

# Draft PTI FY22 Operating Plan and Budget

Public Technical Identifiers (PTI)

October 2020

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# PTI Operating Plan and Budget

## 1 Executive Summary

In August 2020, Public Technical Identifiers (PTI) conducted preliminary consultations with stakeholders on FY22 priorities. These engagements were primarily in the form of a series of webinars, which proposed the key priorities and areas of focus for the fiscal year. These consultations indicated no disagreement with the stated priorities, such as the need to preserve continuity and stability in delivering the Internet Assigned Numbers Authority (IANA) functions. Please see Section 4 to learn more about PTI’s role in delivering the IANA functions.

### SEPARATION OF PTI AND IANA BUDGETS

The PTI budget is distinct from the IANA budget. The PTI budget comprises the costs of delivering IANA functions, whereas the IANA budget includes the PTI budget, the costs associated with overseeing PTI's performance of the IANA functions, and any related services that enable PTI to conduct its work. This distinction is further explained in section 5.1.

### STRUCTURE OF OPERATING PLAN

PTI's work is structured into two groups of thematically aligned activities:

- Operational Activities comprised of both operations and operational improvements
- System Enhancements

Activities in the operational category are the day-to-day delivery of the naming, numbering, and protocol parameter functions. Delivery of these functions includes handling requests from customer groups, updating the related registries, and attending relevant meetings to engage with the customer groups.

PTI strives to constantly improve the delivery of its services in order to enhance its customer service. PTI invests in regular activities such as customer service surveys, quality management assessments, and third-party audits. These activities enable PTI to identify strengths and opportunities for improvement.

In FY22, PTI will continue to invest in incremental improvements to its service delivery platforms. Modern tooling improves the customer experience, provides new self-service capabilities, reduces the risk of error, and improves operational workflows within the processing teams. In previous years, significant advances have been made to modernize the Root Zone Management System (RZMS), which services top-level domain (TLD) managers and creates a new platform for the IANA workflows for protocol parameter registries. FY22 will further realize functional improvements in these systems.

Policy-driven changes in this period may include implementing variant TLDs and the subsequent procedures for new generic TLD (gTLD) delegations.

## 2 Introduction

### CONTENTS OF THE DOCUMENT

This document contains the draft Budget for Public Technical Identifiers (PTI) for fiscal year 2022 (FY22) from 1 July 2021 through 30 June 2022, which is posted for public comment as required by PTI's Bylaws, and in accordance with ICANN's Public Comment process. Section 4 of this document describes the services delivered by PTI under its contract with ICANN.

### TIMELINE AND PTI

The PTI Bylaws require that "at least nine months prior to the commencement of each fiscal year, the Corporation shall submit to the PTI Board and the Board of Directors of ICANN an annual operating plan and budget for the Corporation's next fiscal year." (§9.2(a)). This year's draft PTI Operating Plan and Budget includes data on activities to be carried out during FY22 and displays all cost categories for each service.

### YOUR PARTICIPATION

PTI and ICANN seeks community input and feedback on the draft FY22 PTI Operating Plan and Budget through the Public Comment process. Your feedback and participation is an important part of PTI and ICANN's planning process and the multistakeholder model. The Public Comment process enhances the understanding and transparency of PTI's activities and its accountability in managing its public funds.

## 3 Planning Process Overview

The planning process of PTI is interrelated with that of ICANN. The key drivers that inform the operating plan and budget are the [PTI Strategic Plan](#) and the ICANN Strategic and Operating Plans. PTI's plans represent a subset of the overall ICANN plans that pertain to the successful delivery of the IANA functions.

Figure 1 illustrates the PTI planning process and the encompassing ICANN planning process. PTI's multi-year plans are a part of ICANN's Five-Year Operating Plan. The draft version of this PTI Operating Plan and Budget will become a component of ICANN's FY22 Operating Plan and Budget.

