

What is the transition of NTIA's Stewardship of the IANA all about?

Who is NTIA?

NTIA is a department within the US Government Department of Commerce which from 1998 has been overseeing that the IANA is managed in a non-discriminatory and efficient manner.

What is the [IANA](#)?

The IANA is the central repository for fundamental Internet information. It comprises three distinct elements, custodian of the database of technical protocols for the IAB and IETF; coordinator for the distribution of both IPv4 and IPv6 IP addresses to the Regional Internet Address Registries. IP addresses are the (device) numbers of every computer on the Internet essential for navigating the Internet and; Root Zone Maintainer for Top Level Domain Names (TLDs) – approximately 250 two letter ISO-3166 codes and approximately 2000 generic three or more character and IDN TLDs.

What does NTIA as IANA Steward do?

NTIA organises the periodical performance review of two contracts and acts as steward overseeing the IANA operation (and occasionally re-bidding contracts).

The first contract is to check the process flow of the IANA is current and meeting the needs of its customers (done by NTIA periodically soliciting comments from the IANA customers); to oversee and ensure the appointed contractor operates on a non-discriminatory basis and correctly records the paperwork (updates) submitted by customers to the IANA central repository; and finally to periodically rebid the IANA contract to drive service improvements and ensure a no-cost contract of the IANA service to NTIA (and the community) are as competitive as possible.

The second contract is for the Root Zone Maintainer (RZM) – this is a highly technical function and has two elements. The first is that NTIA requires the RZM to check that the information submitted by IANA is technically correct and will not break the stable operation of the Internet. The second is for the RZM to technically compile the data in a form for distribution to the Root Name Servers, (the master name servers distributed around the world that make the Internet's TLD system work), this includes verifying the data set published in the Root Zone is accurate by signing the data with encryption technology called DNSSEC.

Who currently holds the contracts for the IANA and for RZM?

The process for selecting a technical contractor in the USA is via a Request for Proposals (RFP). The RFP must describe the tasks to be undertaken and the respondent must state how they plan to meet or exceed the requirements.

The IANA contract is a no-cost contract, so the USG does not pay the contractor for the services specified in the RFP. Periodically all public benefit contracts issued in the USA must be re-bid in an open and transparent manner, which may result in the same or a different contractor being selected based on their response to the RFP. In 2012 the current contractor, ICANN, was re-appointed by NTIA to operate the IANA service.

The RZM is performed by Verisign under a cooperative agreement with NTIA (last modified on the 29th November 2012)

Is the NTIA in charge of the Internet?

No. The Internet is a highly distributed network of interconnected computers and has been specifically designed to operate on a decentralised manner without single points of failure. Should NTIA exert pressure on how the Internet works, customers could withdraw their consent and an alternative platform could develop. It would be a trivial task to undertake fragmentation of the current Internet however the economic cost for the fragmented parts of the DNS and IP addresses system would be highly disruptive and have major economic impact. History has shown where there have been attempts to fragment the Internet, the inherent design of the system is to work around blockages to keep a unified service. Consequently, there is no single party “in charge”, and can best be described as a complementary of technical services which keep the global Internet united and interoperable.

Why IANA stewardship transition and why now?

The economic activity conducted on the Internet is growing day-by-day and global transaction values amount to many billions of dollars daily. Furthermore, the Internet is increasingly a medium of choice for citizens worldwide to communicate with each other and universal interoperable service is essential if balkanisation is to be avoided.

The Internet has come of age and it is time to move from one government (USG – department NTIA) having the oversight role to the global community. The initiative of government oversight to ensure the non-discriminatory service was introduced by USG in 1998 and the intent now is to withdraw from that role. Over the last decade and a half, NTIA have been stewards ensuring that administrative tasks are undertaken efficiently but now is the time for the multi-stakeholder community (Governments, Operators, Users, etc) to design an impartial oversight process to transition the oversight function.

How to facilitate a process for transitioning the IANA oversight function?

The NTIA asked its current IANA contractor, ICANN, to facilitate a non-discriminatory multi-stakeholder process to develop a transition proposal for NTIA’s consideration. The three functions undertaken by IANA were respected and each group, Protocols, Numbers and Naming were asked to formulate a transition proposal.

