

# Draft PTI Strategic Plan FY21-24

## Introduction

This is the first dedicated Strategic Plan for Public Technical Identifiers (PTI). PTI as an organization was constituted in 2016, the result of the *IANA Stewardship Transition* process that created a new not-for-profit organization to operate the IANA functions under contract with ICANN. Prior to this, ICANN had operated those functions directly. The IANA Stewardship Transition created and ratified a transition plan that includes deliverables and associated milestones, and that transition plan acted as the interim strategy for PTI in its first years of operation.

## Why a PTI Strategic Plan?

The [PTI Bylaws](#) require that the organization has its own strategic plan. This requirement affords PTI the opportunity to go into a finer level of detail on IANA-related objectives that otherwise do not surface in the broader ICANN Strategic Plan.

## Mandate

The work of PTI is defined by three key inputs: the Bylaws of the company, the contracts held with ICANN for performance of the IANA functions, and the overall strategy of the ICANN organization.

## Our Bylaws

The mission of PTI is defined by the purpose documented in the organization's [bylaws](#). The purpose is:

- The Corporation is a nonprofit public benefit corporation and is not organized for the private gain of any person. It is organized under the California Nonprofit Public Benefit Corporation Law for public and charitable purposes.

Draft as of April 16, 2020

- The specific purpose of the Corporation is to operate exclusively to carry out the purposes of the Internet Corporation for Assigned Names and Numbers (“ICANN”) by performing the IANA functions on behalf of ICANN.
- The Corporation shall operate to the maximum extent feasible in an open and transparent manner and consistent with procedures designed to ensure fairness.
- The Corporation shall treat the IANA functions with equal priority. The Corporation shall make decisions by applying documented policies consistently, neutrally, objectively, and fairly, without singling out any particular customer for discriminatory treatment (i.e., making an unjustified prejudicial distinction between or among different customers).
- The Corporation shall respect the diversity of customers of the IANA functions and shall provide service to its customers in conformance with technical norms and in support of the global security, stability and resilience of the DNS.

These bylaws expressly limit the work of PTI to the IANA functions and provide touchstones on how those functions are to be performed — e.g., with open and transparent operations, applying policies that ensure fairness neutrally and objectively, while respecting diversity, technical norms, security, stability and resiliency requirements.

## **Contracts from ICANN**

The entire scope of the IANA functions is defined in [contracts](#) between PTI and ICANN. These agreements are principally divided into three service areas: domain names, number resources, and protocol parameters.

## **ICANN’s Strategic Objectives and Goals**

ICANN maintains a [five-year Strategic Plan](#) that includes objectives and goals that pertain to operations of the IANA functions. Additionally, there are other ICANN-wide initiatives that the IANA functions support. Fulfilling these is a key consideration in PTI’s work plan.

There is a specific goal that speaks to the entirety of the IANA functions in the ICANN FY21-25 Strategic Plan:

*3.3 Continue to deliver and enhance the IANA functions with operational excellence.*

In addition, the following goals within ICANN's FY21-25 Strategic Plan have been identified as having specific relevance to the IANA functions and PTI's scope of work:

*1.4 Increase the robustness of the DNS root zone key signing and distribution services and processes.*

*3.2 Improve assessment of, and responsiveness to, new technologies which impact the security, stability, and resiliency of the Internet's unique identifier systems by greater engagement with relevant parties.*

*3.4 Support the continued evolution of the Internet's unique identifier systems with a new round of gTLDs that is responsibly funded, managed, risk-evaluated, and consistent with ICANN processes.*

Supporting ICANN's strategy also means that PTI must work towards some of the targeted outcomes of its goals. Outcomes from the ICANN FY21-25 Strategic Plan that merit specific consideration in relation to the IANA functions include:

- *Mechanisms are established for ICANN to assess new technologies and, when appropriate, embrace them.*
- *The reliable, resilient, and interoperable DNS remains the leading trusted platform for the Internet's naming system.*
- *ICANN promotes and supports awareness of the IANA functions, including among stakeholders, to successfully maintain the broad array of Internet unique identifiers and deliver effective DNS root zone operations.*
- *ICANN org continues to provide reliable delivery and continuous improvement of the IANA functions, consistent with community service level agreements.*

Draft as of April 16, 2020

- *ICANN collaborates with relevant parties and effectively leverages partnerships in the IETF, Regional Internet Registries, and naming communities to develop and integrate new technologies with existing Internet protocol structures, including the DNS.*

## **Vision**

To support the mission stated in the PTI Bylaws, as well as the contractual deliverables, PTI has defined a vision statement that clarifies direction and helps guide the organization to successfully fulfilling its strategy:

*We are dedicated to a world where the Internet works seamlessly everywhere through our trusted coordination of unique identifiers. We promote trust by delivering dependable services, satisfying our customers and always finding opportunities for improvement.*

## **Our four-year strategic plan**

In order to fulfill our vision while supporting the objectives laid out in the [ICANN Strategic Plan](#), PTI developed a strategic roadmap for FY21-FY24 that focuses on five key drivers: Trust, Security, Service Delivery, Operational Excellence and Governance.

