

**Comments to the Cross Community Working Group on the “Proposal to Transition the Stewardship of the Internet Assigned Numbers Authority (IANA) Functions from the U.S. Commerce Department’s National Telecommunications and Information Administration (NTIA) to the Global Multistakeholder Community”**

<https://www.ianacg.org/icg-files/documents/IANA-stewardship-transition-proposal-EN.pdf>

The focus of the Cross Community Work Group (CCWG) on the Accountability and Transparency of ICANN is to be applauded. However, *none* of the Transparency and Accountability work, still on-going *with ICANN*, to prevent capture by a foreign government and/or state-sponsored corporations, and to insure appropriate checks and balances of authority are in place, has been undertaken *with any of the RIRs* or the *Internet Engineering Task Force (IETF)* which is a subsidiary organization of the Internet Society (ISOC). We would respectfully submit that, in the interest of Internet security and stability, independent review and assessment of the Transparency and Accountability of *any and all* organizations that would assume NTIA responsibility as part of a transition should be a fundamental prerequisite requirement prior to any transition.

Within the detailed comments below you will find a significant number of accountability issues, interoperability issues, and operational concerns that the Cross Community Working Group should be aware of and take appropriate action to address. A review of the Protocol and Parameters section of the consolidated proposal reveals similar issues of concern that the CCWG should address.

Part 2 of the consolidated proposal: Response from the Internet Number Community

There can be no examination of accountability or transparency where there is no clear definition of precisely to whom would NTIA transition its responsibility for the IANA Numbers Function.

The Number Resource Organization (NRO) is an *unincorporated consortia*, made up exclusively of the 5 Regional Internet Registries (RIRs) but which, from a legal perspective, does not exist. If NTIA were to delegate its responsibilities to an unincorporated entity there would be *zero* accountability for the entire IP Numbers Function. Therefore, since the NRO legally does not exist and accountability is a cornerstone of the NTIA requirements, NTIA should not, or perhaps cannot, transition its responsibilities to this unincorporated “organization”.

The RIRs are, by definition, *regional* registries. Each RIR has established control over a *portion* of the IP numbers in their region, controlled by their individual regional policies, and contractually controlled by their individually unique service contracts. If NTIA were to transition responsibility for a portion of the IANA Numbers Function to each individual RIR, it would truly be a “balkanization” of the IANA Numbers Function into 5 separate, autonomous regional functions each with their own policies, processes, procedures, legal venues and applicable laws. “Balkanization” of the IANA Numbers Function is both undesirable and incompatible with the principle of a unified global Internet. NTIA should not, or perhaps cannot, transition *portions* of

its responsibility for the IANA Numbers Function to the 5 *individual regional registries* located all over the globe.

Alternatively, if NTIA were to transition its responsibilities for the entire IANA Numbers Function to the 5 RIRs, regardless of which registry had what portion of the numbers in their region or service contracts in place, then a whole host of other questions emerge. From an accountability perspective, perhaps the most pressing question would be, *who is actually accountable?* Fracturing accountability for a *single IANA Function* across 5 *separate organizations*, four of which are outside the United States, each with its own policies, processes, procedures, legal venues and applicable laws, would create accountability ambiguity and invite instability and insecurity. Therefore, since fracturing the accountability for a *single IANA Function* across *multiple organizations* would in effect remove accountability, NTIA should not, or perhaps cannot, transition responsibility for the entire IANA Numbers Function to the 5 *individual regional registries*.

If neither the NRO, nor the 5 separate RIRs for a portion each of IANA Numbers Function, nor all 5 individual RIRs for the entire IANA Numbers Function, are an acceptable answer, then precisely to whom would NTIA transition its responsibility for the IANA Numbers Function?

P2.II.A.2. How policy is developed and established and by whom – Section 2030: “Any individual may submit a global policy proposal to the Global Policy Development Process, or gPDP. The community must ratify the proposed policy within each RIR. The NRO Executive Council (NRO EC) then refers the proposal to the Address Supporting Organization Address Council (ASO AC), which reviews the process by which the proposal was developed and, under the terms of the ASO Memorandum of Understanding (ASO MoU), passes it to the ICANN Board of Directors for ratification as a global policy.”

Comment: Several organizations are referenced in Global Policy Development Process (gPDP) but, in fact, the diversity of stakeholders in the process is an illusion. The Address Supporting Organization Address Council (ASO AC), which is also the NRO Number Council (NRO NC), is made up of 2 members from each RIR and one member appointed by, and reporting to, the Executive Board of each RIR. Furthermore, the NRO NC (or ASO AC if you prefer that name) also have the authority to select and appoint 2 members of the ICANN Board of Directors. The Number Resource Organization Executive Council (NRO EC) is exclusively made up of the CEOs of the RIRs.

If one follows the Global Policy Development Process (gPDP), and substitutes the actual parties for the organizational names, the process is as follows: Anyone can submit a global policy to the RIR appointed representatives and the appointed representatives of the RIR Boards, *i.e.*, the ICANN ASO, or an individual RIR. Each individual RIR *as well as* the collective RIR appointed representatives and the RIR board appointed representative from each RIR, *i.e.*, the NRO NC, has to unanimously approve (without any modifications) the proposal, or it is rejected. If accepted, the proposal then goes to the CEOs of the RIRs, *i.e.*, the NRO Executive Council (NRO EC), for review and acceptance. If it is acceptable, then the CEO’s of the RIRs forward the proposal back

to the same people that submitted it to them but this time under a different organization name, *i.e.*, the Address Supporting Organization Address Council (ASO AC), for review and acceptance. If they deem it acceptable, they forward it to the ICANN Board (containing 2 members selected by the same organization that sent the proposal forward to the ICANN Board) for ratification. In short, the diversity of stakeholders initially suggested by the process is an illusion.

The gPDP system is absolutely corrupted, not because the people are corrupt, but because they are hopelessly conflicted. The CEOs of the RIRs, which report to their respective Board of Directors, have a fiduciary responsibility to their regionally exclusive *registry service provider* organizations, which prevents them from supporting any proposal for the introduction of (1) *contractual specified policy compliance auditing or enforcement*, or (2) *competition from commercial registry service providers or other RIRs*. They also have managerial responsibility to their *regional policy authority* organization that prevents them from supporting any proposal for the introduction of any governance or organizational structural changes which might *reduce or limit the policy making autonomy of their organization*. The RIR Board appointed representatives, which just like the RIR CEOs explicitly report to the RIR Board that appointed them, are *required* to represent the interests of the individual RIR that gave them their positions. In short, 50% of the individuals in the process (33% of the ASO AC / NRO NC and 100% of the NRO EC) *cannot* support any proposed change which is not a direct benefit to their own organization, despite how they may personally feel about the merits of such a proposal to the Internet as a whole. When viewed in this manner it becomes apparent that the Executive Boards of the RIRs have a complete stranglehold on global policy development.

Worse yet, since there is no independent appeal body (except perhaps the NTIA itself), there is no other organization to go to in order to attempt to bring about reform or introduce a policy that is not a direct benefit to all 5 of the RIRs individually. It is for these reasons that there are so few global policies, no certification of IP number registry service providers, no standardized IP number registry services, no standardized IP number registry service pricing, no global IP number registry portability policies, etc. Reform is obviously necessary, but if the RIRs also, as proposed, assume the role of NTIA over the IANA Number Function, and thereby eliminate the last vestige of external accountability, the die will have been cast and there would be no means for the introduction of reform.