For the naming community, a Cross Community Working Group on IANA Transition (CWG) was formed. This group was tasked to develop a robust, stable and non-discriminatory IANA Stewardship transition proposal for the IANA Naming function. After a careful process, 19 voting members with diverse and differing community perspectives were invited. 7 members from Europe, 5 from North America, 3 Asia/Asia Pacific, 2 Latin America and 2 members from Africa. In addition any person could observe and participate in the discussions of the CWG.

The geographical diversity of participants in the CWG is 47 people from Asia/Asia Pacific, 42 Europe, 32 North America, 13 Latin America, 12 Africa; with a stakeholder community being 25 Government representatives, 32 GTLDs, 18 ccTLDs, 18 At large, 2 Security and Stability, 1 Address Supporting Organisation and 50 participants with no affiliation.

Once the proposal has been finalised, it will be first presented to the chartering organisations to seek their support.

Methodology

To ensure global inclusion, most of the work of the CWG occurs on mailing lists with occasional face to face meetings. There have been a prolific number of emails (in excess of 2000) from various stakeholders around the world and multiple calls per week. In addition, there have been two formal meetings, one in Frankfurt on the 19th and 20th November 2014 and the other on 26th and 27th March 2015 in Istanbul, Turkey. In addition, to seek input from the broader community, the CWG preliminary views were subject of a formal public comment from 1 December until 2 December 2014. Further, to reach out to and inform the broader community, there have been ICANN constituency meetings during the ICANN conference in Los Angeles and Singapore, a number of regional meetings outside of the ICANN forum to discuss the Stewardship of IANA post transition from NTIA, and webinars.

At the Frankfurt CWG meeting, members of the CWG decided it was essential to consider a diverse range of options and then to formulate a consensus position based on community needs. The virtue of NTIA (contracting authority) being impartial to the task of delivering service was recognised and the independence provided the community with a level of transparency as to the expected working standards of the contractor. The CWG members were invited to form independent Working Groups to consider specific diametrically opposed criteria and then to establish if consensus could be reached. Whilst certain oversight structures did receive consensus as to satisfying customer requirements, they were predicated on legal opinion as to what is permissible under US national law. Consequently, it was necessary to operate an open process to secure the services of an independent specialist firm of lawyers with no conflicts of interest. Their preliminary advice has now been received.

After careful analysis of the comments received, additional feed-back from the community at the Singapore meeting sessions, the WG changed its working methods.

Stewardship of IANA - deliberations by CWG

The overarching goal of the CWG is to ensure the stable, predictable and robust operation of the IANA naming function services to the global community. The status-quo has an independent body (NTIA) consulting with the user community and then selecting the preferred contractor based on a set of objective criteria and determined by the quality of the respondent's submission from the RFP process.

The independence of the NTIA and the objective manner in which selection of the IANA functions contractor was undertaken was considered by the CWG to be admirable. So at one end of the consideration spectrum is the replication of the independent organisation undertaking a periodical RFP and adjudication based on submissions received. At the other end of the spectrum is to have the current contractor undertake the IANA function without the opportunity for periodical review. Both of these extreme scenarios are fraught with issues, such as being open to legal challenge, possibility of anti-competitive behaviour, process capture and the potential for operational instability, in one form or another.

Whilst initially favouring replication of the current independent stewardship and contract management model performed by NTIA, the CWG solicited comments from the Community in December 2014. Consequently, the CWG asked members of the community to comment on their deliberations to date, specifically with respect to the creation of a stand-alone independent company responsible for the Stewardship of IANA. Based on comments received, there was concern that a stand-alone body could

allow disgruntled parties to challenge the status quo and undermine the multi-stakeholder approach to the management of critical Internet resources. Furthermore, the CWG received well researched preliminary advice given by the retained specialist firm of lawyers that indicated a new stand-alone company would be open to challenge on many grounds. Consequently, the CWG is minded not to explore this option further.

A variation of the stand-alone incorporated entity created to manage the selection of the IANA contractor via a RFP process was to place the stewardship task in an (un)registered Trust for the benefit of the global community. Trusts and Trust law is well understood in Anglo-Saxon legal jurisdictions but not in Civil Law jurisdictions: Trusts either do not exist or take on a different form. One of the goals of the CWG is to ensure global recognition of the independent stewardship of the IANA, so the concept of having an IANA Stewardship Trust formed either outside or within the ICANN corporation are no longer being progressed by the CWG.

