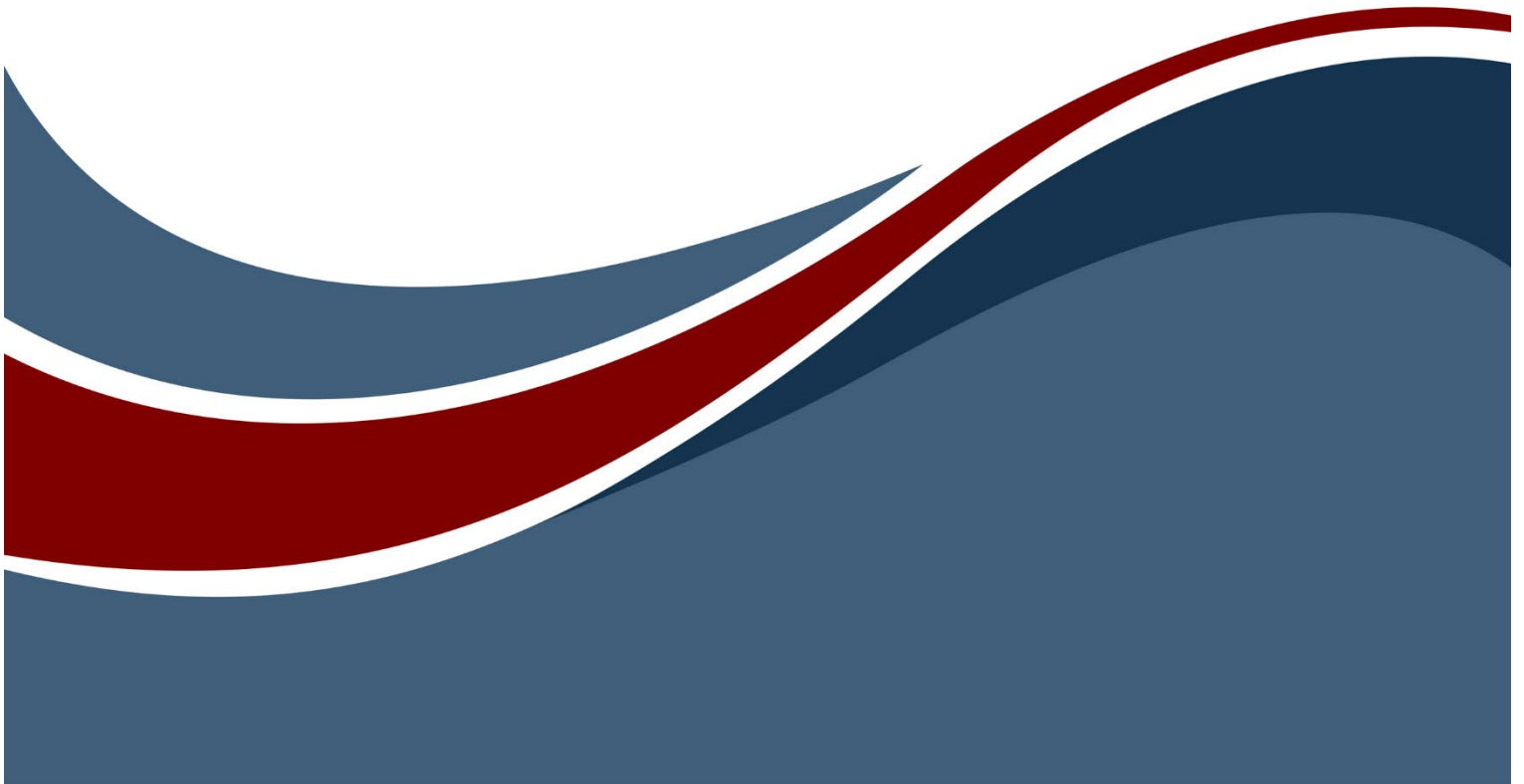




# DoDAF® v2.0 Viewpoint Definitions



## DoDAF 2.0 Viewpoint Definitions

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## CUSTOMER RESOURCE OPTIONS

Supporting users throughout their entire journey of learning model-based systems engineering (MBSE) is central to Vitech's mission. For users looking for additional resources outside of this document, please refer to the links below. Alternatively, all links may be found at [www.vitechcorp.com/online-resources/](http://www.vitechcorp.com/online-resources/).



### [Webinars](#)

Immense, on-demand library of webinar recordings, including systems engineering industry and tool-specific content.



### [Screencasts](#)

Short videos to guide users through installation and usage of GENESYS.



### [A Primer for Model-Based Systems Engineering](#)

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Searchable online access to GENESYS help files.



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Library of technical and white papers for download, authored by Vitech systems engineers.



