SWIM
Service Level Agreement (SLA) Template, Version 1.0.0

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1 INTRODUCTION

1.1 Scope

This document outlines a template for creating Service Level Agreements (SLAs) between System-Wide Information Management (SWIM) service providers and consumers. Its main purpose is to offer a consistent framework that can be personalized with specific parameters to formalize an SLA. By standardizing the structure and content for all SWIM-related SLAs, this template promotes consistency and operational efficiency in SWIM Service Level Management.

The template will be regularly updated and improved to provide timely and practical guidance.

1.2 Purpose

The purpose of this document is twofold:

- To provide a uniform, well-defined structure for a SWIM SLA while allowing for necessary adaptations.
- To assist users in understanding the SLA's components and their correct application.

This document is intended to assist providers and consumers of SWIM services in establishing a Service Level Agreement (SLA). It provides a structured template that adheres to SWIM's best practices. Readers are encouraged to consult Concept of Operations SWIM Service Level Management (SSLM), Version 1.0.0, specifically section 5.1.1.1, Service Level Agreement (SLA), for additional context.

It is important to note that this document represents the "basic" model of the SOA ecosystem, wherein a single provider assumes full responsibility for provisioning a service to a service consumer. While such use cases are relatively rare in SWIM, this document employs this model as a foundational approach. This basic structure can be extended to address more complex scenarios, such as service provisioning chains or multi-provider ecosystems.

1.3 Organization of the Document

This document is organized into three main sections: Introduction, Template, and Usage Instructions. Each section serves a specific purpose to facilitate the development of an SLA:

- The Introduction section provides an overview of the document's purpose, scope, and key concepts. It also includes references to relevant FAA guidelines, international and industry efforts in the area of Service Level Management. This ensures that the template is consistent with recognized standards and practices.
- The Template section provides the framework for creating SLAs between SWIM service providers and consumers. It includes predefined fields and structured content that can be customized with specific parameters.
- The Usage Instructions section provides guidance on how to properly fill out and use the Template. It offers explanations for specific fields and terms, ensuring that both service

providers and consumers understand how to customize the document to meet their specific needs.

1.4 Terms and Definitions

The following terms and definitions apply throughout this document and are intended to establish a common understanding for all SWIM-related SLA's terms. These terms are consistent with industry standards and should be referenced in all future SLAs derived from this template:

Downtime	The total time during which the service is unavailable due to incidents or planned maintenance activities.
Incident	Any unplanned interruption to a service or degradation in service quality that impacts the user experience.
Service	A mechanism to enable access to one or more capabilities, where the access is provided using a prescribed interface and is exercised consistent with constraints and policies as specified by the service description.
Service Consumer	The organizational entity utilizing the service, which maintains a formal relationship with the service provider.
Help Desk	A person, organization, or software system that acts as a point of communication between service providers and their consumers to support the reporting and resolution of incidents.
Service Level Agreement (SLA)	A documented agreement between a service provider and consumer that identifies services and their agreed-upon performance.
Service Provider	An organizational entity responsible for provisioning the service for a service consumer.
Service Provisioning	A set of activities performed by an organization to provide a service. It includes managing the provider's resources, configuring to deliver the service, ensuring access to these resources for users, fulfilling the agreed-upon service actions, service level management, and continual improvement.
Uptime	The total duration during which a service is fully operational and accessible to users. It reflects the time that a system, server, or network is available without any outages or interruptions.

1.5 Typographic Conventions

The `text within shaded and bordered boxes` indicates fields that SLA developers should complete. Subscripts following these fields link to corresponding instructions that elaborate on the required content and provide additional guidance.

