



MANRS Steering Committee Meeting #9

13 October 2022

Kevin Meynell, Version 1.0

Attendees

<u>Name</u>	<u>Organisation</u>	<u>Sector</u>
Andrew Gallo - Vice-Chair	GWU	Network Operator
Flavio Luciani	NAMEX	IXP
Kevin Meynell - Secretary	Internet Society	-
Warrick Mitchell - Chair	AARNet	Network Operator
Andrei Robachevsky	Internet Society	-
Arturo Sevrin	Google	CDN/Cloud Provider
Aftab Siddiqui	Internet Society	-
Max Stucchi	Internet Society	-
Jeff Tantsura	Microsoft	CDN/Cloud Provider
Tony Tauber	Comcast	Network Operator

Apologies were received from:

Melchior Aelmans	Juniper Networks	Vendor
Nick Hilliard	INEX	IXP
Arnold Nipper	DE-CIX	IXP

1. Approval of Minutes

The minutes from the last meeting on 7 September 2022 were approved.

2. Actions from last meeting

- 4.1 Kevin Meynell to investigate data consent for secondary contacts.
Done
- 5.2 Aftab Siddiqui to send to the Steering Committee the data on reserved versus available bogons, as well as the RADB analysis.
Done
- 7.3 MANRS Secretariat to ask NRO about definition of a bogon and classifications.
Superseded

- 7.7 Andrew Gallo and Aftab Siddiqui to draft communique to the NRO outlining the bogon problem, and requesting clarification on terminology and classification.
Done
- 7.8 Programmes Working Group to develop ROV discussion document.
Ongoing
- 8.1 Andrei Robachevsky to formulate alternative definition for 'relying parties'.
Done
- 8.2 Steering Committee members to identify potential participants of the MANRS+ Working Group.
Done
- 8.3 Aftab Siddiqui to draft response on MANRS+ proposal to CAIDA.
Done
- 8.4 Kevin Meynell to re-phrase MANRS Actions for Network Operators document to remove direct references to bogons.
Done. Still needs to be published on MANRS website
- 8.5 Andrew Gallo to circulate draft statement to NRO/RIRs to the Steering Committee for comment.
Done
- 8.6 Kevin Meynell to send out meeting details.
Done
- 8.7 Programmes Working Group to review MANRS Actions for Network Operators Implementation Guide.
Ongoing

3. MANRS 2023-2028

Kevin provided an update on some developments within the Internet Society with respect to MANRS. It had been agreed by the ISOC leadership that it is committed to supporting MANRS for up to five years (i.e. until 2028), but has decided to keep this as an ISOC activity for the moment.

The reasoning is that the ISOC and MANRS community has not asked for this to be run separately, it is expected that ISOC will need to provide most or all of the funding for several years, the set-up and overheads are lower staying as an ISOC activity, and there will be more flexibility in being able to use ISOC staff. However, MANRS will move from being a year-to-year project to being a longer-term activity that will allow longer-term planning and development cycles along with funding and staffing continuity.

In return, the Steering Committee in consultation with the MANRS Community needs to develop a 3-5 year strategy with respect to what the MANRS Participants wish to see at the end of 3-5 years. This will include the type of activities that MANRS should be undertaking

(e.g. auditing, certification, measurement, outreach, training, research, policy engagement), how to increase the value of the programmes, and will be subject to performance targets such as growth, participation value and community support.

One important component is that 25% of the funding will need to be raised from ISOC and/or MANRS Community (e.g. organizational membership, donations, sponsorship, participation fees). It is not yet clear what amount the 25% will apply to, nor on what timescale, but the MANRS Secretariat and Steering Committee will need to discuss this further as it will determine ongoing support.

The reason behind this is that ISOC is incorporated as a US Chapter 501(c)3 organisation which provides charitable status and therefore exemption from taxes..This means that a certain percentage (normally one-third) of its revenue must not be received from a single source, and typically any one contribution within this may not exceed 2% total revenue in order to pass the public support test. ISOC currently receives most of its funding from the Public Internet Registry (PIR), so some diversification of funding is necessary moving forward.

A draft strategy and analysis was already included the proposal made to the ISOC leadership, so this could form the basis of the future strategy proposed by the Steering Committee. In particular, what things do we think the MANRS Participants will support, both technically, policy-wise and financially.

Kevin added that the MANRS budget for 2023 had also been approved. This was USD 345K (which does not include staff costs that are covered from ISOC's general budget).