### [Technical Support](#)

Frequently Asked Questions (FAQ), support-ticket web form, and information regarding email, phone, and chat support options.

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## DoDAF 2.0 Viewpoint Definitions

### GENERAL

The following instructions identify the entities that appear in the various Department of Defense Architecture Framework (DoDAF®) 2.0 Viewpoints. It identifies the relationships used to select the appropriate entities contained in the viewpoint. It also identifies attributes that may appear in the viewpoint.

These reports require that the Project is created using the Capability Architecture Development schema.

In the model, an Architecture entity may contain an *augmented by* relation with a target class of Text or ExternalFile. If there is a target of the augmented by relation, the Architecture description will be followed by either the description attribute in the case of a Text or Table designation or by the specified graphic file specified by the External File Path. If multiple target entities are cited, their order is determined by the Position attribute on the *augmented by* relationships.

While not required, it is recommended that the user runs the “PUID Wizard” (located in the Utilities ribbon bar) to assign project unique IDs for entities in the project.

### DEFINITION LAYOUT

For each DoDAF Viewpoint that follows in this document, the following table is used to describe the contents of the Viewpoint:

Viewpoint Title
<b>DoDAF Description:</b> (this section provides a brief description of the DoDAF Viewpoint)
<b>Implementation</b> (This section provides a pseudo-logical description of how the viewpoint is created, essentially the steps the underlying viewpoint report takes to develop the view when it is executed.)

### ALL VIEWPOINTS

AV-1 Overview and Summary
<p><b>DoDAF Description:</b> The view describes a Project's Visions, Goals, Objectives, Plans, Activities, Events, Conditions, Measures, Effects (Outcomes), and produced objects.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Attributes</p> <ul style="list-style-type: none"> <li>Description <ul style="list-style-type: none"> <li>with <i>augmented by</i> External Files</li> </ul> </li> <li>Purpose</li> <li>Scope</li> <li>Time Frame</li> </ul> <p>Relationships</p> <ul style="list-style-type: none"> <li>Description of <i>achieves</i> Mission</li> <li>List of <i>documented by</i> Documents in the following order: <ul style="list-style-type: none"> <li>Goals</li> <li>Guidance</li> <li>Standards</li> <li>Strategy</li> </ul> </li> <li><i>composed of</i> OperationalNodes providing the following diagrams and tables: <ul style="list-style-type: none"> <li>Physical Hierarchy Diagram</li> <li>Physical Block Diagram</li> <li>Resource Flow Table</li> </ul> </li> <li>Table providing number, name, description in following Class order: <ul style="list-style-type: none"> <li><i>specified by</i> Capability</li> <li><i>composed of</i> Component</li> <li><i>assigned to</i> Organization</li> <li><i>composed of</i> Performer</li> <li><i>specified by</i> Requirement</li> </ul> </li> </ul>

AV-2 Integrated Dictionary
<p><b>DoDAF Description:</b> This view presents an architectural data repository with definitions of all terms used throughout the architectural data and presentations.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <ul style="list-style-type: none"> <li>Name, Acronym, Description of <i>uses</i> DefinedTerm</li> </ul>



## CAPABILITY VIEWPOINTS

CV-1 Vision
<b>DoDAF Description:</b> This view presents the overall vision for transformational endeavors, which provides a strategic context for the capabilities described and a high-level scope.
<b>Implementation</b> Architecture Relationships Name, Description, Rationale, Benefit of <i>specified by</i> Capability Uses Capability Vision Hierarchy

CV-2 Capability Taxonomy
<b>DoDAF Description:</b> This view presents a hierarchy of capabilities which specifies all the capabilities that are referenced throughout one or more Architectural Descriptions.
<b>Implementation</b> Architecture Relationships Name, Description, Rationale, Benefit, Priority of <i>specified by</i> Capability Name, Description, Rationale, Benefit, Priority of <i>refined by</i> Capability Uses Capability Hierarchy

CV-3 Capability Phasing
<b>DoDAF Description:</b> This view presents a hierarchy of capabilities which specifies all the capabilities that are referenced throughout one or more Architectural Descriptions.
<b>Implementation</b> Architecture Relationships Name, Description, Objectives, TimeFrame of <i>specified by</i> Capability Name, Description, Objectives, TimeFrame of <i>refined by</i> Capability Uses Capability Hierarchy

CV-4 Capability Dependencies
<b>DoDAF Description:</b> This view presents the dependencies between planned capabilities and the definition of logical groupings of capabilities.
<b>Implementation</b> Architecture Relationships <i>specified by</i> Capability Name, Description <i>categorizes</i> Capability of <i>categorized by</i> Category Name, Description <i>categorizes</i> Capability of <i>includes</i> Category Uses Capability Dependencies Hierarchy

### CV-5 Capability to Organizational Development Mapping

**DoDAF Description:** This view presents the fulfillment of capability requirements and shows the planned capability deployment and interconnection for a particular Capability Phase. The CV-5 shows the planned solution for the phase in terms of performers and locations and their associated concepts.

