

.com Registry Agreement Appendix 5B Registration Data Access Protocol Service Specification

(Effective in accordance with Section 3.1(c)(vi))

1. Scope and Definitions.

1.1. “Appendix 5B Effective Date” is as defined in Section 3.1(c)(vi) of the Agreement.

1.2. “Base Registry Agreement” is defined in Section 3.1(c)(vi) of the Agreement.

1.3. The “RDAP Service” is a standard for the querying of registration data using a RESTful web service and uniform query patterns. For the purposes of this Agreement, implementation of RDAP shall be defined by the RDAP Technical Implementation Guide version dated February 15, 2019 <https://www.icann.org/en/system/files/files/rdap-technical-implementation-guide-15feb19-en.pdf> and the RDAP Response Profile version dated February 15, 2019 <https://www.icann.org/en/system/files/files/rdap-response-profile-15feb19-en.pdf>. Registry Operator shall implement the RDAP Service solely in accordance with the IETF standards documents set forth in the RDAP Technical Implementation Guide and RDAP Response Profile versions listed above and any additional references set forth in those documents shall be considered informational only.

1.4. “RDAP-query RTT” means the round-trip time (“RTT”) of the sequence of packets from the start of an RDAP testing probe’s TCP connection to its end, including the reception of the HTTPS response for only one HTTPS request. If implementing a multiple step process to get to the information, only the last step shall be measured. If the RTT is 5-times or more the corresponding SLR/performance specifications, the RTT will be considered undefined.

1.5. “RDAP Availability” refers to the ability of the RDAP Service for the TLD, to respond to queries from an Internet user with the data from the Registry Operator System. If 51% or more of the verifiably working RDAP testing probes see the RDAP Service as unavailable during a given time, the RDAP Service will be considered unavailable, subject to Section 3.7 below, and as otherwise set forth in this Agreement.

1.6. “RDAP Update Time” refers to the time measured from the receipt of an EPP confirmation to a transform command on a domain name, host or contact, up until at least 51% of the verifiably working RDAP testing probes detect the changes made.

1.7. “RDAP Outage” means a failure to meet the same parameter of the RDAP Service Level Requirements in Section 2.1 for two (2) consecutive months, provided, however, no failure shall be deemed an “RDAP Outage” for the RDAP Availability parameter unless the failure is also the result of two (2) separate incidents for which the conclusion of the

impact period for the first incident and the commencement of the impact period for the second incident are at least seven (7) calendar days apart.

1.8. “SLA Credits” means the Service Level Credits set forth in the Table SLA Credits in Section 2 of Appendix 10 (Service Level Agreement (SLA)) and in accordance with Section 2.8 below.

2. Service Level Requirements. Registry Operator shall comply with the following performance specifications:

2.1. Service Level Requirements Matrix

	Parameter	Service Level Requirements (SLR)/Performance Specification (monthly basis)
RDAP	RDAP Availability	\leq 864 min of downtime (98%)
	RDAP query RTT unauthenticated lookups with exact match	\leq 5000 ms, for at least 95% of the queries
	RDAP Update Time	\leq 60 min, for at least 95% of the updates

2.2. Registry Operator is encouraged to do maintenance for RDAP at the times and dates of statistically lower traffic for each parameter. However, there is no provision for planned outages or similar periods of unavailability; any downtime, be it for maintenance or due to system failures, will be noted simply as downtime and counted for Service Level Requirement measurement purposes.

2.3. The remedies for a failure to meet an RDAP Service Level Requirement set forth in Section 2.1 shall be solely as set forth in this Agreement as it pertains to the equivalent remedies for a failure to meet the corresponding Performance Specification for the Whois service, provided, however, that (i) for six months after the Ramp-Up Period (as defined in Section 2.4 below), a failure of a Registry Operator to meet a service-level requirement for the RDAP Service shall only apply if the Registry Operator has experienced an “RDAP Outage” of the RDAP Service; and (ii) in the event of a concurrent failure of the RDAP Service and Whois service in a given month, SLA Credits, if applicable, for Registrars shall not exceed the total amount of SLA Credits attributable solely to the failure of the service-level requirement for the Whois service, pursuant to Registry Operator’s Agreement.