Jeff asked whether the same fundraising requirements applied to MANRS. Kevin clarified these applied to the wider ISOC organisation, so in principle more or less granularity was possible with the MANRS fundraising.

Tony asked whether it would be possible to develop a slide deck outlining the MANRS structure, activities and future plans in order to support fundraising outreach. Kevin said they would produce these as soon as the outstanding questions were clarified internally.

Action 9.1 – MANRS Secretariat to produce briefing document and fundraising outreach slide deck.

4. Bogon Update

Aftab provided an update on bogon filtering problems that MANRS had been experiencing. The issues had previously been discussed, but more investigation into how network operators were doing this had been undertaken.

Many operators are using the Team Cymru Bogon feed which either provided through a HTTP feed or BGP Peering – both of which are updated every 4 hours. Most of the Team Cymru bogons appear to cover the available IPv4 prefixes covered by the NRO Delegation File that's published daily, although there are discrepancies of up to 10% of the total.

We should therefore reach out to Team Cymru to understand why there are these discrepancies, and try to persuade them to adjust how they're calculating bogons. Otherwise we will need to look into developing our own solution.

Action 9.2 – Aftab Siddiqui to ask Team Cymru how they're calculating their bogons.

5. RADB-ALTDB Analysis

Aftab reported that Max and himself collecting all the RADB and ALTDB route objects and converting to a JSON file so this is easier to parse and compare with RIR data. This data is publicly available at <http://103.162.143.30/route-check/data/>

The data revealed some interesting issues, including around 50,000 objects that been created by an organization that no longer exists because of a forgotten automated script that is still running. Unfortunately, neither RADB or ALTDB will clean-up this data unless a request comes from the organization that created it, so the result is significant amounts of erroneous or stale data. ALTDB is not quite so bad, but RADB has more than 1.5 million objects and is really becoming an unreliable source of information.

So we may want to consider making it a requirement that MANRS Applicants and MANRS Participants create objects in RIR IRRs only, unless they have legacy resources that cannot otherwise be registered. Some pointers could also be provided as to how to clean up any resources they may have in other IRRs, as many are simply unaware of the problem.

Warrick also highlighted the problem that many legacy resource holders had difficulty registering in an RIR. Aftab replied this was quite complicated, although RADB and ALTDB did at least allow cross-referencing so that duplicates could be identified and ultimately removed.

Tony volunteered to test this, and Aftab would send him the relevant information.

Action 9.3 – Aftab Siddiqui to send Comcast details of their RADB and ALTDB entries.

6. Proposed NRO Communique

Andrew had drafted the following text in line with the work undertaken by Aftab and previous discussions:

The Mutually Agreed Norms for Routing Security (MANRS) is a global initiative whose aim is to help reduce the incidence and impact of well-known inter-domain routing threats.

Part of our mission is to measure compliance of participating organizations to the actions specified in each MANRS programme. This measurement requires that we determine whether a network is originating or advertising address prefixes which are not assigned or allocated by RIRs.

Measurement is a precise activity, and we have found that due to subtle differences in how each of the five RIRs handles registration, deregistration and registration changes, it is

difficult to determine how to definitively classify the state of a number resource. As such, we request the Regional Internet Registries, coordinated by the NRO, establish precise and shared definitions of the terms used to describe the various states that a number resource can be in.

It was agreed the communique could be sent to the NRO Secretariat <secretariat@nro.net>

Kevin suggested it might be best for it to come from the Steering Committee Chair on behalf of the MANRS Community. Andrei also suggested that as this would be sent on behalf of the MANRS Community, it should be first circulated on the mailing list and could also be mentioned during the MANRS Community Meeting @ RIPE 85.

Action 9.4 – Kevin Meynell to circulate draft NRO Communique to MANRS Community.

Action 9.5 – Warrick Mitchell to send NRO Communique to NRO Secretariat.

7. Response to CAIDA MANRS+ proposal

Aftab had drafted the following response to David Clark and KC Claffy with respect to their MANRS+ proposal:

First of all, thank you for supporting the MANRS initiative and sharing the MANRS+ proposal with the MANRS project team and Steering Committee members. It was a very detailed and practical proposal. On behalf of the project team and Steering Committee we commend you on the effort and work put into the proposal. It was very well explained, of course there are concern from the implementation point of view and how it can be enforced which was shared by NSRC and also by SC members.

We definitely would like to explore it further moving forward, in case you haven't seen the announcement yet. MANRS is starting working group and the idea is to explore a possibility to create a second, elevated tier of MANRS participation for organisations that comply with more stringent requirements and auditing. We're calling this MANRS+ (yes it's a complete co-incidence) at the moment, though that's only a working title.