P2.II.A.3. How disputes about policy are resolved – Section 2040: “In case of disputes where mediation has failed to resolve the dispute, the ICANN ASO MoU provides for arbitration. Via the ASO, the RIRs have been participating in the periodic independent reviews by the Accountability and Transparency Review Team (ATRT) that are called for in ICANN’s Bylaws.”

Comment: The only reference to “mediation” in the gPDP process says, “... the RIRs or ICANN shall refer the matter to mediation using an agreed procedure to resolve the matter”. The ICANN, NRO and RIR websites contain no reference, documentation or even conceptual discussion of the mediation procedure to be utilized or the process to be followed.

The ICANN ASO MoU arbitration section reads, in its entirety, “In the event that the NRO is in dispute with ICANN relating to activities described in this MoU, the NRO shall arrange arbitration via ICC rules in the jurisdiction of Bermuda or such other location as is agreed between the NRO and ICANN. The location of the arbitration shall not decide the laws to be applied in evaluating this agreement or such dispute.” The MOU does not specify what laws will be applied, address how a party in Bermuda would be qualified to interpret laws other than those of Bermuda, or how those laws would be applied.

The final sentence in the response is very misleading. Although the ASO is a *participant* member of the Accountability and Transparency Review Team (ATRT), a review of the ATRT reports and recommendations finds *no* reference to any RIR, the NRO, the ASO, or any IP Number Policy processes. In short, there is not any evidence that any of the agreements, organizations, activities or processes related to IP Numbers, or the IP Numbers Function, have ever been reviewed by the ATRT.

P2.II.B.2. If the policy sources identified in Section II.A are affected, identify which ones are affected and explain in what way. – Section 2048: “A decision by the NTIA to discontinue its stewardship of the IANA Numbering Services, and therefore its contractual relationship with the IANA Functions Operator, would have no significant impact on the continuity of IANA Numbering Services currently provided by ICANN. However, it would remove a significant element of oversight from the current system.”

Comment: It is a huge understatement to say that NTIA deciding to discontinue its stewardship of the IANA Numbering Services, and therefore its contractual relationship with the IANA Functions Operator, would remove a significant element of oversight from the current system. In the case of the Numbers Function, it would remove the only *potential* oversight that exists.

As proposed “the RIRs” would assume the oversight role of NTIA with regard to the Numbers Function *in addition* to their existing roles as (1) the ICANN Address Supporting Organization (ASO) that, provides advice and guidance to the ICANN board on all matters related to IP numbers, creates global IP number policies, and coordinates and oversees the regional policy making bodies, *i.e.*, the RIRs, (2) the individual regional policy making bodies, (3) the organizations empowered to select and appoint two ICANN board members, and (4) the exclusive regional providers of IP number registry services. There is no separation of the Numbers Function oversight role, the role to select and appoint two members of the ICANN board, the role of the collective RIRs as the global policy body, the role of coordination and oversight of the regional policy bodies, the role of the individual RIRs as regional policy bodies, and the role of the RIRs as the regionally exclusive providers of IP number registry services. This universal comingling of oversight, policy making, operations and service provider roles creates layers of obvious and fundamental conflict of interest within the RIRs. Moreover, due to the complete absence of any independent oversight the RIRs are, and as proposed will remain, only accountable to themselves. In the interest of Accountability and Transparency this must be resolved prior to any transition by NTIA. It should be noted that the names community proposed creation of PTI was specifically motivated to avoid

the creation of similar concentration of power but less pervasive conflict of interest within ICANN (the proposed recipient organization for the NTIA responsibilities related to the Domain Names Function).

P2.II.B.3. The entity or entities that provide oversight or perform accountability functions – Section 2051: “A description of the entity or entities that provide oversight or perform accountability functions, including how individuals are selected or removed from participation in those entities.”

Comment: This would appear to be a continuation of the statement of the proposal requirements (presumably to be addressed immediately below). If it is not, then it is “place-holder” language in that it doesn’t actually say anything.

P2.II.B.3. The entity or entities that provide oversight or perform accountability functions – Section 2052: “All institutional actors with a role in management of Internet Number Resources are accountable to the open community that develops the policies under which those resources are distributed and registered. The mechanisms used to ensure and enforce this accountability differ for each of these actors.”

Comment: This response is so generic that it is meaningless. It suggests that the answer is too complicated to explain (which is not the case). In any event, the proposal language for this section must be considered as *non-responsive*.

The ICANN Address Supporting Organization (ASO) is the organizational body that (1) provides advice and guidance to the ICANN board on all matters related to IP numbers, (2) selects and appoints two ICANN board members, (3) creates global IP number policies, and (4) coordinates and oversees the individual regional policy making bodies, *i.e.*, the RIRs. The Address Supporting Organization Address Council (ASO AC), which is also the NRO Number Council (NRO NC), is made up of 2 members from each RIR and one member appointed by, and reporting to, the Executive Board of each RIR. The Number Resource Organization Executive Council (NRO EC), which provides management oversight of the ASO, is exclusively made up of the CEOs of the RIRs. In summary, “the RIRs” presently oversee themselves and are accountable only to themselves. As proposed “the RIRs” will also assume the role of NTIA, oversee ICANN as the initial Numbers Function Operator, and be accountable only to themselves for the management of the IANA Numbers Function.

At present, and as proposed, there is no external audit process or procedure to verify that the RIRs, as the exclusive operators of the IP Number registry services, are conforming to, and are in compliance with, the global and/or regional IP Number policies that have been established. There is no enforcement mechanism, contractual or otherwise, to compel compliance with the policies of the community and there are no penalties whatsoever for failure by an IP number registry to adhere to the global or regional policies created. In summary, the operators of the IP number registries are not legally or contractually accountable to the holders of IP number blocks, regardless

of whether the number block holders are RIR members or not, and there are no definition of services, or commitments to any standard of performance, for the operation of the IP number registries. At an absolute minimum, this lack of accountability must be corrected prior to any transition of responsibilities from NTIA.

P2.II.B.4. Description of the mechanism – Section 2062: “(e.g., contract, reporting scheme, auditing scheme, etc.). This should include a description of the consequences of the IANA functions operator not meeting the standards established by the mechanism, the extent to which the output of the mechanism is transparent and the terms under which the mechanism may change.”

Comment: This would appear to be a continuation of the statement of the proposal requirements (presumably to be addressed immediately below). If it is not, then it is “place-holder” language in that it doesn’t actually say anything.

P2.II.B.4. Description of the mechanism – Section 2062: “These deliverables are met by ICANN via monthly reporting on their performance in processing requests for the allocation of Internet Number Resources; these reports include IANA operational performance against key metrics of accuracy, timeliness, and transparency, as well as the performance metrics for individual requests. The IANA operations team also provides escalation procedures for use in resolving any issues with requests, as per the “IANA Customer Service Complaint Resolution Process.””

