

IANA Transition: What does it all mean?

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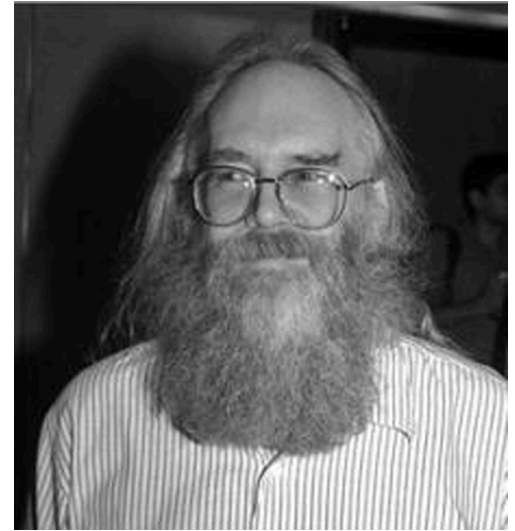
Outline

- What's the IANA?
- What's the transition and why?
- What's the plan?
- What's it mean for numbers?
- What's next?

IANA Stewardship Transition

What is the IANA?

- Internet Assigned Numbers Authority
- Originally, one man: John Postel
- Hosted by USC ISI
- RFC 790, 1981:
 - *“The assignment of numbers is also handled by Jon. If you are developing a protocol or application that will require the use of a link, socket, port, protocol, or network number please contact Jon to receive a number assignment.”*
- 1988: Operation under contract with the US Government



What does the IANA do?

- DNS Root Zone
 - Management of changes to the Root Zone
- Protocol parameter registries
 - 4000+ individual parameter registries
- Internet Numbers Registries
 - Allocation of IPv4, IPv6 and ASN blocks to RIRs
- Registry for special purpose TLDs
 - .arpa including in-addr.arpa, ip6.arpa
 - .int with 178 zones

What does the IANA do?

$$f(\text{IANA}) = \left\{ \begin{array}{l} \text{Root Zone} \\ \text{Internet Numbers} \\ \text{Protocols Parameters} \\ \langle .\text{ARPA} | .\text{INT} \rangle \end{array} \right.$$

$$f(\text{Internet Numbers}) = \text{IPv4} + \text{IPv6} + \text{ASN}$$

What is the USG role?

- IANA “Stewardship” since 1988
- Determined by IANA Functions Contract
 - Originally with USC and now with ICANN
 - Ensures policies developed by the community are administered via contractual obligations
- Root zone change requests
 - USG authorises all changes to the DNS root zone
 - Verifies ICANN has followed documented policies
 - No case of USG overturning a change request
- No USG involvement in other IANA activities
 - E.g. in IP address allocations
- Insurance policy, or “adult supervision” for IANA operator

IANA's evolution

- 1991: Regional IP address management (RIRs)
- 1995: Fees payable for .com names
- 1996: IAHC proposal for new TLDs
- 1997: USG decision to “privatise” IANA
- 1998: Green and White papers on “NewCo” (ICANN)
- White Paper:
 - “... US Government would continue to participate in policy oversight until such time as the new corporation was established and stable, phasing out as soon as possible, but in no event later than September 30, 2000.”

IANA's evolution

- 1998: ICANN established
- 1998: USC transition agreement with ICANN, transferring the IANA project to ICANN, from 1999.
- 1999: IETF agreement with ICANN (RFC 2860)
- 2000: USG Department of Commerce agreement with ICANN to perform the IANA functions.
- ...
- 2014: USG Department of Commerce announces transition of IANA stewardship to the Internet community

What is this “Transition”?