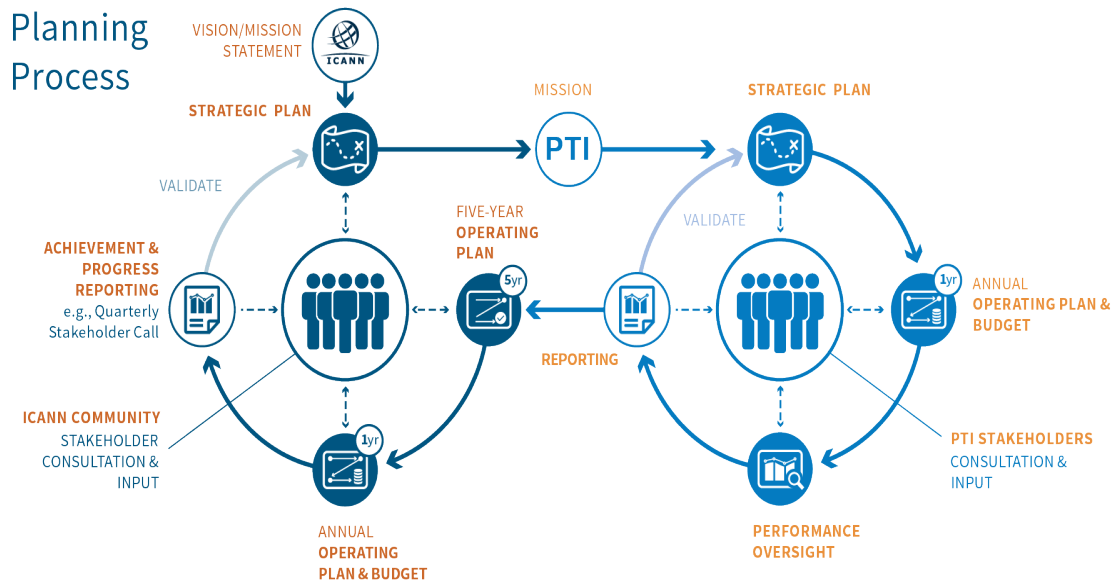


Figure 1. The ICANN and PTI Planning Processes

## 4 PTI Services Overview

PTI services comprise the performance of the IANA functions to fulfil contracts relating to three different communities of interest: Internet protocol parameters, number resources, and domains. PTI, an ICANN affiliate, performs these functions as a service to the global Internet community.

### 4.1 IANA Naming Function

The IANA Naming Function consists of:

- Oversight and management of the root zone for domain name system (DNS). The root zone defines TLDs, and this work includes receiving and evaluating changes against policies and operational requirements.
- Keeping safe the trust anchor for the DNS, including performing key signing ceremonies to maintain community confidence in the system.
- Oversight and management of the .INT TLDs for intergovernmental treaty organizations.
- Fostering support for Internationalized Domain Names (IDNs) by maintaining a shared repository of IDN practices and label generational rulesets (LGRs) across TLDs.

The IANA Naming Function is defined in a contract between ICANN and PTI, found at <https://pti.icann.org/agreements>. Operational information on the IANA Naming Function is available at <https://iana.org/domains>

## 4.2 IANA Numbering Function

The IANA Numbering Function consists of administration of Internet number resource registries in accordance with global policies established by the Regional Internet Registries (RIRs) and any applicable and mutually acceptable and agreed upon guidelines and procedures, including:

- Allocation of Internet Number Resources (IP addresses and autonomous system numbers) to Regional Internet Registries.
- Handling of returned Internet Number Resources.
- General Internet Number Registries maintenance.
- Administration of the unicast portion of the special-purpose “in-addr.arpa” and “ip6.arpa” DNS zones.

This function is defined in a contract between the five RIRs and ICANN, with the performance of these responsibilities subcontracted by ICANN to PTI. These contracts are available at <https://pti.icann.org/agreements>, and operational information is available at <https://iana.org/numbers>.

## 4.3 IANA Protocol Parameters Function

The IANA Protocol Parameters Function consists of assigning and registering Internet protocol parameters as directed by the criteria and procedures specified in technical standards, including:

- Proposed, draft, and full Internet Standards.
- Best current practice documents.
- Any other request for comments (RFC) or Internet standards document that calls for IANA assignment.
- Assigning and registering the Internet protocol parameters, procedures, and criteria directed by supplemental agreements agreed upon between the Internet Engineering Task Force (IETF) and ICANN.
- Registering protocol parameters of interest to the Internet community upon agreement with other parties.
- Providing online facilities for the public to request Internet protocol parameter assignments.
- Making available to the public, online and free-of-charge, information about each current assignment, including contact details for the assignee.

This function is defined in a memorandum of understanding between IETF and ICANN. ICANN has subcontracted the performance of these responsibilities to PTI. These contracts are available at <https://pti.icann.org/agreements>, and operational information is available at <https://iana.org/protocols>.

