Service Level Agreement for Managed PKI Services

1. Overview

This Service Level Agreement (**"SLA"**) details the terms for production service provided by WISeKey to its Customers for the operation of Customer's Service requiring the management of Customer's PKI at the WISeKey High-security data center in Geneva. It specifically addresses:

(i)   the service levels definition, measurement and minimum service standard in effect for the Service, and

(ii)   customer support definition, availability, and response time frames.

2. Service Availability

2.1 Definition

Service availability is defined as the amount of time the Service is available and capable of receiving, processing and responding to incoming Certificate and key recovery transactions from the requesting entity.

2.2 Measurement

The measurement for service availability is the amount of time (excluding scheduled maintenance downtime) that the Service is available and capable of receiving, processing and responding to incoming Certificate and key recovery transactions from the requesting entity. Non-availability is the amount of time that the Service is neither available nor capable of receiving, processing and responding to incoming Certificate and key recovery transactions from the requesting entity. Service availability for a given month is calculated as a percentage equal to [(# of minutes the Service is available in the month) / (total number of minutes in the month - number of minutes of scheduled downtime during the month)].

2.3 Minimum Service Level Requirement

The availability of Service will be assured as per the following service categories:

- Certificate Issuance and Management:
    - 99.0% of the time on a monthly basis
    - 99.9% of the time on a yearly basis

- Certificate Status validation:
    - 99,95% of the time on a monthly basis
    - 99.99% of the time on a yearly basis

- HSM Availability:
    - 99,90% of the time on a monthly basis
    - 99.99% of the time on a yearly basis

3. Scheduled Down Time

3.1. Definition.

Downtime periods are scheduled to perform service maintenance, upgrades, and testing of failover capabilities. This period will not exceed 4 hours per month and will be scheduled in advance. Notification of scheduled down times and impact to service specific functionality will be provided in advance of the downtime window through e-mail. If a longer downtime window is required, Customer will be notified in advance using the same mechanism. Customer's usage of any previously issued Certificates will not be affected during the scheduled down time period.

3.2 Measurement.

The measurement for scheduled down time for the Service is the time elapsed from when the Service is no longer available to perform operations to when the Service becomes available to perform operations. Daily system logs will indicate scheduled system down time and will be used to track outages.

3.3 Minimum Service Level Requirement.

Scheduled down times will begin and end within the scheduled period as per section "Minimum Service Level Requirement". In other words, if the system is scheduled for maintenance from 2:00 am to 4:00 am Geneva time, the system will be available until at least 2:00 am Geneva time, and will be back up by 4:00 am Geneva time at the latest, at least 99% or 99,95% of the time, depending the service category.

4. Definitions of Severity Levels.

Severity 1 problems are events that have a significant impact on the operations of the system and have an impact on Customers' use of the Service.

- Any event that significantly disrupts or threatens to disrupt service levels of the Service to Customers.
- Any online application outage that significantly impacts the online availability service level of the Service.
- Any telecommunications interruption that leads to a significant disruption of the Service to Customers.
- Consistent degradation of performance (response time or function) that significantly impairs the Service to Customers.
- Any repeating unresolved incidents that have significant impact on the operations of the Service or the Customers' use of the Service
- Any certificate revocation request

Severity 2 problems are events that do not have a significant impact on the operation of the Service or Customers' use of the Service.

- An error that disables only certain non-essential functions of the Service and may result in degraded operations, including without limitation, an error that results in computer transactions not processing properly.
- An error/event that disables only nonessential functions of the Service, but also adversely affects the use of the Service.

Severity 3 problems are *minor* events that do not have a significant impact on the operation of the system or the Service or the Customer's use of the Service.

5. First Level Support.

WISeKey will provide first level support to Customer Administrators or designated technical contacts as described below.

5.1. Customer Support.

The Customer Support staff handles questions from Customer's Administrators regarding technical support, order processing, use of the CA administrator system, issues with Administrator Certificates and Key Generation.

5.2 Customer Support Availability.

WISeKey ADVANCED first level support will be available to accept and respond to problem communicated from Customers, depending on the problem severity:

- Severity 1: 24/7
- Severity 2 and 3: from 8:00 am - 5:00pm Geneva time, Monday to Friday

During such hours, incoming first level support calls may be answered immediately by an automated call system. WISeKey will provide a phone option to speak directly to a trained customer support representative. 80% of the time that this option is selected, customers will speak to a customer support representative within 120 seconds of selecting that option.

TABLE A: Customer Support Problem

Problem Definition	Callback within
Severity 1	2 hours
Severity 2	4 hours
Severity 3	next business day

5.3 Service Support.

The Service Availability Support staff handles service availability issues from Customer's Administrators and may be available up to 24 hours per day, 7 days per week, depending on the terms agreed and signed in writing with a specific customer.

6. Problem Resolution Response Effort.

Severity 1 problems: WISeKey will assign sufficient resources to resolve the problems as quickly as possible with the goal of maintaining the service levels agreed to in this document. For Severity 1 problems WISeKey will use continuous efforts to resolve the problem until an official fix is installed and tested and the Service is back to normal operations. Severity 1 problems will be continuously monitored and Customers will be notified of the status through e-mail.

Severity 2 problems: WISeKey will assign sufficient resources to fix the problem in the target resolution timeframe. Severity 2 problems that have no workarounds will have a target resolution of 72 hours depending on the corrective actions required to return the Service to normal operations. WISeKey will communicate these corrective actions and resolution timeframes to Customers through email.

Severity 3 problems: WISeKey will assign sufficient resources to fix the problem in the target resolution timeframe. Severity 3 problems that have no workarounds will have a target resolution of 10 days unless otherwise specified by WISeKey for a particular problem.

7. Resolution Procedures.

Problems will be addressed by WISeKey as set forth above upon notification from a Customer or upon self-determination and will escalate within the organization in the following fashion to ensure effective resolution.

7.1 Severity 1 Problem Resolution.

Hours 0-4 – WISeKey's production management and engineering personnel are notified and actively working the event.

Hour 5 – WISeKey will implement a solution or a reasonable workaround if the implementation solution is not technically possible within that time frame.

If after the Hour 5 WISeKey has not fully solved the problem, the customer will besides any other rights or remedies Customer may have, receive an incident resolution plan, with as much details as possible.

7.2 Severity 2 Problem Resolution.

Time Zero to hour 72 – WISeKey will work to resolve the problem and will provide a solution within 72 hours after the problem has been notified by Customer.

7.2 Severity 3 Problem Resolution.

Not stipulated

8. Service Credits.

If WISeKey fails to meet the monthly or yearly Service Availability SLA or the Severity 1 or 2 response- and/or resolution times, then Customer will for each of such failure be eligible for a service credit (the "Service Credit(s)") in the amount of ten percent (10%) of the monthly fee for the affected service in form of liquidated damages. Furthermore, for every additional one (1) percent of the calendar month/year that Service Availability is unavailable, Customer will be eligible for an additional Service Credit in the amount of ten percent (10%) of the monthly service fee for the affected service in form of liquidated damages, up to 50% of the monthly service fee.

<PLACE>, _____   Geneva, _____

<CUSTOMER NAME> by: WISeKey by:

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