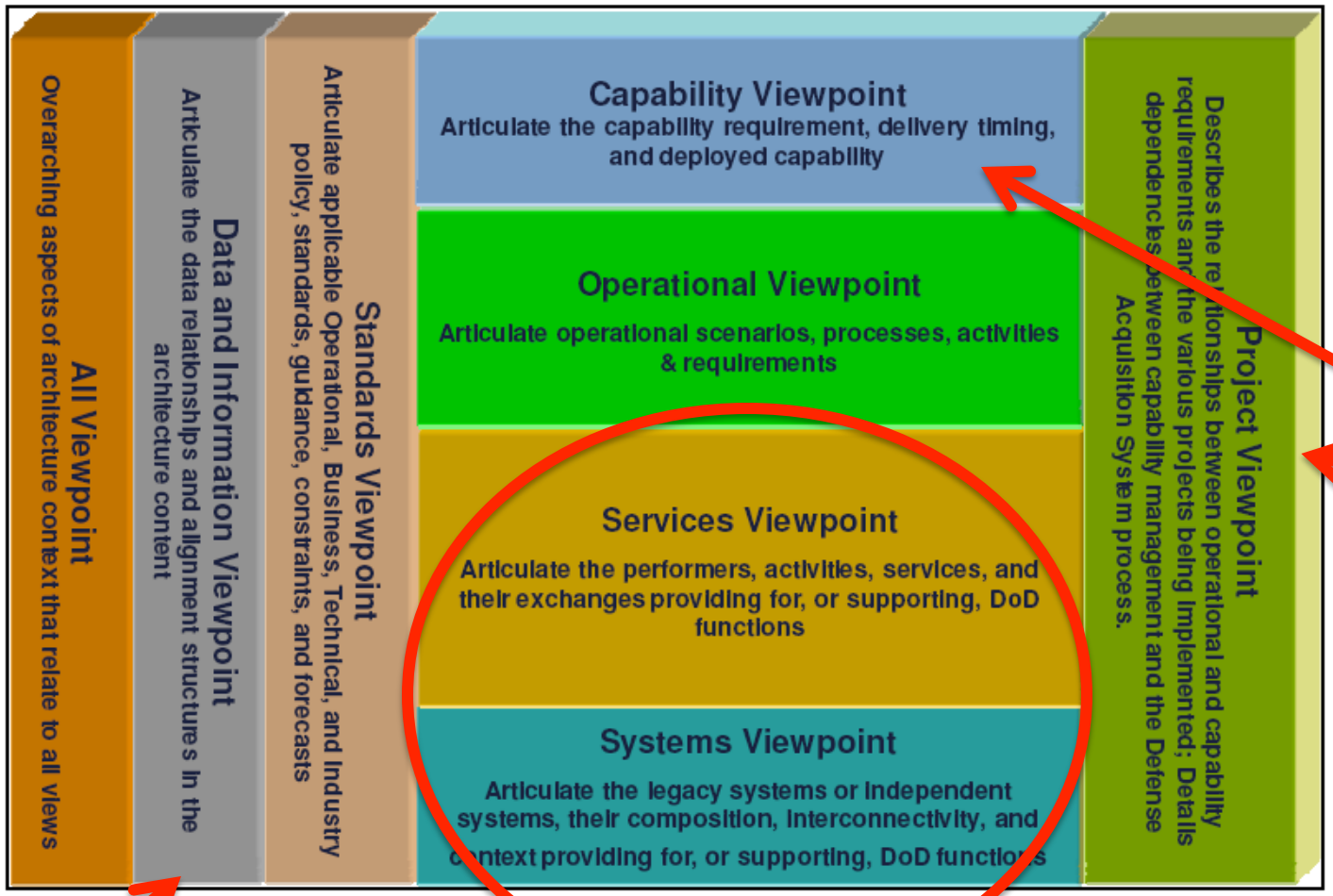


Figure 3.4.2-1: Architecture Viewpoints in DoDAF V2.0

New in V2.0

Data models split out into separate Viewpoint in V2.0

Services views split out into separate viewpoint in V2.0

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Views Are Models
Not Pictures

- Models have a standard semantic interpretation
  - Rules for correctness and consistency
- Most DoDAF described models/views have a graphic template
- The graphic is backed up with ***dictionary entries*** (data entities and relationships from DM2):
  - Data elements provide definitions and descriptions of items in the graphic

plus

  - Additional supporting information and relationships to other architecture elements
- The data elements ***integrate*** the set of views

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DoDAF As Guidance

- Views have options discussed in Volume II
  - Choices of things like:
    - Techniques/notations
    - Level of detail
- All views may be tailored
  - Graphic conventions
  - Techniques to manage complexity
  - Edits of dictionary entries: changes to data elements

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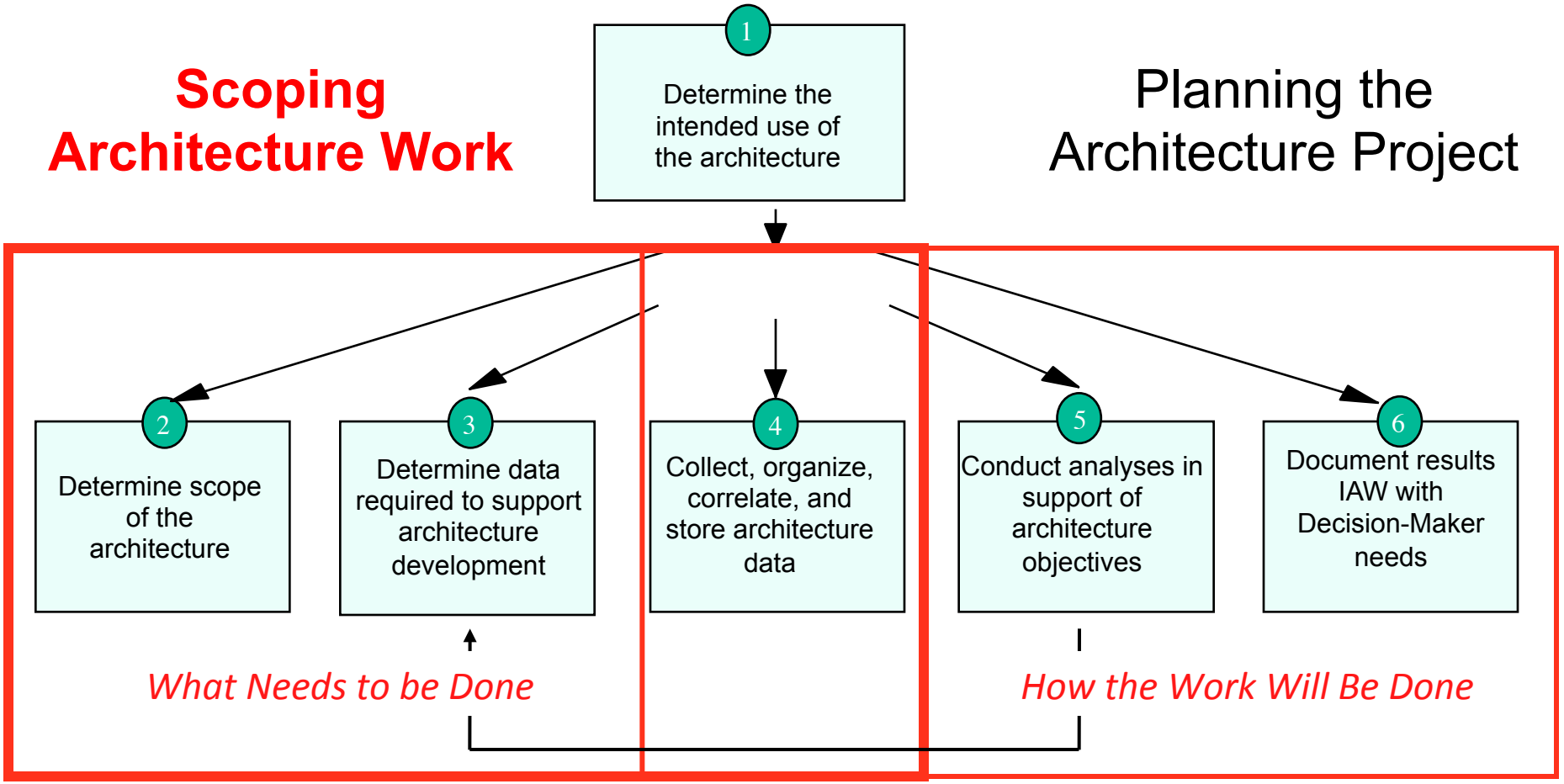
Architecture Planning