- Completion of USG “stewardship” role
 - Transition to “multistakeholder community”
 - According to certain requirements
- Fulfilling original purpose of ICANN
 - Originally intended to be done by 2000
- Why?
 - Removal of special role/status of USG
- What will change?
 - Authority, accountability, dispute resolution
 - *Nothing at all in any practical or operational sense !*

The USG requirements

- Support and enhance the “multistakeholder model”
- Maintain the security, stability, and resiliency of the Internet DNS
- Meet the needs and expectation of the global customers and partners of the IANA services
- Maintain the openness of the Internet

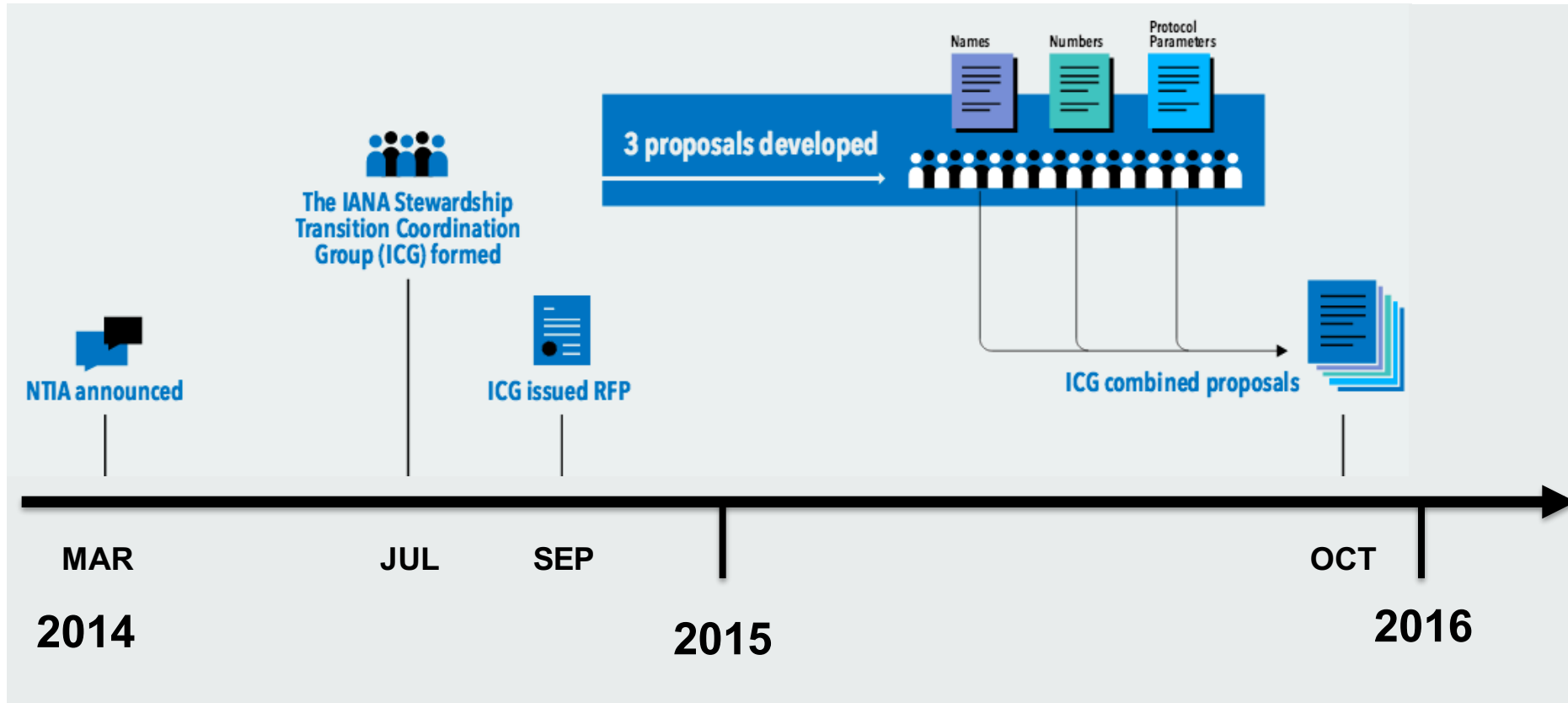
And...