#### Implementation

Architecture

Relationships

*specified by* Capability

*refined by* Capability

Name, Description, of *supplied by* ProgramElement

Name of *assigned to* Organization

Uses Capability to Organization Hierarchy

### CV-6 Capability to Operational Activities Mapping

**DoDAF Description:** This view presents a mapping between the capabilities required and the operational activities that those capabilities support.

#### Implementation

Architecture

Relationships

*specified by* Capability

*refined by* Capability

Name, Description of *basis of* OperationalActivity

Name *allocated to* Performer

Uses Capability to Operational Activities Hierarchy

### CV-7 Capability to Services Mapping

**DoDAF Description:** This view presents a mapping between the capabilities and the services that these capabilities enable.

#### Implementation

Architecture

Relationships

Name, Description of *specified by* Capability

Name, Description of *refined by* Capability

*basis of* OperationalActivity

*allocated to* Performer<sup>1</sup>

Name, Description of *joins* Performer

1 Performer (Type = 'Service Functional Provider')

## DATA AND INFORMATION VIEWPOINTS

DIV-1 Conceptual Data Model
<p><b>DoDAF Description:</b> This view presents the high-level data concepts and their relationships.</p> <p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p><i>composed of</i> Component, Performer</p> <p><i>built from</i> Component, Performer</p> <p><i>performs</i> Function, OperationalActivity</p> <p><i>inputs, outputs</i> Item, OperationalItem</p> <p>Name</p> <p><i>specified by</i> Requirement</p> <p>Name, Description</p>

DIV-2 Logical Data Model
<p><b>DoDAF Description:</b> This view presents the documentation of the data requirements and structural business process (activity) rules. In DoDAF V1.5, this was the OV-7.</p> <p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p><i>composed of</i> Performer</p> <p><i>built from</i> Performer</p> <p><i>performs</i> OperationalActivity</p> <p><i>inputs, outputs</i> OperationalItem</p> <p>Name, Description, Type, Size, size Units, Priority, Accuracy, Timeliness of <i>transfers</i></p> <p>OperationalItem</p> <p><i>decomposed by</i> OperationalItem</p> <p>Decomposes Name</p> <p><i>connected to</i> Needline</p> <p><i>transfers</i> OperationalItem</p> <p>Name, Description, Type, Size, size Units, Priority, Accuracy, Timeliness of <i>transfers</i></p> <p>OperationalItem</p>

DIV-3 Physical Data Model
<p><b>DoDAF Description:</b> This view presents the physical implementation format of the Logical Data Model entities, e.g., message formats, file structures, physical schema. In DoDAF V1.5, this was the SV-11.</p> <p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p><i>composed of</i> Component (type = Family of Systems / Systems Architecture / System of Systems)</p> <p><i>built from</i> Component (type = System / Service)</p> <p><i>connected to</i> Link</p> <p><i>transfers</i> Item</p> <p>Name, Description, Type, Size, Size Units, Priority, Accuracy, Timeliness, Format Type,</p> <p>Media</p>

## OPERATIONAL VIEWPOINTS

OV-1 High Level Operational
<p><b>DoDAF Description:</b> This view presents the high-level graphical/textual description of operational concept.          (NOTE: A high-level graphic, normally an artistic power point chart or jpg file is used to provide a high-level operational context for an architecture. This graphic diagram should be provided in an external file that is related to the architecture with the “<i>augmented by</i>” relationship.)</p>
<p><b>Implementation</b>          Architecture              Description of Architecture              <i>augmented by</i> ExternalFile          Relationships              <i>composed of</i> Performer (type = OperationalArchitecture)              <i>built from</i> Performer (type = Organization / Human / Service Consumer / Service Functionality Provider / Unanticipated User)          Uses Physical Hierarchy for <i>composed of</i> Performer</p>

OV-2 Operational Resource Flow Description
<p><b>DoDAF Description:</b> This view presents a description of the resource flows exchanged between operational activities.</p>
<p><b>Implementation</b>          Architecture          Relationships              <i>composed of</i> Performer (type = OperationalArchitecture)              <i>built from</i> Performer (type = Organization / Human, Service Consumer / Service Functionality Provider / Unanticipated User)              Name, Description of <i>connected to</i> Needline              Name of <i>transfers</i> OperationalItem              Name of <i>connects to</i> Performer          Uses Physical Block Diagram</p>