1.6   Referenced Documents

SWIM Governance Policies, Version 3.1; FAA; February 6, 2020
https://www.faa.gov/sites/faa.gov/files/air_traffic/technology/swim/governance/SWIM%20Governance%20Policies%20v3.1_20200206_Final.pdf

ISO 20000-1 2011; Information technology - Service management - Part 10: Concepts and vocabulary; 2018-09

Concept of Operations SWIM Service Level Management (SSLM) Version 1.0.0; FAA, Version 1.0.0, October 2022
https://www.faa.gov/media/68461

Handbook, Preparation of SWIM Cloud Service Level Agreement (SLA-C), 24 June 2024

DNA1.2.3 - Service Level Agreement Template - Rev. 2; European Middleware Initiative; April 30, 2012

IT Infrastructure Library (ITIL) Foundation, 4 Edition; AXELOS Limited; 2019

Service Level Agreement in The Context of Asian-Pacific (APAC) SWIM: Introduction; The Fifth Meeting of System Wide Information Management Task Force (SWIM TF/5); August 2021
https://www.icao.int/APAC/Meetings/2021%20SWIM%20TF%205/WP10_USA%20AI.6%20-%20SLA%20Introduction.pdf

SWIM-006, Artifacts Versioning in SWIM, Version 1.0.0; FAA; September 12 September, 2024
https://www.faa.gov/media/86011

FAA-STD-075, Creating Service Identifiers; FAA SWIM; June 29, 2021
https://www.faa.gov/sites/faa.gov/files/air_traffic/technology/swim/governance/FAA-STD-075%20FINAL%206-29-2021.pdf

2 TEMPLATE

2.1 Title

<div align="center">

Service Level Agreement (SLA)

between `service provider name` [1]
and `service consumer name` [2]
for consumption of `service name` [3]

SLA Identifier: `SLA ID/URI` [4]
SLA Version: `SLA version number` [5]
Effective Date: `SLA effective date` [6]

</div>

2.2 Agreement Overview

This Service Level Agreement (SLA), hereinafter referred to as **the Agreement**, governs the specific terms and conditions in support of the provision and consumption of the `service name` [7]. It outlines the rights and obligations of the service provider, `service provider name` [8], hereinafter referred to as **Provider**, and the service consumer, `service consumer name` [9] hereinafter referred to as **Consumer**.

This Agreement remains valid until superseded by a revised agreement mutually endorsed by the stakeholders.
This Agreement does not supersede current processes and procedures unless explicitly stated herein.

2.3 Goals and Objectives

The purpose of this Agreement is to establish the necessary commitments for the consistent delivery of a SWIM service to the Customer by the Provider.

The goal of this Agreement is to set shared expectations for the provision of a SWIM service between the Provider and Customer.

The objectives of this Agreement are to:

- Clearly define service ownership, accountability, roles, and responsibilities.
- Provide a clear, concise, and measurable description of the services delivered to the Customer.
- Align expectations of service delivery with actual performance.

2.4   Terms, Termination and Amendments

This Agreement is valid from the Effective Date outlined herein for a maximum period of `time period` [10] months. This Agreement should be reviewed at a minimum once per year; however, in lieu of a review during any period specified, the current Agreement will remain in effect.

Should the Consumer wish to terminate the Agreement before its expiration date, the Consumer will inform the Provider and SWIM Program Office in writing with `time period` [11] days' notice. Similarly, the Provider will inform the Contributor in writing with `time period` [12] days' notice should they wish to terminate the Agreement before its expiration date.

Either party may propose revisions to this Agreement following changes to the service or its usage. Any new revision of this Agreement will supersede and replace all prior agreements, which will be considered expired.

2.5   Service Information

The following Service is covered by this Agreement:

ID: `service's identifier` [13]

Name: `service's full name and acronym` [14]

Version: `service's version` [15]

Description: `brief description of the service` [16]
                    For more details see `reference to complete service description` [17]

2.6   Parties

2.6.1   Service Provider

Name: `Provider's organization name` [18]

Description: `A brief description of the Provider's organization` [19]

2.6.1.1 *Provider Designated Contacts* [20]

Name:	Work Function:	Email:	Phone Number:
`full name of the contact` [21]	`job title or brief description of the contact's responsibilities` [22]	`contact's email` [23]	`contact's phone number` [24]

2.6.2   Service Consumer

Name: `Consumer's organization name` [25]

Description: `A brief description of the Consumer's organization` [26]

2.6.2.1 *Consumer Designated Contacts* [27]

Name:	Work Function:	Email:	Phone Number:
`full name of the contact` [28]	`job title or brief description of the contact's responsibilities` [29]	`contact's email` [30]	`contact's phone number` [31]

2.7   Service Performance

The following service-level metrics outline the performance expectations for the `service name` [32]. Each metric defines the performance criteria in terms of its definition, calculation method, unit of measure, and value or range of values. The definition of each metric may be specific to this Agreement and may vary based on the nature of the service or infrastructure [33].

