



# DoDAF v2.0 Viewpoint Definitions



Copyright 2014 Vitech Corporation.  
All Rights Reserved

---

Copyright © 2011-2014 Vitech Corporation. All rights reserved.

No part of this document may be reproduced in any form, including, but not limited to, photocopying, translating into another language, or storage in a data retrieval system, without prior written consent of Vitech Corporation.

Restricted Rights Legend

Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7013.

**Vitech Corporation**

2270 Kraft Drive, Suite 1600  
Blacksburg, Virginia 24060  
540.951.3322 FAX: 540.951.8222  
Customer Support: [support@vitechcorp.com](mailto:support@vitechcorp.com)  
[www.vitechcorp.com](http://www.vitechcorp.com)

GENESYS™ is a trademark of Vitech Corporation.

Other product names mentioned herein are used for identification purposes only, and may be trademarks of their respective companies.

Publication Date: April 2014

GENESYS(R) is a registered trademark of Vitech Corporation.

Other product names mentioned herein are used for identification purposes only, and may be trademarks of their respective companies.

TABLE OF CONTENTS

- General ..... 1
- Definition Layout ..... 1
  - Viewpoint Title ..... 1
- All Viewpoints ..... 2
  - AV-1 Overview and Summary ..... 2
  - AV-2 Integrated Dictionary ..... 2
- Capability Viewpoints ..... 3
  - CV-1 Vision ..... 3
  - CV-2 Capability Taxonomy ..... 3
  - CV-3 Capability Phasing ..... 3
  - CV-4 Capability Dependencies ..... 4
  - CV-5 Capability to Organizational Development Mapping ..... 4
  - CV-6 Capability to Operational Activities Mapping ..... 4
  - CV-7 Capability to Services Mapping ..... 5
- Data and Information Viewpoints ..... 6
  - DIV-1 Conceptual Data Model ..... 6
  - DIV-2 Logical Data Model ..... 6
  - DIV-3 Physical Data Model ..... 6
- Operational Viewpoints ..... 7
  - OV-1 High Level Operational ..... 7
  - OV-2 Operational Resource Flow Description ..... 7
  - OV-3 Operational Resource Flow Matrix ..... 8
  - OV-4 Organizational Relationships Chart ..... 8
  - OV-5a Operational Activity Decomposition Tree ..... 8
  - OV-5b Operational Activity Model ..... 9
  - OV-6a Operational Rules Model ..... 9
  - OV-6b State Transition Description ..... 9
  - OV-6c Event-Trace Description ..... 9
- Project Viewpoints ..... 10
  - PV-1 Project Portfolio Relationships ..... 10
  - PV-2 Project Timelines ..... 10
  - PV-3 Project to Capability Mapping ..... 10
- Standards Viewpoints ..... 11
  - StdV-1-2 Standards Profile ..... 11
- Systems Viewpoints ..... 12
  - SV-1 Systems Interface Description ..... 12
  - SV-2 Systems Resource Flow Description ..... 12
  - SV-3 System-System Matrix ..... 12
  - SV-4 Systems Functionality Description ..... 12
  - SV-5a Operational Activity to System Functions Traceability Matrix ..... 13
  - SV-5b Operational Activity to System Traceability Matrix ..... 13
  - SV-6 Systems Resource Flow Matrix ..... 14
  - SV-6 Systems Resource Flow Summary Matrix ..... 14
  - SV-7 Systems Measures Matrix ..... 15
  - SV-8 Systems Evolution Description ..... 15
  - SV-9 Systems Technology Forecast ..... 16
  - SV-10a Systems Rules Model ..... 16
  - SV-10b Systems State Transition Description ..... 17
  - SV-10c Systems Event-Trace Description ..... 17
- Services Viewpoints ..... 18
  - SvcV-1 Services Interface Description ..... 18
  - SvcV-2 Services Resource Flow Description ..... 18
  - SvcV-3a Systems-Services Matrix ..... 18
  - SvcV-3b Service-Service Matrix ..... 19