IANA staff, currently employed by ICANN, have done a good job at delivering service to customers of the IANA service. However, history has shown that where the same entity undertakes to manage both Policy and Operations there is frequently a conflict of interest and service is impacted. Unfortunately, in the past ICANN also suffered from these same issues. Consequently, the NTIA as Steward of the IANA in conjunction with the customers of the IANA service introduced appropriate safeguards by ensuring that no single entity had both roles.

Parties that have contractual relationships with ICANN have presented a case to the CWG that ICANN should be responsible for all three elements of the IANA service. That specifically means that ICANN would determine Policy, deliver the IANA service in perpetuity and provide the global community with the Stewardship of the IANA service. The CWG members are considering this proposal. However the CWG is likely to consider that placing all three functions in the same body (ICANN) with limited possibility of efficiently enforcing quality of service due to ICANN staff performing the IANA function is not a particularly prudent approach.

The CWG has been made aware that the two other IANA customers, the IAB/IETF (Protocols) and Regional Internet Address Registries (IP Numbers), reserve the option to conduct an independent RFP process where IANA fails to deliver exemplary service.

The naming customers also feel there are benefits to the TLD Registry group having the option to conduct an RFP for an operator willing to deliver exemplary service. This process should only be triggered after a prescribed escalation path for service improvements has failed to achieve the desired result. The RFP process will not preclude the current operator being re-selected.

What are the options being considered by the CWG?

As a matter of good practice, it is usual in instances of natural monopoly situations for the Policy, Operations and Stewardship elements to be undertaken by separate accountable bodies. The Bylaws of ICANN Corporate (restrict Staff and Board) define that Policy should be developed by the respective stakeholder community in a “bottom-up” manner.

Policy:

As the ICANN Corporation was formed to create Policy for gTLDs and some years later to be a forum for ccTLDs, where members of the ccNSO formulate Policy for the IANA naming function related to ccTLDs and to which they agree to be bound, there is no proposal to change this status quo. So ICANN should be considered the Policy Forum for both gTLDs and also ccTLDs who are members of the ccNSO. As before

ICANN will not have any role in setting policy that impacts ccTLDs that are not ccNSO members, nor .GOV or .MIL TLDs (which are quasi ccTLDs for the US Government).

Operations:

Staff employed by the ICANN corporation have demonstrated that during NTIA's period of oversight they can operate professionally and on non-discriminatory basis, when there is a periodical review and award of the service contract that describes the IANA services customers require. There is no proposal to change the status quo here either. History has shown that NTIA has provided significant value to the community by ensuring the correct transactions processes have been followed by the IANA operator's adherence to an expected level of service to the global community.

The legal advisers to the CWG have been asked to consider if having operational functional separation of the IANA in a separate division or subsidiary would enhance the predictability and stability of operation to the global community. In summary the legal advisors conclude that in the event of a financial or administrative challenge to ICANN, it is likely that a Court would not consider the functional separation of the IANA (from ICANN) to be sufficient to exonerate and hold harmless the operational function of IANA undertaken by ICANN staff – so service predictability and stability to the global ccTLD and gTLD Registry community could be impacted.

Stewardship:

The goal of the CWG has been to continue the approach adopted by the NTIA. To develop and publish a standards document which prescribes the expected service level the IANA contractor should provide.