Six Step Process (V2.0) - The Planning Perspective



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Why Look at the Six Step Process?

The Six Step Process is important to the identification of required data and selection of views together with their options and tailoring

- Performance of Steps 1-4 yields information for your AV-1:
  - Purpose and stakeholders
  - Scope
  - Views with options and tailoring
- Planning for Steps 4-6 yields constraints on view options and tailoring based on development and analysis processes

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Step 1: Determine Intended Use The Problem Statement

- What questions need to be answered?
- Are there specific strategic objectives to be satisfied?
- Are there specific trade offs to be considered?
- What critical issues need to be addressed?
- How is the EA used to support key decision-making processes?
- What types of analysis need to be supported?

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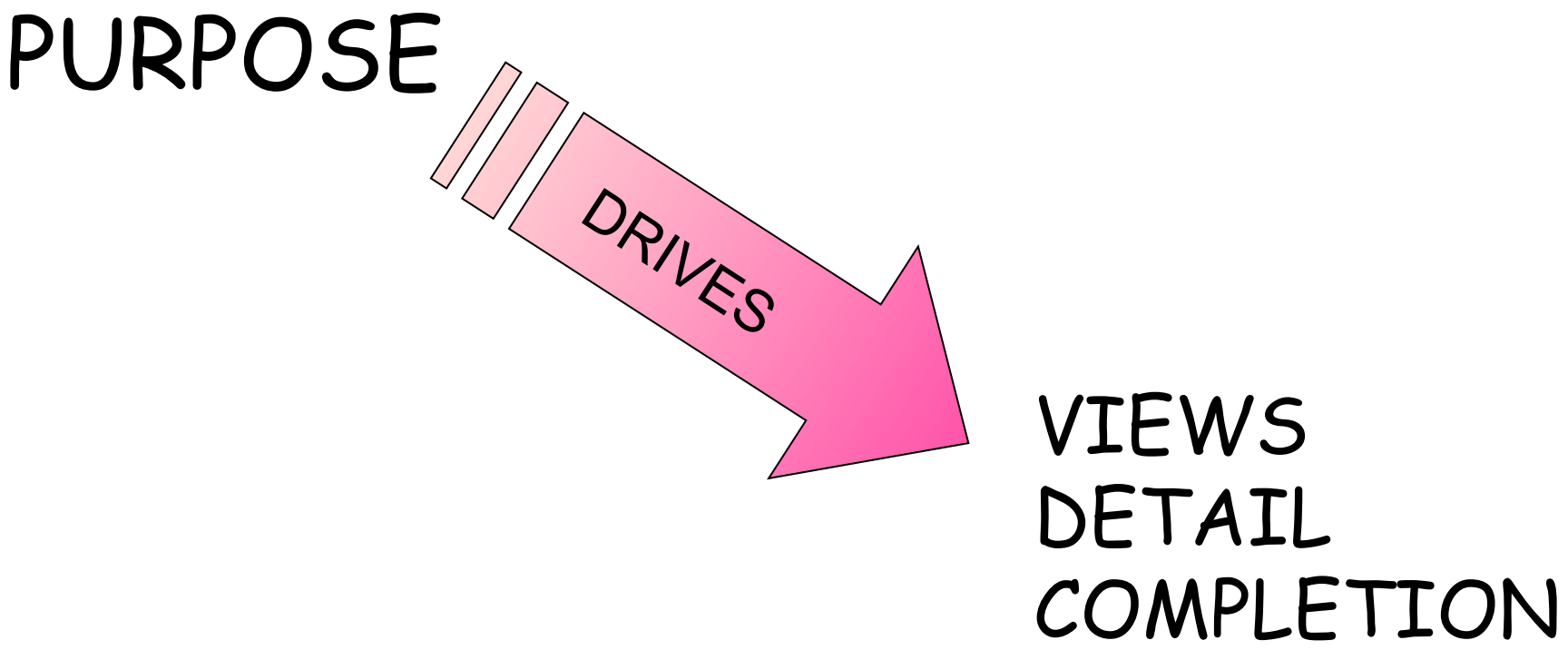
Why Is Purpose Important?

- Architecture is a tool to support decision making
  - If you don't know what you are going to use it for, there is a good chance it won't be useful
  - You need to identify and understand the different purposes of different stakeholders
- Architectures can be expensive to build
  - Doesn't make sense to build one if you don't plan to use it!

Why Is Purpose Important?



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Step 2: Determine Scope

- Operational bounds
  - What's the enterprise, what level of architecture
  - What mission(s), functions, and organizations
  - What geographical context
- Constraints on technology to be considered
- Timeframes
  - As-Is, To-Be, phasing and evolution
- Specific project schedule and resource constraints