- *NTIA will not accept a proposal that replaces NTIA role with a government-led or an inter-governmental organization*

The Transition Plan

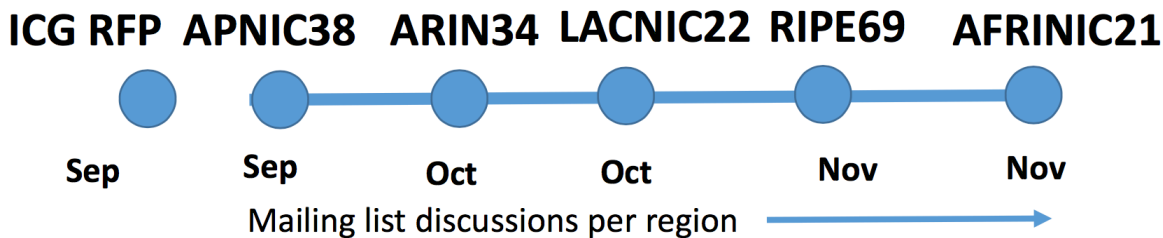
- ICANN asked to convene the planning process (2014)
 - Multistakeholder community consultation
- ICG formed to develop the plan (2015)
 - 30 members representing entire community
- ICG plan
 - Identified 3 operational communities: Names, Numbers, Protocols
 - Called for 3 separate community processes
 - Final plan to comprise all three, with conflicts resolved
- But: depends on improvement of ICANN’s “accountability”
 - A requirement of NTIA and the Names community
 - Separate planning process assigned to CCWG (later...)

ICG Timeline

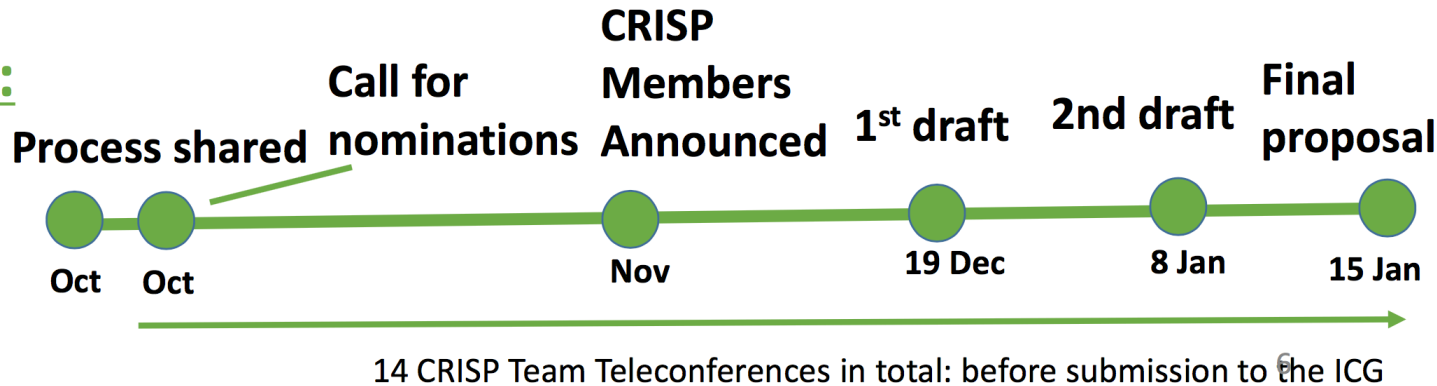


Number Community Timeline

Regional process:



Global process:



2014

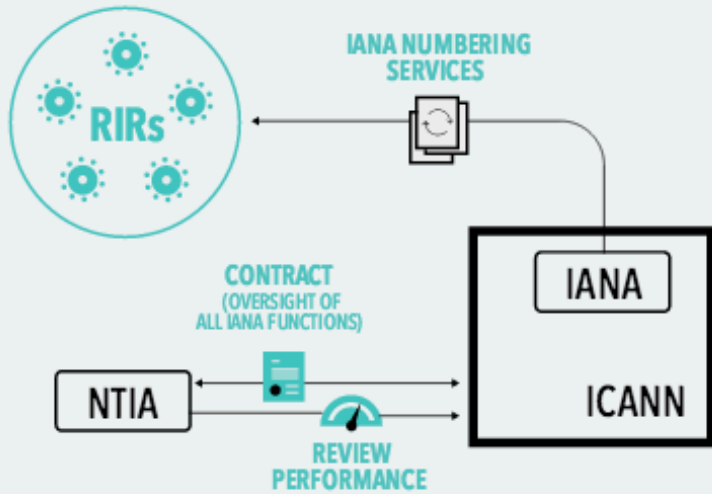
2015

CRISP proposal

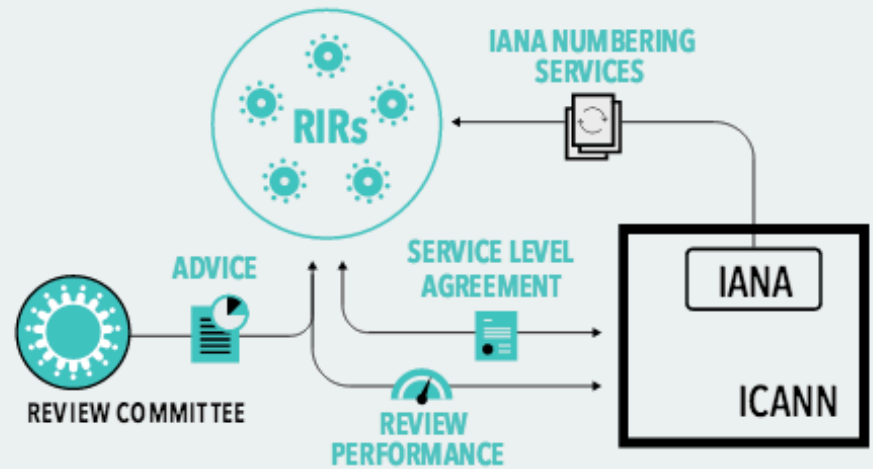
- ICANN continues as IANA operator
 - Subject to review in case of failure of/by ICANN
 - ICANN can subcontract (e.g. to “PTI”)
- RIRs replace USG in contracting ICANN to run IANA
 - Contractual “SLA” to define the terms
 - Drafted, but still pending negotiation with ICANN
- IANA IPRs to be transferred to neutral party
 - IETF Trust is the proposed IPR holder
 - Terms are still under discussion
- IANA performance review
 - Regular review by independent body