Comment: The proposal language for this section must be considered as *non-responsive*. There is no information, or any detail, provided with regard to the contract, auditing scheme, the standards established, the extent to which the output is transparent or the terms under which the mechanism may change.

P2.II.B.4. Description of the mechanism – Section 2064: “This obligation is specifically noted in section C.2.9.3 of the NTIA agreement: C.2.9.3 Allocate Internet Numbering Resources – The Contractor shall have responsibility for allocated and unallocated IPv4 and IPv6 address space and Autonomous System Number (ASN) space based on established guidelines and policies as developed by interested and affected parties as enumerated in Section C.1.3.”

Comment: The RIRs presently *have authority* over (1) IP numbers which have been allocated to the RIRs by ICANN (the IANA Functions Operator), and (2) contractual authority, by virtue of a registry services agreement, over all IP numbers that they, the RIRs, have allocated and Legacy numbers (IP numbers which were allocated prior to the existence of the RIR system) which have been placed under a contractual agreement. The RIRs have *no authority* over IP numbers which have not been allocated to the RIRs by the IANA Functions Operator (ICANN). Presently the allocation by the IANA Functions Operator is subject to the authorization of the Protocols and Parameters group but the Protocols and Parameters group gets their authority to make those allocations from the IANA Functions Operator. It is not clear if the assumption of the

responsibilities of NTIA with regard to the Number Function will give the RIRs authority over these IP numbers, which have not been allocated to the RIRs by the IANA Functions Operator or if the IETF, as the party responsible for the Protocol and Parameters Function, would gain authority over those numbers.

P2.III.A. The elements of this proposal – Section 2074: “This proposal assumes that specific IANA customers (i.e., the number community, the protocol parameter community, and the name community) will have independent arrangements with the IANA Functions Operator related to maintenance of the specific registries for which they are responsible. At the same time, the Internet Number Community wishes to emphasize the importance of communication and coordination between these communities to ensure the stability of the IANA services. Such communication and coordination would be especially vital should the three communities reach different decisions regarding the identity of the IANA Functions Operator after the transition. Efforts to facilitate this communication and coordination should be undertaken by the affected communities via processes distinct from this stewardship transition process.”

Comment: The proposal language, which recognizes the importance of communication and coordination of the IANA Functions, essentially states that the means and processes to enable and facilitate this vitally important matter are intentionally not included in the proposal. It is both cavalier and irresponsible to fail to address, even conceptually, what is universally recognized as vitally important to the continued security and stability of the Internet. The proposal language for this section must be considered as *non-responsive*.

The domain names community proposal specifically defines Post Transition ICANN (PTI) as the Function Operator for the Domain Names Function. The numbers community and the protocol parameters community both specify ICANN as the initial Function Operator for the other two IANA Functions. As proposed, initially there are two Function Operators *i.e.*, PTI and ICANN. There is no mention in the proposal about how ICANN and PTI would coordinate their activities as the two initial Function Operators or resolve any conflicts that might arise. Furthermore, there is no mention anywhere in the proposal on what the means or mechanisms for the coordination of activities between three separate Function Operators would be if, after the initial Function Operator contracts expire, the numbers community and/or protocol parameters community selected an organization other than ICANN as the Function Operator. The absence of any plan for coordinating the activities of multiple Function Operators, and resolving any conflicts which might arise, is a serious omission.

A more serious omission is the total absence of any details regarding the legal arrangement(s), mechanisms and means by which the manager of the authoritative root zone file, which is presently Verisign, would interact with multiple independent Function Operators when NTIA is no longer in contractual control of ICANN as the sole operator of the Protocol Parameters, Domain Names and Numbers Functions. The proposal makes the enormous assumption that “somehow” the required agreements and arrangements will occur to keep the heart of the Internet beating.

P2.III.A.1. ICANN to continue as the IANA Numbering Services Operator via a contract with the RIRs – Section 2077: Although there are no concrete needs or plans to do so at this point, the Internet Number Community may in the future determine that the IANA Numbering Services related to number resources should be transferred to a different contractor. In such a case, selection of a new contractor shall be conducted in a fair, open, and transparent process, consistent with applicable industry best practices and standards.

Comment: If the RIRs elected to contract with a party other than ICANN as the Numbers Function Operator, then ICANN and all the organizations within ICANN will be eliminated from the governance model for the Numbers Function entirely. Such a change would forever consolidate the RIRs absolute control over the Numbers Function and ensure zero accountability to anyone but themselves. It also would create a legal and operational nightmare scenario, which would seriously threaten the security and stability of the Internet, with the removal of all the agreements, organizational structures, services, processes, mechanisms and means that have been created by ICANN, over approximately the last 20 years, to coordinate and facilitate the necessary exchanges between the Protocol Parameters, Numbers, and Domain Names Functions.

Although it is reassuring that the RIRs would select a new Numbers Function operator in a “fair, open, and transparent process, consistent with applicable industry best practices and standards”, it would be much more helpful, and responsive to the requirements of the proposal, to know what commitments the RIRs would make regarding what would not change, what would change and how that change would be managed, if the number community opted to change the Number Function Operator.

Most importantly, an iron clad, irrevocable, legally binding commitment that the RIRs will *never* assume the role as the Numbers Function Operator themselves would seem a necessary and appropriate safeguard against the consolidation of *all* IANA Numbers Function roles within the RIRs. It should be noted that the names community proposed creation of PTI was specifically motivated to avoid the creation of similar concentration of power but less pervasive conflict of interest within ICANN (the proposed recipient organization for the NTIA responsibilities related to the Domain Names Function).

P2.III.A.2. IPR related to the provision of the IANA services remains with the community – Section 2079: “There are several intellectual properties related to the provision of the IANA services whose status should be clarified as part of the transition: the IANA trademark, the IANA.ORG domain name, and public databases related to the performance of the IANA Numbering Services, including the IANA Numbers Registries.”

Comment: Obviously certain things cannot be property. The sea, the air and the like cannot be appropriated; every one may enjoy them but no one has exclusive right to them. A government has the authority to create law which governs the use of those non-property items within their legal jurisdiction but no one government has the authority to globally govern the use of such non-property items. It is fairly well established that “the Internet”, like the air, is a similar non-property item and that every government has the authority to govern its use within its own jurisdiction.



However, as NTIA seeks to “privatize” the governance of the Internet the legal rights to certain assets critical to the operation of the Internet must be clearly defined in order to provide a legal basis for the enforcement of authority by, and protection of, the commercial organizations which will be charged with the responsibility for on-going operations. It is vitally important to the security and stability of the Internet that NTIA provide a clear articulation of legal rights, along with what party holds which rights, to each of the core elements of the Internet essential to on-going Internet operations, e.g., the Domain Names System, IP numbers, the .arpa registry (and all its component registries), the root zone file, etc..

To illustrate the point, the Patent and Trademarks records indicate that the IANA Trademark *is the property of ICANN*. On the other hand, the registration of the IANA.ORG domain name by ICANN, like all other domain names, is not the property of ICANN (or anyone else for that matter) but rather an exclusive right-of-use subject to the terms and conditions of the registration service agreement. Armed with this knowledge it is possible to intelligently address what legal arrangements must, or more accurately could, be made with regard to these two particular assets and who would be the controlling party. There is a legal basis for enforcement of authority over the assets and a means for the commercial enterprises in that chain of authority to protect themselves and the use of the assets.