SvcV-4 Services Functionality Description ..... 19  
SvcV-5 Operational Activity to Service Traceability Matrix..... 19  
SvcV-6 Services Resource Flow Matrix ..... 20  
SvcV-7 Services Measures Matrix..... 21  
SvcV-8 Services Evolution Description ..... 21  
SvcV-9 Services Technology Forecast..... 21  
SvcV-10a Services Rules Model ..... 22  
SvcV-10b Services State Transition Description..... 22  
SvcV-10c Services Event-Trace Description..... 22



## GENERAL

The follow instructions identify the entities that appear in the various 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 DoDAF v20 Schema v30.

The file ‘...GENESYS 3 Collaborative Edition/Samples/Extensions/DoDAF 2.0 Viewpoint Template.gnsx must be imported into the current project. This file contains a default set of Document entities. There is a Document entity in the DoDAF Viewpoints folder for each viewpoint available.

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.

All viewpoints are based on the user selected Architecture. The selected Architecture must be *reported by* the Document ‘DoDAF Viewpoints’ found in the folder Document/DoDAF Viewpoints.

While not required, it is recommended that the user runs the wizard ‘Assign Documentation PUID.’

## 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> <ul style="list-style-type: none"> <li>Architecture           <ul style="list-style-type: none"> <li>Attributes               <ul style="list-style-type: none"> <li>Description</li> <li>Purpose</li> <li>Scope</li> <li>Time Frame</li> </ul> </li> <li>Relationships               <ul style="list-style-type: none"> <li>Description of achieves Mission augmented by ExternalFile, Text</li> <li>Description of augmented by Text</li> <li>Architecture <i>specified by</i> Capability</li> <li>Architecture <i>specified by</i> Requirement                   <ul style="list-style-type: none"> <li>Name, Description of <i>assigned to</i> Organization</li> <li>Name of Document of Type Goal</li> <li>Name of Document of Type Guidance</li> <li>Name of Document of Type Standard</li> </ul> </li> </ul> </li> </ul> </li> </ul> <p>Uses Architecture Hierarchy</p>

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> <ul style="list-style-type: none"> <li>Architecture           <ul style="list-style-type: none"> <li>Relationships               <ul style="list-style-type: none"> <li>Name, Acronym, Description of <i>uses</i> DefinedTerm</li> </ul> </li> </ul> </li> </ul>

**CAPABILITY VIEWPOINTS**

<b>CV-1 Vision</b>
<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
<b>CV-2 Capability Taxonomy</b>
<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
<b>CV-3 Capability Phasing</b>
<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 Capability</i> Name, Description <i>categorizes Capability of categorized by Category</i> Name, Description <i>categorizes Capability of includes Category</i>
Uses Capability Dependencies Hierarchy

CV-5 Capability to Organizational Development Mapping
<b>DoDAF Description:</b> This view presents the fulfillment of capability requirements 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.
<b>Implementation</b> Architecture Relationships <i>specified by Capability</i> <i>refined by Capability</i> Name, Description, of <i>supplied by ProgramElement</i> Name of <i>assigned to Organization</i>
Uses Capability to Organization Hierarchy

CV-6 Capability to Operational Activities Mapping
<b>DoDAF Description:</b> This view presents a mapping between the capabilities required and the operational activities that those capabilities support.
<b>Implementation</b> Architecture Relationships <i>specified by Capability</i> <i>refined by Capability</i> Name, Description of <i>basis of OperationalActivity</i> Name <i>allocated to Performer</i>
Uses Capability to Operational Activities Hierarchy



CV-7 Capability to Services Mapping
<b>DoDAF Description:</b> This view presents a mapping between the capabilities and the services that these capabilities enable.
<b>Implementation</b> Architecture Relationships Name, Description of <i>specified by</i> Capability Name, Description of <i>refined by</i> Capability <i>basis of</i> OperationalActivity <i>allocated to</i> Performer <sup>1</sup> Name, Description of <i>joins</i> Performer  1 Performer (Type = 'Service Functional Provider')