OV-3 Operational Resource Flow Matrix
<p><b>DoDAF Description:</b> This view presents a description of the resources exchanged and the relevant attributes of the exchanges.</p>
<p><b>Implementation</b>          Architecture          Relationships              <i>composed of</i> Performer (type = OperationalArchitecture)              <i>built from</i> Performer (type = Organization / Human / Service Consumer / Service Functionality Provider / Unanticipated User)              Name of <i>connected to</i> Needline              Name, Description, Accuracy, Timeliness of <i>transfers</i> OperationalItem              Name <i>connects<sup>1</sup></i> to Performer          Note 1: <i>connects to</i> Direction attribute determines Source/Destination</p>

### OV-4 Organizational Relationships Chart

**DoDAF Description:** This view presents the organizational context, role, or other relationships among organizations.

#### Implementation

Architecture

Relationships

Name, Description, Role, Location of *assigned to* Organization

Name *coordinates with* Organization

Uses Organization Hierarchy

### OV-5a Operational Activity Decomposition Tree

**DoDAF Description:** This view presents the capabilities and activities (operational activities) organized in a hierarchal structure.

#### Implementation

Architecture

Relationships

Name of *specified by* Capability

Name, Description of *specified by* Capability

Name, Description of *refined by* Capability

Name of *basis of* OperationalActivity

Name of *performed by* Performer

Uses Function Hierarchy

### OV-5b Operational Activity Model

**DoDAF Description:** This view presents the context of capabilities and activities (operational activities) and their relationships among activities, inputs, and outputs.

#### Implementation

Architecture

Relationships

Name, Description of *specified by* Capability

Name, Description of *refined by* Capability

Name of *basis of* OperationalActivity

Name of *inputs/outputs* OperationalItem

Name of *input to/output from* OperationalActivity

Name of *based on* Capability

Uses Enhanced FFBD

### OV-6a Operational Rules Model

**DoDAF Description:** One of three viewpoints used to describe activity (operational activity). It identifies business rules that constrain operations.

#### Implementation

Architecture

Relationships

*composed of* Performer (type = OperationalArchitecture)

*built from* Performer (type = Organization / Human / Service Consumer / Service Functionality

Provider / Unanticipated User)

Name of *performs* OperationalActivity

Name of *decomposed by* OperationalActivity

Name, Description of *documented by* Document (type = Guidance)

Name, Description of *documented by* Document (type = Standard)

### OV-6b State Transition Description

**DoDAF Description:** This view presents one of three viewpoints used to describe activity (operational activity). It identifies business rules that constrain operations

#### Implementation

Architecture

Relationships

*composed of* Performer (type = OperationalArchitecture)

*built from* Performer (type = Organization / Human / Service Consumer / Service Functionality

Provider / Unanticipated User)

Name, Description of *exhibits* State

ExternalFilePath of *augmented by* ExternalFile

### OV-6c Event-Trace Description

**DoDAF Description:** This view presents one of three viewpoints used to describe activity (operational activity). It traces actions in a scenario or sequence of events.

#### Implementation

Architecture

Relationships

*composed of* Performer (type = OperationalArchitecture)

*built from* Performer (type = Organization / Human / Service Consumer / Service Functionality

Provider / Unanticipated User)

Name, Description of *performs* OperationalActivity

Name of *inputs/outputs* OperationalItem

## PROJECT VIEWPOINTS

PV-1 Project Portfolio Relationships
<p><b>DoDAF Description:</b> This view describes the dependency relationships between the organizations and projects and the organizational structures needed to manage a portfolio of projects.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p><i>implemented by</i> ProgramElement</p> <p>Name, Description of <i>includes</i> ProgramElement</p> <p>Name Location of <i>assigned to</i> Organization</p> <p>Uses Work Breakdown Structure Hierarchy</p>
PV-2 Project Timelines
<p><b>DoDAF Description:</b> The view presents a timeline perspective on programs or projects, with the key milestones and interdependencies.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p>Name, Contract Number of <i>implemented by</i> ProgramElement</p> <p><i>augmented by</i> ExternalFile</p> <p>Name, Description, Type Start Date, End Date of <i>includes</i> ProgramElement</p>
PV-3 Project to Capability Mapping
<p><b>DoDAF Description:</b> The view presents a mapping of programs and projects to capabilities to show how the specific projects and program elements help to achieve a capability.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p><i>implemented by</i> ProgramElement</p> <p>Name, Description of <i>includes</i> ProgramElement</p> <p>Name, Description of <i>supplies</i> Capability</p> <p>Uses Project Portfolio Hierarchy</p>