Unfortunately, for a host of other critical assets over which NTIA presently has authority there is a great deal of ambiguity about who holds what rights. For example in the case of the Domain Name System (DNS), NTIA has contractually delegated to ICANN the authority over the creation of new top level domains and the authority to contractually assign exclusive authority to Domain Name Registries for particular top level domains. Did NTIA delegate that authority to ICANN without the legal right to do so? Absolutely not. This strongly suggests that NTIA possesses the legal rights to the DNS or, at a minimum, authority over the DNS (which in itself is a legal right). Definitive confirmation of who holds what rights to the DNS is necessary to determine precisely what rights would be transitioned from NTIA, intelligently address what legal arrangements must, or more accurately could, be made with regard to this asset, and who would be the controlling party. Any ambiguity in this matter would introduce serious litigation risk to all parties engaged in the operations of the DNS as well as threaten the security and stability of the Internet.

The commercial value of the operationally critical assets presently controlled by the unquestioned authority of the NTIA, e.g., the Domain Names System, IP numbers, the .arpa registry (and its component registries), the root zone file, etc., is well over a hundred billion U.S. dollars. As a direct consequence of NTIA transferring its responsibility, and relinquishing its authority over operationally critical Internet assets to commercial enterprises, NTIA must either create or transfer legally defensible rights to assets which have financially substantial value. Therefore, even though NTIA has long held, and in fact the counsel of the Department of Commerce has stated for the record, that there is *no government property* to be transitioned along with the NTIA responsibilities for the IANA Functions, this is not the case when the operational assets are included in the transition.

In any event, the absence of a clearly articulated consistent plan regarding the intellectual property referenced in the proposal, and more importantly the operational assets, is a serious omission.

P2.III.A.2. IPR related to the provision of the IANA services remains with the community – Section 2080: “It is important that the IPR status of the registries remains clear and ensures free and unrestricted access to the public registry data throughout the stewardship transition. It is the expectation of the Internet Number Community that the IANA Number Registries are in the public domain.”

Comment: In section P2.I.C entitled “Registries are involved in providing the service or activity”, the IPv4 address registry, the IPv6 address registry, the ASN registry, the IN-ADDR.ARPA DNS zone, and the IP6.ARPA DNS zone are collectively defined as the “IANA Number Registries”. In section P2.I.D entitled “Overlaps or interdependencies between your IANA requirements and the functions required by other customer communities”, the IN-ADDR.ARPA domain, IP6.ARPA domain, and the .ARPA registry are collectively defined as the “IANA Number Registries”.

The ownership, or lack thereof, of the IANA Number Registries by the NTIA (or any other party), as well as a determination of precisely what rights are held by which parties, is a question of great significance that must be definitively determined. The assumption, or more specifically the “expectation”, that the IANA Number Registries are in the public domain is wholly inadequate. NTIA has long held, and in fact the counsel of the Department of Commerce has stated for the record, that there is *no government property* to be transitioned along with the NTIA responsibilities for the IANA Functions. This would appear to be evidence that the U.S. Government does not “own” the IANA Number Registries but it begs the question of whether any other party “owns” the IANA Number Registries or what rights (other than ownership) are held by which parties. Moreover, it does not provide any clear indication of whether the IANA Number Registries are in fact already in the public domain or not.

The .ARPA registry is the beating heart of the Internet where all of the IANA Functions meet, overlap and comingle. The top-level domain ARPA serves as a delegation zone for various technical infrastructure aspects of DNS and the Internet, and does not implement the registration and delegation system of the country and generic domains. The Internet Architecture Board (IAB) has the responsibility, in cooperation with ICANN, to manage the ARPA domain. This domain name undertakes a role as, (1) a limited use domain for Internet infrastructure applications, by providing a name root for the mapping of particular protocol values to names of service entities, (2) a name root for the mapping of protocol values into lookup keys to retrieve operationally critical protocol infrastructure data records or objects for the Internet and (3) provides the root of the name hierarchy of the reverse mapping of IP addresses to domain names. It contains sub-zones used for reverse resolution of IP addresses to host names (IPv4: in-addr.arpa, IPv6: ip6.arpa), telephone number mapping (enum, e164.arpa), and uniform resource identifier resolution (uri.arpa, urn.arpa).

The IANA Numbers Function Operator, which is today ICANN, has operational administrative responsibility for the special-purpose IN-ADDR.ARPA and IP6.ARPA DNS zones which are associated with IPv4 and IPv6 address spaces, respectively. These zones are delegated by the Internet Architecture Board (IAB) and sub-delegations within this hierarchy are undertaken in accordance with the address allocation practices. As proposed, the sub-zones of .ARPA for delegations and sub-delegations related to IP numbers would be in the public domain and, as a

consequence, not under the authoritative control of the IAB, the Numbers Function Operator, or anyone else. Clear authoritative control of the registries, but in particular the entire .ARPA registry, is *both* essential to the security and stability of the Internet *and* vital to the assignment and enforcement of accountability.

P2.III.A.2. IPR related to the provision of the IANA services remains with the community – Section 2081: “It is also the expectation of the Internet Number Community that non-public information related to the IANA number resource registries and corresponding services, including the provision of reverse DNS delegation in IN-ADDR.ARPA and IP6.ARPA, is managed by the IANA operator and will be transferred to its successor(s). All rights on non-public information related to the IANA number resource registries and corresponding services must be transferred to the RIRs.”

Comment: In section P2.I.C entitled “Registries are involved in providing the service or activity”, the IPv4 address registry, the IPv6 address registry, the ASN registry, the IN-ADDR.ARPA DNS zone, and the IP6.ARPA DNS zone are collectively defined as the “IANA Number Registries”. In section P2.I.D entitled “Overlaps or interdependencies between your IANA requirements and the functions required by other customer communities”, the IN-ADDR.ARPA domain, IP6.ARPA domain, and the .ARPA registry are collectively defined as the “IANA Number Registries”.

In the previous proposal section it was proposed that all “IANA Number Registries” be placed in the public domain while here the RIRs propose that all rights to all non-public information within those registries and associated with the “corresponding services” be transferred to the RIRs. If the registries were in the public domain, but the non-public information within the registries is the property of the RIRs, this effectively means that all the IANA Number Registries, including the delegations within the .ARPA registry, would be under the legal control of the RIRs. This is a *very* significant change from the existing legal, governance and operational situation. It also is not compatible with the Protocol Parameters and Domain Names proposals.

