Volume I Technical Capability



1.2.9.2.g Customer Service Complaint Resolution Process

ICANN recognizes that excellent customer service is essential to the successful performance of the IANA Functions, and a piece of providing customer service is the ability for customers to have their complaints resolved in a responsive and timely manner.

Understanding the Requirement

ICANN understands the requirement involves collaborating with the community on developing a new process upon which complaints may be resolved. As an existing process is in place, that was the result of such a collaboration, ICANN believes it would be appropriate to use this process as the baseline to start the discussion on what the future Customer Service Complaint Resolution Process should be.

ICANN will use its established public comment process to solicit feedback from the interested and affected parties. This feedback will be used to develop a draft revised process for further discussion and implementation.

Technical Approach

Under the previous contract, ICANN established and operates a complaint resolution process, known as the "Escalation Procedure." This procedure was co-developed with community members that helped develop the process. Feedback from the community, specifically the ccTLD Managers who primarily helped develop the procedures, was essential in creating a process that was responsive to their needs.

In addition to the standard Escalation Procedure, ICANN will operate a specific procedure in relation to how IETF registries are managed. This procedure is part of the Service Level commitments that ICANN has made to the IESG and is tailored to the specific requirements of this community.



The current process provides for an escalation path for resolving issues up to the most senior level of the organization with aggressive timelines that commit ICANN to respond. The process also considers that ICANN is also under the jurisdiction of an Ombudsman, who provides an additional mechanism to independently resolve complaints relating to how customers have been treated by ICANN. The current process is illustrated in **Figure 1.2-62.**

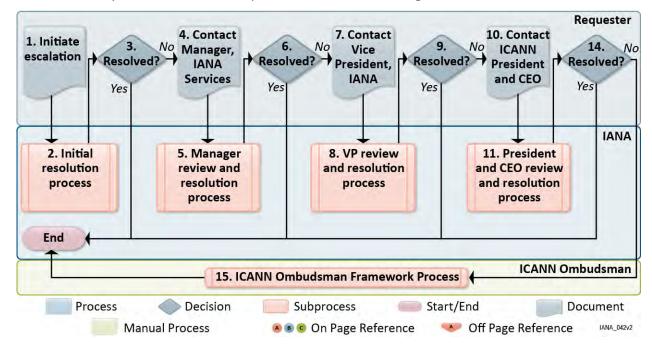


Figure 1.2-62. IANA-Related Issue Escalation Process

Figure 1.2-63. IANA-Related Issue Escalation Process Step-by-Step Description

1	INITIATE ESCALATION
Description	A requester that wishes to use the escalation process sends an email to escalation@iana.org , including any relevant details pertaining to the issue, including a short summary of the issue, date and time of the initial request, the ticket number if known, and any available documentation. The requester may invoke the escalation procedure whenever they feel ICANN has not performed a service to the requester's expectation.
2	Initial Resolution Process
Description	The initial escalation request is reviewed by the staff persons that were involved in processing the original request. These staff will acknowledge the escalation request within one business day and respond with a description of a proposed remedy within two business days following acknowledgement.
3	CONTACT MANAGER, IANA SERVICES
Description	Should the requester not be satisfied by the response from the staff persons involved, they can escalate to the manager responsible for IANA service delivery.
4	Manager Review and Resolution Process
Description	The manager will acknowledge the escalation request within one business day and respond with a description of a proposed remedy within two business days following acknowledgement.



5	CONTACT VICE PRESIDENT, IANA
Description	Should the requester not be satisfied by the response from the manager involved, they can escalate to the Vice President of IANA.
6	VP REVIEW AND RESOLUTION PROCESS
Description	The vice president will acknowledge the escalation request within one business day and respond with a description of a proposed remedy within two business days following acknowledgement.
7	CONTACT ICANN PRESIDENT AND CEO
Description	Should the requester not be satisfied by the response from the Vice President of IANA, they can escalate to the President and CEO of ICANN.
8	CEO REVIEW AND RESOLUTION PROCESS
Description	The President and CEO will acknowledge the escalation request within three business days and respond with a description of a proposed remedy within ten business days following acknowledgement. The President and CEO will review the causes of the inability to fulfill the terms of the request and will make a determination as to whether systemic changes are needed to address the issue and/or potential future instances of the circumstances that resulted in the issue.
9	ICANN OMBUDSMAN FRAMEWORK PROCESS
Description	As the final level of escalation (or at any time the requester feels this escalation procedure is not being followed or is not effective), the requester should contact the ICANN Ombudsman if the requester feels the individual issue or the systemic problems are not resolved. The ICANN Ombudsman will respond to the escalation request according to the policies and procedures described within the Ombudsman Framework published at http://www.icann.org/en/help/ombudsman/ombudsman-framework-03dec04-en.htm .

In order to facilitate discussion with NTIA and other interested and affected parties, ICANN will develop a discussion paper describing the current relevant procedures and the requirements under Section C.2.9.2.g of the RFP.

ICANN will them post the discussion paper and solicit input from interested and affected parties on what the appropriate customer service complaint resolution process should be. The primary mechanism to solicit feedback on the discussion paper will be ICANN's own institutional mechanism for conducting public review. ICANN regularly engages this process to review most aspects of its operation including draft policy changes, and it is well suited for reviewing the draft IANA documentation. Once posted, the availability of the discussion paper for review will be posted via ICANN's standard communication channels by posting a notice on the ICANN's IANA website and notifying other elements of the user community such as through presentations given by ICANN at conferences.

Following the conclusion of this review process, ICANN will develop an implementation plan and review it with NTIA. ICANN recognizes that if the community of interested and affected parties seeks a substantially different process than the one used today, there may need to be new systems development and other development work in order to implement the new process.



Once the implementation plan is agreed, ICANN will commence implementation as soon as practicable. See **Figure 1.2-64** for our timeline.



Figure 1.2-64. Timeline

It is important that there is a considered review of these documents by the community of interested and affected parties, and their availability is often dictated by the timing of significant Internet Governance related events (such as ICANN meetings, IGF meetings, etc.). Therefore, this timeline may be adapted slightly to properly provide adequate time for consideration while not conflicting with these meetings. The proposed timeline will leave enough additional time to accommodate any such changes, while still adhering to the requirement that the process be concluded within six months of the date of award. ICANN will consult with NTIA on any such adaptions to ensure full concurrence with the final timeline based on the ultimate date of award.

1.2.9.3 Allocate Internet Numbering Resources [M.8; C.2.9.3]

ICANN has had the responsibility for allocating Internet Number Resources (INR) since it took on the role of IANA Functions Operator in 1998. In that time, ICANN has successfully managed the IPv4 address space by allocating unicast IPv4 space in line with the policies developed in Regional Internet Registry (RIR) open policy forums and multicast and other special use space in line with the policies managed by the Internet Engineering Task Force (IETF) community. ICANN has cooperated with the interested and affected parties, most importantly the RIRs and the IETF, to enable several large, unused blocks of IPv4 address space to be returned and reclaimed. ICANN has also cooperated with the RIRs to update the Autonomous System (AS) Number registry to reflect the movement of AS Number blocks between the RIRs' WHOIS databases and has allocated AS Number space in line with the policies developed in RIR open policy forums. ICANN has successfully managed the IPv6 address space by allocating unicast space in line with the policies developed in RIRs' open policy development forums and multicast and other special use space in line with the policies managed by the IETF community.

The policies for the allocation of unicast IP address space, which is allocated to ISPs via the RIRs, and AS Numbers are developed within the five RIRs' (AfriNIC, APNIC, ARIN, LACNIC, and RIPE NCC) open policy forums and then reviewed for process and language by the Address Supporting Organization Address Council (ASO AC) before being passed to the ICANN Board of Directors for ratification.



The policies for the allocation and assignment of multicast and other special use address space are developed in the IETF and are published in RFCs. This was documented in a MoU between ICANN and the IETF in 2000, (RFC 2860, Memorandum of Understanding Concerning the Technical Work of the Internet Assigned Numbers Authority), which is accepted by the RIRs, who all participate in the IETF community. The MoU defines the circumstances in which ICANN may make allocations for special purposes like multicast and private networks. ICANN has always allocated IPv4 and IPv6 address space and AS Numbers for special purposes, in line with the processes defined by the IETF and as documented in RFCs.

Understanding the Requirement

ICANN understands that upon award of the contract our responsibility for allocated and unallocated IPv4 and IPv6 address space and ASN space will continue. ICANN understands that this means maintaining accurate registries and implementing registration requests in a timely fashion. Additionally, registry publication needs to be highly resilient and served from multiple data centers using both HTTP for web publication and port 43 for WHOIS publication.

ICANN also understands that, on request, it needs to provide support to interested and affected parties in the RIR and IETF communities who want to make INR registrations or refer to INR registrations in technical documents, such as those published by the RFC Series Editor.

Technical Approach

ICANN has staff and processes in place to implement all the allocation policies that have been developed and are currently active. As such, ICANN is ready to continue to delegate INRs to RIRs and to reserve and allocate INRs for special purposes in line with the IETF's directions.

ICANN has a formal process review process, which is designed to improve processes in response to environmental changes, deployment experience and customer feedback. Process managers formally will review each process every year in a structured manner. This structured review will provide a control on changes to processes. These change management controls for processes will also be used for environmental changes, such as might be required by a new policy, required mid-year.

In fulfilling its duties, ICANN will maintain the relevant, existing registries and create new ones as required. The current list of INR registries is as follows:

- IANA IPv4 Address Space Registry (http://www.iana.org/assignments/ipv4-address-space)
- IANA IPv4 Special Purpose Address Registry (http://www.iana.org/assignments/iana-ipv4-special-registry)
- IPv4 Multicast Address Space Registry (http://www.iana.org/assignments/multicast-addresses)
- Internet Protocol Version 6 Address Space (http://www.iana.org/assignments/ipv6-address-space)
- IPv6 Global Unicast Address Assignments (http://www.iana.org/assignments/ipv6-unicast-address-assignments)
- IANA IPv6 Special Purpose Address Registry (http://www.iana.org/assignments/iana-ipv6-special-registry)



- Internet Protocol Version 6 (IPv6) Anycast Addresses (http://www.iana.org/assignments/ipv6-anycast-addresses)
- IPv6 Multicast Address Space Registry (http://www.iana.org/assignments/ipv6-multicast-addresses)
- Autonomous System (AS) Numbers (http://www.iana.org/assignments/as-numbers)

ICANN will also be responsible for delegating resources to the RIRs and for special purposes, such as multicast, in line with the policies developed in the IETF and published as RFCs. The mechanism for developing policies for delegations to the RIRs is documented in Attachment A to the 2004 MoU between ICANN and the NRO (See Appendix B)

(http://archive.icann.org/en/aso/aso-mou-attachmentA-29octO4.htm). As part of the RIR communities' policy development work, ICANN will provide impact assessments for new policy proposals when requested. The defining document for delegations for special purposes will be listed alongside each registry name in the matrix of protocol registries published on the ICANN's IANA website As part of the I-D evaluation process, ICANN will provide an impact assessment for the IANA Considerations section of every I-D as required by the IETF.

1.2.9.3.1 Responsibility for Allocating Internet Numbering Resources

ICANN commits to responsibly manage the registries for IPv4 and IPv6 address space and AS Numbers based on established guidelines and policies developed by the RIRs' open policy communities and the IETF. ICANN commits to allocate IPv4 and IPv6 address space and AS Numbers on request based on those policies. The processes we will follow are described in the following sections.

1.2.9.3.2 Delegate IP Address Blocks

ICANN will continue to allocate IP address blocks to the RIRs for routine onward allocation to ISPs, enterprises and other network operators in the regions they serve. We will do this using our INR Allocation Process to evaluate requests for additional blocks of unicast IPv6 space and AS Numbers and allocate those blocks when the requests meet the requirements set out in the relevant Global Policy. ICANN's process has steps for ensuring the request is legitimate; that it meets the requirements set out by the policy; and for notifying indirectly affected interested and affected parties of allocations, such as regional Internet network operations groups. ICANN developed the process following the ratification of the current Global Policies.

ICANN worked closely with the five RIRs, regional network operations groups and other interested organizations, to make sure there was no surprise over the allocation of the last five IPv4 unicast /8s in line with the Global Policy for the Allocation of the Remaining IPv4 Address Space in February 2011. The Global Policy for the Allocation of the Remaining IPv4 Address Space replaced the previous policy and, in anticipation of this, the RIRs' policy communities developed a new policy. In May 2012, the ICANN Board of Directors ratified it: the Global Policy for Post Exhaustion IPv4 Allocation Mechanisms by the IANA. ICANN is currently liaising with the RIRs, the IAB and NTIA over its implementation of this policy. ICANN will implement a process for allocating IPv4 address space to the RIRs in line with this new policy within six months of award.



ICANN internal process documentation is created using a standard model. Processes are flowcharted using swimlanes and each item on the flowchart is described in a standard format that includes a title and description and details the actors, identifies documents used and identifies the steps taken. The process flows shown in the following section describe the high-level INR Allocation Process ICANN currently uses and will use following award, as well as the sub-processes integrated into this high-level process.

High-level Internet Number Allocation Process

This high-level process description in **Figures 1.2-65 and 1.2-66** documents the top level of the process ICANN will follow.

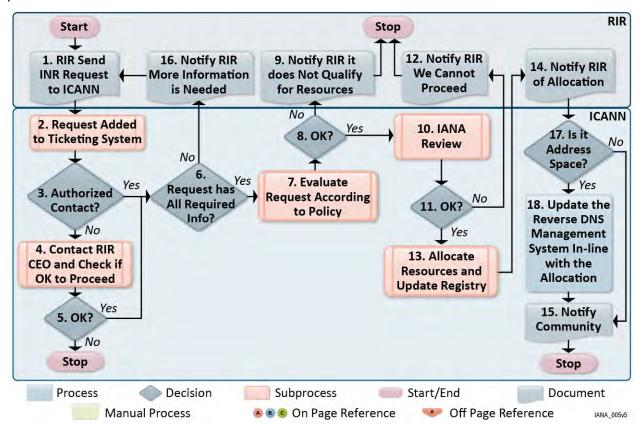


Figure 1.2-65. Top-level INR Allocation Process

Figure 1.2-66. Process Description: Top-level INR Allocation Process

1	REQUESTER ASKS FOR ADDITIONAL INTERNET NUMBER RESOURCES
Description	The requester asks for additional Internet Number Resources to be allocated to it.
Actor	Requester
Documents	Relevant Global Addressing policy (http://www.icann.org/en/news/in-focus/global-addressing)
Steps	The requester sends a request for additional resources to the documented address.
	The request should be sent by one of the RIR's authorized contacts.
	The requester needs to supply the information required by the policy.



2	REQUEST ADDED TO TICKETING SYSTEM (PREDEFINED PROCESS)
Description	The ticketing system automatically adds the ticket to the correct queue, and it is then manually assigned to a person.
Actor	AUTO and IANA Project Specialist (IPS)
Documents	N/A
Steps	 All e-mail sent to the documented addresses is automatically added to the appropriate ticketing system queue. The Number Resources Manager (NRM) either assigns the ticket to an IPS or takes the ticket to process.
3	CHECK IF THE REQUEST IS FROM AN AUTHORIZED CONTACT
Description	Staff checks that the request came from an authorized contact at the RIR.
Actor	NRM or IPS
Documents	[URL Internal to ICANN's network]
Steps	ICANN checks whether the request is from an authorized contact at the RIR.
	• The sender's name is checked against the list provided by the RIR's CEO.
4	CONTACT RIR CEO (PREDEFINED PROCESS)
Description	Staff lets the RIR CEO know that a request has been made on behalf of the RIR by someone s/he did not authorize.
Actor	NRM or IPS
Documents	N/A
Steps	• When the request does not come from an authorized contact, contact the RIR CEO and let him or her know, so that s/he can authorize the request if s/he wants to do so.
5	CHECK IF RIR CEO AUTHORIZES THE REQUEST
Description	Determine whether the CEO has authorized this request.
Actor	NRM or IPS
Documents	N/A
Steps	If the RIR CEO authorizes the request, proceed to step 6. Otherwise, the process ends.
6	CHECK WHETHER THE REQUEST HAS ALL THE NECESSARY INFORMATION
Description	Examine the request to check whether it has all the information required in the policy to complete the evaluation.
Actor	NRM or IPS
Documents	Relevant Global Addressing policy (http://www.icann.org/en/news/in-focus/global-addressing)
Steps	 The request must have the details of the RIR's IPv6 allocations for the previous six months, as per the policy. The request must also state how many blocks are being requested, if the requester believes it qualifies for more than one block. If the check is negative, return to step 16. Otherwise, proceed to step 7.
7	EVALUATE THE REQUEST ACCORDING TO POLICY (PREDEFINED PROCESS)
Description	Evaluate the request according to the policy.
Actor	NRM or IPS
Documents	ICANN Internal Contact List
Steps	The request is evaluated according to the algorithm defined in the policy.
8	CHECK WHETHER THE RIR QUALIFIES FOR ADDITIONAL RESOURCES



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Determine whether the RIR qualifies for additional resources, based on the evidence in the request.
NRM or IPS
Relevant Global Addressing policy (http://www.icann.org/en/news/in-focus/global-addressing)
If the RIR does not qualify for additional resources proceed to step 9. Otherwise, proceed to step 10.
NOTIFY REQUESTER THAT THE RIR DOES NOT QUALIFY FOR ADDITIONAL RESOURCES
Inform the requester that it does not qualify for additional allocation based on the requirements set down in the policy.
NRM or IPS
N/A
 Inform the requester that they do not qualify for an additional allocation under the policy and why. This is the end of the process.
IANA REVIEW PROCESS (SUB PROCESS)
Perform the IANA Review.
NRM or IPS
N/A
Perform the IANA Review process.
CHECK WHETHER WE CAN PROCEED WITH THE REQUEST, FOLLOWING THE RESULTS OF THE IANA REVIEW PROCESS
Check whether the results of the IANA Review allow us to proceed with the request.
NRM or IPS
N/A
If the IANA Review shows that we may not proceed with the request, proceed to #12. Otherwise, proceed to step 13.
NOTIFY THE REQUESTER THAT WE CANNOT PROCEED
Inform the requester that we cannot proceed with its request and will not be allocating additional resources.
additional resources.
additional resources. NRM or IANA VP N/A • Write to the requester and RIR CEO to explain that we cannot proceed with the request and why that is.
additional resources. NRM or IANA VP N/A • Write to the requester and RIR CEO to explain that we cannot proceed with the request and
additional resources. NRM or IANA VP N/A • Write to the requester and RIR CEO to explain that we cannot proceed with the request and why that is. • This is the end of the process.
additional resources. NRM or IANA VP N/A • Write to the requester and RIR CEO to explain that we cannot proceed with the request and why that is. • This is the end of the process. ALLOCATE RESOURCES AND UPDATE REGISTRY (PREDEFINED PROCESS)
additional resources. NRM or IANA VP N/A • Write to the requester and RIR CEO to explain that we cannot proceed with the request and why that is. • This is the end of the process. ALLOCATE RESOURCES AND UPDATE REGISTRY (PREDEFINED PROCESS) Select and allocate appropriate resources and update the registry.
additional resources. NRM or IANA VP N/A • Write to the requester and RIR CEO to explain that we cannot proceed with the request and why that is. • This is the end of the process. ALLOCATE RESOURCES AND UPDATE REGISTRY (PREDEFINED PROCESS) Select and allocate appropriate resources and update the registry. NRM or IPS
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additional resources. NRM or IANA VP N/A • Write to the requester and RIR CEO to explain that we cannot proceed with the request and why that is. • This is the end of the process. ALLOCATE RESOURCES AND UPDATE REGISTRY (PREDEFINED PROCESS) Select and allocate appropriate resources and update the registry. NRM or IPS N/A • Available block(s) from the pool is allocated and the registry is updated.



Documents	ICANN Internal Contact List
Steps	 From the ticket, notify the RIR of the allocation of its new resources using the appropriate draft from the ticketing system's store of drafts.
15	NOTIFY THE COMMUNITY OF THE ALLOCATION
Description	Inform the technical communities around the world that new resources have been allocated.
Actor	NRM or IPS
Documents	ICANN Internal Contact List
Steps	 Wait a couple of days after the allocation of the new resources. Write to the regional network operators groups with details of the numbers allocated, the RIR they were allocated to and the date on which they were allocated.
16	NOTIFY THE REQUESTER MORE DETAILS ARE NEEDED IN ITS REQUEST
Description	Inform the requester that its request did not contain all the details required in the policy.
Actor	NRM or IPS
Documents	N/A
Steps	 Reply to the requester and inform him/her that the request is missing details required in the policy. The timeline followed matches that used for root management, as specified in the IANA Functions contract: "Within seven (7) calendar days of a request being deemed complete, Contractor shall send to Requester a notice of confirmation of requested changes. Requester shall provide confirmation of the requested changes within seven (7) calendar days of receipt of such notice from Contractor. If Contractor does not receive confirmation within seven (7) calendar days, Contractor shall send a second and final notice to Requester giving Requester an additional seven (7) calendar days to provide the required confirmation. If Requester fails to provide such confirmation after the second and final notice, then such request shall be deemed incomplete and shall be closed. Contractor shall deliver notification of the request closure to Requester within one (1) business day of closing the request."
17	Update the Reverse DNS Management System
Description	For IP address requests, update the Reverse DNS Management system, so it shows the prefix as allocated to the RIR.
Actor	NRM or IPSs with access
Documents	N/A
Steps	 Update the Reverse DNS Management system, so it shows the prefix as allocated to the RIR. Proceed to step 15.



Contact RIR CEO Sub Process.

Figure 1.2-67 and Figure 2-68 shows the sub process for validating a request when it is sent from a person who has not previously been authorized to send requests on the RIR's behalf. It is used to ensure that ICANN only evaluates requests lodged by RIR staff authorized to do so.

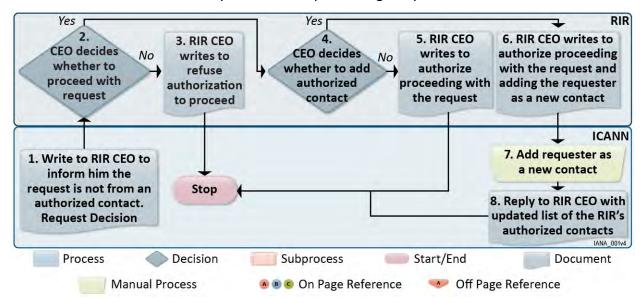


Figure 1.2-67. Contact RIR CEO Sub Process

Figure 1.2-68. Process Description: Contact RIR CEO Sub Process

4	Maria and RIP GEO
1	WRITE TO RIR CEO
Description	Write to the RIR CEO to inform him/her that a request has been received from an unauthorized contact for his RIR and that s/he can either authorize the request, the contact, both, or deny the request and the contact.
Actor	NRM or IPS
Documents	ICANN Internal Contact List
Steps	Write to the RIR CEO and ask him or her how to proceed.
2	CEO DECIDES WHETHER TO PROCEED WITH REQUEST
Description	The RIR's CEO needs to decide whether s/he wants to proceed with the request
Actor	RIR CEO
Documents	N/A
Steps	 The RIR makes a decision according to the RIR's own management processes. ICANN has no insight into those processes. If the RIR refuses permission to proceed, go to step 3. Otherwise, go to step 4.
3	CEO Writes to Refuse Authorization to Proceed
Description	The RIR CEO replies to the message sent in step 1 refusing permission to proceed with the request.
Actor	RIR CEO
Documents	N/A
Steps	The RIR CEO replies to the message sent in step 1 refusing permission to proceed with the request.



4	RIR CEO Decides Whether to Add Requester as an Authorized Contact
Description	The RIR CEO decides whether to add requester as an authorized contact.
Actor	RIR CEO
Documents	N/A
Steps	 The RIR CEO decides whether to add the requester as an authorized contact for the RIR. If the RIR CEO decides not to add the requester proceed to step 5. Otherwise, proceed to step 6.
5	RIR CEO WRITES TO AUTHORIZE PROCEEDING WITH THE REQUEST
Description	The RIR CEO replies to the message from IANA and authorizes us to proceed with the request but does not authorize us to add the requester as an authorized contact.
Actor	RIR CEO
Documents	N/A
Steps	 The RIR CEO replies to the message from ICANN and authorizes us to proceed with the request but does not authorize us to add the requester as an authorized contact. This is the final action in the sub process.
6	RIR CEO Writes to Authorize Proceeding with the Request and to Add the Requester as
	AN AUTHORIZED CONTACT
Description	The RIR CEO replies to the message from IANA and asks us to add the requester as one of the RIR's authorized contacts and to proceed with the request.
Actor	RIR CEO
Documents	N/A
Steps	• The RIR CEO replies to the message from ICANN and asks us to add the requester as one of the RIR's authorized contacts and to proceed with the request.
7	ADD REQUESTER AS A NEW CONTACT
Description	The requester is added to the RIR's list of contacts.
Actor	NRM or IPS
Documents	ICANN Internal Contact List
Steps	Add the requester's name and e-mail address to the list of authorized contacts.
8	REPLY TO THE RIR CEO WITH THE UPDATED LIST OF AUTHORIZED CONTACTS
Description	Reply to the RIR CEO with the updated list of authorized contacts.
Actor	NRM or IPS
Documents	[URL Internal to ICANN's network]
Steps	Reply to the RIR CEO with the full list of contacts for the RIR.



Evaluate Request Sub Process

Figures 1.2-69 and 1.2-70 shows the sub process for evaluating the RIR's request for additional INRs. At the end of this sub process, the remainder of the top-level process is completed.

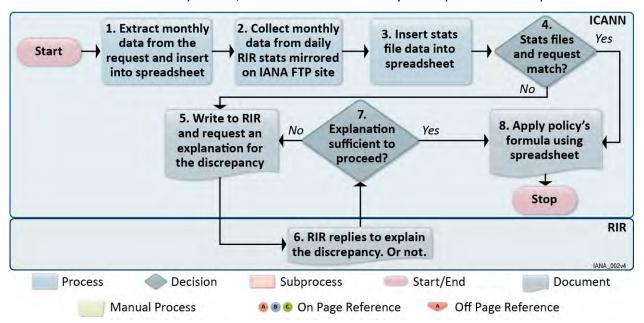


Figure 1.2-69. Evaluate Request Sub-Process

Figure 1.2-70. Process Description: Evaluate Request Sub Process

1	EXTRACT MONTHLY DATA FROM THE REQUEST AND INSERT INTO SPREADSHEET
Description	Take the justification data from the RIR's request and insert it into the calculation tool to determine whether the RIR qualifies for additional resources.
Actor	NRM or IPS
Documents	RIR's request
Steps	 Take the request data from the request document. Insert the requested data into the calculation tool to determine whether the RIR qualifies for additional resources. Check that the data in the tool match those in the request.
2	EXTRACT MONTHLY DATA FROM DAILY RIR STATS MIRRORED ON IANA FTP SITE
Description	Take the data published by the RIR on its FTP site and extract the data relevant to this request.
Actor	NRM or IPS
Documents	Mirror of RIR stats files
Steps	 Take the relevant stats file from the publication source. Extract the relevant data from the stats file.
3	Insert Stats File Data into Spreadsheet
Description	Insert the winnowed stats file data into the spreadsheet being used to calculate whether the RIR qualifies for additional resources.
Actor	NRM or IPS
Documents	Mirror of RIR stats files
Steps	Insert the data into the tool to calculate whether the RIR qualifies for additional resources.



	Check that the data in the spreadsheet match those in the request.
4	CHECK IF STATS FILES AND REQUEST MATCH
Description	Check whether there are significant discrepancies between the data supplied in the RIR's request and the data published on its FTP site.
Actor	NRM or IPS
Documents	N/A
Steps	 Check whether the calculations used in the request give the same results as the calculations done by the tool. Check whether there are any significant differences between the numbers supplied in the request and the numbers published by the RIR. If there is no significant discrepancy, then go to step 8. Otherwise, go to step 5.
5	Write to RIR and Request an Explanation for the Discrepancy
Description	Write to the RIR and explain that there is a discrepancy between the numbers supplied in the request and those published. Request an explanation.
Actor	NRM or IPS
Documents	N/A
Steps	 Reply to the original request. Identify the discrepancy in the reply. Request an explanation, additional data or revised request.
6	RIR REPLIES TO EXPLAIN THE DISCREPANCY
Description	The RIR replies to our request for an explanation.
Actor	RIR
Documents	N/A
Steps	The RIR replies to our request with whatever explanation they feel is appropriate.
7	CHECK IF EXPLANATION IS SUFFICIENT TO PROCEED
Description	Check the RIR's explanation and decide whether it answers our request fully or whether further explanation is required.
Actor	NRM or IPS
Documents	N/A
Steps	 Check the RIR's explanation and decide whether it answers the questions. It is possible that there was a problem with their stats publishing scripts or the request was prepared some time before it was sent. If the explanation does not fully answer the questions, review the explanation with a supervisor. If the explanation does not fully explain the discrepancy, identify the deficiencies, so they can be conveyed to the RIR in a further iteration of step 5. If the explanation is sufficient, proceed to step 8.
8	APPLY POLICY'S FORMULA USING SPREADSHEET
Description	Apply the formula defined in the policy to complete the calculation of how much resources for which the RIR qualifies.
Actor	NRM or IPS
Documents	Global Addressing Policies (http://www.icann.org/en/news/in-focus/global-addressing)
Steps	 Using the data supplied by the RIR in its request, possibly modified in step 6, calculate the amount of resources for which the RIR qualifies. Apply the formula defined in the relevant policy.



IANA Review Sub Process

Figure 1.2-71 and 1.2-72 depict the sub process for ensuring the requesters meet all legal requirements.

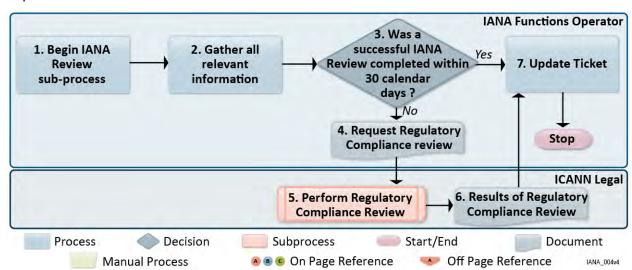


Figure 1.2-71. IANA Review Sub Process

Figure 1.2-72. Process Description: IANA Review Sub Process

1	BEGIN IANA REVIEW SUB PROCESS
Description	The IANA Review sub process is initiated.
Actor	IPS
Documents	Ticket, email(s) containing information for IANA Review
Steps	An IPS requests to perform this sub process for a ticket.
	Go to step 2.
2	GATHER ALL RELEVANT INFORMATION
Description	The ticket is accessed and the subjected information to prepare for the IANA Review is gathered.
Actor	IPS
Documents	Ticket, including all documents available in the ticket
Steps	Access the ticket and gather the subjected information to be sent for review.
	Gather all relevant names, postal addresses and email addresses presented in attachments
	that are available in the ticket.
	Go to step 3.
3	WAS A SUCCESSFUL IANA REVIEW COMPLETED WITHIN 30 DAYS?
Description	Decide whether the same information is in the ticket and an IANA Review has been performed
	within the last 30 calendar days and a positive outcome was achieved with no "flagged issues."
Actor	IPS
Documents	the subjected Ticket
Steps	IPS checks if the ticket has any new information and documents made available to IANA within
	the last 30 days since the recent IANA Review. Checks if the subjected information was
	identical to those in the successful previous IANA Review.
	If yes and an IANA Review had been successfully completed within 30 calendar days and no
	"issues were flagged," then go to step 7.
	 If no and the above is not the case, then go to step 4.
	- If no and the above is not the case, then go to step 4.



4	REQUEST LEGAL REVIEW
Description	Generate and send document to the ICANN Legal Department requesting a Legal Review.
Actor	IPS
Documents	Information gathered in step 2
Steps	E-mail the information to ICANN Legal Department requesting a Legal Review.
	Go to step 5.
5	PERFORM LEGAL REVIEW
Description	Sub process to perform the Legal Review. Turnaround time is expected to be 24 hours. Reminders and escalation will be used as needed.
Actor	ICANN Legal Department
Documents	E-mail from step 4 containing the information to be checked
Steps	The sub process is conducted according to the implementation as defined by the ICANN Legal department.
	Go to step 6.
6	RESULTS OF LEGAL COMPLIANCE REVIEW
Description	Document (e-mail) sent back to IANA with results of the Legal Review.
Actor	ICANN Legal Department
Documents	Email of the result of the Legal Review
Steps	E-mail sent back to IANA with results of the Legal Review.
	Go to step 7.
7	UPDATE TICKET
Description	Update the ticket with the result of the IANA Review.
Actor	IPS
Documents	Emails of the result of the IANA Review
Steps	 Copy and Paste the result of the Legal Review in the subject ticket. In the case of obtaining an OFAC License, IPS writes down the license number and expiration date to the subjected ticket, if applicable.
	 Go to END Process. This sub process delivers its result to its parent process from where it was called.

1.2.9.3.3 Reserve and Direct Allocation for Special Purposes

ICANN will continue making reservations and direct allocations for special purposes. ICANN has a suite of processes in place to do this and will use these processes over the term of the contract. Reservations and allocations for special purposes are made according to policies developed and documented by the IETF. ICANN will reserve and direct allocation of space for special purposes, such as multicast, private networks and globally specified applications in line with the IETF's decision making processes. The IETF has distinct policies governing the allocation and assignment of different resources, the most commonly used policies are documented in RFC 5226 (Guidelines for Writing an IANA Considerations Section in RFCs). Section 4.1 documents the well-known policies currently in place. The policies that apply to INRs start with Private Use. ICANN registers the Private Use policy in the appropriate registry inline with instructions received from the IETF. These instructions will normally be in the form of a document approval and follow the Draft Approval process.



Figures 1.2-73 and 1.2-74 describes the process ICANN follows and will follow after the Internet Engineering Steering Group (IESG), the IETF's management committee, has approved an Internet-Draft (I-D) for publication as an RFC.

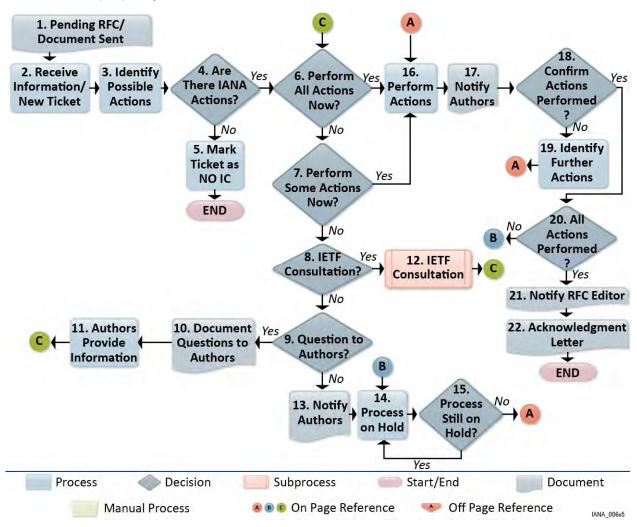


Figure 1.2-73. Internet-Draft Approval Process

Figure 1.2-74. Process Description: Internet-Draft Approval Process

1	PENDING RFC/DOCUMENT SENT TO ICANN			
Description	An Approval or Intent to publish for an I-D is sent to ICANN.			
Actor	IETF Secretariat or RFC Editor			
Documents	N/A			
Steps	A message is sent to the ticketing system.			
	Message from Secretariat comes in a specified format.			
	Go to Action box 2.			
2	RECEIVE INFORMATION/NEW TICKET			
Description	A new ticket is created and either ticketing system automatically adds the ticket to the correct queue or the ticket is manually placed in the right queue.			



Actor	AUTO and/or IPS			
Documents	N/A			
Steps	E-mail sent directly to the queue is automatically added to the appropriate ticketing system queue.			
	Tickets that arrive elsewhere are manually moved to the appropriate ticketing system queue			
	 Ticket is manually assigned to an IPS. Go to Action box 3. 			
3	IDENTIFY POSSIBLE ACTIONS			
Description	Gather all information needed to determine if there are actions to be performed by ICANN. This			
	step also includes filling in custom fields for the ticket.			
Actor	IPS			
Documents	N/A			
Steps	Review the most recent version of the document.			
	Check the Last Call ticket (if applicable).			
	Check the Evaluation ticket.			
	Check for any other related tickets.			
	Go to Decision box 4.			
4	ARE THERE IANA ACTIONS?			
Description	Staff checks all the information identified to see if there are any actions for ICANN to perform.			
Actor	IPS			
Documents	N/A			
Steps	Input to making decision based on the review of the Last Call, Evaluation and other related			
	tickets. Are there actions to perform?			
	If yes, go to Decision box 6. If no go to Astion box 5.			
_	If no, go to Action box 5.			
5	MARK TICKET AS NO IC			
Description	The ticket needs to be marked as having "NO IC" or No IANA Considerations. This means the I-D has no IANA Actions to perform.			
Actor	IPS			
Documents	N/A			
Steps	When the I-D does not contain any IANA Actions the ticket can be resolved.			
C	Go to END. Con ICANIN Bronzen All Control Arrives Nov. 2			
6	CAN ICANN PERFORM ALL OF THE ACTIONS NOW?			
Description	Can ICANN perform ALL the actions right now? This means the document is not dependent on another document getting approved and actions performed.			
Actor	IPS			
Documents	N/A			
Steps	Verify all the actions can be performed immediately (not having to wait for a registry to be			
	created by a dependant document).			
	If yes, go to Action box 16.			
	If no, go to Decision box 7.			
7	CAN ICANN PERFORM SOME OF THE ACTION NOW?			
Description	Can ICANN perform SOME of the actions now? This means that some of the actions can be			



	performed now and some will require waiting until later.			
Actor	IPS			
Documents	N/A			
Steps	 Identify which actions, if any, can be performed immediately. Identify which actions need to be performed later and what document is required to be 			
	processed before the actions can be completed.			
	• If yes, go to Action box 16.			
	If no, go to Decision box 8.			
8	Is IETF Consultation Needed?			
Description	Does the IETF (i.e., IESG, Area Directors, WGCs, and/or experts) need to be consulted regarding			
	the pending actions?			
Actor	PPM or IPS			
Documents	N/A			
Steps	Determine if further consultation is needed.			
	• If yes, go to Sub Process box 12.			
	If no, go to Decision box 9.			
9	DOES ICANN NEED TO SEND QUESTIONS TO AUTHORS?			
Description	Do questions or requests for clarification need to be sent to the authors of the document?			
Actor	IPS			
Documents	N/A			
Steps	Determine if further questions need to be asked of the authors to clarify the actions.			
	Identify what questions need to be asked or what needs clarified.			
	• If yes, go to Action box 10.			
	If no, go to Action box 13.			
10	SEND QUESTIONS TO AUTHORS			
Description	Send an email to the authors with questions regarding actions.			
Actor	IPS			
Documents	N/A			
Steps	Send email to authors.			
	This ticket will stay in this Action box until a response is received. Pings/Reminders will be sent			
	every seven calendar days. • Go to Action box 11.			
11	Authors Provide Information			
Description	Authors send back information to help clarify the requested actions.			
Actor	Authors			
Documents	N/A			
Steps	 ICANN receives an email from the authors with answers to questions and/or clarification. 			
31060	Go to Decision box 6.			
12	PERFORM IETF CONSULTATION – SUB PROCESS			
Description	Perform the IETF Consultation by using the defined sub process.			
Actor	PPM or IPS			
Documents	N/A			



Steps	 Follow the steps in the IETF Consultation Sub Process. Go to Decision box 6. 			
13	Notification to Authors			
Description	Inform the authors that we cannot proceed with the actions for the document, as it will need to be put on hold. (This could be ALL the actions or only SOME actions)			
Actor	IPS			
Documents	N/A			
Steps	Send email to Authors.Go to Decision box 14.			
14	Process on Hold			
Description	In order to perform all the actions for the approved I-D, another document must be approved and actions performed for it first.			
Actor	IPS			
Documents	N/A			
Steps	 This ticket will stay in this Action box until the dependent actions are performed. A weekly check to see if the dependent document has been approved is performed where the next decision is asked again. Go to Decision box 15. 			
15	Process Still on Hold?			
Description	Weekly check to see if the document holding up the approved I-D is approved yet.			
Actor	IPS			
Documents	N/A			
Steps	 Check against relevant queues to see if the dependent document has been approved and the actions completed. If yes, go to Action box 14. If no, go to Action box 16. 			
16	Perform Actions			
Description	Perform the actions in the IANA registries.			
Actor	IPS			
Documents	N/A			
Steps	 Create new registries and/or add/modify/delete registrations from existing registries. Change references to show the RFC-to-be. Update the matrix to include new registries, registration procedures and references. Go to Action box 17. 			
17	Notification to the Authors			
Description	Inform the I-D authors (cc'ing WGCs and ADs) that the actions for the document have been completed.			
Actor	IPS			
Documents	N/A			
Steps	 Confirm the actions are visible in the IANA registries. Write to the authors (cc'ing WGCs and ADs) and send them details of the actions completed. This ticket will stay in this Action box until a response is received. Pings/Reminders will be sent every seven calendar days. 			