## DATA AND INFORMATION VIEWPOINTS

### DIV-1 Conceptual Data Model

**DoDAF Description:** This view presents the high-level data concepts and their relationships.

#### Implementation

Architecture  
 Relationships  
   *composed of* Component, Performer  
   *built from* Component, Performer  
   *performs* Function, OperationalActivity  
   *inputs, outputs, triggered by* Item, OperationalItem  
   Name  
   *specified by* Requirement  
   Name, Description

### DIV-2 Logical Data Model

**DoDAF Description:** This view presents the documentation of the data requirements and structural business process (activity) rules. In DoDAF V1.5, this was the OV-7.

#### Implementation

Architecture  
 Relationships  
   *composed of* Performer  
   *built from* Performer  
   *performs* OperationalActivity  
   *inputs, outputs, triggered by* OperationalItem  
     Name, Description, Type, Size, size Units, Priority, Accuracy, Timeliness of *transfers*  
 OperationalItem  
   *decomposed by* OperationalItem  
     Decomposes Name  
   *connected to* Needline  
   *transfers* OperationalItem  
     Name, Description, Type, Size, size Units, Priority, Accuracy, Timeliness of *transfers*  
 OperationalItem

### DIV-3 Physical Data Model

**DoDAF Description:** 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.

#### Implementation

Architecture  
 Relationships  
   *composed of* Component (Type = Family of Systems/Systems Architecture/System of Systems)  
   *built from* Component (Type = System, Service)  
   *connected to* Link  
   *transfers* Item  
     Name, Description, Type, Size, Size Units, Priority, Accuracy, Timeliness, Format Type, Media

**OPERATIONAL VIEWPOINTS**

<b>OV-1 High Level Operational</b>
<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              Relationships                <i>composed of</i> Performer (Type = OperationalArchitecture)                <i>built from</i> Performer (Type = Organization, Human, Service Consumer. Service Functionality Provider, Unanticipated User)                <i>augmented by</i> ExternalFile                Description of augmented by Text</p> <p>Uses Physical Hierarchy</p>

<b>OV-2 Operational Resource Flow Description</b>
<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</p> <p>Uses Physical Block Diagram</p>

<b>OV-3 Operational Resource Flow Matrix</b>
<b>DoDAF Description:</b> This view presents a description of the resources exchanged and the relevant attributes of the exchanges.
<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  1 <i>connects to</i> Direction attribute determines Source/Destination

<b>OV-4 Organizational Relationships Chart</b>
<b>DoDAF Description:</b> This view presents the organizational context, role, or other relationships among organizations.
<b>Implementation</b> Architecture Relationships Name, Description, Role, Location of <i>assigned to</i> Organization Name <i>coordinates with</i> Organization  Uses Organization Hierarchy

<b>OV-5a Operational Activity Decomposition Tree</b>
<b>DoDAF Description:</b> This view presents the capabilities and activities (operational activities) organized in a hierarchal structure.
<b>Implementation</b> Architecture Relationships Name of <i>specified by</i> Capability Name, Description of <i>specified by</i> Capability Name, Description of <i>refined by</i> Capability Name of <i>basis of</i> OperationalActivity Name of <i>performed by</i> 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/triggered by* OperationalItem

Name of *input to/output from/triggers* 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/triggered by/outputs* OperationalItem

**PROJECT VIEWPOINTS**

<b>PV-1 Project Portfolio Relationships</b>
<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>                      Architecture                      Relationships                          <i>implemented by</i> ProgramElement                              Name, Description of <i>includes</i> ProgramElement                              Name Location of <i>assigned to</i> Organization</p> <p>Uses Work Breakdown Structure Hierarchy</p>

