**[\_arg\_ServiceImage\_]**

**[\_arg\_ServiceName\_]**

**[\_arg\_ServiceAbbreviation\_]**

**[\_arg\_ServiceVersion\_]**

**GRA**

**Service Description  
Document Version 1.0**

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# Introduction

This Service Description Document describes information about all aspects of the [\_arg\_ServiceName\_] ([\_arg\_ServiceAbbreviation\_]) service which are not directly tied to the physical implementation.

In the context of the GRA and Service-Oriented Architecture [soa] in general, a service is the means by which one partner gains access to one or more capabilities offered by another partner. Capabilities generate real-world effects that can be as simple as sharing information or can involve performing a function as part of a complex process or changing the state of other related processes. Government organizations have numerous capabilities and a multitude of partner organizations, both inside and outside of their traditional communities. There are significant benefits for these organizations to share information and have access to each other's capabilities. Achieving interoperability among these organizations requires alignment of business and technical requirements and capabilities. In addition, it is critical to have a consistent way of specifying these requirements and capabilities and sharing them across organizational boundaries. The GRA was developed to facilitate interoperability and to assist in meeting other key requirements common in a complex government information sharing environment. In order to achieve interoperability, a consistent approach must be defined to identify, describe, and package services and their interactions in many different technical environments, across multiple government lines of business, at all levels of government, and with partner organizations.

The GRA defines a service interfaceas “the means for interacting with a service.” It includes specific protocols, commands, and information exchange by which actions are initiated on the service. A service interface is what a system designer or implementer (programmer) uses to design or build executable software that interacts with the service. That is, the service interface represents the “how” of the interaction. Since the service interface is the physical manifestation of the service, best practices call for service interfaces which can be described in an open-standard, machine-referenceable format (that is, a format which could be automatically processed by a computer).

A Service Specification is a formal document describing the capabilities made available through the service; the service model that defines the semantics of the service by representing its behavioral model, information model, and interactions; the policies that constrain the use of the service; and the service interfaces which provide a means to interacting with the service. A Service Specification is analogous to the software documentation of an Application Programming Interface [api]. It provides stakeholders with an understanding of the structure of the service and the rules applicable to its implementation. It gives service consumers the information necessary for consuming a particular service and service providers the information necessary for implementing the service in a consistent and interoperable way.

The main components of a Service Specification are the Service Description, one or more Service Interface Descriptions, and the schemas and the samples used to implement and test the service.

A Service Description contains information about all aspects of the service which are not directly tied to the physical implementation of the service; in other words, the service interface. A Service Interface Description is a description of the physical implementation; specifically, the service interface used in a specific implementation of the service. Since a service can leverage multiple Service Interfaces, the Service Specification might contain more than one Service Interface Description.

# Service Overview

## Purpose

The purpose of this service is to support the establishment and operation of automated [\_arg\_ServiceName\_] ([\_arg\_ServiceAbbreviation\_]) service capabilities. This document describes the basic functions comprising the information sharing process. This service specification enables interoperable information exchange between system implementations.

## Scope

## Capabilities

## Real-World Effects

## Summary

[\_arg\_ServiceSummary\_]

## Description

## Security Classification

## Service Specification Package Version

This service specification is built based on version 1.0 of the GRA Service Specification Package (SSP).

# 

# Business Scenarios

# Service Interoperability Requirements

## Service Interaction Requirements

The table below outlines the service interaction requirements and the associated standards that are being used to support this service interface.

|  |  |  |
| --- | --- | --- |
| Requirements | Mandatory | Specification |
| Service Consumer Authentication | *\_arg\_sir\_00* | *\_arg\_sir\_specs\_00* |
| Service Consumer Authorization | *\_arg\_sir\_01* | *\_arg\_sir\_specs\_01* |
| Identity and Attribute Assertion Transmission | *\_arg\_sir\_02* | *\_arg\_sir\_specs\_02* |
| Service Authentication | *\_arg\_sir\_03* | *\_arg\_sir\_specs\_03* |
| Message Nonrepudiation | *\_arg\_sir\_04* | *\_arg\_sir\_specs\_04* |
| Message Integrity | *\_arg\_sir\_05* | *\_arg\_sir\_specs\_05* |
| Message Confidentiality | *\_arg\_sir\_06* | *\_arg\_sir\_specs\_06* |
| Message Addressing | *\_arg\_sir\_07* | *\_arg\_sir\_specs\_07* |
| Reliability | *\_arg\_sir\_08* | *\_arg\_sir\_specs\_08* |
| Transaction Support | *\_arg\_sir\_09* | *\_arg\_sir\_specs\_09* |
| Service Metadata Availability | *\_arg\_sir\_10* | *\_arg\_sir\_specs\_10* |
| Interface Description Requirements | *\_arg\_sir\_11* | *\_arg\_sir\_specs\_11* |
| Service Responsiveness | *\_arg\_sir\_12* | *\_arg\_sir\_specs\_12* |

Table 1: Service Interaction Requirements

## Service Assumptions

## Service Dependencies

## Execution Context

## Policies and Contracts

## Security

## Privacy

## Other Requirements

# Additional Information

# Service Model

## Information Model

### IEPD Reference

### Data Inputs

### Data Outputs

### Data Provenance

## Behavior Model

### Action Model

### Process Model

# Appendix A — References

**GRA** Global Reference Architecture (GRA) Specification, Version 1.9.1

<https://it.ojp.gov/gra>

**GRA** **SSG** GRA Service Specification Guideline, Version 1.0.0

<https://it.ojp.gov/gist/43/The-Global-Reference-Architecture--GRA--Service-Specification-Guideline-V-1-0-0>

**WS-SIP** GRA Web Services Service Interaction Profile, Version 1.3

https://it.ojp.gov/gist/56/Global-Reference-Architecture--GRA--Web-Services-Service-Interaction-Profile-Version-1-3

**RS WS-SIP** GRA Reliable Secure Web Services Service Interaction Profile, Version 1.2

https://it.ojp.gov/gist/85/Global-Reference-Architecture--GRA--Reliable-Secure-Web-Services-Service-Interaction-Profile

**WS-I BP** WS-I Basic Profile, Version 1.2, 2010-11-09,

<http://ws-i.org/profiles/basicprofile-1.2-2010-11-09.html>

**WS-I BSP** WS-I Basic Security Profile, Working Group Draft, March 30, 2007,

<http://www.ws-i.org/Profiles/BasicSecurityProfile-1.0.html>

**WS-I RSP** Reliable Secure Profile Version 1.0, 2010-11-09,

<http://www.ws-i.org/Profiles/ReliableSecureProfile-1.0-2010-11-09.html>

# Appendix B — Glossary

|  |  |
| --- | --- |
| Acronym | Description |
| GRA | *Global Reference Architecture* |
| GRA SSG | *GRA Service Specification Guideline* |
| NIEM | *National Information Exchange Model* |
| OASIS | *Organization for the Advancement of Structured Information Standards* |
| RS WS SIP | *GRA Reliable Secure Web Services Service Interaction Profile* |
| SOAP | *Simple Object Access Protocol* |
| W3C | *World Wide Web Consortium* |
| WCF | *Windows Communication Framework* |
| WS | *Web Services* |
| WS-SIP | *GRA Web Services Service Interaction Profile* |
| WSDL | *Web Services Description Language* |
| XML | [*eXtensible Markup Language*](http://en.wikipedia.org/wiki/XML) |

Table : Acronym Descriptions

# Appendix C — Document History

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| --- | --- | --- | --- |
| Date | Version | Editor | Change |
|  |  |  |  |
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Table : Document Revision History