	Go to Decision box 18.			
18	CONFIRM ACTIONS PERFORMED			
Description	Receive response from the authors indicating the actions taken are correct.			
Actor	Authors and IPS			
Documents	N/A			
Steps	 Check response from authors to see if all actions taken are correct. If yes, go to Decision box 20. If no, go to Action box 19. 			
19	FURTHER ACTIONS			
Description	The authors may have provided feedback to ICANN regarding changes to the actions performed.			
Actor	IPS			
Documents	N/A			
Steps	 Identify if there are any corrections and/or additions to be made in the registries and/or matrix. Identify if there are any questions to answer. Go to Action box 16. 			
20	ALL ACTIONS PERFORMED?			
Description	Have ALL the actions been performed and confirmed? (Some actions may have been completed at different times, if there was a dependency.)			
Actor	IPS			
Documents	N/A			
Steps	 Confirm the actions are visible in the IANA registries. Confirm there are no additional actions that are waiting on other documents. If yes, go to Action box 21. If no, go to Action box 14. 			
21	NOTIFICATION TO THE RFC-EDITOR			
Description	Inform RFC-Editor that the IANA Actions have been completed and identify which actions were performed.			
Actor	IPS			
Documents	N/A			
Steps	 Send message to RFC-Editor. This ticket will stay in this Action box until a response is received. Pings/Reminders will be sent every seven calendar days. Go to Action box 22. 			
22	ACKNOWLEDGMENT LETTER			
	The RFC-Editor informs ICANN that they have received (acknowledged) receipt of confirmation of IANA actions completed.			
Description				
Actor				
	IANA actions completed.			



Experimental Use

ICANN will register the Experimental Use policy in the appropriate registry in-line with instructions received from the IETF. These instructions will normally be in the form of a document approval and follow the process detailed in the Draft Approval process described previously.

Expert Review (or Designated Expert)

ICANN will register assignments made under the Expert Review policy in line with the Expert Review process described in the following section. Multicast addresses are assigned using the Expert Review process. Application templates for multicast IPv4 and IPv6 addresses are in **Appendix C**.

Expert Review Process

In the process shown in **Figures 1.2-75 and 1.2-76**, a potential registrant lodges a request via ICANN's IANA website. ICANN reviews the request for completeness and addresses any deficiencies in that area with the registrant. Complete requests are forwarded to the IESG Designated Expert for review. Questions and comments are passed on to the requester and, based on the responses; the expert decides whether to approve the request. This is the process ICANN will follow for registries the IETF has designated with an Expert Review policy.

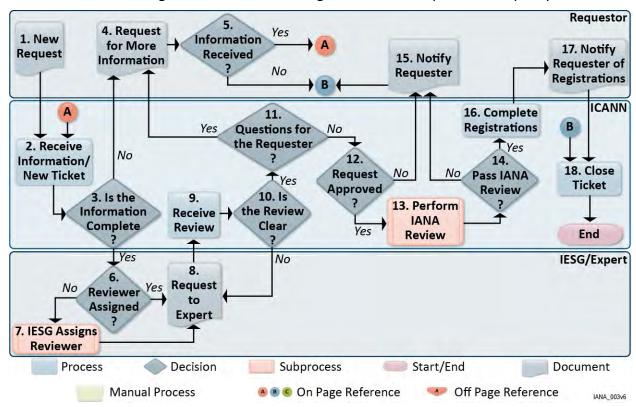


Figure 1.2-75. Expert Review Process



Figure 1.2-76. Process Description: Expert Review Process

1	New Request Sent to ICANN			
Description				
	A request for a new registration in IANA registries is sent to ICANN. Requester			
Actor Documents	N/A			
Steps	A message is sent via email or through an online template.			
	Go to Action box 2.			
2	RECEIVE INFORMATION/NEW TICKET			
Description	A new ticket is created. Ticketing system automatically puts the ticket in the correct queue or the			
	ticket is manually placed in the appropriate queue.			
Actor	AUTO and/or IPS			
Documents	N/A			
Steps	Tickets not sent directly to the ticket queue are manually moved to the appropriate queue.			
	Some tickets will automatically arrive in the appropriate queue.			
	Ticket is manually assigned to an IPS.			
	Go to Decision box 3.			
3	IS Information Complete?			
Description	Review the information in the ticket. Check to make sure all required information for the			
	registration requested is included.			
Actor	IPS			
Documents	N/A			
Steps	Review the ticket information.			
	Check which registry they are requesting a parameter in.Are all criteria met according to the governing RFC?			
	If yes, go to Decision box 6.			
	If no, go to Action box 4.			
4	REQUEST FOR MORE INFORMATION			
Description	A message is sent to the requester asking for more information regarding the requested			
	parameter registration.			
Actor	IPS			
Documents	N/A			
Steps	Send message to requester.			
	Ask clarifying questions as needed.			
	Change custom state to "Waiting on Requester."			
	Change ticket state to "stalled."			
	This ticket will stay in this Action box until a response is received. Pings/Reminders will be sent			
	every seven calendar days. The request will be closed if there is no response after 30 days.			
	Go to Decision box 5.			
5	Information Received?			
Description	Has the requested information been sent back to ICANN by the requester?			
Actor	IPS			
Documents	N/A			
Steps	Information has been sent back to ICANN.			
200	If yes, go to Action box 2.			
	If no AND past 30 days, go to Action box 15.			
6				
6 Description	REVIEWER ASSIGNED?			
LIGCCRIPTION	Identify the expert who should review this request.			



Actor	IPS			
Documents	N/A			
Steps	Has an expert been designated to review requests in this registry?			
	If yes, go to Action box 8.			
	If no, go to Sub Process box 7.			
7	IESG Assigns Reviewer Sub Process			
Description	IESG Consultation Sub Process			
Actor	PPM or IPS			
Documents	N/A			
Steps	Go to Action box 8			
8	REQUEST TO EXPERT			
Description	ICANN sends Expert a request for review or clarification.			
Actor	IPS			
Documents	N/A			
Steps	Forward request to the designated expert.			
	This ticket will stay in this Action box until a response is received. Pings/Reminders will be sent			
	every seven calendar days. If no response after 30 days, go to Action box 7.			
	Go to Action box 9.			
9	RECEIVE REVIEW			
Description	The Expert sends his/her review to IANA.			
Actor	Expert/IPS			
Documents	N/A			
Steps	Ticket state is automatically set to "open."			
	Change custom state to "In Progress."			
	Go to Decision box 10.			
10	Is the Review Clear?			
Description	Determine whether ICANN needs more information from the reviewer before proceeding.			
Actor	IPS N/A			
Documents	N/A			
Steps	 Can IANA determine what to do next, based on the expert's instructions? If yes, go to Decision box 11. 			
	If no, go to box 8. If no, go to box 8.			
11				
11	QUESTIONS FOR THE REQUESTER? Does the expert want more information from the requester?			
Description Actor	IPS			
Documents	N/A			
Steps	If yes, go to Action box 4.			
	l ● It no go to Decision hox 12			
12	If no, go to Decision box 12. REQUEST APPROVED?			
12 Description	REQUEST APPROVED?			
12 Description Actor	REQUEST APPROVED? Did the expert approve this request?			
Description	REQUEST APPROVED?			
Description Actor	REQUEST APPROVED? Did the expert approve this request? IPS N/A			
Description Actor Documents	REQUEST APPROVED? Did the expert approve this request? IPS			
Description Actor Documents	REQUEST APPROVED? Did the expert approve this request? IPS N/A • The expert doesn't want more information from the requester. Has the expert approved this			
Description Actor Documents	REQUEST APPROVED? Did the expert approve this request? IPS N/A • The expert doesn't want more information from the requester. Has the expert approved this request for registration?			



13	ICANN CHECK SUB PROCESS			
Description	ICANN check Sub Process			
Actor	IPS			
Documents	N/A			
Steps	Go to Decision box 10.			
14	PASS ICANN CHECK?			
Description	Did the request pass ICANN check?			
Actor	IPS			
Documents	N/A			
Steps	• If yes, go to Action box 16.			
	If no, go to Action box 15.			
15	Notification to Requester			
Description	Inform the requester that the registrations cannot be made.			
Actor	IPS			
Documents	N/A			
Steps	Write to the requester and explain that the registration cannot be completed.			
	Go to Action box 18.			
16	COMPLETE REGISTRATIONS			
Description	Perform the actions in the IANA registries.			
Actor	IPS			
Documents	N/A			
Steps	Complete registrations in existing registries.			
	Go to Action box 17.			
17	NOTIFICATION TO REQUESTER			
Description	Inform the requester that the request is complete.			
Actor	IPS			
Documents	N/A			
Steps	Confirm that registrations are visible in the IANA registries.			
	Write to the requester and send them details of registrations.			
	Go to Action box 18.			
18	CLOSE TICKET			
Description	Final step to close the ticket.			
Actor	IPS			
Documents	N/A			
Steps	Change ticket state to "resolved."			
	Go to END.			

RFC Required (Including IETF Review, Standards Action and IESG Approval)

ICANN will allocate or will reserve resources in the appropriate registry in line with the instructions in the IANA Considerations section of an RFC, which follow the Draft Approval process described above.

1.2.9.4 Other Services [M.8; C.2.9.4]

The .INT domain is reserved exclusively for intergovernmental organizations. ICANN has been performing the management role for the .INT domain in a stable and secure manner for many years. The requirements to register a subdomain in the .INT domain are defined in RFC 1591,



and ICANN is well versed in the established policy that is the foundation for the criteria to register a sub-domain in .INT. ICANN will continue to managing this domain and will cooperate fully with NTIA to implement modifications to this IANA Function as needed.

Understanding the Requirement

In 2000, the Internet Architecture Board (IAB) recommended changes to the original definitions of use for both the .INT and .ARPA domains. The recommendations were documented in the "IAB Statement on Infrastructure Domain and Subdomains, May 2000." The intent of the IAB document was to achieve administrative cleanliness and to locate subdomains in their appropriate top level domain. Based on the review and recommendation of the IAB in 2000, the .INT domain is now reserved exlusively for intergovernmental organizations.

The established criteria for being eligible for a subdomain in .INT include the following:

- An international treaty must exist between or among national governments and must be present in the UN online database. A true certified copy of the treaty will be requested.
- The treaty itself must establish the organization.
- The organization must be governed by international law and be widely considered to have independent international legal personality

ICANN will perform the management role for .INT and will continue to administer the domain according to established policies and criteria.

Technical Approach

As the manager of the .INT domain, ICANN will act as a steward of the domain and will act in the best interests of the community for which the domain was established—the intergovernmental organizations. In exercising this role, ICANN will publish its process and criteria for reviewing and accepting requests to establish new subdomains for .INT. The criteria will be consistent with the existing, established criteria, and ICANN will modify our processes as needed if there are changes in policy associated with.INT.

To request and register a subdomain for .INT, the organization must establish its credentials as an intergovernmental organization which meets to criteria established in RFC 1591. The following three established criteria must be met before delegation of a subdomain. ICANN will confirm that the criteria are met before awarding a subdomain.

- An international treaty must exist between or among national governments and must be present in the UN online database. A true certified copy of the treaty will be requested.
- The treaty itself must establish the organization.
- The organization must be governed by international law and be widely considered to have independent international legal personality.

ICANN will consult, as we do today in administering the IANA Functions, with a recognized expert on International law to review requests for subdomains and to advise on questions of eligibility. This third party consultation will provide additional expertise and guidance in establishing that eligibility meets all the defined criteria.



ICANN will provide the following two online forms in **Appendix D** for organizations wishing to request a subdomain of the .INT domain.

- **Form 1** Registration form for the .INT Top Level Domain http://www.iana.org/cgi-bin/intreg/intreg.pl
- Form 2 Form for Providing Registrant Information http://www.iana.org/cgi-bin/intreg/intreg.pl

Appendix D also contains a copy of the opening screen for a user to change .INT domains, and the template for modifying a .INT domain.

The workflow describing the step-by-step process for handling requests for a subdomain in .INT is shown in **Figure 1.2-77**.

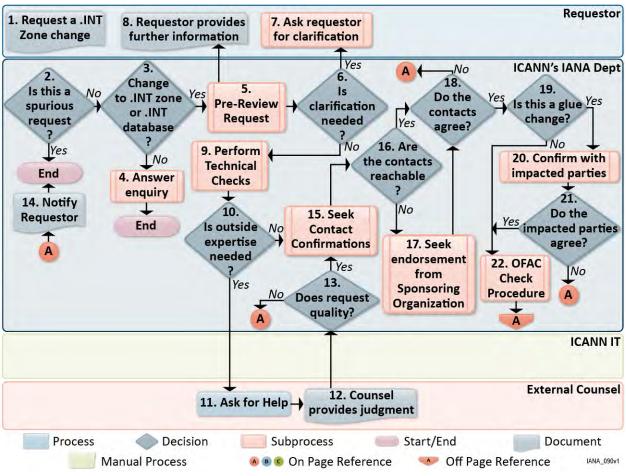


Figure 1.2-77. .INT Domain Name Management

1.2.9.4.1 Current Policies

As the manager of the .INT domain, ICANN will act as a steward of the domain and in the best interests of the community for which the domain was established—the intergovernmental organizations. In exercising this role, ICANN will publish its process and criteria for reviewing and accepting requests to establish new subdomains for .INT. ICANN will consult, as we do today in adminstering the IANA Functions, with a recognized expert in International law to



review requests for subdomains and to advise on questions of eligibility. This third party consultation will provide additional expertise and guidance to establish that eligibility meets the defined criteria.

1.2.9.4.2 Successor Registry

ICANN understands that NTIA may choose to reduce the scope of the IANA Functions by designating a successor registry to manage the .INT domain. ICANN will cooperate with NTIA and the successor to plan a smooth and comprehensive transition plan. Since any transition from the current manager of a Top Level Domain is defined and executed by the policies defined for redelegations of Top Level Domains (TLDs), ICANN will coordinate with the successor and NTIA to ensure all the necessary criteria for a redelegation are understood and executed.

The steps to redelegate the domain will be consistent with the established policy and procedure for all TLD redelegations, as documented in section 1.2.9.2 of our proposal. These policies were originally documented in RFC 1591. As the current manager of the TLD, ICANN will cooperate in everyway to ensure a smooth transition.

At a high level, the criteria for completing a successful redelegation include the following:

- Interested parties in the domain agree that the proposed TLD manager is appropriate.
- A manager is designated to supervise the domain and the operation of the domain name system.
- Internet Protocol (IP) connectivity exists to the nameservers, and the management and staff have electronic mail connectivity.
- The Administrative Contact and Technical Contact will provide contact information: physical address, email address and telephone number.
- The nameservers will pass the technical checks.

ICANN will be flexible and responsive to recommendations from the policy bodies to refine the current implementation.

1.2.9.4.3 Modifications

ICANN will implement a Process Improvement Feedback Process for continual improvement. This process will enable ICANN to gather input from relevant parties and to take steps, based on mutual agreement with NTIA, to enhance the existing .INT process.

1.2.10 Performance Exclusions [M.8; C.2.10]

The Performance Exclusions defined in Section C.8 of the RFP highlight that the Contracting Officer (CO) restricts changes in established procedures and information until the CO validates that the proposed changes are consistent with existing policies. ICANN will perform the responsibilities of the IANA Functions in full compliance with the criteria outlined for each of the functional areas described in Section C.2 Contractor Requirements. ICANN has demonstrated our compliance with the requirements during our over 13 years performing the IANA Functions. ICANN's performance of the IANA Functions will continue to be compliant with



the requirements of both Sections C.2 Contractor Requirements and C.8 Performance Exclusions.

Understanding the Requirement

ICANN recognizes that the execution of the Root Zone Management function is a collaborative effort between ICANN, NTIA and the Root Zone Maintainer and that in the performance of the Root Zone Function, ICANN will abide by the separation of roles and responsibilities in performing its role in administering requests for Root Zone changes.

As with all of the IANA Functions, ICANN will implement processes and procedures that will apply the policies that are established by the policy making entities of the IETF, the Regional Internet Registries and the Supporting Organizations like the ccNSO. ICANN will not make changes to the established processes of the performance of the IANA Functions until it has received prior approval from the Contracting Officer.

The performance of the Root Zone Management function will not be predicated on any negotiated agreements with individual Top Level Domains. The performance of validating that all root zone change requests are consistent with the established criteria is how ICANN does and will continue to perform the Root Zone function. ICANN will not enter into any agreements with third parties that will impact ICANN's compliance with the IANA Root Zone Functions.

Technical Approach

The performance of the IANA Functions as articulated in Section C.2 Contractor Requirements shall be in compliance with the performance exclusions enumerated in Section C. 8. ICANN will follow the established processes and procedures that are documented in Section 1.2.9.2 of this proposal to ensure the adherence to established policies.

1.2.11 Final Inspection [M.8; C.2.11]

All deliverables and reports will be submitted to the Contracting Officer's Representative (COR). The deliverables and reports as called out in Section F.4 Deliverables of the RFP will be submitted in a timely manner consistent with the criteria defined in the RFP. ICANN will await the acknowledgement and approval of the COR prior to publication of the reports.

Understanding the Requirement

ICANN will submit all deliverables and reports to the COR for inspection and will await acknowledgement and approval of the COR prior to publication of the reports.

Technical Approach

ICANN will deliver all of the deliverables (see **Figure 1.2-78**) defined in F.4 Deliverables to demonstrate its compliance in the delivery of the IANA Functions' Statement of Work (SOW). The steps that ICANN will take to deliver the required deliverables and reports to the COR are described in detail in other sections of ICANN's response to the RFP. The table below provides a map between the deliverable described in the RFP and the Section of ICANN's response where the steps are defined. ICANN will await acknowledgment and approval from the COR, as documented in the RFP, prior to publication of the deliverables and reports.



Figure 1.2-78. RFP F.4 Deliverables

RFP	RFP RESPONSE			
CLAUSE #	CLAUSE #	Clause	Deliverable	DUE DATE
C.2.6	1.2.6	Transparency and	User instructional documentation	Six months after
		Accountability	including technical requirements	award
C.2.7	1.2.7	Responsibility and	Documenting the source of the	Six months after
		Respect for Shareholders	policies and prodedures.	award
C.2.8	1.2.8	Performance Standards	Performance Standards	Six Months after award
C.2.9.2e	1.2.9.2.e	Root Zone Automation	Automated Root Zone	Nine months after award
C.2.9.2g	1.2.9.2.g	Customer Service Complaint Resolution Process (CSCRP)	Customer Complaint Process	Six months after award
C.3.4	1.3	Security Plan	Documenting Practices and configuration of all systems	Annually
C.4.1	1.4.2	Monthly Performance Progress Report Includes DNSSEC	Report Based on C.2	Monthly
C.4.2	1.4.3	Root Zone Management Dashboard	Root Zone Management Dashboard	Nine months after award
C.4.3	1.4.4	Performance Standards Reports	Performance Standards Reports	Six months after award and monthly thereafter
C.4.4	1.4.5	Customer Service Survey	Customer Service Survey	Annual Report of Customer Survey
C.4.5	1.4.6	Final Report	Final Report	Expiration of Contract
C.5.1	1.5	Audit Report	Audit Report	Annually
C.5.2	1.5.2	Root Zone Management Audit Data	Root Zone Management Audit Report	Nine Months after award and Monthly Report thereafter
C.5.3	1.5.3	External Auditor	External Audit Report	Annually
C.6.2.4	1.6.2	Conflict of Interest Enforcement and Compliance Report	Enforcement and Compliance Report	Annually
C.7.2	1.7.2	Contingency and Continuity of Operations Plan (The CCOP)	Contingency and Continuity of Operations for the continuation of the IANA functions in case of an emergency.	Annually
C.7.3	1.7.3	Transition to Successor	Transition Plan in case of successor contractor.	Eighteen (18) months after date of contract award



1.2.12 Key Personnel [M.8; C.2.12.a,b]

The key personnel for the IANA Functions will be fully qualified for their roles and will have, at contract execution date, on average six years of experience in performing the IANA Functions. In addition to being seasoned professionals in performing the IANA Functions, the key personnel will bring decades of experience in technical roles associated with the Domain Name System, Internet Number Assignments, Top Level Domain management, and Security. ICANN is dedicated to staffing the IANA Functions with the best candidates possible. For example, Elise Gerich, who will be ICANN's IANA Functions Program Manager, was the first woman appointed to the Internet Architecture Board (IAB) and is the author of the first RFC (1366) outlining the allocation of Internet Numbers to distributed Regional Registries. Ms. Gerich has a 24-year-long history in both public and private Internet companies, and she worked closely with Jon Postel on National Science Foundation's Routing Arbitor Project in the mid-1990s. Ms. Gerich was the Co-Principal Investigator of the National Science Foundations' Routing Arbitor Project and a founder of the North American Network Operations Group (NANOG).

Understanding the Requirement

ICANN understands the importance of hiring and retaining talented individuals who are not only technically competent but have a focus on service and attention to detail. Since the IANA Functions role requires regular engagement with various individuals and stakeholder groups, ICANN will highlight the importance of exceptional communication skills, including excellent command of the English language and customer focus, when selecting individuals to join ICANN. All of the registries and databases maintained by the IANA Functions Operator require accuracy, and ICANN will require that candidates for positions in the IANA Functions organization demonstrate an aptitude for attention to detail. The IANA Functions Program Manager will have demonstrated successful management skills to sufficiently staff the organization to perform the services in a dependable, responsive and timely fashion. The IANA Functions Program Manager will be ICANN's primary contact with the CO and COR. The IANA Functions Program Manager will communicate with the COR about all the activities necessary for delivery of the IANA Functions and will deliver all reports and other deliverables as defined in the SOW. The IANA Functions Program Manager will be a member of ICANN's executive team and as such will be capable of negotiating various agreements and making commitments related to the IANA Functions.

Technical Approach

ICANN describes our technical approach to meeting this requirement in the following sections.

1.2.12.1 Key Personnel Requirements

ICANN will assign to the IANA Functions Program individuals who have the requisite skills as well as experience with DNS, Internet Number allocations and Internet Protocol Parameters registries.

ICANN's IANA Functions Liaison for Technical Protocol Parameters Assignment, Michelle Cotton, will bring over 11 years of experience working in collaboration with the IAB, IETF and IESG in reviewing RFCs, assigning Private Enterprise Numbers (PENs) under the guidance of the IETF, representing ICANN in meetings with the IETF-IANA working group, and a myriad of other



related IANA Functions responsibilities. Her long association with the Technical Internet community has resulted in strong personal and professional relationships. Ms. Cotton has demonstrated her excellent oral and written capabilities in various speaking engagements about the Protocol Parameter Function and as author of several RFCs.

ICANN's IANA Function Liaison for Root Zone Management, Kim Davies, will bring over five years of experience in the delivery of DNS operation and root zone administration. Mr. Davies is recognized by the ccNSO as being a subject matter expert in the implementation of the processes related to root zone changes, in the interpretation the policies on which the processes are based and of the DNS protocol. Mr. Davies' long association with the TLD community has allowed him to establish relationships with TLD managers all over the world.

Mr. Davies has demonstrated his excellent communication skills in the written white papers for the ICANN Board; in the published documentation on the IANA website; and in his verbal presentations to many organizations, for example, the ccNSO, CENTR and APTLD.

ICANN's IANA Functions Liaison for Internet Number Resource Allocation, Leo Vegoda, will bring over six years of experience In delivery of Internet Number Resource allocation and assignment. Mr. Vegoda managed the Registration Services Department at RIPE NCC prior to joining ICANN. For the last three years, he has demonstrated his effective communications skills by authoring the IANA Department's Self-Assessment Document, which is submitted to the ICANN management team. Mr. Vegoda is regularly invited to speak at the Regional Internet Registries' meetings, demonstrating the recognition of his skills as a speaker. Mr. Vegoda is consulted often by his peers at the RIRs and asked to provide information on the implementation aspects of proposed, new policies.

ICANN will designate Tomofumi Okubo as the Director of Security under the IANA Functions Contract, and he will be one of the key personnel on the contract. Mr. Okubo has proven his ability to communicate effectively in English by co-authoring the "DNSSEC Policy & Practices Statement Framework," currently in draft state in the IETF. He has extensive experience in managing third party audits such as SAS70, SysTrust, WebTrust, PCI-DSS, and Federal Information Security Management Act (FISMA)/C&A—which requires excellent verbal communication skills in English. Mr. Okubo was instrumental in the collaboration between ICANN, NTIA and Verisign in the planning for DNSSEC and has well-established relationships with the technical team at Verisign.

The Management section, Factor 2, of this proposal will expand upon the qualifications of key personnel who will interact with the CO and COR.

1.2.12.2 Program Manager [C.2.12.a]

Elise Gerich will be ICANN's IANA Function Program Manager. Ms. Gerich is a graduate of the University of Michigan and a United States citizen. She has 24 years of experience in the Internet industry in both private and public organizations. Ms. Gerich joined ICANN as the IANA Program Manager in 2010. Under her leadership, ICANN—in collaboration with NTIA and the Root Zone Maintainer, Verisign—deployed DNSSEC for the root zone, launched the end-to-end automation of the root zone change process and has championed the EFQM quality



management program. Please see **Figure 1.2-79** and Section 2.0 Management Approach of this proposal for further details, and see Section 2.3 for resumes.

Figure 1.2-79. IANA Functions Program Manager Position Qualifications. Elise Gerich exceeds the qualifications for Program Manager as listed in the RFP.

the qualifications for Program Manager as listed in the KFP.		
PROGRAM MANAGER-POSITION	Elise Gerich	
QUALIFICATIONS/RFP REQUIREMENTS	Qualifications / Attributes / Experience	
ORGANIZES, PLANS, DIRECTS, STAFFS, AND	Associate Director National Networking, Merit Networks	
COORDINATES THE OVERALL PROGRAM	Director of Operations, @Home Network	
EFFORT	Manager of Software Product Management, Juniper Networks	
	VP IANA and Technical Operations, ICANN	
MANAGES CONTRACT AND SUBCONTRACT	NSFNET Cooperative Agreement with NSF	
ACTIVITIES AS THE AUTHORIZED INTERFACE	Routing Arbitor Program Co-PI, NSF	
WITH THE CO AND COR	IANA Function Program Manager, ICANN	
ENSURES COMPLIANCE WITH FEDERAL	Responsible for deliverables and compliance to the NSF	
RULES AND REGULATIONS	Cooperative Agreements for NSFNET and Routing Arbitor	
	Responsible for deliverables and compliance with terms of 2006	
	IANA Functions Contract	
RESPONSIBLE FOR THE FOLLOWING: SHALL	Responsible for overall contract performance of 2006 IANA	
BE RESPONSIBLE FOR THE OVERALL	Functions Contract. For a subsequent contract will serve in the key	
CONTRACT PERFORMANCE AND SHALL NOT	capacity of Program Manager and will not serve in any other key	
SERVE IN ANY OTHER CAPACITY UNDER	capacity under the contract.	
THIS CONTRACT		
SHALL HAVE DEMONSTRATED	Regular meetings during NSFNET award with then NSF Director,	
COMMUNICATIONS SKILLS WITH ALL	DNCRI, Dr. Stephen Wolff	
LEVELS OF MANAGEMENT	 As a Juniper product manager regularly met with Senior executives of Nippon Telegraph and Telephone (NTT), ATT, Level3, Time Warner Telecom, Deutch Telecom and other major Internet 	
	providers	
	Attends and participates on behalf of ICANN in the twice annual	
	leadership meetings with ISOC, W3C, IETF, IAB, RIPE, ARIN,	
	APNIC, AFRINIC, and LACNIC	
SHALL MEET AND CONFER WITH COR AND	Initiated and held monthly teleconferences with the COR over the	
CO REGARDING THE STATUS OF SPECIFIC	last two years	
CONTRACTOR ACTIVITIES AND PROBLEMS,	Collaborated with the COR on an ISO 3166 issue with nomenclature issue and representation on the IANA web pages.	
ISSUES, OR CONFLICTS REQUIRING	nomenclature issue and representation on the IANA web pages.	
RESOLUTION	 Consulted with the COR about an open issue related to ccTLD management which involves US jurisdiction 	
SHALL BE CAPABLE OF NEGOTIATING AND	VP IANA and Technology Operations negotiates and has delegated	
MAKING BINDING DECISIONS FOR THE	decision-making authority over all matters concerning the IANA	
COMPANY	Functions for ICANN	
SHALL HAVE EXTENSIVE EXPERIENCE AND	Has served as the IANA Functions Program Manager for two years	
PROVEN EXPERTISE IN MANAGING SIMILAR	- Thas served as the internal antenans i rogiani manager for two years	
MULTI-TASK CONTRACTS OF THIS TYPE		
AND COMPLEXITY		
	At Merit, supervised a staff of approximately 12 individuals	
SHALL HAVE EXTENSIVE EXPERIENCE		
SUPERVISING PERSONNEL	At @Home Network, supervised a department of approximately	



	forty individuals
	 At Juniper Networks, supervised a team of approximately six individuals
	At ICANN, supervise approximately 15 individuals
SHALL HAVE A THOROUGH	Demonstrated understanding and knowledge of program
UNDERSTANDING AND KNOWLEDGE OF	management and contract management in delivery and operation
THE PRINCIPLES AND METHODOLOGIES	of National Science Foundation Network under cooperative
ASSOCIATED WITH PROGRAM	agreement with NSF, in development of operational procedures
MANAGEMENT AND CONTRACT	for the @Home Network Operations Center, in bringing software
MANAGEMENT	features to market in the Juniper Operating System, and in
	overseeing the deliverables under the existing IANA Functions
	Contract.

1.2.12.3 Other Key Personnel [C.2.12.b]

ICANN assigns the following individuals to the requisite IANA key positions.

IANA Function Liaison for Technical Protocol Parameters Assignment (C.2.9.1). This position is designated as a key position to ensure continuity of a solid understanding of the requirements of the tasks necessary to perform the IANA Functions related to Technical Protocol Parameters Assignment and to maintain the strong personal and professional relationships that Ms. Cotton has developed over 11 years in performing this function. As the Liaison, Ms. Cotton is responsible for:

- Delivering monthly performance reports to the IETF
- Participating in monthly meetings of the IETF-IANA Working Group
- Reporting three times per year to the IAB Chair, IETF Chair and IESG on the status of the work in administering the Technical Protocol Parameters Assignments
- Review and implement the IANA Considerations section of RFCs
- Manage the contributions of the Expert Reviewers of RFCs

Ms. Cotton, will bring over 11 years of experience working in collaboration with the IAB, IETF and IESG in reviewing RFCs, assigning PENs under the guidance of the IETF, representing the current IANA Functions Operator in meeting with the IETF-IANA working group, and a myriad of other related IANA Functions responsibilities. Ms. Cotton has demonstrated her excellent knowledge of the functions at various speaking engagements about the Protocol Parameter Function and as author of several RFCs.

IANA Function Liaison for Root Zone Management (C.2.9.20). This position is designated as key in order to ensure the IANA Functions Operator has a comprehensive knowledge of the policies that are the foundation for the process and procedures followed to perform the function. Mr. Davies will be designated to this Liaison position to maintain continuity of the strong personal and professional relationships that he has established within the TLD management community, the DNS technical community and the ICANN Supporting Organizations (SOs). As Liaison, Mr. Davies is responsible for the following:

Representing ICANN at ccNSO meetings and teleconferences



- Representing the IANA Function, when invited, at Policy Development Process meetings regarding Delegations, Redelegations, Internation Domain Names, and other TLD issues
- Ensuring that the processes and procedures for Root Zone changes are consistently applied and are in keeping with the existing Policies
- Coordinating of ICANN's role in the cooperative development with NTIA and the Root Zone Maintainer Verisign of an end-to-end system for root zone transactions

Mr. Davies brings to this position bring over five years of experience in the delivery of Domain Name Service (DNS) operation and root zone administration. Mr. Davies is recognized by the ccNSO as being a subject matter expert in the implementation of the processes related to root zone changes, in the interpretation the policies on which the processes are based and of the DNS protocol.

Mr. Davies has demonstrated his breadth of knowledge of Root Zone Management in the written white papers for the ICANN Board, in the published documentation on the IANA website and in his presentations in many forums.

IANA Function Liaison for Internet Number Resource Allocation (C.2.9.3). This position is designated as a key position to ensure the ongoing coordination with the Regional Internet Registries (RIRs) and to understand the policies that drive changes in the way Internet Number Resources are allocated by the IANA Functions Operator. In this role, Mr. Vegoda is responsible for the following:

- Compiling the monthly allocations of Internet Numbers for the report to NTIA
- Participating in the monthly teleconferences with the Address Supporting Organization
- Reviewing policies of the RIRs and analyzing potential impact on IANA Functions processes
- Preparing ICANN presentations for the meetings of the five RIRs
- Participating, by invitation, in Policy Development meetings with the RIRs

Mr. Vegoda will bring six years of experience with ICANN in delivering Internet Number Resource allocations and assignments. Mr. Vegoda managed the Registration Services team at RIPE NCC prior to joining ICANN. He is the author of seven RFCs and is well-recognized as a subject matter expert in the technical and policy aspects of Internet Number Addresses.

Security Director (C.3.5). This position is identified as a key position to ensure the stability and security of the execution of the IANA Functions. Mr. Okubo will do the following:

- Develop, enforce and maintain security related policies and procedures
- Manage and facilitate annual third-party security audits
- Develop and execute training programs
- Perform risk management
- Coordinate with ICANN Security department

Mr. Okubo joined ICANN in February 2011. He is an information security expert specializing in key management security and has an in-depth understanding of standards such as ISO27000 series, ISO21188, ANSI X9.79, ISO31000, BS25999, and NIST Special publications. Prior to joining ICANN, he served as a security engineer for Verisign, one of the major certification authorities,



and played an instrumental role in designing security for the Root DNSSEC design project. He also co-authored the "DNSSEC Policy & Practices Statement Framework," currently in draft state in the IETF. He has extensive experience in managing third-party audits such as SAS70, SysTrust, WebTrust, PCI-DSS, and FISMA/C&A. Mr. Okubo is a Certified Information Systems Security Professional (CISSP) in good standing.

Conflict of Interest Officer (C.6.2). This position is identified as a key position to ensure that all staff is aware of the company Conflict of Interest Policies and that there is a formal process for reporting and reviewing possible conflicts of interest that violate the company policy. Mr. Antonoff will do the following:

- Confirm that all new hires are knowledgeable about the conflict of interest policy and formally sign their compliance with the conflict of interest policy
- Execute the annual compliance program of formal renewals of the conflict of interest policy by all staff
- Establish the formal process to receive and review all reported or suspected conflicts of interest by ICANN

Mr. Antonoff has over 30 years of Human Resources experience covering the full range of HR activities. During his long career, Mr. Antonoff has developed and implemented training sessions for managers on employee relations/conflict resolution/employee counseling as well as conducting effective investigation. At ICANN, he has established the formal program for ensuring compliance with ICANN's conflict of interest policy.

The Conflicts of Interest Officer will be responsible for the implementation and enforcement of ICANN's Conflicts of Interest Policy (and related policies). This includes a regular review of the language of the policy and updating it as appropriate, ensuring all new hires acknowledge reading the policy and agreeing to abide by it as well as ensuring current staff members renew their acknowledgement and agreement on an annual basis.

Staff may self-report a potential conflict of interest to the Conflicts of Interest Officer. The Conflicts of Interest Officer will review the potential conflict of interest with appropriate staff that may include the Office of the General Counsel as well as Executive Management and will make a determination. He then will report back to the employee on appropriate actions to eliminate any potential conflict of interest.