# 5 PTI Services Operating Plan and Budget

## 5.1 Operating Plan and Budget Overview

Each year, PTI develops an Annual Operating Plan and Budget for inclusion in ICANN’s Operating Plan and Budget. The draft PTI Operating Plan and Budget is first published for

Public Comment, using ICANN’s Public Comment process. When that process ends, PTI, supported by the ICANN organization, develops a draft PTI Operating Plan and Budget for the PTI Board to review and adopt. It is then submitted to the ICANN Board for adoption. The draft PTI Operating Plan and Budget forms the basis for ICANN’s funding of PTI Services.

Figure 2 provides an overview of the interrelationship between the operating plan and budget for PTI, IANA, and ICANN. The PTI Operating Plan and Budget includes three types of resources used for the delivery of the IANA functions: direct dedicated costs are for resources fully dedicated to delivering the IANA functions; direct shared costs are for resources directly contributing to delivery of the IANA functions and shared with ICANN; and support functions are costs shared with ICANN that provide support services to PTI.

The IANA Operating Plan and Budget includes the PTI Operating Plan and Budget, activities related to the contract oversight, and activities incurred by ICANN. The IANA Functions Operating Plan is then a component of the total ICANN Operating Plan and Budgets.

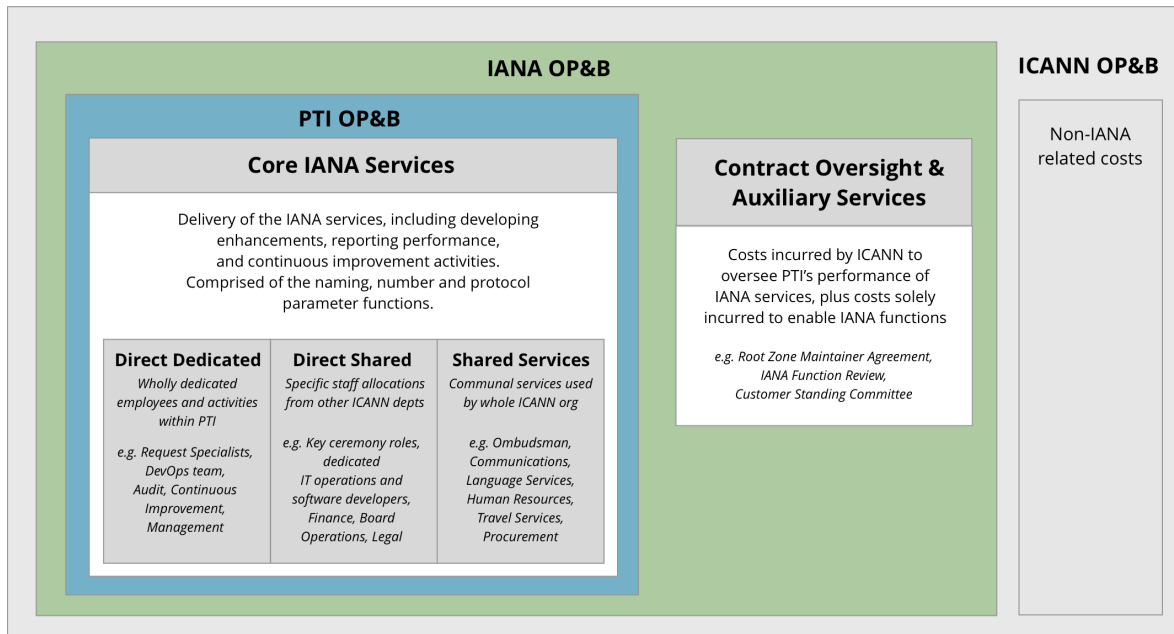


Figure 2. The interrelationship between the Operating Plan and Budget (OP&B) for PTI, IANA and ICANN.

## 5.2 PTI Services Operating Plan

The work performed to deliver the PTI services such as the IANA functions is outlined in Section 5.3 below. This work contributes to achieving ICANN’s overarching strategic objectives. The IANA functions sit within ICANN’s objective to “Support a healthy, stable, and resilient unique identifier ecosystem” and the goal to “foster and coordinate a healthy, secure, stable, and resilient identifier ecosystem.”

## 5.3 Scope of work

PTI operationalizes work using two portfolios of projects: one is focused on operational activities and the other is focused on system development and improvement. To help readers understand the management structure, the PTI operations portfolio has been divided into groups of similarly themed projects: core operational activities and operational improvement activities.