2.4. Ramp-Up Period. With respect to the Service Level Requirements identified in Section 2.1, Registry Operator shall not be deemed to have breached such Service Level

Requirements due to any failure to meet those Service Level Requirements during the first 90 days following the Appendix 5B Effective Date (“Ramp-up Period”).

2.5. The Parties agree that the SLA Credits are the total credits, penalties and/or liabilities that may be assessed to Registry Operator and the sole remedies available to registrar for Registry Operator’s failure to meet the Service Level Requirements for the RDAP Service.

2.6. Registry Operator will use commercially reasonable efforts to restore the RDAP Service functionality within 48 hours after the termination of a force majeure event. Outages due to a force majeure will not be considered service unavailability for purposes of Appendix 7 or the Service Level Requirements.

2.7. Registry Operator shall not be liable to ICANN or registrars for any credits or penalties, or be deemed to be in breach of any of its obligations under the Agreement if it fails to meet a Service Level Requirement for the RDAP Service as a result of its compliance with any Consensus Policy established after the Amendment 3 Effective Date, to the extent and for so long as, the failure to meet the Service Level Requirement for the RDAP Service is unavoidable by commercially reasonable efforts due to Registry Operator's compliance with such Consensus Policy.

2.8. The Service Level Requirements for the RDAP Service shall be considered “Performance Specifications” and the “RDAP Service” shall be considered a “System Service” solely for purposes of Appendix 10 (Service Level Agreement) (SLA)). Notwithstanding anything to the contrary in Section 4.5 of Appendix 10 (Service Level Agreement), for purposes of the RDAP Service only, Registry Operator’s obligations regarding restoration of RDAP Service following a force majeure event shall be as set forth in Section 2.6 of this Appendix 5B.

2.9. In order to determine the appropriate credit level and calculation of an SLA Credit due to a failure by the Registry Operator to meet a Service Level Requirement, the credit level and calculation shall be based on the equivalent reference set forth in the chart below and in accordance with this Agreement.

RDAP Service Level Requirement	Equivalent Reference for Purposes of Calculating the Credit Level of the SLA Credit
RDAP Availability	Service Availability--Whois
RDAP-query RTT	Processing Time--Whois Query
RDAP Update Time	Update Frequency

3. RDAP Measurement Parameters.

3.1. RDAP test. Means one query sent to a particular “IP address” of one of the servers of one of the RDAP Service. Queries shall be about existing objects in the Registry Operator System and the responses shall contain the corresponding information otherwise the query will be considered unanswered. Queries with an RTT 5 times higher than the corresponding Service Level Requirement will be considered as unanswered. The possible results to an RDAP test are: a number in milliseconds corresponding to the RTT or undefined/unanswered.

3.2. Measuring RDAP parameters. Every 5 minutes, each of the RDAP testing probes will query the DNS to obtain the IP address(es) of the RDAP Service, select an IP address (if there is more than one), and make an “RDAP test” to that IP address. If an “RDAP test” result is undefined/unanswered, the corresponding RDAP Service will be considered as unavailable from that probe until it is time to make a new test.

3.3. Collating the results from RDAP probes. The minimum number of verifiably working RDAP testing probes to consider a measurement valid is 20 at any given measurement period, otherwise the measurements will be discarded and will be considered *‘inconclusive’*; during this situation no fault will be flagged against the Service Level Requirements.

3.4. Placement of RDAP probes. Probes for measuring RDAP parameters shall be placed by ICANN inside the networks with the most RDAP users across the different geographic regions; ICANN shall take care not to deploy probes behind high propagation-delay links, such as satellite links.

3.5. No interference. Registry Operator shall not interfere with measurement probes, including any form of preferential treatment of the requests for the monitored services. Registry Operator shall respond to the measurement tests described in this Appendix as it would to any other request from an Internet user for RDAP.

3.6. Base URL of RDAP Service. Registry Operator shall submit the base URL of its RDAP Service for publication in the Bootstrap Service Registry for Domain Name Space in accordance with the RDAP Technical Implementation Guide.

3.7. Right to Challenge Probes’ Measurements. In the event Registry Operator believes that the RDAP testing probes measuring any of the RDAP parameters set forth in Section 2.1 above have not accurately measured one or more parameters, the Registry Operator shall have the right to challenge the RDAP testing probes’ measurements with ICANN, and, in that event, ICANN and the Registry Operator will cooperate to address and resolve any discrepancies prior to finalization of the measurement.