<b>PV-2 Project Timelines</b>
<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>                      Architecture                      Relationships                          Name, Contract Number of <i>implemented by</i> ProgramElement                              <i>augmented by</i> ExternalFile                          Name, Description, Type Start Date, End Date of <i>includes</i> ProgramElement</p>

<b>PV-3 Project to Capability Mapping</b>
<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>                      Architecture                      Relationships                          <i>implemented by</i> ProgramElement                              Name, Description of <i>includes</i> ProgramElement                              Name, Description of <i>supplies</i> Capability</p> <p>Uses Project Portfolio Hierarchy</p>

STANDARDS VIEWPOINTS

<b>StdV-1-2 Standards Profile</b>
<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> <p>Architecture</p> <p>Relationships</p> <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>joined to</i> Interface</li> <li>Name of <i>connected to</i> Link</li> <li>Name of <i>performs</i> Function</li> <li>Name of inputs/triggered by/outputs of <i>Item</i> <ul style="list-style-type: none"> <li>Name of Documents of type Standard <i>specified by</i> Component, Interface, Link, Function, and Items</li> </ul> </li> </ul> <p>Name, Description, Entities Affected, Standard Type</p> <p>Name, Govt Category/Non-Govt Category of <i>documented by</i> Document</p>

## SYSTEMS VIEWPOINTS

### SV-1 Systems Interface Description

**DoDAF Description:** This view identifies systems, system items, and their interconnections.

#### Implementation

Architecture

Relationships

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

Name, Description, *augmented by* ExternalFile, *implements* Performer of *built from* Component (type = System)

Name, Description *joined to* Interface

Name, Description *comprised of* Link

Name, *Type of transfers* Item

Name of *joins to* Component

Uses Interface Block Diagram

### SV-2 Systems Resource Flow Description

**DoDAF Description:** The view identifies the resource flows exchanged between systems.

#### Implementation

Architecture

Relationships

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

Name, Description, *augmented by* ExternalFile, *implements* Performer of *built from* Component (type = System)

Name, Description *connected to* Link

Name, *Type of transfers* Item

Uses Interface Block Diagram

### SV-3 System-System Matrix

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

#### 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, Description *joined to* Interface

Name, Description, *Type of joins to* Component (type = System, External System, Human, Facility)

### SV-4 Systems Functionality Description

**The DoDAF Description:** The view identifies the functions (activities) performed by systems and the system data flows among system functions (activities).



<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 <i>performs</i> (type = #integrated (Root)) Function</li> <li>Name of <i>inputs/outputs/triggered by</i> Item</li> <li>Name of <i>input to/output from/triggers</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 <i>performs</i> Function</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 <i>performs</i> (type = #integrated (Root)) Function</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

**DoDAF Description:** This view provides details of system resource flow entities being exchanged between systems and the attributes of that exchange.

#### Implementation

##### Part 1

Architecture

Relationships

*composed of* Component (Type = System)

*built from* Component (Type = System)

Name of *connected to* Link

Name, Description, Accuracy, Timeliness, Size, Size Units, of *transfers* Item

Name of *connects*<sup>1</sup> to Performer

##### Part 2

Relationships

*specified by* Requirement

Description

Name, Description, Media of associated Item from Part 1

Type, Key Performance Parameter of associated Item from Part 1

Name of *categorized by* Category

Security Level or Name, Classification Category, Dissemination Control of *classified by* Classification

<sup>1</sup> connects to Direction attribute determines Source/Destination

### SV-6 Systems Resource Flow Summary Matrix

**DoDAF Description:** This summary view provides details of system resource flow entities being exchanged between systems and the attributes of that exchange.