Most importantly, since the RIRs all reside in different legal venues, *i.e.*, countries, and are subject to different laws, the question of precisely to whom these rights might be transferred becomes vitally important. To illustrate the significance let’s examine the applicable laws for two of the five RIRs, *i.e.*, ARIN and RIPE. We find that uncreative collections of facts are outside of Congressional authority under the Copyright Clause (Article I, § 8, cl. 8) of the United States Constitution, and *no database information right exists in the United States* (the venue and applicable laws for ARIN). The Supreme Court of the United States has ruled, in *Feist Publications, Inc., v. Rural Telephone Service Co.*, 499 U.S. 340 (1991), that compilations of facts can be protected by copyright but information alone cannot be. “There is an undeniable tension between these two propositions,” Justice O’Connor wrote in her decision. “Many compilations consist of nothing but raw data -- *i.e.* wholly factual information not accompanied by any original expression. On what basis may one claim a copyright upon such work? Common sense tells us that 100 uncopyrightable facts do not magically change their status when gathered together in one place. ... The key to resolving the tension lies in understanding why facts are not

copyrightable: The sine qua non of copyright is originality." On the other hand, in European Union law (the venue and applicable laws for RIPE) database rights are specifically coded (*i.e.*, *sui generis*) laws on the copying and dissemination of information in computer databases. The Council of the European Union passed Directive No. 96/9/EC of 11 March 1996 on the legal protection of databases, giving specific and separate legal rights (and limitations) to certain computer records. The law calls these database rights. When faced with this situation of completely different legal venues and applicable laws the question of precisely to whom the rights to non-public information in the "IANA Number Registries" would be transferred very quickly becomes a matter of major significance.

Setting aside the vitally important venue and applicable law questions for now, if the RIRs possess all rights to the non-public information within the IANA Number Registries then any entity which would be tasked with making changes to that information would (1) need the permission of the RIRs to do so, *e.g.*, any input or output from the Domain Names or Protocol Parameters communities and (2) would, by delivering additional or modified non-public information, also be transferring all rights to that information to the RIRs. The comingling of legal rights transfers with registry maintenance activities is a significant change to the present operational process. Due to the operational and legal consequences which might arise, very careful analysis of this proposed change should be performed by fully qualified evaluators, *e.g.*, property rights lawyers, the root zone maintainer, the Domain Names and Protocol Parameters communities.

The proposal demand, that "all rights to non-public information related to IANA number resource registries and corresponding services be transferred to the RIRs", is both vague and presumptive. It is vague in several regards. (1) There is no clear articulation of the specific non-public information that the RIRs are demanding all rights to. (2) Per the Federal Acquisition Regulations applicable under the IANA contract with NTIA, ICANN has rights to the data produced in the execution of the IANA contract, and *could* copyright the registry structures, while NTIA's rights are restricted to an unlimited right-of-use. Consequently any transfer of rights would have to originate from ICANN not NTIA. (3) The RIRs are five independent organizations, four of which are foreign based, and so it is not clear precisely to whom the rights would be transferred or which laws might apply. It is presumptive in that it essentially demands that ICANN transfer its rights to the data produced in the execution of the IANA contract to the RIRs while not making any case for why such a transfer is necessary.

P2.III.A.2. IPR related to the provision of the IANA services remains with the community – Section 2083: "Identifying an organization that is not the IANA Numbering Services Operator and which will permanently hold these assets will facilitate a smooth transition should another operator (or operators) be selected in the future. It is the preference of the Internet Number Community that the IANA trademark and the IANA.ORG domain name be transferred to an entity independent of the IANA Numbering Services Operator, in order to ensure that these assets are used in a nondiscriminatory manner for the benefit of the entire community. From the Internet Number Community's perspective, the IETF Trust would be an acceptable candidate for this role."

Comment: The registration of the IANA.ORG domain name is controlled by ICANN but is *not* the property of ICANN. If ICANN agreed to release its control over the IANA.ORG registration, the transfer of the IANA.ORG domain name registration would, presumably, merely follow the process of the .ORG domain name registry operated by Public Interest Registry (PIR). The IANA trademark however, unlike the IANA.ORG domain name registration, *is* the property of ICANN. If ICANN agreed to transfer its IANA Trademark property, and associated rights, to another party then a legally binding document executed by both parties to the transfer would be required. In neither case is the transfer process burdensome. In both cases it is solely the decision of ICANN whether to transfer or not. There is however no real benefit to a transfer of these assets from ICANN to the IETF Trust, or anyone else, which cannot be accomplished much more easily.

The Domain Names Community has proposed ICANN as the organization that would receive the NTIA responsibilities for the Domain Names Function and PTI as the Domain Names Function Operator. The IETF is proposed as the organization that would receive the NTIA responsibilities for the Protocol Parameters Function and ICANN as the initial Protocol Parameters Function Operator. As proposed the transfer of ICANN controlled assets to the IETF Trust would merely move the assets from one recipient of NTIA responsibilities, *i.e.*, ICANN, to a different recipient of NTIA authority, *i.e.*, IETF. Furthermore, it doesn't seem that difficult to make the transfer of the Domain Names Function, from NTIA to ICANN, conditional upon ICANN agreeing to license the IANA trademark to, and allow unrestricted use of the IANA.ORG domain name by, whomever a community deems to be their preferred IANA Function Operator. By this simple arrangement no transfer of the IANA.ORG domain name registration or the IANA Trademark is necessary and the objective which motivated the transfer has been addressed.

P2.III.A.3. Service Level Agreement with the IANA Numbering Services Operator – Section 2086: “The Internet Number Community proposes that a new contract be established between the IANA Numbering Services Operator and the five RIRs. The following is a proposal to replace the current NTIA IANA agreement with a new contract that more directly reflects and enforces the IANA Numbering Services Operator’s accountability to the Internet Number Community. The proposal attempts to ensure the continuity of processes and mechanisms that have proved successful and with which the community is satisfied. • The services provided by the IANA Numbering Services Operator in relation to the IANA Numbering Services remain unchanged. • The policy sources identified in Section II.A are unaffected. • The oversight and accountability mechanisms detailed in Section II.B remain unchanged. • The entities that provide oversight or perform accountability functions (the RIRs) remain the same. • The consequence of failure to meet performance standards remains unchanged: termination or non-renewal of the contract.”

Comment: As proposed the RIRs will “sandwich” ICANN, as the initial Numbers Function Operator, between themselves as the controlling entity of the IANA Numbers Function and themselves again as the sole body *inside ICANN* for oversight and management of *both* the global and regional number policy bodies (which are exclusively the RIRs) *and* the providers of registry services (which are also exclusively the RIRs). The consolidation of power, oversight, policy making, operations, and service provider roles solely within the RIRs is of *great* concern.

Moreover, since the RIRs reserve the right to select a Numbers Function Operator other than ICANN in the future, it is entirely possible that ICANN will be eliminated from the governance model for the Numbers Function entirely. Such a change would forever consolidate the RIRs absolute control over the Numbers Function and ensure zero accountability to anyone but themselves. It also would create a nightmare scenario, that would seriously threaten the security and stability of the Internet, with the removal of all the agreements, organizational structures, services, processes, mechanisms and means that have been created by ICANN, over approximately the last 20 years, to coordinate and facilitate the necessary exchanges between the Protocol Parameters, Numbers, and Domain Names Functions.

