U.S. Department
of Transportation

**Federal Aviation
Administration**

U.S. Department of Transportation

Federal Aviation Administration

Standard Practice

WEB SERVICE TAXONOMIES

FOREWORD

This standard is approved for use by all Departments of the Federal Aviation Administration (FAA).

 It specifies the minimum set of taxonomies for categorizing services metadata within the FAA.

This standard is one of several related standards that together define FAA's requirements for describing and registering services. A future Handbook will provide guidance for using these standards in concert with the FAA Enterprise Architecture, FAA Order 1375.1 Information/Data Management, and other relevant FAA initiatives.

This standard has been prepared in accordance with FAA-STD-068 U.S Department of Transportation Federal Aviation Administration, *Preparation of Standards (Dec*ember 2009).

Comments, suggestions, or questions on this document shall be addressed to:

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> ATO-P/SE
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1   SCOPE

This standard specifies the minimum set of <u>taxonomies</u> needed to describe FAA <u>web services</u> and to be used in <u>FAA-affiliated service registries</u>, web service-related artifacts and <u>semantic models</u>.

The standard does not preclude but rather encourages the use of additional <u>taxonomies</u> that may be relevant to a particular service <u>registry</u>, and it provides requirements for documenting the content and structure of the additional taxonomies.

The standard does not dictate the technology to be used to support the implementation of these taxonomies. FAA programs and developers of various artifacts are encouraged to use a range of technologies.

1.1 Purpose

The purpose of this standard is twofold. First, it establishes a paradigm for effectively defining and describing taxonomies. Second, it provides a common set of taxonomies, based on government and industry architectural models and best practices, by which to describe, register and discover web services in FAA's net-centric environment.

1.2 Intended Use

A <u>taxonomy</u>, as defined and used by this standard, is a hierarchical organization of categories or values used for classification. Classification helps <u>users</u> to find a single object from among a large collection of objects and facilitates the administration and analysis of a collection of objects.

Discovery of information in a variety of registries and across large numbers of artifacts often is impeded by differences in semantic and descriptive practices among diverse business <u>domains</u>. Taxonomies provide cross-domain lists of approved terms that will be used as values in a variety of artifacts and semantic constructs.

Enforcing the usage of the values in the taxonomies provided by this standard to <u>categorize</u> web services and their attributes facilitates and promotes uniform searches across all FAA registries and artifacts and increases the visibility, accessibility and <u>semantic interoperability</u> of services, both within and outside the agency.   These values may be made available in various kinds of registries and artifacts, discovered using various tools, and selected using various kinds of matchmaking techniques.

This standard encourages users to apply multiple taxonomies to individual entities; that is, to categorize every registered/described service by all applicable taxonomies provided in this standard. Doing so provides an important leverage in accurately representing an <u>entity</u> in all its multifaceted complexity and orchestrates a union of different values into a multiplicity of combinations. For example, a user might be

interested in finding a service that (1) uses HTTP as its transport protocol, (2) is provided by FAA and (3) performs a weather forecast service. Matching on just one of these properties is not as powerful as being able to match on the combination of properties.

Employing taxonomies that represent similar concepts but originate from different sources allows using the cross-architecture, cross-domain views of the entities to facilitate semantic interoperability among the different organizations and business units. Categorizing an entity using taxonomies recognized at various levels of visibility will increase the discoverability of that entity in many ways inside and outside the FAA. This standard deploys three such levels of visibility and encourages a user to add a fourth business domain-specific level. The sets of taxonomies that represent those levels are:

- Global and international taxonomies
- Federal Enterprise Architecture (FEA) taxonomies
- FAA general use taxonomies
- Business domain-specific taxonomies

This approach is depicted in Figure 1.
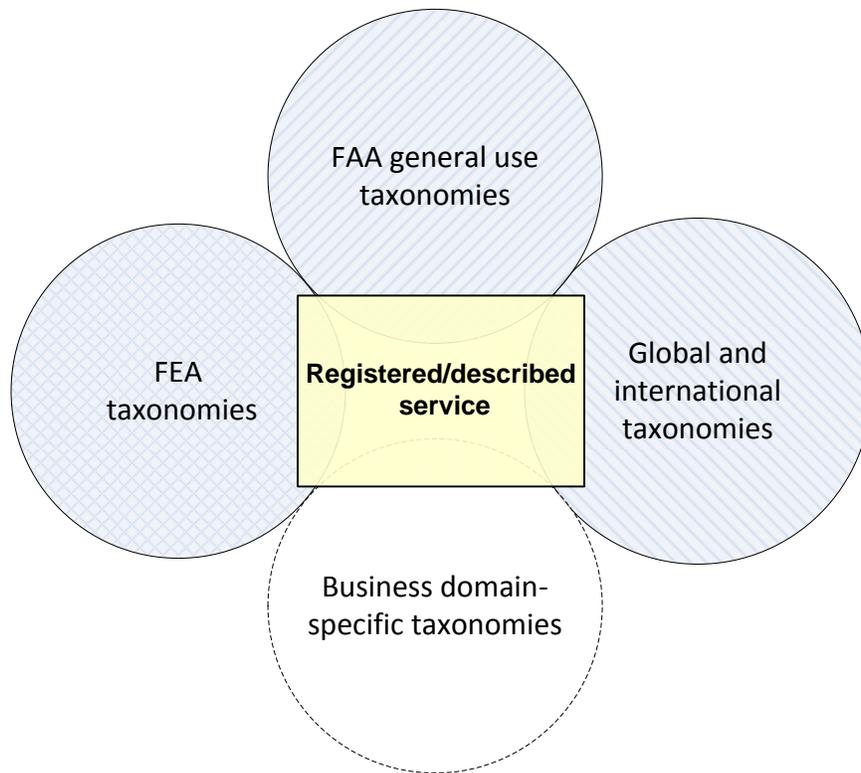
Figure 1 Taxonomy Visibility Levels

The following paragraphs describe these sets of taxonomies in more detail.

Global and International Taxonomies

Categorizing services and products with common internationally recognized coding schemes facilitates semantic Interoperability and information exchange. To provide FAA with a global/international level of visibility suitable to FAA's potential business users and partners from the world-wide aviation community, this standard includes two such taxonomies:

- North American Industry Classification System (NAICS) – supports industries categorization [19]
- United Nations Standard Products and Services Code (UNSPSC®) – supports products and services categorization [25]

Both taxonomies are part of the basic deployment package for most commercial implementations of a service registry and do not ordinarily need to be separately acquired and/or installed.

Federal Enterprise Architecture (FEA) Taxonomies

The taxonomies presented in this section are adopted from the Office of Management and Budget's Federal Enterprise Architecture (FEA) Consolidated Reference Model (CRM) version 2.3 [8] as a way of enhancing cross-agency visibility of FAA-affiliated registries. The FEA CRM consists of five reference models that "collectively… comprise a framework for describing important elements of the FEA in a common and consistent way." [8] These reference models are:

- Performance Reference Model (PRM)
- Business Reference Model (BRM)
- Service Component Reference Model (SRM)
- Technical Reference Model (TRM)
- Data Reference Model (DRM)

The complete FEA CRM v.2.3 can be found at http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf. An XML version is available at http://www.whitehouse.gov/omb/assets/fea_docs/FEA_XML_Doc_Rev_2_3.xml.
NOTE: the DRM is not part of the XML version, but is described in a separate document available at http://www.whitehouse.gov/omb/assets/egov_docs/DRM_2_0_Final.pdf.

Every reference model is constructed from a number of heterogeneous hierarchically-tiered sets of elements which are uniquely defined in each model. To present them in the manner prescribed by section 5.1, Taxonomy Structure and Content, all taxonomies were "flattened", that is, restructured to fit into a homogeneous set of nodes as shown in their respective List of Values sections.

The FEA taxonomies are:

- Services for Citizens
- Legislative Compliance

- Delivery Channel
- Service Transport

FAA General Use Taxonomies

To present the FAA layer of visibility, this standard uses various FAA artifacts as sources for taxonomies. These taxonomies are:

- FAA Office
- FAA Service Category
- Service Criticality
- Lifecycle Stage
- Message Exchange Pattern
- Service Visibility

Business Domain-Specific Taxonomies

Business domain-specific taxonomies are not part of this standard; rather, they are expected to be provided by developers of services and by [registry administrators](#).

1.3 Applicability

This standard is applicable to all FAA programs responsible for describing and registering information about web services. It is intended to be used by the FAA and associated contractors responsible for specifying services to be [published](#) in an FAA-affiliated service registry.

2 APPLICABLE DOCUMENTS

2.1 Government Documents

[1] FAA Order 1370.84: Internet Services (available internally; contact 9-AWA-AIO-Directives@faa.gov)

[2] FAA Order 1370.93: FAA Web Management (http://www.faa.gov/documentLibrary/media/Order/1370.93.pdf)

[3] FAA Order 1375.1D: Information/Data Management (http://www.faa.gov/about/office_org/headquarters_offices/aio/library/)

[4] FAA Order 1600.75: Protecting Sensitive Unclassified Information (SUI) (http://www.faa.gov/documentLibrary/media/directives/nd/ND1600-75.pdf)

[5] FAA-STD-063: XML Namespaces (http://www.faa.gov/air_traffic/nas/system_standards/)

[6] FAA-STD-064: Web Service Registration (http://www.faa.gov/air_traffic/nas/system_standards/)

[7] FAA-STD-065: Preparation of Web Service Description Documents (http://www.faa.gov/air_traffic/nas/system_standards/)

[8] FEA Consolidated Reference Model Document Version 2.3, October 2007 (http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf)

[9] FEA Data Reference Model Version 2.0 November 17, 2005 (http://www.whitehouse.gov/omb/assets/egov_docs/DRM_2_0_Final.pdf)

[10] Federal Information Security Management Act of 2002 44 U.S.C. § 3541 (http://csrc.nist.gov/drivers/documents/FISMA-final.pdf)

[11] FIPS PUB 199: Standards for Security Categorization of Federal Information and Information Systems: February 2004 (http://csrc.nist.gov/publications/fips/fips199/FIPS-PUB-199-final.pdf)

[12] FIPS PUB 200: Minimum Security Requirements for Federal Information and Information Systems: March 2006 (http://csrc.nist.gov/publications/fips/fips200/FIPS-200-final-march.pdf)

[13] NAS System Requirements Specifications NAS SR-1000: Revision B: June 2008 (https://nasea.faa.gov/views/products/requirements/NAS_SR-1000-Rev_B_V3.2.2_Final.pdf)

[14] Recommended Security Controls for Federal Information Systems and Organizations: NIST Special Publication 800-53 Revision 3: August 2009 (http://csrc.nist.gov/publications/nistpubs/800-53-Rev3/sp800-53-rev3-final-errata.pdf)

2.2 Non-Government Standards and Other Publications

[15] DCMI Glossary, Dublin Core Metadata Initiative, User Guide Committee, 7 November 2005 (http://dublincore.org/documents/usageguide/glossary.shtml)

[16] ISO/IEC 6523-1:1998 Structure for the identification of organizations and organization parts (http://www.iso.org/iso/catalogue_detail?csnumber=25773)

[17] ISO/IEC 11179: Information Technology – Metadata Registries (MDR), Parts 1 – 6 (http://metadata-standards.org/11179/)

[18] ISO/IEC FCD 20944-1 Information technology - Metadata Registries Interoperability and Bindings (MDR-IB) - Part 1: Framework, common vocabulary, and common provisions for conformance, 2008-05-23 (http://metadata-stds.org/20944/index.html)

[19] NAICS: North American Industry Classification System (http://www.census.gov/epcd/www/naics.html)

[20] RFC 2119: Key words for use in RFCs to Indicate Requirement Levels, March 1997 (http://www.ietf.org/rfc/rfc2119.txt)

[21] RFC 3198: Terminology for Policy-Based Management, Network Working Group, November 2001 (http://www.ietf.org/rfc/rfc3198.txt)

[22] RFC 3986: Uniform Resource Identifier (URI): Generic Syntax: Network Working Group, January 2005 (http://www.rfc-editor.org/rfc/rfc3986.txt)

[23] Semantic Annotations for WSDL and XML Schema – W3C Recommendation 28 August 2007 (http://www.w3.org/TR/sawsdl/)

[24] UDDI Version 3.0.2: UDDI Spec Technical Committee Draft, Dated 20041019 (http://uddi.org/pubs/uddi-v3.0.2-20041019.htm)

[25] UNSPSC: The United Nations Standard Products and Services Code® (http://www.unspsc.org/)

[26] Web Services Description Language (WSDL) Version 2.0 Part 2: Message Exchange Patterns, W3C Working Draft 26 March 2004 (http://www.w3.org/TR/2004/WD-wsdl20-patterns-20040326)

2.3 Order of Precedence

In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3   DEFINITIONS

3.1 Key Words

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [20]. These keywords are capitalized when used to unambiguously specify requirements. When these words are not capitalized, they are meant in their natural-language sense.

All examples in the document are labeled as "non-normative", which means they are not to provide a canonical implementation for use in a registry or artifact, but merely to illustrate technical features of a particular approach.

3.2 Terms and Definitions

Categorization   The process of classifying or assigning items into categories or groups based on characteristics which the items have in common.

Creator   The person, organization, or service primarily responsible for developing the content of the taxonomy. (Adapted from DCMI Glossary [15])

Description	An account of the content of the taxonomy. (Adapted from DCMI Glossary [15])
Domain	A collection of elements and services, administered in a coordinated fashion. (RFC 3198 [21])
Entity	An instance of a persistent data structure inside a registry that represents a particular and discrete unit of information.
FAA-Affiliated Registry	An FAA registry that implements sharing of information with other registries within the FAA. (FAA-STD-064 [6])
FAA Data Registry (FDR)	The official source of the FAA's data standards. The FDR (http://fdr.gov/fdr/Home.jsp) is a web-enabled system that provides ready access to the agency's standards and is compliant with the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) Standard 11179 [17]. (FAA Order 1375.1 [3])
Format	The physical or digital manifestation of the taxonomy. Typically, Format may include the media-type or dimensions of the taxonomy. Examples of dimensions include size and duration. (Adapted from DCMI Glossary [15])
ID	See Identifier.
Identifier	A sequence of characters, capable of uniquely identifying that with which it is associated, within a specified context. (ISO/IEC 11179 [17])
Hierarchical Model	A data model whose pattern of structure is based on a tree structure; that is, a data structure that arranges entities or attributes as nodes, with at most one parent node for each node, and with only one root node. (Adapted from ISO/IEC 20944 [18])
Metadata	Data that defines or describes other data. (ISO/IEC 11179-1 [17])
Namespace	A collection of names, identified by a URI reference, that are used in XML documents as element types and attribute names. The use of XML namespaces to uniquely identify metadata terms allows those terms to be unambiguously used across applications, promoting the possibility of shared semantics. (DCMI Glossary [15])
Node	A point from which subordinate items originate within a taxonomy. (ISO/IEC 20944 [18])
Parent Node	A node to which at least one other node is directly subordinate. (ISO/IEC 20944 [18])

Child Node   A subordinate node. See also parent node.

Root Node   A node that has no parent node. (ISO/IEC 20944 [18])

Organization   A unique framework of authority within which a person or persons act, or are designated to act, towards some purpose. (ISO/IEC 6523-1:1998, 3.10 [16])

Publish   The act of placing one or more entities in a registry by invoking one of the publication APIs.

Publisher   Any client who publishes in a registry.

Registry   An enabling infrastructure that uses a formal registration process to store, catalog, and manage metadata relevant to the services. A registry supports the search, identification, and understanding of resources, as well as query capabilities.

Registry Administrator   A person or group who sets the policies for a registry and is responsible for service registration functions and registry operations.

Resource   An object of information that is available on an internet and identified by a unique Uniform Resource Identifier.

Rights   Information about Intellectual Property Rights (IPR), Copyrights, and various Property Rights held in and over the taxonomy. (Adapted from DCMI Glossary [15])

Semantic Interoperability   Ability to search for digital information across heterogeneous distributed databases whose metadata schemas have been mapped to one another. It is achieved through agreements about content description standards; for example, Dublin Core, Anglo-American Cataloging Rules. (DCMI Glossary [15])

Semantic Model   A set of machine-interpretable representations used to model an area of knowledge or some part of the world, including software. Examples of such models are ontologies that embody some community agreement, logic-based representations, etc. Depending upon the framework or language used for modeling, different terminologies exist for denoting the building blocks of semantic models. (Semantic Annotations [23])

Service   An implementation-independent reusable operational function that may be discovered as self-describing interfaces, and invoked using open standard protocols across networks. See also Web service.