2.7.1.   Uptime Percentage

In the context of this Agreement, *uptime percentage* is understood as the percentage of time during which the service is operational without interruptions.

Provider agrees to:

   a.   maintain an *uptime percentage* of `percentage value` [34] or greater.

The *uptime percentage* value is measured as follows:

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uptime percentage = (user minutes – downtime/user minutes) X 100

Where:

> *user minutes* refers to the total time in minutes the service is expected to be available to users during the period being measured.

> *downtime* refers to the total minutes during which the service is unavailable due to incidents.

The *uptime percentage* value is measured in percentage, accurate to three decimal places.

2.7.2. Response Time

In the context of this Agreement, *response time* is understood as the time taken by the service to respond to a request or inquiry.

Provider agrees to:

> a.   maintain a maximum response time of `value` [35] for each service request.

The response time value is measured as average time from the receipt of the request to the response being sent back.

The response time is measured in seconds, accurate to two decimal places.

2.7.3. Latency

In the context of this Agreement, *latency* is understood as the delay between a request being sent and the service beginning to process it.

Provider agrees to:

> a.   maintain a latency of `value` [36] or less.

The latency value is measured as average delay measured across different network locations and times.

The latency is measured in milliseconds (ms), accurate to two decimal places.

2.7.4. Error Rate

In the context of this Agreement, *error rate* is understood as the percentage of total requests that fail due to errors in the service.

Provider agrees to:

> a.   maintain an *error rate* of `value` [37] or less.

The *error rate* is measured as follows:

error rate = (total failed requests/total requests) ×100

Where:

total failed requests refers to the number of requests that result in errors.

total requests refers to the total number of requests made during the measurement period.

The error rate is measured in percentage, accurate to two decimal places.

2.8 Problem Reporting

In the event of a service problem or disruption,

Provider agrees to:

a. Send an acknowledgment of receipt of the problem to the Help Desk and the Consumer within `acknowledgment time` [38] minutes.
b. Categorize the problem as Critical or Non-critical.
   - Critical problems are defined as disruptions of service where the Consumer no longer has access to the service.
   - Noncritical problems are all other problems that impede or degrade service delivery but do not result in a service disruption.
c. Generate a problem report with the corresponding problem category and resolution parameters and provide it to the Consumer.

Provider agrees to resolve problems as follows:

a. Critical problems occurring during work hours: If not resolved within `work-hours escalation time` [39] the problem will escalate to reporting to Provider management.
b. Critical problems occurring after hours: If not resolved within `after-hours escalation time` [40], the problem will escalate to reporting to Provider management.
c. Noncritical problems: If not resolved within `time frame for escalation` [41] workdays, the problem will escalate to reporting to Provider management.

Consumer agrees to:

a. Report the problem to the Provider and/or Help Desk at the contact points identified below:
   - Telephone: `complete phone number of the organization that serves as Provider Help Desk` [42].
   - Online reporting: `URL for page or application for submitting online report` [43].
   - Email: `email for Provider's Help Desk contact` [44].

2.9 Service Maintenance

Provider agrees to:

a. This service is offered `availability schedule` [45].
b. This service `maintenance window` [46].
c. Notification will typically be given at least `maintenance notification time` [47].

2.10 Change Control

Provider agrees to:

a. Notify the Consumer about planned changes to the service at the beginning of the planning stage or `time frame` [48] months prior to the target date on which the new version will become operational, whichever comes first.

b. Maintain an active version of the service for at least `value` [49] months after release of the new version.

c. In case of unforeseen delays, the Provider will notify the Consumer within `value` [50] hours of identifying the delay, provide an updated timeline, and offer interim solutions if necessary.

Consumer agrees to:

a. Utilize the most recent release within `time frame` [51] months of general availability.

