STAFF IMPLEMENTATION ESTIMATE MEMORANDUM
Recommended Draft Policy ARIN-2017-12
(Require New POC Validation Upon Reassignment)

To: John Curran, President and CEO

From: Richard Jimmerson, Chief Information Officer

Date: July 23, 2018

Subject: Implementation Estimates for ARIN-2017-12

This memo describes two possible implementations researched by staff for Recommended Draft Policy ARIN-2017-12. This work was conducted at the request of the Board of Trustees. One of the potential implementations (A) describes the effort to implement the policy as written. The other potential implementation (B) describes the effort to complete a modified implementation if we were to treat reallocations or detailed reassignment requests with non-validated POCs as incomplete and to automatically reject the requests. Both are described in some detail below.

Policy link for reference: https://www.arin.net/policy/proposals/2017_12.html

Implementation A: Implement as Written

A1. Any new reallocation or detailed reassignment request would be checked by our software to determine if the POC already exists or if it is new.

A2. If the POC already exists with required validation, the reallocation or detailed reassignment request would automatically (immediately) be processed by our software.

A3. If the POC does not already exist, or does exist without required validation, the software would send an email to the POC requesting they validate the creation/accuracy of the record. The software would hold the reallocation or detailed reassignment in a pending state awaiting validation from the POC for a period of 10 days. The software would also notify the submitter of the reallocation or detailed reassignment of the pending status.

A4. If the POC validates inside the 10 day window, the software would then allow the reallocation or detailed reassignment to proceed and be created. The software would alert the submitter of the completed action.

A5. If the POC does not validate inside the 10 day window, the software would reject the reallocation or detailed reassignment and notify the submitter.

A6. The software would not accept any new reallocation or detailed reassignment requests for any IP address space that is currently subject to a 10 day pending status resulting from a previously submitted reallocation or detailed reassignment request.

A7. The software would allow a submitter of a reallocation or detailed reassignment request that is in a 10 day pending status awaiting POC validation to withdraw the reallocation or detailed reassignment request.

Engineering staff impact estimate for Implementation A:

Modifying our software and systems to enable this implementation would take a team of 2 development engineers and 2.5 systems integrator engineers 7.5 months to complete at a cost of $395,380 representing a loaded labor rate.

Registration Services staff impact estimate for Implementation A:

It is difficult to project the impact of this policy because of the many customer reaction scenarios that could play out, but it is a fact that today there are approximately 800 POCs created each day via SWIP. We believe at least 10% of those would result in some kind of interface with the RSD helpdesk (each averaging 6 minutes) that would equate to approximately 480 minutes or an additional 8 hours each day. This estimate also includes the assumption that downstream customers of ISPs would call us to inquire about the message they received from ARIN. Allowing that the email to the proposed created POC resulted in them calling their ISP for help, I think it still goes to reason that the ISP would refer them to the ARIN help desk to fully understand what being a POC entails. This level of effort would require 1 FTE to support. Taking into consideration the fact that we would end up with several thousand reallocation or detailed reassignment requests in varying states would certainly add to the complexity of researching, reporting on and managing our number resources. If there is more than

the estimated 10% customer outreach to the help-desk staff, the impact would grow beyond a single additional FTE.

Total Impact Estimate for Implementation A:

- One-time cost of $395,380 for engineering work
- Annual cost of a single full time employee (FTE) plus benefits/overhead in RSD $126,000 (double if 2nd FTE needed)

Implementation B: Treat Non-Validated POC Requests as Incomplete and Reject

B1. Any new reallocation or detailed reassignment request would be checked by our software to determine if the POC already exists.

B2. If the POC already exists and is validated, the reallocation or detailed reassignment request would automatically (immediately) be processed.

B3. If the POC does not already exist, or does exist without required validation, the software would automatically reject the reallocation or detailed reassignment request with an email or other type of notification, depending on method of submittal, instructing the submitter that the POC must first be created/validated in the database before it may be used with a reallocation or detailed reassignment request. The messaging would also provide a pointer that explains the appropriate use scenarios of reallocations, detailed reassignments, and simple reassignments.

Engineering staff impact estimate for Implementation B:

Modifying our software and systems to enable this implementation would take a team of 2 software engineers and 2.5 systems integrators 2.5 months to complete at a cost of $131,793 representing a loaded labor rate.

Registration Services staff impact estimate for Implementation B:

For this lighter weight implementation we believe ISPs may still refer their customers to the ARIN help desk (at least initially) to figure out how to establish a POC. For those that do call, there would be a need to help them establish an ARIN online account, create a POC, link the POC and most likely create an Org ID. This would create at least 4-6 hours of additional workload per day. The additional complexity of Implementation (A) would not be a factor in this method, however the additional 4-6 hours per day would still require a new FTE. It is also predicted this workload will be reduced over a time window of approximately 18 months as ISPs likely convert their automated tools to only make simple reassignments to avoid having to support their customers in the creation of validated POC records at ARIN.

Total Impact Estimate for Implementation B:

- One-time cost of $131,793 for engineering work
- Annual cost of a single full time employee (FTE) plus benefits/overhead in RSD $126,000 (less in 18 months if predicted slow-down is realized)

ACSP 2017-12 Costs and Percentages Comparison (across Development/System Integration)

Implementation A: $395,380

Percentage of 2019 Dev/SI force: 12.2%

Implementation B: $131,793

Percentage of 2019 Dev/SI force: 4.1%

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