Service Registry   See Registry.

Source	A reference to a taxonomy from which the present taxonomy is derived. The present taxonomy may be derived from the Source taxonomy in whole or part. (Adapted from DCMI Glossary [15])
Taxonomy	A system or controlled list of values ("nodes") by which to categorize or classify objects.
Title	The name given to the taxonomy by which the taxonomy is known. (Adapted from DCMI Glossary [15])
Uniform Resource Identifier (URI)	A compact string of characters for identifying an abstract or physical resource.（RFC 3986 [22])
Uniform Resource Locator (URL)	A type of URI that identifies a resource via a representation of its primary access mechanism (e.g., its network "location"), rather than by some other attributes it may have.（RFC 3986 [22])
User	A person or organization that makes use of a taxonomy.
Web Service	A self-describing, self-contained, modular unit of software application logic that provides defined business functionality. Web services are consumable software services that typically include some combination of business logic and data. (FAA Order 1375.1 [3])

3.3 Abbreviations

API	Application Programming Interface
DCMI	Dublin Core Metadata Initiative
FDR	FAA Data Registry
FDGB	FAA Data Governance Board
FEA CRM	Federal Enterprise Architecture Consolidated Reference Model
ISO/IEC	International Organization for Standardization/International Electrotechnical Commission
NAICS	North American Industry Classification System
OWL	Ontology Web Language
RDF	Resource Description Framework
UDDI	Universal Description, Discovery and Integration
UNSPSC	United Nations Standard Products and Services Code System
XML	eXtensible Mark-up Language

4   GENERAL REQUIREMENTS

This section contains general requirements for all taxonomies presented herein as well as for establishing and documenting new taxonomies.

a. All taxonomies SHALL be specified as described in section 5.1, Taxonomy Structure and Content, and section 5.2, Documenting a Taxonomy.

b. All taxonomies listed in section 5.3, Required Taxonomies, SHALL be established and deployed in an FAA-affiliated service registry as described in FAA-STD-064, Web Service Registration [6].

c. All taxonomies listed in section 5.3, Required Taxonomies, SHALL be employed for describing web services as described in FAA-STD-065, Preparation of Web Service Description Documents [7].

5   DETAILED REQUIREMENTS

This section presents detailed requirements for documenting the structure and content of new taxonomies, and it provides the list of required taxonomies documented in the same fashion.

Note: this standard does not prescribe any specific format or method for defining, storing, transporting, or using taxonomies. While this standard uses human-readable text to describe taxonomies, it is obvious that many users will utilize taxonomies deployed as XML artifacts (e.g., Web service registries, XML/RDF/OWL-based semantic models). See section 6, Notes, for examples of such rendering.

5.1 Taxonomy Structure and Content

This section presents requirements pertaining to a taxonomy's structure and content.

a. A taxonomy SHALL conform to a hierarchical model (i.e., the taxonomy forms a tree structure with at most one parent node for each node, and with only one root node).

Figure 2 depicts the structure of a hierarchical taxonomy.
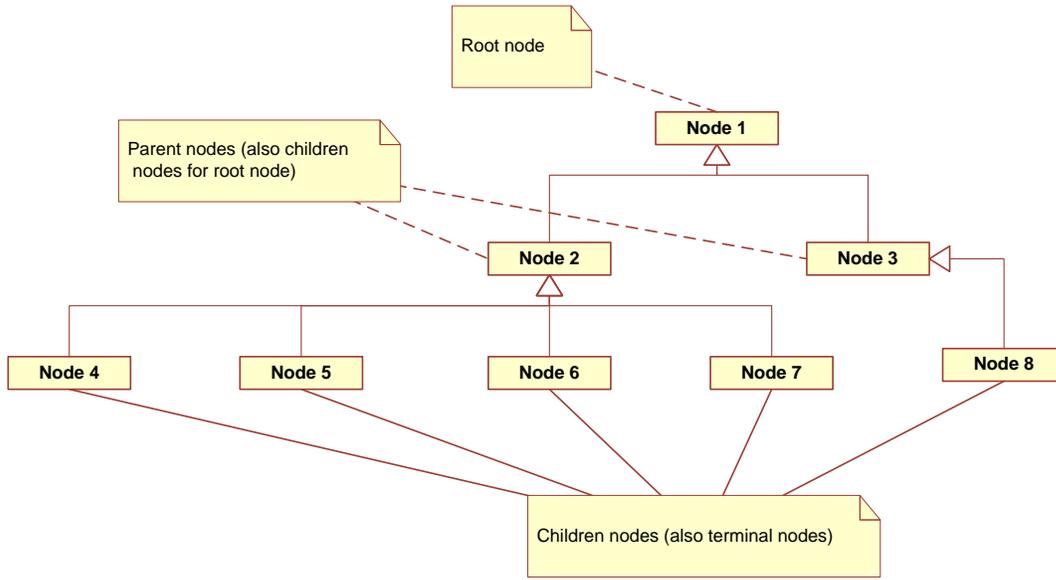
Figure 2 Typical Tree Structure

b. A taxonomy SHALL be based on only one differentiating notion, such as organizational structure, service functionality or message protocols. (For example, "Hypertext Transfer Protocol (HTTP)" and "FAA" should not be part of the same taxonomy, whereas "HTTP" and "Java Messaging Service (JMS)" may very well be.)

c. Every taxonomical node SHALL have the following attributes :

ID	A sequence of characters capable of uniquely identifying the node within the taxonomy.
Parent ID	The ID of the parent node to which the node is directly subordinate; included to support information about the taxonomy structure.
Name	A designation of the node by a linguistic expression intended to be used by humans.
Allowed	An indicator that the node is allowed to be assigned to or used to describe a web service and its attributes ("Yes") or that the node exists strictly to group and categorize other nodes within the taxonomy itself and cannot be assigned to or used to describe a web service and its attributes ("No").
Description	A representation of the node by a descriptive statement.

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d. All nodes in a taxonomy SHALL have an ID that uniquely identifies the node within that taxonomy.

e. All nodes in a derived or adopted taxonomy SHOULD preserve the identifiers used in the original source taxonomy. (For example, for those taxonomies in this standard derived from the FEA CRM, the nodes preserve the IDs assigned to them within the original source document/schema.)

f. All nodes in a taxonomy except the root node SHALL have a parent ID. (The root node of a taxonomy does not have a parent node and thus cannot have a parent ID.)

g. All nodes in a taxonomy SHALL have a name.

h. All nodes in a taxonomy SHOULD have an "Allowed" attribute.

i. All nodes in a taxonomy SHALL have a description.

The static structure diagram in Figure 3 depicts the taxonomy structure and includes the node attributes. The metadata attributes (not shown) are described in section 5.2.
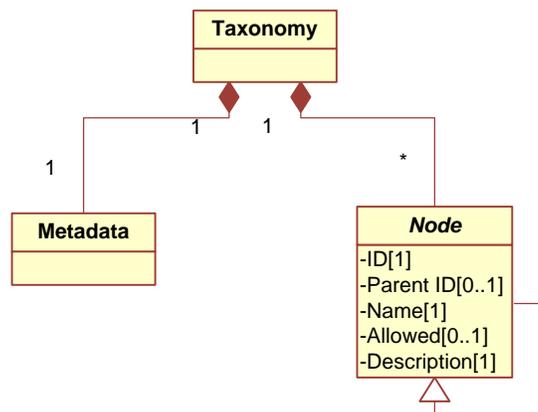
Figure 3 Taxonomy Structure Diagram

5.2 Documenting a Taxonomy

This section presents requirements for documenting a taxonomy.

a. All taxonomies SHALL be portrayed through a common set of metadata as described below.

b. The taxonomy metadata SHALL include a namespace.

1. If a namespace already exists, that namespace SHALL be applied.

2. If a namespace does not exist, the namespace SHALL be created and registered in conformance with FAA-STD-063, XML Namespaces [5].

c. The metadata SHALL include a taxonomy <u>title</u>.

d. The metadata SHALL include the taxonomy <u>identifier</u>, which is identical to the taxonomy's namespace.

e. The metadata SHALL include the name of the <u>creator</u> of the taxonomy.

f. The metadata SHALL include a brief <u>description</u> of the taxonomy.

g. The metadata SHOULD include a brief description of the purpose of the taxonomy, and where and how it can be applied.

h. If the taxonomy was derived in whole or in part from an existing <u>resource</u>, the metadata SHALL include the name of the resource.

i. If the taxonomy was derived in whole or in part from an existing resource, the metadata SHALL include the network location (<u>URL</u>) of the resource.

j. The metadata MAY include any special circumstances when use of the taxonomy is not recommended.

k. The metadata SHALL include a list of values (nodes) described using attributes shown in section 5.1 (c) above:

1. If there are few values, then the metadata SHALL include the entire list.

2. If the list is extensive, then the metadata SHALL include the name and network address (URL) of an external resource that contains the entire list.

l. The metadata SHOULD include a brief overview of the structure of the taxonomy, either as a plain language description or as a diagram of the hierarchical relationships among the taxonomy's nodes.

m. The metadata SHOULD include at least one example of the use of taxonomical nodes, either in a registry or as a part of the description.

n. The metadata SHOULD include clear instructions on where and how to obtain the taxonomy, together with a network location for every external resource listed in the taxonomy's metadata.

o. The metadata SHOULD include a statement regarding Intellectual property <u>rights</u> (including copyright) affecting use of the taxonomy, validation routines or validation API, including licensing requirements, etc.

p. The metadata SHOULD include a condition of use, such as any requirement for registration, payment, or a legal agreement before access to any of the resources.

5.3 Required Taxonomies

This section contains a list of the individual taxonomies that meet requirements for categorizing service information to be registered in an FAA-affiliated service registry or to be provided in other services-relevant artifacts.

5.3.1 Services for Citizens Taxonomy

    a. All organizations registered in any FAA-affiliated registry SHALL be categorized according to the Services for Citizens taxonomy.

title	Services for Citizens
namespace	urn:us:gov:omb:fea:brm:servicesForCitizens
description	The Services For Citizens taxonomy describes the mission and purpose of the United States government in terms of the services it provides both to and on behalf of the American citizen.
creator	Office of Management and Budget (OMB)
source	Derived from Services For Citizens Business Area of the Business Reference Model of the Federal Enterprise Architecture Consolidated Reference Model version 2.3, Section 4.1.1. [8]
rights	The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to facilitate cross-agency analysis and the identification of duplicative investments, gaps and opportunities for collaboration within and across agencies by describing services in a common and consistent way.

The official U.S. Government FEA Web site provides access to FEA reference files and tools. The FEA reference models will be updated annually and released during the end of the fourth quarter of each fiscal year. The FEA program has established a Reference Model Maintenance Process to capture and vet all modifications periodically as conditions evolve and additional agency architecture information is provided.

The taxonomy is also maintained as a registered artifact in the FAA Data Registry (FDR) in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.1.1 Structure

The following diagram depicts the structure of an excerpt from the Services for Citizens taxonomy that shows only the Transportation node and its respective children nodes. In the full taxonomy there are multiple nodes whose children nodes are at the same level

as the Transportation node; they are omitted here so as not to obstruct the diagram's clarity.
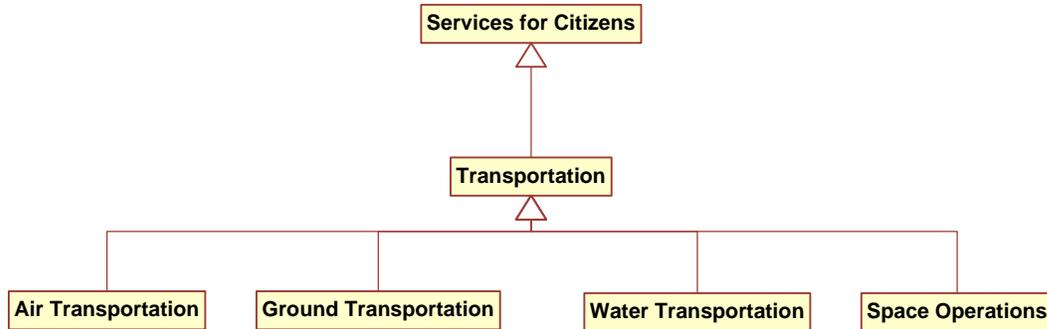
Figure 4 Services for Citizens Taxonomy Structure (Fragment)

5.3.1.2 List of Values

The following is an excerpt from the Services for Citizens taxonomy that shows only the Transportation node and its respective children nodes. The full version of the Services for Citizens taxonomy is available as a registered artifact in the FAA Data Registry (FDR).

ID	Parent ID	Name	Allowed	Description
1		Services For Citizens	No	The mission and purpose of the federal government in terms of the services it provides both to and on behalf of the American citizen.
118	1	Transportation	Yes	All federally supported activities related to the safe passage, conveyance, or transportation of goods and/or people.
060	118	Air Transportation	Yes	The activities related to the safe passage of passengers or goods through the air. It also includes command and control activities related to the safe movement of aircraft through all phases of flight for commercial and military operations. Note: The protection of air transportation from deliberate attack is included in the Transportation Security Sub-function in the Homeland Security Line of Business.
061	118	Ground Transportation	Yes	The activities related to ensuring the availability of transit and the safe passage of passengers and goods over land. Note: The protection of ground transportation from deliberate attack is included in the Transportation Security Sub-Function in the Homeland Security Line of Business.

| 062 | 118 | Water Transportation | Yes | The activities related to ensuring the availability of transit and the safe passage of passengers and goods over sea and water.
Note: The protection of maritime transportation from deliberate attack is included in the Transportation Security Sub-function in the Homeland Security Line of Business. |
| 063 | 118 | Space Operations | Yes | The activities related to the safe launches/missions of passengers or goods into aerospace, including commercial, scientific, and military operations. |

5.3.1.3 Example of Use

The following is an example of using the Services for Citizens taxonomy for registering an FAA organization in a UDDI v.3-compliant registry. Note: this example is non-normative.

```xml
<businessEntity businessKey="uddi:us:gov:dot:faa:organization">
…
 <categoryBag>
   <keyedReference
    keyName="Transportation"
    keyValue="118"
    tModelKey="uddi:us:gov:omb:fea:brm:categorization:servicesForCitizens"/>
    <keyedReference
    keyName="Air Transportation"
    keyValue="060"
    tModelKey=" uddi:us:gov:omb:fea:brm:categorization:servicesForCitizens"/>
  </categoryBag>
</businessEntity>
```

Example 1 Using the Services for Citizens Taxonomy

5.3.2 North American Industry Classification System (NAICS) Taxonomy

a. All organizations registered in any FAA-affiliated registry SHALL be categorized according to the North American Industry Classification System (NAICS) 2007 Release taxonomy [19].

title	NAICS 2007
namespace	urn:us:gov:census:naics:2007
description	The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.
creator	US Census Bureau

source   Official 2007 US NAICS Manual [19], available at
http://www.census.gov/eos/www/naics/index.html

rights   The official U.S. Government NAICS Web site provides access to NAICS
reference files and tools.

The purpose of NAICS is to produce common industry definitions for Canada, Mexico, and the United States in order to facilitate economic analyses of the economies of the three North American countries. The statistical agencies in the three countries produce information on inputs and outputs, industrial performance, productivity, unit labor costs, and employment. NAICS, which is based on a production-oriented concept, ensures maximum usefulness of industrial statistics for these and similar purposes. Note that NAICS is an industry classification system and is therefore neither intended nor well suited for classifying products.

To ensure the relevance, accuracy, and timeliness of the classification, NAICS is reviewed every five years to determine what, if any, changes are required. A NAICS update process fact sheet is available from the web site.

5.3.2.1 Structure

NAICS is a two- through six-digit hierarchical classification system, offering five levels of detail. Each digit in the code is part of a series of progressively narrower categories, and the more digits in the code signify greater classification detail. The first two digits designate the economic sector, the third digit designates the subsector, the fourth digit designates the industry group, the fifth digit designates the NAICS industry, and the sixth digit designates the national industry. The five-digit NAICS code is the level at which there is comparability in code and definitions for most of the NAICS sectors across the three countries participating in NAICS (the United States, Canada, and Mexico). The six-digit level allows for the United States, Canada, and Mexico each to have country-specific detail. A complete and valid NAICS code contains six digits.