Employees are also encouraged to report conflicts of interest they perceive may affect another employee. Reporting employees may come directly to the Conflicts of Interest Officer or may utilize ICANN's Anonymous Hotline. The hotline is managed by a third-party vendor and designed for the reporting of fraud and ethics violations. Any issue reported to the third-party hotline will be forwarded simultaneously to the Conflicts of Interest Officer, the Chief Operating Officer and the General Counsel. ICANN runs a test of the hotline system on an annual basis.



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1.3 Security Requirements [L.6; M.8; C.3]

ICANN recognizes Information Security Governance as an essential component for successfully operating the IANA Functions. ICANN will establish, implement and maintain an Information Security Management System (ISMS) based on ISO/IEC 27001 standard to efficiently and effectively protect all information assets related to the IANA Functions in a highly secure and fully auditable manner.

This is the identical approach taken when ICANN developed and implemented the Information Security Governance structure for the Root DNSSEC Operations that is also part of the IANA Functions Contract. The Root DNSSEC Operation is currently audited by a third-party auditor under the Trust Services Criteria that is a well-known security audit standard and has successfully obtained a SysTrust certification.

Understanding the Requirement

As ICANN adopts the defense-in-depth (multi-layered security) strategy to deter or prevent attacks against the IANA Functions' critical information assets, the scope of ICANN's Security Plan extends beyond the technical protection of information systems and will cover areas such as personnel, physical and procedural security to build a layered security model.

ICANN will take a risk-based approach to secure the IANA Functions under which all security controls and countermeasures will be selected as a result of a comprehensive risk assessment. The risk management process will be developed, documented, implemented, and executed based on the ISO/IEC 31000 standard. ICANN will use a well known, comprehensive set of security controls such as ISO/IEC 27002, NIST-SP800-53 and Control Objectives for Information and related Technology (COBIT) as a supplemental guidance to determine the security controls.

Technical Approach

ICANN describes our technical approach to meeting this requirement in the following sections.

1.3.1 Secure Systems [M.8; C.3.1]

This section will describe how ICANN will secure the information systems in accordance with the requirement in RFP Section C.3.

1.3.1.1 Install and Operate Communications Systems with Security Practices

ICANN information systems will be implemented and operated in accordance with the best security practices such as ISO/IEC27002 and NIST SP-800-53. A periodic security assessment will be performed to ensure that the security controls remain effective and security remediation will be executed if necessary.

All ICANN information systems will undergo a system hardening process prior to production deployment. The hardening process includes but is not limited to removing unused software, disabling or removing inactive users, disabling or removing unnecessary services, patching the system, performing a vulnerability scan, installing anti-virus, and configuring the firewall.

ICANN has implemented and will continue to implement preventive measures such as periodical vulnerability scans and penetration tests that are performed by the ICANN security department to mitigate the risk of system compromise. Firewalls, which are the first line of



defense for web and application services, are in place for all external and internal facing systems. Detective security measures such as intrusion detection systems (IDS) and anti-virus and security information and event management (SIEM) tools are deployed to promptly react in case a cyber threat materializes on ICANN information systems.

In addition, the ICANN IT department will continue to contract a service that provides protection from Distributed Denial of Service (DDoS) attacks. The ICANN IT operator manually enables the protection by contacting the service provider when a DDoS attack on ICANN information systems occurs.

1.3.1.2 Authenticated Communications

ICANN will continue to use Pretty Good Privacy (PGP) and implement Secure/Multipurpose Internet Mail Extensions (S/MIME) to ensure secure communications with external parties that include the U.S. Department of Commerce, the Root Zone Maintainer, the Top Level Domain operators, and other entities that submit requests or will be involved in the process.

Both PGP and S/MIME use a well-known mathematical technique called Public Key Cryptography to establish secure communications. The digital signature will ensure the authenticity and integrity of the communication and the encryption will protect the confidentiality of the message. It will be extremely difficult for an adversary to impersonate the sender or compromise the message when the communication is digitally signed.

Where digital signatures are not available for authentication, it will be performed by an out-of-band telephone call when appropriate. Alternatively, the IANA ticketing system will be used to process change requests, and will have the capability to hold a unique identifier called "tokens" in the message as a simple method to confirm the authenticity of the message exchanged with the requestor to prevent an adversary from impersonating the requestor. Tokens will be used for verification of certain types of requests.

1.3.1.3 Information Systems Documentation

Documentation such as network diagrams, system configuration, IT asset inventory, system inventory, and IT policies and procedures will be developed and maintained by the ICANN IT department.

All proposed changes to the information systems will be reviewed, approved and recorded prior to execution in accordance with the change management process that is documented and implemented by the ICANN IT department. The change management process ensures that the risk and impact of the change will be properly assessed, the affected stakeholders will be notified, a backup plan exists in case the system change is unsuccessful, and the system changes will be tracked.

Examples of ICANN's information systems network diagram - REDACTED. CONFIDENTIAL.











1.3.2 Secure Systems Notification [M.8; C.3.2]

ICANN will develop a notification process to communicate planned/emergency maintenance periods, outages, new developments or any other change events that will potentially affect the operation of the IANA Functions.

The notifications of scheduled maintenance, system updates or any other significant changes to the information systems that will potentially affect the stakeholders will be performed as part of ICANN's change management process, managed by the ICANN IT department. The notifications for scheduled events will be sent out through a pre-defined channel.

For unexpected events, the notifications to the stakeholders will be handled as part of the disaster recovery plan or the business continuity plan. As part of the business continuity management process, ICANN will maintain an up-to-date list of stakeholders and periodically test the notification system as part of the contingency exercise, if necessary to confirm that it remains effective and reliable.

The notification method will vary depending on the situation and severity of the event. The notification method will include but is not limited to webpage, email, short message service (SMS), satellite phone, mobile phone, and landline.

1.3.2.1 Notification of Outages

ICANN will notify the COR immediately in case of outages or any type of events that will significantly impact the operation of the IANA Functions. The notification method will vary depending on the severity of the event.

1.3.3 Secure Data [M.8; C.3.3]

Regardless of whether the data is digital or not, all data related to the IANA Functions will be protected in accordance with the IANA Data Classification standard (See Appendix D)that defines how information asset is categorized, protected, handled, stored, and destroyed.

For databases, ICANN has been and will continue to use ACID (Atomicity, Consistency, Isolation, Durability) compliant databases to ensure the reliability of the data. ICANN will also continue to deploy integrity checkers for databases and other information systems as an additional measure to preserve the integrity and authenticity of the data.

ICANN has and will continue to use a monitoring system to collect operational intelligence and detect anomalies in the system logs to send out timely notices to the ICANN IT representative for further investigation or remediation to maximize the reliability of the information systems.

To preserve the availability of the data, the data on ICANN information systems will be periodically backed up, encrypted and archived in a secure location, so it will be only available to the designated ICANN IT personnel in case data recovery will be required. Online back-up data will be stored on a Storage Area Network (SAN) at multiple locations. The distance between the offsite and onsite storage is and will continue to be more than 2,500 miles apart, and this will allow a totally undisrupted operation of the IANA Functions.



Access to the data related to the IANA Functions will be restricted and only made available to authorized personnel who will be approved to perform the IANA Functions. A quarterly account review will be performed to ensure only authorized personnel have access to the data. Access to the network on which IANA Functions-related data resides will require a Virtual Private Network (VPN) connection with two-factor authentication. In addition, the system used to process the IANA request will require an additional authentication to login.

1.3.4 Security Plan [M.8; C.3.4; F4]

This section describes how the Security Plan is developed, executed and maintained.

1.3.4.1 Security Plan Management Process

ICANN has established and will continue to establish and maintain a Security Plan for the IANA Functions. The Security Plan is currently undergoing a major update to incorporate the best security practices.

As part of the update, the IANA Security Policy will become one of the key components in the Security Plan and will be written independently from the ICANN Security Policy, so the policies will be set to address the requirements described in the IANA Functions Contract and Section C.3. The lifecycle of the Security Plan will be maintained based on the process described in **Figure 1.3-5**.

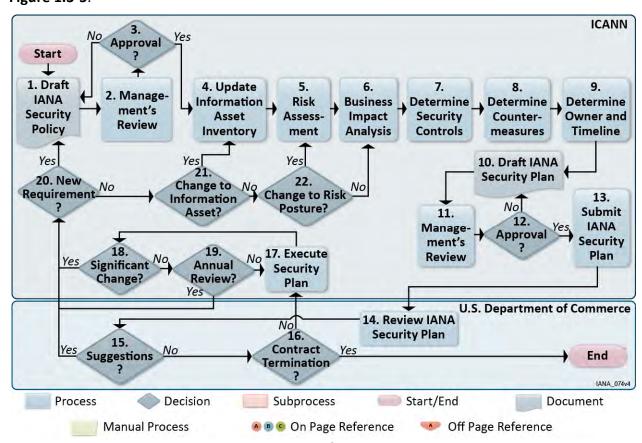


Figure 1.3-5. IANA Security Plan Management Process.



1.3.4.2 The Structure of the Security Plan

ICANN's Security Plan will comprise five main components to ensure the effectiveness of the implemented security controls and countermeasures.

The first component will be the security policy of the IANA Functions. The security policy will set ICANN's security goals for the IANA Functions that will be derived from the requirements of the IANA Contract and Section C.3. ICANN will use a well-known, comprehensive set of security controls such as ISO/IEC 27002, NIST-SP800-53 and Control Objectives for Information and related Technology (COBIT) as a supplemental guidance to determine the security controls.

The second component will be the current state of ICANN's security posture. This will include the list of information assets related to the IANA Functions, existing security controls and countermeasures, threat and vulnerability assessments, and a risk analysis. The techniques for the risk assessment will be based on IEC/ISO 31010. The third component will be the recommendation and requirements to meet the IANA Security Policy. ICANN management will evaluate and prioritize the risks and determine the actions to be taken. The actions will also be extracted from the third-party audit observation list.

The fourth component will be assigning accountability. Each action item will be assigned to a group or individual best suited to execute the action. This will be to clarify who will be responsible for what.

The final component will be the timeline for the action. Each action item and its status will be tracked and the status will be updated periodically. This will be especially significant as countermeasures that are expensive or complicated will require incremental deployment.

The updated Security Plan will be delivered within a period agreed upon with the COR.

1.3.4.3 Delivery of Plan

The Security Plan will be reviewed and updated at least annually, and whenever a significant change will be made to the IANA Functions. The Director of Security will perform the periodic document review and will keep the record of the review. Once the review is completed and the new revision of the security plan is approved by internal stakeholders, it will be delivered to the COR electronically by the Director of Security.

1.3.5 Director of Security [M.8; C.3.5; H.8]

ICANN will designate Tomofumi Okubo as the Director of Security under the IANA Functions Contract. In addition to his current responsibility as ICANN's Cryptographic Key Manager, Mr. Okubo will also take the responsibility of implementing and enforcing technical and physical security measures in conjunction with the ICANN Security department.

Mr. Okubo joined ICANN in February 2011. He is an information security expert specializing in key management security and has an in-depth understanding of standards such as ISO27000 series, ISO21188, ANSI X9.79, ISO31000, BS25999, and NIST Special publications. Prior to joining ICANN, he served as a security engineer for Verisign, one of the major certification authorities, and played an instrumental role in designing security for the Root DNSSEC design project. He also co-authored the "DNSSEC Policy & Practices Statement Framework," currently in draft



state in the IETF. He has extensive experience in managing third-party audits such as SAS70, SysTrust, WebTrust, PCI-DSS, and FISMA/C&A. Mr. Okubo holds a Certified Information Systems Security Professional (CISSP) in good standing.

1.3.5.1 Director of Security Role and Responsibilities

The Director of Security will be the single point of contact for all information security matters for the IANA Functions and will be responsible for the overall development, management and implementation of security programs for the IANA Functions.

The responsibility of the Director of Security will include but will not be limited to the following:

- Develop, enforce and maintain security related policies and procedures
- Manage and facilitate annual third-party security audits
- Develop and execute training programs
- Risk management
- Business continuity management
- Incident handling
- Coordinate with ICANN Security department

1.3.5.2 Personnel Changes

ICANN will notify the COR by sending out a written or electronic notice at least 15 working days prior to substituting the Director of Security role to obtain the consent from the CO. ICANN will ensure that the successor exceeds or at least will have equivalent qualifications as the predecessor.

1.3.5.3 Key Person

ICANN will assign Mr. Okubo as Director of Security that is one of the key personnel assigned to the contract.



1.4 Performance Metric Requirements [M.8; C.4]

ICANN has metric recording and reporting mechanisms in place to keep senior management and all ICANN constituencies well-informed about IANA Functions operations. This includes preparing a monthly report for NTIA with data on all requests opened, closed or in progress during that month and details of root zone requests that have been open for longer than 30 days; number of resource requests processing for that month; and any significant IANA Functions events that occurred during the month. The template used for these reports was defined in "Appendix B Monthly Performance Progress Report Tables" of the IANA Functions Contract awarded to ICANN in 2006.

ICANN has provided a report every month over the last three years for which records are available. ICANN has an excellent record at providing timely and accurate reports.

Additionally, ICANN has an excellent record for delivering the performance reporting it prepares each month for the IETF community on protocol parameter registrations and ICANN's reviews of Internet-Drafts (I-Ds). This report includes performance metrics showing ICANN's performance for key registries selected by the IETF-IANA Working Group (WG), as well as an analysis of any outlier requests. The metrics of performance for this report were developed in conjunction with the members of the IETF-IANA WG, IESG and the IETF Administrative Oversight Committee (IAOC). They have been incorporated in an SLA, which is an amendment to the March 2000 MoU between ICANN and the IETF and are updated annually.

More importantly, the report shows an exceptional record for meeting the SLA agreed with the IETF.

ICANN already publishes a set of charts (https://charts.icann.org/public/index-iana-main.html), which include statistics on the performance of the root zone change requests, the protocol parameter change requests and Internet Number Resource (INR) requests. These charts are updated monthly and publicly available. ICANN will update these performance metrics to match with those metrics by which the various stakeholder groups agreed, as discussed earlier in this response.

ICANN will collaborate with the various stakeholder groups to develop improvements to the current reporting requirements and will update all its reporting in line with the new contract requirements within six months of the award. ICANN will review its SLA with the IETF-IANA WG every year and meet the performance and reporting requirements in the SLA. This agreement is ratified by the IAOC.

These established relationships and processes—combined with ICANN's 13 years of experience providing the IANA Functions—make ICANN uniquely qualified to deliver the performance metric requirements of the SOW.

Understanding the Requirement

ICANN understands it must supply monthly reports on its execution of the IANA Functions and these reports must contain both statistical and narrative detail. ICANN has processes in place for producing monthly reports and an excellent record of providing accurate and timely reports. ICANN will use its established relationships to work closely with all the interested and affected



parties to update the reports, so they will provide maximum transparency on the execution of the IANA Functions and will meet the needs of each of the key stakeholder groups for the IANA Functions.

Further, ICANN understands it must work with NTIA, the Root Zone Maintainer and the interested and affected parties in collaboratively developing a Root Zone Management Dashboard. ICANN also understands that it must develop and publish reports for each of the functions in section C.2.8 of the RFP.

ICANN understands that it must collaborate with NTIA to develop and conduct an annual customer service survey that measures customer satisfaction with the performance standards for each of the IANA Functions. ICANN understands the survey must have a feedback section for each function and must be submitted to the COR within 30 days of conducting the survey.

ICANN understands that we will prepare and submit a final report on the performance of the IANA Functions to the CO and the COR within 30 days of the conclusion of the contract. ICANN understands the report must provide a description of the techniques, methods, software, and tools employed in delivering the IANA Functions.

ICANN understands NTIA will perform final inspection and acceptance of all deliverables and reports required in section C.4. ICANN also understands that while prior approval is required before publishing these reports, the COR shall not unreasonably withhold approval.

Technical Approach

ICANN describes our technical approach to meeting this requirement in the following sections.

1.4.1 Meetings [M.8; C.4.1]

ICANN has conducted regular telephonic and face-to-face meetings with NTIA in the past and will continue doing so. ICANN acknowledges that program reviews and sites visits will occur every year.

1.4.2 Monthly Performance Progress Report [M.8; C.4.2]

ICANN will prepare and submit a performance progress report every month (no later than 15 calendar days following the end of each month) that will contain statistical and narrative information on the performance of the IANA Functions. ICANN will ensure the reports describe major events, problems encountered and any projected significant changes. ICANN will propose improvements to the current reporting requirements based on the Key Performance Indicators (KPIs) we have developed as part of the Business Excellence work in which ICANN has engaged since 2009.

ICANN has a set of processes in place to produce monthly reports, as detailed in the following process description. ICANN will update these processes in line with the new reporting requirements. ICANN records all customer transactions in a ticketing database, which allows ICANN to provide reports based on any of the criteria recorded. This database allows ICANN to improve the reporting format over the length of the contract, as part of ICANN's Business Excellence work, and enables ICANN to make continuous, sustainable improvements.



The process descriptions below show how ICANN currently produces the monthly report it provides to NTIA. There is a top-level process for producing the report and two sub-processes for collecting data. Please see **Figures 1.4-4 through 1.4-7**.

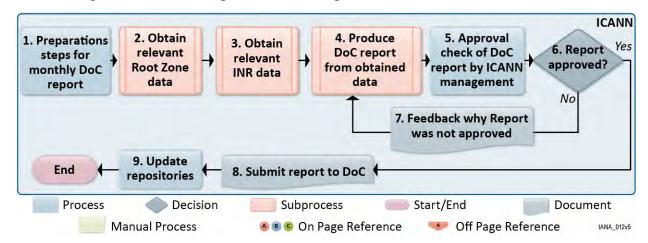


Figure 1.4-4. Generation of Monthly DoC Report

Figure 1.4-5. Process Description: Generation of Monthly DoC Report

Description Actor IANA Project Specialist (IPS) Documents • The requirements for the report to the DoC are specified in the IANA Contract. • Information about the generation of the report is in ICANN internal document repositories. Steps • Make sure the current version of the Stats Tool is installed. • Take a copy of the report template. • Create a directory for this month's report. 2 **OBTAIN RELEVANT ROOT ZONE DATA** Description Actor IPS OCUMENTS • All relevant data for the report are extracted from the ticketing system in the Obtain Relevant Root Zone Data sub process. 3 **OBTAIN RELEVANT INR (INTERNET NUMBER RESOURCE) DATA** Description CSub Process) All relevant data about assignments of numbers are extracted. Actor IPS Documents • All relevant INR data. Steps • All relevant data are extracted for the report from the ticketing system in the Obtain Relevant INR Data sub process. 4 **PRODUCE DOC REPORT FROM OBTAINED DATA** (Sub Process) The actual report is generated using the data extracted in the previous sub processes. Actor IPS	3	
Actor IANA Project Specialist (IPS) Documents • The requirements for the report to the DoC are specified in the IANA Contract. • Information about the generation of the report is in ICANN internal document repositories. Steps • Make sure the current version of the Stats Tool is installed. • Take a copy of the report template. • Create a directory for this month's report. 2 OBTAIN RELEVANT ROOT ZONE DATA Description (Sub Process) The Stats Tool is used to extract the relevant data from the ticketing system. Actor IPS Documents • Current Stats Tool • Report template Steps • All relevant data for the report are extracted from the ticketing system in the Obtain Relevant Root Zone Data sub process. 3 OBTAIN RELEVANT INR (INTERNET NUMBER RESOURCE) DATA Description (Sub Process) All relevant data about assignments of numbers are extracted. Actor IPS Documents Obtain relevant INR data. Steps • All relevant data are extracted for the report from the ticketing system in the Obtain Relevant INR Data sub process. 4 PRODUCE DOC REPORT FROM OBTAINED DATA Description (Sub Process) The actual report is generated using the data extracted in the previous sub processes.	1	Preparation Steps for Monthly Doc Report
Documents	Description	(Action) All necessary steps in preparation for the generation of the report are executed.**
Information about the generation of the report is in ICANN internal document repositories. Make sure the current version of the Stats Tool is installed. Take a copy of the report template. Create a directory for this month's report. OBTAIN RELEVANT ROOT ZONE DATA Description (Sub Process) The Stats Tool is used to extract the relevant data from the ticketing system. Actor IPS Documents Current Stats Tool Report template Steps All relevant data for the report are extracted from the ticketing system in the Obtain Relevant Root Zone Data sub process. 3 OBTAIN RELEVANT INR (INTERNET NUMBER RESOURCE) DATA Description (Sub Process) All relevant data about assignments of numbers are extracted. Actor IPS Documents Obtain relevant INR data. Steps • All relevant data are extracted for the report from the ticketing system in the Obtain Relevant INR Data sub process. 4 PRODUCE DOC REPORT FROM OBTAINED DATA (Sub Process) The actual report is generated using the data extracted in the previous sub processes.	Actor	IANA Project Specialist (IPS)
Steps • Make sure the current version of the Stats Tool is installed. • Take a copy of the report template. • Create a directory for this month's report. 2 OBTAIN RELEVANT ROOT ZONE DATA Description (Sub Process) The Stats Tool is used to extract the relevant data from the ticketing system. Actor IPS Documents • Current Stats Tool • Report template Steps • All relevant data for the report are extracted from the ticketing system in the Obtain Relevant Root Zone Data sub process. 3 OBTAIN RELEVANT INR (INTERNET NUMBER RESOURCE) DATA Description (Sub Process) All relevant data about assignments of numbers are extracted. Actor IPS Documents Obtain relevant INR data. Steps • All relevant data are extracted for the report from the ticketing system in the Obtain Relevant INR Data sub process. 4 PRODUCE DOC REPORT FROM OBTAINED DATA (Sub Process) The actual report is generated using the data extracted in the previous sub processes.	Documents	·
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Create a directory for this month's report. Cobtain Relevant Root Zone Data (Sub Process) The Stats Tool is used to extract the relevant data from the ticketing system. Actor IPS Documents Current Stats Tool Report template Steps All relevant data for the report are extracted from the ticketing system in the Obtain Relevant Root Zone Data sub process. Cobtain Relevant INR (Internet Number Resource) Data Description (Sub Process) All relevant data about assignments of numbers are extracted. Actor IPS Documents Obtain relevant INR data. Steps All relevant data are extracted for the report from the ticketing system in the Obtain Relevant INR Data sub process. 4 PRODUCE DOC REPORT FROM OBTAINED DATA (Sub Process) The actual report is generated using the data extracted in the previous sub processes.	Steps	
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Relevant Root Zone Data sub process. 3 OBTAIN RELEVANT INR (INTERNET NUMBER RESOURCE) DATA Description (Sub Process) All relevant data about assignments of numbers are extracted. Actor IPS Documents Obtain relevant INR data. Steps • All relevant data are extracted for the report from the ticketing system in the Obtain Relevant INR Data sub process. 4 PRODUCE DOC REPORT FROM OBTAINED DATA Description (Sub Process) The actual report is generated using the data extracted in the previous sub processes.		Report template
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Comparison Comparison Description Description IPS		Relevant Root Zone Data sub process.
Actor IPS Documents Obtain relevant INR data. Steps • All relevant data are extracted for the report from the ticketing system in the Obtain Relevant INR Data sub process. 4 PRODUCE DOC REPORT FROM OBTAINED DATA Description (Sub Process) The actual report is generated using the data extracted in the previous sub processes.	3	OBTAIN RELEVANT INR (INTERNET NUMBER RESOURCE) DATA
Documents Obtain relevant INR data. • All relevant data are extracted for the report from the ticketing system in the Obtain Relevant INR Data sub process. • PRODUCE DOC REPORT FROM OBTAINED DATA Description (Sub Process) The actual report is generated using the data extracted in the previous sub processes.	Description	(Sub Process) All relevant data about assignments of numbers are extracted.
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4 PRODUCE DOC REPORT FROM OBTAINED DATA Description (Sub Process) The actual report is generated using the data extracted in the previous sub processes.	Steps	
Description (Sub Process) The actual report is generated using the data extracted in the previous sub processes.		Relevant INR Data sub process.
processes.	4	PRODUCE DOC REPORT FROM OBTAINED DATA
Actor IPS	Description	
	Actor	IPS



	cur capability
Documents	 The format of the report is described in Appendix B of the IANA contract, as specified in http://www.ntia.doc.gov/files/ntia/publications/ianacontract_081406.pdf (page 29). Possible Feedback document, in which IANA Management describes why the previously generated report is not ready to be submitted to the DoC, yet.
Steps	 Generate the data and table section of the DoC report using the data provided in the previous two sub processes. Prepare the narrative section of the DoC report. Take into account possible remarks from ICANN Management about the previous draft of
	the report.
	Details of this are described in the Produce DoC report from obtained data sub process.
5	APPROVAL CHECK OF DOC REPORT BY ICANN MANAGEMENT
Description	(Action) ICANN Management evaluates the generated report.
Actor	ICANN Management
Documents	DoC report generated in step 4 of this process.
Steps	 The VP IANA and Technical Operations checks whether the report meets all necessary requirements. If the VP IANA and Technical Operations does not approve the report, a feedback document
C	(remarks on the document, email, etc.) will be generated to mend the deficiencies.
6 Description	REPORT APPROVED BY ICANN MANAGEMENT? (Decision) Report can be approved.
	IPS
Actor	
Documents	Possible feedback by ICANN Management, why report was not approved.
Steps	 YES, if the report generated was approved by IANA Management, then continue to step 8. NO, if the report was not approved by IANA Management, then continue to step 7.
7	FEEDBACK WHY REPORT WAS NOT APPROVED
Description	(Communication) Possible deficiencies about the report generated so far are specified.
Actor	ICANN management
Documents	N/A
Steps	ICANN Management identifies required changes.
8	SUBMIT REPORT TO DOC
Description	(Document) The document containing the report is sent to the DoC.
Actor	VP IANA of Technical Operations
Documents	The completed report
Steps	The approved report is sent to the DoC.
9	UPDATE REPOSITORIES
Description	(Action) Report repositories are updated.
Actor	IANA Project Specialist (IPS)
Documents	Approved PDF report from step 4
Steps	 Store the PDF and Microsoft® Word (.doc) file with the report in [URL internal to ICANN network]. Record the date on which the report was sent in [URL internal to ICANN network]. Update the "Deliver monthly reports on time to the DoC" chart in [URL internal to ICANN network].



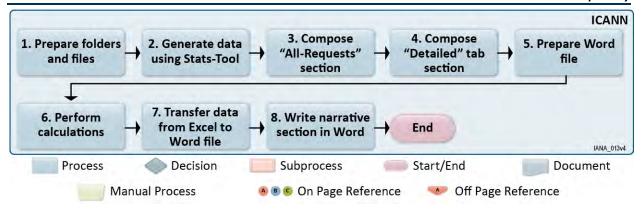


Figure 1.4-6. Obtain Relevant Root Zone Data Sub Process

Figure 1.4-7. Process Description: Obtain Relevant Root Zone Data Sub Process

1	Prepare Folders and Files
Description	(Action) A folder to hold all data for the report is created and the files for the report are prepared.
Actor	IPS
Documents	File with detailed instructions to be found in the list of attachments at [URL internal to ICANN network]
Steps	Create a new folder for the month for which the DoC report is to be prepared and send it with relevant templates.
2	GENERATE DATA USING "STATS-TOOL"
Description	(Action) The relevant data are extracted from the ticketing system.
Actor	IPS
Documents	N/A
Steps	Run the "Stats-Tool" to extract the relevant data from the ticketing system.
3	COMPOSE "ALL-REQUESTS" TAB SECTION
Description	(Action) The data are processed.
Actor	IPS
Documents	Output from step 2
Steps	Copy data into the "all requests" spreadsheet tab.
4	COMPOSE "DETAILED" TAB SECTION
Description	(Action) The data are processed.
Actor	IPS
Documents	Output from step 2
Steps	Copy data into the "detailed" spreadsheet tab.
5	Prepare Word File
Description	(Action) The Word file is prepared.
Actor	IPS
Documents	Word template Data from step #2



voiume i recinic	ar capability
	Data from steps #3 and #4
Steps	Verify dates are correct.
6	Perform Calculations
Description	(Action) Additional calculations are performed for the DoC report
Actor	IPS
Documents	All files and data used and computed in step #5
Steps	 Calculate the number of RZ changes sent to the DoC and Verisign. Calculate the number of RZ changes "not authorized by the DoC" or "not completed by Verisign" at the end of the period. Calculate the number of RZ requests sorted by "Types of Completed Root management Requests." Calculate the total number of requests with multiple changes. Calculate the total number of processing days for all requests that were administratively closed or withdrawn. Calculate the total number of processing days for all requests that were completed. Calculate the total number of processing days for all requests that are currently still being processed. Calculate the number of routine change requests that were delayed due to waiting on AC/TC confirmations, Technical checks and IANA Review.
7	TRANSFER DATA FROM EXCEL TO WORD FILE
Description	(Action) All the data computed and calculated in step 6 is entered into the template.
Actor	IPS
Documents	All files and data used and computed in steps 5 and 6
Steps	Update the information in all Root Management sections.
8	Write Narrative Section in Word File
Description	(Action) The narrative section of the report is written.
Actor	IPS
Documents	All files and documents from steps 5 and 6
Steps	 List all delegation and redelegation requests that were open at the end of the month. Include a brief description of the status of the request at the end of the month.

This sub process is called from the process "Generate monthly DoC report." This sub process deals with the semi-automatic extraction of the relevant INR data from the Ticketing System Monthly Report e-mail, which has to be included into the DoC report. See **Figure 1.4-8**.



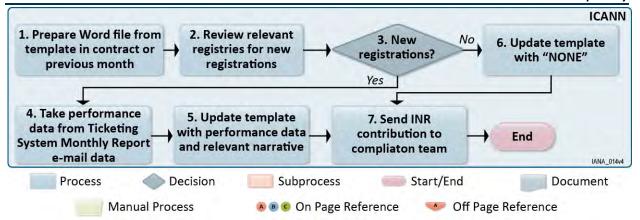


Figure 1.4-8. Obtain Relevant Internet Number Resource Data Sub Process

Figure 1.4-9. Process Description: Obtain Relevant Internet Number Resource Data Sub Process

1	Prepare Word File from Template in Contract or Previous Month
Description	(Action) A template for the INR section of the monthly DoC report is prepared.
Actor	IPS
Documents	• The template is documented on page 32 of the 2006 IANA Functions Contract and can be extracted from: http://www.ntia.doc.gov/files/ntia/publications/ianacontract_081406.pdf.
Steps	Prepare a blank template.Proceed to step 2.
2	REVIEW RELEVANT REGISTRIES FOR NEW REGISTRATIONS
Description	(Action) The relevant registries are reviewed for registration completed in the last calendar month.
Actor	IPS
Documents	 http://www.iana.org/assignments/ipv4-address-space http://www.iana.org/assignments/iana-ipv4-special-registry http://www.iana.org/assignments/multicast-addresses http://www.iana.org/assignments/iana-ipv6-special-registry http://www.iana.org/assignments/ipv6-unicast-address-assignments http://www.iana.org/assignments/ipv6-multicast-addresses http://www.iana.org/assignments/as-numbers
Steps	 Look in each registry for registrations completed in the last calendar month. Identify registrations in IPv4 Address Space Registry, Multicast Addresses Registry, IPv6 Unicast Address Assignments Registry, IPv6 Multicast Addresses Registry, and AS Numbers Registry for which performance data must be reported. Registrations in IANA IPv4 Special Registry and IANA IPv6 Special Registry are reported as notes without performance data, as are new footnotes and other registrations in the IPv4 Address Space Registry, Multicast Addresses Registry, IPv6 Unicast Address Assignments Registry, IPv6 Multicast Addresses Registry, and AS Numbers Registry.
3	DID REGISTRIES HAVE NEW REGISTRATIONS?
Description	(Decision) It is determined whether performance data must be reported.
Actor	IPS
Documents	Input from action 2



	cur cupusinty
Steps	If there are new registrations proceed to step 4.
	Otherwise proceed to step 6.
4	TAKE PERFORMANCE DATA FROM TICKETING SYSTEM MONTHLY REPORT E-MAIL DATA
Description	(Action) The data from the monthly report is consulted for the calculated performance data.
Actor	IPS
Documents	Monthly ticketing system statistics report
Steps	 For each registration, take the submitted, completed and duration numbers from the report. Proceed to step 5.
5	UPDATE TEMPLATE WITH PERFORMANCE DATA AND RELEVANT NARRATIVE
Description	(Action) The template is updated with the data collected in step 4.
Actor	IPS
Documents	Input from step 4
Steps	 Input the submitted, completed and duration numbers collected in step 4. Where a registration took a long time, was the result of an IETF action following a document approval or a resource is approaching fully allocated, add an appropriate explanatory note below the registration details. Proceed to step 7.
6	UPDATE TEMPLATE WITH "NONE"
Description	(Action) The template is updated to show that no registrations took place in the previous month.
Actor	IPS
Documents	Input from step 2
Steps	 Update each table with NONE in the "Received" column. Save file. Proceed to step 7.
7	SEND INR CONTRIBUTION TO COMPILATION TEAM
Description	(Action) The completed contribution is submitted to the compilation team for inclusion into the draft report.
Actor	IPS
Documents	Input from step 5 or 6
Steps	E-mail draft contribution to the compilation team.

This sub process is called from the process "Generate monthly DoC report." This sub process deals with generating the DoC report once the relevant data have been generated in the respective sub processes. See **Figure 1.4-10 and Figure 1-4.11.**

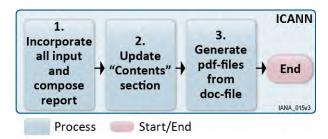


Figure 1.4-10. Produce DoC Report from Obtained Data Sub Process



Figure 1.4-11. Process Description: Produce DoC Report from Obtained Data Sub Process

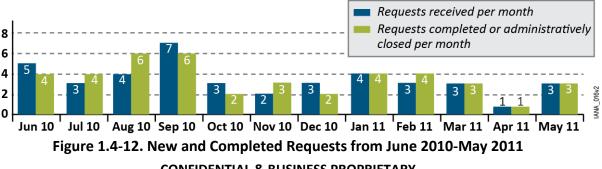
1	INCORPORATE ALL INPUTS AND COMPOSE REPORT
Description	(Action) The DoC report is assembled from the data generated in the previous sub processes.
Actor	IPS
Documents	All results generated in the sub processes:
	Obtain relevant Root Zone data.
	Obtain relevant INR data.
Steps	• Take the file generated in the sub process "Obtain relevant Root Zone data" and amend it with the information provided from the sub process "Obtain relevant INR data."
2	Update "Contents" Section
Description	(Action) The Contents section of the report is generated.
Actor	IPS
Documents	Doc-file from step 1
Steps	Update the Contents section using the automatic function in Word.
3	GENERATE PDF FILE FROM WORD FILE
Description	(Action) The PDF file to be sent to the DoC is generated from the Word file.
Actor	IPS
Documents	Doc-file from step 2.
Steps	Generate a PDF of the report.

In addition to the monthly report described above, ICANN will fully document its process for producing reports on its performance at assigning protocol parameters, including .ARPA within six months. ICANN will collaborate with NTIA in developing the updated report format.

Root Zone Management Dashboard (C.4.4) 1.4.3

Figures 1.4-12 through 1.4-15 are provided as examples of the types and formats of root zone change request data that ICANN will present to open discussions with NTIA, The Root Zone Maintainer and all the root zone stakeholders in developing a dashboard. Each chart illustrates a different element that affects the workflow of processing root zone requests and provides insight into the range of requests ICANN processes on a month-to-month basis. ICANN will complete this within nine months of award.

Using a rolling 12-month chart (Figure 1.4-12), the count of new requests and completed requests will be the basic metrics for demand and performance. As an example, the chart below represents the new requests and completed requests between the months of June 2010 and May 2011.





For the requests closed within a given month (Figure 1.4-13), the average days to close the request (including administrative closings) will demonstrate another aspect of performance and will answer a frequent question ICANN receives from the TLD community. Individual TLDs and other interested and affected parties frequently ask about the average time for processing different types of root zone change requests. Publishing a chart like "Average number of days to complete changes" by root zone request type will provide insight to help TLDs as they plan for various changes in the management of their TLD.

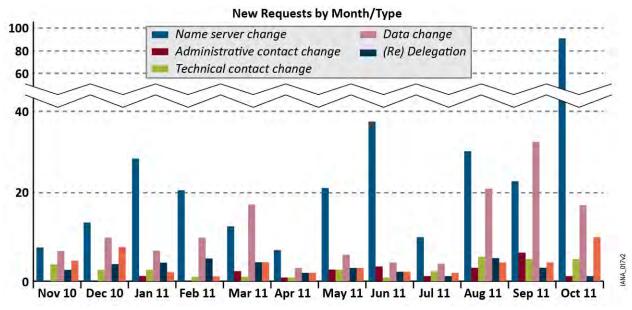


Figure 1.4-13. Average No. Days to Close Requests Per Month

Specific types of requested processing times (Figure 1.4.-14) will be reviewed for trends.

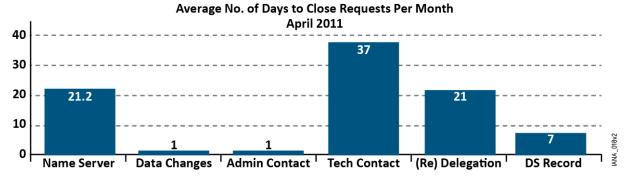


Figure 1.4-14. Average Number of Days to Complete Changes by Type, April 2011



A rolling report on the average total time for completing nameserver change requests (Figure 1.4-15) is also a frequent request from TLD operators and other interested and affected parties.

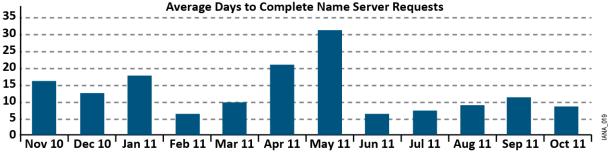
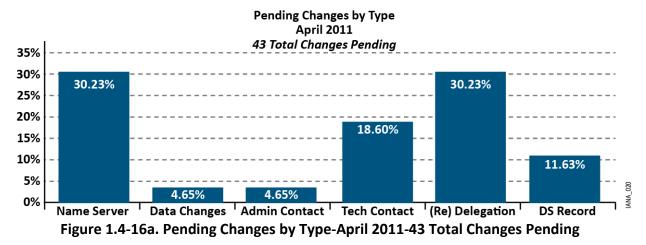


Figure 1.4-15. Average Days to Complete Name Server Requests

A review of the requests still pending at the close of the month by type (Figure 1.4-16a) will give a snapshot of the remaining workload.