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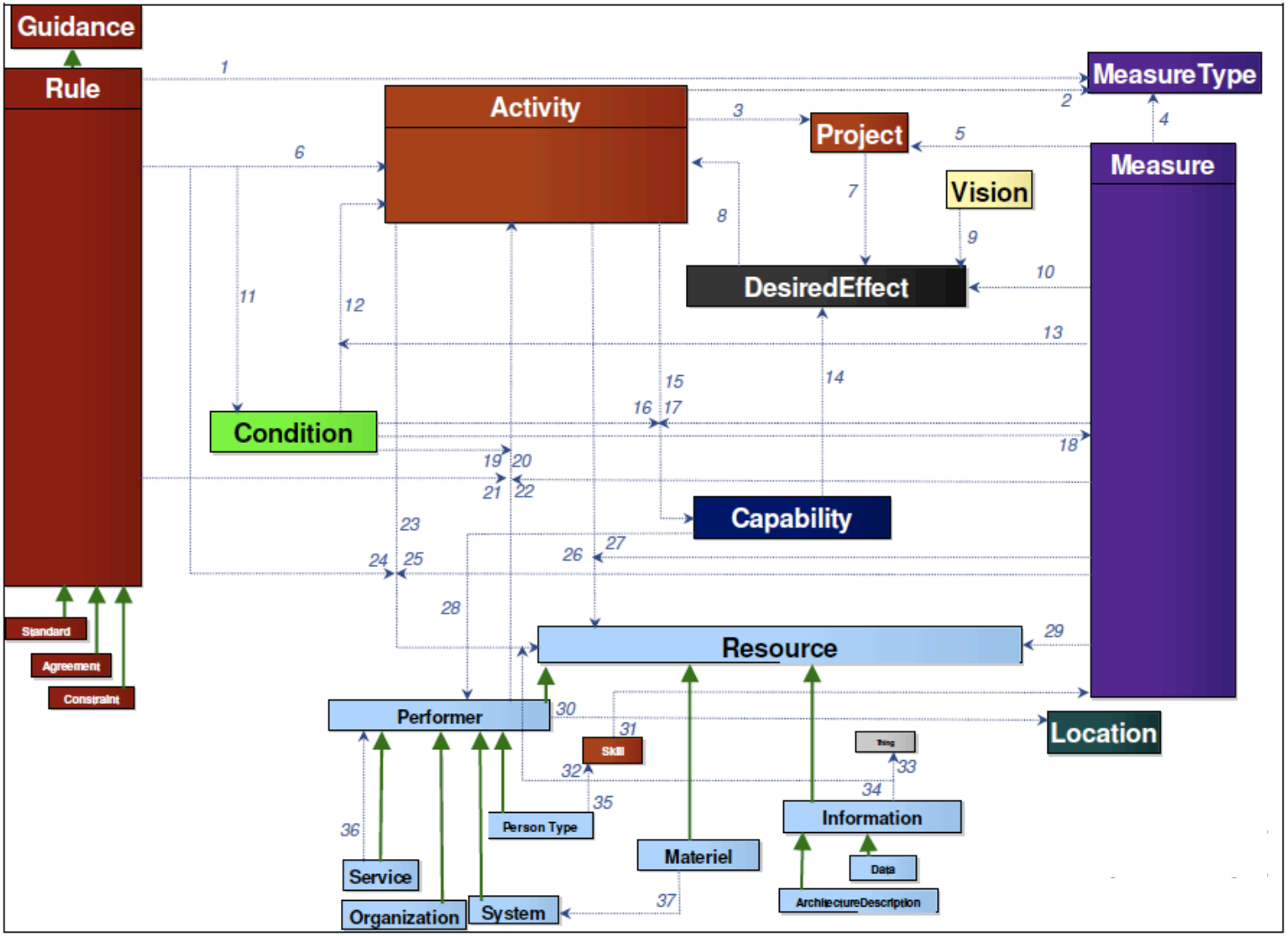
Step 3: Determine Data Required to Support Architecture Development - Think About Architecture Primitives

(DoDAF Conceptual and Logical Data Model Entities)

- Performers
- Activities
- Information elements
- Events/triggers
- Capabilities
- Goals
- Systems
- Services
- Rules
- Standards
- Locations
- Measures
- Projects

DoDAF Conceptual Data Model



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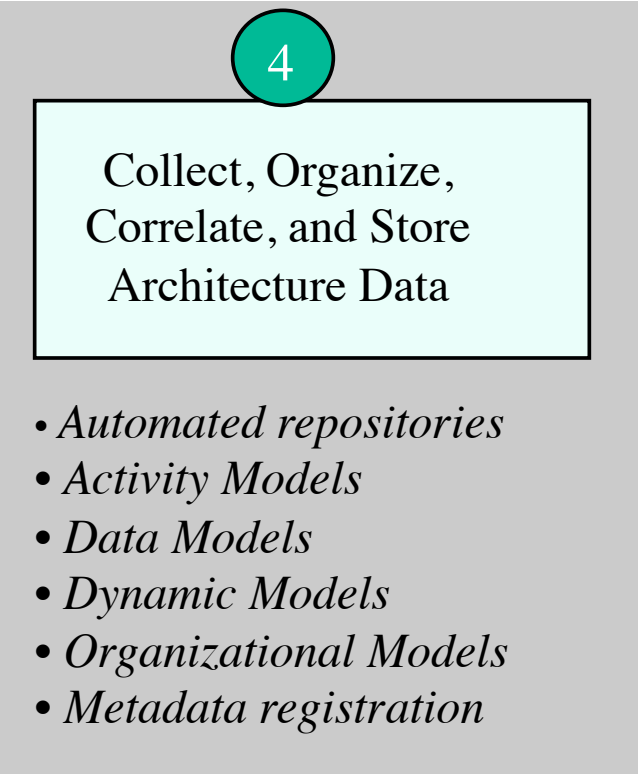
Step 4: Collect, Organize, Correlate, and Store Architecture Data



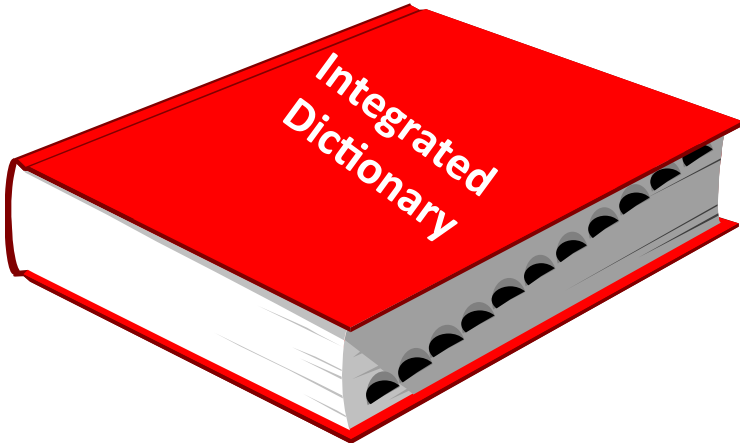
- Emphasis in planning is how data will be organized
- That is, **what DoDAF views will eventually be used, including options and tailoring**
- This tells us what the meta-data should be and identifies repository requirements
- This tells us what needs to be collected and how it should be correlated

All Viewpoint Views Capture Information That Applies to the Architecture Overall

Overview and Summary Information (AV-1)

- Identification
  - Name
  - Architect
  - Organizations Involved
  - When Developed
- Purpose
  - Analysis Needs
  - Decision Support Needs
- Scope
  - Views and Products Used
  - Time Frames Addressed
- Context
  - Mission
  - Geographical
  - Rules, Criteria, and Conventions Followed
- Findings: Results, Recommendations
- Tools and File Formats

Integrated Dictionary (AV-2)



At a minimum, the integrated Dictionary is a glossary with definitions of terms used in the given architecture description. Each labeled graphical item in the graphical representations should have a corresponding entry in the Integrated Dictionary.