5.3.2.2 List of Values

The complete list of 2007 NAICS Sector codes and titles is available at http://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2007. Under "2007 NAICS," it is possible to view or obtain an Excel file of the complete NAICS code hierarchy, ranging from broad 2-digit Sector codes to specific 6-digit U.S. industry codes, or a list of the 6-digit U.S. Industry codes only. Commonly-used values include "926120" which is the designation for FAA (except Air Traffic Control) and "488111" which is the designation for Air Traffic Control Services).

The UDDI standard [24] includes the NAICS taxonomy as a standard value set. This means that a user of a UDDI-compliant registry receives the complete NAICS taxonomy as a part of registry deployment.

5.3.2.3 Example of Use

The following is an example of using the NAICS taxonomy for registering both an FAA organization and a service provided by the organization in a UDDIv.3-compliant registry. Note: this example is non-normative.

```
<businessEntity businessKey="uddi:us:gov:dot:faa:organization">
…
…
    <businessService serviceKey="uddi:us:gov:dot:faa:at:service"
businessKey="uddi:us:gov:dot:faa:organization">
…
        <categoryBag>
            <keyedReference keyName=" Airport Operations" keyValue="48811"
tModelKey="uddi:uddi.org:ubr:categorization:naics:2007"/>
        </categoryBag>
    </businessService>
    <categoryBag>
        <keyedReference keyName="Federal Aviation Administration"
                        keyValue="926120"
tModelKey="uddi:uddi.org:ubr:categorization:naics:2007"/>
    </categoryBag>
</businessEntity>
```

Example 2 Using the NAICS Taxonomy

5.3.3 United Nations Standard Products and Services Code (UNSPSC) Taxonomy

    a. All organizations registered in any FAA-affiliated registry SHOULD be categorized according to the United Nations Standard Products and Services Code (UNSPSC) taxonomy [25].

title	UNSPSC
namespace	urn:us:org:unspsc
description	The United Nations Standard Products and Services Code® (UNSPSC) is a hierarchical convention that is used to classify all products and services.
creator	United Nations Development Program (UNDP)
source	Derived from the United Nations Development Program's Product and Services Code taxonomy [25], available at http://www.unspsc.org/.
rights	UNDP owns all rights to the UNSPSC. The U.S. Copyright Office has also granted copyright registration to the UNSPSC and the U.S. Patent and Trademark office has granted trademark protection. UNDP addresses all legal issues and will take appropriate legal action to protect its interests in the UNSPSC.

The purpose of UNSPSC is to provide a single global classification system that can be used for: (1) Company-wide visibility of spend analysis, (2) Cost-effective procurement optimization, and (3) Full exploitation of electronic commerce capabilities. Users may browse and download the current version of the code at no cost.

5.3.3.1 Structure

The UNSPSC is a hierarchical classification with five levels. These levels allow analysis by drilling down or rolling up to analyze expenditures. Each level in the hierarchy has its own unique number.

All UNSPSC entities are further identified with an 8-digit structured numeric code which both indicates its location in the taxonomy and uniquely classifies it. An additional 2-digit suffix indicates the business function identifier.

5.3.3.2 List of Values

The complete version of UNSPSC is available at the UNSPCS official site at http://www.unspsc.org/Default.aspx?sid=148544.

5.3.3.3 Example of Use

The following is an example of using the UNSPSC taxonomy for registering an FAA organization in a UDDI v.3-compliant registry. Note: this example is non-normative.

```
<businessEntity businessKey="uddi:us:gov:dot:faa:organization">
…
…
   <categoryBag>
      <keyedReference keyName="unspsc:Domestic Air Cargo Transport"
       keyValue="78.10.15.01.00"
       tModelKey="uddi:uddi.org:ubr:categorization:unspsc"/>
   </categoryBag>
</businessEntity>
```

Example 3 Using the UNSPSC Taxonomy

5.3.4 FAA Office Taxonomy

    a. All organizations registered in any FAA-affiliated registry SHALL be categorized according to the FAA Office taxonomy.

title	FAA Office
namespace	urn:us:gov:dot:faa:taxonomies:faaOffice
description	The FAA Office taxonomy describes the FAA organizations which report directly to the FAA Administrator in terms of their areas of primary responsibility.
creator	FAA Data Governance Board (FDGB)

source	Official FAA Web site at http://www.faa.gov/about/office_org/
rights	The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to provide a single standard system for categorizing FAA organizations by the FAA staff office or line of business under which they operate.

The taxonomy is maintained as a registered artifact in the FAA Data Registry (FDR) in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.4.1 Structure

This taxonomy is structured as a two-layer hierarchy in which the root node represents the concept of the taxonomy and the children of the root node are rendered as a set of values for that concept.

5.3.4.2 List of Values

ID	Parent ID	Name	Allowed	Description
faa-office		FAA Office	No	A unique framework of authority within FAA designated to act towards some purpose, defined as an office mission.
aep	faa-office	Aviation Policy, Planning and Environment	Yes	The organization responsible for leading the agency's strategic policy and planning efforts, coordinating the agency's reauthorization before Congress, and for national aviation policies and strategies in the environment and energy arenas, including aviation activity forecasts, economic analyses, aircraft noise and emissions research and policy, environmental policy, aviation insurance and employee safety and health.
acr	faa-office	Office of Civil Rights	Yes	The organization responsible for advising, representing, and assisting the FAA Administrator on civil rights and equal opportunity matters that ensure: (1) the elimination of unlawful discrimination and (2) all employees are offered equal opportunities and a positive working environment.
aoc	faa-office	Office of Communications	Yes	The organization responsible for the policy, direction, and management of the agency's communications programs for the news media and FAA's employees nationwide.
aba	faa-office	Financial Services and Chief Financial Officer	Yes	The organization responsible for advising the agency of plans and programs for budget and performance management, financial management, and financial controls.

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agi	faa-office	Office of Government and Industry Affairs	Yes	The organization responsible for being the Administrator's principal advisor and representative on matters concerning the Congress, aviation industry groups, and other governmental organizations.
ahr	faa-office	Office of Human Resource Management	Yes	The organization responsible for advising and assisting the Administrator in directing, coordinating, communicating, and ensuring the adequacy of FAA plans, programs and initiatives associated with employment, compensation, human capital planning, measurement and evaluation, labor and employee relations, benefits, workplace environment, and operational human resource services.
aio	faa-office	Information Services and Chief Information Officer	Yes	The organization responsible for leadership and management of the agency's information technology (IT) enterprise, including applications and infrastructure, establishing policy and guidance in the areas of IT capital planning, enterprise services, data and information management, information systems security, portfolio and program services, privacy, and research and development.
api	faa-office	International Aviation	Yes	The organization responsible for coordinating all of FAA's international efforts and advancing the nation's longstanding leadership on the international front, increasing the safety and capacity of the global aerospace system in an environmentally sound manner.
arc	faa-office	Regions and Center Operations	Yes	The organization responsible for conducting operations in nine regional offices strategically located across the country, and the Mike Monroney Aeronautical Center in Oklahoma City.
ash	faa-office	Security and Hazardous Materials	Yes	The organization responsible for ensuring the integrity of those who work in or support the National Airspace System (NAS). It protects FAA employees and facilities from criminal and terrorist acts.
arp	faa-office	Airports	Yes	The organization responsible for providing leadership in planning and developing a safe and efficient national airport system. The office has responsibility for all programs related to airport safety and inspections and standards for airport design, construction, and operation (including international harmonization of airport standards).
avs	faa-office	Associate Administrator for Aviation Safety	Yes	The organization responsible for the certification, production approval, and continued airworthiness of aircraft; and certification of pilots, mechanics, and others in safety-related positions.

ast	faa-office	Commercial Space Transportation	Yes	The organization responsible for ensuring protection of the public, property, and the national security and foreign policy interests of the United States during commercial launch or reentry activities, and to encourage, facilitate, and promote U.S. commercial space transportation.
ato	faa-office	Air Traffic Organization	Yes	The organization responsible for safe, secure and efficient air traffic management services and delivering aeronautical information to ATO customers operating in the national airspace system, as well as international airspace assigned to United States control.
agc	faa-office	Chief Counsel	Yes	The organization responsible for supporting the Agency's mission by furnishing timely and responsive legal services to the FAA Administrator and all Agency organizations at the Headquarters, Regional and Center levels.

5.3.4.3 Example of Use

The following is an example of registering FAA office information for an FAA organization in a UDDI v.3-compliant registry. Note: this example is non-normative.

```
<businessService serviceKey="uddi:us:gov:dot:faa:swim:rvr:service"
               businessKey="uddi:us:gov:dot:faa:organization">
   ...
   <categoryBag>
       <keyedReference keyName="Air Traffic Organization"
                     keyValue="ato"
                     tModelKey="uddi:us:gov:dot:faa:taxonomies:faaOffice"/>
   </categoryBag>
</businessService>
```

Example 4 Using the FAA Office Taxonomy

5.3.5 FAA Service Category Taxonomy

   a.   All services registered in any FAA-affiliated registry SHALL be categorized according to the FAA Service Category taxonomy.

title	FAA Service Category
namespace	urn:us:gov:dot:faa:taxonomies:service-category
description	The FAA Service Category taxonomy is a hierarchical convention that is used to categorize all FAA services. It provides a high-level enterprise-wide description of services that are required to meet either FAA's Air Transportation mission needs or the administrative, legal, technical, or managerial needs for the agency's successful operation.
creator	FAA Data Governance Board (FDGB)

source   FAA Air Transportation Information Directory (I-Directory), an architected framework that allows for many different ways to label, organize, and find FAA Air Transportation Information.

rights   The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to provide a single standard system for categorizing FAA services by the type of service provided.

The taxonomy is maintained as a registered artifact in the FAA Data Registry (FDR) in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.5.1 Structure

The following diagram depicts the structure of an excerpt from the FAA Service Category taxonomy that shows only the Personal Service node and its respective children nodes. In the full taxonomy there are multiple nodes whose children nodes are at the same level as the Personal Service node; they are omitted here so as not to obstruct the diagram's clarity.
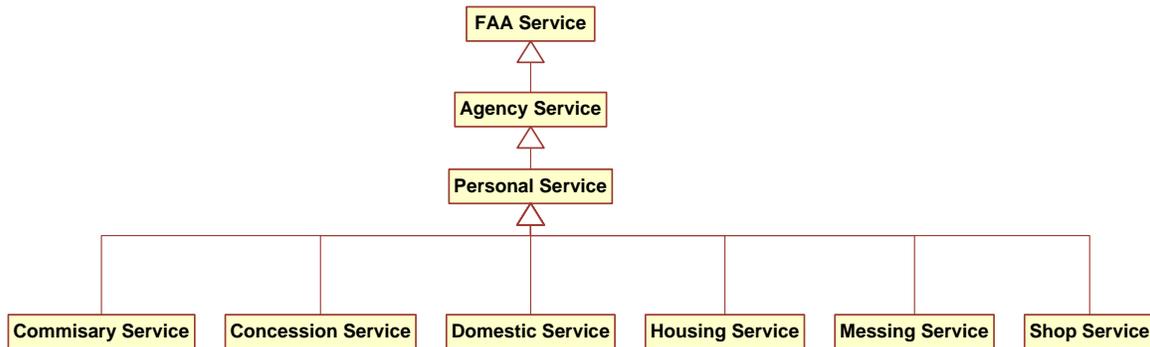
Figure 5 FAA Service Category Taxonomy Structure (Fragment)

5.3.5.2 List of Values

The following is an excerpt from the FAA Service Category taxonomy which shows only the Personal Service node and its respective children nodes. The full version of the Services for Citizens taxonomy is shown in Appendix A.

ID	Parent ID	Name	Allowed	Description
1		FAA Service	No	A category (or conceptual grouping) of the activities performed by employees or contractors of the FAA that lend assistance to others or provide information to others to make better decisions or take necessary actions. These

				activities are required to either meet FAA's Air Transportation mission needs or the administrative, legal, technical, or managerial needs of the agency's successful operation.
1.2	1	Agency Service	Yes	A category (or conceptual grouping) of the services performed by the FAA that are focused on the administration of the agency and do not involve Air Transportation mission-related activities or information.
1.2.6	1.2	Personal Service	Yes	An agency service category that describes services where one or more employees or contractors lend assistance to another. A personal service may pertain to the delivery of a service supported by or paid in full by the FAA. Personal services include the performance of tasks for others like laundry services, domestic services such as maid service or shopping for household supplies; or supplying or providing access to markets for: a) the acquisition of resources such as equipment or tools or food; or b) preparation and delivery services such as shoeshine stands, taxi stands, concession stands, or cafeterias.
1.2.6.1	1.2.6	Commissary Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) to make available: 1) provisions resources or supplies; or 2) a small café or restaurant serving light meals.
1.2.6.2	1.2.6	Concession Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) that involves the leasing of facilities, buildings, structures, or sites for use by another for a particular purpose that supports the mission or proper functioning of the agency.
1.2.6.3	1.2.6	Domestic Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) such as laundry or maid services.
1.2.6.4	1.2.6	Housing Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) such as the leasing of living quarters, providing shelter or lodging to others, or maintaining the operation and maintenance of these arrangements.
1.2.6.5	1.2.6	Messing Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) that provides meals to others.
1.2.6.6	1.2.6	Shop Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) such as providing and/or operating and maintaining: 1) retail shops for acquiring needed products or services; 2) workshops necessary to manufacture, build, or assemble resources or products; or 3) workshops to repair and test the proper operation of resources or products.

5.3.5.3 Example of Use

The following is an example of registering FAA service category information for an FAA service in a UDDI v.3-compliant registry. Note: this example is non-normative.

```
<businessService serviceKey="uddi:us:gov:dot:faa:swim:saa:service"
                 businessKey="uddi:us:gov:dot:faa:organization">
   ...
   <categoryBag>
      <keyedReference keyName="Aeronautical Information Service"
                      keyValue="1.3.1.1"
                      tModelKey="uddi:us:gov:dot:faa:taxonomies:service-category"/>
      <keyedReference keyName="Geospatial Information Service"
                      keyValue="1.3.1.1.2"
                      tModelKey="uddi:us:gov:dot:faa:taxonomies:service-category"/>
   </categoryBag>
</businessService>
```

Example 5 Using the FAA Service Category Taxonomy

5.3.6 Legislative Compliance Taxonomy

    a. All services registered in any FAA-affiliated registry SHOULD be categorized according to the Legislative Compliance taxonomy.

title	Legislative Compliance
namespace	urn:us:gov:omb:fea:trm:legislative-compliance
description	The Legislative Compliance taxonomy describes the various prerequisites that an application, system or service must have mandated by congress or governing bodies.
creator	Office of Management and Budget (OMB)
source	Derived from Service Access and Delivery Service Area of the Technical Reference Model of the Federal Enterprise Architecture Consolidated Reference Model version 2.3, Section 6.1 [8].
rights	The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to facilitate cross-agency analysis and the identification of duplicative investments, gaps and opportunities for collaboration within and across agencies by describing services in a common and consistent way.

The official U.S. Government FEA Web site provides access to FEA reference files and tools. The FEA reference models will be updated annually and released during the end of the fourth quarter of each fiscal year. The FEA program has established a Reference Model Maintenance Process to capture and vet all modifications periodically as conditions evolve and additional agency architecture information is provided.