2.11 Versioning

Provider agrees to:

a. Version each release of the service according to the guidance set forth in Software Specification SWIM-006, Artifacts Versioning in SWIM, Version 1.0.0.

Consumer agrees to:

a. Utilize only versions of the service that are actively maintained by the Provider. Consumers using versions no longer maintained by the Provider are subject to loss of access to the service.

2.12 Documenting

Provider agrees to:

a. Document, maintain, and publish the description of the service and service-related documentation as prescribed by SWIM Governance Policies, Version 3.1.

b. Publish and maintain a description of the service and related documentation in the NSRR.

Consumer agrees to:

a. Create an account in the NSRR and subscribe to receive notifications about changes made to the service description.

2.13 Security

Consumer agrees to:

a. To follow the security policies outlined at `security policy location` [52].

b. If any action by the Consumer or Consumer agent takes place that adversely impacts the service's ability to operate, e.g., security policy infraction, misuse of service capacity, etc.,

the Provider has the right to terminate use of the service until the impacting conditions are remedied.

2.14 Signatures

The parties having read and understood the foregoing sections of the SLA including all documents incorporated therein by reference, expressly agree to these terms and conditions as evidenced by their respective dated signatures below:

<table>
<tr><td align="center"><u>Provider</u></td><td align="center"><u>Consumer</u></td></tr>
<tr><td>Signature</td><td>Signature</td></tr>
<tr><td>Printed Name</td><td>Printed Name</td></tr>
<tr><td>Title</td><td>Title</td></tr>
<tr><td>Date</td><td>Date</td></tr>
</table>

3. USAGE INSTRUCTIONS

[1]	Enter the full legal name of the service provider organization. Use the name of the service provider organization as it appears in the NSRR for consistency.
[2]	Enter the full legal name of the service consumer organization.
[3]	Enter the official name of the SWIM service covered by this SLA. It is recommended to use the name of the service as it appears in the NSRR.
[4]	Enter a unique identifier for this SLA, such as an SLA ID or URI. This identifier should comply with FAA standard "FAA-STD-075, Creating Service Identifiers".
[5]	Specify the version number of this SLA. Versioning should follow FAA standard "SWIM-006, Artifacts Versioning in SWIM, Version 1.0.0".
[6]	Enter the date on which this SLA becomes effective. This is typically formatted as "MM/DD/YYYY" or another standard date format, marking the start of the SLA's validity period. Ensure that this date reflects any required lead time for implementation.
[7]	Specify the SWIM service name as it appears in the NSRR. The name here should also match the service name in the Agreement's title.
[8]	Enter the service provider's full name exactly as it appears in the Agreement's title.
[9]	Enter the service consumer's full name as it appears in the Agreement's title.
[10]	Specify the SLA validity period (e.g., 12, 24, or 36 months).
[11]	Enter the required notice period for SLA termination by the Consumer.
[12]	Enter the required notice period for SLA termination by the Provider.
[13]	Use a service ID as prescribed by FAA standard "FAA-STD-075, Creating Service Identifiers" If such an ID has not been established, enter the service's Global Registry Identifier (GRID) as shown on the service profile page in the NSRR.
[14]	Provide the service's full name along with any acronyms, as listed in the NSRR.
[15]	The version of the service should comply with FAA standard "SWIM-006, Artifacts Versioning in SWIM, Version 1.0.0" Confirm the version details in the NSRR to ensure consistency.
[16]	Provide a concise description (2-3 sentences) summarizing the service's purpose and functionality.
[17]	Provide a link to the NSRR entry for the service covered by this agreement. Note that a standard service description document, such as the WSDD or JMSDD, can also be found within the service's NSRR entry.