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Examples: Enterprise-Level Architecture

Capability Management

Portfolio Management

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Example Capability Management Questions

Question	Required Data Types	Views
How do the capabilities relate to enterprise strategy and goals?	Vision Goals Desired Effects Capabilities Relationship between capabilities and goals	Vision (CV-1)
Are there dependencies among the capabilities?	Capabilities Relationships among capabilities, including dependencies	Capability Dependencies (CV-4)
How will capability performance be measured?	Capabilities Performance Measures Relationships of capabilities to performance measures	Capability Taxonomy (CV-2)

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Example Capability Management Questions (continued)

Question	Required Data Types	Views
When will the capabilities be available and what projects will provide them?	Capabilities Projects Timeframes Relationships among the above	Capability Phasing (CV-3)
What organizations will use the capabilities?	Capabilities Organizations Relationships among capabilities and organizations	Capability to Organizational Development Mapping (CV-5) Organizational Relationships Chart (OV-4)

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Example Portfolio Management Questions

Question	Required Data Types	Views
What organizations are in change of which projects?	Organizations Projects Relationships between organizations and projects	Project Portfolio Relationships (PV-1) Organizational Relationships Chart (OV-4)
What are the timelines for the projects and are there dependencies among them?	Projects Timelines: start and end dates Dependencies among projects	Project Timelines (PV-2)
Which projects are delivering capability configurations that realize which capabilities?	Projects Capabilities Relationships between projects and capabilities	Project To Capability Mapping (PV-3)

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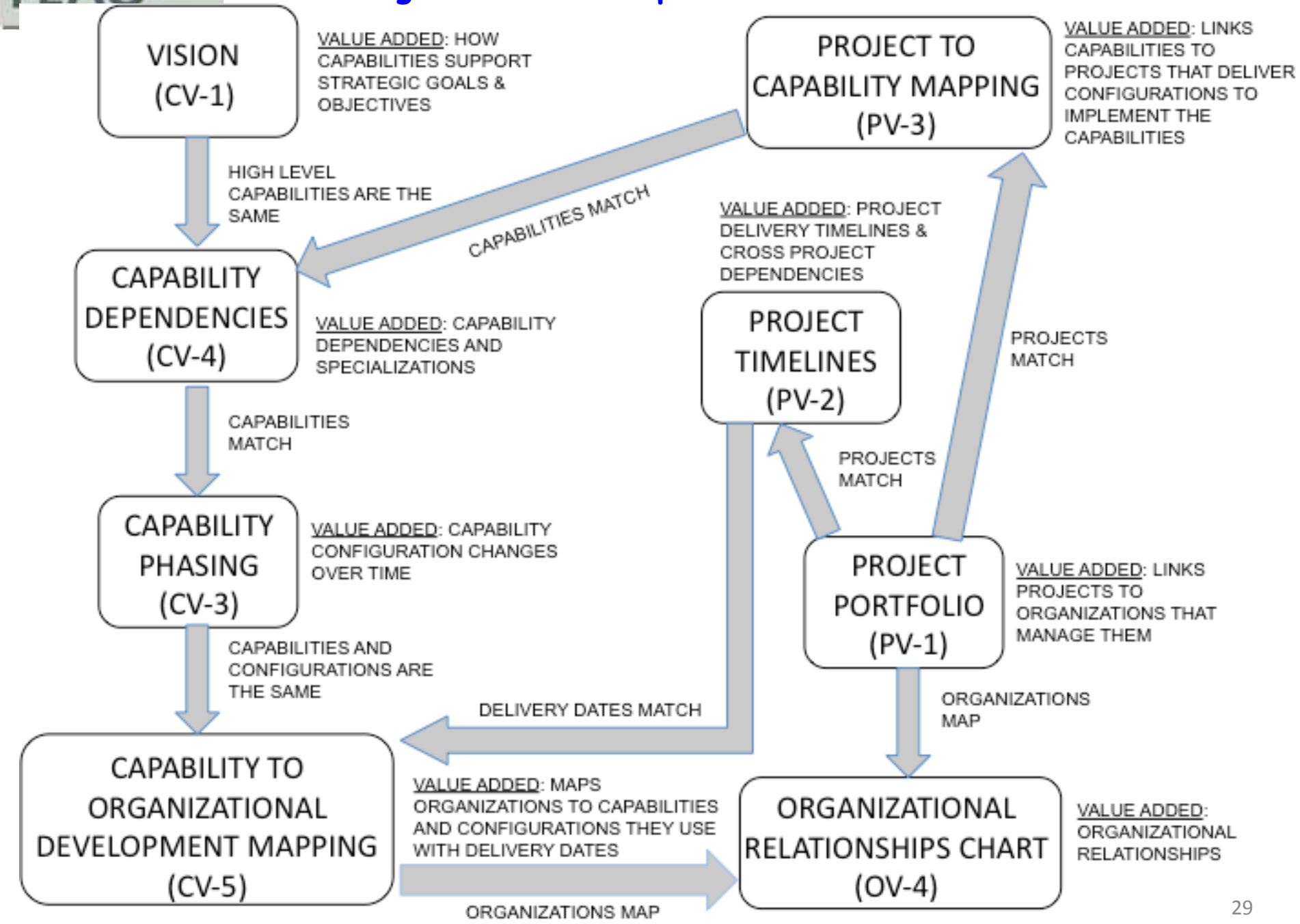
Recommendation: Basic Views for Enterprise-Level Architectures

- Vision (CV-1)
- Capability Phasing (CV-3)
- Capability Dependencies (CV-4)
- Capability to Organizational Development Mapping (CV-5)
- Project Portfolio Relationships (PV-1)
- Project Timelines (PV-2)
- Project to Capability Mapping (PV-3)
- Organizational Relationship Chart (OV-4)

Plus AV-1 and AV-2, as always

Integration of Enterprise Level Architecture Basic Views



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Examples – Solution-Level Architecture

Setting Context for a System, SOS, or FOS

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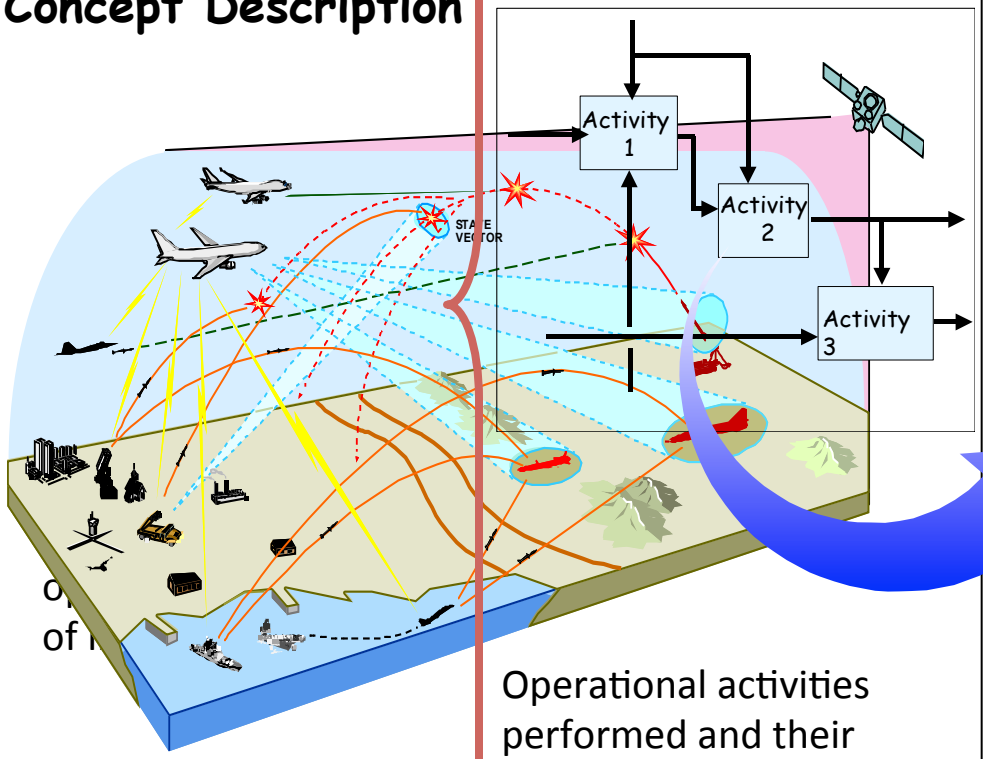
Example Solution-Architecture Questions