The taxonomy is also maintained as a registered artifact in the FAA Data Registry (FDR) in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.6.1 Structure

The following diagram depicts the structure of the Legislative Compliance taxonomy.
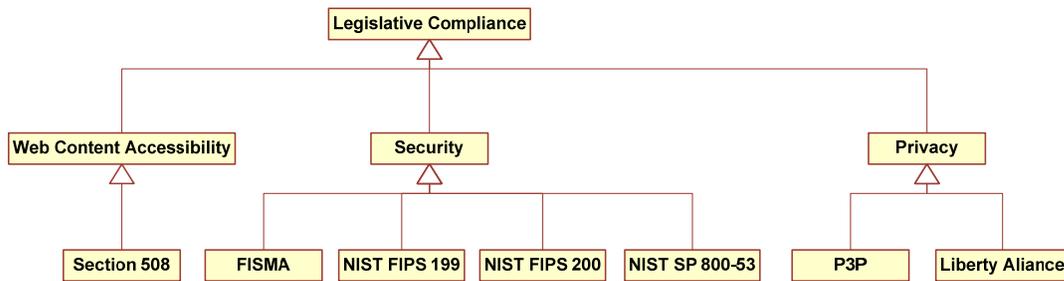
Figure 6 Legislative Compliance Taxonomy Structure

5.3.6.2 List of Values

ID	Parent ID	Name	Allowed	Description
859		Legislative Compliance	No	Defines the prerequisites that an application, system or service must have mandated by congress or governing bodies.
web-content-accessibility	859	Web Content Accessibility	No	Refers to hardware and software that helps people who are physically or visually impaired.
section-508	web-content-accessibility	Section 508	Yes	Section 508 requires that federal agencies' electronic and information technology is accessible to people with disabilities, including employees and members of the public.
security	859	Security	No	Policy and procedures that protect data against unauthorized access, use, disclosure, disruption, modification or destruction.
fisma-2002	security	FISMA	Yes	The Federal Information Security Management Act of 2002 ("FISMA," 44 U.S.C. § 3541, et seq.) is a United States federal law enacted in 2002 as Title III of the E-Government Act of 2002 (Pub.L. 107-347, 116 Stat. 2899). The purpose of the act is to provide a comprehensive framework for ensuring the effectiveness of information security controls over information resources that support Federal operations and assets. (FISMA-2000 [10])

nist-fips-199	security	NIST FIPS 199	Yes	A standard to be used by all federal agencies to categorize all information and information systems collected or maintained by or on behalf of each agency based on the objectives of providing appropriate levels of information security according to a range of risk levels. (NIST FIPS 199 [11])
nist-fips-200	security	NIST FIPS 200	Yes	The mandatory security standard that specifies minimum security requirements for information and information systems supporting the executive agencies of the federal government and a risk-based process for selecting the security controls necessary to satisfy the minimum security requirements. (NIST FIPS 200 [12])
nist-sp-800-53	security	NIST SP 800-53	Yes	A publication that provides guidelines for selecting and specifying security controls for information systems supporting the executive agencies of the federal government. This includes guidelines for meeting the requirements of FIPS 200, Minimum Security Requirements for Federal Information and Information Systems. The guidelines apply to all components of an information system that process, store, or transmit federal information. (NIST SP 800-53 [14])
privacy	859	Privacy	No	Specifications for allowing users' web browsers to automatically understand web sites' policies and practices that deal with the degree to which an individual can determine which personal information is to be shared with whom and for what purpose.
P3P	privacy	Platform for Privacy Preferences (P3P)	Yes	A specification developed by the W3C P3P Syntax, Harmonization, and Protocol Working Groups, including W3C Member organizations and experts in the field of web privacy. P3P is based on W3C specifications that have already been established, including HTTP, XML and Resource Description Framework (RDF).
liberty-alliance	privacy	Liberty Alliance	Yes	The Liberty Alliance Project is an alliance formed to deliver and support a federated network identity solution for the Internet that enables single sign on for consumers as well as business users in an open, federated way.

5.3.6.3 Example of Use

The following is an example of registering legislative compliance information for an FAA service in a UDDI v.3-compliant registry. Note: this example is non-normative.

```
<businessService serviceKey="uddi:us:gov:dot:faa:submitResume:service"
                 businessKey="uddi:us:gov:dot:faa:hr:organization">
   ...
   ...
   <categoryBag>
      <keyedReference keyName="Section 508"
                      keyValue="section-508"
                      tModelKey="uddi:us:gov:omb:fea:trm:legislative-compliance"/>
   </categoryBag>
</businessService>
```

Example 6 Using the Legislative Compliance Taxonomy

5.3.7 Lifecycle Stage Taxonomy

a. All services registered in any FAA-affiliated registry SHALL be categorized according to the Lifecycle Stage taxonomy.

title	Lifecycle Stage
namespace	urn:us:gov:dot:faa:taxonomies:lifecycle-stage
description	The Lifecycle Stage taxonomy describes the series of developmental changes in form of a service from its earliest stage to the recurrence of the same stage in the next generation.
creator	FAA Data Governance Board (FDGB)
source	Adopted in part from "Registration status levels and criteria" as described in ISO/IEC 11179 Information Technology – Metadata Registries, Part 6 – Registration [17].
rights	The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to provide a single standard system for categorizing FAA services by the stage they currently occupy in their life cycle.

The taxonomy is maintained as a registered artifact in the FAA Data Registry (FDR) in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.7.1 Structure

This taxonomy is structured as a two-layer hierarchy in which the root node represents the concept of the taxonomy and the children of the root node are rendered as a set of values for that concept.

5.3.7.2 List of Values

ID	Parent ID	Name	Allowed	Description
lifecycle-stage		Lifecycle Stage	No	The statuses used to classify a service according to its current lifecycle stage.
proposed	lifecycle-stage	Proposed	Yes	This status indicates that the service has been proposed for progression through the life cycle process.
development	lifecycle-stage	Development	Yes	This status indicates that the service is not completed; it may not be placed under version control and could be changed without notification.
production	lifecycle-stage	Production	Yes	This status indicates that the registration authority has confirmed that the service is of sufficient quality and is compliant with the set of standards and regulations in the community that uses this service registry, and is therefore approved for use.
deprecated	lifecycle-stage	Deprecated	Yes	This status indicates that the service is no longer recommended for use and a successor service/binding is now preferred for use.
retired	lifecycle-stage	Retired	Yes	This status indicates that the service should no longer be used.

5.3.7.3 Example of Use

The following is an example of registering life cycle stage information for an FAA service in a UDDI v.3-compliant registry (lines 4 through 6). Note: this example is non-normative.

```
1 <businessService serviceKey="uddi:us:gov:dot:faa:swim:eram:fis:service"
2                 businessKey="uddi:us:gov:dot:faa:ats:enroute:organization">
3   <categoryBag>
4     <keyedReference keyName="Development"
5                 keyValue="development"
6                 tModelKey="uddi:us:gov:dot:faa:taxonomies:lifecycle-stage "/>
7     <keyedReference keyName="Essential"
8                 keyValue="essential"
9                 tModelKey="uddi:us:gov:dot:faa:taxonomies:service-criticality"/>
10   </categoryBag>
11 </businessService>
```

Example 7 Using the Lifecycle Stage Taxonomy

5.3.8 Service Criticality Taxonomy

    a. All services registered in any FAA-affiliated registry SHALL be categorized according to the Service Criticality taxonomy.

title	Service Criticality
namespace	urn:us:gov:dot:faa:taxonomies:service-criticality
description	The Service Criticality taxonomy is used to classify a service depending on the level of significance given to a functional failure of the service.
creator	FAA Data Governance Board (FDGB)
source	Adopted from NAS System Requirements Specifications NAS-SR-1000 Section 4.5.1.2 [13].
rights	The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to provide a single standard system for categorizing FAA services by their level of criticality.

The taxonomy is maintained as a registered artifact in the FAA Data Registry (FDR) in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.8.1 Structure

This taxonomy is structured as a two-layer hierarchy in which the root node represents the concept of the taxonomy and the children of the root node are rendered as a set of values for that concept.

5.3.8.2 List of Values

ID	Parent ID	Name	Allowed	Description
criticality-level		Service Criticality	No	A single value that represents the criticality of a service by expressing the significance given to a functional failure of that service.
critical	criticality-level	Critical	Yes	Loss of this service would significantly raise the risk associated with providing safe and efficient operations.
essential	criticality-level	Essential	Yes	Loss of this service would raise the risk associated with providing safe and efficient operations to an unacceptable level.
routine	criticality-level	Routine	Yes	Loss of this service would have a minor impact on the risk associated with providing safe and efficient operations

5.3.8.3 Example of Use

See section 5.3.7.3 for an example of registering service criticality information for an FAA service in a UDDI v.3-compliant registry (lines 7 through 9). Note: this example is non-normative.

5.3.9 Delivery Channel Taxonomy

a. All access methods employed by a service registered in any FAA-affiliated registry SHALL be categorized according to the Delivery Channel taxonomy.

title	Delivery Channel
namespace	urn:us:gov:omb:fea:trm:delivery-channel
description	The Delivery Channel taxonomy defines the level of access to applications and systems based upon the type of network used to deliver them.
creator	Office of Management and Budget (OMB)
source	Derived from Service Access and Delivery Service Area of the Technical Reference Model of the Federal Enterprise Architecture Consolidated Reference Model version 2.3, Section 6.1 [8].
rights	The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to facilitate cross-agency analysis and the identification of duplicative investments, gaps and opportunities for collaboration within and across agencies by describing services in a common and consistent way.

The official U.S. Government FEA Web site provides access to FEA reference files and tools. The FEA reference models will be updated annually and released during the end of the fourth quarter of each fiscal year. The FEA program has established a Reference Model Maintenance Process to capture and vet all modifications periodically as conditions evolve and additional agency architecture information is provided.

The taxonomy is also maintained as a registered artifact in the FAA Data Registry (FDR) tool in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.9.1 Structure

This taxonomy is structured as a two-layer hierarchy in which the root node represents the concept of the taxonomy and the children of the root node are rendered as a set of values for that concept.

5.3.9.2 List of Values

ID	Parent ID	Name	Allowed	Description
delivery-channel		Delivery Channel	No	A categorization of the levels of access to applications and systems based upon the type of network used to deliver them.

856	delivery-channel	Extranet	Yes	A private network that uses the Internet protocol and the public telecommunication system to securely share part of a business's information or operations with suppliers, vendors, partners, customers, or other businesses. An extranet can be viewed as part of a company's intranet that is extended to users outside the company.
854	delivery-channel	Internet	Yes	A worldwide system of computer networks in which users at any one computer can, if they have permission, get information from any other computer.
855	delivery-channel	Intranet	Yes	A private network that is contained within an enterprise. It may consist of many interlinked local area networks and is used to share company information and resources among employees.
857	delivery-channel	Peer to Peer (P2P)	Yes	A class of applications that operate outside the DNS system, have significant or total autonomy from central servers, and take advantage of resources available on the Internet.
858	delivery-channel	Virtual Private Network (VPN)	Yes	A private data network that makes use of the public telecommunication infrastructure, maintaining privacy through the use of a tunneling protocol and security procedures.

5.3.9.3 Example of Use

The following is an example of registering delivery channel information for an FAA service in a UDDI v.3-compliant registry (lines 4 through 6). Note: this example is non-normative.

```
1 <businessService serviceKey="uddi:us:gov:dot:faa:resume:service"
2                   businessKey="uddi:us:gov:dot:faa:ato:organization">
3   <categoryBag>
4     <keyedReference keyName="Intranet"
5                     keyValue="855"
6                     tModelKey="uddi:us:gov:omb:fea:trm:delivery-channel"/>
7     <keyedReference keyName="JMS"
8                     keyValue="jms"
9                     tModelKey="uddi:us:gov:omb:fea:trm:service-transport"/>
10    <keyedReference keyName="In-Out"
11                    keyValue="in-out"
12                    tModelKey="uddi:us:gov:dot:faa:taxonomies:MEP"/>
13  </categoryBag>
14 </businessService>
```

Example 8 Registering Service Technical Information using Several Taxonomies

5.3.10 Service Transport Taxonomy

a. All services registered in any FAA-affiliated registry SHALL be categorized according to the Service Transport taxonomy.

title	Service Transport
namespace	urn:us:gov:omb:fea:trm:service-transport
description	The Service Transport taxonomy consists of the protocols that define the format and structure of data and information that is either accessed from a directory or exchanged through communications.
creator	Office of Management and Budget (OMB)
source	Derived from 863: Service Transport category of the Service Access and Delivery Service Area of the Technical Reference Model of the Federal Enterprise Architecture Consolidated Reference Model version 2.3, Section 6.1 [8].
rights	The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to facilitate cross-agency analysis and the identification of duplicative investments, gaps and opportunities for collaboration within and across agencies by describing services in a common and consistent way.

The official U.S. Government FEA Web site provides access to FEA reference files and tools. The FEA reference models will be updated annually and released during the end of the fourth quarter of each fiscal year. The FEA program has established a Reference Model Maintenance Process to capture and vet all modifications periodically as conditions evolve and additional agency architecture information is provided.

The taxonomy is also maintained as a registered artifact in the FAA Data Registry (FDR) in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.10.1 Structure

This taxonomy is structured as a two-layer hierarchy in which the root node represents the concept of the taxonomy and the children of the root node are rendered as a set of values for that concept.

5.3.10.2 List of Values

ID	Parent ID	Name	Allowed	Description
863		Service Transport	No	The protocols defining the format and structure of data and information either accessed from a directory or exchanged through communications.
tcp	service-transport	Transport Control Protocol (TCP)	Yes	A protocol that provides transport functions, which ensures that the total amount of bytes sent is received correctly at the destination.

ip	service-transport	Internet Protocol (IP)	Yes	The protocol of the Internet that has become the global standard for communications. IP accepts packets from TCP, adds its own header and delivers a "datagram" to the data link layer protocol. It may also break the packet into fragments to support the maximum transmission unit (MTU) of the network.
http	service-transport	Hypertext Transfer Protocol (HTTP)	Yes	The communications protocol used to connect to servers on the World Wide Web. Its primary function is to establish a connection with a web server and transmit HTML pages to the client browser.
https	service-transport	Hypertext Transfer Protocol Secure (HTTPS)	Yes	The protocol for accessing a secure web server. Using HTTPS in the URL instead of HTTP directs the message to a secure port number rather than the default web port number of 80. The session is then managed by a security protocol.
wap	service-transport	Wireless Application Protocol (WAP)	Yes	An open, global specification that empowers users of digital mobile phones, pagers, personal digital assistants and other wireless devices to securely access and interact with Internet/intranet/extranet content, applications, and services.
ftp	service-transport	File Transfer Protocol (FTP)	Yes	A protocol used to transfer files over a TCP/IP network (Internet, UNIX, etc.). For example, after developing the HTML pages for a Web site on a local machine, they are typically uploaded to the Web server using FTP.
ipsec	service-transport	IP Security (IPSEC)	Yes	A set of protocols used to secure IP packet exchange. Tunnel and Transport are the two (2) modes supported by IPSEC. IPSEC uses certificates and Public Keys to authenticate and validate the sender and receiver.
jms	service-transport	Java Messaging Service (JMS)	Yes	An application program interface (API) from Sun Microsystems that "provides a common way for Java programs to create, send, receive and read an enterprise messaging system's messages." JMS is part of Sun's J2EE platform.
msmq	service-transport	Microsoft Message Queuing (MSMQ)	Yes	A communications service, developed by Microsoft and deployed in its Windows Server operating systems, that provides asynchronous and reliable message passing between distributed client applications.

5.3.10.3 Example of Use

See section 5.3.9.3 for an example of registering service transport information for an FAA service in a UDDI v.3-compliant registry (lines 7 through 9). Note: this example is non-normative.

5.3.11 Message Exchange Pattern Taxonomy

    a.   All services registered in any FAA-affiliated registry SHALL be categorized according to the Message Exchange Pattern taxonomy.

title	Message Exchange Pattern
namespace	urn:us:gov:dot:faa:taxonomies:MEP
description	The Message Exchange Pattern (MEP) taxonomy describes the relationships of multiple messages exchanged in conformance with the pattern.
creator	FAA Data Governance Board (FDGB)
source	Obtained from Web Services Description Language (WSDL) Version 2.0 Part 2: Message Exchange Patterns, W3C Working Draft 26 March 2004. [26]
rights	The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to provide a single standard system for categorizing FAA services by the message exchange pattern employed.

The taxonomy is maintained as a registered artifact in the FAA Data Registry (FDR) in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.11.1 Structure

This taxonomy is structured as a two-layer hierarchy in which the root node represents the concept of the taxonomy and the children of the root node are rendered as a set of values for that concept.

5.3.11.2 List of Values

ID	Parent ID	Name	Allowed	Description
MEP		Message Exchange Pattern	No	Message Exchange Pattern (MEP) consists of patterns of message exchange between interacting elements, as well as the normal and abnormal termination of any message exchange conforming to the pattern.
in-only	MEP	In-Only	Yes	Consumer sends a message to the provider; the provider consumes it but does not produce any output message or fault.
robust-in-only	MEP	Robust In-Only	Yes	Consumer initiates with a message to which the provider may respond with a fault.
in-out	MEP	In-Out	Yes	Consumer initiates with a message, the provider responds with a message or fault message is generated instead.
in-optional-out	MEP	In Optional-Out	Yes	Consumer initiates with a message, the provider's response is optional.

out-only	MEP	Out-Only	Yes	Provider generates the message but does not expect to receive any response message or fault messages.
robust-out-in	MEP	Robust Out-Only	Yes	Provider initiates with a message to which the consumer may respond with a fault.
out-in	MEP	Out-In	Yes	Provider initiates with a message, the consumer responds with a message or fault message is generated instead.
out-optional-in	MEP	Out-Optional-In	Yes	Provider initiates with a message, the consumer's response is optional.