Another request that ICANN has received frequently in administering the IANA Functions is to announce when a delegation or redelegation request has been submitted to ICANN. ICANN will propose to introduce a monthly chart that lists new requests that have been lodged for a delegation or relegation. The only information that will be included in the announcement will be the domain name of the TLD for which the request was received and the date on which the request was received. The purpose of such a monthly report will be to provide transparency to

the broader community of interested parties as to the beginning of an evaluation process for a delegation or relegation. ICANN is committed to maintaining the confidentiality of the details of the request and the notification via the monthly report will not violate that commitment to confidentiality. See **Figure 1.4-16b**.

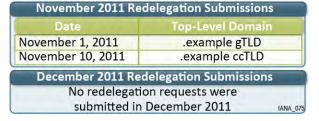


Figure 1.4-16b. Redelegation Submissions

ICANN has frequently been asked for a chart that documents end-to-end processing times for each delegation and redelegation request. ICANN will offer the following chart as a starting



point for discussion with NTIA and the Root Zone Maintainer when meeting with them to discuss how to represent this information. The resulting chart will be published monthly and will provide transparency into the time taken to process each delegation and redelegation request. Since ICANN is aware of the need to respect the confidentiality of the requester during the process, the chart below only records the requests that have successfully completed the delegation and redelegation process. In the course of providing the IANA Functions for more than 13 years, ICANN has received requests to provide a breakdown of the end-to-end processing of a delegation or redelegation request, and within this proposal is a first draft of a chart that responds to requests received over the years. See **Figure 1.4-17**.

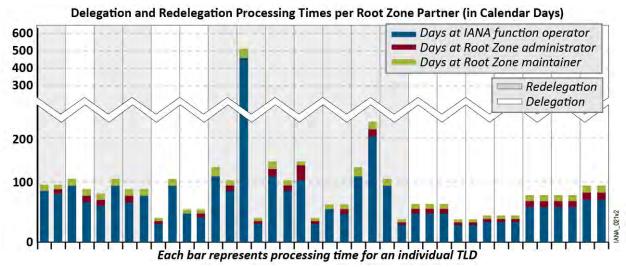


Figure 1.4-17. Delegation and Redelegation Processing Times per Root Zone Partner in Calendar Days

These charts will be a starting point for discussions with the relevant stakeholders and for a dashboard that ICANN will take to the community for discussion and feedback. The goal of a dashboard will be to provide information that gives value to the community and transparency into the implementation of the IANA Functions.

At the three annual ICANN Public Meetings, ICANN staff members will meet with key IANA Functions stakeholder groups and present information regarding IANA Functions performance, as well as topics of interest to those groups. In the past this has included updates on root zone automation, IDN Fast—Track delegations and changes in staffing or management. ICANN also will meet community members at various regional events like the Council of European National Top Level Domain Registration (CENTR), Africa Top Level Domains (AFTLD), and LACTLD meetings.

ICANN will meet regularly with NTIA to discuss outstanding issues and areas of concern. Two meetings have taken place at ICANN offices in Marina del Rey, California, while the remainder have been hosted by NTIA in Washington, DC, or at various stakeholder meetings that NTIA and ICANN staff both attend. Phone calls will be regularly scheduled to discuss deliverables and progress on outstanding work items, as well as to share updates on current Internet issues.



Customer service is and will continue to be a key focus for ICANN's management of the IANA Functions. ICANN has introduced the maximum level of transparency allowed by NTIA under the current contract in order to meet significant transparency and openness requirements customers have. ICANN is well aware that increasing transparency will be a key aspect of retaining and enhancing the trust all interested and affected parties have in the Root Zone Management (RZM) system.

Where helpful, ICANN will publish documented procedures and will provide pointers to the rules regarding specific registries and provided one-on-one assistance to anyone with questions or concerns for how their request will be handled. Improvements over the past five years in these areas have led to statements of approval for ICANN's management of the IANA Functions from key stakeholder groups, such as the Country Code Names Supporting Organization (ccNSO), IESG and NRO. ICANN will collaborate with NTIA to develop a customer satisfaction survey as outlined in this Solicitation to measure the level of satisfaction with ICANN's management of the IANA Functions.

RZM Reporting

As part of the collaborative process for developing reports, ICANN recognizes that a collaborative report will need to be developed with NTIA and the Root Zone Maintainer. Key data to report will include uptime for the RZM system. In doing this, the report will need to document the uptime for the customer interface provided by ICANN, the NTIA interface provided by ICANN and uptime for the systems that communicate with the Root Zone Maintainer, currently Verisign.

As part of the collaborative process for developing reports, ICANN will report on the percentage of requests submitted via the RZM system and to break this down by request categories:

- Changes to nameservers
- Changes to DNSSEC related records
- Changes to contact data
- Redelegations

ICANN will report on the relative time taken by request categories submitted via RZM as opposed to e-mailed templates.

1.4.4 Performance Standards Report [M.8; C.4.4]

ICANN will develop and publish reports for each of the IANA Functions on a monthly basis. ICANN will make sure that reports are published no later than 15 days after the close of the previous month.

ICANN will collaborate with the interested and affected parties for each of the functions in developing those reports and will use the examples cited previously and in the following sections to begin discussions with the stakeholder groups for each of the IANA Functions. Once ICANN and the relevant parties will have an initial agreement on the design of the reports, we will begin publishing reports for each function on *ICANN's IANA website*.



ICANN regularly reviews our processes and products as part of ICANN's Business Excellence work, which is used to deliver sustainable, continuous improvement. As such, ICANN will improve and update reports in response to requests from and in discussion with the relevant interested and affected parties and subject to NTIA approval. ICANN will regularly work with NTIA, the Root Zone Maintainer and all the interested and affected parties to review and update the reports ICANN produces, so they will remain relevant and useful to NTIA and the stakeholders for each of the IANA Functions.

DNSSEC Performance Reporting

ICANN currently cooperates with Verisign to provide a monthly report to NTIA on its execution of the Root DNSSEC Key Signing Key management function. ICANN will use the current report format (See Appendix D) as a basis from which discussions can proceed. It will cover the following factors:

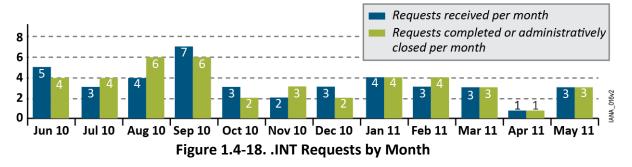
- The date of the next scheduled Key Signing Ceremony
- The status of the last Key Signing Ceremony
- A summary of DS record changes in the Root DNS Zone in the previous month
- Exceptional and unscheduled events
- Statistics for Trust Anchor retrieval
- Problems reported
- DPS changes
- Other documentation changes

ICANN will augment the report with details of certification by external, independent auditors and the audit material publication schedule, if discussions prove that this will be useful.

Other Services (.INT) Performance Reporting

The following charts are provided as examples of the types and formats of .INT zone change request data from which ICANN will open discussions with NTIA to develop a dashboard. Each chart illustrates a different element that affects the workflow of processing .INT requests and provides insight into the range of requests ICANN processes on a month-to-month basis.

Using a rolling 12-month chart, the count of new requests and completed requests will be the basic metrics for demand and performance. As an example, **Figure 1.4-18** represents the new requests and completed requests between the months of June 2010 and May 2011. **Figure 1.4-19** breaks the requests out by type.





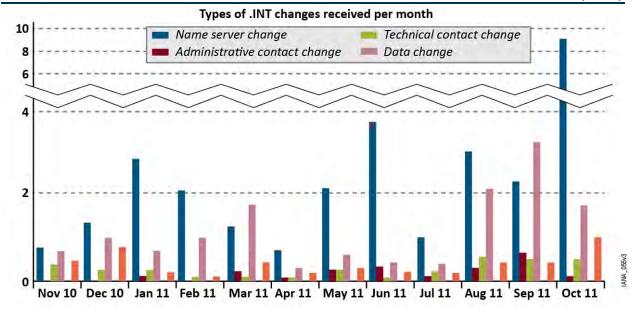


Figure 1.4-19. Average No. Days to Close .INT Requests Per Month

For the requests closed within a given month, the average days to close the request (including administrative closings) will demonstrate another aspect of performance, as seen in **Figure 1.4-20**. Individual registrants and other interested and affected parties frequently ask about the average time for processing .INT change requests. Publishing a chart like "Average Number of Days to Complete Changes" by .INT request type would provide insight to help registrants as they plan for various changes in the management of their domain.

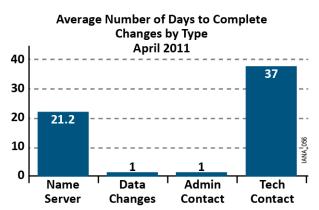
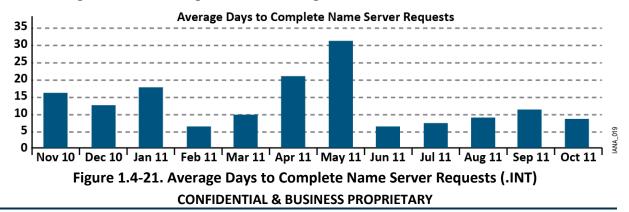


Figure 1.4-20. Average Number of Days to Complete Changes by Type, April 2011

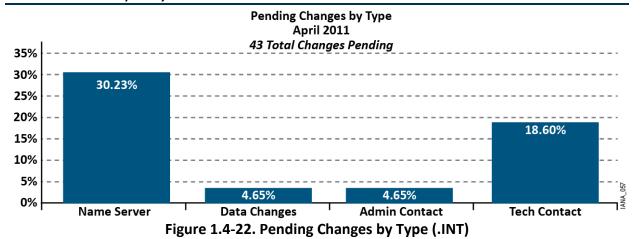
Specific types of request processing times will be reviewed for trends.

A review of the requests still pending at the close of the month, by type, will give a snapshot of the remaining workload. See **Figure 1.4-21** and **Figure 1.4-22**.



Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.





These charts will be included in a proposed dashboard that ICANN will take to NTIA for discussion and feedback. The goal of a dashboard will be to provide information that provides value to the community and to allow transparency into the implementation of the IANA Functions.

Internet Number Resources

ICANN will regularly communicate the status of the various INR registries to all interested and affected parties. The primary source of this data will come from the registries themselves, which give a time-based report of which resources are allocated, reserved and available for allocation along with the dates on which changes were made. These data are widely used by the RIRs, Internet researchers and others to develop analyses that look forward as well as reporting on historical IANA Functions actions.

In order to help interested and affected parties understand the state of each INR, ICANN will publish a rolling chart showing the number of allocation events per resource type over the last 12 months. See **Figure 1.4-23**.

Additionally, ICANN will publish a rolling chart showing the number of resource blocks allocated per resource type in each of the last 12 months. See **Figure 1.4-24**.

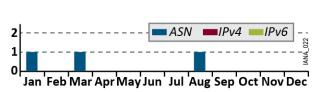


Figure 1.4-23. Number of Allocation Events per INR per Month (Last 12 Months)

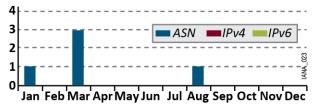


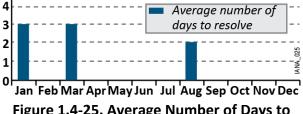
Figure 1.4-24. Number of Resource Blocks
Allocated per Resource Type per Month (Last
12 Months)

ICANN also will publish charts showing the timeliness with which it has handled resource requests from the RIRs, if the RIRs are willing to make those data public.



Customer Service Complaint Resolution Process

ICANN is committed to publishing data on its performance under the Customer Service Complaint Resolution Process (CSCRP). However, ICANN respects the fact that parties using the CSCRP will not want their identities published. Consequently, ICANN will publish charts showing the number of reports made under the CSCRP each month and the time taken to resolve each report. If, after appropriate consultation as described in this offer, it is clear that interested and affected parties are willing, ICANN will publish a chart showing which reports made under the CSCRP were substantiated. See **Figures 1.4-25 and 1.4-26**.



Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Figure 1.4-25. Average Number of Days to Resolve CSCRP Reports per Month (Last 12 Months)

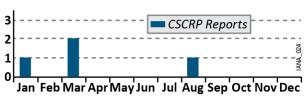


Figure 1.4-26. Number of CSCRP Reports per Month (Last 12 Months)

1.4.5 Customer Service Survey [M.8; C.4.5]

ICANN is keen to gather feedback from users of the various IANA Functions on the level of satisfaction they have with ICANN's delivery of services. To this end, ICANN developed and conducted a customer satisfaction survey in April and May 2012. This survey was designed to gather customer views on the importance and satisfaction of key aspects of IANA Functions delivery:

- Quality of published process documentation
- Clarity of registration process
- Accuracy of IANA registries
- Speed with which requests are handled
- Courtesy provided by ICANN

As the following results show, ICANN's customers are overwhelmingly happy with the way ICANN is delivering the IANA Functions and have provided guidance on where to address improvement efforts. ICANN will use the input from this survey to improve its delivery of the IANA Functions over the coming year. See **Figures 1.4-27 through 1.4-30**.



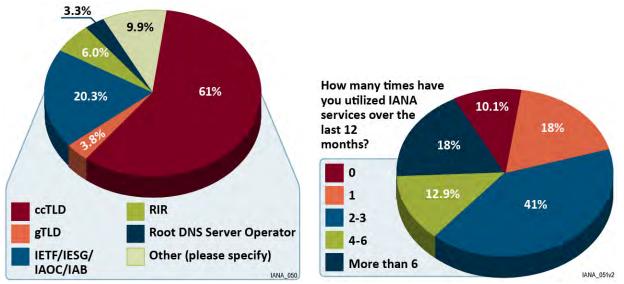


Figure 1.4-27. Response Percent

Figure 1.4-28. Utilization of IANA Services

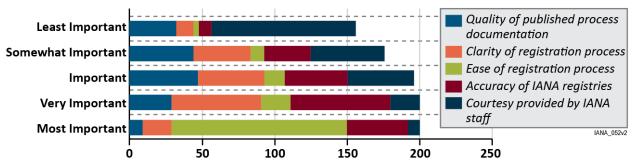


Figure 1.4-29. Customer Service Element Importance Ratings

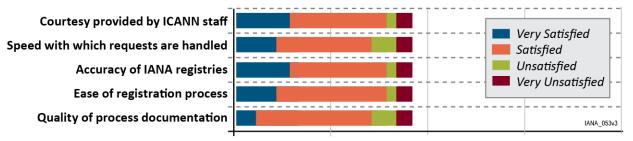


Figure 1.4-30. Customer Service Element Satisfaction Ratings

ICANN will develop a survey methodology, which guarantees that all responses are anonymous while still allowing respondents' group affiliations to be tracked, so a valid statistical assessment of responses can be developed.

ICANN will collaborate with NTIA in designing each survey and provide a report of the results to NTIA within 30 days of the survey closing and publish a summary analysis of the results on the IANA website once it receives approval to do so. ICANN will consult with NTIA about expanding on this initial customer satisfaction survey by augmenting it with function specific questions.



ICANN will conduct, by mutual agreement with NTIA, a second annual customer service survey in 2013.

1.4.6 Final Report [M.8; C.4.6]

ICANN will prepare and submit a final report on the performance of the IANA Functions that documents standard operating procedures, including a description of the techniques, methods, software and tools employed in the performance of the IANA Functions at the conclusion of the contract. The report will be delivered to the CO and COR.

ICANN will include the following components in the report:

- **Techniques and methods** ICANN will provide the current process description for each process, including a flowchart and a step-by-step guide identifying each action or decision.
- **Software and Tools** ICANN will provide details of all tools used in the delivery of the IANA Functions along with system configuration details.

1.4.7 Inspection and Acceptance [M.8; C.4.7]

ICANN acknowledges that the COR will perform a final inspection and acceptance of all deliverables and reports articulated in Section C.4 and that prior to publication/posting of reports, ICANN will obtain approval from the COR, but the COR shall not unreasonably withhold approval.



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1.5 Audit Requirements [M.8; C.5]

ICANN acknowledges audits as an effective method to assure management and external stakeholders that a particular service is capable of operating without material error, faults or failures. Audits will also significantly improve our transparency and accountability, which will help ICANN to earn trust from internal and external stakeholders.

The Root DNSSEC Operation that is part of the IANA Contract is currently audited by a third-party auditor under the Trust Services Criteria and has successfully obtained a SysTrust certification. ICANN will use its experience and expertise gained from the Root DNSSEC operations to prepare for the third-party security audit for the IANA Functions.

Understanding the Requirement

ICANN recognizes that the requirement in this section is twofold. One is to generate an audit report regarding IANA Functions that is submitted to the COR monthly and annually. The other is to receive an annual security audit that covers the entire IANA Functions from an independent, third-party auditor and also submit the report to the COR.

Technical Approach

For the annual security audit, a well-known, comprehensive set of security controls such as ISO/IEC 27002, NIST-SP800-53 and Control Objectives for Information and related Technology (COBIT) will be used as supplemental guidance to determine the security controls and countermeasures for the IANA Functions. In collaboration with the COR, the Director of Security will select an audit framework that best suits the IANA Functions.

In collaboration with the COR, ICANN will design, generate, and deliver a monthly audit report that covers the requirements. In addition, ICANN will also deliver to the COR an annual audit report that summarizes the IANA Functions activities throughout the year.

1.5.1 Audit Data [M.8; C.5.1; F.4]

The types of events that will be recorded for the annual security audit include at a minimum the following:

- Specific auditing events related to Root Zone Management
 - Change requests
 - Reviews, approvals and rejections of requests
 - Supporting documentation for the requests
- Specific auditing events related to KSK key lifecycle management
 - Key generation, backup, storage, recovery, archival, and destruction
 - Exporting of public key components
- KSK signing and management events
 - Key activation
 - Receipt and validation of public key material (i.e., from the ZSK holder)
 - Successful or unsuccessful signing requests
- Security related events
 - Assignment and revocation of credentials
 - Successful and unsuccessful system access attempts



- Key and security system actions performed by trusted personnel
- Security sensitive files or records read, written or deleted
- Security profile changes
- System crashes, hardware failures and other anomalies
- Facility visitor entry and exit
- System changes and maintenance/system updates
- Incident response handling

Log entries

- Date and time of entry
- Identity of the entity making the journal entry
- Type of entry

Audit logs will be reviewed whenever an anomaly is detected or at least annually during the third-party audit. Audit logs will be protected with an audit log handling procedure that includes mechanisms to protect the log files from unauthorized viewing, modification, deletion, or other tampering. Only authorized personnel will be able to obtain direct access to the audit information. Details regarding audit data handling and audit will be in IANA Audit and Accountability policies.

1.5.1.1 Retain Records

All audit data will be retained on-site for at least one year after creation and then archived for at least 10 years. The records will be retained in accordance with clause 52.215-2 of the RFP.

1.5.1.2 Delivery of Audit Record

ICANN will ensure that all audit data will be available for the CO and COR within a reasonable timeframe upon request. The audit data is considered confidential, thus it will be sent through encrypted channels.

1.5.2 Root Zone Management Audit Data [M.8; C.5.2; F.4]

ICANN will produce a monthly audit report on the performance of the administrative functions associated with Root Zone Management, which will include the following details:

- List of each root zone file and root zone "WHOIS" database change request and the relevant policy under which the change was made
- List of all rejected requests and the relevant policy under which the change request was rejected

The base report will be produced automatically through a dedicated process using data from ICANN's ticketing system, which will maintain status on all active and closed requests. The automated report will be reviewed by ICANN to add specific comments relating to details that are not automatically generated. The report will be reviewed by the IANA Functions Program Manager before transmittal.

Once inspected and consented by the COR in accordance with C.5.4, the report will be posted on the IANA website at www.iana.org.



1.5.2.1 Deliverable

ICANN commits to delivering the report from the first month of the contract period (i.e., for the calendar month October 2012), which will meet and exceed the RFP requirement that the reporting commence no later than nine months after the date of contract award. Reports will be tendered to the COR no later than 15 calendar days following the end of each reporting month.

1.5.3 External Auditor [M.8; C.5.3]

ICANN's annual compliance audits will be performed by a public, independent accounting firm or practitioner that is accredited by the American Institute of Certified Public Accountants (AICPA), which requires the possession of certain skill sets, quality assurance measures such as peer review, competency testing, standards with respect to proper assignment of staff to engagements, and requirements for continuing professional education.

The auditors must demonstrate proficiency in the following:

- Domain Name System
- Public Key Infrastructure technology
- Information security tools and techniques
- Security auditing
- Third-party attestation function

The Root DNSSEC Operations will undergo a SysTrust audit, as it currently does, and generate an annual SysTrust audit report that will be delivered to the COR. The audit report will be made public at the point on issuance. ICANN will work closely with the independent accounting firm or practitioner to determine the audit framework that best suits the IANA Functions. This initial audit preparation will take place five to eight months prior to the actual audit. The preparation will involve scoping, pre-assessment and cost determination.

ICANN will work with third-party auditors to ensure that all security related requirements described in C.3 are covered by the annual third-party audit.

1.5.4 Inspection and Acceptance [M.8; C.5.4]

ICANN will submit the audit related deliverables and reports within a reasonable timeframe in collaboration with the COR.



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1.6 Conflict of Interest Requirements [L.6; M.8; C.6; H.9]

ICANN will continue to employ a multi-faceted approach in dealing with conflicts of interest and overall ethical conduct. We are dedicated to attaining the highest ethical standards and transparent conflicts of interest rules to ensure the legitimacy and sustainability of the multistakeholder model and to ensure that our conduct in furtherance of our activities and contractual obligations is beyond reproach. Indeed, ICANN has been in the process of enhancing, and will continue to enhance and improve on our conflicts of interest and ethics policies and practices to ensure compliance with all applicable laws, rules and regulations as well as best practices.

ICANN does and will have a conflict of interest policy that will apply to all employees and subcontractors. ICANN does and will have a separate conflict of interest policy for Board members. Both policies can be found in **Appendix E**. In addition to these policies, there are also related policies, practices and procedures that ICANN will utilize and enforce (i.e., the Code of Conduct and Expected Standards of Behavior for all ICANN employees, directors, subcontractors, and community members, and the Corporate Governance Guidelines). ICANN's Conflict of Interest Officer (see section 1.62 for more information) will be responsible for the distribution and enforcement of the conflict of interest policies and ensuring that all parties submit a proper conflict of interest (COI) certification disclosure form (Certification). These Certifications can be found in **Appendix E**.

With respect to employees and subcontractors ICANN will require that all employees and subcontractors complete a COI Certification. After collecting all Certifications, ICANN will conscientiously review all identified actual or potential conflicts of interest and will take all necessary steps to ensure that any actual or potential conflict has either been mitigated or eliminated.

As for the directors (for purposes of this proposal, "directors" will include all voting directors, as well as non-voting liaisons to our Board as they are all held to the same conflict of interest disclosure requirements and enforcement provisions) ICANN has, and will continue to have, a comprehensive and hierarchical strategy for identifying and addressing any and all actual or potential conflicts of interest. Such strategy does and will likely lead to many different approaches in addressing conflicts, including establishing ethical walls with regards to particular issues and even establishing committees of only non-conflicted Board members with regard to certain topics. An example of this is the creation of the Board's New gTLD Program Committee that consists of only those directors who are either not conflicted or have fully mitigated any actual or potential conflict of interest as it relates to ICANN's New gTLD Program. The New gTLD Program Committee is delegated with the full authority of the Board to make decisions in relation to the New gTLD Program. (See **Appendix E** for a copy of the New gTLD Program Committee Charter.)

Understanding the Requirement

ICANN recognizes the importance of this requirement and understands what is required for complying with this section of the RFP. We recognize that we must have policies, practices and procedures in place for informing employees, directors and subcontractors about our conflicts



of interest policies; for enforcing those policies; and for taking all steps necessary to avoid, eliminate or fully mitigate any actual or potential conflict.

The Conflict of Interest (COI) Officer will be responsible for ensuring that ICANN is in compliance with all of the requirements set forth in Section C.6 of the RFP. See below for specific details on how we will satisfy each of the requirements.

Technical Approach

ICANN describes our technical approach to meeting this requirement in the following sections.

1.6.1 Managing Conflicts [M.8; C.6.1]

1.6.1.1 Measures of Avoid Compromising Contract Performance

ICANN does and will take measures to avoid any activity or situation that could compromise, or give the appearance of compromising, the impartial and objective performance of the contract. This is done through the enforcement of the various policies, practices and procedures that ICANN has in place and that ICANN will develop. It is important to note that ICANN is continually improving and enhancing our conflict of interest policy, and related policies, practices and procedures, including the enforcement of those policies and procedures, to ensure that ICANN is following and will continue to follow best practices.

The first step in avoiding any activity or situation that could compromise, or give the appearance of compromising, the impartial and objective performance of the contract is to identify such activity or situation. In other words, the first step is to identify any actual or potential conflict of interest. In addition to the factors set forth in response to the Organizational Conflict of Interest section below, identification of conflicts of interest will be done in the following manner:

- (i) Distributing the relevant COI policy to employees, directors and subcontractors.
- (ii) Requiring that employees, directors and subcontractors acknowledge receipt, review and compliance with the relevant COI policy.
- (iii) Distributing the Certification forms and requiring that the employees, directors and subcontractors complete and return the completed Certification forms to the COI Officer.

If a conflict of interest is identified, the second step is to determine what, if anything, can be done to mitigate or avoid such activity or situation. This will be done for staff and subcontractors in the following manner:

- (i) The COI Officer, in conjunction with other relevant staff that could include the Office of General Counsel or other executive staff, will review the completed Certification Disclosure forms for the identified actual or potential conflicts that must be dealt with.
- (ii) The COI officer will then determine a process for dealing with the identified conflict(s) of interest and communicate that process to the affected party.
- (iii) ICANN and the conflicted party will then discuss the process identified and develop the mechanism whereby the process can be implemented.



For the Board, the COI Officer, in conjunction with the General Counsel and Secretary, will ensure that the following process will be followed:

- (i) ICANN's Board Governance Committee is and will continue to be tasked with reviewing the Board members' statements of interest, certifications and disclosures ("Board Certification Forms").
- (ii) The Board Governance Committee will then determine if there are any actual or potential conflicts that are so pervasive that the Board member should not continue to serve as a Board member. This will be done by discussing the actual issues on a case-by-case basis.
- (iii) If deemed appropriate, the Board Governance Committee will escalate the matter to the entire Board for discussion and consideration of what steps should be taken, up to and including removing the conflicted Board member from the Board, subject to the requirements set for in Article VI, section 11 of the ICANN Bylaws.
- (iv) The Board Governance Committee also does and will review the Board Certification Forms to determine if there are topic-specific actual or potential conflicts that can be dealt with in a manner other than removal from the Board. If this occurs, then the Board Governance Committee will follow the process set out in the Board COI policy for determining whether and in what manner the actual or potential conflict will be dealt with.

The third step is to actually take the necessary action to manage, mitigate or avoid conflicts of interest. For staff and subcontractors, the COI Officer will:

- (i) Communicate with the conflicted party and indicate the steps that need to be taken to avoid or mitigate the conflict
- (ii) Ensure that the conflicted party eliminates or properly and fully mitigates the conflict by requiring documentation of fulfillment of the mitigation or elimination measures.

For the Board, the COI Officer, in conjunction with the General Counsel and Secretary, will ensure that:

- (i) ICANN's Board Governance Committee outlines for the affected Board member the tasks required in order to avoid, eliminate or mitigate the identified actual or potential conflict of interest.
- (ii) The BGC follows up with the affected Board member to confirm that he or she has in fact taken all steps necessary to avoid, eliminate or mitigate the identified actual or potential conflict of interest.
- (iii) There is an established mechanism, in conformance with the COI Policy, to address with the affected Board member if the conflict has not been avoided, eliminated or mitigated.
- (iv) The Board Governance Committee recommends to the Board that the necessary action be taken, which may include ethical wall, removal from particular deliberations and discussions, or removal from the Board, depending on the circum-



stances. Specifically, under the Bylaws, a conflicted Board member is not allowed to vote on any topic for which he or she has a conflict.

If ICANN discovers that a potential or actual conflict was not disclosed, the matter will be addressed by the Board Governance Committee, which will make a recommendation to the full Board about disposition of the matter. Remedies for failure to disclose an actual or potential conflict could result in various I measures, up to and including dismissal from the Board, subject to dismissal requirements as set forth in the ICANN Bylaws.

1.6.1.2 Conflict of Interest Policy

ICANN does and will continue to maintain written, enforced conflicts of interest policies and related practices that define what constitutes a potential or actual conflict of interest. ICANN's COI policies and related policies, practices and procedures already exist and will continue to be maintained in numerous documents (all of which are available for review upon request—and many of which are publicly posted):

- ICANN's Employee Conflict of Interest policy, which will also be applicable to subcontractors
- ICANN's Conflict of Interest policy applicable to ICANN's Board of Directors, Officers and Key Employees
- ICANN's Code of Conduct
- ICANN's Expected Standards of Behavior
- ICANN's Corporate Governance Guidelines
- Summary of ICANN's Rules for Staff Interactions with the Community after the Approval of the New gTLD Program

The above can also be found in **Appendix E**.

The policies, practices and procedures do and will address conflicts based on personal relationships or bias, financial conflicts of interest, possible direct or indirect financial gain from ICANN's policy decisions, and employment and post-employment activities. Further, the conflicts of interest policies do and will continue to include appropriate sanctions in case of non-compliance, including the possibility of suspension, dismissal and other penalties as appropriate.

ICANN posts the Employee COI policy on an internal ICANN website in a section called "Policies and Procedures." Internal and external legal counsel, as well as the COI Officer, will review this policy annually to ensure compliance with current best practices and all laws, rules and regulations. Further, ICANN's Board annually will continue to review the COI policy applicable to the Board of Directors and recommend any suggested changes based on research of current laws and best practices. Any suggested changes will be posted for public comment. The Board also seeks expert analysis, as deemed appropriate, on recommendations of any suggested changes. Once public comment has been received, the Board then revises the policy as appropriate and adopts a revised policy, which is then publicly posted.

In addition to the conflicts of interest policies, ICANN has taken further steps to ensure that there is more emphasis and limitations on post-employment activities. In particular, ICANN's Corporate Governance Guidelines include action taken by the Board in December 2011



prohibiting their post-Board service activities as it relates to new gTLDs, one of ICANN's major programs. The Board is in the process of reviewing further recommendations of more general prohibitions and limitations in relation to post-Board service activities. The final determination on those recommendations will be included in a revised Corporate Governance Guidelines.

1.6.2 Conflict of Interest Officer, Roles and Responsibilities [M.8; C.6.2.1-5]

ICANN has designated Steve Antonoff as the Conflicts of Interest Officer ("Mr. Antonoff" or "COI Officer"). Mr. Antonoff will continue to serve as the COI Officer until otherwise determined and consented to by the Contracting Officer and changes in this regard will be set forth in the annual Conflict of Interest Enforcement and Compliance Report, the first of which shall be posted within six months of the effective date of the IANA Functions Contract under the SOW.

The COI Officer is and will be responsible for ensuring that ICANN is in compliance with our internal and external COI policies, practices and procedures. In addition to the specific conduct set forth below regarding distributing and ensuring that disclosures are made, the COI Officer is and will be generally responsible for the implementation and enforcement of ICANN's Conflicts of Interest Policy (and related policies).

To ensure that ICANN is in compliance with our internal and external conflict of interest rules and procedures, the COI Officer, in coordination with the Office of the General Counsel when appropriate, will be responsible for taking the following steps:

- (i) Conducting a regular review of the COI policies, practices and procedures and updating them as appropriate to ensure that they contain the most current references to laws, rules and regulations, as well as be in conformance with best practices.
- (ii) Requiring that employees, directors, and contractors acknowledge in writing, at the beginning of their engagement with ICANN and annually thereafter, that they have read and understand the relevant policy, and agree to abide by the relevant policy.
- (iii) Reviewing and tracking all written acknowledgements.
- (iv) Reminding all employees, directors and subcontractors through the policy, the annual acknowledgement forms, and regular reminders that they must update their disclosures by completing a new Certification form if circumstances change that might create an actual or potential conflict of interest.
- (v) Ensuring that all directors, staff members and subcontractors complete the applicable COI Certification forms at the beginning of their engagement with ICANN and annually thereafter.
- (vi) Analyzing, with appropriate staff that may include the Office of the General Counsel as well as Executive Management, all Conflicts of Interest Certification Disclosure forms to determine if there are any actual or potential conflicts of interests identified.
- (vii) If conflicts are identified, making a determination with appropriate staff, that may include the Office of the General Counsel as well as Executive Management,



- as to what if any mitigation measure can be taken, such as constructing an ethical wall, to avoid the actual or potential conflict of interest.
- (viii) Determining what steps must be taken, with appropriate staff that may include the Office of the General Counsel as well as Executive Management, if no mitigation measure can be taken.
- (ix) Facilitating the maintenance of ICANN's Anonymous ("Whistleblower") Hotline. Note that a third-party vendor manages the hotline, which is designed to allow for anonymous reporting of suspected fraud and ethics violations. Any issue reported to the third-party hotline is and will continue to be forwarded simultaneously to the COI Officer, the Chief Operating Officer, and the General Counsel and Secretary. The same analysis as noted above with respect to the actual or perceived conflict will be followed.
- (x) Overseeing an annual test of the Anonymous hotline.

Mr. Antonoff, as the COI Officer, is and will be identified as a key personnel assigned to the contract.

Mr. Antonoff joined ICANN as Director of Human Resources in March 2007. In this capacity he is responsible for the global human capital activities of the organization with a particular emphasis on performance management, sourcing qualified individuals to join ICANN, developing efficiencies in processes and procedures, and overseeing staff compliance with the policies and procedures of the organization as well as compliance with applicable local/governmental employment/employee regulations worldwide.

Mr. Antonoff has over 30 years of Human Resources experience covering the full range of HR activities including employment; employee relations; compensation/benefits; internal/external compliance; training and development; safety and performance management; and administrative responsibilities including facilities, real estate, purchasing, fleet management, and tele-center operations. His previous experience includes senior-level Human Resources positions with such diverse organizations as Hyundai Motor America, LA Gear, QANTAS Airways, and Mercury Air Group. He holds a Bachelor of Science from Hofstra University, a Master of Business Administration and Accounting from New York University, and attended law school at Seton Hall University Law School.

1.6.2.1 Distribution of Policy

Employees

Upon their hiring and annually thereafter, the COI Officer is and will be responsible for distributing to each employee ICANN's Employee COI policy (see attached at **Appendix E**) and will ensure that the following steps are taken:

- At hiring, distribution to employees of the COI policy through the employee online onboarding mechanism:
 - Each employee is required to log on to complete numerous process, including accessing and acknowledging the COI policy.
 - Access is and will be required on employees first day of employment.
- Annually:



- Distribution via email of the Employee COI policy
- Distribution via email of an acknowledgement form that each employee received, understands and is in compliance with the Employee COI policy
- Ensuring that the Employee COI policy is and will be posted on the internal ICANN website,
 which can be accessed and will be accessible by employees at any time.
- Ensuring that if the Employee COI policy is updated, the revised version is and will be posted on the internal ICANN website and distributed via email to all employees.

Directors

In coordination with the General Counsel and Secretary, upon election to the Board of Directors, the COI Officer will ensure that the Board COI policy is distributed to the Board member via email. Annually thereafter the COI Officer will ensure that the Board COI policy is distributed to all Board members via email and posted on the internal Board communication tool used by all Board members.

Subcontractors

Upon engagement, the COI Officer will be responsible for distributing the Employee COI policy (which will also apply to subcontractors) to each subcontractor via email. The COI Officer, in coordination with the individual responsible for engaging the subcontractor, will ensure that the COI Policy is distributed to each subcontractor as a regular part of the contracting process that ICANN currently uses, and will use, when engaging any subcontractor. No subcontractor will be engaged without having received the Employee COI Policy and completed the Certification Form. Annually thereafter, the COI Officer will distribute, or cause to be distributed, the then current COI Policy to all existing subcontractors and require them to complete a Certification.

1.6.2.2 Certification

Employees

The COI Officer will be responsible for requiring that each of ICANN's employees complete a Certification with disclosures of any known conflicts of interest upon their election, re-election or appointment and annually thereafter. As noted above, when employees are hired, the COI Officer ensures that each receives the Employee COI policy via the online onboarding distribution mechanism. At that time, each Employee will also be required to complete a Certification Disclosure Form wherein he or she must disclose any known conflicts of interest and return it via email to the COI Officer (see attached Certification at **Appendix E**). Annually thereafter, the COI Officer will ensure that each employee submits to the COI Officer via email a completed and signed a Certification.

Directors

In coordination with the General Counsel and Secretary, the COI Officer is and will be responsible for requiring that each of ICANN's Board members review the COI Policy applicable to them and complete a Certification Disclosure Form (also called a Statement of Interest Form) with disclosures of any known conflicts of interest upon their election, re-election or appointment and annually thereafter (see attached Certification at **Appendix E**). Like the COI Policy, the COI Certification Form for Board members is distributed via email upon their election



and annually thereafter via email and posted on the Board communications tool used by all Board members. With respect to Officers and Key Employees, the distribution method of the Certification Form will be via the online onboarding distribution mechanism upon hiring and via email annually thereafter. When completed and signed, Board members submit the Certification Disclosure Forms (Statements of Interest) via email, which the COI Officer ensures are properly maintained.

Subcontractors

The COI Officer will be responsible for requiring that each Subcontractor complete a certification with disclosures of any known conflicts of interest upon their election, re-election or appointment and annually thereafter. As noted above with respect to the COI Policy, the COI Officer, in coordination with the individual responsible for engaging the Subcontractor, will ensure that each Subcontractor complete a Conflicts of Interest Certification Form (the same as the one Employees are required to complete) as a regular part of the contracting process that ICANN currently uses, and will use, when engaging any independent contractor. No Subcontractor will be engaged without having completed a Certification Disclosure Form. Annually thereafter, the COI Officer will send via email a notice to each Subcontractor still engaged, along with a Certification Form to complete, whereby they will be required to disclose any known conflicts interest.

1.6.2.3 Update Certification

Employees

The COI Officer will require all employees to promptly update their Certification Forms to disclose any interest, transaction or opportunity covered by the conflict of interest policy that arises during the annual reporting period. The COI Policy, as well as the annual acknowledgment, will remind each of the employees that such ongoing reporting requirements are in place. In addition, the COI Officer will provide regular reminders to all employees about updating the Certification Disclosure Forms if any circumstances change that might be deemed an actual or potential conflict of interest.