Question	Required Data Types	Views
What are the key elements of the Operational Concept for this architecture?	Abstractions of: Key mission process/activities Key performers Key resource exchanges	High-level Operational Concept Description (OV-1)
How are mission operations performed (now or in the future)?	Mission process/activities Resources exchanged/inputs & outputs Performers	Activity Model (OV-5) Operational Resource Flow Description (OV-2) Operational Resource Flow Matrix (OV-3)

Basic Operational Views Capture the Critical Mission Relationships and Resource Exchanges

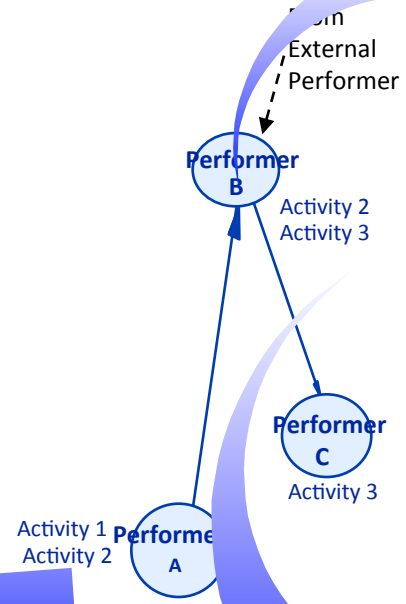
High-Level Operational Concept Description



Activity Model

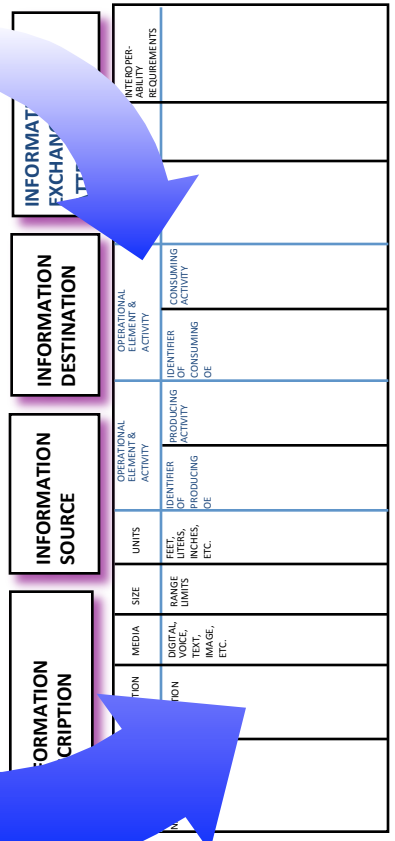
Operational activities performed and their input/output relationships

Operational Resource Flow Description



Performers, Activities for each performers and resource needlines

Operational Resource Flows Matrix



Resources exchanged between performers and the relevant attributes of the exchanges

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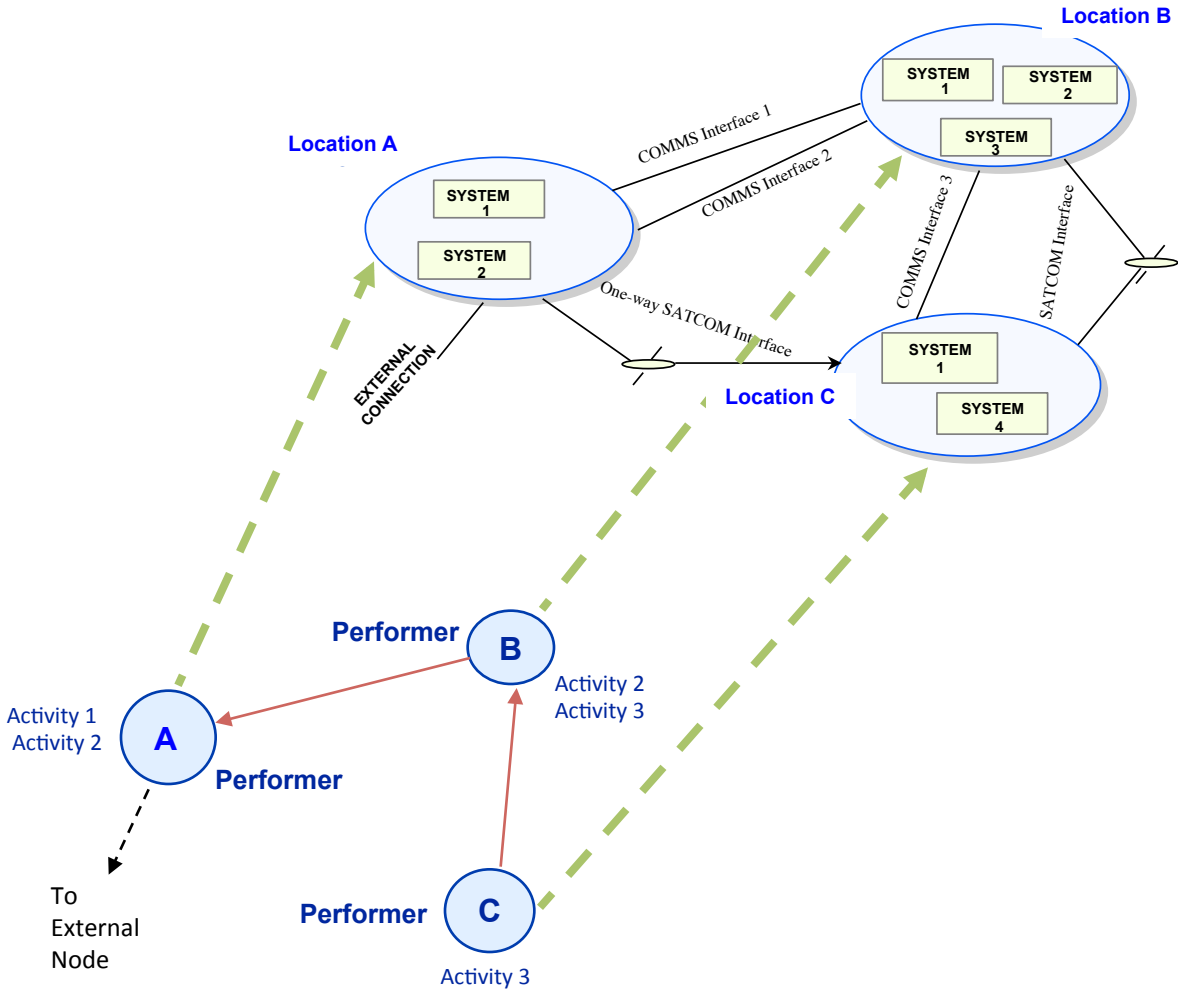
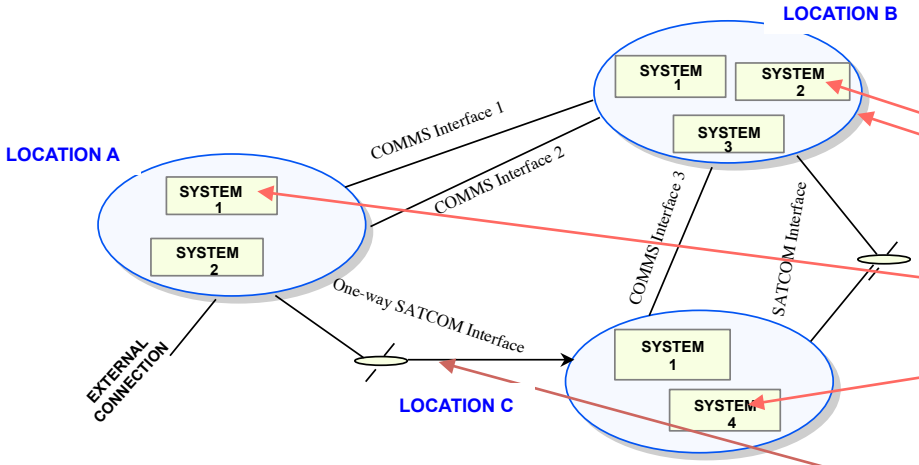
Example Basic Solution Architecture Questions (continued)