PTI has operated using a relatively stable budget year-on-year in its first three years of operation, and this four-year strategy is expected to be able to largely be fulfilled based on an assumption of a similar level of ongoing funding. Specific initiatives may involve exceptional one-time expenses, and PTI intends to continue to work with the community during the annual Operating Plan & Budget development and review process to make any necessary adjustments.

PTI intends to deliver on this strategy through the following five strategic objectives:

## **1. Maintain stakeholders' trust that IANA is the proper home for enabling global interoperability through unique identifier coordination.**

PTI is responsible for the operational aspects of coordinating the Internet's unique identifiers and maintaining the trust of stakeholders to provide these services in an unbiased, responsible and effective manner.

The current geopolitical landscape combined with new technologies and the increase in Internet connectivity worldwide makes it ever more crucial for PTI to enhance its partnerships with Internet community stakeholders and continue to support those who work to ensure global interoperability.

We will achieve this objective by:

- 1.1 Working closely with the wider ICANN org and partners to monitor and raise awareness of industry trends that help identify whether IANA is being properly utilized to coordinate evolving unique identifiers.
- 1.2 Continuing to build on engagement efforts with oversight bodies such as the IETF Leadership, RIRs, CSC, and SO/ACs, as well as with the broader Internet community that uses the IANA services.
- 1.3 Maintaining the high level of transparency within the IANA performance reporting practices.

### **Targeted Outcomes**

- Established cadence of engagement efforts with both traditional and non-traditional communities involved in technical coordination of unique identifiers.
- Improved alignment and awareness of ongoing unique identifiers activities within ICANN org, the IANA customer community, and more broadly in standards development organizations.

## Risks

- Inability to keep up with new and evolving technologies results in competition, fragmentation and possible irrelevance of IANA as the proper home to enable their global interoperability.
- The evolving data privacy regulation landscape may have impacts on the level of transparency for the IANA registries, which may erode trust and accountability.

## **2. Monitor and adapt to security threats and ensure resilient and secure IANA operations.**

The increase in Internet connectivity worldwide and the rapid advancement of technology brings the need for PTI to enhance its efforts to monitor and adapt to threats that can impact the unique identifiers system it coordinates. The organization must continue to be agile in adjusting processes and procedures to maintain its world-class reputation and satisfactory trust with its relying parties. PTI should also meet evolving audit requirements both in its routine request processing role and as the party responsible for Key Signing Key ceremonies.

We will achieve this by:

- 2.1 Ensuring the systems used to deliver the IANA functions conform with relevant and trusted security standards, and security practices are enhanced as appropriate.
- 2.2 Performing key ceremonies with high levels of transparency and accountability and improving key management facilities to mitigate security threats and maintain facility quality.

## Targeted Outcomes

- Adaptive to evolving requirements concerning the security of critical key materials (e.g. the Root Zone KSK), including evaluation of changes to cryptographic algorithms, reconfiguration of the secure facilities, and the role of recovery key shares as a viable disaster recovery method.

Draft as of April 16, 2020

- Be appropriately prepared for adverse events through incident response planning, continuity and contingency planning, penetration and other testing, with associated planning around improving posture and mitigating risks.
- Support new cryptographic technologies that secure other IANA-managed unique identifiers (such as RPKI for IP addresses), in line with customer demand and relevant standards development.

## Risks

- Inability to deliver on increased demands relating to the operating envelope around the Key Signing Key (KSK) management.
- Security-related attacks impede the team's ability to perform the IANA functions.
- Insufficient resources to continuously review and implement evolving security standards in the key systems used to deliver the IANA services.
- Increase in security threats raises concerns about the stability of the DNS root and erodes confidence in its dependability.

### **3. Continue to drive the implementation of operational initiatives to enhance the delivery of services based on the needs of the IANA customer.**

Although PTI has historically maintained high levels of customer satisfaction when it comes to accuracy in its service delivery, there has been an increased demand for system enhancements and process improvements due to the rapid evolution of emerging technologies and increased baseline expectations of customer service.

We will achieve this by:

- 3.1 Performing the IANA functions in accordance with contractual obligations.
- 3.2 Evolving the systems that manage the workflow of change requests and publish registry data.