5.3.11.3 Example of Use

See section 5.3.9.3 for an example of registering message exchange pattern information for an FAA service in a UDDI v.3-compliant registry (lines 10 through 12). Note: this example is non-normative.

5.3.12 Service Visibility Taxonomy

a. All services registered in any FAA-affiliated registry SHALL be categorized according to the Service Visibility taxonomy.

title	Service Visibility
namespace	urn:us:gov:dot:faa:taxonomies:service-visibility
description	The Service Visibility taxonomy is used to classify a service depending on the level of discretionary access control of information provided by the service.
creator	FAA Data Governance Board (FDGB)
source	The classification descriptions have been adapted from the DOT/FAA Order 1600.75 "Protecting Sensitive Unclassified Information" [4], FAA Order 1370.84 "Internet Services" [1], and FAA Order 1370.93 "FAA Web Management" [2]. Refer to DOT/FAA Order 1600.75 for comprehensive descriptions and policy surrounding the *Sensitive* and *Official Use Only* classifications.
rights	The taxonomy is in the public domain and may therefore be reproduced without any limitations.

The purpose of this taxonomy is to provide a single standard system for categorizing FAA services by their level of discretionary access.

The taxonomy is maintained as a registered artifact in the FAA Data Registry (FDR) in accordance with FAA Order 1375.1 [3] and is available at the FDR web site, http://fdr.gov/fdr/Home.jsp.

5.3.12.1 Structure

This taxonomy is structured as a two-layer hierarchy in which the root node represents the concept of the taxonomy and the children of the root node are rendered as a set of values for that concept.

5.3.12.2 List of Values

ID	Parent ID	Name	Allowed	Description
service-visibility		Service Visibility	No	A single value that represents the level of discretionary access control placed on information provided by the service.
no-restrictions	service-visibility	No Restrictions	Yes	The information is available to all registry users.
sensitive	service-visibility	Sensitive	Yes	The information must be protected from uncontrolled availability to persons outside the FAA and from indiscriminate availability to persons within the FAA.
owner-only	service-visibility	Owner Only	Yes	The information is restricted to the organization that owns the service.

5.3.12.3 Example of Use

The following is an example of registering service visibility information for an FAA service in a UDDI v.3-compliant registry. Note: this example is non-normative.

```xml
<businessService serviceKey="uddi:us:gov:dot:faa:fdr:submitTaxonomy:service"
                 businessKey="uddi:us:gov:dot:faa:fdgb:organization">
    ...
    ...
    <categoryBag>
        <keyedReference keyName="No Restrictions"
                        keyValue="no-restrictions"
                        tModelKey="uddi:us:gov:dot:faa:taxonomies:service-visibility"/>
    </categoryBag>
</businessService>
```

Example 9 Using the Service Visibility Taxonomy

6   NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Examples of Presenting a Taxonomy in Different Formats

6.1.1 Taxonomy Definition in UDDI v.3-Compliant Registry

```xml
<?xml version="1.0" encoding="UTF-8"?>
<taxonomy check="true" xmlns="urn:us:gov:dot:faa:taxonomies">
    <tModel deleted="false" tModelKey="uddi:us:gov:dot:faa:taxonomies:service-criticality">
        <name>Service Criticality</name>
        <categoryBag xmlns="urn:uddi-org:api_v3">
            <keyedReference keyName="Compatibility" keyValue="businessService"
tModelKey="uddi:uddi.org:taxonomy:compatibility"/>
            <keyedReference keyName="Checked value set" keyValue="checked"
tModelKey="uddi:uddi.org:categorization:types"/>
        </categoryBag>
    </tModel>
    <compatibilityBag>
        <compatibility>businessService</compatibility>
    </compatibilityBag>
    <categorizationBag>
        <categorization>categorization</categorization>
    </categorizationBag>
    <validation>
        <categories>
            <category keyName="Critical" keyValue="critical"/>
            <category keyName="Essential" keyValue="essential"/>
            <category keyName="Routine" keyValue="routine"/>
        </categories>
    </validation>
</taxonomy>
```

Example 10 XML for Defining Taxonomy in Systinet Implementation of UDDI

6.1.2 Taxonomy Definition in RDF (Resource Description Framework)

```xml
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:rdfs=http://www.w3.org/2000/01/rdf-schema#
  xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:fdr="urn://:us:gov:dot:faa:fdr"
xml:base="urn:us:gov:dot:faa:taxonomies:serviceCriticality#">
    <rdf:Description about="urn:us:gov:dot:faa:taxonomies:service-criticality">
        <dc:identifier>urn:us:gov:dot:faa:taxonomies:serviceCriticality</dc:identifier>
        <dc:title>Service Criticality</dc:title>
        <dc:description>The Service Criticality taxonomy is used to classify
        a service depending on the level of significance given to a functional failure
        of the service.</dc:description>
        <dc:source>Adopted from NAS-SR-1000 Section 318</dc:source>
```

```
        <dc:creator>FAA ATO-P SE</dc:creator>
        <dc:date>2009-02-29</dc:date>
        <dc:format>text/xml</dc:format>
        <dc:subject>Taxonomy, service, criticality</dc:subject>
        <!-- The FDR relevant metadata-->
        <fdr:url>http://fdr.gov/fdr/taxonomies/Criticality.rdf</fdr:url>
        <fdr:version>1</fdr:version>
        <fdr:status>STANDARD</fdr:status>
        <fdr:steward>ATO-P</fdr:steward>
    </rdf:Description>
    <rdfs:Class rdf:ID="criticality-level"/>
    <rdfs:Class rdf:ID="critical">
        <rdfs:subClassOf rdf:resource="#CriticalityLevel"/>
        <srwg:name>Critical</srwg:name>
        <srwg:description>Loss of this service would significantly raise the
        risk associated with providing safe and efficient operations.</srwg:description>
    </rdfs:Class>
    <rdfs:Class rdf:ID="essential">
        <rdfs:subClassOf rdf:resource="#CriticalityLevel"/>
        <srwg:name>Essential</srwg:name>
        <srwg:description>Loss of this service would raise the risk
        associated with providing safe and efficient operations to
        an unacceptable level.</srwg:description>
    </rdfs:Class>
    <rdfs:Class rdf:ID="routine">
        <rdfs:subClassOf rdf:resource="#CriticalityLevel"/>
        <srwg:name>Routine</srwg:name>
        <srwg:description>Loss of this service would have a minor impact on the risk
        associated with providing safe and efficient operations</srwg:description>
    </rdfs:Class>
</rdf:RDF>
```

Example 11 Taxonomy Described in RDF Language

6.1.3 Taxonomy Rendering in XML

```
<?xml version="1.0" encoding="UTF-8"?>
<Taxonomy xmlns="urn:us:gov:dot:faa:taxonomies" xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:xsi=http://www.w3.org/2001/XMLSchema-instance
 xsi:schemaLocation="taxonomies faa-taxonomy.xsd">
    <Metadata>
        <dc:identifier>urn:us:gov:dot:faa:taxonomies:service-criticality</dc:identifier>
        <dc:title>Service Criticality</dc:title>
        <dc:description>The Service Criticality taxonomy is used to classify a service depending
on the level of significance given to a functional failure of the service.</dc:description>
        <dc:source>Adopted from NAS-SR-1000 Section 318.</dc:source>
        <dc:creator>FAA ATO SE</dc:creator>
    </Metadata>
    <Nodes>
        <Node id="criticality-level">
            <name>Criticality Level</name>
            <description>A single value that represents the criticality of a service by expressing the
significance given to a functional failure of that service.</description>
            <allowed>No</allowed>
```

```
        </Node>
        <Node id="critical" parentId="criticality-level">
            <name>Critical</name>
            <description>Loss of this service would significantly raise the risk associated with
providing safe and efficient operations.</description>
            <allowed>Yes</allowed>
        </Node>
        <Node id="essential" parentId="criticality-level">
            <name>Essential</name>
            <description>Loss of this service would raise the risk associated with providing safe
and efficient operations to an unacceptable level.</description>
            <allowed>Yes</allowed>
        </Node>
        <Node id="routine" parentId="criticality-level">
            <name>Routine</name>
            <description>Loss of this service would have a minor impact on the risk associated with
providing safe and efficient operations.</description>
            <allowed>Yes</allowed>
        </Node>
    </Nodes>
</Taxonomy>
```

Example 12 Taxonomy Rendered as Plain XML

Following is the schema used in the above example:

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema targetNamespace="urn:us:gov:dot:faa:taxonomies"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:faa="urn:us:gov:dot:faa:taxonomies"
xmlns:dc="http://purl.org/dc/elements/1.1/" elementFormDefault="qualified">
    <xs:annotation>
        <xs:documentation xml:lang="en">
Taxonomy XML Schema
Created 2009-03-31
Created by Mark Kaplun (mark.kaplun@faa.gov)
This schema declares XML elements for defining a taxonomy the way it's prescribed in FAA-
STD-066
    </xs:documentation>
    </xs:annotation>
    <xs:import namespace="http://purl.org/dc/elements/1.1/"
schemaLocation="http://dublincore.org/schemas/xmls/qdc/2008/02/11/dc.xsd"/>
    <xs:element name="Taxonomy">
        <xs:complexType>
            <xs:sequence>
                <xs:element name="Metadata" type="faa:MetadataType"/>
                <xs:element name="Nodes" type="faa:NodesType"/>
            </xs:sequence>
        </xs:complexType>
    </xs:element>
    <xs:complexType name="MetadataType">
        <xs:sequence>
            <xs:element ref="dc:identifier"/>
            <xs:element ref="dc:title"/>
            <xs:element ref="dc:description" maxOccurs="unbounded"/>
```