Question	Required Data Types	Views
What systems/services and what are their interfaces (internal and external)?	Systems/services System/service interfaces Standards	System Interface Description (SV-1) or Services Context Description (SvcV-1) Standards Profile (StdV-1)
How do the systems/services support operations?	Relationship of systems/ services to performers Relationship of systems/ services interfaces to needlines Relationship of systems/ services to activities	OV-2 SV-1/SvcV-1 Operational Activity to Systems Function Traceability Matrix (SV-5) or Operational Activity to Services Traceability Matrix (SvcV-5)

Relationships Between OV-2 and SV-1(SvcV-1) Put IT in Context with Mission Operations



Standards Profile Identifies Implementation Criteria That Govern the Given Architecture



Application Software		
SERVICE AREA	**SERVICE**	**STANDARD**
Support Applications	Web Applications	Internet Explorer Version 4.X or better
		Netscape Version 3.X or better
Application Platform		
SERVICE AREA	**SERVICE**	**STANDARD**
Data Interchange	Document Interchange	XML 1.0, W3C Recommendation, 10 February 1998, Rec-xml-19980210 (Extensible Markup Language)
		HTML 4.0 Specification, W3C Recommendation revised 24-apr-1998, Rec-html40-19980424 (Hypertext Markup Language)
Communications	World Wide Web Services	IETF RFC-2616 Hypertext Transfer Protocol œHTTP/1.1, June 1999
	Electronic Mail	IETF Standard 10/RFC-821/RFC-1869/RFC-1870 Simple Mail Transfer Protocol (SMTP) Service Extensions, November 1995
		IETF Standard 11/RFC-822/RFC-1049 Standard for the Format of ARPA Internet Text Messages, 13 August 1982
		IETF RFCs 2045-2049 Multipurpose Internet Mail Extensions (MIME), November 1996
	Transport Services	IETF Standard 7/RFC-793 Transmission Control Protocol, September 1981
		IETF Standard 6/RFC-791/RFC-950/RFC-919/RFC-922/RFC-792/RFC-1112 Internet Protocol, September 1981
Distributed Computing	Object Services	Common Object Request Broker Architecture (CORBA) Version 2.3 Object Management Group (OMG) document formal/98-12-01, June 1999 (Proposed)
Security	Authentication	FIPS-PUB 112 Password Usage, 30 May 1985

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Recommendation: Basic Views for Solution-Level Architecture

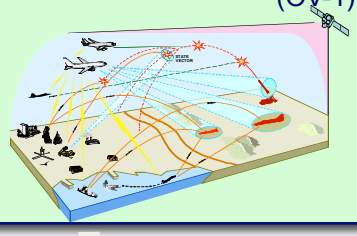
- High Level Operational Concept Description (OV-1)
- Operational Resource Flow Description (OV-2
- Operational Resource Flow Matrix (OV-3)
- Operational Activity Model (OV-5a, b)
- Systems Interface Description (SV-1) or Services Context Description (SvcV-1)
- Standards Profile (StdV-1)
- Capability to Operational Activity Mapping (CV-6)*

Plus AV-1 and AV-2, as always

*New with DoDAF V2.0; assumes a Segment-Level or Enterprise-Level architecture related to the Solution-Level architecture.

These Basic Views Link to Each Other

HIGH-LEVEL OPERATIONALCONCEPT DESCRIPTION (OV-1)



VALUE ADDED: SUMMARY LEVEL REPRESENTATION OF ORGANIZATIONS/ROLES, MISSION, AND CONTEXT FOR THE ARCHITECTURE

OPERATIONAL CONCEPT ROLES & MISSIONS SET SCOPE FOR ACTIVITY MODEL

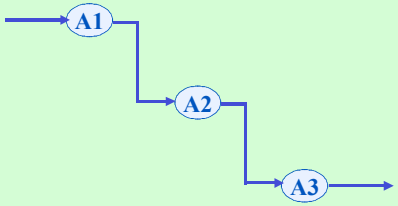
STANDARDS PROFILE (StdV-1)

SERVICE AREA	SERVICE	STANDARD
Support Applications	Web Applications	Internet Explorer Version 6 X or better
		Netscape Version 3 X or better
Data Management	Business Data Standards	Data Universal Numbering System (DUNS)
		ZIP Code Directory
		Congressional District Identifier
		ISO 3166: ISO 3166-1 (October 1997) and ISO 3166-2 (15 December 1998) (Codes for the Representation of Names of Countries and Their Subdivisions)
		U.S. State Codes and Territory Codes
		Catalogue for Federal Domestic Assistance Program
		Electronic Grants Data Elements
Data Interchange	Document Interchange	XML 1.0, W3C Recommendation, 10 February 1998, Rec-xml-19980210 (Extensible Markup Language)
		HTML 4.0 Specification, W3C Recommendation revised 24-apr-1998, Rec-html40-19980424 (Hypertext Markup Language)
		ANSI ASC X12 (Electronic Data Interchange)
Communications	World Wide Web Services	IETF RFC-2616 Hypertext Transfer Protocol – HTTP/1.1, June 1999
	Electronic Mail	IETF Standard 10/RFC-821/RFC-1869/RFC-1870 Simple Mail Transfer Protocol (SMTP) Service Extensions, November 1995
		IETF Standard 11/RFC-822/RFC-1049 Standard for the Format of ARPA Internet Text Messages, 13 August 1982
		IETF RFCs 2045-2049 Multipurpose Internet Mail Extensions (MIME), November 1996

VALUE ADDED: COMPLETE LIST OF RELEVANT STANDARDS WITH OPTIONS & PARAMETERS

STANDARDS APPLY AT SYSTEM TO SYSTEM INTERFACES

OPERATIONAL ACTIVITY MODEL (OV-5)