## STANDARDS VIEWPOINTS

StdV-1-2 Standards Profile
<p><b>DoDAF Description:</b> This view presents the listing of standards that apply to solution entities along with the description of emerging standards and potential impact on current solution entities, within a set of time frames.</p>
<p><b>Implementation</b></p> <ul style="list-style-type: none"> <li>Architecture <ul style="list-style-type: none"> <li>Relationships <ul style="list-style-type: none"> <li>Name of <i>composed of</i> Component</li> <li>Name of <i>built from</i> Component</li> <li>Name of <i>connected to</i> Link</li> <li>Name of <i>performs</i> Function</li> <li>Name of <i>inputs/outputs of</i> Item <ul style="list-style-type: none"> <li>Name of Documents of type Standard <i>specified by</i> Component, Link, Function, and Items</li> </ul> </li> </ul> </li> </ul> </li> <li>Name, Description, Entities Affected, Standard Type <ul style="list-style-type: none"> <li>Name, Govt Category/Non-Govt Category of <i>documented by</i> Document</li> </ul> </li> </ul>



## SYSTEMS VIEWPOINTS

SV-1 Systems Interface Description
<b>DoDAF Description:</b> This view identifies systems, system items, and their interconnections.
<b>Implementation</b> Architecture Relationships Name, Description, of <i>composed of</i> Component (type = Family of Systems/ Systems Architecture/ System of Systems) Name, Description, <i>augmented by</i> ExternalFile, <i>implements</i> Performer of <i>built from</i> Component (type = System) Name, Description <i>connected to</i> Link Name, <i>Type of transfers</i> Item Name of <i>connects to</i> Component  Uses Physical Block Diagram

SV-2 Systems Resource Flow Description
<b>DoDAF Description:</b> The view identifies the resource flows exchanged between systems.
<b>Implementation</b> Architecture Relationships Name, Description, of <i>composed of</i> Component (type = Family of Systems/Systems Architecture/System of Systems) Name, Description, <i>augmented by</i> ExternalFile, <i>implements</i> Performer of <i>built from</i> Component (type = System) Name, Description <i>connected to</i> Link Name, <i>Type of transfers</i> Item  Uses Physical Block Diagram

SV-3 System-System Matrix
<b>DoDAF Description:</b> The view identifies the relationships among systems.
<b>Implementation</b> Architecture Relationships Name, Description, of <i>composed of</i> Component (type = Family of Systems/ Systems Architecture/ System of Systems) Name, Description of <i>built from</i> Component (type = System) Name, Description <i>connected to</i> Link Name, Description, Type of <i>connects to</i> Component (type = System, External System, Human, Facility)

SV-4 Systems Functionality Description
<p>The <b>DoDAF Description:</b> The view identifies the functions (activities) performed by systems and the system data flows among system functions (activities).</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <ul style="list-style-type: none"> <li>Name, Description, of <i>composed of</i> Component (type = System)</li> <li>Name, Description of <i>performs</i> Function (behaviorType = Integrated (Root))</li> <li>Name of <i>inputs/outputs</i> Item</li> <li>Name of <i>input to/output from</i> Source/Destination Function</li> </ul> <p>Uses EFFBD</p>

SV-5a Operational Activity to System Functions Traceability Matrix
<p><b>DoDAF Description:</b> The view identifies the mapping of system functions (activities) back to operational activities (activities).</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <ul style="list-style-type: none"> <li>Name, Description, of <i>composed of</i> Component (type = System)</li> <li>Name, Description of <i>built from</i> Component (type = System)</li> <li>Name, Description of <i>performs Function</i></li> <li>Name of <i>implements</i> OperationalActivity</li> <li>Name of <i>performed by</i> Performer</li> <li>Name of <i>based on</i> by Performer</li> </ul>

SV-5b Operational Activity to System Traceability Matrix
<p><b>DoDAF Description:</b> This view identifies the mapping of systems back to capabilities or operational activities.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <ul style="list-style-type: none"> <li>Name, Description, of <i>composed of</i> Component (type = Family of Systems/ Systems Architecture/ System of Systems)</li> <li>Name, Description of <i>built from</i> Component (type = System)</li> <li>Name, Description of <i>performs</i> Function (behaviorType = Integrated (Root))</li> <li>Name of <i>implements</i> OperationalActivity</li> <li>Name of <i>performed by</i> Performer</li> <li>Name of <i>based on</i> Capability</li> </ul>

SV-6 Systems Resource Flow Matrix
<p><b>DoDAF Description:</b> This view provides details of system resource flow entities being exchanged between systems and the attributes of that exchange.</p>
<p><b>Implementation</b></p> <p><b>Part 1</b></p> <p>Architecture</p> <p>Relationships</p> <p><i>composed of</i> Component (type = System)</p> <p><i>built from</i> Component (type = System)</p> <p>Name of <i>connected to</i> Link</p> <p>Name, Description, Accuracy, Timeliness, Size, Size Units, of <i>transfers</i> Item</p> <p>Name of <i>connects</i><sup>1</sup> to Performer</p> <p><b>Part 2</b></p> <p>Relationships</p> <p><i>specified by</i> Requirement</p> <p>Description</p> <p>Name, Description, Media of associated Item from Part I</p> <p>Type, Key Performance Parameter of associated Item from Part 1</p> <p>Name of <i>categorized by</i> Category</p> <p>Security Level or Name, Classification Category, Dissemination Control of <i>classified by</i></p> <p>Classification</p> <p>Note 1: <i>connects to</i> Direction attribute determines Source/Destination</p>