Directors

In coordination with the General Counsel and Secretary, the COI Officer will require that each of ICANN's Directors promptly update their Board Certification Form to disclose any interest, transaction or opportunity covered by the conflict of interest policy that arises during the annual reporting period. The updates will be made via email. This requirement is already in place and will continue; ICANN posts a summary three times per year of the Board member's statements of interest, so the public is made aware of those interests. In addition, the COI Officer will ensure that regular reminders are sent via email to all directors about updating the Certification Disclosure Forms, if any circumstances change that might be deemed an actual or potential conflict of interest.

Subcontractors

The COI Officer will require all subcontractors to promptly update their Certification Forms to disclose any interest, transaction or opportunity covered by the conflict of interest policy that arises during the annual reporting period. These updates shall be made via email. The COI



policy, as well as the annual acknowledgement, will remind each of the subcontractors that such ongoing reporting requirements are in place. In addition, the COI Officer will provide regular reminders to all subcontractors about updating the Certification Forms if any circumstances change that might be deemed an actual or potential conflict of interest.

1.6.2.4 Report

Within six months of the effective date of the contract and updated thereafter as needed, the COI Officer will develop and publish, subject to applicable laws and regulations, a Conflict of Interest Enforcement and Compliance Report. The report will describe the following: (i) major events; (ii) problems encountered; (ii) and any changes related to Section C.6, including any changes in how ICANN addresses each of these issues. The COI Officer will use the COI Certification Disclosure Forms to compile information for inclusion on the report. Within 14 days of receipt of any additional information that requires an update to the report, the COI Officer will develop and publish an updated report.

In addition, please note that with respect to ICANN directors, a summary of each of their statements of interest (disclosures) required in accordance with the COI Policy is and will continue to be posted on ICANN's website at least three times per year.

1.6.3 Response to Organizational Conflict of Interest (C.6.2.5; H.9)

In terms of potential Organizational Conflicts of Interest, ICANN recognizes and acknowledges the purpose and scope of section H.9 ORGANIZATIONAL CONFLICT OF INTEREST ("OCI"), subparagraphs (a) and (b) of the SOW. ICANN has compliance programs in place to prevent an OCI from occurring that is either of the following: (a) unequal access to information whereby ICANN obtains an unfair competitive advantage by the receipt of nonpublic source selection information or nonpublic competing contractor information; (b) biased ground rules in which, as part of our performance of a the government contract, we prepare technical specifications or a statement of work for another contractor; or (c) an impaired objectivity whereby the work performed by ICANN results in it evaluating itself through an assessment of its performance under the contract or the work of an affiliated or reliant concern. ICANN's compliance program is designed to detect "biased ground rules" or "impaired objectivity" OCIs that arise based on a combination of past, present and/or future events that would result in a multiple or inconsistent role—the results of which compromise ICANN's impartial judgment or confer an unfair advantage. (H.9(a) and (b))

ICANN warrants that, to the best of ICANN's knowledge and belief, it has not received or otherwise been exposed to any nonpublic source selection or competing contractor information, and there are no relevant facts or circumstances which would give rise to an OCI.

To the best of ICANN's knowledge and belief, there are no impediments to ICANN's ability to do the following: (i) render impartial assistance or advice or (ii) objectively perform work under the contract. Further, to the best of ICANN's knowledge and belief, there is nothing that would provide ICANN with an unfair competitive advantage because of access to non-public government information. Moreover, there is nothing in the statement of work in the solicitation that would entail access to proprietary information of a competing contractor. (H.9(c))



ICANN agrees it will conduct an ongoing review of a related contract in an effort to identify any potential OCI issues and shall make an immediate and full disclosure, in writing, to the Contracting Officer of any potential or actual OCI that is identified or the existence of any facts that may cause a reasonably prudent person to question ICANN's impartiality because of the appearance or existence of bias or an unfair competitive advantage. Such disclosure shall include a description of the actions ICANN has taken or proposes to take in order to avoid, neutralize or mitigate any resulting OCI. (.9(c)) ICANN will identify likely sources, if any, for effort to be awarded under the contract and determine if there are any potential OCI issues.

ICANN recognizes and acknowledges that the Contracting Officer may terminate the contract for convenience, in whole or in part, if the Contracting Officer deems such termination necessary to avoid, neutralize or mitigate an actual or apparent OCI. ICANN will not merely rely on the contract clauses to prevent an OCI from occurring. The COI Officer will actively review all actions under the contract that may cause an OCI or that are otherwise inconsistent with the CAR clause by analyzing planned acquisitions or the evaluation of performance to identify and mitigate a potential OCI. ICANN recognizes and acknowledges that if ICANN fails to disclose facts pertaining to the existence of a potential or actual OCI or misrepresents relevant information to the Contracting Officer, the Government may terminate the contract for default, suspend or debar the contractor from Government contracting or pursue such other remedies as may be permitted by law or the contract. (H.9(d))

ICANN will include both a certification that there is no potential or actual OCI and a clause substantially similar to clause H.9 of the SOW, including paragraphs (f) and (g), in any subcontract or consultant agreement at any tier expected to exceed the simplified acquisition threshold, relating to the performance of the contract. If ICANN enters into any such subcontracts or consultant agreements, ICANN will insert a clause in the contract that requires the other party to accept and adhere to ICANN's COI Policy avoid, or identify and mitigate, any potential or actual OCI that will preserve the Government's rights. (H.9(e))

If ICANN enters into any subcontracts or consultant agreements relating to the performance of the contract, which ICANN does not intend to do at this time, ICANN will obtain from subcontractors or consultants the disclosure required in FAR Part 9.507–1 and shall determine in writing whether the interests disclosed present an actual, or significant potential for, an OCI. ICANN shall identify and avoid, neutralize or mitigate any subcontractor organizational conflict prior to award of the contract to the satisfaction of the Contracting Officer. ICANN recognizes and acknowledges that if the subcontractor's organizational conflict cannot be avoided, neutralized or mitigated, ICANN will obtain the written approval of the Contracting Officer prior to entering into the subcontract. If ICANN becomes aware of a subcontractor's potential or actual organizational conflict of interest after contract award, ICANN agrees that it may be required to eliminate the subcontractor from our team at ICANN's own risk. (H.9(f))

In furtherance of H.9(f), ICANN will screen each contract for a delivery order that it enters into while performing the contract to determine whether the new contract or delivery order might create an apparent or actual OCI. Should ICANN determine that a new contract or delivery order creates an actual OCI or an apparent OCI, ICANN will determine if a mitigation plan may



be implemented to avoid the actual or potential OCI. If such a plan is not feasible, then ICANN shall make an immediate and full disclosure, in writing, to the Contracting Officer regarding any potential or actual OCI or the existence of any facts that may cause a reasonably prudent person to question ICANN's impartiality because of the appearance or existence of bias or an unfair competitive advantage. Such disclosure shall include a description the actions ICANN has taken or proposes to take in order to avoid, neutralize or mitigate any resulting OCI. Potential resolutions include but are not limited to the following: (1) declining to perform the new contract or delivery order or (2) establishing an ethical wall or otherwise restricting certain staff member involvement with or access to sensitive information. At present ICANN has no other contract with any U.S. governmental entity or agency, outside of those identified in Volume II, Section 1 of this Proposal. (H.9(f))

ICANN will prepare an OCI avoidance plan designed to do the following: (i) identify actual or potential OCI issues; (ii) set out an organized plan for conflict avoidance that will represent more than an expanded version of full disclosure required by the regulations, as it will also identity credible and concrete mechanisms for identifying, avoiding or mitigating actual or potential conflicts; and (iii) delineate how ICANN will mitigate the effects of such a conflict once it is identified if such a conflict was unavoidable. With respect to the item (iii), ICANN may impose organizational barriers among ICANN staff by denying access to information or removing them from physical contact. Alternatively, an ethical firewall may be established that would prohibit a party from having any connection with a matter or receiving any information regarding that matter, and otherwise prevent access to files. Finally, it may be necessary to physically separate individuals that represent the conflict from those who are not conflicted. ICANN's COI Officer will conduct rigorous training of all employees on the contract to instruct them to recognize and report an actual or potential OCI. (H.9(f))

ICANN recognizes that this clause has potential effects that will survive the performance of the contract and that it is impossible to foresee each circumstance to which it might be applied in the future. Accordingly, ICANN recognizes and acknowledges that it may at any time, in exceptional circumstances, seek a waiver from the Head of the Contracting Activity by submitting such a waiver request to the Contracting Officer, including a full written description of the following: (i) the requested waiver and the reasons in support thereof, (ii) why mitigation or other means of addressing organizational conflicts of interest are not feasible, and (iii) why the waiver is necessary to accomplish the agency's mission or is otherwise in the best interest of the Government. (H.9(g)).

In order to avoid or mitigate OCIs, ICANN will do the following:

- Err on the side of caution and disclose OCIs when they are unavoidable or cannot be contained.
- Actively seek out identification of actual or potential conflicts and identify them to the Contracting Officer and work with him or her to encourage trust and flexibility.
- Develop a clear corporate policy statement concerning OCI.
- Assign responsibility for OCI monitoring to the COI Officer having central authority.
- Train employees at all levels to identify and avoid conflicts.



- Develop procedures to collect and disseminate information concerning potential conflicts.
- Restrict access to proprietary information to need-to-know basis.
- Demonstrate ICANN's willingness and ability to effectively address OCI problems that arise and prepare an OCI Mitigation Plan that will be implemented and enforced.

1.6.4 List of Current and Past Contracts (M.8)

Per the Section M.8 requirement, below is a list of current and past contracts ICANN holds with the U.S. Government.

- A. Current Affirmation of Commitments (30 September 2009)
- B. Memorandum of Understandings/Joint Project Agreement with U.S. Department of Commerce:
 - Memorandum of Understanding (MOU) Between ICANN and U.S. Department of Commerce (25 November 1998)
 - Amendment 1 to ICANN/DOC MOU (10 November 1999)
 - Amendment 2 to ICANN/DOC MOU (7 September 2000)
 - Amendment 3 to ICANN/DOC MOU (25 May 2001)
 - Amendment 4 to ICANN/DOC MOU (24 September 2001)
 - Amendment 5 to ICANN/DOC MOU (19 September 2002)
 - Amendment 6 to ICANN/DOC MOU (17 September 2003)
 - Modifications to JPA; Affirmation of Responsibilities for ICANN Private Sector Management [PDF, 220 KB] (29 September 2006)
- C. List of IANA Functions Contracts (and amendments/modifications):
 - ICANN/U.S. Government Contract for the IANA Functions (9 February 2000)
 - Modification 0001 to ICANN/U.S. Government Contract for the IANA Functions (6 September 2000)
 - ICANN/U.S. Government Contract for the IANA Functions (21 March 2001)
 - ICANN/U.S. Government Contract for Performance of the IANA Functions (17 March 2003)
 - Amendment/Modification to Extend the U.S./ICANN Contract for Performance of the IANA Functions (2 September 2003)
 - Preliminary Notification of the Governments intent to Extend the Term of Contract No.: DG1335-03-SE-0336 (8 August 2003)
 - ICANN/U.S. Government Contract for Performance of the IANA Functions (14 August 2006)
 - Amendment/Modification to Extend Term of Contract (14 June 2011)
 - Amendment/Modification to Extend Term of Contract (7 December 2011)
 - Amendment/Modification to Extend Term of Contract (8 March 2012)



1.7 Continuity of Operations [L.6; M.8; C.7,1.3]

ICANN provides the IANA Functions on a 24/7 basis under the current DoC contract and has done so for the past five years. ICANN developed a Contingency and Continuity of Operations Plan (CCOP) in 2009 to ensure that all of the IANA Functions could remain operational even in the event of a major disaster, such as Los Angeles being unreachable.

Tested in a no-notice exercise, the CCOP demonstrated ICANN's capabilities in both providing for and supporting the IANA Functions even in extraordinary circumstances. A third party structured the test, monitored the exercise, and produced an after-action report attesting to the overall success of the exercise and the CCOP. This report was published by ICANN in May 2010 and is available on the ICANN website. ICANN used the after-action report as an opportunity to further improve the underlying infrastructure and the CCOP. A tabletop exercise of a similar nature will take place during 2012.

As part of the CCOP, ICANN has distributed satellite telephones to most office locations and data centers. Several ICANN managers and IANA assigned staff maintain non-work telephone numbers and alternate emails, so communications can take place via multiple avenues. ICANN has also enrolled critical staff in GETS and the similarly structured program for mobile devices, WPS. All of these steps have been taken to ensure critical support services, including the IANA Functions, remain available during significant disruptions.

ICANN has instituted an infrastructure strategy to ensure that all web services, including the IANA registries, are universally available. For further assurance of access to these critical registries, ICANN has an informal arrangement with the IESG to mirror the protocol-parameter registries in multiple global locations. The IANA registries are made available via a secure server for the IETF to obtain the registry data that allows the IANA registries to remain consistent.

Understanding the Requirement

ICANN has over 13 years of experience in managing the IANA Functions and ensuring their availability to the global Internet. To fulfill the contract requirements, ICANN must maintain geographically diverse redundant sites and resilient communication paths for the IANA Functions services in the event of disruptions to the ICANN IANA-supporting infrastructure or staff support. Communications channels that can operate during these events must be developed, tested and maintained, so IANA Function users and stakeholders can continue accessing the services in the event of cyber or physical attacks, emergencies or natural disasters.

ICANN will maintain the CCOP developed in coordination with our stakeholders. This CCOP will cover natural disasters and cyber or physical attacks on ICANN infrastructure. The CCOP also will address chains of management and communication during IANA Functions service or ICANN communications disruptions. The CCOP will be developed and implemented with input from the stakeholders within nine months of the date of the contract award and will be reviewed, tested and updated annually. Each annual update will be submitted to the COR.

ICANN must also develop a transition plan to allow for the successful, secure and continuous operation of the IANA Functions should a successor entity be designated by the Government to



manage the IANA Functions. A transition plan will address management functions, administration of data, registry data, and appropriate documentation to support the continued fulfillment of the IANA Functions.

Technical Approach

ICANN will support and maintain a robust infrastructure including three or more geographically diverse data centers capable of supporting the IANA Functions and the services they rely upon. Through exercises and testing of disruption scenarios, ICANN will ensure that the infrastructure planning provides resilience against a variety of outage vectors, including, but not limited to, network-based attacks, natural disasters, and system failures. The CCOP will be regularly tested to allow staff to exercise their roles and responsibilities, so that in the event of a disruption in service, the response will be quick, knowing, and effective.

ICANN will maintain reliable communications mechanisms, including the use of satellite telephones, alternate email and phone lists for staff service outside of the ICANN network, and enrollment in the GETS and WPS systems for key employees. As new technologies are identified which will increase the resiliency of out-of-band communications, ICANN will test them and adopt those which offer the best support for maintaining communications in the event of an outage or other disruption. Resilient communications channels for all stakeholders and interested parties will be maintained and publicized for fulfilling the IANA Functions.

Maintaining the CCOP will be done using ICANN's documentation process, which includes a preparation stage, staff review, executive review, and appropriate partner reviews before finalization. On an annual basis, ICANN will use this process to test and review the CCOP and make updates to reflect changes in personnel, systems, communications, and other key elements. When new processes of support are developed, ICANN will work with its appropriate partners to ensure the response is effective, clear, and meets the needs of the stakeholders and other interested parties.

In developing transition plans for the IANA Functions, ICANN will use its knowledge of service requirements to develop an efficient and non-disruptive strategy for handing the Functions to another party, with the cooperation and assistance of the NTIA, the root zone maintainer, and the identified recipient of the IANA Functions.

1.7.1 Continuity of Operations [M.8; C.7.1]

Supported and managed through registration services, which must be accessible to all, the IANA Functions are ultimately represented by the successful management of the root zone DNSSEC key signing key and the set of authoritative registries, which the Internet community relies upon for sustaining a global, interoperable Internet. ICANN has identified key methods, which underlay providing the IANA Functions:

• ICANN email services – Electronic mail is the primary vehicle for communications with ICANN and services. Email support is critical for other services as well (e.g., ticketing, IANA service requests, etc.). The ability to send and receive email from ICANN and role accounts is critical and must be available without interruption.



- IANA request ticketing system ICANN uses a customized ticking system for tracking many
 of the IANA Functions requests. Those Requests are routinely and automatically entered into this ticketing system as a mechanism for identifying, prioritizing, assigning, and resolving
 IANA Functions requests.
- Automated root zone change request submission and administration tools, including the
 Root Zone Management Extensible Provisioning Protocol (EPP) system for communicating
 change requests to NTIA and the Root Zone Maintainer This automation software for
 processing standard root zone change requests was developed by ICANN and has a front
 end for requesting submissions by TLD managers. It coordinates operations for updating the
 root zone with the Administrator and Root Zone Maintainer.
- Protocol-parameter registry update systems There are more than 1,500 protocol parameter registries with dozens added each year. ICANN uses a version control system, which preserves each registry's status and updates, so undesirable changes can be quickly replaced by the last, best data.
- IANA WHOIS database ICANN has improved its root zone WHOIS structure to enable faster updates and facilitate greater availability of this resource for both automated WHOIS queries and web-based queries.
- IANA web services, including all registries and information pages ICANN has instituted a robust infrastructure strategy to ensure that all web services, including the IANA-related registries, are universally available.
- **DNSSEC Key Signing Key** security and continuity provisions are discussed elsewhere in this document (see section 1.2.9.2f).

ICANN currently has and will continue to have four distinct data centers situated in three geographic locations within the United States: two in Los Angeles, California, and one each in Culpeper, Virginia, and Reston, Virginia. ICANN will continue to evaluate whether additional geographically diverse data centers will provide additional resiliency to the network sustaining the IANA Functions. ICANN will maintain these sites, so the combined resources of any two of them will be sufficient to support all of the IANA Functions and activities.

ICANN will maintain resilient email and telephonic communications paths with all its direct partners and will provide resources to the ICANN main offices and personnel to assist them in maintaining that communication should there be disruptions due to cyber or physical attacks, emergencies and natural disasters. ICANN has and will continue to have satellite telephones distributed to main office locations and data centers. In addition, ICANN is enrolled and will continue to enroll critical staff in the Government Emergency Telecommunications Service (GETS) and, where available, the similarly structured program for mobile devices, WPS. All of these steps will be taken to ensure that critical support services, including the IANA Functions, remain available during significant disruptions. ICANN will continue these communications redundancy efforts as new mitigation technologies are identified.

1.7.2 Contingency and Continuity of Operations Plan [M.8; C.7.2]

ICANN will use the current IANA Functions CCOP as a basis for initiating consultations with all interested and affected parties to develop and implement a revised CCOP addressing the



requirements for effective, resilient communications with the NTIA and Root Zone Maintainer; for multiple resilient communications paths with other parties as enumerated in Section C.1.3; to enable the continuation of all IANA Functions in the case of disruptions; to submit the plan to the COR within nine months of the contract award; and to annually test, update and submit the CCOP to the COR.

1.7.2.1 Develop and Implement a CCOP

ICANN currently maintains a CCOP for the IANA Functions services. Within one month of the date of contract award, ICANN will coordinate and schedule a series of meetings between ICANN, the NTIA, and the Root Zone Maintainer to expand the CCOP to include these partners and identify multiple resilient communications paths between them. These meetings will continue in a monthly fashion to design a work plan for the identification, development and implementation of any additional support services that need to be put in place.

ICANN will also use this period to consult with other interested and affected parties to ensure that resilient communications channels are in place and to spread knowledge within the ICANN community that ICANN has a tested CCOP in place. Providing these reassurances to the community will confirm to those using the IANA services that their requests will be properly managed in the event of a minor or major disruption.

Concurrent with the development of any additional support services, a new CCOP reflecting these and any other changes will be drafted for review by appropriate involved parties. When a final draft has been agreed upon, the CCOP will be adopted and implemented. All consultations, development and drafting will take place within nine months of the contract award date, with the submission date scheduled to occur in the ninth month following the contract award date. **See Figure 1.7-1.**



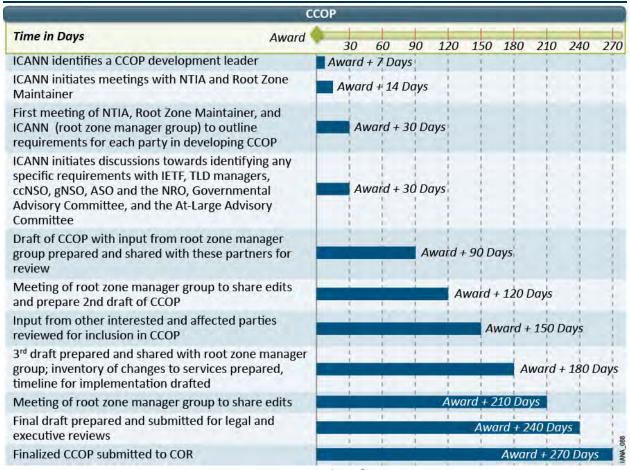
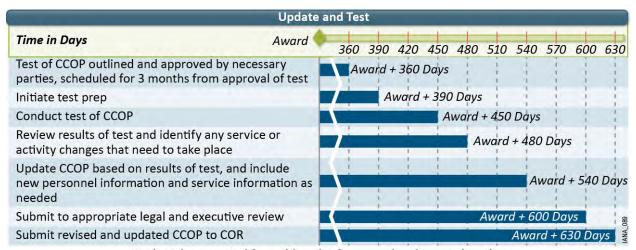


Figure 1.7-1. Timeline for CCOP



1.7.2.2 Update and Test Plan

ICANN will update the CCOP annually and use, as the anniversary, the submission of the first partner-coordinated CCOP nine months after contract award date. Updates will reflect any changes in services, communications channels and personnel involved in IANA support. ICANN will also update any changes in crisis amelioration that have been implemented during the prior 12 months. After an internal review of the CCOP, ICANN will share it with appropriate partners for review and, upon finalization, submit it to the COR. See **Figure 1.7-2**.



Cycle to be repeated from this point for annual reviews and testing Figure 1.7-2. Timeline to Update and Test

1.7.2.3 Collaborate with NTIA and the Root Zone Maintainer, et al., as Enumerated in Section C.1.3, to Develop and Implement a CCOP for the IANA Functions

ICANN's CCOP will be focused on ensuring that all IANA Functions remain operational through robust infrastructure. ICANN will include details on plans for continuation of the IANA Functions:

- Coordination of the Assignment of Technical Protocol Parameters, including the management of the Address and Routing Parameter Area (ARPA) TLD
- Performance of the Administrative Functions Associated with Root Zone Management
- Root Domain Name System Security Extensions (DNSSEC) Key Management
- Customer Service Complaint Resolution Process (CSCRP)
- Allocation of Internet Numbering Resources
- Operating the INT TLD within the current registration policies for the TLD

ICANN will ensure that all services are functional and that communications channels remain accessible to IANA Functions partners and global users.

ICANN will include details on plans for continuation of all other IANA Functions delegated in the contract.

1.7.2.4 Submission of CCOP

Updates to the CCOP will reflect changes in services, communications channels and personnel involved in IANA support. ICANN will also update any changes in crisis amelioration that have



been implemented during the prior 12 months. After an internal review of the CCOP, ICANN will share it with appropriate partners for review and, upon finalization, submit it to the COR.

1.7.3 Transition to Successor Contractor [M.8; C.7.3]

ICANN will develop a plan for transitioning services, registries and appropriate data stores to any successor contractor identified by the NTIA.

1.7.3.1 Transition Out Plan

ICANN will use its long-standing performance of the IANA Functions to identify the key services and data that must be transitioned to a successor contractor. This includes transitioning appropriate documentation of services and the data for managing the services of the IANA Functions.

1.7.3.2 Submission of Plan

ICANN will develop a plan for transitioning the IANA Functions to a successor contractor in several stages. See **Figure 1.7-3.**

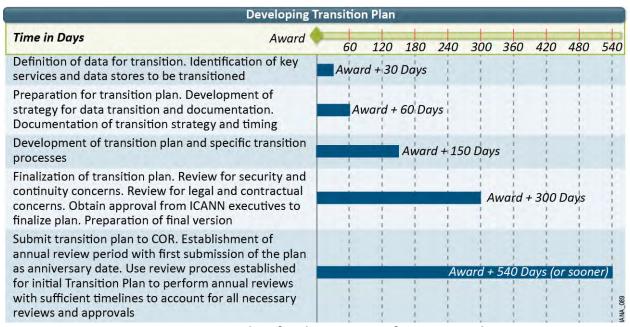


Figure 1.7-3. Timeline for the creation of Transition Plan



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1.8 Performance Exclusions [M.8; C.8, C.2.10]

Please see **Section 1.2.10** of this proposal for our response to all requirements in **C.2.8**.

1.8.1 Authorization for Modifications

ICANN acknowledges this contract does not authorize us to make modifications, additions, or deletions to the root zone file.

1.8.2 Material Changes

ICANN acknowledges that we require prior approval of the CO to implement changes to the established methods.

1.8.3 Performance of Root Zone Function

ICANN will not enter into any agreements with third parties that will impact ICANN's compliance with the IANA Root Zone Functions.



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1.9 Special Contract Requirements

1.9.1 Audit and Records (H1)

Although ICANN is not submitting certified cost or pricing data with this proposal, ICANN agrees that the Comptroller General may examine its books and records at all reasonable times. The Contracting Officer will have the opportunity, upon request, to examine all supporting documentation that was used to produce all deliverables reports set forth in Section F.4. Even though there is no final payment under the resultant contract, all books and records regarding the contract will be retained for three (3) years following expiration of the prime contract. This audit requirement will be included in all applicable subcontracts.

1.9.2 Patent Rights – Ownership by the Contractor (H2)

ICANN acknowledges that we may retain ownership of each subject invention throughout the world in accordance with the provisions of FAR 52.227-11 (DEC 2007). ICANN also acknowledges that for subject inventions to which the Government obtains title, we shall retain a nonexclusive royalty-free license throughout the world. ICANN will disclose our subject inventions to the Government within 60 days patent file or disclosure date. In the event that ICANN fails to provide timely notice of filing, then it shall assign rights to the Government while retaining a license. ICANN agrees to execute all documents confirming the rights of the government and all patent application instruments. Furthermore, ICANN will provide annually, upon request, reports of utilization of the subject invention. The substance of this requirement including paragraph (k) will be included in all subcontracts.

1.9.3 Reserved

1.9.4 Rights in Data – Special Works (H4)

ICANN agrees that the Government will have (i) unlimited rights in all data delivered under the prime contract, except as provided in paragraph (c) of FAR 52.227-17 (DEC 2007); (ii) the right to limit assertion of copyright in data first produced in the performance of this contract, and to obtain assignment of copyright in that data, in accordance with paragraph (c)(1) of FAR 52.227-17 (DEC 2007); and (iii) to limit the release and use of certain data in accordance with paragraph (d) of FAR 52.227-17 (DEC 2007). Although we may have the right to assert a claim in copyright, we will not assert such copyright unless authorized by the Contracting Officer. If such authorization is withheld, ICANN will assign such copyright to the Government. Furthermore, ICANN agrees to indemnify the Government against claims of infringement of the intellectual property of third parties regarding the data delivered to the Government, or libelous or unlawful matter contained in such data.

1.9.5 Rights in Data – Existing Works (H5)

Except as otherwise provided in this contract, ICANN grants to the Government a paid-up non-exclusive, irrevocable, worldwide license to reproduce, prepare derivative works, and perform publicly and display publicly for all the material called for under this contract. ICANN further agrees to indemnify the Government against any liability arising from an infringement of the intellectual property of third parties, or libelous or unlawful matter contained in such data.



1.9.6 Bankruptcy (H6)

ICANN will furnish the Government a notification within five (5) days of the filing of any procedings in bankruptcy, whether voluntary of involuntary, that sets forth the bankruptcy court, the date of filing, and appropriate contract information.

1.9.7 Printing (H7)

ICANN will comply with the substance of the contract clause set forth at CAR 1352.208-70, including paragraph (d), in all subcontracts that may or will require printing, duplicating in excess of the limits in the clause.

1.9.8 Key Personnel (H8)

See section 1.2.12 in this proposal.

1.9.9 Organizational Conflict of Interest (H9)

See section 1.6 of this proposal.

1.9.10 Restrictions Against Disclosure (H10)

ICANN agrees that it will retain in confidence and not disclose any information furnished by the Government or acquired or developed by it during the performance of the prime contract and designated by the Contracting Officer as confidential. Furthermore, ICANN will insert the substance of this clause in any consultant agreements or other subcontracts.

1.9.11 Compliance With Laws (H11)

ICANN has all necessary and required permits, licenses, to perform the prime contract, and it is full compliance with all state and federal laws and local ordinances.

1.9.12 Harmless from Liability (H13)

ICANN agrees to indemnify and hold harmless the Government from liability, costs and expenses for or on account of any and all suits or damages sustained by persons or property as a result of performance of the prime contract.

1.9.13 Notice Requirement (H15)

ICANN will notify the Government whenever the Chairman of the Board of Directors authorizes an investigation by an independent auditor of any potential insolvency.

1.9.14 Certification Regarding Terrorist financing Implementing Executive Order 13224 (H16)

ICANN hereby certifies that, to the best of our knowledge and belief, we have not provided within the past ten (10) years any financial or material support to any individuals or organizations that perform terrorist acts or participate in such acts and we will not do so. Before providing any material support or resources to an individual or entity, we will consider all information about that individual or entity of which we are aware and all public information that is reasonably available to us or of which we must be aware. We also will implement



reasonable monitoring and oversight procedures to safeguard against assistance being diverted to support terrorist activity.



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2.0 Factor 2 Management Approach [L.6; M.8; H.3,5; C.C.2.12.a,b]

ICANN'S MANAGEMENT APPROACH FOR 2.0 MEETS AND EXCEEDS EVALUATION FACTORS

Quality: Results from the April 2012 Customer Survey indicates strong satisfaction with how ICANN provides the IANA Functions: 94% are very satisfied/satisfied with how we provide accurate registries, 93% are very satisfied/satisfied with how courteous we are in providing the services, 90% are very satisfied/satisfied with the ease of the registration process, 87% are very satisfied/satisfied with the quality of process documentation, and 84% are very satisfied/satisfied with the speed with which the requests are handled. ICANN has engaged in a multi-year Quality Management Program (EFQM).

Completeness: ICANN carefully analyzed the programmatic and technical requirements of the IANA Functions effort. Accordingly, we addressed in this proposal all requisite areas of the SOW and instructions. Throughout our discussion in the following sections, we present our thorough understanding of the tasks and offer a comprehensive and complete approach and response to meeting or exceeding all evaluation criteria.

Responsiveness: ICANN's responsiveness since the 2006 contract has shown over five years of continuous improvement, and ICANN will continue to deliver high-quality and courteous delivery of the IANA Functions. Over that same period, ICANN has reported monthly on the delivery of the IANA Functions to the NTIA and will continue to report on its performance of the IANA Functions. In addition, ICANN has delivered on its SLAs with the IETF as defined in the MOU between ICANN and IETF.

Relevance: IANA Functions are a foundation upon which the global Internet is built. ICANN initiated a Business Excellence Program three years ago based on the globally accepted European Standard EFQM. This program has introduced a systemic and sustainable process for continuous improvement. ICANN has adopted this methodology for the IANA Functions and will continue to follow this methodology for quality management.

Credibility: ICANN has demonstrated its reputation for effectiveness in building a consensus for new programs. Examples of where ICANN effectively has built a consensus and was effective in its implementation are the Fast Track IDN Program and the Signing of the Root Zone (DNSSEC). The IDN Fast Track Program was a cooperative activity with the ccNSO and the GAC to introduce Top Level Domain names in non-latin scripts. The deployment of DNSSEC was the result of cooperation between ICANN, IETF, NTIA, and Verisign.

The Department of Commerce (DoC) National Telecommunications and Information Administration (NTIA) performs a complex job in a demanding, rapidly changing environment, and it requires superior technical and managerial expertise and maximum flexibility from its support contractors. Internet Corporation for Assigned Names and Numbers (ICANN) meets these challenges through a management approach, techniques and controls honed over 13 years of providing superior support to NTIA by performing the IANA Functions. Our management approach has matured through continuous process improvement and has remained flexible to handle the evolving requirements and new challenges on IANA Functions. Our management techniques and controls are exercised through an empowered, U.S.-based IANA Functions Program Management team headquartered in California that is designed to provide continuously superior technical support, improved communication and collaboration and institutionalized best-practice methods for managing IANA Functions tasks.

We will continue our support of NTIA by performing the following critical functions within the guidelines of our organizational management plan:

- Manage all activities of the program as a team
- Achieve program objectives and technical requirements



- Look for continuous improvement by encouraging ideas from the team, stakeholders and across our projects elsewhere
- Manage, schedule and track program activities against milestones
- Measure performance against objectives and ensure process improvement
- Identify and mitigate all risks
- Provide continuous formal and informal communications with NTIA and all interested and affected parties and stakeholders

Our approach to these elements is documented in our quality plan and monitored through rigorous feedback. These factors are woven into the fabric of our organizational culture and focus, as confirmed by our proven past performance in support of NTIA and the IANA Functions program for more than 13 years.

We have designed and employed a management strategy and organizational structure that enables effective, efficient and rapid task execution, meeting all requirements. In today's environment, we fully understand that plans may change and our processes and procedures must be flexible. With this in mind, our management plan is based on the following fundamental principles:

- Streamlined Decision Making Authority We have an efficient and effective IANA Functions program management structure which promotes rapid decision-making on the ground by our IANA Functions Program Manager (PM) and individual employees when necessary.
- **Seamless Transition/Continuity of Operations** ICANN has an outstanding team of functional and analytical experts supporting the current contract and dedicated to supporting this program, thus mitigating the risk associated with the start-up of a new effort or transition.
- **Risk Mitigation** We mitigate risk by ensuring that IANA Functions policies and procedures are fully implemented to bring our full capabilities in support of the NTIA.



2.1 Understanding the Management Requirement

Based on our more than 13 years of direct experience supporting the IANA Functions program, ICANN understands the challenges, including those associated with developing constructive working relationships with multistakeholders, while operating in diverse global environment. ICANN understands that NTIA requires highly trained, knowledgeable and skilled support personnel to maintain the continuity and stability of services for IANA Functions. We are an organization that continually evaluates and improves its practices. We embrace the best practices embodied in internationally recognized business standards to support the IANA Functions program.



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2.2 Brief History and Background of ICANN [M.8]

ICANN was established in 1998 as a not-for-profit, public benefit corporation organized under the laws of the State of California. ICANN has two primary functions: (1) to coordinate, at the top level, the global Internet's systems of unique identifiers (names, numbers and protocol parameters) and (2) to operate as a private sector-led, multistakeholder organization responsible for bottom-up policy development reasonably and appropriately related to these technical functions. ICANN is dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and stability for the Domain Name System (DNS), and coordinates policy on the Internet's unique identifiers. Based in Los Angeles County, California, ICANN has offices on three continents and approximately 140 employees. ICANN was organized based on the multistakeholder, global participation model used by early developers of the Internet. Anyone may participate in ICANN and any of its activities and many do.

ICANN currently hosts three public meetings annually for, among others, the Advisory Committees, Supporting Organizations and the ICANN Community and all of its stakeholders. The three public meetings are held in one of five geographic regions, on a rotational basis, with approximately 1,200 to 1,600 in-person attendees at each meeting. Additionally, a majority of the sessions are shared live over the Internet using a variety of media presentations including webcasting, open chat rooms and audio feeds.

ICANN strives for accessibility, providing translations of its published documents in the five non-English United Nations languages (Arabic, Chinese, French, Russian, and Spanish), as well as live scribing of most sessions at the public meetings. ICANN also provides real-time audio interpretation of the speakers in the main meeting room, most frequently in Spanish and French, but often in other languages reflective of the local region. All of the scribing and much of the webcasting and audio feeds are captured for archival use for documentation of discussions, access for those not able to attend the meeting and those researching how discussions were shaped over time.

Recognizing the fundamental value of supporting volunteer participation in the bottom-up process, ICANN provides grants of financial support to many attendees at these public meetings. ICANN focuses on encouraging participation from less developed regions of the world through its Fellowship Program that brings qualified applicants to the public meetings. A number of Advisory Committee leadership and Supporting Organization Council members also receive financial support to attend meetings.

All of this public participation and outreach is done to help fulfill ICANN's mission "to coordinate, at the overall level, the global Internet's systems of unique identifiers, and in particular to ensure the stable and secure operation of the Internet's unique identifier systems." By encouraging strong global participation in the multistakeholder process, ICANN ensures all regions have an opportunity to participate in policy development for the Internet's system of unique identifiers including the DNS and to set the direction of ICANN's work.

ICANN has performed the IANA Functions since December 24, 1998. Initially, these interdependent technical functions were performed on behalf of the U.S. Government under a



contract between the Defense Advanced Research Projects Agency (DARPA) and USC, as part of a research project known as the Terranode Network Technology (TNT).

As the TNT project neared completion and the DARPA/USC contract neared expiration in 1999, the U.S. Government recognized the need for the continued performance of the IANA Functions as vital to the stability and correct functioning of the Internet. Having assumed these key resources (as well as other responsibilities associated with privatization of the Internet domain name system), ICANN was tasked, in December 1998, with the responsibilities of the IANA Functions.

On February 8, 2000; March 21, 2001; March 13, 2003; and most recently on August 14, 2006, the Department of Commerce entered into successive agreements with ICANN to perform the IANA Functions. Over the past 13 years, ICANN has built out its IANA Functions capabilities to include 11 staff assigned to the IANA Functions, a redundant systems infrastructure and the expertise of ICANN and the extended community.

The ICANN community supports ICANN and has stated that ICANN is exceedingly competent in our provision of the IANA Functions. More than 70 responses to the NOI and FNOI supported ICANN's ongoing award of the IANA Functions contract. Many invoked the rich relationship between ICANN's structure and the successful administration of the IANA Functions. The ICANN community strongly attests to ICANN's success in fulfilling the IANA Functions and believes it is the best choice moving forward.

ICANN regards excellent performance of the IANA Functions as fundamental to maintaining a global, interoperable Internet. In addition to direct management of the IANA Functions by the most senior ICANN management, the ICANN Board of Directors has developed a Board IANA Committee dedicated to overseeing the effectiveness of ICANN's fulfillment of the IANA Function. Full performance of the IANA Functions remains a key priority for ICANN.