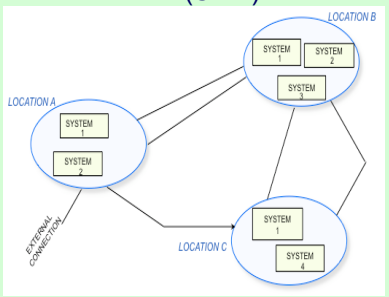


VALUE ADDED: BUSINESS/MISSION PROCESS & RELATIONSHIPS AMONG ACTIVITIES AND RESOURCE EXCHANGES

- ACTIVITIES MAP TO OV-2 PERFORMERS
- I/OS MAP TO NEEDLINES
- PERFORMERS OF ACTIVITIES, IF SHOWN ON 0V-5, MAP TO OV-2 PERFORMERS

OPERATIONAL CONCEPT CONNECTIVITY & RESOURCE EXCHANGES, IF SHOWN ON 0V-1, MAP TO OV-2 NEEDLINES & RESOURCE EXCHANGES

SYSTEMS INTERFACE DESCRIPTION (SV-1)

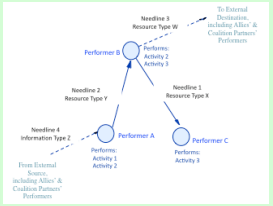


VALUE ADDED: STATEMENT OF LOCATIONS, SYSTEMS & INTERFACES

INPUT/OUTPUT LABELS MAP TO OPERATIONAL RESOURCE EXCHANGES (NOT ALWAYS ONE-TO-ONE)

RESOURCE EXCHANGES ASSOCIATED WITH EACH NEEDLINE ARE DETAILED IN OV-3

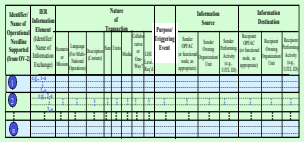
OPERATIONAL RESSOURCE FLOW DESCRIPTION (OV-2)



VALUE ADDED: STATEMENT OF OPERATIONAL PERFORMERS, ACTIVITIES, AND CRITICAL RESOURCE EXCHANGE NEEDS

- PERFORMERS ARE ASSOCIATEAD WITH SYSTEMS AND LOCATIONS
- EACH OPERATIONAL NEEDLINE MAPS TO ONE OR MORE SYSTEM INTERFACES

OPERATIONAL RESOURCE FLOW MATRIX (OV-3)



VALUE ADDED: INDIVIDUAL RESOURCE EXCHANGES ASSOCIATED WITH EACH NEEDLINE & PERFORMANCE REQUIREMENTS

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Segment-Level Architecture

Capability Focus

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Recommendation: Basic Views for Segment-Level Architecture

- Combination of Enterprise and Solution Level core views
- If the Segment is used to manage the investments and portfolio for the capabilities included in the segment, then the Enterprise Level core views apply
- If the Segment is used to coordinate a set of Solution Level architectures, then the Solution Level core views apply to set the business context and document:
  - Relationship of major systems to high-level business process
  - Interfaces among business processes and among systems necessary to ensure interoperability

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Example Questions for Additional Views

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Example Dynamic Behavior (Timing & Sequencing) Questions

Question	Required Data Types	Views
What scenarios explain the concept of operation or key performance or security issues?	Events Messages Performers/systems/services Relationship among the above	Event/Trace Descriptions: Operational (0V-6c) Systems (SV-10c) Services (SvcV-10c)
What are the states/ statuses that key elements of the architecture have and how do they change?	States for a given element of the architecture Transitions Events Relationships among the above	State Transition Descriptions: Operational (OV-6b) Systems (SV-10b) Services (SvcV-10b)
What are the rules that constrain operations, systems and/or services?	Rules Relationships of rules to other elements of the architecture	Rules Models: Operational (OV-6a) Systems (SV-10a) Services (SvcV-10a)

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Example Domain Data Questions

Question	Required Data Types	Views
What are the shared mission/business concepts and their relationships?	Entities Attributes Relationships among the above	Conceptual Data Model (DIV-1)
What is the logical structure of the key structured shared data in the architecture?	Entities Attributes Relationships among the above	Logical Data Model (DIV-2)
What is the physical structure of the key structured shared data in the architecture?	Entities, Attributes, and Relationship among the above or File Structures or Message Structures or ?	Physical Data Model (DIV-3)

Example Transition Planning Questions

Question	Required Data Types	Views
When will new systems/ services be available?	Systems/Services Timeframes Relationship among the above	Systems Evolution Description (SV-8)/ Services Evolution Description (SvcV-8)
What IT performance improvements should be expected at key transition milestones?	Systems/Services Performance measures Relationships among the above	Systems Measures Matrix (SV-7)/ Services Measures Matrix SvcV-7)
What are the trends in systems/services and standards and associated personnel skills that may impact IT during the transition period?	Systems/Services Areas, Categories, and Standards Timeframes Forecasts	Systems Technology and Skills Forecast (SV-9)/ Services Technology and Skills Forecast (SvcV-9) Standards Forecast (StdV-2)

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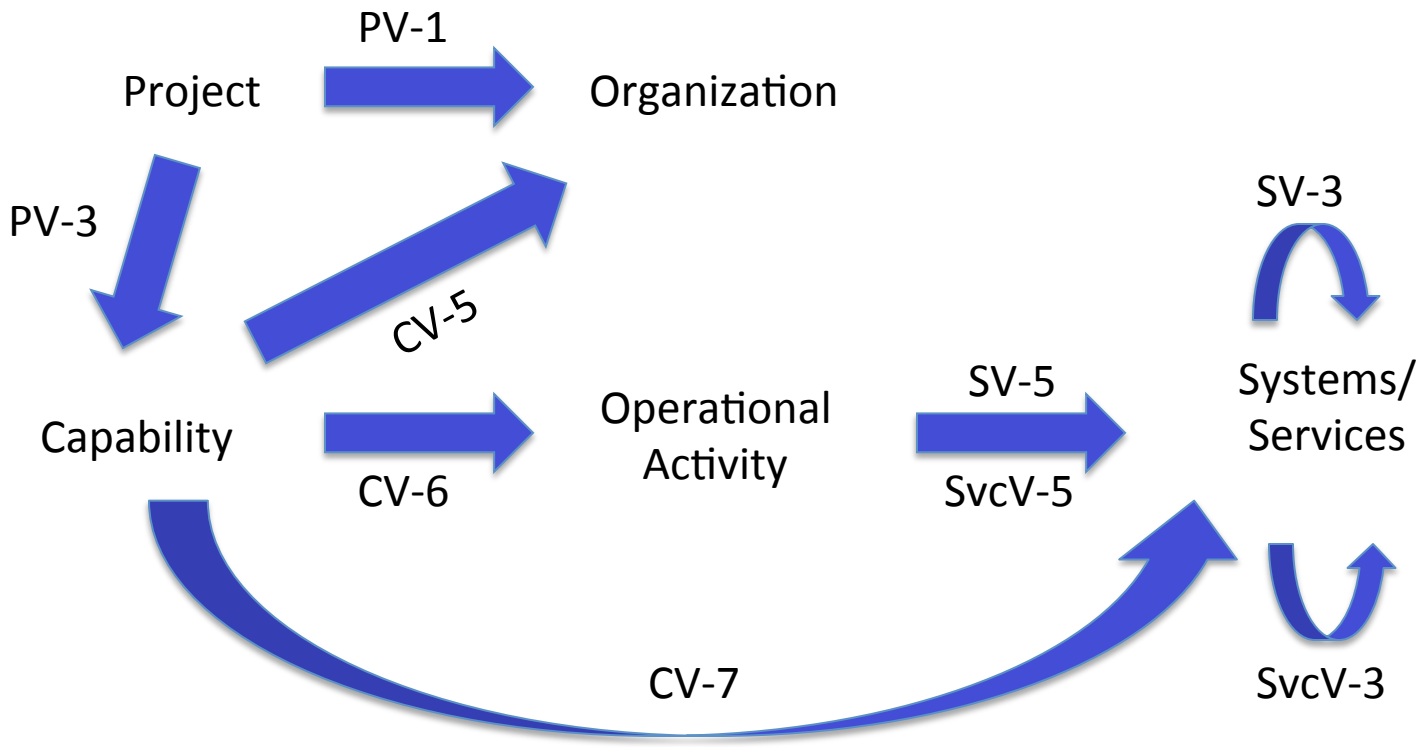
Example Matrix/Mapping Questions