CRISP Proposal

Current



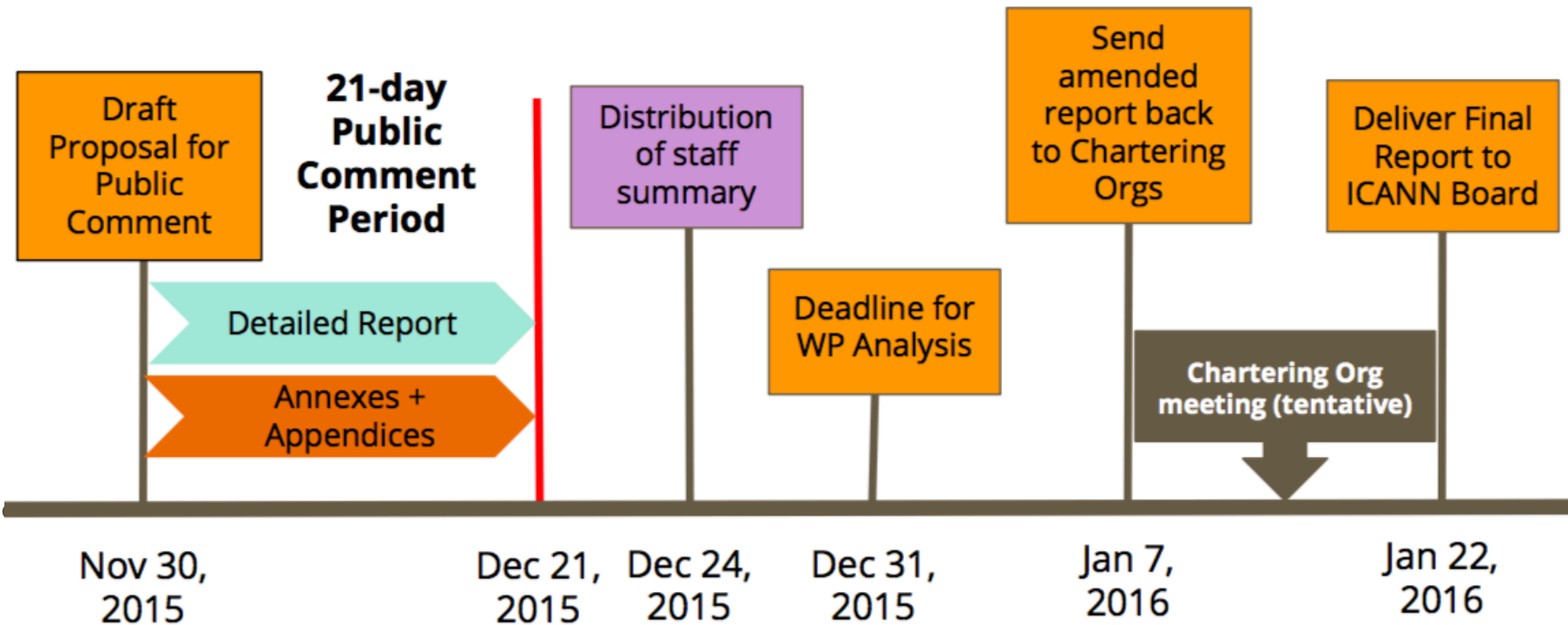
Post-transition



ICANN Accountability

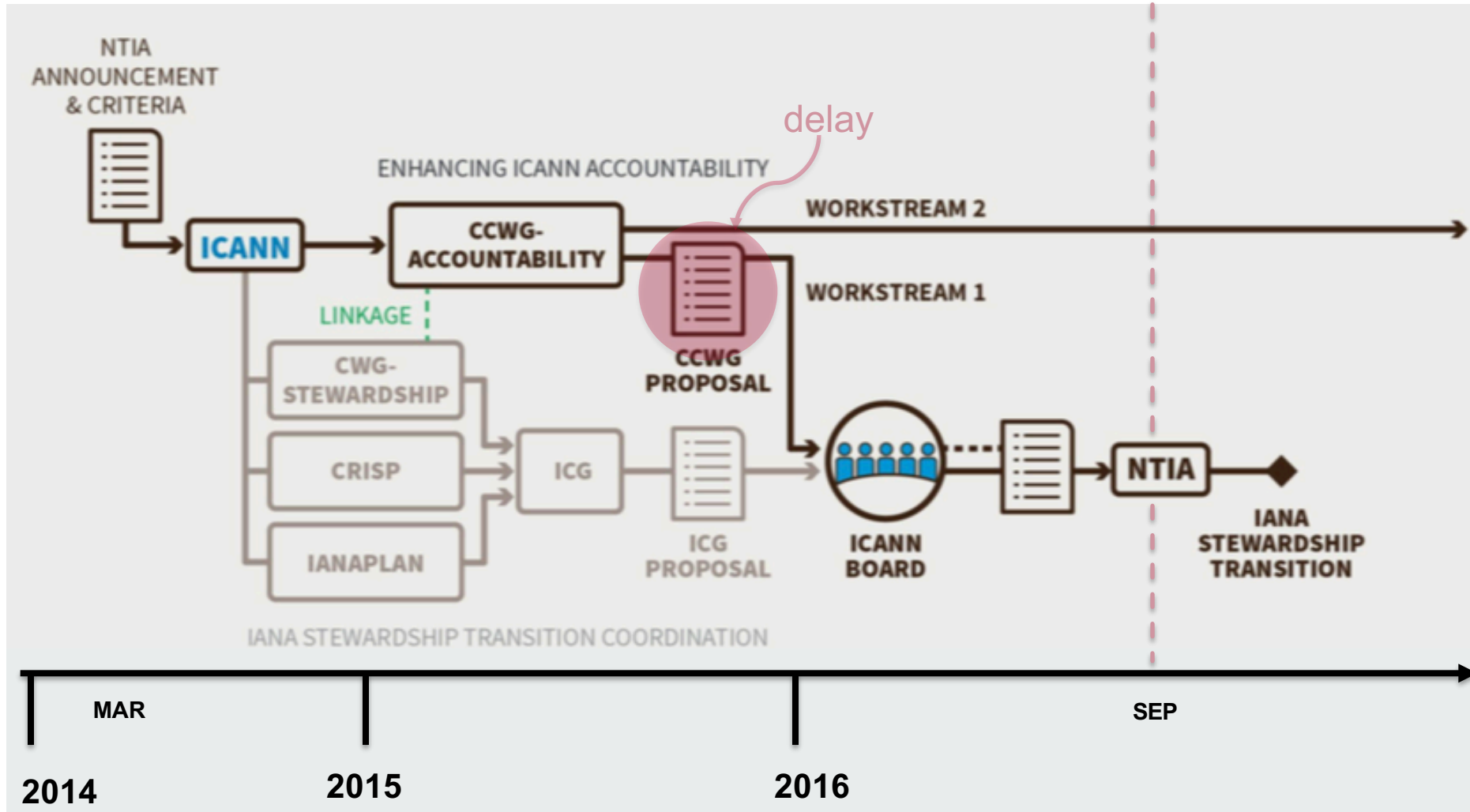
- Revision of ICANN structural model
 - Designator Model not much different to today
- Revision of ICANN bylaws
 - Fundamental and Standard Bylaws
- New and clearer community powers
 - Reject budget or strategy/operating plans; “standard” bylaws;
 - Approve changes to “fundamental” bylaws and/or articles of incorporation;
 - Remove individual ICANN Board Directors;
 - Recall the entire ICANN Board;
 - Initiate a binding Independent Review Process;
 - Reject ICANN Board decisions relating to reviews of IANA functions including the triggering of Post-Transition IANA separation.

CCWG Timeline



*All dates are tentative**

The Big Picture



The Big Picture

$$f(\text{IANA Transition}) = ICG \begin{pmatrix} \text{IANAPLAN} \\ \text{CRISP} \\ \text{CWG} \end{pmatrix} + \{\text{CCWG}^{\text{WS1}}\}$$

Work by the community

- Thousands of hours volunteered
 - By affected operational communities
 - ICG and CCWG members
 - The broader Internet community
- Multistakeholder process
 - Including all communities and interests
 - Fully transparent processes
- Final Outcome
 - Collection of interests: The multistakeholder process
 - Transition proposal: Express will of the community
 - USG: hard to not accept the final outcome

What's next?

- ICG plan is complete and ready for submission
 - Requires completion of CCWG (accountability) plan
- NTIA requires submission VERY soon
 - Initial deadlines have been extended
 - USG/Congress process requires time (3+ months)
- CCWG process
 - Still underway, must complete soon
- Failure?
 - NTIA extends IANA contract for 1 or more years
 - Future opportunity is uncertain
 - Not an option, we hope!

Thank you!

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