[18]	Enter the full legal name of the service provider organization. Use the name of the service provider organization as it appears in the NSRR.
[19]	Summarize the Provider's primary role or function as it pertains to SWIM services.
[20]	Add as many designated contacts as necessary to ensure comprehensive coverage for service-related inquiries. Ensure that the signatory of this SLA, representing the Provider, is included among the designated contacts.
[21]	Include the name of contact person or team responsible for the service.
[22]	Describe the contact's responsibilities within the organization (e.g., "Technical Lead).
[23]	Provide an email for direct communication regarding SLA matters.
[24]	Include a phone number for urgent matters or escalations.
[25]	Use the Consumer's official organization name.
[26]	Provide a short description of the Consumer's organization and its relation to SWIM services.
[27]	Add as many designated contacts as necessary to cover all consumer-related inquiries for this SLA. Ensure that the signatory of this SLA, representing the Consumer, is included among the designated contacts.
[28]	Include the name of contact person or team responsible for SLA implementation or support.
[29]	Describe the contact's responsibilities within the Consumer organization (e.g., "Technical Lead).
[30]	Enter an email for SLA-related correspondence.
[31]	List a phone number for reaching Consumer contacts in case of issues or escalations.
[32]	Specify the SWIM service name as it appears in the NSRR. Note: The name here should also match the service name in the Agreement's title.
[33]	During SLA development, new metrics can be added to the Service Performance section, or currently listed metrics can be modified to address specific concerns. All metrics—whether new or modified—should follow this standard format: *Definition:* Describe the purpose of the metric (e.g., availability, responsiveness). *Value or Range of Values:* State the acceptable or target performance level. *Calculation Method:* Provide a formula or explanation of how the metric is measured. *Units of Measurement:* Specify units (e.g., percentage, seconds).
[34]	Input the agreed minimum acceptable percentage for service uptime, typically 99.9% or higher for critical services.

[35]	Specify the target response time for standard service requests (e.g., 10 seconds).
[36]	Define acceptable latency levels; adjust according to service criticality and expected usage patterns e.g., 100 milliseconds.
[37]	Enter the maximum acceptable error rate for the service. Consider the acceptable failure rate based on service usage and criticality.
[38]	Enter the maximum time in minutes within which the Provider is expected to send an acknowledgment of receipt. This is typically between 30 minutes, depending on the urgency required by the Consumer.
[39]	Specify the escalation time in minutes for critical problems occurring during work hours. This is the time frame within which the issue should be resolved before escalation. Typically, this is set for 120 minutes.
[40]	Enter the escalation time in minutes for critical problems occurring after business hours. This duration is generally longer than work hours and may range from 180 to 360 minutes, depending on the expected availability of Provider staff.
[41]	Specify the maximum time frame for resolving Noncritical problems before escalation to Provider management. This is typically set in workdays (typically 2 workdays) based on the agreed-upon SLA responsiveness standards and the criticality of the service.
[42]	Provide a direct phone line for immediate reporting of service problems, accessible during the agreed hours.
[43]	Link to an online form or tool where issues can be reported. Ensure accessibility for all authorized users.
[44]	Specify an email address dedicated to reporting issues or escalating problems with the service.
[45]	Specify the service availability schedule (e.g., 24x7x365 for continuous operation or specific business hours if applicable).
[46]	Indicate whether the service has a dedicated maintenance window. If there is a scheduled maintenance window, specify it here (e.g., "every Sunday from 1 am to 3 am UTC"); otherwise, state "does not have a maintenance window."
[47]	Specify the minimum time in hours for providing advance notice before planned maintenance. This is typically 24 to 72 hours, depending on the nature of the service and its usage.
[48]	Enter the number of months for advance notice to the Consumer before a new version of the service becomes operational. Six months is standard but may vary based on the service update cycle.

[49]	Specify the number of months the Provider will maintain an active version of the service after releasing a new version. Standard durations range from 6 to 18 months, depending on the service and its lifecycle.
[50]	State the time frame in hours within which the Provider will notify the Consumer of any unforeseen delays in planned changes. Common values range from 12 to 48 hours.
[51]	Enter the time frame in months within which the Consumer is expected to adopt the most recent service release. Standard adoption periods are 6 to 12 months, allowing adequate time for integration and testing.
[52]	Provide the exact location or URL of the security policies that the Consumer is required to follow. This may be a link to an internal policy document, an external webpage, or a specific section within the NSRR. Ensure that the location is accessible to the Consumer and contains the most current security requirements relevant to the service.