SV-6 Systems Resource Flow Summary Matrix
<p><b>DoDAF Description:</b> This summary view provides details of system resource flow entities being exchanged between systems and the attributes of that exchange.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p><i>composed of</i> Performer (type = Component)</p> <p><i>built from</i> Performer (type = Service)</p> <p>Name of <i>connected to</i> Link</p> <p>Name, Description, Accuracy, Timeliness of <i>transfers</i> Item</p> <p>Name <i>connects</i><sup>1</sup> to Component (Source)</p> <p>Name <i>connects</i><sup>1</sup> to Component (Destination)</p> <p>Note 1: <i>connects to</i> Direction attribute determines Source/Destination</p>

## DoDAF 2.0 Viewpoint Definitions

### SV-7 Systems Measures Matrix

**DoDAF Description:** This view provides the measures (metrics) of systems entities for the appropriate timeframe(s)<sup>1</sup>.

#### Implementation

Architecture

Relationships

Name, Description, of *composed of* Component (type = Family of Systems/ Systems Architecture/ System of Systems)

Name, Description of *built from* Component (type = System)

Name of *performs* Function (behaviorType = Integrated (Root))

Key Performance Parameter of *specified by* Requirement (type = Performance)

Name, Description of *specified by* Requirement (type = Performance)

Name of *connected to* Link

Key Performance Parameter of *specified by* Requirement (type = Performance)

Name, Description of *specified by* Requirement (type = Performance)

Note 1: Objective should have three (3) values representing Short-Term, Mid-Term, and Long-Term values.

### SV-8 Systems Evolution Description

**DoDAF Description:** This view identifies the planned incremental steps towards migrating a suite of systems to a more efficient suite, or toward evolving a current system to a future implementation.

#### Implementation

Architecture

Relationships

Name, Description, of *composed of* Component (type = Family of Systems/Systems Architecture/ System of Systems)

Name, Description of *built from* Component (type = System)

The View

ExternalFilePath of *augmented by* ExternalFile

### SV-9 Systems Technology Forecast

**DoDAF Description:** This view identifies the emerging technologies, software/hardware products, and skills that are expected to be available in a given set of time frames and that will affect future system development.

#### Implementation

Architecture

Relationships

Name, Description, of *composed of* Component (type = Family of Systems/ Systems Architecture/ System of Systems)

Name, Description of *built from* Component (type = System)

The View

ExternalFilePath of *augmented by* ExternalFile

<b>SV-10a Systems Rules Model</b>
<p><b>DoDAF Description:</b> This view is one of three viewpoints used to describe system functionality. It identifies constraints that are imposed on systems functionality due to some aspect of system design or implementation.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p style="padding-left: 20px;">Name, Description, of <i>composed of</i> Component (type = Family of Systems/ Systems Architecture/ System of Systems)</p> <p style="padding-left: 40px;">Name, Description of <i>built from</i> Component (type = System)</p> <p style="padding-left: 40px;">Name of <i>performs</i> Function (behaviorType = Integrated (Root)</p> <p style="padding-left: 60px;">Name, Description of <i>based on/ specified by</i> Requirement<sup>2</sup></p> <p style="padding-left: 40px;">Name, Description of <i>allocated to</i> Component</p> <p style="padding-left: 40px;">Name, Description of <i>inputs, outputs</i> Item</p> <p style="padding-left: 60px;">Name, Description of <i>transferred by</i> Link</p> <p style="padding-left: 40px;">Name, Description of <i>incorporated by</i> State</p> <p>Note 2: <i>documented by</i> Document (type = Guidance or type = Standard)</p>

<b>SV-10b Systems State Transition Description</b>
<p><b>DoDAF Description:</b> This view is one of three viewpoints used to describe system functionality. It identifies responses of systems to events.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p style="padding-left: 20px;">Name, Description, of <i>composed of</i> Component (type = Family of Systems/ Systems Architecture/ System of Systems)</p> <p style="padding-left: 40px;">Name, Description of <i>built from</i> Component (type = System)</p> <p style="padding-left: 60px;">Name, Description, <i>augmented by</i> ExternalFile of <i>exhibits</i> State</p> <p style="padding-left: 60px;">Name, Description, <i>augmented by</i> ExternalFile of <i>decomposed by</i> State</p>