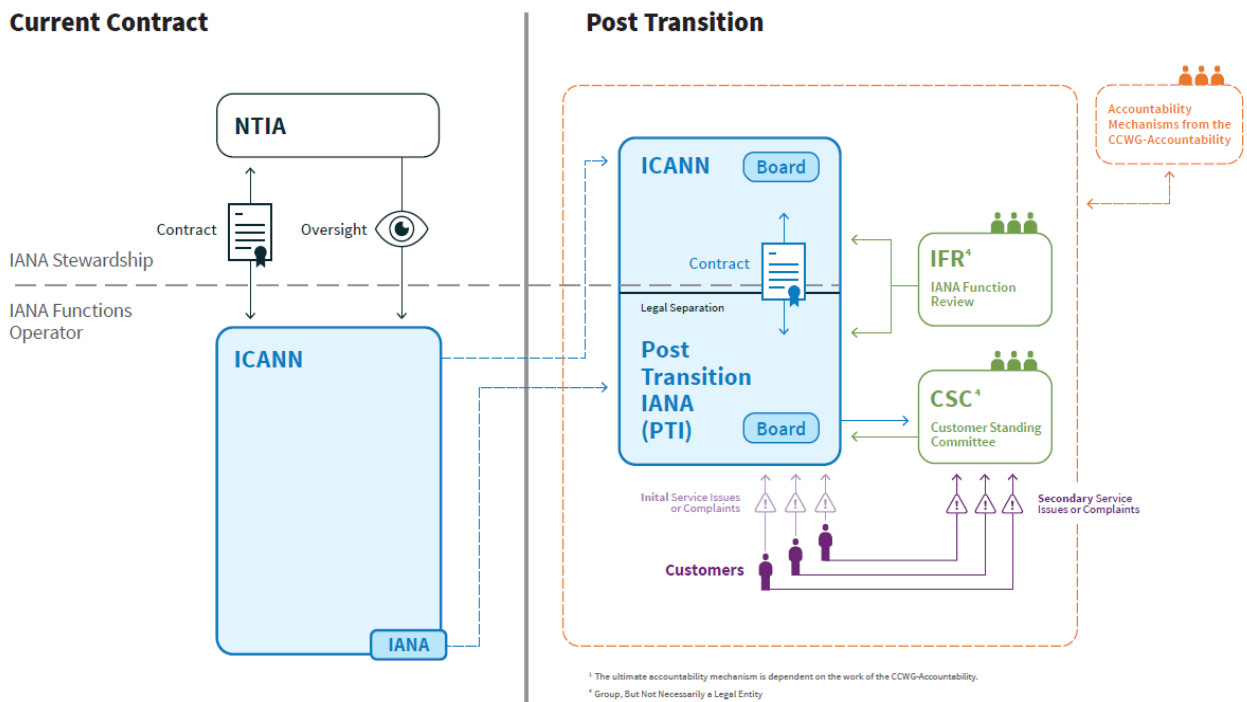
To replicate the current IANA oversight and stewardship role, the community seeks to:

- ensure the IANA contractor meets or exceeds pre-determined customer service level;
- ensure adequate escalation mechanisms, in case the customer service levels are not met and where the service does not meet customer expectations systemically, run an open, transparent and objective RFP process;
- select a contractor who can deliver the required service;
- Mechanisms to allow evolution of the customer services and associated service levels.

In addition the CWG identified a need for enhanced functional separation. The IANA service provider should have its own published budget and report directly to the ICANN CEO and Board to ensure a robust fire-wall between IANA (operational) staff and ICANN (Policy) staff.

The substantive matter under review is how best to ensure the IANA functions operator free of any inappropriate influence, yet delivers stability in the technical operation of the TLD name space for the benefit of the global Internet community (post IANA transition from NTIA) and how should that be structured?

The [CWG-IANA Stewardship](#), posted a [second draft proposal](#) for public comment on April 23, 2015, the basic elements of which are below along with pages references from the [second draft proposal itself](#). The window for receiving comments is open until 20th May 2015.



Post Transition IANA (PTI): this separate legal entity, a wholly-owned subsidiary of ICANN, would be created with a dedicated Board, the process for selecting members has not been determined. All of ICANN’s IANA-related staff and assets would become a part of the PTI, ensuring further separation of the policy and operational aspects of IANA. ICANN would enter into a contract (or enshrine the independence of the PTI in its Corporate Bylaws), substantially similar to the current NTIA contract, with PTI responsible for the provision of the IANA services. There would also be ‘service level expectations’ (SLEs) to ensure at least the current quality of IANA service would be on-going past the transition. The Board Directors of the PTI could be appointed by ICANN, the SOs and ACs, or the ICANN community, irrespective the accountability process must accord with general ICANN accountability principles currently being developed by the [CCWG](#).