### 5.3.1 Operational Activities

Within the portfolio of operational activities, there are two categories: an activity to perform the core operational service delivery and an activity to continuously re-evaluate and improve service delivery.

#### 5.3.1.1 Core Operations

The core operations include project and non-project based work dedicated towards the delivery of the IANA functions. It includes:

- Ongoing daily activities required to provide the IANA functions, such as processing requests, responding to inquiries, and other recurring activities.
- Customer-related activities in which PTI participates, such as conferences, meetings, and other community events.
- Evaluating, planning, and implementing enhancements to the KMF and the related security system setup for the Domain Name System Security Extensions (DNSSEC) of the root zone.
- Performing key signing ceremonies. This work includes:
  - Reviewing the policy and procedures documents.
  - Selecting Trusted Community Representatives (TCRs) for each of the ceremonies.
  - Updating ceremony scripts and other administrative tasks related to the signing of the root zone.

#### 5.3.1.2 Operational Improvement Activities

Operational improvement activities contain project work dedicated towards the continuous improvement in the delivery of the IANA functions. They include:

- Engaging a third-party auditor to audit the IANA Registry Assignment and Maintenance Systems (RAMS) using the Service Organization Controls 2 (SOC2) Framework and the DNSSEC systems and processes using the Service Organization Controls 3 (SOC3) Framework.
- Conducting an annual customer service survey about customer satisfaction with the performance of the IANA functions.
- Planning and executing a table-top exercise to test the Contingency and Continuity of Operations Plan (CCOP) and identify strengths and areas for improvement.
- Conducting an internal quality management assessment with the European Foundation for Quality Management (EFQM) Excellence Model to identify strengths and areas for improvement.
  - More information: [iana.org/about/audits](https://iana.org/about/audits)
- Training and developing staff on planning, scheduling, and completing training activities related to audit, security, and business excellence as well as other relevant training programs.



- Facilitating research and community discussion of operational improvement opportunities. In particular, an activity to develop an operational approach to support new cryptographic algorithms in the DNS root zone and explore opportunities to reconfigure maintenance of the DNS trust anchor in order to allow for more resilient operations in light of global pandemics.

## 5.3.2 System Enhancements

This portfolio of projects is focused on software enhancements, tool development, and other discrete development projects to improve delivery of the IANA functions. The four focus areas for system enhancements are:

- Developing and deploying automation systems to support the common registry workflow used for protocol parameter assignments and other IANA registries. This is a multi-phase project with incremental releases continuing in FY22.
- Continuing to evolve and adapt the RZMS to support increased customer demands and the evolution of underlying community-developed policies.
- Delivering updates to the IANA website to effectively deliver registry information and associated procedures and documentation. Improvement areas include:
  - Enhanced browsing and searching of registry data
  - Improved machine-readable data, including customer application programming interface (API) and data representation
  - Optimized experience for common customer interactions, including via mobile devices
- Root Zone DNSSEC Management Enhancements
  - Asset inventory control system for KSK management
  - Next generation KSR/SKR exchange platform

PTI's software development work program is calibrated to maintain steady improvements that are in line with the current level of development activity. While more resources could be applied to speed up development or expand the number of areas of active work, customer feedback has indicated high levels of satisfaction with the current rate of work and does not suggest we alter the level of resources available for our software development projects.

## 5.4 PTI Budget

### 5.4.1 FY22 PTI Budget Overview

The draft FY22 PTI services budget is \$9.7M, which is \$0.3M lower than the FY21 Budget. The variances to FY21 Budget are:

- Personnel costs are \$0.2M lower than FY21 Budget. The three percent inflationary adjustment is offset by one less direct headcount for a position that is subject for review by the corporation as ICANN org has implemented a more comprehensive hiring process.
- Travel and Meetings, including travel and venue costs for outreach, meetings, and PTI Board activities, which is higher than the FY21 budget due to additional needed trips for Key Signing Ceremonies.

- Professional services, including contractor services, legal fees, and audit services, is lower than the FY21 budget due to lower shared services costs.
- Administration, including rent and other facilities costs, software, and general office expenses, decreased \$0.1 million from the prior year driven by a reduction in shared services allocations.
- Contingency for unforeseen and unallocated costs remains flat compared to the FY21 Budget.
- Capital costs are higher than the FY21 budget in order to incorporate software development costs for the root zone.