2.3 Organizational Team and Structure [M.8; H.8; C.2.12a,b]

Based on firsthand knowledge of the IANA Functions Program, ICANN tailored its management approach to empower and emphasize a strong IANA Functions Program Management Organization, staffed with the right mix of management personnel supported by proven management tools and processes to ensure the highest quality of services and a high level of customer satisfaction.

The principal office for the IANA Functions Program as of May 2012 is located at 4676 Admiralty Way, Suite 330, Marina del Rey, California, USA. On June 18, 2012, the principal office will move approximately two miles from its current location to Playa Vista, California. The address of the principal office as of June 2012 will be the following:

12025 Waterfront Drive Suite 300 Los Angeles, California 90094-2536

The move to the new office benefits ICANN in several ways, including increased security and productivity. The new location will also accommodate the expected growth in our number of employees in 2013.

ICANN currently has approximately 140 employees and has budgeted to grow in fiscal year 2013 by approximately 40 new staff members. Per section M.8, ICANN will assign 11 employees to the IANA Functions contract.

As shown in **Figure 2.3-1**, the IANA Functions Program Manager (PM), Elise Gerich, who serves as ICANN's Vice President of IANA and Technical Operations, reports directly to Akram Atallah, ICANN's Chief Operating Officer. Mr. Atallah has extensive operational experience and provides support if needed under the current contract. For the new solicitation, he will continue to provide guidance as required and ensure the necessary organizational resources are allocated to support this IANA Functions program. Management of the IANA Functions at ICANN is placed within the IANA and Technical Operations Department and 11 ICANN staff members are assigned to the IANA Functions Program.

Our straightforward management organization and reporting structure, shown in **Figure 2.3-1**, reflect the delegation of decision-making authority for specific and discrete sections of the RFP and support informed, coordinated decision-making, allowing for a prompt response to NTIA and stakeholder needs. We empower our IANA Functions PM, Ms. Gerich, with the authority to execute the IANA Functions Program and commit required resources to ensure success. Our IANA Functions program management structure demonstrates effective communication between our team and the Government and between our IANA Functions PM and our organizational resources. The IANA Functions PM will maintain communication with the CO and COR to ensure a thorough understanding of NTIA's needs and the necessary planning and resources to meet those needs. When the new contract takes effect, ICANN's IANA Functions PM will have two and a half years of experience as the IANA Functions PM. With this experience and that of the other team members, NTIA will continue to be supported by high quality team members who know the IANA Functions needs and requirements.



Our IANA Functions PM, Ms. Gerich, is the central point of contact for all matters on this contract. She has a personal and professional working relationship with the management of all interested and affected parties and stakeholders. The IANA Functions PM is also the first contact for all questions from the U.S. Government on all issues concerning the contract execution. With direct access to the corporate supporting departments, the IANA Functions PM can quickly call for assistance to resolve issues that may arise. When it comes to execution of the program, the IANA Functions PM tasks and supervises the individuals and small teams undertaking the work required in the specific task areas.

2.3.1 Organization Chart

ICANN'S IANA organization chart (**Figure 2.3-1**) illustrates our functionally-aligned organization to ensure maximum emphasis on the technical areas of the mission. Our approach to support NTIA is built upon the need for direct and unambiguous lines of control and authority and, thus, emphasizes the following key components:

- Senior management personnel with recent and relevant IANA Functions program experience who are operationally and doctrinally proficient
- A highly qualified IANA Functions PM with decision authority and reach into and across the management level of ICANN and all interested parties to bring innovation, talent and experience
- Responsive, flexible management processes—direct access to stakeholders and head office functions

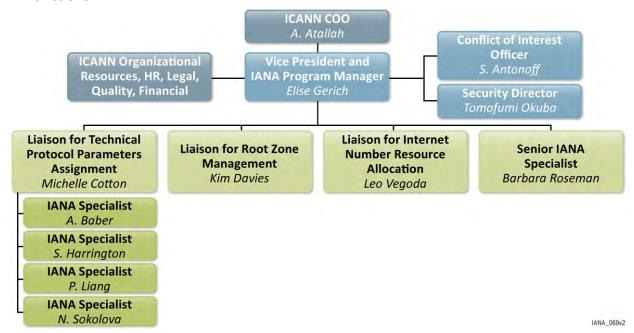


Figure 2.3-1. IANA Program Management Organization

The ICANN organization is designed to ensure that full support is available to the IANA Functions PM and team throughout the lifecycle of the IANA Functions program.



2.3.1.1 Key Positions, Qualifications and Authorities [M.8; C.2.12.a and b; H.8] ICANN has identified six positions as key:

- IANA Functions Program Manager
- IANA Function Liaison for Technical Protocol Parameters Assignment
- IANA Function Liaison for Root Zone Management
- IANA Function Liaison for Internet Number Resource Allocation
- Security Director
- Conflict of Interest Director

The key ICANN personnel who interface with the CO and COR include the following:

- Elise Gerich, IANA Functions Program Manager
- Michelle Cotton, Liaison for Technical Protocol Parameters Assignments
- Kim Davies, Liaison for Root Zone Management
- Leo Vegoda, Liaison for Internet Number Resource Allocation
- Tomofumi Okubo, Security Director;
- Steve Antonoff, Conflict of Interest Officer

All key personnel have excellent oral and written communication skills fully capable of conversing fluently, communicating effectively and writing intelligibly in the English language. Please see **Section 2.5** below for complete resumes of all proposed key personnel.

The IANA Functions PM is responsible for managing and overseeing the actions of all employees in execution of the IANA Functions. She will not serve in any other capacity in the IANA Functions Program. The IANA Functions PM, Ms. Gerich, is very well known within the NTIA and IANA community, having served two years as a contractor supporting the IANA Functions. Previously, she served nine years as Associate Director of Merit with the responsibility for operation of the NSFNET Backbone. She leads our team of dedicated and experienced personnel. Ms. Gerich is directly responsible for the successful implementation and performance of the IANA Functions Contract, for exercising management initiatives to anticipate the needs of NTIA and all stakeholders, and for smoothly implementing changes that ensure efficient continuous support services. Ms. Gerich is the primary point of contact for all tasks on this program and will be fully accountable for all aspects of contract performance. Her role is to conduct the day-to-day management of the program, which includes working closely with the leadership of NTIA, engaging and integrating support from the stakeholders and communicating on a regular basis with all ICANN management. She will coordinate all organizational resources supporting this program. Additionally, the IANA Functions PM will engage technical support for the performance of the IANA Functions from within ICANN as needed. On the current contract, Ms. Gerich is the IANA Functions PM as well as the Security Director for the contract. She is responsible for the successful performance of all IANA Functions under the existing contract. She is available to assist in working through demanding issues such as an analysis of the goals and objectives of a particular project or the team's preparation for a major presentation. The position qualifications for the IANA Functions PM are highlighted in Figure 2.3-2. Please see Ms. Gerich's resume in Section 3.0.



Figure 2.3-2. IANA Functions Program Manager Position Qualifications. Elise Gerich exceeds the qualifications for Program Manager as listed in the RFP.

the qualifications for Program Manager as listed in the KFF.				
PROGRAM MANAGER-POSITION	Elise Gerich Qualifications			
QUALIFICATIONS/RFP REQUIREMENTS	ATTRIBUTES/EXPERIENCE			
Organizes, plans, directs, staffs, and coordinates the overall program effort	 Associate Director National Networking, Merit Networks Director of Operations, @Home Network Manager of Software Product Management, Juniper Networks VP IANA and Technical Operations, ICANN 			
Manages contract and subcontract activities as the authorized interface with the CO and COR	 NSFNET Cooperative Agreement with NSF Routing Arbitor Program Co-PI, NSF IANA Function Program Manager, ICANN 			
Ensures compliance with Federal rules and regulations	 Responsible for deliverables and compliance to the NSF Cooperative Agreements for NSFNET and Routing Arbitor Responsible for deliverables and compliance with terms of 2006 IANA Functions Contract 			
Responsible for the following: Shall be responsible for the overall contract performance and shall not serve in any other capacity under this contract.	 Responsible for overall contract performance of 2006 IANA Functions Contract. For a subsequent contract will serve in the key capacity of PM and will not serve in any other key capacity under the contract. 			
Shall have demonstrated communications skills with all levels of management.	 Regular meetings during NSFNET award with then NSF Director, Division of Network and Communications Research and Infrastructure (DNCRI), Dr. Stephen Wolff As a Juniper product manager regularly met with Senior executives of NTT, ATT, Level3, Time Warner Telecom, Deutch Telecom, and other major Internet providers Attends and participates on behalf of ICANN in the twice annual leadership meetings with ISOC, W3C, IETF, IAB, RIPE, ARIN, APNIC, AFRINIC, and LACNIC 			
Shall meet and confer with COR and CO regarding the status of specific contractor activities and problems, issues, or conflicts requiring resolution. Shall be capable of negotiating and	 Initiated and held monthly teleconferences with the COR over the last two years Collaborated with the COR on an ISO 3166 issue with nomenclature issue and representation on the IANA web pages Consulted with the COR about an open issue related to ccTLD management which involves U.S. jurisdiction VP IANA and Technology Operations negotiates and makes decisions 			
making binding decisions for the company.	concerning the IANA Functions for ICANN			
Shall have extensive experience and proven expertise in managing similar multi-task contracts of this type and complexity.	Has served as the IANA Functions PM for two years			
Shall have extensive experience supervising personnel.	 At Merit, supervised a staff of approximately 12 individuals. At @Home Network, supervised a department of approximately 40 individuals At Juniper Networks, supervised a team of approximately six individuals. At ICANN, supervises approximately 15 individuals 			



PROGRAM MANAGER-POSITION QUALIFICATIONS/RFP REQUIREMENTS	Elise Gerich Qualifications Attributes/Experience
Shall have a thorough understanding and knowledge of the principles and methodologies associated with program management and contract management.	Demonstrated understanding and knowledge of program management and contract management in delivery and operation of National Science Foundation Network under cooperative agreement with NSF, in development of operational procedures for the @Home Network Operations Center, in bringing software features to market in the Juniper Operating System, and in overseeing the deliverables under the existing IANA Functions Contract.

IANA Function Liaison for Technical Protocol Parameters Assignment (C.2.9.1). This position is designated as a Key Position to ensure continuity of a solid understanding of the requirements of the tasks necessary to perform the IANA Functions related to Technical Protocol Parameters Assignment. Ms. Cotton will continue to fill this role to maintain the strong personal and professional relationships that she has developed during 12 years in performing this function. As the Liaison, Ms. Cotton is and will continue to be responsible for the following:

- Delivering monthly performance reports to the IETF
- Participating in monthly meetings of the IETF-IANA Working Group
- Reporting three times per year to the IAB Chair, IETF Chair and IESG on the status of the work in administering the Technical Protocol Parameters Assignments
- Reviewing and implementing the IANA Considerations section of RFCs
- Managing the contributions of the Expert Reviewers of RFCs
- Maintaining publicly available registries of those values with contact information of entities responsible for the protocol
- Developing and maintaining strong relationships with the IETF community

Ms. Cotton will bring over 11 years of experience working in collaboration with the IAB, IETF and IESG in reviewing RFCs, assigning PENs under the guidance of the IETF, representing the current IANA Functions Operator in meeting with the IETF-IANA working group, and a myriad of other related IANA Functions responsibilities. Ms. Cotton has demonstrated her excellent knowledge of the function at various speaking engagements about the Protocol Parameter Function and as author of several RFCs.

IANA Function Liaison for Root Zone Management (C.2.9.2). This position is designated as key to ensure the IANA Functions Operator has a comprehensive knowledge of the policies that are the foundation for the process and procedures followed to perform the function. Mr. Davies will be designated to this Liaison position to maintain continuity of the strong personal and professional relationships that he has established within the TLD management community, the DNS technical community and the ICANN Supporting Organizations (SOs). As Liaison, Mr. Davies is and will continue to be responsible for the following:

- Representing ICANN at ccNSO meetings and teleconferences
- Representing the IANA Functions, when invited, to provide operational input at Policy Development Process meetings regarding Delegations, Redelegations, International Domain Names, and other TLD issues



- Ensuring that the processes and procedures for Root Zone changes are consistently applied and reflect the existing Policies
- Coordinating ICANN's role in the cooperative development with NTIA and the Root Zone Maintainer Verisign of an end-to-end system for root zone transactions

Mr. Davies brings to this position over five years of experience in the delivery of DNS operation and root zone administration at ICANN. Mr. Davies is recognized by the ccNSO as being a subject matter expert in the implementation of the processes related to root zone changes, in the interpretation of the policies on which the processes are based and of the DNS protocol.

Mr. Davies has demonstrated his breadth of knowledge of Root Zone Management in the written white papers for the ICANN Board, in the published documentation on the ICANN's IANA website and in his presentations in many forums.

IANA Function Liaison for Internet Number Resource Allocation (C.2.9.3). This position is designated as a Key Position to ensure the ongoing coordination with the RIRs and to understand the policies that drive changes in the way Internet Number Resources are allocated by the IANA Functions Operator. In this role, Mr. Leo Vegoda is and will continue to be responsible for the following:

- Compiling the monthly allocations of Internet Numbers for the report to NTIA
- Participating in the monthly teleconferences with the Address Supporting Organization
- Reviewing policies of the RIRs and analyzing potential impact on IANA Functions processes
- Preparing ICANN presentations for the meetings of the five RIRs
- Participating, by invitation, to provide operational input in Policy Development meetings with the RIRs

Mr. Vegoda will bring over five years of experience with ICANN in delivery of Internet Number Resource allocations and assignments. Mr. Vegoda managed the Registration Services team at RIPE NCC prior to joining ICANN. He is the author of seven RFCs and is well recognized as a subject matter expert in the technical and policy aspects of Internet Number Addresses.

Security Director (C.3.5). This position is identified as a Key Position to ensure the stability and security of the execution of the IANA functions. Mr. Okubo will do the following:

- Develop, enforce and maintain security related policies and procedures
- Manage and facilitate annual third-party security audits
- Develop and execute training programs
- Perform risk management
- Coordinate with ICANN Security department

Mr. Okubo joined ICANN in February 2011. He is an information security expert specializing in key management security and has an in-depth understanding of standards such as ISO27000 series, ISO21188, ANSI X9.79, ISO31000, BS25999, and NIST Special publications. Prior to joining ICANN, he served as a security engineer for Verisign, one of the major certification authorities, and played an instrumental role in designing security for the Root DNSSEC project. He also coauthored the "DNSSEC Policy & Practices Statement Framework," currently in draft state in the IETF. He has extensive experience in managing third-party audits such as SAS70, SysTrust,



WebTrust, PCI-DSS, and FISMA/C&A. Mr. Okubo is a Certified Information Systems Security Professional (CISSP) in good standing.

Conflict of Interest Officer (C.6.2). This position is identified as a Key Position to ensure that all staff are aware of the company Conflict of Interest Policies and that there is a formal process for reporting and reviewing possible conflicts of interest that violate the company policy. Mr. Antonoff will do the following:

- Confirm that all new hires are knowledgeable about the conflict of interest policy and formally sign their compliance with the conflict of interest policy.
- Execute the annual compliance program of formal renewals of the conflict of interest policy by all staff.
- Establish the formal process to receive and review all reported or suspected conflicts of interest by ICANN

Mr. Antonoff has over 30 years of Human Resources experience covering the full range of HR activities. During his long career, Mr. Antonoff has developed and implemented training sessions for managers on employee relations/conflict resolution/employee counseling as well as conducting effective investigation. At ICANN, he has established the formal program for ensuring compliance with ICANN's conflict of interest policy.

The Conflicts of Interest Officer will be responsible for the implementation and enforcement of ICANN's Conflicts of Interest Policy (and related policies). This includes a regular review of the language of the policy and updating it, as appropriate, ensuring all new hires acknowledge reading the policy and agreeing to abide by it as well as ensuring current staff renew their acknowledgement and agreement on an annual basis.

Staff may self-report a potential conflict of interest to the Conflicts of Interest Officer. The Conflicts of Interest Officer will review the potential conflict of interest with appropriate staff that may include the Office of the General Counsel as well as Executive Management He will make a determination and report back to the employee on appropriate actions to eliminate any potential conflict of interest.

Employees are also encouraged to report conflicts of interest they perceive may affect another employee. Reporting employees may come directly to the Conflicts of Interest Officer or may use ICANN's Anonymous Hotline. The hotline is managed by a third-party vendor and designed for the reporting of fraud and ethics violations. Any issue reported to the third-party hotline will be forwarded simultaneously to the Conflicts of Interest Officer, the Chief Operating Officer and the General Counsel. ICANN runs a test of the hotline system on an annual basis.



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2.4 Management Plan and Organizational Resources

ICANN currently employs proven, successful program management practices under the current IANA Functions Program; they form the foundation for our outstanding performance and have enabled us to successfully support the IANA Program for over 13 years. We will continue to apply those practices in the new IANA Functions Contract. **Figure 2.4-1** presents the proactive procedures that are a part of our program management plan for IANA.

Figure 2.4-1. ICANN's Program Management Procedures

MANAGEMENT AREA	FEATURES OF ICANN MANAGEMENT PROCEDURE(S)
Recruitment, Staffing, Retention Plan	ICANN will retain incumbent key personnel. ICANN has proven processes in place to recruit, staff and retain qualified personnel.
Time/Schedule Management	ICANN uses management controls for time and schedule management.
Financial Management	ICANN is financially sound and has successfully supported the IANA Functions program for over 13 years at no cost to the Government.
Quality Management	Quality is built into all IANA support functions. Our PM, Ms. Gerich oversees our quality management plan and checks all deliverables to compliance and quality. ICANN has a multi-year program in place based on an internationally recognized standard, EFQM.
Human Resource Management	We leverage the experience of the ICANN support team to provide continuity and stability to the program. ICANN's placement methodology ensures that the most qualified staff are assigned to tasks.
Risk Management	Proven risk management methodology that requires staff to identify and mitigate risk for all IANA Functions.
Problem Resolution	ICANN process identifies issues and problems early and manages direct resolution of problems

2.4.1 Recruitment, Staffing and Retention Plan [L.6; M.8]

ICANN's staffing approach will meet NTIA's requirements by maintaining a stable, motivated workforce whose qualifications keep pace with NTIA's and the IANA Function needs, providing continuity and expertise. We will provide a capable workforce on which NTIA can rely to respond quickly. Our approach is to retain qualified incumbent staff, place new employees from within ICANN and hire recruited employees to work as required. Our staffing plan includes the features highlighted in **Figure 2.4-2**.

Figure 2.4-2. Benefits of ICANN's Employee Staffing, Recruitment and Retention Plan

PLAN FEATURES	BENEFITS TO NTIA
Early identification and hiring of qualified incumbent staff	Smooth transition Retention of institutional knowledge and specific skills
Identify qualified personnel among ICANN	Reduced risk of staff shortages
Active global recruiting to fill potential staffing "holes"	Reduced risk of staff shortages
Comprehensive benefits package	Workforce stability and commitment Reduced attrition



PLAN FEATURES	Benefits to NTIA
Performance award program for staff	Motivated teamwork by support staff
Employee professional development tailored to IANA's needs	Improved staff efficiency and performance Workforce stability

2.4.1.1 Retain Qualified Incumbent IANA Functions Workforce

The incumbent ICANN workforce for the IANA Functions Program has a collective legacy of dedicated support to NTIA for many years. Our employees are our most valuable resources. Accordingly, our staffing approach begins with retaining key qualified ICANN incumbent staff. All of ICANN personnel currently supporting the IANA Functions Program have supported NTIA for many years and are well known to NTIA and to all stakeholders. ICANN is unique in our ability to offer NTIA the experience and talent of these dedicated professionals. All employees listed in **Figure 2.4-3** are currently on task.

Figure 2.4-3. ICANN IANA Personnel

Figure 2.4 3. Tentre Inter 1 croomer		
PERSONNEL / TITLE	EXPERIENCE HIGHLIGHT	
*Elise Gerich, IANA Functions Program Manager (C.2.12)	Deployed DNSSEC for the root zone in cooperation with NTIA and Verisign	
Two years of experience as PM with IANA	Launched an end-to-end automated system for root zone requests in cooperation with NTIA and Verisign	
	Established Key Performance Indicators for IANA Functions	
	Completed second and third Annual Self-Assessment of IANA Department based on EFQM methodology	
*Michelle Cotton, IANA Functions	Met or exceeded the SLAs established by the IETF	
Liaison for Technical Protocol Parameters Assignment (C.2.9.1)	Maintains publicly available registries with contact information for entities responsible for the protocol	
12 years of experience with IANA Functions at ICANN	Publicly reports on technical protocol parameter assignment statistics	
*Kim Davies, IANA Functions Liaison for Root Zone Management (C.2.9.2).	Project lead from ICANN on end-to-end automation system for root zone requests	
Over five years of experience with	Project lead on automating technical checks for root zone requests	
IANA Functions at ICANN	Internal Witness, official role, for the quarterly KSK key signing ceremony	
	Invited expert to participate in CCNSO DRWG and FOI	
*Leo Vegoda, IANA Functions	Co-author of draft RFC vegoda-cotton-RFC5735bis	
Liaison for Internet Number Resources Allocation (C.2.9.3).	Coordinated IPv6 Workshops with the local Regional Internet Registry at the ICANN meetings	
Over five years of IANA Functions experience at ICANN	Coordinated the distribution of the last blocks of IPv4 addresses as per the Global Policy	
Barbara Roseman, Senior IANA	Project lead on the 2010 Continuity Exercise	
Specialist	Liaison with SSAC (Security and Stability Advisory Committee)	
Seven years of experience with IANA Functions		



PERSONNEL / TITLE	EXPERIENCE HIGHLIGHT
Pearl Liang, IANA Specialist Seven years of IANA Functions experience at ICANN	 Receives and processes requests for all IANA Functions related queues Compiles statistics and prepares IANA Functions reports Responds to general requests for information Subject Matter Expert for highest volume registries: Private Enterprise Numbers and Service Name/Port numbers
Nadia Sokolova, IANA Specialist Over two years of IANA Functions experience at ICANN	 Receives and processes requests for all IANA Functions related queues Compiles statistics and prepares IANA Functions reports Responds to general requests for information Reviews Redelegation/Delegation documents
Selina Harrington, IANA Specialist One year of IANA Functions Experience at ICANN	 Receives and processes requests for all IANA Functions related queues Compiles statistics and prepares IANA Functions reports Responds to general requests for information Processes .INT requests
Amanda Baber, IANA Assistant Over five years of IANA Functions experience at ICANN	 Receives and processes requests for all IANA Functions related queues Compiles statistics and prepares IANA Functions reports Responds to general requests for information Reviews technical documentation

^{*}Key Personnel

2.4.1.2 Recruitment Plan

As we augment our incumbent staff, our recruitment approach runs on multiple simultaneous tracks and leverages ICANN's substantial database of qualified candidates to fill positions, as well as traditional and non-traditional recruiting techniques described in these sections. In addition, our approach takes specifically into account contract-specific requirements such as technical or professional certifications. ICANN continuously seeks to hire the "best and brightest" who bring unique attributes to the organization including multiple language skills and international experience. ICANN has a full time, dedicated in-house recruiter, utilizes the "Open Hire" (by Silk Road) recruiting and applicant tracking system.

Openings in the organization follow the same hiring process regardless of whether it is a new position or a replacement. The steps listed below will continue to be followed:

- 1. The hiring manager completes a Personnel Requisition Form, which goes through a formal approval process.
- 2. Once approved, the Personnel Requisition Form goes to the in-house recruiter who meets with the hiring manager to verify requirements (i.e., skills, experience, etc.).
- 3. The in-house recruiter establishes a recruiting strategy for the position which may include traditional and non-traditional methods such as job postings through social media, professional organizations, job boards (e.g., monster.com), networking, third party search firms, etc. See below for more detail.
- 4. The in-house recruiter reviews applicable résumés and inquiries for the position with the hiring manager and coordinates interviews.



- 5. Candidates for hire are interviewed by the hiring manager, peers, Human Resources, and senior management. Interviews are conducted in person, telephonically and through video conference.
- 6. ICANN conducts background checks on final candidates, which may include identity verification, criminal background check, verification of education, and verification of prior employment.
- 7. When a final candidate is selected, the hiring manager, with the assistance of the in-house recruiter, completes a "Request to Make Job Offer" form, which is approved by senior management.
- 8. Once the Request to Make Job Offer form is approved, the hiring manager extends a formal offer to the selected candidate. This is followed by a formal offer in writing.
- 9. When the selected candidate accepts the offer the on-boarding process begins.

2.4.1.3 Hiring and Orientation Training

The HR Department along with the hiring manager will conduct a rigorous on-boarding for each new employee encompassing a discussion of corporate values, ethics, conflicts of interest, confidentiality, and codes of personal and business conduct. Every new hire will be required to acknowledge that he/she has read and agrees to abide by ICANN's policies and procedures (including those specifically on "Conflicts of Interest," "Confidential Information" and "Outside Business Activities"). Each employee will be required to re-certify this acknowledgement each year.

ICANN's Orientation also includes Information Security Awareness Training and security briefings. We will issue the new hire a corporate identification badge and provide briefings on the contractor identification procedures, including access controls and security measures. To ensure the details of on-boarding are covered with each new hire, ICANN will utilize the "Red Carpet" system (by Silk Road) to manage the work flow of on-boarding. The hiring manager will introduce the new employee to his/her colleagues and the COR. The hiring manager will ensure the new employee is fully cognizant of all aspects of his/her responsibilities.

2.4.1.4 Retention Plan and Retention Statistics

ICANN understands that a stable, motivated and highly qualified workforce is a critical component to the IANA Functions Program success. We will minimize personnel turnover by hiring motivated, experienced and qualified technical professionals. Our personnel turnover rates are well below the industry average, demonstrating our sensitivity to personnel retention factors. For example, in 2011, ICANN's retention rate was 90%, compared with the industry average for that same 12-month period of 80.1%. While the current Fiscal Year has not yet concluded, ICANN's retention rate for the current 12-month period that will end 30 June 2012 is currently tracking at approximately 96.25% while the industry average is tracking at 71.5% on an annualized basis.

This retention record is the product of good benefits, including attractive salaries; comprehensive life and disability insurance; retirement savings (401(k) plan); healthcare plans; leave accrual rates that grow with each year of service; education and professional development provisions; and the safe working environment we offer based in our core values



of trust, teamwork, integrity, customer satisfaction, and performance success. We also award employees "outstanding performance" bonuses to reward performance and enhance retention. Prospective employees look for these factors and consider them to be very important.

Our benefits and incentive programs, as shown in below, are designed to attract and retain high-quality professional staff. As a global organization, ICANN strives to ensure both compensation and benefits are competitive within the relevant market. As an example, a summary of ICANN's benefits for U.S.-based staff is listed below:

Vacation Leave

- Newly hired employees accrue vacation at the rate of fifteen (15) days per year.
- After five years of service the accrual rate rises to twenty (20) days per year.

Holidays

- ICANN recognizes eight national holidays each year. In addition, each employee is entitled to one floating holiday each year.
- ICANN closes operations (except essential operations) each year between Christmas and New Year's Day with pay for each employee.

Life Insurance

- ICANN pays the full premium for a life insurance policy equal to 2.5 times annual base pay up to a \$500,000 benefit.
- This policy also includes an accidental death and dismemberment provision (AD&D).

Retirement

- ICANN supports saving for retirement through a qualified 401(k) Plan.
- Employees may defer up to 10% of annual compensation into the plan. ICANN matches 100% of an employee's deferral up to 10% of annual compensation.
- In addition, ICANN allows catch-up contributions for those who meet the requirements (and matches those contributions).
- Regardless of whether or not an employee defers compensation to the Plan, ICANN makes a contribution equal to 5% of annual compensation to the Plan.
- All contributions are limited to the annual published IRS limits for qualified 401(k).

Employee Assistance Program

- ICANN pays for a formal Employee Assistance Program (EAP).
- This program covers employees and their family members and is intended to be used for such diverse issues as substance abuse, financial difficulties and behavioral issues.
- Employees wishing to use the service call the service directly, and all use of the service is confidential.

Health Insurance

- ICANN offers a comprehensive medical insurance program at no cost to the employee. ICANN pays the full premium for coverage (including family coverage).
- Employees may choose between an HMO or a PPO program.
- These comprehensive programs cover out-patient care, hospitalization and pharmacy benefits to name a few.



Dental Insurance

- ICANN offers a comprehensive dental insurance program at no cost to the employee. ICANN
 pays the full premium for coverage (including family coverage).
- Coverage includes routine check-ups, orthodontics and major dental work.

Vision Plan

- ICANN offers a comprehensive vision program at no cost to the employee. ICANN pays the full premium for coverage (including family coverage).
- Coverage includes eye exams, eyeglasses and contact lenses.

Sick Leave

ICANN provides ten sick days each year.

Flexible Spending Accounts (FSA)

- ICANN offers employees the opportunity to defer compensation, on a tax preferred basis, into a medical spending account, a dependent care spending account or both.
- Participants may defer up to \$2,500 into a medical spending account each year and up to \$5,000 into a dependent care spending account each year.

2.4.1.5 Continuous Training and Development

We encourage our employees to remain fully up-to-date with emerging technology. To do this, we will continue to encourage all available personnel to participate in professional development sessions. ICANN's training and development initiatives will include both "on the job training" and formal "classroom" style training. ICANN's Vice President of Organizational Effectiveness will lead a coordinated effort of face-to-face training as well as training via the Internet (e.g., webinars) and self-paced on-line training. Courses will include professionally developed programs in supervision and management, language training, harassment prevention, Foreign Corrupt Practices Act, and more. Managers will be coached on staff development and will be measured on the frequency and quality of staff development discussions.

2.4.2 Management Controls

ICANN uses various web-based program management tools to report and document the management controls required for the IANA Functions Contract. The application of these tools and controls are based on our quality management approach, which guides all aspects of project work with institutionalized processes, procedures, training aids, and practitioner templates for

ICANN'S MANAGEMENT TOOLS AND CONTROLS PROVIDE NO TRANSITION RISK TO NTIA

- All work will continue to be performed in U.S. Facilities.
- Mature suite of fully integrated Personnel and Project Management Tools
- Regularly scheduled personnel and program management reviews to control and ensure project team performance

controlling work. These controls and tools are standardized across the company; our Key Personnel are trained on them.

ICANN utilizes a number of formal management tools: Halogen Software for performance management (four formal reviews per year), Daptiv (for project management and business



initiative measurement), on-line dashboard metrics (Anychart), and an online portal for managing time and attendance.

ICANN managers meet at the beginning of each trimester with each employee to define goals and tasks for the upcoming trimester. Managers then meet with employees at mid-trimester to discuss progress and challenges to assess whether there are risks to achieving the goals and to take steps to mitigate risks. At the end of the trimester, there is another meeting between the manager and the employee to confirm status of the defined goals and deliverables. The Halogen Performance software module is used to document and track performance against the established goals.

Quarterly planning meetings are held with all ICANN department heads in attendance to review operational priorities and dependencies. The quarterly operational goals reflect the active projects that are launched to deliver on ICANN's strategic goals. Between the quarterly planning meetings, monthly status meetings are held to identify potential risks to delivering milestones and to take steps to mitigate the risks. The Daptiv Software tool is used to track these cross-functional projects and the dependencies.

2.4.3 Quality Management

ICANN is committed to a comprehensive quality management plan for the IANA Functions to ensure delivery of high-quality and consistent performance of the functions. To that end, ICANN initiated a Quality Management Program three years ago. ICANN selected the globally recognized standard, EFQM, for its program and hired an expert in quality management, Klaus Rademacher, to assist ICANN in implementing the Quality Management Program based on EFQM. The benefits of the Quality Management Program is a holistic view of operational excellence with clear links to improved service delivery.

An example of the clear link to service improvements that ICANN has undertaken is the introductions of Key Performance Indicators. The IANA Functions Program will incorporate performance reporting against Key Performance Indicators (KPI).

The quality performance measures that ICANN has established and will continue to measure include the following:

- Meeting all established performance requirements and standards
- Involving all staff members in quality management and performance monitoring functions
- Implementing systemic process improvements as opportunities are identified
- Measuring against KPIs in every IANA Function
- Implementing a customer feedback program through surveys, questionnaires, status reports, and periodic reviews

Our primary approach to providing quality will be simple and effective, consisting of two interrelated parts. First, we will work with the relevant stakeholders to ensure that we completely understand the elements of the support functions we are charged to deliver and that we know the desired outcomes. Secondly, we will continue to institute the EFQM evaluation methodology and feedback system to measure whether we are meeting contract metrics. Our dual approach will quantify our performance and identify enhancements or



process issues that are opportunities for improvement. Our quality management process will be reviewed and updated as the working environment evolves.

2.4.4 Risk Management

ICANN has in the past and will continue to emphasize risk management in the IANA Functions Program. Sound risk management practices provide a mature, consistent framework for the identification, assessment, mitigation, and on-going management of the IANA Functions program and system risks. Using our approach, we will help anticipate, set priorities and develop mitigation strategies to handle events that otherwise could have negative consequences for the IANA Functions Program.

Figure 2.7-1 describes the key steps to our risk management approach. It demonstrates our comprehensive process for analyzing, action planning, tracking, and controlling risk. We have continuously refined our process, which has consistently proven effective in identifying and mitigating risk, thus improving program performance.

ACTIVITY	RESPONSIBLE TEAM MEMBER	DESCRIPTION
Risk Identification	IANA Functions Key Personnel	Identify events and consequences that would have detrimental effects on the ability to support IANA.
Risk Analysis and Classifications	IANA Functions Key Personnel	Analysis begins with a detailed study of the critical risks that have been identified.
Risk Mitigation Planning	IANA Functions Key Personnel	Risk Mitigation plans are documented for each medium risk and implemented for each high risk.
Risk Management	IANA Functions Program Manager	Monitor risks and determine current status. Track, control, and communicate.
Risk Review	IANA Functions Key Personnel	As the program progresses, risk closures, changes and new risks are factored into the baseline.

Figure 2.7-1. Risk Management Activities and Responsibilities

Executive Responsibilities for Risk Management

Ms. Gerich, IANA Functions PM, will be responsible for monitoring and managing risks on the IANA Functions Program. The IANA Functions PM will have direct access to ICANN senior management. Early management focus on medium and high risks will reduce the likelihood that they will escalate and affect program performance. Below we discuss our risk mitigation methodology in more detail.

Risk Identification. Identification of program risks will be the responsibility of ICANN. IANA Functions key personnel will be charged with continually assessing the risks in their areas, reviewing critical risk areas, assigning risk ratings, and prioritization.

Risk Analysis. IANA Functions key personnel will assist the IANA Functions PM in evaluating risks identified in their area of responsibility. If the team determines that the risk level is significant, they will record the risk with an initial description of the event, probability and



potential consequences. The assigned risk owner will analyze, recommend mitigations, support re-evaluation of the risk, and work with the IANA Functions PM to communicate these risks.

Risk Mitigation Planning. Risk mitigation plans will be documented for each medium and implemented for each high risk. These plans will include one or more approaches to handling the risk—risk control, risk avoidance, risk assumption, and risk transfer. The IANA Functions PM will be responsible for evaluating and recommending the risk-handling options best suited to the program's circumstances.

Risk Management and Review. A key part of risk management will be monitoring risks to determine their status with respect to predetermined thresholds. Our risk management process will be continuous with information obtained from monitoring and reviewing risks fed back into the process for reassessment and evaluation. Lessons learned from the handling of the risks will be consolidated with lessons learned from other programs and factored into future program planning.

2.4.5 **Problem Resolution**

ICANN is committed to continuing our open communications with NTIA and all of our multistakeholders to facilitate and enhance informal dispute or issue resolution and ensure customer expectations are met at every turn. As IANA Functions PM, Ms. Gerich will ensure any issues that arise will be quickly identified, properly examined and appropriately resolved. She will work closely with all IANA Functions key personnel. Our approach for dispute resolution will focus on the following:

- 1. Issues within the program relating to essential resources that may impact performance
- 2. Issues between personnel that may impact performance
- 3. Contractual disputes or disagreements

Resource Issues

Complex and evolving requirements can create situations where the demand for highly specialized resources will be required. In these cases, the IANA key personnel will coordinate with IANA Functions PM for resolution.

Personnel Issues

In the rare case where there is an issue between personnel that may impact our performance, all employees will be asked to bring the issue to the attention of their supervisor. Within ICANN, there are and will continue to be formal human resource procedures for dealing with such issues, including job disputes, sexual harassment, discrimination, etc. We will protect and ensure that all investigations of any claims are conducted in a manner that continues to provide employees with a safe, fair and effective workplace.

Contractual Disputes and Disagreements

While it is the goal of ICANN to avoid disputes, it is important to understand that disagreements can arise during the course of normal contract performance. Disputes can be positive for the parties involved as it fosters problem solving, integration and collaboration to address the concerns of both parties. It is and will continue to be our policy that disputes are best resolved at the working level between stakeholders, IANA Functions key personnel and our IANA



Functions PM. Reporting of risks and corrective actions, in conjunction with our partnership approach, will ensure early customer awareness of issues and resolution. Section 1.2.9.2.g of this proposal describes ICANN's Customer Service Complaint Resolution Process.

2.4.6 Deliverables

ICANN strongly emphasizes the need to meet client quality requirements in all of our services. When we will prepare deliverables, we will use control mechanisms, such as style sheets and designated quality reviews, to clearly organize and present our information. The IANA Functions PM and ICANN will review and ensure the quality of our reports. In addition, we will solicit NTIA's early reactions to our reports and other deliverables. ICANN will provide all deliverables as listed in **Figure 2.9-1** on time and in a compliant format. We will provide one copy of the deliverables as listed below to the COR. We will correct any deficiencies and resubmit within ten workdays after notification.