<b>SV-10c Systems Event-Trace Description</b>
<p><b>DoDAF Description:</b> This view is one of three viewpoints used to describe system functionality. It identifies system-specific refinements of critical sequences of events described in the Operational Viewpoint.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p style="padding-left: 20px;">Name, Description, of <i>composed of</i> Component (type = Family of Systems/ Systems Architecture/ System of Systems)</p> <p style="padding-left: 40px;">Name, Description of <i>built from</i> Component (type = System)</p> <p style="padding-left: 60px;">Name, Description of <i>performs</i> Function</p> <p style="padding-left: 60px;">Name <i>inputs/outputs</i> Item</p>

## SERVICES VIEWPOINTS

SvcV-1 Services Interface Description
<b>DoDAF Description:</b> This view identifies services, service items, and their interconnections.
<b>Implementation</b> Architecture Relationships Name, Description, of <i>composed of</i> Component (type = Family of Systems/ System Architecture/ System of Systems) Name, Description, <i>augmented by</i> ExternalFile, <i>implements</i> Performer <i>built from</i> Component (type = Service) Name, Description <i>connected to</i> Link Name, <i>Type of transfers</i> Item Name of <i>connects to</i> Component  Uses Physical Block Diagram

SvcV-2 Services Resource Flow Description
<b>DoDAF Description:</b> The view identifies the resource flows exchanged between Services.
<b>Implementation</b> Architecture Relationships Name, Description, of <i>composed of</i> Component (type = Family of Systems/ System Architecture/ System of Systems) Name, Description, <i>augmented by</i> ExternalFile, <i>implements</i> Performer of <i>built from</i> Component (type = Service) Name, Description <i>connected to</i> Link Name, <i>Type of transfers</i> Item  Uses Physical Block Diagram

SvcV-3a Systems-Services Matrix
<b>DoDAF Description:</b> The view identifies the relationships among or between systems and services.
<b>Implementation</b> Architecture Relationships Name, Description, of <i>composed of</i> Component (type = Family of Systems/ System Architecture/ System of Systems) Name, Description of <i>built from</i> Component (type = Service) Name, Description <i>connected to</i> Link Name, Description, Type of <i>connects to</i> Component (type = System, External Service, Human, Facility)

### SvcV-3b Service-Service Matrix

**DoDAF Description:** The view identifies the relationships among services.

#### Implementation

Architecture

Relationships

Name, Description, of *composed of* Component (type = Family of Systems/ System Architecture/ System of Systems)

Name, Description of *built from* Component (type = Service)

Name, Description *connected to* Link

Name, Description, Type of *connects to* Component (type = Service)

### SvcV-4 Services Functionality Description

The **DoDAF Description:** This view identifies the functions (activities) performed by services and the service data flows among service functions (activities).

#### Implementation

Architecture

Relationships

Name, Description, of *composed of* Component (type = Family of Systems/ System Architecture/ System of Systems)

Name, Description of *built from* Component (type = Service)

Name, Description of *performs* Function (behaviorType = Integrated (Services))

Name of *inputs/outputs* Item

Name of *input to/output from* Function

### SvcV-5 Operational Activity to Service Traceability Matrix

**DoDAF Description:** This view identifies the mapping of services back to capabilities or operational activities.

#### Implementation

Architecture

Relationships

Name, Description, of *composed of* Component (type = Family of Systems/ System Architecture/ System of Systems)

Name, Description of *built from* Component (type = Service)

Name, Description of *performs* Function (behaviorType = Integrated (Services))

Name of *implements* OperationalActivity

Name of *performed by* Performer

Name of *based on* Capability

SvcV-6 Services Resource Flow Matrix
<p><b>DoDAF Description:</b> This view provides details of service resource flow entities being exchanged between services and the attributes of that exchange.</p>
<p><b>Implementation Full Matrix</b></p> <p><b>Part 1</b></p> <p>Architecture</p> <p>Relationships</p> <p><i>composed of</i> Component (type = Service)</p> <p><i>built from</i> Component (type = Service)</p> <p>Name of <i>connected to</i> Link</p> <p>Name, Description, Range, Units, Accuracy, Precision, Priority, Media, Timeliness, Size, Size</p> <p>Units, Fields of <i>transfers</i> Item</p> <p><i>implements</i> Needline</p> <p>Name of <i>connects</i><sup>1</sup> to Component (Source)</p> <p>Name of <i>connects</i><sup>1</sup> to Component (Destination)</p> <p><b>Part 2</b></p> <p>Relationships</p> <p><i>specified by</i> Requirement</p> <p>Description</p> <p>Item from Part I</p> <p>Type, Key Performance Parameter</p> <p>Availability, Confidentiality, Integrity</p> <p>Classification, Classification Caveat, Dissemination Control</p> <p><b>Implementation Summary Matrix</b></p> <p>Architecture</p> <p>Relationships</p> <p><i>composed of</i> Performer (type = Component)</p> <p><i>built from</i> Performer (type = Service)</p> <p>Name of <i>connected to</i> Link</p> <p>Name, Description, Accuracy, Timeliness of <i>transfers</i> Item</p> <p>Name <i>connects</i><sup>1</sup> to Component (Source)</p> <p>Name <i>connects</i><sup>1</sup> to Component (Destination)</p> <p><sup>1</sup> <i>connects to</i> Direction attribute determines Source/Destination</p>