FY22 PTI Budget in Millions, USD	PTI Services FY22 Budget	PTI Services FY21 Budget	Under/(Over)		PTI Services FY20 Actuals	Under/(Over)	
			Total	%		Total	%
<b>FUNDING</b>	<b>\$9.7</b>	<b>\$10.0</b>	<b>\$0.3</b>	<b>2.8%</b>	<b>\$7.5</b>	<b>(\$2.2)</b>	<b>-29.9%</b>
Personnel	\$6.1	\$6.3	\$0.2	3.8%	\$4.9	(\$1.2)	-24.7%
Travel & Meetings	\$0.6	\$0.5	(\$0.1)	-16.9%	\$0.2	(\$0.4)	-224.1%
Professional Services	\$1.3	\$1.4	\$0.1	5.0%	\$0.9	(\$0.4)	-50.4%
Administration	\$0.9	\$0.9	\$0.1	8.8%	\$1.2	\$0.4	31.4%
Contingency	\$0.5	\$0.5	\$0.0	0.0%	\$0.0	(\$0.5)	0.0%
Capital	\$0.3	\$0.1	(\$0.2)	-173.9%	\$0.3	(\$0.0)	-7.6%
Depreciation (a)	\$0.1	\$0.3	\$0.2	63.0%	\$0.0	(\$0.1)	-5251.3%
<b>TOTAL CASH EXPENSES</b>	<b>\$9.7</b>	<b>\$10.0</b>	<b>\$0.3</b>	<b>2.8%</b>	<b>\$7.5</b>	<b>(\$2.2)</b>	<b>-29.9%</b>
<b>EXCESS/(DEFICIT)</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>0.0%</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>0.0%</b>
Average Headcount (FTE) (b)	22.0	23.0	1.0	4.3%	19.9	(2.1)	-10.4%

(a) Depreciation is treated as a cash expense for PTI since it will be reimbursed to ICANN  
(b) FTE: Full-time staff equivalent

Dollar figures are shown in millions of U.S. dollars with a granularity of \$100,000. Due to rounding, numbers presented may not add up precisely to the totals indicated and percentages may not precisely reflect the absolute figures. An absence of an expenditure is shown with a dash.

## 5.4.2 5.4.2 PTI Direct Dedicated and Direct Shared Expenses

The activities in this section cover two types of costs. Direct dedicated costs are shown for resources fully dedicated to delivering the IANA functions. Direct shared costs are shown for resources directly contributing to delivery of the IANA functions and shared with ICANN. The costs of support functions shared with ICANN are shown in the table in Section 5.4.2.

The list of activities included in the direct dedicated costs are:

- Contractual agreements between ICANN and PTI
- Governance
- IANA functions' operations
- General operations
- Oversight committees (Customer Standing Committee, Review Committee as defined by the RIRs)
- PTI Board
- Root zone DNSSEC operations

- Service level agreement reporting
- System engineering
- System maintenance
- Systems audits
- Technical enhancements and development
- Website administration

The list of functions included in the direct shared costs are:

- Accounting and Finance
  - Annual Operating Plan and Budget
  - Financial Audit and Tax Processes
- Administration and Rent for Los Angeles
- Board Management
  - PTI Board Support
- Communications
- DNS Industry Engagement
- Global Stakeholder Engagement
- SO & AC Engagement
- Governance Support
  - Legal
- IT and Engineering
- Technical Engagement
- Key Signing Ceremony Support
- Software Development

PTI relies upon the baseline security capabilities of ICANN for securing its systems and software, and implementing company-wide approaches to threat identification, response, and mitigation. PTI additionally has direct shared allocations that pertain to its unique requirements such as its control audits and management of the root zone KSK.

### 5.4.3 PTI Total Expenses Including Support Functions Shared with ICANN

ICANN support functions support the work to perform the PTI operations (Section 5.3.1) and technical systems enhancement activities (Section 5.3.2). This means that a portion of the costs incurred by ICANN for these support functions is allocated to PTI. ICANN org determined the allocated amount by calculating the total support functions expense as a percentage of total ICANN operations costs, excluding the cost of dedicated direct shared costs, as noted above. This percentage for support functions was then applied to the FY22 PTI services costs (dedicated and shared) to determine the support function allocation for PTI.