Figure 2.9-1. Deliverables

rigare 2.5 1. Deliverables			
CLAUSE No.	CLAUSE	DELIVERABLE	DUE DATE
C.2.6	Transparency and Accountability	User instructional documentation including technical requirements	Six months after award
C.2.7	Responsibility and Respect for Stakeholders	Documenting the source of the policies and procedures	Six months after award
C.2.8	Performance Standards	Performance Standards	Six months after award
C.2.9.2e	Root Zone Automation	Automated Root Zone Updates	Nine months after award
C.2.9.2g	Customer Service Complaint Resolution Process (CSCRP)	Customer Complaint Process Report	Six months after award
C.3.4	Security Plan	Documenting Practices and configuration of all systems	Annually
C.4.1	Monthly Performance Progress Report includes DNSSEC	Report based on C.2	Monthly
C.4.2	Root Zone Management	Root Zone Management	Nine months
C.4.3	Performance Standards Reports	Performance Standards Report	Six months after award and monthly thereafter
C.4.4	Customer Service Survey	Customer Service Survey	Annual Report of Customer Survey
C.4.5	Final Report	Final Report	Expiration of Contract
C.5.1	Audit Data	Audit Report	Annually
C.5.2	Root Zone Management Audit Data	Root Zone Management Audit Report	Nine Months after award and Monthly Report thereafter
C.5.3	External Auditor	External Audit Report	Annually
C.6.2.4	Conflict of Interest Enforcement and Compliance Report	Enforcement and Compliance Report	Annually



Volume I Technical Capability

CLAUSE No.	CLAUSE	DELIVERABLE	DUE DATE
C.7.2	Contingency and Continuity of Operations Plan (The CCOP)	Contingency and Continuity of Operations for the continuation of the IANA Functions in case of an emergency	Annually
C.7.3	Transition to Successor	Transition plan in case of successor contractor	Eighteen (18) months after date of contract award



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2.5 Resumes

In this section, please find the resumes of the key personnel:

- Elise Gerich, IANA Functions Program Manager
- Michelle Cotton, Liaison for Technical Protocol Parameters Assignments
- Kim Davies, Liaison for Root Zone Management
- Leo Vegoda, Liaison for Internet Number Resource Allocation
- Tomofumi Okubo, Security Director;
- Steve Antonoff, Conflict of Interest Director



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Elise Gerich, Proposed IANA Functions Program Manager

Summary of Knowledge, Skill, Abilities and Key Qualifications

Ms. Gerich offers the expertise, competence, and management skills to provide exemplary leadership for this Internet Assigned Numbers Authority (IANA) program 24 years of proven experience managing multi-functional Internet programs, providing oversight for Internet network planning, operations, network deployment, and contract management. As Vice President, IANA and Technical Operations for the Internet Corporation for Assigned Names and Numbers (ICANN), she is responsible for overall contract performance between the Department of Commerce (DoC) and ICANN. Ms. Gerich's expertise encompasses all pertinent IANA Functions Statement of Work (SOW) areas, and exceeds all solicitation requirements for IANA Functions Program Manager.

PROGRAM MANAGER-POSITION QUALIFICATIONS/RFP REQUIREMENTS	Elise Gerich Qualifications / Attributes / Experience
Organizes, plans, directs, staffs, and coordinates the overall program effort	 Associate Director National Networking, Merit Networks Director of Operations, @Home Network Manager of Software Product Management, Juniper Networks VP IANA and Technical Operations, ICANN
Manages contract and subcontract activities as the authorized interface with the CO and COR	 NSFNET Cooperative Agreement with NSF Routing Arbitor Program Co-PI, NSF IANA Function Program Manager, ICANN
Ensures compliance with Federal rules and regulations	 Responsible for deliverables and compliance to the NSF Cooperative Agreements for National Science Foundation Network (NSFNET) and Routing Arbitor Responsible for deliverables and compliance with terms of 2006
Shall be responsible for the overall contract performance and shall not serve in any other capacity under this contract	 IANA Function Contract Responsible for overall contract performance of 2006 IANA Function Contract Will serve in the key capacity of Program Manager and will not serve in any other key capacity under the 2012 IANA Function Contract
Shall have demonstrated communications skills with all levels of management	 Regular meetings during NSFNET award with then NSF Director, DNCRI, Dr. Stephen Wolff As a Juniper product manager regularly met with Senior executives of NTT, ATT, Level3, Time Warner Telecom, Deutch Telecom and other major Internet providers. Attends and participates on behalf of ICANN in the twice annual leadership meetings with ISOC, W3C, IETF, IAB, RIPE, ARIN, APNIC, AFRINIC and LACNIC.
Shall meet and confer with COR and CO regarding the status of specific contractor activities and problems, issues, or conflicts requiring resolution	 Initiated and held monthly teleconferences with the COR over the last two years Collaborated with the COR on an ISO 3166 issue with nomenclature issue and representation on the IANA web pages. Consulted with the COR about an open issue related to ccTLD management which involves US jurisdiction.



PROGRAM MANAGER-POSITION QUALIFICATIONS/RFP REQUIREMENTS	ELISE GERICH QUALIFICATIONS / ATTRIBUTES / EXPERIENCE
Shall be capable of negotiating and making binding decisions for the company	VP IANA and Technology Operations negotiates and makes decisions concerning the IANA Functions for ICANN
Shall have extensive experience and proven expertise in managing similar multi-task contracts of this type and complexity	Has served as the IANA Functions Program Manager for two years
Shall have extensive experience supervising personnel	 At Merit, supervised a staff of approximately 12 individuals At @Home Network, supervised a department of approximately 40 individuals At Juniper Networks, supervised a team of approximately six individuals At ICANN, supervises approximately 15 individuals
Shall have a thorough understanding and knowledge of the principles and methodologies associated with program management and contract management	Demonstrated understanding and knowledge of program management and contract management in delivery and operation of NSFNET under a cooperative agreement with NSF; in development of operational procedures for the @Home Network Operations Center; in bringing software features to market in the Juniper Operating System; and in overseeing the deliverables under the existing IANA Functions Contract

Education, Relevant Certifications and Training, Publications

BA, University of Michigan, Ann Arbor, Michigan, 1970

State of Michigan Teaching Certification

Publications

- Bates, T., E. Gerich, L. Joncheray, et al. "Representations of IP Routing Policies in a Routing Registry (ripe-81++)," RFC 1786, March 1995
- Gerich, Elise. "Unique Addresses are Good," RFC 1814, June 1995
- Gerich, Elise. "Guidelines for Management of IP Address Space," RFC 1466, May 1993
- Gerich, Elise. "Management and Operations of the NSFNET Backbone," Computer Networks and ISDN Systems 23 (1991)
- Gerich, Elise. "Expanding the Internet to a global environment but...how to get connected?," Computer Networks and ISDN Systems 23 (1991)

Experience

Vice President, IANA and Technical Operations, Internet Corporation for Assigned Names and Numbers, Palo Alto, CA, May 2010 – present

Responsible for overall IANA program success, Ms. Gerich manages two ICANN departments: IANA, and Domain Name System Operations. Her department management responsibilities include organization, planning, direction, staffing, and coordination of overall IANA Functions program. She oversees hiring, supervision, and training of all personnel within the two



departments. She is responsible for overall contract performance between the Department of Commerce (NTIA) and ICANN, without serving in any other capacity under this contract. She is the primary Point of Contact (POC) and serves as authorized interface with the NITA Contracting Officer (CO) and the Contracting Officer's Representative (COR) on all issues, ensuring compliance with Federal rules and regulations.

She meets and confers as needed with COR and CO regarding the status of specific activities and problems, issues, or conflicts requiring resolution in the management of the IANA Functions contract. Ms. Gerich has extensive experience providing oral and written reports and other communications to all levels of management, from Boards of Directors and executive management to team leaders and members. She has authority, as a member of ICANN's Executive Team, to negotiate and make binding decisions for ICANN. She provides management and support of the network infrastructure business applications for the Corporation. She provides management of the Domain Name Service and L-root server for the Corporation, and serves as liaison to Internet organizations such as IETF, AfriNIC, APNIC, ARIN, LACNIC, and RIPE.

Juniper Networks, Sunnyvale, CA, March 2001 - May 2010

Ms. Gerich held various positions of increasing responsibility.

Director, Core Business Unit (CBU) Product Management, 2008 – 2010. Ms. Gerich was responsible for complex, multi-task JUNOS software product program planning and delivery to support a \$900 million revenue target. She oversaw alignment of CBU's software roadmap with requirements of top revenue producing customers. She provided management of opportunities/escalations for one of Juniper's top customers (~\$100 million/year). Ms. Gerich planned and delivered software features to maintain ~\$50 million run-rate per year for an individual customer application. She managed CBU's software product team for IPv6, Multicast, Logical Routers, NSR, and MVPN, including supervision of personnel. She was responsible for the creation and delivery of quarterly analyses for executive management on customer software deliverables. She supervised development of processes to facilitate cross-functional prioritization of feature requirements.

Manager, JUNOS Product Management, 2003 – 2008. Ms. Gerich was responsible for JUNOS product planning and delivery. She defined methodology for measuring and reporting adherence to the "top 10 deals" program; recruited first customer and application for SDK development; sponsored EANTEC's third party testing to promote Juniper's Carrier Ethernet solutions; and promoted BGP-VPLS at industry conferences and customer meetings through oral and written communications in English. She sponsored participation in iPOP to promote Juniper's leadership in GMPLS and Optical demonstrations; operational changes in Field Facing tools for defining new customer requirements; and development and delivery of a customer facing "Hardware/Microcode Configuration" tool. Ms. Gerich led participation in successful technology demonstrations at ISOCORE's MPLS Congress: P2MP Interoperability with Cisco; BGM/LDPVPLS Interworking; and GMPLS Interoperability.

Product Manager, 2001 – 2003. MS. Gerich was responsible for JUNOS VPLS and GMPLS roadmaps. She planned and hosted three Juniper Architect's Meetings with customers; and led participation in cross-vendor interoperability tests for GMPLS.



Director, Network Planning, Urban Media Network, Palo Alto, CA, January 2000 – February 2001. Ms. Gerich was responsible for establishing a nationwide Internet backbone service; evaluating viability of emerging technologies for deployment within the Urban Media network; determining the economics of implementation of product delivery; recommending technology to implement new products and services; evaluating and selecting vendors' equipment for the network; and negotiating contracts with vendors.

Director, Service Management, Excite @Home Network, Redwood City, CA, August 1996 – January 2000

Ms. Gerich held various position of increasing responsibility.

Director, Service Management, 1999 – 2000. Ms. Gerich was responsible for operational interface with four major cable partners; management of Operational Change Control; development of Standard Operational Policies and Processes for New Products; establishment of Regular Operational Review meetings with MSO partners; and creation of cross-functional Failure review teams.

Director, Network Operations, 1996 – 1999. Ms. Gerich was **r**esponsible for initial deployment of @Home's network infrastructure in 19 regions. She oversaw the establishment of Network Operations organization; creation of 19 Regional Data Centers and the @Home Backbone; and management of national network, servers, and corporate infrastructure. She also served as North American co-chair of Internet Engineering Planning Group (IEPG).

Merit Network, Inc., Ann Arbor, MI, December 1987 - August 1996

Ms. Gerich held various position of increasing responsibility.

Associate Director, National Networking, Ms. Gerich was Co-principal investigator for National Science Foundation Awards: T3 NSFNET Backbone, Routing Arbiter Services, and Multi-threaded Distributed Routing Architecture. She provided oversight of the NSF-sponsored projects, the GateD Consortium, the IDRP Implementation project, and Sprintmail Gateway contract. She served as National Science Foundation's representative on the Federal Engineering Planning Group (FEPG); the North American co-chair of Internet Engineering Planning Group (IEPG); and was a member of Internet Architecture Board.

Manager, Internet Engineering, Ms. Gerich was Project Manager of National Science Foundation's NSFNET project. She was member of FEPG, co-chair of IEPG, and member of IAB. She served as Chair and Founder of the North America Network Operators Group (NANOG).

Project Systems Coordinator, Ms. Gerich was responsible for the redesign of the T1 NSFNET Backbone and migration to T3 backbone. She was the Primary contact with regional networks and founder of Regional Techs Conference. She coordinated the deployment of the NSFNET Backbone with IBM, MCI, Merit, and Regional networks; and created a program to qualify international research and education network connectivity to NSFNET. She was Principal Investigator for NASA award to facilitate interagency cooperation with network connectivity.



Michelle Cotton, Proposed Internet Assigned Numbers Authority (IANA) Function Liaison for Technical Protocol Parameters Assignment

Summary of Knowledge, Skill, Abilities and Key Qualifications

Ms. Cotton has proven herself as an outstanding manager and technical subject matter expert with more than 12 years of experience specifically working on the IANA program for Internet Corporation for Assigned Names and Numbers (ICANN). Serving as the IANA liaison to the Internet Research Steering Group, Ms. Cotton has demonstrated the expertise, technical competence, and management skills to support the continuing IANA program. As Manager, IANA Services, for ICANN, she currently spearheads technical protocol parameters review and assignment for global support; and leads a team of four staff processing all requests for all IANA-related services. These requests include the assignment of technical protocol parameter requests in registries maintained by ICANN. She also oversees the review of technical documents requesting the creation or modification to technical protocol parameter registries. Ms. Cotton offers more than 12 years of proven expertise in Statement of Work (SOW) area C.2.9.1.

Education, Relevant Certifications and Training, Publications

BS, Business Administration, San Diego State University, San Diego, CA, 1999

Publications

- Michelle Cotton, Lars Eggert, Joe Touch, Magnus Westerlund and Stuart Cheshire. "Internet Assigned Numbers Authority (IANA) Procedures for the Management of the Service Name and Transport Protocol Port Number Registry," RFC 6335, BCP0165, August 2011
- Sandy Ginoza, Michelle Cotton and Alexa Morris. "Datatracker Extensions to Include IANA and RFC Editor Processing Information," RFC 6359, September 2011
- Michelle Cotton and Leo Vegoda. "Special Use IPv4 Addresses," RFC 5735, BCP0153, January 2010
- Jari Arkko, Michelle Cotton and Leo Vegoda. "IPv4 Address Blocks Reserved for Documentation," RFC 5737, January 2010
- Geoff Huston, Michelle Cotton and Leo Vegoda. "IANA IPv4 Special Purpose Address Registry," RFC 5736, January 2010
- Michelle Cotton, Leo Vegoda and David Meyer. "IANA Guidelines for IPv4 Multicast Address Assignments," RFC 5771, BCP0051, March 2010
- Zaid Albanna, Kevin Almeroth, David Meyer and Michelle Schipper (Cotton), "IANA Guidelines for IPv4 Multicast Address Assignments," RFC 3171, August 2001

Experience

IANA Services, Internet Corporation for Assigned Names and Numbers, Marina del Rey, CA, January 2000 – present

Ms. Cotton has supported the IANA program for more than 12 years. During her tenure, she has served in various positions of increasing responsibility.



Manager, November 11, 2011 – present. Reviews and assigns unique values to various parameters, such as operation codes, port numbers, object identifiers, protocol numbers, which are used in various Internet protocols based on established guidelines and policies. Distributes and publishes assigned parameter listings and reviews technical documents for consistency with assigned values. Manages the Address and Routing Parameter Area (ARPA) top-level domain according to policies documented in RFC 3172. Ms. Cotton served as IANA liaison to the Internet Engineering Steering Group (IESG); leads a team of four personnel processing all requests for all IANA related services Leading a team of four staff members processing all requests for all IANA related services including Root Zone/TLD Management, Protocol Parameter requests, Internet-Draft reviews, .INT Registry Management. She attends Internet Engineering Task Force (IETF) meetings three times per year; develops and maintains annual Service Level Agreements with the IETF; and has overall responsibility for IANA Services process management, which includes continual review of processes used for IANA Services, reporting, and staffing.

Manager, IETF Relations – November 2007 – October 2011. Served as IANA Liaison to the IESG, which included participating in the tri-annual IETF meetings, participating in IESG breakfast and lunch meetings at the IETF, bi-monthly teleconferences. Working in cooperation with the IETF, she formalized the process for review of Internet-Drafts for IANA Considerations; and led a team processing the Protocol Parameter requests and review of Internet-Drafts for protocol parameter actions requested (average of more than 4,000 IETF-related requests and reviews per year).

IANA Administrator/Project Specialist, January 2000 – August 2007. Ms. Cotton served as IANA Liaison to the IESG. She reviewed and processed all incoming email requests to ICANN and the IANA mailbox. She evaluated and processed of all IANA service requests including Root Zone requests; Protocol Parameter requests from the Internet community and through published RFCs; Internet Number Resource requests; INT Registry requests; and ARPA Registry requests.



Kim Davies, Proposed IANA Function Liaison for Root Zone Management

Summary of Knowledge, Skill, Abilities and Key Qualifications

Mr. Davies is fully qualified to serve as Internet Assigned Numbers Authority (IANA) Function Liaison for Root Zone Management. Mr. Davies brings to this position more than five years of experience in the delivery of Domain Name Service (DNS) operation and root zone administration. Mr. Davies is recognized by the ccNSO as a subject matter expert in the implementation of the processes related to root zone changes, in the interpretation of policies on which the processes are based, and of DNS protocol. Mr. Davies has demonstrated his breadth of knowledge of Root Zone management in the written white papers for the ICANN Board, in the published documentation on the IANA website, and in his presentations in many forums. His expertise encompasses all aspects of Statement of Work (SOW) area C.2.9.2-Adminstrative Functions associated with Root Zone Management.

Education, Relevant Certifications and Training, Publications

Computer Science, Curtin University, Perth, Western Australia – extensive coursework Project Management Institute training Chamber of Commerce and Industry, Australia

Experience

Manager, Root Zone Services, Internet Corporation for Assigned Names and Numbers (ICANN), Brussels, Belgium; Los Angeles, California, October 2005 – present

Mr. Davies performs administrative functions associated with root zone management, including facilitation and coordination of the root zone of the domain name system. He maintains 24 hour-a-day/7 days-a-week operational coverage; works collaboratively with NTIA and the Root Zone Maintainer in the performance of this function; aids communication with community, authors briefing papers, and supports operational interests; and attends meetings of TLD organizations to represent IANA/ICANN. He facilitates communication between non-native English speaking audience and IANA; works to address the needs of multiple cultures on issues of technology as they apply to IANA; and acts as liaison for registry operation and other technical matters. He participates in planned technical growth strategies in IANA/ICANN and with related outside entities. He serves as the Project Lead from ICANN on end-to-end automation system for root zone requests, and on automating technical checks for root zone requests. Mr. Davies has a role as Internal Witness in the quarterly KSK key signing ceremony and was invited as an expert to participate in CCNSO DRWG and FOIWG.

Technical Policy Advisor, Council of European National Top-Level Domain Registries (CENTR), Salzburg, Austria; Brussels, Belgium, April 2002 – October 2005

Mr. Davies represented country-code managers (i.e., operators of ".uk" and ".de") in international forums, and aided communication between member organizations by developing workshops and authoring briefing papers and consensus positions. He was required to apply technical understanding to matters of public policy, identifying and advising the implications of technology and policy on stable Internet function. He played a central role within the secretariat, tasked with a broad range of responsibilities. He also gained experience living and



working in non-English speaking locales (German-speaking Austria and French-speaking Belgium).

Principal, Cynosure Innovation, Perth, Australia, April 2001 – April 2002

Mr. Davies served as an Internet Service Provision consultant for various Australian Government agencies, law enforcement agencies, and private sector. In this capacity, he created and maintained Australia's key reference on the ISP industry. He regularly published articles in Australian trade journals and computing magazines.

Head of Web Services and Design and Programming Lead, iiNet Limited, Perth, Australia, December 1995 – April 2001

Mr. Davies was responsible for websites and online systems for publicly-traded Australian Internet access company. The systems included the internal customer management/tracking system, network operation, and systems maintenance. He worked closely with software development, network planning, and business development units, and developed company outreach material, including style, copy, graphics, and illustrations.

Director, .au Domain Administration (auDA), location April 1999 – November 2005

Mr. Davies was a Board Member of the ccTLD Manager for .AU (Australia) manager from its establishment and through its formative years. Mr. Davies was elected to the Board as a supply class member, representing domain name users in Australia, and was reelected for three additional two-year terms. He helped develop the framework to move the Australian domain name system from a monopolistic legacy system into an open competitive model, including a comprehensive review on naming policies. He worked on matters with a high level of public scrutiny requiring open accountability, and was a Member of the Technical Subcommittee responsible for registry operation and other technical matters.

Board Member, Western Australian Internet Association, November 1995 – November 2000; Company Secretary and Peering Point Manager, Western Australia Internet Association, location, October 1997 – July 2000

Mr. Davies was involved in planning and deployment of Australia's first neutral peering point (WA Internet Exchange, or WAIX) for ISPs to multi-laterally peer with one another. He was ultimately responsibility for day-to-day management of WAIX from launch through mid-2000. During this time it grew from two ISPs to the vast majority of WA-based Internet traffic. He planned growth strategies under a limited budget; advised on relocation and expansion; developed and maintained internal and external documentation and systems; and acted as key liaison between the board and secretariat.



Leo Vegoda, Proposed IANA Function Liaison for Internet Number Resource Allocation

Summary of Knowledge, Skill, Abilities and Key Qualifications

Mr. Vegoda is fully qualified to serve as Internet Assigned Numbers Authority (IANA) Function Liaison for Internet Number Resource Allocation. He offers 15 years of Internet industry experience in both Internet Service Providers (ISPs) and Internet Registries with extensive experience at the operational level of Internet Number Resource Allocation and has deep roots in the Regional Internet Registry community. Mr. Vegoda brings more than six years of experience with ICANN in delivery of Internet Number Resource allocation and assignment. Mr. Vegoda managed the Registration Services team at RIPE NCC prior to joining ICANN. He is the author of seven RFCs and is well-recognized as a subject matter expert in the technical and policy aspects of Internet Number Addresses. His expertise encompasses all aspects of the Statement of Work (SOW) area C.2.9.3-Allocate Internet Numbering Resources.

Education, Relevant Certifications and Training, Publications

BA, Government (with Honors), Birmingham City University, United Kingdom, 1992 – 1995

Publications

- Leo Vegoda. "Time to Remove Filters for Previously Unallocated IPv4 /8s," RFC 6441, November 2011
- Marla Azinger and Leo Vegoda. "Issues Associated with Designating Additional Private IPv4 Address Space," RFC 6319, July 2011
- Michelle Cotton, Leo Vegoda and David Meyer. "IANA Guidelines for IPv4 Multicast Address Assignments," RFC 5771, March 2010
- Michelle Cotton and Leo Vegoda. "Special Use IPv4 Addresses," RFC 5735, January 2010
- Geoff Huston, Michelle Cotton and Leo Vegoda. "IANA IPv4 Special Purpose Address Registry," RFC 5736, January 2010
- Jari Arko, Michelle Cotton and Leo Vegoda. "IPv4 Address Blocks Reserved for Documentation," RFC 5737, January 2010
- Mirjam Kühne, Paul Rendek, Sabrina Wilmot and Leo Vegoda. "IPv4 Address Allocation and Assignment Policies in the RIPE NCC Service Region," ripe-288, October 2003
- Timothy Lowe and Leo Vegoda. "IPv6 Address Space Policy for Internet Exchange Points," ripe-256, August 2002
- Joao Luis Silva Damas and Leo Vegoda. "New Values of the 'status:' Attribute for Inet6num Objects," ripe-243, August 2002
- Joao Luis Silva Damas and Leo Vegoda. "Policy for Reverse Address Delegation under inaddr.arpa in the RIPE NCC Service Region," ripe-244, July 2002
- Joao Luis Silva Damas and Leo Vegoda. "Smallest RIPE NCC Allocation/Assignment Sizes," ripe-242, June 2002



Experience

Internet Corporation for Assigned Names and Numbers (ICANN), Amsterdam, NL, Brussels, BE and Marina del Rey, CA, December 2006 – present

Mr. Vegoda has held several positions of increasing responsibility at ICANN.

Manager, Operational Excellence, 2011 - present

Operational Excellence Officer, ICANN, 2009 – 2011

Manager, Number Resources, 2006 – 2011

At ICANN, Mr. Vegoda is responsible for allocated and unallocated IPv4 and IPv6 address space and Autonomous System Number (ASN) space based on established guidelines and policies.

He manages the process for delegation of Internet Number Resources to Regional Internet Registries (RIRs) for routine allocation. He reserves and directs allocation of space for special purposes, such as multicast addressing, addresses for private networks as described in RFC 1918-Address Allocation for Private Internets, and globally specified applications. Mr. Vegoda maintains a strong working relationship the RIRs. He provides factual information and policy implementation impact assessments to the RIRs' policy-making communities; performs the IANA Function Liaison for Internet Number Resource Allocation role, and also manages ICANN's IANA Department's Business Excellence program, which follows the EFQM (www.efqm.org) methodology since 2009.

Registration Services Manager (and other positions), RIPE NCC, Amsterdam, NL, May 2000 – November 2006

Mr. Vegoda managed a department of 30 staff providing registration services to over 4,000 members in over 60 countries in Europe, the Middle East, Central Asia and – until AfriNIC was established – Africa north of the equator. He provided process development and management, project management, and customer service quality.

Provisioning Specialist, Level (3) Communications, London, GB, March 1999 – April 2000

Mr. Vegoda designed and implemented customer connections at layers two and three for international circuits, Internet access circuits, and rack space. He managed six Local Internet Registries, domain registration services, and configuring access to DNS, mail, and news services.

Senior Hostmaster (and other positions), Demon Internet, London, GB, February 1997 – March 1999

Mr. Vegoda managed multiple Local Internet Registries, domain registration services, and customer contact.



Tomofumi Okubo, Proposed Director of Security

Summary of Knowledge, Skill, Abilities and Key Qualifications

Mr. Okubo is fully qualified to serve as the Director of Security Information for this Internet Assigned Numbers Authority (IANA) program. He has already set high standards of excellence serving as the Cryptographic Key Manager for the Internet Corporation for Assigned Names and Numbers (ICANN) for the past two years. As a security expert specializing in key management security, Mr. Okubo offers an in-depth understanding of standards such as ISO27000 series, ISO21188, ANSI X9.79, ISO31000, BS25999 and NIST Special Publications. Prior to joining ICANN, he served as a security engineer for Verisign, one of the major certification authorities, and played an instrumental role in designing security for the Root DNSSEC design project. He also co-authored the "DNSSEC Policy & Practice Statement Framework," currently in draft state in the IETF. He has extensive experience managing third party audits such as SAS70, SysTrust, WebTrust, PCI-DSS ,and FISMA/C&A. He holds a Certified Information Systems Security Professional (CISSP) in good standing, and possesses excellent communication skills in both Japanese and English. Mr. Okubo's expertise spans all activities in the Statement of Work (SOW) C.3-Security Requirements and part of C.5 Audit Requirements regarding security audits.

Education, Relevant Certifications and Training, Publications

BA, English Literature, Hosei University, Tokyo, Japan, 2004

VeriSign Key Manager Certification, January 2008

EnCase Forensics I Completed, October 2009

EnCase Forensics II Completed, February 2010

Certified Information Systems Security Professional (CISSP), September 2011

Experience

Cryptographic Key Manager, Internet Corporation for Assigned Names and Numbers (ICANN) Marina del Rey CA, July 2010 – present

Mr. Okubo served in this position as a Consultant to ICANN from July 2010 to January 2011. Once he received his VISA, he became a full time employee in February 2011.

As Cryptographic Key Manger, Mr. Okubo serves as author and maintains all cryptographic key management-related policies, procedures, manuals, and scripts. He continually assesses operating environments and procedures for compliance with applicable security policies and requirements through a periodic internal security audit. He researches, analyzes, evaluates, and recommends new key management methodologies and security measures to improve processes. He develops and executes training programs for all key management roles; maintains up-to-date knowledge of key management security and other PKI related technology; and functions as ICANN's point of contact for key management security issues. Mr. Okubo effectively coordinates and facilitates the annual third-party audit such as SysTrust, and develops, implements, and maintains a business continuity management program for key management operations. He attends and participates in regional and international Internet technical forums and network operations group meetings, and designs physical and logical security for new services that require cryptographic key management.



Security Engineer, Verisign, Inc., Sterling VA, December 2008 – July 2010

Key Manager, Verisign Japan K.K., Kawasaki-shi Kanagawa, April 2006 – December 2008

Mr. Okubo served in several positions with Verisign. During his tenure, he executed Key Ceremonies to create commercial Certification Authorities (CA) as a Verisign Certified Key Manager. He contributed to the development of the ICANN Key Management process and related security measures as an advisor. He has a deep and thorough knowledge of cryptography and cryptographic devices, and an in-depth knowledge of Abstract Syntax Notation One. Mr. Okubo possesses excellent understanding of the authentication and validation process used in Verisign certificates. He reviewed and updated the Verisign CPS as a subject matter expert in the Verisign Policy Management Authority, and reviewed, updated, and developed security standards and procedures. He demonstrated an excellent understanding of physical and logical security controls deployed in Verisign, and in-depth knowledge of the execution and management of audits for PKI systems such as AICPA trust services (WebTrust, SysTrust), Statement on Auditing Standards No. 70, Federal Information Security Management Act, and European Telecommunications Standards Institute TS 101 456. He was capable of executing and managing internal audits based on existing frameworks such as COBIT, ISO27k, and SP800-53. He created and executed a Key Manager training program for customers, and executed Risk Management based on SP800-30 (Conducted Risk Assessment for the TLDs). He has a basic knowledge of computer forensics.

IT Sales Division, HaLF TIMe Co., Ltd., Minato-ku Tokyo, July 2005 – February 2006

Mr. Okubo performed system administration on mail, web, and DNS servers; gained experience in human resource management; and pioneered alliance with major companies by telephone appointing.

Technical Sales Division, Miracle Linux Corporation, Minato-ku Tokyo, January 2005 – June 2005

Mr. Okubo gained experience in partner sales and basic negotiation skills, and acquired indepth knowledge of Oracle and Miracle Linux products.

Editorial Division, NAHT Co., Ltd., Chiyoda-ku Tokyo, June 2003 – October 2004

Mr. Okubo gained knowledge in publishing and printing; developed capability of coordinating tight schedules; and obtained skills of editing, revising, proofreading, and color adjustment.



Steve Antonoff, Proposed Conflict of Interest Officer

Summary of Knowledge, Skill, Abilities and Key Qualifications

Mr. Antonoff is fully qualified to serve as the Conflict of Interest Officer on the Internet Assigned Numbers Authority (IANA) program for Internet Corporation for Assigned Names and Numbers (ICANN). He has proven himself as an outstanding human resources specialist during his 30-year career in the field of business administration, most recently serving as the ICANN Director of Human Resources (HR) and Conflict of Interest Officer on the current IANA contract. Mr. Antonoff offers the expertise, competence, and management skills to serve as HR Director/Conflict of Interest Officer encompassing the full range of activities including employment, employee relations, compensation/benefits, internal/external compliance, training and development, and safety and performance management, as well as administrative responsibilities including facilities, real estate, purchasing, fleet management and tele-center operations. His expertise encompasses the Statement of Work (SOW) area **C.6.**

Education, Relevant Certifications and Training, Publications

Seton Hall University School of Law, Newark, New Jersey, 1982 – 1984 MBA, Accounting, New York University, New York, 1981 BS, Hofstra University, Hempstead, New York, 1975

Experience

Director of Human Resources, Internet Corporation for Assigned Names and Numbers, Marina del Rey, California, March 2007 – present

Mr. Antonoff serves as senior ICAAN staff member designated as Conflict of Interest Officer, responsible for ensuring ICANN is in compliance with the Contractor's internal and external conflict of interest rules and procedures. His responsibilities include performance management, recruiting/employment, processes and procedures, internal/external compliance, safety, compensation, benefits, training and development, employee relations, facilities, real estate, purchasing, and travel. Additional responsibilities under the IANA Functions contract are to distribute ICANN's conflict of interest policy to all employees, directors, and subcontractors upon their election, re-election, or appointment, and annually thereafter; to require that they complete this certification; and to promptly update the certification to disclose any interest, transaction, or opportunity covered by the conflict of interest policy that arises during annual reporting period. Mr. Antonoff also develops and publishes a Conflict of Interest Enforcement and Compliance Report. Mr. Antonoff trains all managers and supervisors in conflict resolution and performance counseling techniques. He identifies new recruiting sources and methods and reduced time to hire from nine weeks to five weeks and cost per hire from 19% of pay to 9% of pay.

Director of Human Resources, The Empire Companies, Ontario, California, May 2005 – January 2007

Responsibilities included employee relations, employment, compensation, benefits, compliance, and performance management. He trained all managers in conflict resolution and performance counseling techniques; and identified new recruiting sources and methods. He



redesigned the bonus program to include all employees while maintaining overall payroll cost integrity; and designed and implemented an online performance management system improving quality and timeliness of performance feedback.

Vice President, Human Resources, Mercury Air Group, Inc., Los Angeles, California, June 1998 – May 2005

Mr. Antonoff's responsibilities included employee relations and internal/external compliance. He ensured compliance with Sarbanes-Oxley, SEC, and FA; and oversaw employment, employee relations, training and development, compensation, benefits, HRIS, labor relations, and international HR practices. He worked closely with the CEO to help coach and develop his direct executive reports developing their leadership skills and making them more effective leaders. He developed and implemented training sessions for managers on employee relations/conflict resolution/employee counseling as well as conducting effective investigations. He performed a Benefits Audit realizing a savings of more than \$700,000 refund to the firm and creating an annual savings of \$200,000 while improving benefits offered to employees. He designed, developed, and implemented a comprehensive "Customer Service" training program and manual resulting in improved employee morale and a reduction in turnover from over 40% annually to under 20% annually. He led a cost control initiative company-wide producing an annual savings of over \$3 million with improved efficiencies. He successfully oversaw the merger of five acquired companies and over 400 employees with no loss of productivity. He designed and introduced a comprehensive salary administration system including job descriptions, job evaluation system, salary grades, and merit increase matrix.

Director, Human Resources, Specialty Laboratories, Santa Monica, California, April 1997 – June 1998

Mr. Antonoff was responsible for employment, employee relations, internal/external compliance, compensation, benefits, safety, and performance management.

Manager, Personnel Services, QANTAS Airways, El Segundo, California June 1995 – April 1997

Mr. Antonoff was responsible for employment, employee relations, compliance, expatriate processes, global compensation, benefits, HRIS, and safety.

Director, Human Resources, Bell Industries, location, May 1994 – June 1995

Mr. Antonoff was responsible for employment, employee relations, compliance, compensation, benefits, safety, security, and performance management.

Director, Human Resources Services, LA Gear, Santa Monica, California, June 1990 – May 1994

Mr. Antonoff was responsible for employment, employee relations, compensation, benefits, compliance, training, safety, security, loss prevention, facilities, tele-center, and real estate.

Previous Positions

- Hyundai Motor America, Manager, HR and Administrative Services, April 1987 June 1990
- Materials Research Corporation, Manager, Personnel, May 1984 February 1987
- Savin Corporation, Manager, Personnel Operations, April 1980 May 1984
- Todd Logistics, Personnel Manager, May 1978 April 1980
- Erica Shoes, Production Manager, June 1976 May 1978



3.0 Past Performance

3.1 Introduction

For more than 13 years, the Internet Corporation for Assigned Names and Numbers (ICANN) has successfully performed the Internet Assigned Numbers Authority (IANA) Functions with the same scope and complexity as the solicitation. We have clearly demonstrated our capabilities to successfully maintain continuity and stability of services related to interdependent Internet technical management functions., We are the only organization that fully understands the unique operational characteristics of the IANA Functions. Indeed, only ICANN offers NTIA a demonstrated track record of contributing professional support to all IANA Functions.

ICANN's experience gives us a thorough understanding of the complex nature of the required tasks to perform the core IANA Functions, including administrative and professional staffing, material, equipment, facilities, and service.

Our past performance demonstrates our ability to continue to provide high quality support services in every functional area of the IANA SOW. We leverage our past performance experience acquired through prior and current performance supporting the same scope of work.



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3.2 Internet Corporation for Assigned Names and Numbers (ICANN)

PROJECT NAME:	INTERNET ASSIGNED NUMBERS AUTHORITY	
Customer Name	U.S. Department of Commerce (DoC), National Telecommunications and Information Administration (NTIA)	
Contract Number	SA1301-06-CN-0048	
Point of Contact	Vernita Harris, 202.482.4686, vharris@ntia.doc.gov ,	
Name, phone, email		
Period of Performance	2006-2012	
Contract Type	Cost Contract	
Similarities and Differences Between Proposed Effort and this Contract	This contract is the same in nature and scope as all eight of the requirements outlined in the Statement of Work (SOW), Section C.	

3.2.1 Brief Description

ICANN has performed the IANA Functions under SA1301-06-CN-0048 since September 2006 with renewals on each anniversary through the term of five years. Additionally, two extensions were granted in 2011 and 2012 as the current solicitation process was underway. Including the 2006 contract, ICANN has performed the IANA Functions since 1998 on a no-fee basis. In recognition of ICANN's success in this endeavor, more than 70 responses to the NOI and FNOI urged ICANN's continuing perform and award of the IANA Functions contract. ICANN will bring this accumulated wealth of experience, long-standing relationships with the IANA customers and stakeholders and key expertise in the IANA Functions areas into the new contract and continue to perform this job with excellence.

3.2.2 ICANN's Performance of Current Contract Directly Relevant to Proposed Effort

ICANN's obligations under the current IANA Contract are nearly identical to those listed in the instant RFP's SOW requirements (Section C.1 though C.8).

SOW C.1.

ICANN was organized based on the multistakeholder, global participation model used by early developers of the Internet. To facilitate global, regional participation, ICANN hosts three public meetings annually in five geographic regions on a rotational basis. For example, in 2010 the meetings were held in Cartagena, Colombia; Brussels, Belgium; and Nairobi, Kenya. In 2011, the meetings were held in Silicon Valley, California; Singapore; and Dakar, Senegal. ICANN's key organizational constituencies: the Address Supporting Organization (ASO), the Generic Names Supporting Organization (GNSO), the ccTLD Names Supporting Organization (ccNSO), the Governmental Advisory Committee (GAC), the At-Large Advisory Committee (ALAC), and the Security and Stability Advisory Committee (SSAC) convene meetings during this week. ICANN uses this opportunity to consult the community on key issues and policy implementations. Between 1,500 and 2,000 individuals attend the meetings, including several participants from the local Internet communities. Additionally, a majority of the sessions are shared live over the Internet using a variety of media presentations including webcasting, open chat rooms and audio feeds. With this broad reach, ICANN staff performing the IANA Functions are able to



interact with the relevant and impacted stakeholders and discuss any concerns about ICANN performance of the IANA Functions.

ICANN has developed strong collaborative relationships with the IANA Functions stakeholders. Relationships between ICANN and these stakeholders are built through face-to-face meetings, working groups and various forms of online collaboration. ICANN uses its relationships with stakeholders to cooperatively identify useful improvements to the IANA Functions services based on their specific needs.