#### Implementation

Architecture

Relationships

*composed of* Performer (Type = Component)

*built from* Performer (Type = Service)

Name of *connected to* Link

Name, Description, Accuracy, Timeliness of *transfers* Item

Name *connects*<sup>1</sup> to Component (Source)

Name *connects*<sup>1</sup> to Component (Destination)

<sup>1</sup> connects to Direction attribute determines Source/Destination

<b>SV-7 Systems Measures Matrix</b>
<p><b>DoDAF Description:</b> This view provides the measures (metrics) of systems entities for the appropriate timeframe(s)<sup>1</sup>.</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 (type = #Integrated (Root))</i> Function</p> <p style="padding-left: 60px;">Key Performance Parameter of <i>specified by</i> Requirement (type = Performance)</p> <p style="padding-left: 60px;">Name, Description of <i>specified by</i> Requirement (type = Performance)</p> <p style="padding-left: 40px;">Name of <i>connected to</i> Link</p> <p style="padding-left: 60px;">Key Performance Parameter of <i>specified by</i> Requirement (type = Performance)</p> <p style="padding-left: 60px;">Name, Description of <i>specified by</i> Requirement (type = Performance)</p> <p><small>1 Objective should have three (3) values representing Short-Term, Mid-Term, and Long-Term values.</small></p>

<b>SV-8 Systems Evolution Description</b>
<p><b>DoDAF Description:</b> 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.</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>The View</p> <p style="padding-left: 20px;">ExternalFilePath of <i>augmented by</i> ExternalFile</p>

### 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

### SV-10a Systems Rules Model

**DoDAF Description:** 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.

#### 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*<sup>1</sup> Function

Name, Description of *based on/ specified by* Requirement<sup>2</sup>

Name, Description of *connected to* Component

Name, Description of *joins to* Interface

Name, Description of *connected to* Item

Name, Description of *connected to* Link

Name, Description of *connected to* State

<sup>1</sup> *performs* Behavior Type: = Integrated (Root)

<sup>2</sup> *documented by* Document (type = Guidance or type = Standard)

SV-10b Systems State Transition Description
<b>DoDAF Description:</b> This view is one of three viewpoints used to describe system functionality. It identifies responses of systems to events.
<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>augmented by</i> ExternalFile of <i>exhibits</i> State Name, Description, <i>augmented by</i> ExternalFile of <i>decomposed by</i> State

SV-10c Systems Event-Trace Description
<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.
<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 of <i>performs</i> Function Name <i>inputs/triggered by/outputs</i> Item

## SERVICES VIEWPOINTS

### SvcV-1 Services Interface Description

**DoDAF Description:** This view identifies services, service items, and their interconnections.

#### Implementation

Architecture

Relationships

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

Name, Description, *augmented by* ExternalFile, *implements* Performer of *built from* Component (type = Service)

Name, Description *joined to* Interface

Name, Description *comprised of* Link

Name, *Type of transfers* Item

Name of *joins to* Component

Uses Interface Block Diagram

### SvcV-2 Services Resource Flow Description

**DoDAF Description:** The view identifies the resource flows exchanged between Services.

#### Implementation

Architecture

Relationships

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

Name, Description, *augmented by* ExternalFile, *implements* Performer of *built from* Component (type = Service)

Name, Description *connected to* Link

Name, *Type of transfers* Item

Uses Interface Block Diagram

### SvcV-3a Systems-Services Matrix

**DoDAF Description:** The view identifies the relationships among or between systems and 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 *joined to* Interface

Name, Description, Type of *joins to* Component (type = System, External Service, Human, Facility)

<b>SvcV-3b Service-Service Matrix</b>
<b>DoDAF Description:</b> The view identifies the relationships among 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>joined to</i> Interface Name, Description, Type of <i>joins to</i> Component (type = Service)

<b>SvcV-4 Services Functionality Description</b>
The <b>DoDAF Description:</b> This view identifies the functions (activities) performed by services and the service data flows among service functions (activities).
<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>performs (type = #integrated (Services))</i> Function Name of <i>inputs/outputs/triggered by</i> Item Name of <i>input to/output from/triggers</i> Function

<b>SvcV-5 Operational Activity to Service Traceability Matrix</b>
<b>DoDAF Description:</b> This view identifies the mapping of services back to capabilities or operational activities.
<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>performs (type = #integrated (RServices))</i> Function Name of <i>implements</i> OperationalActivity Name of <i>performed by</i> Performer Name of <i>based on</i> Capability

### SvcV-6 Services Resource Flow Matrix

**DoDAF Description:** This view provides details of service resource flow entities being exchanged between services and the attributes of that exchange.