Question	Required Data Types	Views
Which systems/services interface with which other systems/services?	Systems/services Systems/services interfaces	Systems^2 Matrix (SV-3) Systems-Services Matrix (SvcV-3a) Services^2 Matrix (SvcV-3b)
How do services relate to capabilities?	Services Capabilities Relationships among the above	Capability to Services Mapping (CV-7)
What are the key attributes (such as throughput) of the system/services resources flows?	System/Service Interfaces System/Services Resource Flows Attributes of Resource Flows	Systems Resource Flow Matrix (SV-6)/ Services Resource Flow Matrix (SvcV-6)

Mapping Summary



Mappings help check for architecture consistency.

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Other Example Questions

Question	Required Data Types	Views
What organizations are included in the architecture and how do they relate to the performers or other elements of the architecture?	Organizations Reporting/management relationships Relationships of organizations to other elements of the architecture	Organizational Relationships Chart (OV-4)
What are the key communications IT that support the systems/ services interfaces?	Systems/services Communications systems, technologies & protocols Relationships among the above	Systems Resource Flow Description (SV-2)/ Services Resource Flow Description (SvcV-2)
What are the systems functions/services and the data flow among them?	Systems functions/services Data flows among the systems functions/producer-consumer flows among the services	System Functionality Description (SV-4)/ Services Functionality Description (SvcV-4)

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Planning Example

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Purpose

- Document As-Is process for project financial management for Company X
  - Basis for business process standardization
    - Reference for Project Managers (PMs)
    - Training for new PMs
  - Basis for process improvement and upgraded automation

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Stakeholders and Issues (1)

- Project Managers
  - What actions are required to initiate a contract?
  - What actions are required to complete the mid-month and end-of-month direct charge amount checks?
  - What actions are required to complete invoice approval?
  - What information needs to be provided to Accounting?
  - How is that information provided (i.e., what mechanism is used)?

Stakeholders and Issues (2)

- Accounting
  - What information is required from the PM prior to initiating a contract?
  - What information do PMs require to ensure accurate invoices?
  - How does Accounting receive and provide this information?
  - What are the information and reporting requirements for an integrated financial system?

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Stakeholders and Issues (3)

- Group Managers
  - Are all the PMs following the same procedures to initiate contracts and approve invoices?
  - Are the system(s) used by PMs to manage financial information adequate?
  - [Are the system(s) used by the PMs to manage financial information support easy and accurate assessment of project status?]

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Stakeholders and Issues (4)

- Executive Management
  - Are there opportunities to simplify the contract initiation process?
  - What activities would a new, integrated financial system have to support?
  - What is the set of projects and internal organizations involved?

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Scope

- Solution Level architecture
- Mission/function/organizational bounds: Normal interactions between PMs and Accounting in the execution of a single, prime contract
  - Normal bi-monthly interaction
- Geographic bounds: Activities are all performed at Company X HQ for projects in the U.S.
- Timeframe: As-Is
- Constraints: Application level analysis; no infrastructure to be examined; systems to be treated as “black boxes”
- Expected Analysis: Opportunities for improvement

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Data & Views – Processes (1)

Related Issues

- What actions are required to initiate a contract?
- What actions are required to complete the mid-month and end-of-month direct charge amount checks?
- What actions are required to complete invoice approval?
- Are all the PMs following the same procedures to initiate contracts and approve invoices?
- Are there opportunities to simplify the contract initiation process?

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Data & Views – Processes (2)

Needed Data & Views

- As-Is Business Process descriptions, including systems used, organizations involved, and where policies are implemented – Activity Model (OV-5) with IDEF0, activities decomposed to show interactions between PMs and Accounting; OV-1
- Policies – Operational Rules Model (OV-6a) with structured English; rules mapped to controls on OV-5
- Scenarios showing differences between individual PM's processes and showing opportunities for improvement – Operational Event/Trace Descriptions (OV-6c), specific scenarios TBD

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Data & Views – Information (1)

Related Issues

- What information needs to be provided to Accounting?
- What information is required from the PM prior to initiating a contract?
- What information do PMs require to ensure accurate invoices?

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Data & Views – Information (2)

Needed Data & Views

- Inputs and outputs from business process activities that go between PMs and Accounting
  - Activity Model (OV-5)
  - Operational Resource Flow Description (OV-2) with organizations as nodes
  - Operational Resource Flow Matrix (OV-3) with following columns: Needline ID, Information Exchange ID, Description, Media, Triggering Event, Producing Node and Activity, Receiving Node and Activity; may potentially need format standards for information exchanges

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Data & Views – Information Mechanisms (1)

Related Issues

- How is that information provided (i.e., what mechanism is used)?
- How does Accounting receive and provide this information?

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Data & Views – Information Mechanisms (2)

Needed Data & Views

- Form and format of the information – Operational Resource Flow Matrix with media and format columns
- Systems and system interfaces used to automate information exchanges – Systems Interface Description (SV-1), system-to-system perspective, showing applications and databases on graphic

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Data & Views – Process Improvement (1)

Related Issues

- What is the set of projects and internal organizations involved?
- Are the system(s) used by PMs to manage financial information adequate?
- What are the information and reporting requirements for an integrated financial system?
- What activities would a new, integrated financial system have to support?

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Data & Views – Process Improvement (2)

Needed Data & Views

- Company X organizations and reporting relationships – Organizational Relationships Chart (OV-4) showing existing project organizations; color code to show relationships to performers
- Mapping of systems to business processes and information exchanges – Systems Interface Description (SV-1); Operational Activity to Systems Function Traceability Matrix (SV-5) with applications instead of systems functions
- Current standards in support of interoperability - Standards Profile (StdV-1) with FEA TRM and service areas of interest TBD

Summary of Selected Views

- OV-1
- OV-2: performers are roles
- OV-3: with Needline ID, Information Exchange ID, Description, Media, Format, Triggering Event, Producing Node and Activity, Receiving Node and Activity columns
- OV-4: with map to performers
- OV-5: IDEF0 with controls and system mechanisms
- OV-6a: Structured English, mapped to activity controls
- OV-6c: scenarios TBD
- SV-1: System to System perspective with applications and database
- SV-5: with applications instead of systems
- StdV-1: using FEA TRM

Plus AV-1 and AV-2, as always