For example, ICANN recently converted the web page indexing all the protocol parameters registries to XML. This made the registries more easily accessible for automated queries, as well as allowing them to be downloaded in a variety of formats. This work was planned based on discussions with key participants in the IETF. Michelle Cotton led this effort as the IETF liaison, much as Kim Davies has led similar activities with the TLD operators and Leo Vegoda has with the RIR community. ICANN also has strong working relationships within each of the relevant groups.

SOW C.2.1

ICANN was established in 1998 as a not-for-profit, public benefit corporation organized under the laws of the State of California. In that capacity, ICANN has successfully performed the IANA Functions since December 24, 1998. On February 8, 2000, March 21, 2001, March 13, 2003, and, most recently, on August 14, 2006, DoC entered into successive agreements with ICANN to perform the IANA Functions.

As the Prime Contractor, ICANN has managed the IANA Functions providing a single Point of Contact (POC) to NTIA with ultimate accountability for successful contract execution and completion. An industry-recognized prime contractor and performer of the current IANA Functions program with over 13 years of experience, ICANN brings NTIA the enhanced organizational oversight and strong central contract management and execution essential for successful contract performance. We have a demonstrated track record of providing flexible, practical solutions to deliver the current IANA Functions Contract. As a major Internet support contractor, ICANN is committed to retaining the skills and expertise garnered from performing the current IANA Functions program, and to bringing new and relevant technology to our customers.

SOW C.2.2

Over the past 13 years, ICANN has enhanced the IANA Functions capabilities by assigning 11 staff to the IANA Functions Program, a redundant systems infrastructure and the expertise of the entire ICANN and extended community. Our management approach has matured through continuous process improvement and has remained flexible to handle the evolving requirements and new challenges on IANA. Our management techniques and controls are exercised through an empowered, U.S.-based Program Management Office (PMO) headquartered in California that is designed to provide continuously superior technical support, improved communication and collaboration and institutionalized, best-practice methods to NTIA for managing IANA tasks.



SOW C.2.3

ICANN has performed the IANA Functions at no cost to the government and does not charge any fees for the IANA Functions to users. ICANN is dedicated to keeping the Internet secure, stable and interoperable and to do so in a way that makes the IANA Functions accessible to all.

SOW C.2.4

ICANN understands the importance of maintaining accurate and timely information in the root zone, the protocol parameter registries, the Internet number allocation records, and the ARPA and INT domains to the security and stability of the global Internet.

The root zone is at the apex of the Domain Name System (DNS) and the information stored in the root zone file is used by almost all Internet applications. The role of the IANA Functions Operator is to maintain and validate that the information that is accepted into the root zone is in keeping with the established policies and technical criteria. ICANN has and will continue to provide the expertise necessary to evaluate potential changes and ensure the integrity of the information that is approved for the root zone.

The technical protocol parameters and ARPA administration provide the technical standards and protocol registries, which form the basis for creating products, applications and the core infrastructure of the Internet. ICANN has a proven track record in working hand-in-hand with the Internet Engineering Task Force (IETF) to administer and maintain these important registries and domains as is documented in the monthly reports that ICANN publishes on its website. ICANN has developed SLAs with the IETF for maintenance and administration of the technical protocol parameters and ARPA and publishes monthly reports supporting our performance of these IANA Functions.

The allocation of Internet numbers such as IPv4, IPv6 and Autonomous System numbers are governed by the Global Policies that are defined and adopted by all five Regional Internet Registries (RIRs) and ICANN. These unique identifiers, like the root zone, are fundamental components of a smoothly working Internet. ICANN works in close collaboration with the RIRs to administer the allocation of Internet numbers promptly and efficiently and reports on its performance of this IANA Function.

SOW C.2.5

While ICANN collaborates closely with the IANA stakeholders, ICANN does not take the lead on policy discussions or initiatives. ICANN's employees have been requested to: act as Subject Matter Experts in community studies, such as the Variant IDN Project; provide expertise on various issues, such as the ccNSO Framework of Interpretation WG; and to provide impact analyses on proposed global policies, such as the proposal for post-exhaustion IPv4 allocations by IANA. By providing information and expertise, policies are developed by others with IANA considerations in mind, enabling them to be implemented with greater efficiency.

SOW C.2.6

ICANN has developed documentation of its technical requirements and processes for interested and affected parties and publishes these on its website.



SOW C.2.7

ICANN has performed the IANA Functions for more than 13 years. Consequently, many of the processes defined within this response have been historically documented and implemented by ICANN, relying on the deep understanding that ICANN brings to the complexities of the IANA Functions. The maintenance requirements of different requests vary in nature, but in essence all involve ensuring that consistent and predictable processes are used in managing those requests. This consistency is key to ensuring that the community retains its trust in ICANN's performance of the IANA Functions as an authoritative source for key Internet data.

Through a business excellence initiative that ICANN implemented in 2009, ICANN has documented existing processes and shared this documentation with stakeholders through various mechanisms. In many cases, the process has been developed collaboratively, as exemplified by the RFCs co-authored by ICANN and other experts in specific protocols. ICANN looks forward to continuing this documentation process and collaboration with the community on creating public, comprehensive documentation of the IANA Functions.

SOW C.2.8

The close relationships ICANN has developed with interested and affected parties also enable ICANN to collaborate with those IANA stakeholders on defining appropriate service levels for the IANA Functions. This has been most successfully implemented with the IETF. In a series of annual Supplemental Agreements to the IETF-ICANN MOU, ICANN has committed to specific performance times for IETF-related protocol parameter requests. ICANN has successfully met these commitments 97% of the time over the last five years.

It is the goal of ICANN to develop similar service commitments with each of its stakeholder groups.

SOW C.2.9

ICANN performs the IANA Functions using a team of experts who process requests for the different areas of responsibility. ICANN maintains close and productive relationships with the interested and affected communities, such as top-level domain operators, the Internet Engineering Task Force (IETF) and the RIRs that develop Internet standards and operate Internet infrastructure. ICANN does this through the three annual ICANN public meetings and by attending local, regional meetings of IANA Functions stakeholders. The various services of the IANA Functions can be grouped broadly into four categories:

- Number Resources The coordination of the global pool of Internet Protocol and Autonomous System numbers and their allocation to Regional Internet Registries.
- **Protocol Assignments** The management of Internet protocol and parameter registries and .ARPA in conjunction with relevant standards bodies.
- **Domain Names** The management of the Domain Name System Root Zone, the .INT domain and the WHOIS service for the root zone.
- **Domain Name System Security Extensions (DNSSEC) Key Signing Key management –** As of 2010, the management of the Key Signing Key for the root zone.



SOW C.2.9.1

There are more than 1,500 protocol parameter registries with dozens added each year. ICANN supports the RFC process by reviewing RFC Internet Drafts (I-Ds) for compliance with the IANA requirements during the IETF review process. An analysis of the document is performed to ensure all IANA Functions activities have been appropriately defined and articulated. If any registries need to be created to support the RFC, ICANN drafts them and shares the draft with the I-D authors for verification. When the I-D is adopted as an RFC, ICANN brings the registry to a "live" state with any initial registrations in place. The governing RFC is referenced in the registry, so all can find the registration policies for that registry. Subsequent registration requests are evaluated by the RFC criteria.

The .ARPA domain is the "Address and Routing Parameter Area" domain and is designated to be used exclusively for Internet-infrastructure purposes. It is administered by ICANN as the IANA Functions Operator in cooperation with the Internet technical community under the guidance of the Internet Architecture Board.

SOW C.2.9.2

Perform Administrative Functions Associated with Root Zone Management. In accordance with the existing process workflow, a TLD manager submits a change request to the IANA Functions Operator, ICANN, which is then processed and evaluated according to the type of change being requested. Once the various checks are conducted satisfactorily, the request is transmitted to the Administrator, NTIA, for authorization. Following successful authorization, the Root Zone Maintainer, Verisign, executes changes to the root zone file. Finally, ICANN as the IANA Functions Operator implements the authorized changes to the WHOIS database, and the request is completed.

The process is designed to be as lightweight as possible within the requirements of the DNS Root Zone management process. This allows for straight-through processing with almost full automation for the significant majority of DNS Root Zone change requests. Manual processing is only performed in cases where automation cannot be achieved without compromising the integrity of the evaluation required.

Root Zone File Change Request Management. ICANN's approach to this requirement is to conduct a review of a Change Request to ensure it is consented by the relevant parties and meets minimum criteria that serve to ensure common technical issues are identified and corrected or do not otherwise impact the stable and secure operation of the DNS Root Zone. The technical checks were developed in conjunction with the community of TLD managers and with the Root Zone Maintainer, Verisign.

As well as availability during standard business hours, ICANN provides TLD managers with a 24x7 emergency contact number that allows TLD managers to quickly reach ICANN as the IANA Functions Operator to declare an emergency and seek to expedite a Root Zone change request. ICANN undertakes to execute such changes according to normal workflow as expeditiously as possible. This prioritization includes performing reviews of the request as the first priority, out of ordinary business hours, if necessary, and informing its contacts at NTIA and Verisign in their



roles as Administrator and Root Zone Maintainer of any pending changes that require priority authorization and implementation.

Root Zone "WHOIS" Change Request and Database Management. ICANN makes the contents of the WHOIS database available publically using the standard WHOIS protocol. ICANN operates this WHOIS server at *whois.iana.org* on port 43 in accordance with RFC 3912. As an additional service, ICANN also publishes extracts of the WHOIS data on its website. This provides an additional, customer friendly interface for the data and also provides more interactivity for which the WHOIS protocol does not allow. For example, searches can be conducted on other attributes such as when the TLD's data was last updated or the country in which the TLD is designated to or sorting the TLDs by language/script.

Delegation and Redelegation of a Country Code Top Level-Domain (ccTLD). For each application to delegate a new ccTLD, or redelegate an existing country code top-level domain, a "Delegation and Redelegation Report" is developed for transmittal to the Administrator. This Report identifies at a minimum the following elements:

- The applied-for string
- The identity of the organization seeking delegation of the string
- The identity of the proposed administrative and technical contacts for the string
- When the request was lodged to obtain the delegation or redelegation
- The evaluation of relevant facts pertaining to the assessment criteria above
- The date ICANN's Board of Directors reviewed and approved the application.

This Report format demonstrates that the ICANN followed the policy framework in processing the request.

Delegation and Redelegation of a Generic Top Level Domain (gTLD). In contrast with the approach for ccTLDs described in C.2.9.2.c, requestors for either delegation or redelegation of gTLDs must have already completed the evaluation and assessment for the eligibility of their TLD name request with ICANN prior to lodging a Root Zone Change Request. In the case of a new gTLD, this means they must have successfully concluded the new gTLD application process and have executed a contract with ICANN before a Root Zone Change can be considered. The policies guiding eligibility of new gTLD root zone delegations are defined in ICANN's New gTLD Applicant Guidebook. For existing gTLDs, the relevant provisions in the TLD registry contract with ICANN must have been changed following the relevant process before a Root Zone Change can be considered.

Historically, and under the provisions of this proposed contract, ICANN in its capacity as the IANA Functions Operator verifies that all requests under C.2.9.2.d are consistent with the procedures developed by ICANN and that documentation is provided verifying that ICANN followed its own policy framework, including specific documentation demonstrating how the process provided the opportunity for input from relevant stakeholders and was supportive of the global public interest. This review is distilled into a Delegation and Redelegation Report which is presented to the Administrator and, upon authorization, published on ICANN's IANA website.



Root Zone Automation. Since 2006, ICANN has—in its role as the incumbent IANA Functions Operator—collaboratively worked with the TLD management community (Verisign as the Root Zone Maintainer and NTIA as the Administrator) to develop and deploy an automated workflow management system for the Root Zone Management tasks. The system automates all practicable steps of the workflow, while not impeding the ability of the parties to execute the established Root Management workflow. ICANN, NTIA and Verisign completed the deployment in July 2011. Today, the majority of root zone change requests are lodged through this online system with the remainder manually entered into the system by ICANN. In addition to the benefits conferred by the automation system, ICANN preserves all legacy methods of interaction with its customers. Customers are free to submit requests via email, for example, using the traditional methodology. The system has been designed to provide full flexibility in this regard.

For changes to the Root Zone File, Verisign is required to implement the changes to the file itself. ICANN's systems monitor status of this process using the EPP protocol in order to provide timely updates to the requestor on the status of their request. ICANN's systems recognize what the resulting root zone will look like when a change is conducted. Once Verisign's systems indicate via EPP that the root zone file change has been implemented, ICANN's systems will automatically obtain the revised file and cross-verify its contents with what ICANN's systems expect will be the product of the change. Only once ICANN's and Verisign's systems concur on the correct implementation of a change will it be deemed implemented and complete.

Root Domain Name System Security Extensions (DNSSEC) Key Management. Domain Name System Security Extensions (DNSSEC) are described in a set of IETF specifications 21 for adding origin authentication and data integrity to the Domain Name System. DNSSEC provides a way for software to validate that Domain Name System (DNS) data received by end users is identical to that published by DNS zone maintainers and has not been modified by third parties. This is done by incorporating public key cryptography into the DNS hierarchy to form a chain of trust originating at the root zone. The practices and provisions used to provide Root Zone Key Signing Key (KSK) key management and distribution are documented in the DNSSEC Practice Statement (DPS) for the Root Zone Key Signing Key (KSK) Operator in accordance with the specific requirements of the U.S. Department of Commerce. The DPS was co-written by ICANN and Verisign.

Customer Service Complaint Resolution Process (CSCRP). ICANN, in all cases, makes every attempt to be responsive and efficient in processing requests relating to the various IANA Functions. If, for any reason, a requester feels ICANN has not performed the service to the requester's expectation, requesters may escalate a concern pursuant to the Complaint Resolution Process described in this proposal.

SOW C.2.9.3

Allocate Internet Numbering Resources. ICANN works with the RIRs and their collective organization, the NRO, to manage number resource allocations as part of the IANA Functions. Additionally, some IP address blocks are reserved by the IAB and IETF for specific purposes.



Specific use number resources, such as multicast IP addresses, are assigned following the protocol-parameter process.

SOW C.2.9.4

The .INT domain is reserved exclusively for intergovernmental organizations, and ICANN has been performing the management role for the .INT domain in a stable and secure manner for approximately 12 years. The requirements to register a sub-domain in the .INT domain are defined in RFC 1591, and ICANN manages this domain as per the policy established by RFC 1591.

As the manager of the .INT domain, ICANN acts as a steward of the domain in the best interests of the community for which the domain was established—the intergovernmental organizations.

SOW C.2.10

ICANN has managed the IANA Functions under contract with the NTIA in the manner that any additions of IANA Functions or substantive changes to the methods used in delivering the IANA Functions are subject to COR approval. ICANN and the NTIA have developed contract modifications as needed to account for any such adjustments.

SOW C.2.11

ICANN has developed an IANA Functions document publication process, which accounts for COR review of documents pertaining to the IANA Functions contract prior to their publication. This process has served both parties well in providing suitable and appropriate review for contract-related materials

SOW C.2.12

The IANA Functions Program Manager, Elise Gerich, is responsible for successfully managing and overseeing the actions of all employees in execution of the IANA Functions. She meets all requirements as stated in the solicitation. Ms. Gerich is well known within the NITA and IANA communities, having served 11 years as a contractor in support of IANA. She leads our team of dedicated and experienced personnel. Ms. Gerich is directly responsible for the successful implementation and performance of the IANA Contract, for exercising management initiative to anticipate the needs of NITA and all stakeholders and for smoothly implementing changes that ensure efficient continuous support services. She is the primary point of contact for all tasks on this program and will be fully accountable for all aspects of contract performance. She conducts the day-to-day management of the program, which includes working closely with the leadership of NITA and engaging and integrating support from the stakeholders.

SOW C.3 Security

ICANN takes seriously its commitment to manage the IANA Functions in a secure and stable manner. ICANN has developed a multiple redundant core infrastructure and has geographically diverse implementations of the IANA Functions hardware and software. Security measures such as hardware-based firewalls, network segregation between outward facing and internal hardware and software components and intrusion detection mechanisms all assist in ensuring that the IANA Functions computing and communications systems are secure, resilient and reliable. Documentation of the processes and configuration of these systems is regularly updated as changes are introduced to the network or services involved. ICANN prepares an



annual IANA Information Security Plan, per the existing contract, and submits this Plan to NTIA on November 30th of each year.

ICANN has appointed a Director of Security for IANA in each of the contract years under the current contract. This individual participates in preparing ICANN's IANA Information Security Plan and the ICANN IANA Continuity and Contingency of Operations Plan. The Director of Security for IANA works closely with the ICANN Security Department to ensure that all appropriate security safeguards are in place for ICANN's personnel and systems used in the performance of the IANA Functions.

SOW C.4 Performance Metrics

ICANN publishes a dashboard on the ICANN website, which includes statistics on the performance of the root zone change requests, the protocol-parameter change requests and IP number resource requests. This is updated monthly and available to all. ICANN will update these performance metrics to match those upon which the various stakeholder groups agreed as discussed earlier in this proposal.

SOW C.5 Audit

In 2007, ICANN implemented CVS, industry standard software to manage version control, for the IANA Functions registries and other databases. This software has allowed ICANN to record and retain data on which registries were updated, who introduced the changes and at what time. There has not been any call to revert to an earlier version to date, but the capability exists to undo any errors as soon as they are detected.

ICANN has conducted reviews of the root zone process and of the change requests themselves. The most recent internal review of root zone change requests was for the period July 2004 through September 2011. Out of approximately 800 requests, two data errors were detected that were corrected prior to root zone data update and two process errors that led to a new step in the manual root zone management process. None of these mistakes would have produced negative results for the published root zone, but all were caught prior to publication in the root zone.

A third party risk management analysis for the root zone management processes was completed in 2009 and published on ICANN's website in 2010. This review analyzed the manual and automated processes and compared them for risk introduction and risk management. The overall conclusion of the third party analysis was that ICANN had implemented a successful process. Working from this report, ICANN implemented several changes to the process to mitigate the risks identified in moving to a more fully automated workflow.

SOW C.6 Conflict of Interest Requirements

ICANN takes measures to avoid any activity or situation that could compromise, or give the appearance of compromising, the impartial and objective performance of the contract. This is done through many policies and practices that ICANN has in place, and that ICANN is continually improving and enhancing to ensure that we follow best practices.

ICANN has several different methods of identifying and managing conflicts of interest. In the written policies and practices, ICANN employees, Board members and subcontractors are



required—upon appointment or election and annually thereafter— to submit a conflicts of interest statement or certification disclosing all actual or potential, current and future conflicts. There is an ongoing obligation for each person to update his or her certification statement throughout the year if his or her circumstances change such that a conflict of interest is created.

ICANN's Conflicts of Interest and related policies and practices are contained in numerous documents:

- ICANN's Employee Conflict of Interest policy, which will also be applicable to subcontractors
- ICANN's Conflict of Interest policy applicable to ICANN's Board of Directors, Officers and Key Employees
- ICANN's Code of Conduct
- ICANN's Expected Standards of Behavior
- ICANN's Corporate Governance Guidelines
- Summary of ICANN's Rules for Staff Interactions with the Community after the Approval of the New gTLD Program

The above can also be found in **Appendix E**.

The policies, practices and procedures address conflicts based on personal relationships or bias, financial conflicts of interest, possible direct or indirect financial gain from ICANN's policy decisions, and employment and post-employment activities. Further, the conflicts of interest policies do include appropriate sanctions in case of non-compliance, including the possibility of suspension, dismissal and other penalties as appropriate.

ICANN posts the Employee COI policy on an internal ICANN website in a section called "Policies and Procedures." Internal and external legal counsel, as well as the COI Officer, review this policy annually to ensure compliance with current best practices and all laws, rules and regulations. Further, ICANN's Board annually reviews the COI policy applicable to the Board of Directors and recommends any suggested changes based on research of current laws and best practices. Any material suggested changes are posted for public comment. The Board also seeks expert analysis, as deemed appropriate, on recommendations of any suggested changes. Once public comment has been received, the Board then revises the policy as appropriate and adopts a revised policy, which is then publicly posted.

In addition to the conflicts of interest policies, ICANN has taken further steps to ensure that there is more emphasis and limitations on post-employment activities. For example, ICANN's current Corporate Governance Guidelines include actions taken by the Board in December 2011 prohibiting their post-Board service activities as it relates to new gTLDs, one of ICANN's major programs. The Board is in the process of reviewing further recommendations of more general prohibitions and limitations in relation to post-Board service activities. The final determination on those recommendations will be included in a revised Corporate Governance Guidelines.

SOW C.7 Continuity of Operations

Operational management of the IANA Functions is supported by three departments within ICANN: the IANA Department, the IT Department and the Security Department. Working



collectively, these three groups support the IANA Functions services and infrastructure. The IANA Functions infrastructure is managed as part of ICANN's corporate infrastructure. This ensures that supporting tools, such as email and website continuity, are maintained at the highest level of availability and resiliency. Customized development of key software systems are maintained in ICANN's multiple redundant data centers.

ICANN currently has and will continue to have four distinct data centers situated in three geographic locations within the United States: two in Los Angeles, California, and one each in Culpeper, Virginia, and Reston, Virginia. ICANN will maintain these sites, so the combined resources of any two of them will be sufficient to support all of the IANA Functions and activities. Both sites are within easy access of ICANN's offices in California and Washington, DC.

Additionally, a Contingency and Continuity of Operations Plan (CCOP) uses the geographic diversity of the IANA Functions team to provide responsiveness even in the event of highly disruptive events. ICANN's IANA CCOP has been tested in a no-notice exercise with ICANN bringing all of the IANA Functions services back online well within the established window of opportunity. ICANN routinely reviews and updates the CCOP, so all those who support IANA Functions infrastructure and operations remain aware and alert to their roles and responsibilities.

3.2.3 Additional Criteria

Schedule Performance

The current contract defines two reporting deliverables: monthly reporting as defined in the contract and annual delivery of the updated Information Security Plan. ICANN has successfully fulfilled both of these requirements throughout the term of the contract. The monthly report ICANN delivers to the COR covers root zone change request metrics, as well as statistics on IP address requests. Additionally, ICANN has prepared a monthly report for the IAOC/IETF detailing metrics for IETF-related requests. These include analysis of ICANN's performance on the protocol-parameter requests, as well as the review of I-Ds.

Business Relationship

ICANN maintains a professional relationship with the NTIA, the administrators of the IANA Functions Contract. ICANN works closely with NTIA as a partner in managing the root zone and in the development of specific IANA Actions, such as the introduction of DNSSEC to the root zone and the incumbent DNSSEC key management responsibilities.

The larger community of IANA stakeholders have also recognized ICANN's professionalism in management of the IANA Functions. This has been demonstrated not only in the overwhelmingly positive responses to the NOI and FNOI for the IANA Functions Contract supporting ICANN's continued management of the IANA Functions but in numerous public comments and communications to ICANN directly.

"We congratulate ICANN on the very impressive performance of the IANA function, the steady progress on DNSSec and the overall improvements to the ICANN process especially the better organization of meetings and associated preparatory papers."



- Richard Currey, CEO of InternetNZ, in a letter to Rod Beckstrom, October 2009

"The [IETF IANA WG] monthly calls were once quite important and had a lot to do. Nowadays, there are any fewer issues, and the calls are shorter and often have few participants. I view that as a sign of goodness. People presumably feel like things are generally in good shape and there isn't a need to discuss such. In short, the IETF is largely happy with the reports and the information they contain. And more importantly, with the overall quality of IANA service to the IETF."

Thomas Narten, IETF Liaison to the ICANN Board,
 in an e-mail to the Board IANA Committee, December 2009

"The IAOC extends its thanks and appreciation for the exceptional performance of IANA on behalf of the IETF over the last few years. This performance has been marked by its professionalism, cooperation, open communications and can-do spirit. Your capable staff and ongoing investment in improving the robustness of your infrastructure have contributed to our successful partnership."

- Ray Pelletier in e-mail to Elise Gerich and Rod Beckstrom, November 2010

"I am taking this opportunity to place on record my sincere gratitude for an excellent experience in the handling by your Root Management Team of our recent request for nameserver changes for .DM [...] The first acknowledgement of our submission and all communications thereafter were professional, clearly instructional and most remarkably, expeditiously handled."

- H.E. Jennifer M. Aird in an e-mail to Kim Davies, August 2011

Oral and Written Communications

ICANN is fortunate to be able to draw from a large experienced stakeholder community when seeking staff for ICANN's IANA Department. All managers within the group exhibit strong oral and written communications skills as evidenced by the publication of several RFCs from within the team, as well as the numerous presentations ICANN delivers for the IANA Functions. They are regularly requested to speak at events organized by key stakeholders.

In addition to engagement in various open forums and private discussions, ICANN is regularly engaged by customers who want to identify what is achievable, what is practical and what the impact of proposed policy changes for the IANA Functions are likely to be. The keystone of this is the way ICANN is required to review every I-D, as part of the Last Call process, before it is considered for approval by the IESG. Other groups implement similar requests for reviews, although not always in the same structured way the IETF does. Examples include requests for reviews of proposed Global Policies going through the ASO's policy development process and ICANN participation in the ccNSO Framework of Interpretation WG. It is our expertise and capable expressions of that expertise that drives these requests.



4.0 Documentation Demonstrating Fulfillment of Mandatory Factor M.3 [L.6; M.3]

The Internet Corporation for Assigned Names and Numbers (ICANN) affirms that is (a) a wholly U.S. owned and operated firm operating in one of the 50 states of the United States or District of Columbia; (b) incorporated within the state of California; and (c) organized under the laws of the state of California.

ICANN performs the primary IANA Functions of the Contract within the United States (including the District of Columbia) and possesses and maintains, throughout the performance of this Contract, a physical address within the United States (including the District of Columbia). ICANN demonstrates and documents in this section that all primary operations and systems will remain within the United States (including the District of Columbia), including by identifying the physical address(es) of all locations at which any primary operations and systems are or will be located. ICANN acknowledges that the Government reserves the right to inspect the premises, systems, and processes of all security and operational components used for the performance of all Contract requirements and obligations.

Per requirements of M.3, below are the physical addresses for primary locations of operations and systems:

At the time of this filing, ICANN's main office is located at 4676 Admiralty Way, Suite 330, Marina del Rey, California, 90292. As of June 18, 2012, ICANN's new main office will be 12025 Waterfront Drive, Suite 300, Los Angeles, California, 90094. Additional U.S. offices are located at 325 Lytton Avenue, Suite 300, Palo Alto, California, 94301 and 1101 New York Avenue NW, Suite 930, Washington, DC, 20005. ICANN also has data centers located in California and Virginia. The addresses of the data centers are:

- 1. 12100 Sunrise Valley Drive Reston, VA 20191
- 2. 18155 Technology Drive Culpepper, VA 22701
- 1920 E. Maple Ave. El Segundo, CA 90245
- 624 S. Grand Ave.
 Los Angeles, CA 90017

ICANN has performed the primary IANA Functions within the United States since 1998 and will continue to do so in the future.



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4.1 ICANN – Incorporated and Organized under the laws of the State of California and the United States. [M.3.a,b,c]

ICANN was formed in the State of California on September 30, 1998. ICANN is a wholly U.S. owned and operated firm. ICANN has offices in the United States, Australia, and Belgium, but it is headquartered in Los Angeles County, California. There is no parent corporation. All primary IANA functions of the contract will be performed within the continental United States for the entire term of the contract through September 30, 2019. Moreover, ICANN will retain, possess and maintain a physical address in the United States for the entire term of the contract.

- The primary IANA functions will be performed at 12025 Waterfront Drive, Suite 300, Los Angeles, California 90094-2536 beginning July 1, 2012. The Government may inspect the premises at any time provided it provides adequate advance notice when it plans to conduct the inspection.
- ICANN will perform the primary functions of the IANA requirement itself as the prime contractor and not as an agent or subcontractor to a prime contractor.

ICANN is formally organized as a non-profit corporation "for charitable and public purposes" under the California Nonprofit Public Benefit Corporation Law. Its mission is to coordinate, at the overall level, the global Internet's systems of unique identifiers and to ensure the stable and secure operation of the Internet's unique identifier systems. In particular, ICANN does the following:

- 1. Coordinates the allocation and assignment of the three sets of unique identifiers for the Internet, which are
 - a. domain names (forming a system referred to as "DNS"),
 - b. Internet protocol (IP) addresses and autonomous system (AS) numbers, and
 - c. protocol port and parameter numbers.
- 2. Coordinates the operation and evolution of the DNS root name server system.
- 3. Coordinates policy development reasonably and appropriately related to these technical functions.



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4.2 ICANN Primary Operations and Systems

At the time of this filing, ICANN's main office is located at 4676 Admiralty Way, Suite 330, Marina del Rey, Los Angeles County, California, 90292. As of June 18, 2012, ICANN's new main office will be 12025 Waterfront Drive, Suite 300, Los Angeles, California, 90094. Additional U.S. offices are located at 325 Lytton Avenue, Suite 300, Palo Alto, California, 94301 and 1101 New York Avenue NW, Suite 930, Washington, DC, 20005. ICANN data centers are located in California and Virginia. ICANN has performed the primary IANA Functions within the United States since 1998 and will continue to do so in the future.



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4.3 ICANN Demonstrates and Documents that all primary operations and systems will remain within the United States

ICANN has and will continue to perform the required services for this contract as a Prime Contractor, not as an agent or subcontractor. ICANN has no parent corporation and will directly perform the primary IANA Functions of the contract within the United States.

In support of section M.3 of the RFP, the required documentation follows:

- 1. Declaration from General Counsel and Secretary
- 2. Certificate of Good Standing by ICANN
- 3. Certified Articles of Incorporation for ICANN





The Internet Corporation for Assigned Names and Numbers

DECLARATION OF JOHN O. JUFFREY

I, John O. Jeffrey, the General Counsel and Secretary of the Internet Corporation for Assigned Names and Numbers, a non-profit, public benefit corporation, duly organized and existing under the laws of California, hereby declare as follows:

- The Interent Corporation for Assigned Names and Numbers (ICANN) is a wholly U.S. owned and operated non-profit, public benefit corporation.
 - ICANN is incorporated in the State of California, in the United States.
 - 3. ICANN is organized under the laws of the State of California.
- ICANN will perform the primary IANA Functions within the United States and will posses and maintain, throughout the performance of the Contract, a physical address within the United States.
- ICANN currently has three locations within the United States: (i) 4676 Admiralty Way, Suite 330, Marina del Rey, California 90292; (ii) 1101 New York Avenue, Suite 930, Washington D.C. 2005; and (iii) 325 Lytton Ave., Suite 300, Palo Alto, California 94301.
- 6. On 18 June 2012, ICANN's headquarters, located in Los Angeles County, California, will be moving from its current Marina del Rey, California location, to 12025 Waterfront Drive, Suite 300, Los Angeles, California 90094-2556. ICANN has signed a 10-year lease for its new headquarters in Los Angeles County, California, that runs through 2022. The IANA Functions primary operation and systems will be located in ICANN's headquarters in Los Angeles County, California.

I declare under penalty of perjury, under the laws of the State of California and the laws of the Unites States, that the foregoing is true and correct.

John O. Jeffrey

General Counsel & Secretary

Internet Corporation for Assinged Names and Numbers

Date: 29 May . 201

Brussels Sydney Washington, DC 4676 Admirally Way, Suine 330. 6 Rond Point Science, Pt. 5 Level 2, 48 Hunter Street 1875 | Street, MW, Str. Floor

Marina del Rey. CA 90292 8 1040 Brussels Sodrey NSW 2000 Washington, DC 20004 BELSTUM AUSTRAL A USA T+1 310 823 9388 + +32 2 234 7870 T+51 2.8236 7900 T+1 252 422 2704 F +32 7 234 7848 F +32 7 234 7848 F +61 2 8236 7913 F +1 897 479 2714

http://iconn.org



State of California Secretary of State

CERTIFICATE OF STATUS

ENTITY NAME:

INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS

FILE NUMBER: FORMATION DATE: C2121683 09/30/1998

TYPE:

DOMESTIC NONPROFIT CORPORATION

JURISDICTION: CALIFORNIA

STATUS:

ACTIVE (GOOD STANDING)

I, DEBRA BOWEN, Secretary of State of the State of California, hereby certify:

The records of this office indicate the entity is authorized to exercise all of its powers, rights and privileges in the State of California.

No information is available from this office regarding the financial condition, business activities or practices of the entity.



IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this day of May 21, 2012.

DEBRA BOWEN Secretary of State

NP-25 (REV 1/2007)

HSD



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FILED

the office of the Secretary of State ()

SEP 3 0 1998

ARTICLES OF INCORPORATION R. A

OF

BILL JOHES, Southery of State

INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS

- 1. The name of this corporation is Internet Corporation for Assigned Names and Numbers (the "Corporation").
- 2. The name of the Corporation's initial agent for service of process in the State of California, United States of America is C T Corporation System.
- This Corporation is a nonprofit public benefit corporation and is not 3. organized for the private gain of any person. It is organized under the California Nonprofit Public Benefit Corporation Law for charitable and public purposes. The Corporation is organized, and will be operated, exclusively for charitable, educational, and scientific purposes within the meaning of § 501 (c)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), or the corresponding provision of any future United States tax code. Any reference in these Articles to the Code shall include the corresponding provisions of any further United States tax code. In furtherance of the foregoing purposes, and in recognition of the fact that the Internet is an international network of networks, owned by no single nation, individual or organization, the Corporation shall, except as limited by Article 5 hereof, pursue the charitable and public purposes of lessening the burdens of government and promoting the global public interest in the operational stability of the Internet by (i) coordinating the assignment of Internet technical parameters as needed to maintain universal connectivity on the Internet; (ii) performing and overseeing functions related to the coordination of the Internet Protocol ("IP") address space; (iii) performing and overseeing functions related to the coordination of the Internet domain name system ("DNS"), including the development of policies for determining the circumstances under which new top-level domains are added to the DNS root system; (iv) overseeing operation of the authoritative Internet DNS root server system; and (v) engaging in any other related lawful activity in furtherance of items (i) through (iv).
- 4. The Corporation shall operate for the benefit of the Internet community as a whole, carrying out its activities with due regard for applicable local and international law and, to the extent appropriate and consistent with these Articles and its Bylaws, through open and transparent processes that enable competition and open entry in Internet-related markets.



5. Notwithstanding any other provision (other than Article 8) of these Articles:

- a. The Corporation shall not carry on any other activities not permitted to be carried on (i) by a corporation exempt from United States income tax under § 501 (c)(3) of the Code or (ii) by a corporation, contributions to which are deductible under § 170 (c)(2) of the Code.
- b. No substantial part of the activities of the Corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and the Corporation shall be empowered to make the election under § 501 (h) of the Code.
- c. The Corporation shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of or in opposition to any candidate for public office.
- d. No part of the net earnings of the Corporation shall inure to the benefit of or be distributable to its members, directors, trustees, officers, or other private persons, except that the Corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article 3 hereof.
- e. In no event shall the Corporation be controlled directly or indirectly by one or more "disqualified persons" (as defined in § 4946 of the Code) other than foundation managers and other than one or more organizations described in paragraph (1) or (2) of § 509 (a) of the Code.
- 6. To the full extent permitted by the California Nonprofit Public Benefit Corporation Law or any other applicable laws presently or hereafter in effect, no director of the Corporation shall be personally liable to the Corporation or its members, should the Corporation elect to have members in the future, for or with respect to any acts or omissions in the performance of his or her duties as a director of the Corporation. Any repeal or modification of this Article 6 shall not adversely affect any right or protection of a director of the Corporation existing immediately prior to such repeal or modification.
- 7. Upon the dissolution of the Corporation, the Corporation's assets shall be distributed for one or more of the exempt purposes set forth in Article 3 hereof and, if possible, to a § 501 (c)(3) organization organized and operated exclusively to lessen the burdens of government and promote the global public interest in the operational stability of the Internet, or shall be distributed to a governmental entity for such purposes, or for such other charitable and public purposes that lessen the burdens of government by providing for the operational stability of the Internet. Any assets not so disposed of shall be disposed of by a court of competent jurisdiction of the county in which the principal office of the Corporation is then located, exclusively for such

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purposes or to such organization or organizations, as such court shall determine, that are organized and operated exclusively for such purposes, unless no such corporation exists, and in such case any assets not disposed of shall be distributed to a § 501(c)(3) corporation chosen by such court.

- 8. Notwithstanding anything to the contrary in these Articles, if the Corporation determines that it will not be treated as a corporation exempt from federal income tax under § 501(c)(3) of the Code, all references herein to § 501(c)(3) of the Code shall be deemed to refer to § 501(c)(6) of the Code and Article 5(a)(ii), (b), (c) and (e) shall be deemed not to be a part of these Articles.
- 9. These Articles may be amended by the affirmative vote of at least two-thirds of the directors of the Corporation. Should the Corporation elect to have members, any such amendment must be ratified by a two-thirds (2/3) majority of the members voting on any proposed amendment.

September 30, 1998

A. Ellis, Incorporator

Clint L. Duran, Incorporator

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FILED
In the office of the Secretary of State of the State of California

CERTIFICATE OF AMENDMENT OF ARTICLES OF INCORPORATION

NOV 2 5 1998

Rill JOHES, Segnatory of State

INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS

The undersigned certify that:

- 1. They are the President and the <u>Assistant Secretary</u>, respectively, of Internet Corporation for Assigned Names and Numbers, a California corporation (the "Corporation").
- Article 4 of the Articles of Incorporation of the Corporation is amended to read as follows:

"The Corporation shall operate for the benefit of the Internet community as a whole, carrying out its activities in conformity with relevant principles of international law and applicable international conventions and local law and, to the extent appropriate and consistent with these Articles and its Bylaws, through open and transparent processes that enable competition and open entry in Internet-related markets. To this effect, the Corporation shall cooperate as appropriate with relevant international organizations."

- Article 9 of the Articles of Incorporation of the Corporation is amended to read as follows:
 - "These Articles may be amended by the affirmative vote of at least twothirds of the directors of the Corporation. When the Corporation has members, any such amendment must be ratified by a two-thirds (2/3) majority of the members voting on any proposed amendment."
- 4. The foregoing amendments of the Articles of Incorporation have been cally approved by the board of directors.
- 5. The Corporation has no members.

We further declare under penalty of perjury under the laws of the state of California that the matters set forth in this certificate are true and correct of our own knowledge.

November 23, 1998

Michael Roberts

LA: 1008530vi



DEC 07 2011

Date:_

DEBRA BOWEN, Secretary of State