Obviously the RIRs recognize that where there is no commitment, and no measurement of performance, there can be no accountability since there is nothing to be held accountable for. It is therefore not surprising that Numbers Function Operator contract will have SLAs for certain “key metrics of accuracy, timeliness and transparency”. It is however the case that at present, and as proposed, there is no commitment or SLA metrics for the individual and collective IP Number Registries (exclusively operated by the RIRs) for matters such as (1) accuracy of the IP number registry information, (2) timely handling of requests for changes to records, (3) reliable and readily usable daily data backup, (4) archival of all number block holder and registration data, (5) maintenance of all transactions, correspondence, and communications, (6) procedures for information systems security to prevent malicious or accidental disruption of registry operations, (7) procedures that permit registry customers to change registries, (8) continuity of operations in the event that the registry goes out of business, including ensuring that operation of the Internet will not be adversely affected. There is also no external audit process or procedure to verify that the RIRs, as operators of the IP Number registry services, are conforming to, and are in compliance with, the global and/or regional IP Number policies that have been established. There is no enforcement mechanism, contractual or otherwise, to compel compliance with the policies of the community and there are no penalties whatsoever for failure by an IP number registry to adhere to the global or regional policies created. In summary, the operators of the IP number registries are not legally or contractually accountable to the holders of IP number blocks, regardless of whether the number block holders are RIR members or not, and there are no definition of services, or commitments to any standard of performance, for the operation of the IP number registries. At an absolute minimum, this lack of accountability must be corrected prior to any transition of responsibilities from NTIA.

A core component of the Domain Names portion of the transition proposal is the segregation of duties between management, *i.e.*, ICANN, and operations *i.e.*, PTI. No such segregation of duties exist *within* the RIRs. The RIRs have sole authority to establish IP numbers policy, *i.e.*, manage IP number allocation, and are the exclusive providers of the IP number registry services *i.e.*, operators of the registries. The resultant concentration of power and managerial conflict of interest is (1) completely at odds with the governance model presently employed by ICANN in the DNS function, (2) inconsistent with ICANN’s and NTIA’s stated goals of creating a system of checks and balances to avoid concentration of power within any one group or organization, and (3) counter to the principles of openness and competitiveness in the Affirmation of Commitments (AoC). It should be rectified now but, under no circumstance, should it be part of any future Internet

governance model. In the interest of Accountability and Transparency this must be resolved prior to any transition by NTIA.

The RIRs presently *have authority* over (1) IP numbers which have been allocated to the RIRs by ICANN (the IANA Functions Operator), and (2) contractual authority, by virtue of a registry services agreement, over all IP numbers that they, the RIRs, have allocated or Legacy numbers (IP numbers which were allocated prior to the existence of the RIR system) which have been placed under a contractual agreement. The RIRs have *no authority* over IP numbers which have not been allocated to the RIRs by the IANA Functions Operator (ICANN). Presently the allocation by the IANA Functions Operator is subject to the authorization of the Protocols and Parameters group but the Protocols and Parameters group gets their authority to make those allocations from the IANA Functions Operator. It is not clear if the assumption of the responsibilities of NTIA with regard to the Number Function will give the RIRs authority over these IP numbers, which have not been allocated to the RIRs by the IANA Functions Operator or if the IETF, as the party responsible for the Protocol and Parameters Function, would gain authority over those numbers.

P2.III.A.3. Service Level Agreement with the IANA Numbering Services - Operator IANA Service Level Agreement Principles – Section 2089: “9. Intellectual Property Rights and Rights Over Data - The contract will implement the RIR community expectations as described in section III.A.2.”

Comment: The “RIR community expectations as described in section III.A.2.” are (1) “all rights to non-public information related to IANA number resource registries and corresponding services be transferred to the RIRs”, (2) “the IANA trademark and the IANA.ORG domain name be transferred to an entity independent of the IANA Numbering Services Operator” and (3) “the IANA Number Registries are in the public domain”. It is not clear how a service contract could, or would, implement these expectations.

P2.III.B. Implications for the interface between the IANA functions and existing policy arrangements – Section 2095: “This proposal carries no implication for the interface between IANA Numbering Services and existing policy arrangements described in Section II.A. The text in Attachment A of the ICANN ASO MoU meets the current and anticipated requirements for a community-driven global policy development process.”

Comment: As proposed “the RIRs” would assume the oversight role of NTIA with regard to the Numbers Function in addition to their existing roles as (1) the ICANN Address Supporting Organization (ASO) that provides advice and guidance to the ICANN board on all matters related to IP numbers, creates global IP number policies, and is empowered to select and appoint two ICANN board members, (2) the individual regional policy making bodies, and (3) the exclusive regional providers of IP number registry services. There is no separation of the Numbers Function oversight role, the role to select the Numbers Function Operator, the role to select and appoint two members of the ICANN board, the role of the collective RIRs as the global policy body, the role

of the individual RIRs as regional policy bodies, and the role of the RIRs as the regionally exclusive providers of IP number registry services. This universal comingling of oversight, policy making, operations and service provider roles creates layers of obvious and fundamental conflict of interest within the RIRs. Moreover, due to the complete absence of any independent oversight the RIRs are only accountable *to themselves*.

The absence of independent oversight, lack of contractual specified policy compliance auditing or enforcement, or competition among accredited providers, is (1) completely at odds with the governance model presently employed by ICANN in the DNS function, (2) inconsistent with ICANN's and NTIA's stated goals of creating a system of checks and balances to avoid concentration of power within any one group or organization, and (3) counter to the principles of openness and competitiveness in the Affirmation of Commitments (AoC). It should be rectified now but, under no circumstance, should it be part of any future Internet governance model. In the interest of Accountability and Transparency this must be resolved prior to any transition by NTIA.

P2.III.B. Implications for the interface between the IANA functions and existing policy arrangements – Section 2096: “As an additional measure of security and stability, the RIRs have documented their individual accountability and governance mechanisms and asked the community-based Number Resource Organization Number Council (NRO NC) to undertake a review of these mechanisms and make recommendations for improvements that may be warranted given the nature of the stewardship transition for Internet Number Resources.”

Comment: The Number Resource Organization Number Council (NRO NC) is made up of two (2) members from each RIR and one member appointed by, and reporting to, the Executive Board of each RIR. The Number Resource Organization Executive Council (NRO EC) is exclusively made up of the CEOs of the RIRs. There is no measure of additional “security and stability” provided by the review of the RIRs by the RIRs for the RIRs. In addition, there is (1) no criteria by which the review will be conducted, (2) no indication whether the review results will be made public, (3) no indication of to whom the recommendations will be submitted, and (4) no commitment for incorporation or adoption of any recommendations which might be forthcoming from this internal review. In summary, absent any specifics, and in conjunction with the fact that the RIRs propose to review themselves, this proposed review is wholly inadequate.

There is no external audit process or procedure to verify that the RIRs, as the exclusive operators of the IP Number registry services, are conforming to, and are in compliance with, the global and/or regional IP Number policies that have been established. There is no enforcement mechanism, contractual or otherwise, to compel compliance with the policies of the community and there are no penalties whatsoever for failure by an IP number registry to adhere to the global or regional policies created. In summary, the operators of the IP number registries are not legally or contractually accountable to the holders of IP number blocks, regardless of whether the number block holders are RIR members or not, and there are no definition of services, or commitments to any standard of performance, for the operation of the IP number registries. At an absolute



minimum, this lack of accountability must be corrected prior to any transition of responsibilities from NTIA.