```
            <xs:element ref="dc:source" maxOccurs="unbounded"/>
            <xs:element ref="dc:creator" maxOccurs="unbounded"/>
            <xs:element ref="dc:date" minOccurs="0"/>
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="NodesType">
        <xs:sequence>
            <xs:element name="Node" type="faa:NodeType" maxOccurs="unbounded"/>
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="NodeType">
        <xs:sequence>
            <xs:element name="name" type="xs:string"/>
            <xs:element name="description" type="xs:string"/>
            <xs:element name="allowed">
                <xs:annotation>
                    <xs:documentation xml:lang="en">This element is only used as an indicator of
whether or not the node is approved for use in a registry and may not be used if taxonomy is
intended to be used outside of registry.
            </xs:documentation>
                </xs:annotation>
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:enumeration value="Yes"/>
                        <xs:enumeration value="No"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:element>
        </xs:sequence>
        <xs:attribute name="id" type="xs:string" use="required"/>
        <xs:attribute name="parentId" type="xs:string" use="optional"/>
    </xs:complexType>
</xs:schema>
```

Example 13 XML Schema for Taxonomy Used in Previous Example

Appendix A. FAA Service Taxonomy

ID	Parent ID	Name	Allowed	Description
1		FAA Service	No	A category (or conceptual grouping) of the activities performed by employees or contractors of the FAA that lend assistance to others or provide information to others to make better decisions or take necessary actions. These activities are required to either meet FAA's Air Transportation mission needs or the administrative, legal, technical, or managerial needs of the agency's successful operation.
1.1	1	Agency Infrastructure Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of providing assistance or help in the use of FAA facilities (including land, buildings, utilities, and other support equipment) and systems (automated and manual). This assistance may be in the form of assisting in the upkeep of facilities, planning and responding to an emergency within a facility, or providing a system to keep track of FAA real property.
1.1.1	1.1	Agency Facility Service	Yes	A service category that describes services for the purpose of providing assistance or help in the use of FAA facilities (including land, buildings, utilities, and other support equipment) within the geographic and functional boundaries of the United States. This assistance may be in the form of: 1) assisting in the provision of services to employees, contractors, and tenants within FAA owned or operated facilities; or 2) performing tasks directly associated with the construction or acquisition of FAA facilities; and 3) performing tasks directly associated with the operation, utilization, maintenance, and disposal of these facilities.
1.1.1.1	1.1.1	Tenant Service	Yes	An agency facility service category that describes services where tenants within FAA facilities, buildings, or structures receive services that may include such things as elevator repair, paper shredding, janitorial services, etc.
1.2	1	Agency Service	Yes	A category (or conceptual grouping) of the services performed by the FAA that are focused on the administration of the agency and do not involve Air Transportation mission-related activities or information.
1.2.1	1.2	Administrative Service	Yes	An agency service category that describes services where one helps another to complete a task or meet an objective by:

ID	Parent ID	Name	Allowed	Description
				1) providing them answers in response to questions or problems they have encountered; 2) making arrangements for meetings, travel, appointments, etc; 3) creating or acquiring, maintaining, storing, distributing, and disposing of physical resources; 4) performing one or more tasks in support of achieving another's mission, objectives, or goals.
1.2.1.1	1.2.1	Administrative Support Service	Yes	An administrative service category that describes services where one or more administrative assistants (at the direction of their assigned executive, manager, or supervisor) help employees, contractors, consumers, customers, or clients to complete a task or meet an objective by: 1) performing research in response to questions or problems they have encountered in: 1a) the use of the organization's product; 1b) the delivery of a service; or 1c) the use of the organization's resource; 2) providing them answers in response to questions or problems they may have encountered and/or as a result of research performed; 3) making arrangements for meetings, appointments, etc; and 4) performing one or more tasks in support of the stated mission, objectives, or goals of designated persons, groups, or organizations.
1.2.1.2	1.2.1	Answering Service	Yes	An administrative service category that describes services where one or more administrative assistants answer telephone calls from consumers, customers, or clients and assists them by: 1) providing answers in response to questions or problems they have encountered in the use of the organization's product or delivery of a service; 2) making arrangements to dispatch a person to lend them assistance, or 3) scheduling appointments for them to meet with members of the group or organization to discuss or receive delivery of a product or service currently offered.
1.2.1.3	1.2.1	Office Service	Yes	An administrative service category that describes services where one or more administrative assistants help their assigned executive, manager, or supervisor to complete a task or meet an objective by: 1) providing them answers in response to questions or problems they have encountered; 2) making arrangements for reserving or scheduling use of office resources , including conference

ID	Parent ID	Name	Allowed	Description
				rooms, meeting rooms, training rooms, office equipment etc.; 3) acquiring (via a request or order), maintaining, storing, distributing, and disposing of office resources such as office equipment, office furnishings, office supplies, etc.
1.2.2	1.2	Business Service	Yes	A business service category that describes services where one or more employees or contractors lend assistance to another employee or contractor or a consumer, customer, or client to complete a task in support of a stated mission, objective, or goal (in this instance, tasks directly related to Air Transportation).
1.2.2.1	1.2.2	Air Traffic Organization Business Service	Yes	A business service category that describes services where one or more managers or supervisors perform tasks associated with planning, organizing, directing, or controlling a resource, product, or service that supports the mission of the Air Traffic Organization.
1.2.2.2	1.2.2	Business Management Service	Yes	A business service category that describes services where one or more managers or supervisors perform tasks associated with planning, organizing, directing, or controlling a resource, product, or service. These tasks are generally performed for others, rather than for themselves or their own organizational units.
1.2.2.3	1.2.2	Business Quality Assurance Service	Yes	A business service category that describes services ensuring a desired or required trait or characteristic (whether specific or generic) of a resource, product, or service is within the requirements specified in agreements between the provider and the recipient or consumer.
1.2.3	1.2	Employee Service	Yes	An agency service category that describes services where one or more employees or contractors lend assistance to another employee. An employee service may pertain to the delivery of an agency benefit like assisting in the selection of health care options or deciding which retirement plan is best; providing a personal service like banking, child care, or laundry services; or arranging services for the relocation to a different work location.
1.2.3.1	1.2.3	Employee Relations Service	Yes	An employee service category that describes services involving the performance of tasks that ensure employees: 1) are properly informed of activities within the FAA; 2) are notified of planned activities and their attendance is requested or required; or 3) attend and participate in or observe FAA-related

ID	Parent ID	Name	Allowed	Description
				events and ceremonies.
1.2.4	1.2	Legal Service	Yes	A agency service category that describes services provided to one or more Agency Principals regarding: 1) the provision of advice, guidance, and recommendations regarding an agency-related action or issue associated with an active law, rule, order, mandate or directive; 2) the interpretation of such; or 3) the representation of such in a court of law.
1.2.4.1	1.2.4	Acquisition Legal Service	Yes	A legal service category that describes services involving the performance of tasks by a legal assistant or lawyer trained in and responsible for ensuring the proper acquisition of resources or service within the US Government. The tasks performed may include: 1) the provision of advice, guidance, or recommendations to Agency principals regarding the acquisition of a resource or service; 2) the representation of the Agency and/or Agency principals in meetings regarding resource acquisition matters; 3) the review, guidance, recommendation, or approval of legal agreements regarding the acquisition of resources or services; or 4) the review, guidance, and interpretation of applicable laws, directives, mandates, regulations, rules, orders, or policy regarding the acquisition of resources or services.
1.2.5	1.2	Medical Service	Yes	An agency service category that describes services provided by the agency to an employee, contractor, or airman regarding: 1) the provision of advice, guidance, and recommendations regarding a medical action or issue associated with an active law, rule, order, mandate, directive, regulation, or standard; 2) the interpretation of such; or 3) the provision of an examination, test, treatment, or procedure associated with the prevention, alleviation or cure of disease; 4) the prescription of a substance (as a drug or potion) to treat an illness or disease; or 5) the testing for use of a substance, such as an illegal drug or alcohol.
1.2.5.1	1.2.5	Agency Medical Service	Yes	A medical service category that describes services provided by the agency to an employee or contractor regarding: 1) the provision of advice, guidance, and recommendations regarding a medical action or

ID	Parent ID	Name	Allowed	Description
				issue associated with an active law, rule, order, mandate, directive, regulation, or standard; 2) the interpretation of such; or 3) the provision of an examination, test, treatment, or procedure associated with the prevention, alleviation or cure of disease. The tasks performed within this service are within the constraints of the physical health and condition requirements for employment within the US Government.
1.2.5.2	1.2.5	Aviation Medical Service	Yes	A medical service category that describes services provided by the agency to an airman regarding: 1) the provision of advice, guidance, and recommendations regarding a medical action or issue associated with an active law, rule, order, mandate, directive, regulation, or standard; 2) the interpretation of such; or 3) the provision of an examination, test, treatment, or procedure associated with the prevention, alleviation or cure of disease. The tasks performed within this service are within the constraints of the physical health and condition requirements for airmen with air transportation industry.
1.2.5.3	1.2.5	Agency Medicine Service	Yes	A medical service category that describes services provided by the agency to an employee or contractor regarding: 1) a review of effect on the employee's or contractor's performance as a result of taking a prescription of a substance (as a drug or potion) to treat an illness or disease; or 2) the testing for use of a substance, such as an illegal drug or alcohol. The tasks performed within this service are within the constraints of the physical health and condition requirements for employment within the US Government.
1.2.5.4	1.2.5	Aviation Medicine Service	Yes	A medical service category that describes services provided by the agency to an airman regarding: 1) a review of effect on the airman's performance as a result of taking a prescription of a substance (as a drug or potion) to treat an illness or disease; or 2) the testing for use of a substance, such as an illegal drug or alcohol. The tasks performed within this service are within the constraints of the physical health and condition requirements for airmen with air transportation industry.
1.2.6	1.2	Personal Service	Yes	An agency service category that describes services where one or more employees or contractors lend assistance to another. A personal service may pertain to the delivery of a service supported by or

ID	Parent ID	Name	Allowed	Description
				paid in full by the FAA. Personal services include the performance of tasks for others like laundry services, domestic services such as maid service or shopping for household supplies; or supplying or providing access to markets for: a) the acquisition of resources such as equipment or tools or food; or b) preparation and delivery services such as shoeshine stands, taxi stands, concession stands, or cafeterias.
1.2.6.1	1.2.6	Commissary Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) to make available: 1) provisions resources or supplies; or 2) a small café or restaurant serving light meals.
1.2.6.2	1.2.6	Concession Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) that involves the leasing of facilities, buildings, structures, or sites for use by another for a particular purpose that supports the mission or proper functioning of the agency.
1.2.6.3	1.2.6	Domestic Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) such as laundry or maid services.
1.2.6.4	1.2.6	Housing Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) such as the leasing of living quarters, providing shelter or lodging to others, or maintaining the operation and maintenance of these arrangements.
1.2.6.5	1.2.6	Messing Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) that provides meals to others.
1.2.6.6	1.2.6	Shop Service	Yes	A personal service category that describes services involving the performance of tasks (by employee or contractor) such as providing and/or operating and maintaining: 1) retail shops for acquiring needed products or services; 2) workshops necessary to manufacture, build, or assemble resources or products; or 3) workshops to repair and test the proper operation of resources or products.
1.2.7	1.2	Resource Management Service	Yes	An agency service category that describes services for the purpose of maintaining adequate levels of resources to support the FAA's mission. This service may include reviewing and approving or disapproving the acquisition of resources, monitoring current utilization and consumption of resource inventories to ensure adequate supplies

ID	Parent ID	Name	Allowed	Description
				on are available when and where needed, evaluating the effectiveness and efficiency of resources to meet FAA mission and administrative needs, and determining the proper time for the archival or disposition of resources.
1.2.7.1	1.2.7	Financial Resource Management Service	Yes	A resource management service category that describes services involving the performance of tasks related to the management of the agency's financial resources, including: financial policy, accounting operations, general accounting, accounts payable, business integration, customer service, special projects, property control and analysis, internal controls, national and regional accounting. These tasks also include those required to maintain adequate levels of the financial resources necessary to support the mission of the organization.
1.2.7.1.1	1.2.7.1	Accounting Support Service	Yes	A financial resource management service category that describes services requiring an accounting clerk or officer to assist others with the performance of accounting tasks.
1.2.7.1.2	1.2.7.1	Financial Support Service	Yes	A financial resource management service category that describes services requiring a financial clerk or officer to assist others with the performance of financial tasks.
1.2.7.2	1.2.7	Human Resource Management Service	Yes	A resource management service category that describes services involving the performance of tasks related to the management of the agency's human resources, including: advising and assisting the Administrator in directing, coordinating, communicating, and ensuring the adequacy of FAA plans, programs, and initiatives associated with employment, compensation, human resource information and automation, executive resources, learning and development, human capital planning, measurement and evaluation, labor and employee relations, benefits, workplace environment, operational human resource services. These tasks also include those required to acquire and retain an adequate set of knowledge, skills, and abilities possessed by these human resources that are necessary to support the mission of the organization.
1.2.7.3	1.2.7	Information Resource Management Service	Yes	A resource management service category that describes services involving the performance of tasks related to the management of the agency's information resources, including: advising and assisting the Administrator in directing, coordinating, communicating, and ensuring the

ID	Parent ID	Name	Allowed	Description
				adequacy of FAA plans, programs, and initiatives associated with: 1) information (including documents, forms, messages, information repositories and registries, information models and architectures); 2) data (including records, files, tables, data repositories and registries, data models and architectures); and 3) information technologies (including the computer hardware and those that comprise the information technology infrastructure, computer utility and application software, and the information technology models and architectures).
1.2.7.3.1	1.2.7.3	Information Management Service	Yes	An information resource management service category that describes services involving the performance of tasks related to the management of the agency's information resources. These tasks include the governance, identification and definition, planning, organizing, and control of: 1) information (including documents, forms, messages, information repositories and registries, information models and architectures); and 2) data (including records, files, tables, data repositories and registries, data models and architectures).
1.2.7.3.2	1.2.7.3	Information System Service	Yes	An information resource management service category that describes services involving the performance of tasks related to the planning, analysis, design, development or acquisition, implementation, operation, utilization, maintenance, and management of the agency's information systems.
1.2.7.3.3	1.2.7.3	Information Technology Infrastructure Service	Yes	An information resource management service category that describes services involving the performance of tasks related to the planning, analysis, design, development or acquisition, implementation, operation, utilization, maintenance, and management of the information technology infrastructure (including 1) the computer hardware and software that is used or shared across the agency; 2) the data, information, voice, and message communication networks and associated equipment and software; and 3) the enterprise-wide information technology models and architectures).
1.2.7.3.4	1.2.7.3	Information Technology Service	Yes	An information resource management service category that describes services involving the performance of tasks related to the planning,

ID	Parent ID	Name	Allowed	Description
				analysis, design, development or acquisition, implementation, operation, utilization, maintenance, and management of the agency's information technologies (including the computer hardware and utility and application software, and the associated information technology models and architectures).
1.2.7.4	1.2.7	Physical Resource Management Service	Yes	A resource management service category that describes services involving the performance of tasks related to the management of the agency's physical resources, including: advising and assisting the Administrator in directing, coordinating, communicating, and ensuring the adequacy of FAA plans, programs, and initiatives associated with: 1) FAA facilities (including those owned or operated by the FAA); 2) FAA buildings and structures; 3) FAA systems (manual and automated). These tasks also include those required to maintain adequate levels of the physical resources required to support the mission of the organization.
1.2.7.5	1.2.7	Resource Acquisition Service	Yes	A resource management service category that describes services involving the performance of tasks related to the acquisition of the agency's human, information, and physical resources. These tasks include: 1) market analysis to ensure the availability of these resources; 2) procurement; 3) contractual services (including contractual legal services); and 4) logistics (including the transport, delivery of the resources from their source to their destination for use, and verification of their receipt in proper quantity, measure and quality).
1.2.7.5.1	1.2.7.5	Resource Contract Service	Yes	A resource acquisition service category that describes services involving the performance of the tasks necessary to create a binding agreement (e.g., contract, order) between a resource consumer (i.e., the agency) and a resource provider (i.e., another person, group, or organization) regarding the provisioning of resources.
1.2.7.5.2	1.2.7.5	Resource Logistical Service	Yes	A resource acquisition service category that describes services involving the performance of the tasks necessary to transport or convey resources (e.g., people, cargo) from one geographic location to another. In this respect, the tasks are focused on the transport of a resource from the resource provider to the resource consumer (i.e. the

ID	Parent ID	Name	Allowed	Description
				agency).
1.2.7.5.3	1.2.7.5	Resource Procurement Service	Yes	A resource acquisition service category that describes services involving the performance of the tasks necessary for an information consumer (i.e., the agency) to identify, justify, verify the availability of, and obtain needed resources from a resource provider (i.e., another person, group, or organization).
1.2.8	1.2	Security Service	Yes	An agency service category that describes services where one or more employees or contractors perform the tasks necessary to secure and protect the agency's financial, human, information, and physical resources.
1.2.8.1	1.2.8	Financial Resource Security Service	Yes	A security service category that describes services involving the performance of tasks (by employee or contractor) that secures and protects the agency's financial resources.
1.2.8.2	1.2.8	Human Resource Security Service	Yes	A security service category that describes services involving the performance of tasks (by employee or contractor) that secures and protects the agency's human resources.
1.2.8.3	1.2.8	Information Resource Security Service	Yes	A security service category that describes services involving the performance of tasks (by employee or contractor) that secures and protects the agency's information resources.
1.2.8.4	1.2.8	Physical Resource Security Service	Yes	A security service category that describes services involving the performance of tasks (by employee or contractor) that secures and protects the agency's physical resources.
1.2.9	1.2	Training Service	Yes	An agency service category that describes services involving the performance of tasks by: 1) an instructor who trains one or more employees, contractors, or airmen in the acquisition of a new capability or skill; 2) an instructor who evaluates the current knowledge, skills, and abilities of an employee, contractor, or airman in order to determine: a) if any deficiencies found can resolved through training or education; or b) if any strengths found can be utilized to their optimal levels; 3) an administrator who manages the development and maintenance of a training curriculum and associated courses; and 4) an administrator who schedules training and manages the enrollment of students and the delivery of the training courses utilizing the most efficient methods.
1.2.9.1	1.2.9	Training Conference	Yes	A training service category that describes services where an administrator (?) performs the followings

ID	Parent ID	Name	Allowed	Description
		Service		tasks: 1) schedules training; 2) makes arrangements for the venue where the training is to take place; 3) manages the enrollment of students; and 4) manages the delivery of the training courses. The performance of these tasks is based on selecting the most efficient methods to delivery the training in a conference setting
1.2.9.2	1.2.9	Training Consultation Service	Yes	A training service category that describes services where an expert (well-versed in all aspects and things related to training) provides advice, guidance and technical expertise to others so as to assist in the provision and delivery of training services.
1.2.9.3	1.2.9	Training Effectiveness Evaluation Service	Yes	A training service category that describes services where an experienced educator (i.e., teacher, instructor, or professor) reviews the results of training recently delivered (for a course, a class, or a student) and makes a determination as to: 1) the quality of the training provided; 2) the comprehension of the subject matter by the student; or 3) the ability of the student to acquire the method, skill, or technique as instructed.