### 3.3 Ensuring operational readiness for evolving and future technologies and programs.

#### Targeted Outcomes

- Root Zone Management System that supports the evolution of the underlying policies and business requirements and adapts to customer requirements for a modern and secure self-service capability.
- Comprehensive system that supports the majority of workflows associated with protocol parameter registrations and number resources, including self-service capabilities for customers and modern real-time performance reporting.
- Historical ticketing and reporting systems can be shut down after deployment of modern replacements.
- Harmonized processes and data models across different registry workflows to assist with optimizing processing and implementing timeliness and accuracy improvements.

#### Risks

- Lack of sufficient technical and development resources to design, develop and deliver the systems and tools required to meet customer expectations.
- New community policies can trigger a significant increase in workload, and with insufficient lead time or commensurate resource adjustments, can impact overall IANA function.

## **4. Monitor the delivery and performance of the IANA functions to achieve operational excellence.**

Continuous improvement has been part of PTI's culture for the past decade. However, evolving technologies, increased customer expectations, broader ICANN org and community work, and the overall industry landscape demonstrate the need for PTI to continue its focus on operational excellence efforts.

We will achieve this by:



Draft as of April 16, 2020

- 4.1 Performing regular qualitative and quantitative analysis and review of business processes and service delivery through feedback mechanisms such as customer surveys and third-party audits.
- 4.2 Enhancing the established project management culture across the organization to ensure timely delivery of projects within the IANA Portfolio.
- 4.3 Monitoring key performance indicators to ensure performance is in line with established service level agreements (SLAs), and remains trusted, relevant and fit-for-purpose.

## Targeted Outcomes

- Near real-time assessment of customer satisfaction from direct customers of the functions, along with annual review of IANA functions from key stakeholder groups.
- Comprehensive framework for project management.
- Continuous re-evaluation of priorities through community engagement.
- Evolve audit practices by continuing to ensure that our key processes and systems are independently verifiable and evaluating opportunities to promote increased confidence through expansion of audit scope and evaluation of alternative audit frameworks.
- Fully cross-trained staff with investment in staff retention through training and career development.

## Risks

- Current systems' inability to deliver services and maintain satisfaction to changing requirements or increased customer volume while adhering to service-level agreements.
- PTI operating without enough spare resources to allow for cross-training and skill development leads to single points of failure and bottlenecks.
- Inability to meet community expectations and contractual deliverables due to dependency on ICANN Operating Plan & Budget.

## **5. Support ICANN org on its governance efforts to sustain and improve openness, inclusivity, accountability, and transparency.**

As the ICANN affiliate responsible for performing the IANA functions on behalf of ICANN, PTI must deliver services within service level agreements defined in the contracts. Managing such deliverables across several different agreements in an already complex multistakeholder model creates a situation for PTI where supporting ICANN on its governance efforts isn't straightforward. Simplifying our approach will be an important driver for achieving this objective.

We will achieve this objective by:

- 5.1 Supporting the various review processes conducted by our community that pertain to the IANA function.
- 5.2 Reducing unnecessary complexity and duplication between what is in scope for IANA and the broader ICANN.
- 5.3 Identifying opportunities to streamline oversight agreements and contracts.

### **Targeted Outcomes**

- Alignment of PTI Strategic Planning timeline to ICANN's five-year planning cycle.
- Alignment of Operating Plan & Budget timelines between ICANN and PTI processes
- Complexity of oversight requirements is reduced or eliminated.
- ICANN org and community aligned and educated about ICANN and PTI's remit in regards to the performance of the IANA functions.
- Changes to the intellectual property agreement and oversight documents that allow for clear communication and improved transparency.
- Participation of PTI staff in ICANN org efforts such as the Specific and Organization Reviews and policy development discussions as appropriate.

## Risks

- No buy-in to align PTI and ICANN's planning processes due to competing priorities across the ICANN org, board and community.
- Inability to streamline oversight agreements leads to undesirable complexity
- PTI operates in silo due to a lack of clarity about the organization's remit within the broader ICANN org and community.
- Unsuccessful delivery of the IANA functions undermines ICANN's ability to fulfill its mission.

## Useful References

- ICANN Five-Year Strategic Plan (FY21-FY25)  
<https://www.icann.org/resources/pages/strategic-engagement-2013-10-10-en>
- ICANN Five-Year Operating Plan (FY20 Update)  
<https://www.icann.org/en/system/files/files/adopted-opplan-2016-2020-fy20-03may19-en.pdf>
- PTI/IANA-Related Contracts  
<https://pti.icann.org/agreements>