*None* of the Transparency and Accountability work, still on-going *with ICANN*, to prevent capture by a foreign government and/or state-sponsored corporations, and to insure appropriate checks and balances of authority are in place, has been undertaken *with any of the RIRs* or the *Internet Engineering Task Force (IETF)* which is a subsidiary organization of the Internet Society (ISOC). We would respectfully submit that, in the interest of Internet security and stability, independent review and assessment of the Transparency and Accountability of *any and all* organizations that would assume NTIA responsibility as part of a transition should be a fundamental prerequisite requirement prior to any transition.

P2.IV.B. Description of any legal framework requirements in the absence of the NTIA contract – Section 2105: “The necessary legal framework in the absence of the NTIA contract will be fulfilled by the proposed agreement between the IANA Numbering Services Operator and the RIRs. As stated in Section III above, the Service Level Agreement for the IANA Numbering Services, would obligate the IANA Numbering Services Operator to carry out those IANA Numbering Services according to policies developed by the community via the gPDP, as well as management of the delegations within IN-ADDR.ARPA and IP6.ARPA domains.”

Comment: The IANA Numbers Function Operator, which is today ICANN, has operational administrative responsibility for the special-purpose IN-ADDR.ARPA and IP6.ARPA DNS zones which are associated with IPv4 and IPv6 address spaces, respectively. These zones are delegated by the Internet Architecture Board (IAB) and sub-delegations within this hierarchy are undertaken in accordance with the address allocation practices. Absent the NTIA IANA contract there will be no common authoritative source or contractual linkage between the .ARPA zone maintainer, presently Verisign, and the various IANA Function Operators. Contractual agreements between the various parties engaged in operational roles related to the .ARPA zone is absolutely necessary to insure the security and stability of the Internet.

Since the RIRs reserve the right to select a Numbers Function Operator other than ICANN in the future, it is entirely possible that ICANN will be eliminated from the governance model for the Numbers Function entirely. Such a change would forever consolidate the RIRs absolute control over the Numbers Function and ensure zero accountability to anyone but themselves. It also would create a nightmare scenario, that would seriously threaten the security and stability of the Internet, with the removal of all the agreements, organizational structures, services, processes, mechanisms and means that have been created by ICANN, over approximately the last 20 years, to coordinate and facilitate the necessary exchanges between the Protocol Parameters, Numbers, and Domain Names Functions. At a minimum, legal arrangements between the various Function Operators will be required.

An iron clad, irrevocable, legally binding commitment that the RIRs will *never* assume the role as the Numbers Function Operator themselves would seem a necessary and appropriate safeguard against the consolidation of *all* IANA Numbers Function roles within the RIRs. In fact, a legally

binding commitment by *any and all* the parties which assume existing NTIA responsibility that they will never be the Function Operator for their respective zone is essential to maintain for the security and stability of the Internet and avoid the concentration of power, and conflict of interest, which would result. It should be noted that the names community proposed creation of PTI was specifically motivated to avoid the creation of similar concentration of power but less pervasive conflict of interest within ICANN (the proposed recipient organization for the NTIA responsibilities related to the Domain Names Function).

As *both* the policy setting bodies *and* the operators of registry services, the RIRs have created an obvious conflict of interest for themselves. The RIRs are not, individually or collectively, parties to the Affirmation of Commitments (AOC) and have not proposed any mechanism or means for the introduction of (1) policy compliance auditing or enforcement or (2) competition, to themselves, for IP number *registry services*. A legally binding commitment by the RIRs to the principles of the AOC would seem both prudent and appropriate.

There is no external audit process or procedure to confirm that the RIRs, as the exclusive operators of the IP Number registry services, are conforming to, and are in compliance with, the global and/or regional IP Number policies that have been established. There is no enforcement mechanism, contractual or otherwise, to compel compliance with the policies of the community and there are no penalties whatsoever for failure by an IP number registry to adhere to the global or regional policies created. In summary, the operators of the IP number registries are not legally or contractually accountable to the holders of IP number blocks, regardless of whether they are RIR members or not, and there are no definition of services, or commitments to any standard of performance, for the operation of the IP number registries. At an absolute minimum, this lack of accountability must be corrected prior to any transition of responsibilities from NTIA.

Since the 5 RIRs, four of which are foreign based, all have different legal venues and applicable laws, a clear articulation of specifically who would be the signatory of any agreements. *e.g.*, between the Function Operator and “the RIRs”, along with the specification of the venue and applicable law is necessary.

P2.IV.C. Workability of any new technical or operational methods – Section 2107: “Description of how you have tested or evaluated the workability of any new technical or operational methods proposed in this document and how they compare to established arrangements.”

Comment: This would appear to be a continuation of the statement of the proposal requirements (presumably to be addressed immediately below). If it is not, then it is “place-holder” language in that it doesn’t actually say anything.

P2.IV.C. Workability of any new technical or operational methods – Section 2108: “This proposal does not propose any new technical or operational methods. There is inclusion of a proposed Review Committee to be established by the five RIRs acting cooperatively and coordinating through the NRO EC; however, this does not carry any new operational method, as the IANA Numbering Services Operator would remain accountable to the party with whom it is contracting, in this case the five RIRs in place of the NTIA. The proposed Review Committee is a tool for the Internet Number Community to evaluate and review performance of the IANA Numbering Services provided.”

Comment: It is the absence of any new technical or operational methods which is of concern. As proposed the RIRs will “sandwich” ICANN, as the initial Numbers Function Operator, between themselves as the controlling entity of the IANA Numbers Function and themselves again as the sole body *inside ICANN* for oversight and management of *both* the global and regional number policy bodies (which are exclusively the RIRs) *and* the operators of registry services (which are also the RIRs). The consolidation of power, oversight, policy making, operations, and service provider roles into the RIRs is of great concern.

The absence of independent oversight, lack of contractual specified policy compliance auditing or enforcement, or competition among accredited providers, is (1) completely at odds with the governance model presently employed by ICANN in the DNS function, (2) inconsistent with ICANN’s and NTIA’s stated goals of creating a system of checks and balances to avoid concentration of power within any one group or organization, and (3) counter to the principles of openness and competitiveness in the Affirmation of Commitments (AoC). It should be rectified now but, under no circumstance, should it be part of any future Internet governance model.

There is no external audit process or procedure to confirm that the RIRs, as the exclusive operators of the IP Number registry services, are conforming to, and are in compliance with, the global and/or regional IP Number policies that have been established. There is no enforcement mechanism, contractual or otherwise, to compel compliance with the policies of the community and there are no penalties whatsoever for failure by an IP number registry to adhere to the global or regional policies created. In summary, the operators of the IP number registries are not legally or contractually accountable to the holders of IP number blocks, regardless of whether they are RIR members or not, and there are no definition of services, or commitments to any standard of performance, for the operation of the IP number registries. At an absolute minimum, this lack of accountability must be corrected prior to any transition of responsibilities from NTIA.

P2.V.A. Support and enhance the multistakeholder model – Section 2112: “The RIRs are not-for-profit membership-based organizations accountable to their community. The processes developed by the community over time are open, transparent, and bottom-up, and inclusive of all stakeholders, ensuring the opportunity for anyone with an interest in management of Internet Number Resources to participate in policy-making.”