1.2.9.4	1.2.9	Training Delivery Service	Yes	A training service category that describes services where an educator (i.e., teacher, instructor, or professor) trains a student in a subject area (i.e., declarative knowledge) or skill (i.e., procedural knowledge). The preparation and delivery of the training may require the educator to: 1) select the appropriate training materials for the course based on the method of delivery (as disparate as classroom instruction, conference instruction, or distance learning methods such as computer-based instruction (CBI), correspondence courses, and remote audio-visual transmission); 2) present to the students and tailor (in real-time) the subject matter related to the training course requirements to the students; and/or 3) demonstrate to the students and tailor (in real-time) the method, skill, or technique.
1.2.10	1.2	Travel Service	Yes	An agency service category that describes services provided by the agency to employees and authorized contract personnel that assist them in the movement from one work location to another to properly perform their assigned duties. This assistance includes activities such as trip planning, making travel arrangements, purchasing of tickets

ID	Parent ID	Name	Allowed	Description
				for transportation, and providing and accounting for cash advances.
1.2.11	1.2	Agency Information Service	Yes	A agency service category that describes services for the purpose of: 1) providing information, advice, or guidance about the activities of the agency; 2) creating or producing information; 3) receiving information from others (internal and external to the agency); 4) maintaining the timeliness, relevance, or accuracy of information; 5) validating or verifying the quality of information; 6) changing the form or structure of information to fit different circumstances or conditions; 7) storing information in the proper container based on information needs; or 8) distributing information to others (internal and external to the agency. This information may take the form of text or data. It may also take the structure of a document, record, report, file, form, or message.
1.2.11.1	1.2.11	Financial Resource Information Service	Yes	An agency information service category that describes services involving the production, validation, maintenance, verification, storage, retrieval, translation, assembly, formatting, publication, distribution, or collection of the information necessary to identify, describe, account for, track, and monitor the status of financial resources (i.e. budgets, funds, accounts, etc) within the agency. This information includes the production, maintenance, and distribution of financial resource management policy, guidance, directives, procedures, regulations, rules, and standards.
1.2.11.2	1.2.11	Human Resource Information Service	Yes	An agency information service category that describes services involving the production, validation, maintenance, verification, storage, retrieval, translation, assembly, formatting, publication, distribution, or collection of the information necessary to identify, describe, account for, track, and monitor the status of human resources (i.e., personnel, positions, employees, benefits, etc) within the agency. This information includes the production, maintenance, and distribution of human resource management policy, guidance, directives, procedures, regulations, rules, and standards.
1.2.11.3	1.2.11	Information Resource	Yes	An agency information service category that describes services involving the production,

ID	Parent ID	Name	Allowed	Description
		Information Service		validation, maintenance, verification, storage, retrieval, translation, assembly, formatting, publication, distribution, or collection of the information necessary to identify, describe, account for, track, and monitor the status of information resources (i.e. documents, files, records, within the agency. This information includes the production, maintenance, and distribution of information resource management policy, guidance, directives, procedures, regulations, rules, and standards.
1.2.11.4	1.2.11	Management Information Service	Yes	An agency information service category that describes services involving the production, validation, maintenance, verification, storage, retrieval, translation, assembly, formatting, publication, distribution, or collection of the information necessary to management the agency. This information includes the production, maintenance, and distribution of management policy, guidance, directives, procedures, regulations, rules, and standards.
1.2.11.5	1.2.11	Physical Resource Information Service	Yes	An agency information service category that describes services involving the production, validation, maintenance, verification, storage, retrieval, translation, assembly, formatting, publication, distribution, or collection of the information necessary to identify, describe, account for, track, and monitor the status of physical resources (i.e., equipment, furnishings, property, consumables, tools, etc) within the agency. This information includes the production, maintenance, and distribution of physical resource management policy, guidance, directives, procedures, regulations, rules, and standards.
1.2.11.6	1.2.11	Public Affairs Information Provision Service	Yes	An agency information service category that describes services for the purpose of providing information about the current affairs of the Agency. This information maybe pertinent to: 1) the policy, direction, or management of the Agency; 2) air transportation mission and associated activities; or 3) commercial space transportation mission and associated activities. This information is usually prepared for FAA employees and distributed internally, or prepared for the US public and made available via the US news media. (Note: This service is normally under the purview of the Office of Communications (AOC) within the FAA. Typically,

ID	Parent ID	Name	Allowed	Description
				they provide the information that is to be communicated externally to the Public Affairs office within the Department of Transportation.)
1.2.11.7	1.2.11	Training Information Service	Yes	An agency information service category that describes services involving the production, validation, maintenance, verification, storage, retrieval, translation, assembly, formatting, publication, distribution, or collection of the information necessary to train agency employees, contractors, service providers, and service consumers. This information may include information about training curricula, schedules, courses, training service statistics and quotes. This information also includes the production, maintenance, and distribution of training policy, guidance, directives, procedures, regulations, rules, and standards.
1.3	1	Air Transportation Information Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of providing information, advice, or guidance about the current state of a flight, air traffic, or other transport-related activities required to ensure the safe movement of aircraft through all phases of flight for commercial and military operations. An air transportation information service has the purpose of: 1) providing information, advice, or guidance about air transportation activities; 2) creating or producing air transportation information; 3) receiving air transportation information from others (internal and external to the agency); 4) maintaining the timeliness, relevance, or accuracy of this information; 5) validating or verifying the quality of air transportation information; 6) changing the form or structure of air transportation information to fit different circumstances or conditions; 7) storing this information in the proper container based on information needs; or 8) distributing air transportation information to others (internal and external to the agency). This information may take the form of text or data. It may also take the structure of a document, record, report, file, form, or message.
1.3.1	1.3	Air Traffic Information Service	Yes	An air transportation information service category that describes services for the purpose of providing advice or information about aeronautical

ID	Parent ID	Name	Allowed	Description
				information, air traffic control information, and air traffic command and control information. This information includes the production, maintenance, and distribution of air traffic policy, guidance, directives, procedures, regulations, rules, and standards.
1.3.1.1	1.3.1	Aeronautical Information Service	Yes	An air traffic information service category that describes services providing information about the infrastructure elements that manage the aeronautical information service assets, including the collection of data for and production of pre-flight and in-flight aeronautical information publications (APIs) within the FAA and globally. Aeronautical information is derived from the assembly, analysis and formatting of environmental data, flight data, geospatial data, Notice to Airmen data, and weather data.
1.3.1.1.1	1.3.1.1	Environmental Information Service	Yes	An aeronautical information service category that describes services for the purpose of providing information about: 1) the circumstances, conditions, and objects within a geographic area; and 2) the impact they may reveal on the effect that air transportation activities may have on them.
1.3.1.1.2	1.3.1.1	Geospatial Information Service	Yes	An aeronautical information service category that describes services for the purpose of providing information about the geographic location or position of an object in space.
1.3.1.1.3	1.3.1.1	Notice to Airmen Service	Yes	An aeronautical information service category that describes services for the purpose of providing time sensitive and critical information to airmen (especially pilots) concerning the establishment, condition, or change in any component (facility, service, or procedure of, or hazard in the National Airspace System) that is essential to conduct flight operations.
1.3.1.1.4	1.3.1.1	Weather Information Service	Yes	An aeronautical information service category that describes services for the purpose of providing time sensitive and critical information to airmen (especial air operators and pilots) who concerning the state of the atmosphere with respect to temperature, humidity, transmissivity, and condition. This acquisition of this information is necessary to adjust flight plans before and during their execution.
1.3.1.2	1.3.1	Air Traffic Command and Control Information	Yes	An air traffic information service category that describes services involving the delivery of information necessary to perform tasks that control air transportation infrastructure operations

ID	Parent ID	Name	Allowed	Description
		Service		including: 1) real-time traffic flow management; 2) balancing air traffic load levels based on current and projected airspace and airport capacity measures; and 3) re-routing of air traffic and aircraft based on current traffic flow situational awareness (including responses to airspace and airport statistics, weather events and phenomena, and real or potential safety or security threats). This information includes the production, maintenance, and distribution of air traffic policy, guidance, directives, procedures, regulations, rules, and standards.
1.3.1.2.1	1.3.1.2	Air Traffic Command and Control Information Exchange Service	Yes	An air traffic command and control information service category that describes services for the purpose of supporting: 1) the exchange of information between the FAA, air operators, and their pilots to support the need to conduct continuous real-time operational decisions; and 2) the information necessary to manage the integrated network of communications and sensor capability including aircraft tracking, aircraft separation assistance (safety functions), traffic flow management, and flight data recording. This information is exchanged among trusted entities and individuals, facilities and aircraft through a common system of symbols, signs, behavior or technology.
1.3.1.2.2	1.3.1.2	Air Traffic Statistics Service	Yes	An air traffic command and control information service category that describes services for the purpose of providing information about the quantity and/or type of aircraft in movement within a geographic area, facility, or handled by an air traffic system. This information identifies a measurable quantity related to the stated aircraft, air traffic facility or system within a specific time period and occurring a within a specific geographic area or location.
1.3.1.2.3	1.3.1.2	Air Traffic Event Information Service	Yes	An air traffic command and control information service category that describes services for the purpose of providing information about a detailed account of an air traffic event to appropriate entities.
1.3.1.3	1.3.1	Air Traffic Control Information Service	Yes	An air traffic information service category that describes services providing information to air traffic controllers to use to: 1) prevent aircraft collisions;

ID	Parent ID	Name	Allowed	Description
				2) assist pilots in maneuvering around other aircraft and obstructions in their flight path; and 3) expedite and maintain an orderly flow of air traffic within their area of responsibility.
1.3.1.3.1	1.3.1.3	Air Traffic Advisory Information Service	Yes	An air traffic control information service category that describes services providing information within advisory airspace to ensure separation, in so far as practical, between aircraft which are operating on IFR flight plans.
1.3.1.3.2	1.3.1.3	Flight Information Service	Yes	An air traffic control information service category that describes services providing information about a flight, including, but not limited to: flight plan, flight amendments, reported altitude, track position and velocity, and time estimates.
1.3.1.3.3	1.3.1.3	Navigation Information Service	Yes	An air traffic control information service category that describes services providing information about navigational guidance which may include: course, distance, elevation, altitude.
1.3.2	1.3	Air Transportation Safety Information Service	Yes	An air transportation information service category that describes services providing information to facilitate and ensure the safe and efficient conduct of flights, including those air transportation activities that support the conduct of flights. This information has its source in the oversight of air transportation activities but is most useful for improving current operations and curtailing, if not preventing, future unsafe situations, practices and procedures. This information includes the production, maintenance, and distribution of air transportation safety policy, guidance, directives, procedures, regulations, rules, and standards.
1.3.2.1	1.3.2	Air Transportation Safety Investigation Information Service	Yes	An air transportation safety information service category that describes services requiring the performance of tasks to ensure the information collected as the result of a safety investigations is specific to and consistent with the observation and systematic examination of air transportation activities. Safety investigation information may pertain to a known air transportation incident or accident. The information from the safety investigation is useful for improving current operations via the reporting of marginal and unsafe practices and procedures and violation of applicable rules, standards, and procedures. It is also useful for improving future operations and curtailing, if not preventing, the utilization of unsafe situations, practices and procedures.
1.3.2.1.1	1.3.2.1	Accident Information	Yes	An air transportation safety investigation service category that describes services providing

ID	Parent ID	Name	Allowed	Description
		Service		information collected during a safety investigation of an air transportation accident (which usually results in human injury, loss of life, loss of an airframe, or significant property damage). This information may be: 1) collected during a specific air transportation accident investigation and is specific to and consistent with the observation and systematic examination of that accident; 2) statistical information that relates aggregated accident information across multiple accidents and multiple dimensions (accident attributes or elements).
1.3.2.1.2	1.3.2.1	Incident Information Service	Yes	An air transportation safety investigation service category that describes services providing information collected during a safety investigation of an air transportation incident (where the resulting injury, or property damage or loss did not meet the threshold criteria for an accident). This information may be: 1) collected during a specific air transportation incident investigation and is specific to and consistent with the observation and systematic examination of that incident; 2) statistical information that relates aggregated incident information across multiple incidents and multiple dimensions (incident attributes or elements).
1.3.3	1.3	Air Transportation Security Information Service	Yes	An air transportation information service category that describes services for the purpose of providing information to facilitate and ensure the security of: 1) flights and their passengers and crew; and 2) air transportation facilities, systems, and their operation. This information has its source in the oversight of air transportation activities but is most useful for improving the collection, analysis, and dissemination of intelligence information pertaining to maintaining an adequate level of security for current operations. This information should also be used to curtail, if not prevent, future unsecure air transportation situations, practices and procedures. This information includes the production, maintenance, and distribution of air transportation security policy, guidance, directives, procedures, regulations, rules, and standards.
1.3.3.1	1.3.3	Air Transportation Security Investigation	Yes	An air transportation security information service category that describes services requiring the performance of tasks to facilitate and ensure the security of:

ID	Parent ID	Name	Allowed	Description
		Information Service		1) flights and their passengers and crew; 2) the national airspace; and 3) air transportation facilities, systems, and their operation. This information has its source in the oversight of air transportation activities but is most useful for improving the collection, analysis, and dissemination of intelligence information pertaining to maintaining an adequate level of security for current operations. This information should also be used to curtail, if not prevent, future unsecure air transportation situations, practices and procedures.
1.4	1	Air Transportation Infrastructure Information Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of providing advice or information about the airspace, facilities (including land, buildings, utilities, and other support equipment), systems (automated and manual), and relevant procedures within the geographic and functional boundaries of the United States. An air transportation infrastructure information service has the purpose of: 1) providing information, advice, or guidance about the different components of the air transportation infrastructure; 2) creating or producing information about the air transportation infrastructure; 3) receiving air transportation infrastructure information from others (internal and external to the agency); 4) maintaining the timeliness, relevance, or accuracy of this information; 5) validating or verifying the quality of air transportation infrastructure information; 6) changing the form or structure of air transportation infrastructure information to fit different circumstances or conditions; 7) storing this information in the proper container based on information needs; or 8) distributing air transportation infrastructure information to others (internal and external to the agency). This information may take the form of text or data. It may also take the structure of a document, record, report, file, form, or message.
1.4.1	1.4	Air Transportation Airspace Information Service	Yes	An air transportation infrastructure service category that describes services for the purpose of providing information about the necessary air transportation activities involved in the design, implementation, operation and maintenance of the airspace over the United States and its territories and Atlantic and Pacific Ocean coastlines. This

ID	Parent ID	Name	Allowed	Description
				includes information about the airspace areas, sectors, routes, paths, and other airspace regions within the geographic boundaries of the en route, terminal, and aerodrome facilities. This information includes the production, maintenance, and distribution of airspace policy, guidance, directives, procedures, regulations, rules, and standards.
1.4.2	1.4	Air Transportation Facility Information Service	Yes	An air transportation infrastructure service category that describes services providing information about the necessary air transportation activities involved in the design, construction, operation and maintenance of the physical buildings or structures at a specific geographic location associated within an Air Transportation facility. This includes information about the land, buildings, utilities, and other support equipment within the geographic and functional boundaries of the facility. This information includes the production, maintenance, and distribution of air transportation facility policy, guidance, directives, procedures, regulations, rules, and standards.
1.4.2.1	1.4.2	Aerodrome Facility Information Service	Yes	An air transportation facility information service category that describes services providing information about the necessary air transportation activities involved in the design, construction, operation and maintenance of the physical buildings, structures, systems and equipment at a specific geographic location that is to be used either wholly or in part for the arrival, landing, taxiing, standing, take-off, and departure of aircraft. This information may include: 1) status of arriving and departing flights; 2) list of services offered at the facility; 3) statistics associated with the operation of flights and availability of services offered; 4) list of air transportation organizations operating within the facility; and 5) hours of operation, access to, and utilization of the land, buildings, structures, utilities, and other support systems and equipment within the geographic and functional boundaries of the aerodrome facility.
1.4.2.1.1	1.4.2.1	Airport Information Service	Yes	An aerodrome facility information service category that describes services providing information about the: 1) status of arriving and departing flights within the airport; 2) list of services offered at the airport; 3) statistics associated with the operation of flights

ID	Parent ID	Name	Allowed	Description
				and availability of services offered; 4) list of air transportation organizations operating within the airport; and 5) hours of operation, access to, and utilization of the land, buildings, structures, utilities, and other support systems and equipment within the geographic and functional boundaries of the airport.
1.4.2.1.2	1.4.2.1	Heliport Information Service	Yes	An aerodrome facility information service category that describes services providing information about the: 1) status of arriving and departing flights within the heliport; 2) list of services offered at the heliport; 3) statistics associated with the operation of flights and availability of services offered; 4) list of air transportation organizations operating within the heliport; and 5) hours of operation, access to, and utilization of the land, buildings, structures, utilities, and other support systems and equipment within the geographic and functional boundaries of the heliport.
1.4.3	1.4	Air Transportation Procedures Information Service	Yes	An air transportation infrastructure information service category that describes services providing information about the drafting, review, publication, and subsequent archival of procedures directing the safe and efficient conduct, operation, and flow of air traffic and performance of air transportation activities. This includes information about the proper operation, maintenance, and use of: 1) aircraft and aircraft systems, including avionics; 2) national airspace; 3) Air Transportation facilities; and 4) Air Transportation systems, equipment, and tools.
1.4.4	1.4	Air Transportation Systems Information Service	Yes	An air transportation infrastructure information service category that describes services providing information about the necessary air transportation activities involved in the design, development, implementation, operation, utilization, and maintenance of the air transportation systems and air transportation information systems. This includes creating, maintaining, and disseminating information about the enterprise and system architectures, their infrastructure, and individual system structures, and individual system components (including equipment, tools, computer hardware and software (including software utilities

ID	Parent ID	Name	Allowed	Description
				and application programs)). This information includes the production, maintenance, and distribution of air transportation system policy, guidance, directives, procedures, regulations, rules, and standards.
1.5	1	Air Transportation Infrastructure Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of providing assistance or help in the use of the airspace, facilities (including land, buildings, utilities, and other support equipment), systems (automated and manual), and relevant procedures within the geographic and functional boundaries of the United States. This assistance may be in the form of assisting in the navigation of the airspace via air traffic control, taking actions in response to an emergency within a facility, or providing a system to permit a pilot to determine the aircraft's position or bearings without human intervention.