#### Implementation Full Matrix

##### Part 1

Architecture

Relationships

*composed of* Component (Type = Service)

*built from* Component (Type = Service)

Name of *connected to* Link

Name, Description, Range, Units, Accuracy, Precision, Priority, Media, Timeliness, Size, Size Units,

Fields of *transfers* Item

*implements* Needline

Name of *connects*<sup>1</sup> to Component (Source)

Name of *connects*<sup>1</sup> to Component (Destination)

##### Part 2

Relationships

*specified by* Requirement

Description

Item from Part I

Type, Key Performance Parameter

Availability, Confidentiality, Integrity

Classification, Classification Caveat, Dissemination Control

#### Implementation Summary Matrix

Architecture

Relationships

*composed of* Performer (Type = Component)

*built from* Performer (Type = Service)

Name of *connected to* Link

Name, Description, Accuracy, Timeliness of *transfers* Item

Name *connects*<sup>1</sup> to Component (Source)

Name *connects*<sup>1</sup> to Component (Destination)

<sup>1</sup> *connects to* Direction attribute determines Source/Destination



### SvcV-7 Services Measures Matrix

**DoDAF Description:** This view provides the measures (metrics) of service entities for the appropriate timeframe(s).

#### 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 *performs* (type = #integrated (Root)) Function

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

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

Name, Description of *connected to* Link

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

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

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

### SvcV-8 Services Evolution Description

**DoDAF Description:** 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.

#### 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)

The View

ExternalFilePath of *augmented by* ExternalFile

### SvcV-9 Services 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 service development.

#### 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)

The View

ExternalFilePath of *augmented by* ExternalFile

<b>SvcV-10a Services Rules Model</b>
<p><b>DoDAF Description:</b> 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.</p>
<p><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 = Service)                  Name of <i>performs</i><sup>1</sup> Function                    Name, Description of <i>based on / specified by</i> Requirement<sup>2</sup>                    Name, Description of <i>connected to</i> Component                    Name, Description of <i>joins to</i> Interface                    Name, Description of <i>inputs, outputs, triggered by</i> Item                    Name, Description of <i>connected to</i> Link                    Name, Description of <i>exhibited by to</i> State, Mode</p> <p>1 <i>performs</i> Behavior Type: = Integrated (Services)            2 <i>documented by</i> Document (type = Guidance or type = Standard)</p>

<b>SvcV-10b Services State Transition Description</b>
<p>This view is one of three viewpoints used to describe service functionality. It identifies responses of services to events.</p>
<p><b>Implementation</b>            Architecture              Relationships                <i>composed of</i> Component (type = Family of Systems/System Architecture/ System of Systems)                <i>built from</i> Component (type = Service)                Name, Description, <i>augmented by</i> ExternalFile of <i>exhibits</i> State                Name, Description, <i>augmented by</i> ExternalFile of <i>includes</i> State</p>

<b>SvcV-10c Services Event-Trace Description</b>
<p>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.</p>
<p><b>Implementation</b>            Architecture              Relationships                <i>composed of</i> Component (type = Family of Systems/System Architecture/ System of Systems)                <i>built from</i> Component (type = Service)                Name, Description of <i>performs</i><sup>1</sup> Function                Name <i>inputs/triggered by/outputs</i> Item</p> <p>1 <i>performs</i> behaviorType = Integrated (Services)</p>