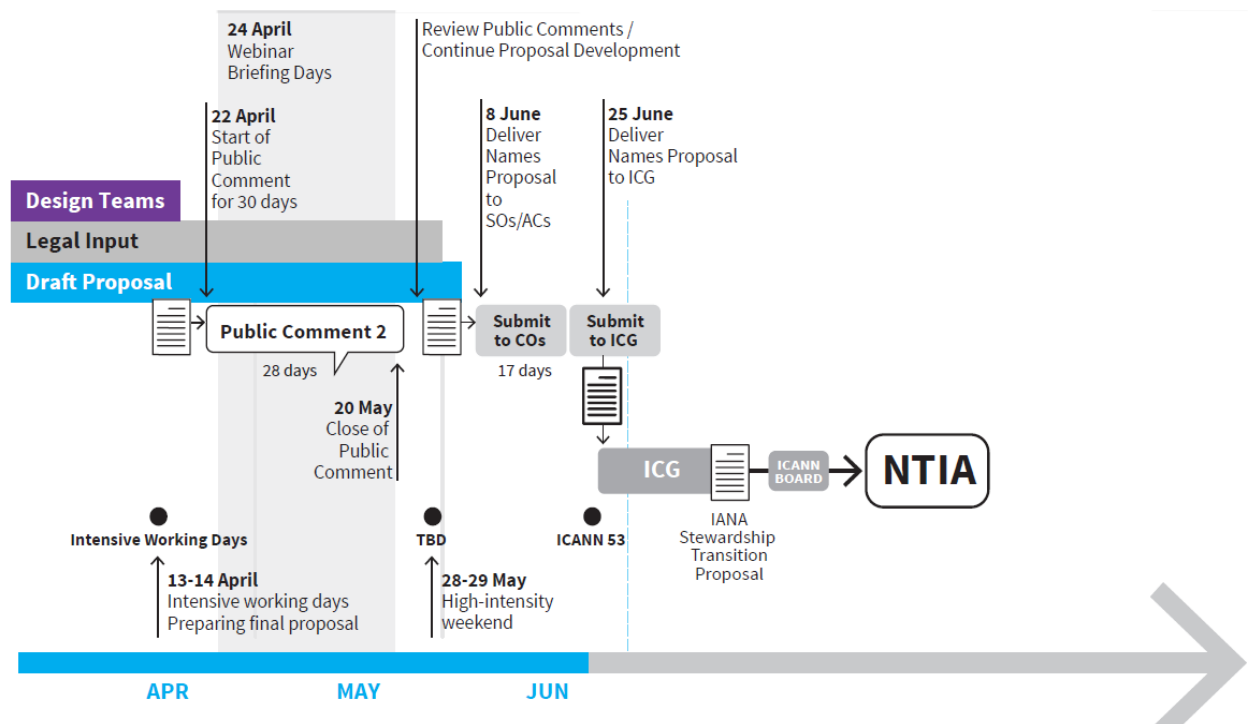
Customer Standing Committee (CSC): This standing committee would monitor the operational performance of PTI staff relative to the SLEs. It would also have a role in resolving disputes and in initiating ‘special reviews’ (see below). Co-chaired by GNSO and ccNSO appointees, its members would come from the registry and root server communities (see [page 23 and Annex G](#)) as well as (possibly) other members of the Registry community not affiliated with either the ccNSO or the GNSO.

IANA Functional Review Team (IFRT): Comprised of representatives of the multistakeholder community including two ccTLDs (one from the ccNSO), this committee would be constituted periodically to undertake regular reviews of the performance of the IANA functions (See [Annex F page 49](#)). The initial, review would occur after two years and would then be undertaken every five years. It would also have the authority to undertake special reviews, (see below).

Customer Complaint Resolution: The existing customer complaint resolution processes and mechanisms would be augmented by allowing the complainant to request mediation and then, if necessary, review by the CSC. (See [Annex I page 65](#))

Problem Resolution Processes: Where the CSC finds there are persistent and systemic performance related issues that it is not able to resolve directly with PTI and ICANN, it can refer these to the ccNSO and the GNSO (See [Annex J page 68](#)). Where issues remain unresolved, a special review by the IFRT can be initiated upon the joint approval by the ccNSO and the GNSO, with a greater than simple majority vote (a ‘supermajority’) being required by each Supporting Organization (See [Annex F, page 55](#)). The IFRT could recommend action be taken by means of the revised accountability measures being developed by the [CCWG](#).

Separation Review Team: The IFRT report could also recommend the initiation of a ‘separation review’. The Separation Review Team would be multistakeholder in composition. This review could recommend initiating a process by which a different IANA operator might be chosen (See [Annex L, page 72](#)). This process would be defined in a new ICANN bylaw that would require special processes to change. These special processes are currently being developed by the [CCWG](#).



Your input is welcome/solicited/desired.

When formulating your submission, it may help to consider these questions:

Which aspects of the Proposal do you agree or disagree with?

Are the gaps in the Proposal that you would like addressed/clarified before making a decision if the proposal meets your needs?

Do you consider the timetable for developing the CWG proposal to be appropriate?

Please use the comment template:

<https://www.icann.org/en/system/files/files/cwg-stewardship-input-template-doc-22apr15-en.doc>