## DoDAF 2.0 Viewpoint Definitions

<b>SvcV-7 Services Measures Matrix</b>
<p><b>DoDAF Description:</b> This view provides the measures (metrics) of service entities for the appropriate timeframe(s).</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p style="padding-left: 40px;">Name, Description, of <i>composed of</i> Component (type = Family of Systems / System Architecture / System of Systems)</p> <p style="padding-left: 80px;">Name, Description of <i>built from</i> Component (type = Service)</p> <p style="padding-left: 120px;">Name, Description of <i>performs</i> Function (behaviorType = Integrated (Root))</p> <p style="padding-left: 160px;">Key Performance Parameter of <i>specified by</i> Requirement (type = Performance)</p> <p style="padding-left: 120px;">Name, Description of <i>specified by</i> Requirement (type = Performance)</p> <p style="padding-left: 40px;">Name, Description of <i>connected to</i> Link</p> <p style="padding-left: 80px;">Key Performance Parameter of <i>specified by</i> Requirement (type = Performance)</p> <p style="padding-left: 120px;">Name, Description of <i>specified by</i> Requirement (type = Performance)</p> <p>1 Objective should have three (3) values representing Short-Term, Mid-Term, and Long-Term values.</p>

<b>SvcV-8 Services Evolution Description</b>
<p><b>DoDAF Description:</b> This view identifies the planned incremental steps towards migrating a suite of services to a more efficient suite, or toward evolving a current service to a future implementation.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p style="padding-left: 40px;">Name, Description, of <i>composed of</i> Component (type = Family of Systems/ System Architecture/ System of Systems)</p> <p style="padding-left: 80px;">Name, Description of <i>built from</i> Component (type = Service)</p> <p>The View</p> <p style="padding-left: 40px;">ExternalFilePath of <i>augmented by</i> ExternalFile</p>

<b>SvcV-9 Services Technology Forecast</b>
<p><b>DoDAF Description:</b> This view identifies the emerging technologies, software/hardware products, and skills that are expected to be available in a given set of time frames and that will affect future service development.</p>
<p><b>Implementation</b></p> <p>Architecture</p> <p>Relationships</p> <p style="padding-left: 40px;">Name, Description, of <i>composed of</i> Component (type = Family of Systems/ System Architecture/ System of Systems)</p> <p style="padding-left: 80px;">Name, Description of <i>built from</i> Component (type = Service)</p> <p>The View</p> <p style="padding-left: 40px;">ExternalFilePath of <i>augmented by</i> ExternalFile</p>

### SvcV-10a Services Rules Model

**DoDAF Description:** This view is one of three viewpoints used to describe service functionality. It identifies constraints that are imposed on services functionality due to some aspect of service design or implementation.

#### Implementation

Architecture

Relationships

Name, Description, of *composed of* Component (type = Family of Systems/Systems

Architecture/System of Systems)

Name, Description of *built from* Component (type = Service)

Name of *performs* Function (behaviorType = Integrated (Services))

Name, Description of *based on / specified by* Requirement<sup>1</sup>

Name, Description of *allocated to* Component

Name, Description of *inputs, outputs* Item

Name, Description of *transferred by* Link

Name, Description of *incorporated by to* State, Mode

Note 1: *documented by* Document (type = Guidance or type = Standard)

### SvcV-10b Services State Transition Description

This view is one of three viewpoints used to describe service functionality. It identifies responses of services to events.

#### Implementation

Architecture

Relationships

*composed of* Component (type = Family of Systems/System Architecture/ System of Systems)

*built from* Component (type = Service)

Name, Description, *augmented by* ExternalFile of *exhibits* State

Name, Description, *augmented by* ExternalFile of *includes* State

### SvcV-10c Services Event-Trace Description

This view is one of three viewpoints used to describe service functionality. It identifies service-specific refinements of critical sequences of events described in the Operational Viewpoint.

#### Implementation

Architecture

Relationships

*composed of* Component (type = Family of Systems/System Architecture/ System of Systems)

*built from* Component (type = Service)

Name, Description of *performs* Function (behaviorType = Integrated (Services))

Name *inputs/outputs* Item

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