Comment: The proposal does not *enhance* the multistakeholder model. Within the Numbers Function proposal there is no provision for the tens of thousands of holders of over 25% of the

IPv4 numbers, *i.e.*, more than a billion numbers, to have any voice in the governance of the Numbers Function. The recipients of IPv4 number blocks allocated prior to the creation of the RIRs, which are not members of an RIR, are denied any representation in the proposed governance model. In fact, the RIRs have not proposed any end-user representation in the governance model for the Numbers Function except for those end-users which are bound by a service contract to their RIR. Moreover, the RIRs have not proposed any RIR independent oversight or appeals body which is perhaps understandable since there is also no commitment by the RIRs to the accuracy of the IP number registries they operate or any performance standard by which they could be measured or held accountable.

There is no external audit process or procedure to confirm that the RIRs, as the exclusive operators of the IP Number registry services, are conforming to, and are in compliance with, the global and/or regional IP Number policies that have been established. There is no enforcement mechanism, contractual or otherwise, to compel compliance with the policies of the community and there are no penalties whatsoever for failure by an IP number registry to adhere to the global or regional policies created. In summary, the operators of the IP number registries are not legally or contractually accountable to the holders of IP number blocks, regardless of whether they are RIR members or not, and there are no definition of services, or commitments to any standard of performance, for the operation of the IP number registries. At an absolute minimum, this lack of accountability must be corrected prior to any transition of responsibilities from NTIA.

The RIRs are not, individually or collectively, parties to the Affirmation of Commitments (AOC) and have not proposed any mechanism or means for the introduction of contractually specified policy compliance auditing and enforcement, or competition, for IP number *registry services*. In summary, the Numbers Function proposal limits the governance power over IP number blocks to *only* the RIRs and artificially limits the participation in the governance to only the stakeholders which are RIR members. The Numbers Function proposal should include RIR independent oversight, an RIR independent appeals body, RIR performance metrics, a commitment to the AOC, and a means for meaningful participation by end-users that are not RIR members.

P2.V.B. Maintain the security, stability, and resiliency of the Internet DNS – Section 2115: “No changes are proposed in this document that affect the security, stability, or resiliency of the DNS.”

Comment: It is the absence of any new technical or operational methods which is of concern. As proposed the RIRs will “sandwich” ICANN, as the initial Numbers Function Operator, between themselves as the controlling entity of the IANA Numbers Function and themselves again as the sole body *inside ICANN* for oversight and management of *both* the global and regional number policy bodies (which are exclusively the RIRs) *and* the operators of registry services (which are also the RIRs). The consolidation of power, oversight, policy making, operations, and service provider roles into the RIRs is of great concern.

The absence of independent oversight, contractually specified policy compliance auditing and enforcement, and lack of competition among accredited providers, is (1) completely at odds with the governance model presently employed by ICANN in the DNS function, (2) inconsistent with

ICANN's and NTIA's stated goals of creating a system of checks and balances to avoid concentration of power within any one group or organization, and (3) counter to the principles of openness and competitiveness in the Affirmation of Commitments (AoC). It should be rectified now but, under no circumstance, should it be part of any future Internet governance model.

P2.V.C. Meet the needs and expectation of the global customers and partners of the IANA services – Section 2118: “The Internet Number Community is the customer of the Internet number resource IANA Numbering Services. The Internet Number Community has often expressed its satisfaction with the current management of the IANA Numbering Services, which have effectively implemented policies developed by the community and efficiently provided Numbering Services to the RIRs. This proposal has been developed by the Internet Number Community, as the customer of the IANA Numbering Services, and meets its need for continuity and stability in the operation of the IANA Numbering Services. It does this by solidifying the IANA Numbering Services Operator's accountability to the Internet Number Community.”

Comment: The ICANN Address Supporting Organization (ASO) is, per an MOU, “out-sourced” to the Number Resource Organization (NRO) that is exclusively made up of the 5 RIRs, The ASO provides advice and guidance to the ICANN board on all matters related to IP numbers and is empowered to select and appoint two ICANN board members. If, as proposed, the RIRs also assume the oversight role of the NTIA then the RIRs would in effect be sitting on both sides of the Number Function Operator contract with ICANN, *i.e.*, the party issuing the Number Function Operator contract *and* the Number Function Operator supporting organization responsible for providing recommendations to the board of ICANN for all IP number related matters and 2 of the ICANN board seats. In a legal analogy, the RIRs would simultaneously be judge, jury, prosecutor, and counsel for the defendant. The combined multiple roles of the RIRs, would consolidate all power over the IANA Numbers Function within the RIRs, eliminate any potential for independent review of the performance or policies of the RIRs, and create serious conflict of interest throughout the proposed governance model for the IANA Numbers Function.

P2.V.E. Not a government-led or inter-governmental solution - Section 2123: “This proposal does not replace the NTIA role with a government-led or an intergovernmental organization solution. This proposal places the RIRs in the role currently occupied by the NTIA. The RIRs are not-for-profit organizations, accountable to the community. The Internet Number Community is open to anyone who wishes to contribute and includes participants from all Internet stakeholder groups, including operators, civil society, business, the technical community, and governments. Open, community-driven, and consensus-based policy development processes mean that no single stakeholder group has a dominant role in policy-making.”

Comment: The Number Resource Organization (NRO) is an *unincorporated consortia*, made up exclusively of the 5 Regional Internet Registries (RIRs) but which, from a legal perspective, does not exist. If NTIA were to delegate its responsibilities to an unincorporated entity there would be

*zero* accountability for the entire IP Numbers Function. Therefore, since the NRO legally does not exist and accountability is a cornerstone of the NTIA requirements, NTIA should not, or perhaps cannot, transition its responsibilities to this unincorporated “organization”.

The RIRs are, by definition, *regional* registries. Each RIR has established control over a *portion* of the IP numbers in their region, controlled by their individual regional policies, and contractually controlled by their individually unique service contracts. If NTIA were to transition responsibility for a portion of the IANA Numbers Function to each individual RIR, it would truly be a “balkanization” of the IANA Numbers Function into 5 separate, autonomous regional functions each with their own policies, processes, procedures, legal venues and applicable laws. “Balkanization” of the IANA Numbers Function is both undesirable and incompatible with the principle of a unified global Internet. NTIA should not, or perhaps cannot, transition *portions* of its responsibility for the IANA Numbers Function to the 5 *individual regional registries* located all over the globe.

Alternatively, if NTIA were to transition its responsibilities for the entire IANA Numbers Function to the 5 RIRs, regardless of which registry had what portion of the numbers in their region or service contracts in place, then a whole host of other questions emerge. From an accountability perspective, perhaps the most pressing question would be, *who is actually accountable?* Fracturing accountability for a *single IANA Function* across 5 *separate organizations*, four of which are outside the United States, each with its own policies, processes, procedures, legal venues and applicable laws, would create accountability ambiguity and invite instability and insecurity. Therefore, since fracturing the accountability for a *single IANA Function* across *multiple organizations* would in effect remove accountability, NTIA should not, or perhaps cannot, transition responsibility for the entire IANA Numbers Function to the 5 *individual regional registries*.

If neither the NRO, nor the 5 separate RIRs for a portion each of IANA Numbers Function, nor all 5 individual RIRs for the entire IANA Numbers Function, are an acceptable answer, then precisely to whom would NTIA transition its responsibility for the IANA Numbers Function?