The list of ICANN departments included in the allocated support costs are:

- Administrative Support
- Board Operations
- Communications

- Complaints
- Cybersecurity
- Data Center Operations & End User Support
- Management Oversight and Governance
- Finance
- Human Resources
- Language Services
- Legal
- Network Engineering & Security
- Nominating Committee
- Ombudsman
- Planning
- Security Operations

Grand Total Including Support Functions Shared with ICANN							
	FTE	Personnel	T&M	ProfSvcs	Admin	Capital	Total
Direct costs / Dedicated resources	17.0	\$3.2	\$0.3	\$1.0	\$0.1	\$0.3	\$5.0
Direct costs / Shared resources	5.0	\$1.2	\$0.1	\$0.3	\$0.6	-	\$2.3
Support Services Allocations	0.0	\$1.6	\$0.2	\$0.5	\$0.2	-	\$2.5
<b>Total</b>	<b>22.0</b>	<b>\$6.1</b>	<b>\$0.6</b>	<b>\$1.8</b>	<b>\$1.0</b>	<b>\$0.3</b>	<b>\$9.7</b>

## 5.4.4 Funding

PTI performs the IANA functions that are outlined in Section 6 on behalf of ICANN. PTI invoices ICANN every quarter for performing those functions. ICANN org, in accordance with its Bylaws, subcontracts with PTI to perform the IANA functions. ICANN is committed to providing the funding of PTI for the IANA functions. ICANN has a sustainable model of funding expected to generate approximately \$140 million per year, which allows ICANN org to confidently commit to the funding of PTI.

# Appendix

## A — Budget Overview of PTI Services

These three tables show the variance in the costs incurred to provide PTI services between the FY21 Budget and the FY22 Budget.

PTI Services FY22 Budget				
In Millions, USD	Names	Numbers	Protocol Parameters	FY22 Budget
Direct costs / Dedicated resources	2.7	0.9	1.4	5.0
Direct costs / Shared resources	1.2	0.4	0.6	2.3
Support Services Allocations	1.3	0.4	0.7	2.5
<b>Total</b>	<b>\$5.3</b>	<b>\$1.7</b>	<b>\$2.8</b>	<b>\$9.7</b>

PTI Services FY21 Budget				
In Millions, USD	Names	Numbers	Protocol Parameters	FY21 Budget
Direct costs / Dedicated resources	2.7	0.8	1.4	4.9
Direct costs / Shared resources	1.4	0.4	0.6	2.3
Support Services Allocations	1.5	0.4	0.8	2.7
<b>Total</b>	<b>\$5.7</b>	<b>\$1.6</b>	<b>\$2.8</b>	<b>\$10.0</b>

Variance FY22 vs FY21				
In Millions, USD	Names	Numbers	Protocol Parameters	Variance
Direct costs / Dedicated resources	(0.0)	0.1	0.0	0.1
Direct costs / Shared resources	(0.2)	0.0	0.0	(0.1)
Support Services Allocations	(0.2)	(0.0)	(0.1)	(0.3)
<b>Total</b>	<b>(\$0.4)</b>	<b>\$0.1</b>	<b>(\$0.0)</b>	<b>(\$0.3)</b>

Dollar figures are shown in millions of U.S. dollars with a granularity of \$100,000. Due to rounding, numbers presented may not add up precisely to the totals indicated and percentages may not precisely reflect the absolute figures. An absence of any expenditure is shown with a dash.

## B — Acronyms

<b>ACRONYM</b>	<b>DESCRIPTION</b>
<b>Admin</b>	Administration
<b>AC</b>	Advisory Committee
<b>CSC</b>	Customer Standing Committee
<b>DNS</b>	Domain Name System
<b>DNSSEC</b>	Domain Name System Security Extensions
<b>EFQM</b>	European Foundation for Quality Management
<b>FTE</b>	Full Time Staff Equivalent
<b>IANA</b>	Internet Assigned Numbers Authority
<b>IETF</b>	Internet Engineering Task Force
<b>KMF</b>	Key Management Facility
<b>KSK</b>	Key Signing Key
<b>Prof Svcs</b>	Professional Services
<b>PTI</b>	Public Technical Identifiers
<b>RAMS</b>	Registry Assignment and Maintenance Systems
<b>RFC</b>	Request for Comments
<b>RIRs</b>	Regional Internet Registries
<b>SO</b>	Support Organization
<b>T&amp;M</b>	Travel and Meetings

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