

Summary of Pre-Delegation Testing Vendor Selection Process

In October 2012, ICANN released a public Request for Proposal (RFP) for a Pre-Delegation Testing (PDT) provider.¹ The purpose of PDT is to verify that the applicant has met its commitment to establish registry operations in accordance with the technical and operational criteria described in gTLD Applicant Guidebook (AGB) Section 5.2.²

ICANN expected that respondents would, at a minimum, satisfy the following experience requirements:

- Possess an in-depth documented technical expertise in the EPP, DNS and Whois protocols.
- Demonstrated ability to test the DNS protocol.
- Demonstrated ability to implement and test the EPP (Extensible Provisioning Protocol) protocol.
- Familiarity with the challenges and pitfalls required to correctly implement support for IDN (Internationalized Domain Names).
- Knowledge of the DNSSEC Practice Statement framework.

In addition, it was imperative that the PDT provider be capable of testing approximately 1,400 TLDs, as every applicant that signs a Registry Agreement with ICANN also must go through PDT. As ICANN, through the Internet Assigned Numbers Authority (IANA) department, had the ability to delegate up to 1,000 top-level domains (TLDs) per year, the PDT provider needed to be able to test at least that many in a 12 month period. As such, ICANN expected that the PDT provider would perform the pre-delegation testing at a rate of 20 tests per week, with the ability to scale up to 100 tests per week if required.

ICANN received competitive proposals from several qualified firms for the role of the PDT provider for the New gTLD Program. On 21 December 2012, ICANN announced Stiftelsen för Internetinfrastruktur (now known as Internetstiftelsen i Sverige or IIS) as the selected PDT provider.³ IIS is the registry operator for the .se ccTLD (Sweden) with a long and proven track record of technical capability, operations excellence, and significant experience in the industry.⁴

ICANN entered into an agreement with IIS in December 2012. The details of the agreement are summarized in the section below.

¹ <https://www.icann.org/news/announcement-2012-10-30-en>

² <https://newgtlds.icann.org/en/applicants/agb>

³ <https://www.icann.org/news/announcement-2012-12-21-en>

⁴ <https://www.iis.se/>

Summary of Pre-Delegation Testing Services Agreement

On 18 December 2012, ICANN entered into an agreement for PDT services with Stiftelsen för Internetinfrastruktur, now known as Internetstiftelsen i Sverige (hereafter referred to as “IIS”). The agreement sets forth the terms and conditions under which IIS will support ICANN in providing PDT services in accordance with the technical and operational criteria described in Applicant Guidebook (AGB) Section 5.2.

The period of performance began in December 2012 and was to conclude 12 months from the start of testing, or approximately April 2014, with an ICANN option to extend the period of performance an additional year. The period of performance was later extended via subsequent amendments to April 2015, and then to 30 June 2017.

The following sections summarize the responsibilities of IIS and the cost structure of the agreement.

Service Provider Responsibilities

ICANN’s expectation for the PDT provider was that the provider be able to meet capacity requirements and the on-demand nature of PDT while maintaining consistency over time and across testing of nearly 1,400 TLDs. ICANN expected the PDT provider to, in addition to providing the PDT services (testing), design, maintain, and operate software and system related to providing PDT services.

As such, the Statement of Work states that IIS will:

- **Develop PDT Software**

IIS will develop software to be used to efficiently and accurately verify that the applicant is in compliance with the technical standards described in the AGB. This task includes defining the test specifications a TLD must complete to pass PDT. The software will be used for interacting with the applicant and performing automated tests to verify technical standards compliance and reachability. The PDT Software should be made available to ICANN in source code format. For the benefit of the Internet community, and to enable broad community review, the software developed under the contract may be published by ICANN as open source license software. In addition, ICANN is to own all IP created for purposes of the services and to have non-exclusive license to all IIS preexisting IP use in delivering the service.

- **Host the PDT System**

IIS will operate and provide support for the Pre-Delegation Testing Software.

- **Provide the PDT Service**

Having designed the test specifications a TLD must complete in order to pass PDT, IIS will use the PDT System in combination with manual tests and review of applicants supplied documentation, to verify that the applicant has met its commitment to establish registry operations in accordance with the technical and operational criteria described in the AGB, and report results back to ICANN. The ability of the software and

system to allow for interaction with the applicants is key to the PDT services. IIS was required to be able to scale up and down in steps of 20 tests per week with 4 weeks advance notice. The maximum frequency for capacity change was once every 4 weeks. The maximum required capacity was 100 tests per week.

- **Test and/or validate the following:**
 - DNS Infrastructure
 - WHOIS
 - Extensible Provisioning Protocol (EPP)
 - Internationalized Domain Names (IDN) tables
 - Data Escrow Deposit Format
 - DNSSEC Trust Anchor
 - DNSSEC Practice Statement Review
 - IANA Technical Requirements

Pre-Delegation Testing Services Agreement Cost Structure

IIS provides an interactive, customer-oriented testing service, and the cost structure in the Services Agreement reflects the numerous responsibilities of IIS in providing the PDT service. In addition, ICANN and IIS have at various stages adjusted the cost structure to meet its capacity needs for an upcoming period of time, as the number of applicants in the New gTLD Program is finite. Doing so provided greater flexibility for ICANN while maintaining the necessary resources and expertise at IIS.

In the current version of the Pre-Delegation Testing Services Agreement Cost Structure for fiscal year 2017, ICANN guaranteed a minimum of 20 tests per month, with a maximum of 12 tests per week. The unit cost was reduced from \$5,000 to \$4,000 per test.

It was also agreed that ICANN could utilize the PDT service and capacity in this agreement to test TLDs undergoing a change of back-end service provider (sometimes referred to as Registry Service Provider (RSP)), as ICANN has stipulated in the Registry Transition Process⁵:

- *If there is a change in the entity providing Back-End Registry Operator services, the successor will have to pass pre-delegation testing as defined in the Applicant Guidebook for new gTLDs.*

⁵ ICANN's Registry Transition Process: <https://www.icann.org/resources/pages/transition-processes-2013-04-22-en>