1.5.1	1.5	Air Transportation Airspace Service	Yes	An air transportation infrastructure service category that describes services performing tasks or assisting others with the necessary tasks to conduct safe, secure, and efficient air transportation activities within the confines of the airspace over the United States and its territories and Atlantic and Pacific Ocean coastlines. The tasks performed include the design, operation, maintenance, management, and oversight of the airspace areas, sectors, routes, paths, and other airspace regions within the geographic boundaries of the en route, terminal, and aerodrome facilities.
1.5.1.1	1.5.1	Airspace Management Service	Yes	An air transportation airspace service category that describes services involving the performance of tasks that makes the national airspace available to aircraft. These tasks include the management of the airspace to ensure the safe and secure movement of aircraft, whether owned and operated by commercial, private, public, or organizations.
1.5.2	1.5	Air Transportation Facility Service	Yes	An air transportation infrastructure service category that describes services performing tasks or assisting others with the necessary tasks to conduct safe, secure, and efficient air transportation activities within the confines of an air transportation facility. The tasks performed include the design, construction, operation, maintenance, management and oversight of the physical buildings and/or structures at a specific geographic location. It also includes the performance of those tasks necessary to:

ID	Parent ID	Name	Allowed	Description
				1) ensure the safety and security of those facilities; and 2) respond to emergency situations.
1.5.2.1	1.5.2	Aerodrome Facility Service	Yes	An air transportation facility service category that describes services within the confines of the Aerodrome which consists of an area of land or water that is to be used either wholly or in part for the arrival, landing, taxiing, standing, and departure of aircraft. The aerodrome facility may also: 1) have paved runways; 2) have navigational aids; 3) provide air traffic control services; 4) provide emergency services; and 5) provide buildings and structures for: a) maintaining or storing aircraft; and b) handling of passengers or cargo.
1.5.2.1.1	1.5.2.1	Airport Service	Yes	An aerodrome facility service category that describes services requiring the performance of tasks (by employee, contractor, or airport personnel) to: 1) support the air carriers operating within the airport; 2) respond to emergencies by offering fire, rescue, and accident services; 3) support the needs of passengers moving through the airport; 4) ensure the safety and security of all activities, resources, personnel, and passengers within the airport; and 5) maintain the proper operation of the airport facility, its buildings, structures, systems, and equipment within the geographic and functional boundaries of the airport.
1.5.2.1.2	1.5.2.1	Heliport Service	Yes	An aerodrome facility service category that describes services requiring the performance of tasks (by employee, contractor, or heliport personnel) to: 1) support the air carriers operating within the heliport: 2) respond to emergencies by offering fire, rescue, and accident services; 3) support the needs of passengers moving through the heliport; 4) ensure the safety and security of all activities, resources, personnel, and passengers within the heliport; and 5) maintain the proper operation of the heliport facility, its buildings, structures, systems, and equipment within the geographic and functional

ID	Parent ID	Name	Allowed	Description
				boundaries of the heliport.
1.5.3	1.5	Air Transportation Systems Service	Yes	An air transportation infrastructure service category that describes services performing technical tasks or providing assistance to those performing these tasks to ensure the conduct of safe, secure, and efficient air transportation activities while utilizing one or more air transportation systems. Also included are those technical tasks associated with the design, development, implementation, operation, utilization, and maintenance of the air transportation systems and air transportation information systems, as well as those tasks that create and maintain the enterprise and system architectures, their infrastructure, and individual system structures, and individual system components (including equipment, tools, computer hardware and software (including software utilities and application programs)).
1.6	1	Air Transportation Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of directly performing activities to: 1) transfer or convey passengers or cargo from one geographic location to another via aircraft; 2) command and control air traffic; 3) obtain authorizations from air transportation regulatory authorities for planned aircraft flights; 4) design, construct, operate, and maintain aircraft and air transportation systems and facilities; or 5) lend assistance to others to ensure the safe and secure movement of aircraft through all phases of flight for civilian, commercial, and military operations.
1.6.1	1.6	Air Traffic Service	Yes	An air transportation service category that describes services requiring the performance of tasks that ensures the safe, secure, and efficient movement of commercial, private, and military air traffic. The tasks associated with the provision of air traffic services include air traffic control, air traffic management, and air traffic command and control.
1.6.1.1	1.6.1	Air Traffic Control Service	Yes	An air traffic service category that describes services involving the performance of tasks (by air traffic controllers) for the purpose of: 1) preventing aircraft collisions both in the air and on the ground using surveillance systems that permit the monitoring and tracking of individual flights and air traffic movement within an assigned area of airspace or air transportation facility;

ID	Parent ID	Name	Allowed	Description
				2) guiding and controlling flights by advising, alerting, authorizing, and commanding pilots to take corrective or evasive actions to ensure a safe, secure, and efficient separation of flight paths; 3) guiding and controlling flights by providing navigation systems and services so pilots can ascertain and maintain the flight path set forth in their flight plan; and 4) expediting and maintaining an orderly flow of air traffic by continuously monitoring and remaining aware of evolving situations and then making the changes necessary to accommodate the ever-changing environmental conditions (by issuing advisories, issuing alerts, re-routing affected flights, etc.).
1.6.1.1.1	1.6.1.1	Airspace Surveillance Service	Yes	An air traffic control service category that describes services requiring the air traffic controller to detects, track, and monitor aircraft and /or objects and their movement within the assigned airspace.
1.6.1.1.2	1.6.1.1	Emergency Service	Yes	An air traffic control service category that describes services requiring the air traffic controller to provide the appropriate assistance to aircraft in an emergency state, with coordination of efforts managed between all necessary facilities.
1.6.1.1.3	1.6.1.1	Flight Control Service	Yes	An air traffic control service category that that describes services requiring the air traffic controller to exercise of authority over the continuation of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.
1.6.1.1.4	1.6.1.1	Traffic Control Service	Yes	An air traffic control service category that describes services requiring the air traffic controller to supervise a specific volume of airspace and any implemented changes in sectors, airspace restrictions, and special use airspace in order to safely and efficiently direct aircraft navigating in the arrival/departure airspace.
1.6.1.2	1.6.1	Air Traffic Support Service	Yes	An air traffic service category that describes services involving the performance of tasks that: 1) assist air traffic controllers in their executing duties; and/or 2) assist the air traffic controllers maintain situation awareness by enabling the fast and efficient exchange of air traffic information. This includes, but is not limited to, sending, transmitting, and receiving the following types of information: flight plan information, NAS infrastructure information, aeronautical information, post-flight information, communication system information, and facility and systems management information.

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1.6.2	1.6	Air Transportation Safety Service	Yes	An air transportation service category that describes services involving the performance of tasks to facilitate and ensure 1) the safe and efficient conduct of flights; and 2) the safety of passengers, personnel (e.g., FAA, airline, facility), and air transportation infrastructure and operations (e.g., airspace, facilities, systems). These tasks are primarily involved with the evaluation, selection, and implementation of measures and controls necessary to ensure the safety of air transportation activities. Oversight activities are focused on ensuring that the safety measures and controls placed in operation are being enforced and are in compliance with applicable laws, mandates, directives, rules, regulations, orders, and standards. All of these tasks work towards maintaining an adequate level of safety for current operations.
1.6.3	1.6	Air Transportation Security Service	Yes	An air transportation service category that describes services involving the performance of tasks to facilitate and ensure the security of 1) flights and their passengers and crew; and 2) air transportation facilities, systems, and their operation. These tasks are primarily involved with the evaluation, selection, and implementation of measures and controls necessary to ensure the security of air transportation activities. Oversight activities are focused on ensuring that the security measures and controls placed in operation are being enforced and are in compliance with applicable laws, mandates, directives, rules, regulations, orders, and standards. All of these tasks work towards maintaining an adequate level of security for current operations.
1.6.3.1	1.6.3	Physical Resource Security Service	Yes	An air transportation security service category that describes services requiring the performance of tasks necessary to protect: 1) the national airspace; 2) flights within the airspace; 3) air transportation facilities; and 4) cargo and payloads on those flights and within those facilities.
1.6.4	1.6	Air Transportation Support Service	Yes	An air transportation service category that describes services performed by one or more employees or contractors who lend assistance to others in the performance of tasks that ensures the safe, secure, and efficient movement of commercial, private, and military air traffic. This service involves providing assistance to air traffic

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				tasks such as dissemination of flight plan information, NAS infrastructure information, aeronautical Information, weather information, post flight information; and operation of air traffic systems, etc.
1.7	1	Aircraft Information Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of providing advice or information about aircraft An aircraft information service has the purpose of: 1) providing information, advice, or guidance about aircraft; 2) creating or producing information about aircraft; 3) receiving aircraft information from others (internal and external to the agency); 4) maintaining the timeliness, relevance, or accuracy of this information; 5) validating or verifying the quality of aircraft information; 6) changing the form or structure of aircraft information to fit different circumstances or conditions; 7) storing this information in the proper container based on information needs; or 8) distributing aircraft information to others (internal and external to the agency). This information may take the form of text or data. It may also take the structure of a document, record, report, file, form, or message.
1.7.1	1 .7	Aircraft System Information Service	Yes	An aircraft information service category that describes services performed for the purpose of providing advice or information about aircraft systems (automated and manual), and relevant procedures within the geographic and functional boundaries of the United States. This information includes information about the necessary activities involved in the design, implementation, operation and maintenance of aircraft systems. This information also includes the production, maintenance, and distribution of aircraft system policy, guidance, directives, procedures, regulations, rules, and standards.
1.8	1	Aircraft Service	Yes	A category (or conceptual grouping) of the services performed by the FAA that are focused on providing engineering advice and technical expertise in the design and manufacture of aircraft.
1.8.1	1.8	Aircraft Engineering Service	Yes	An aircraft service category that describes services performed by one or more employees or contractors who lend assistance in the form of providing technical and engineering advice,

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				guidance, and recommendations regarding the evolving design, manufacture, and maintenance of aircraft while continuing to ensure the overall safety, security, and airworthiness of the aircraft.
1.8.1.1	1.8.1	Aircraft Design Engineering Service	Yes	An aircraft engineering service category that describes services performed by one or more employees or contractors who lend assistance to an aircraft designer in the development of plans and specifications for an aircraft and aircraft systems. This assistance is in the form of providing technical and engineering advice, guidance, and recommendations regarding the evolving design and related concerns regarding overall safety, security, and airworthiness of the aircraft.
1.8.1.2	1.8.1	Aircraft Manufacturing Engineering Service	Yes	An aircraft engineering service category that describes services performed by one or more employees or contractors who lend assistance to an aircraft manufacturer in the fabrication of an aircraft or aircraft system. This assistance is in the form of providing technical and engineering advice, guidance, and recommendations regarding the fabrication of the aircraft and related concerns regarding the overall safety, security, and airworthiness of the aircraft.
1.8.1.3	1.8.1	Aircraft Maintenance Engineering Service	Yes	An aircraft engineering service category that describes services performed by one or more employees or contractors who lend assistance to an air operator maintenance facility regarding the maintenance of an aircraft or aircraft system. This assistance is in the form of providing technical and engineering advice, guidance, and recommendations regarding the maintenance of an aircraft and ensuring the continued safety, security, and airworthiness of the aircraft.
1.9	1	Space Transportation Information Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of providing information to assist in: 1) forecasting future needs for space transportation facilities, systems, and conveyances; 2) making informed decisions regarding space transportation activities; and 3) the movement of spacecraft through the air transportation airspace and into outer space (interplanetary or interstellar space). A space transportation information service has the purpose of: 1) providing information, advice, or guidance about space transportation activities; 2) creating or producing space transportation

ID	Parent ID	Name	Allowed	Description
				information; 3) receiving space transportation information from others (internal and external to the agency); 4) maintaining the timeliness, relevance, or accuracy of this information; 5) validating or verifying the quality of space transportation information; 6) changing the form or structure of space transportation information to fit different circumstances or conditions; 7) storing this information in the proper container based on information needs; or 8) distributing space transportation information to others (internal and external to the agency). This information may take the form of text or data. It may also take the structure of a document, record, report, file, form, or message.
1.9.1	1.9	Commercial Space Transportation Information Service	Yes	A space transportation information service category that describes services providing information about the forecasts and trends of commercial space transportation or about the conduct, operation, and performance of commercial space transportation activities. The later includes information about the proper operation, maintenance, and use of: 1) commercial spacecraft and spacecraft systems; 2) the national airspace, including the launch and entry and exit of this airspace; 3) Commercial Space Transportation facilities and launch and re-entry sites; and 4) Commercial Space Transportation systems, equipment, and tools. This information also includes the production, maintenance, and distribution of commercial space transportation policy, guidance, directives, procedures, regulations, rules, and standards.
1.9.1.1	1.9.1	Commercial Space Transportation Forecast Service	Yes	A commercial space transportation information service category that describes services providing information to FAA management and prospective and current operators regarding space systems engineering, space policy, and economic and launch forecast capabilities.
1.9.1.1.1	1.9.1.1	Commercial Space Transportation Economic Forecast Service	Yes	A commercial space transportation information service category that describes services providing information to FAA management and prospective and current operators regarding commercial space economic forecasts.
1.9.1.1.2	1.9.1.1	Commercial Space	Yes	A commercial space transportation information service category that describes services providing

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		Transportation Launch Capability Forecast Service		information to FAA management and prospective and current operators that forecasts the need for future commercial space launch capabilities.
1.10	1	Space Transportation Infrastructure Information Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of providing advice or information about the airspace and outer space, facilities (including land, buildings, utilities, and other support equipment), systems (automated and manual), and relevant procedures within the geographic and functional boundaries of the United States and space exploration. A space transportation infrastructure information service has the purpose of: 1) providing information, advice, or guidance about the different components of the space transportation infrastructure; 2) creating or producing information about the space transportation infrastructure; 3) receiving space transportation infrastructure information from others (internal and external to the agency); 4) maintaining the timeliness, relevance, or accuracy of this information; 5) validating or verifying the quality of space transportation infrastructure information; 6) changing the form or structure of space transportation infrastructure information to fit different circumstances or conditions; 7) storing this information in the proper container based on information needs; or 8) distributing space transportation infrastructure information to others (internal and external to the agency). This information may take the form of text or data. It may also take the structure of a document, record, report, file, form, or message.
1.11	1	Space Transportation Infrastructure Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of providing assistance and technical expertise in the design, development, licensing, and operation of space transportation facilities and systems; and the movement of spacecraft through the air transportation airspace.
1.11.1	1.11	Commercial Space Transportation Facility Service	Yes	A space transportation infrastructure service category that describes services facilitating the strengthening and expansion of the US space transportation infrastructure through the planning, design, development, implementation, operation, and maintenance of Commercial Space Transportation Launch and Re-entry facilities and

ID	Parent ID	Name	Allowed	Description
				sites.
1.11.2	1.11	Commercial Space Transportation System Service	Yes	A space transportation infrastructure service category that describes services facilitating the strengthening and expansion of the US space transportation infrastructure through the planning, design, systems engineering, development, implementation, operation, and maintenance of Commercial Space Transportation Systems (both manual and automated).
1.11.2.1	1.11.2	Commercial Space Transportation Systems Engineering Service	Yes	A commercial space transportation system service category that describes services where technical engineering expertise is provided regarding the proper operation, maintenance, and use of: 1) commercial spacecraft and spacecraft systems; 2) the national airspace, including the launch and entry and exit of this airspace; 3) Commercial Space Transportation facilities and launch and re-entry sites; and 4) Commercial Space Transportation systems, equipment, and tools.
1.12	1	Space Transportation Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of directly performing activities to: 1) transfer or convey people or cargo from one geographic locatino to another via spacecraft; 2) command and control of spaceflights; 3) obtain authorizations from air transportation regulatory authorities of planned spacecraft launches and re-entries through the earth's atmosphere; 4) design, construct, operate and maintain spacecraft and space transportation systems and facilities; and 5) provide assistance and technical expertise to others regarding: a) the launch of spacecraft through the earth's atmosphere; b) the safe and secure transport of people or payloads through outer space; c) their re-entry into the earth's atmosphere; and d) a safe landing on the earth's surface (whether land or water).
1.12.1	1.12	Commercial Space Transportation Service	Yes	A space transportation service category that describes services requiring the provision of expertise via technical and consultation services to commercial space transportation operators.
1.12.1.1	1.12.1	Commercial Space Transportation Expertise Service	Yes	A commercial space transportation service category that describes services where technical expertise is provided to commercial space transportation operators regarding matters related to the launch and re-entry of spacecraft and the

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				preparation of launch and re-entry sites to accommodate the needs of the spacecraft and crew.
1.12.1.1.1	1.12.1.1	Commercial Space Transportation Consultation Service	Yes	A commercial space transportation service category that describes services requiring technical expertise to be provided to prospective launch and site operations license applicants as they progress through the Commercial Space Transportation application and licensing process.
1.12.1.2	1.12.1	Launch Service	Yes	A commercial space transportation service category that describes services requiring technical expertise to be provided to prospective and current launch operators regarding matters related to the launch of commercial spacecraft within the national airspace and geographic boundaries of the United States.
1.12.1.3	1.12.1	Re-Entry Service	Yes	A commercial space transportation service category that describes services requiring technical expertise to be provided to prospective and current launch operators regarding matters related to the re-entry of commercial spacecraft within the national airspace and geographic boundaries of the United States.
1.12.1.4	1.12.1	Commercial Space Transportation Support Service	Yes	A commercial space transportation service category that describes services requiring assistance to be provided to prospective launch and site operations license applicants as they progress through the Commercial Space Transportation application and licensing process.
1.13	1.12.1	Spacecraft Information Service	Yes	A category (or conceptual grouping) of the services performed for the purpose of providing advice or information about spacecraft and relevant procedures within the geographic and functional boundaries of the United States and outer space. A spacecraft information service has the purpose of: 1) providing information, advice, or guidance about spacecraft; 2) creating or producing information about spacecraft; 3) receiving spacecraft information from others (internal and external to the agency); 4) maintaining the timeliness, relevance, or accuracy of this information; 5) validating or verifying the quality of spacecraft information; 6) changing the form or structure of spacecraft information to fit different circumstances or conditions;

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				7) storing this information in the proper container based on information needs; or 8) distributing spacecraft information to others (internal and external to the agency). This information may take the form of text or data. It may also take the structure of a document, record, report, file, form, or message.
1.13.1	1.13	Commercial Spacecraft Information Service	Yes	A spacecraft information service category that describes services performed for the purpose of providing advice or information about commercial spacecraft and their systems (automated and manual), and relevant procedures applicable within the geographic and functional boundaries of the United States and outer space. This information includes information about the necessary activities involved in the design, implementation, operation and maintenance of commercial spacecraft and spacecraft systems. This information also includes the production, maintenance, and distribution of commercial spacecraft and spacecraft systems policy, guidance, directives, procedures, regulations, rules, and standards.