We would like to invite you to join the working group and provide feedback in order to create elevated tier.

It was agreed that Aftab response could send this response.

Action 9.6 – Aftab Siddiqui to send response on CAIDA MANRS+ proposal to David Clark and KC Claffy.

8. MANRS+

Andrei reported that the MANRS Working Group had been formed and currently had 37 participants. Matt Davy from Visa had agreed to be a Co-Chair, and in the absence of any other volunteers, Andrei would be the other Co-Chair.

He was happy to share the list of participants that include some people from the MANRS Community, as well as organisations from the other sectors. The group was perhaps missing some representation from bigger (e.g. T1) operators, but at this stage it was more important to have willing and active participants rather than those who just felt obliged to be there.

Action 9.7 – Andrei Robachevsky to share list of MANRS+ Working Group participants with Steering Committee.

The group was currently deciding what should be worked on, and the best way to work. It was likely they would also consult external expertise outside the group on an as-needed basis.

9. Making ROV a recommended action: next steps

This was following-up on the discussion during the Steering Committee Meeting #7. There was some confusion in the operator community around ROV, how it's implemented, the potential legalities around it, and MANRS role in this, so it would be useful to develop some clarifications and recommendations.

It was proposed this should be discussed further with the MANRS Community, possibly starting with APRICOT 2023 as RIPE 85 was probably too close now. Warrick said he was willing to come-up with some talking points to help outline the problem and frame the various issues.

Action 9.8 – Warrick Mitchell to develop ROV discussion points.

10. Implementation Guides - identifying problem areas & finding reviewers/contributors

Kevin explained there were implementation guides for network operators and IXPs that provided technical guidance on how to implement the respective MANRS actions. The IXP guide was fairly new, but there had been observations that the network operators guide had some outdated and missing information.

These problems were known and it had been a little while since there had been an in-depth review of the network operators guide, but there were some feelings this was now causing a credibility issue and was discouraging network operators from joining. However, the MANRS Secretariat staff didn't really have current operational experience, so this needed review and input from the MANRS Community in order to ensure updates were as accurate as possible.

Kevin felt it would be helpful if one or two members of the Steering Committee could lead the review and updating process, and as Melchior had raised the concerns, suggested asking him whether he'd be interested in taking this role. One issue was that he'd shortly be up for re-election, but he could be co-opted as a MANRS Advisor if this became an issue.

Warrick suggested that he and Melchior discuss the issues with the guide(s).

Action 9.9 – Warrick Mitchell and Melchior Aelmans to discuss issues with the [Network Operator Implementation Guide](#) to determine how to proceed.

Warrick also pointed out that the [IXP Implementation Guide](#) did not seem to be on the MANRS website. Kevin said he'd get that published.

Action 9.10 – MANRS Secretariat to put IXP Implementation Guide on MANRS Website.

11. Next meetings

The next meeting will be held on Wednesday, 14 December 2022 at 15.00-16.30 UTC.

Action 9.11 – Kevin Meynell to send out meeting details.

The bogon issue was on the agenda for discussion at the BCOP Task Force during RIPE 85 on 24 October 2022, and there would likely also be a MANRS Community meeting on 25 October 2022.

Open Actions

- 7.8 Programmes Working Group to develop ROV discussion document.
- 8.7 Programmes Working Group to review MANRS Actions for Network Operators Implementation Guide.
- 9.1 MANRS Secretariat to produce briefing document and fundraising outreach slide deck.
- 9.2 Aftab Siddiqui to ask Team Cymru how they're calculating their bogons.
- 9.3 Aftab Siddiqui to send Comcast details of their RADB and ALTDB entries.
- 9.4 Kevin Meynell to circulate draft NRO Communique to MANRS Community.
- 9.5 Warrick Mitchell to send NRO Communique to NRO Secretariat.
- 9.6 Aftab Siddiqui to send response on CAIDA MANRS+ proposal to David Clark and KC Claffy.
- 9.7 Andrei Robachevsky to share list of MANRS+ Working Group participants with Steering Committee.
- 9.8 Warrick Mitchell to develop ROV discussion points.
- 9.9 Warrick Mitchell and Melchior Aelmans to discuss issues with the Network Operator Implementation Guide to determine how to proceed.
- 9.10 MANRS Secretariat to put IXP Implementation Guide on MANRS Website.

9.11 Kevin Meynell to send out meeting details.