



An Update of Operators Requirements on Network Management Protocols and Modelling

draft-ietf-nmop-rfc3535-20years-later

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NMOP Work Item

From NMOP charter: "Consider/plan an approach for updating [RFC 3535-bis](#) (collecting updated operator requirements for IETF network management solutions)"

presented in IETF#120, 07/2024

What's Next?

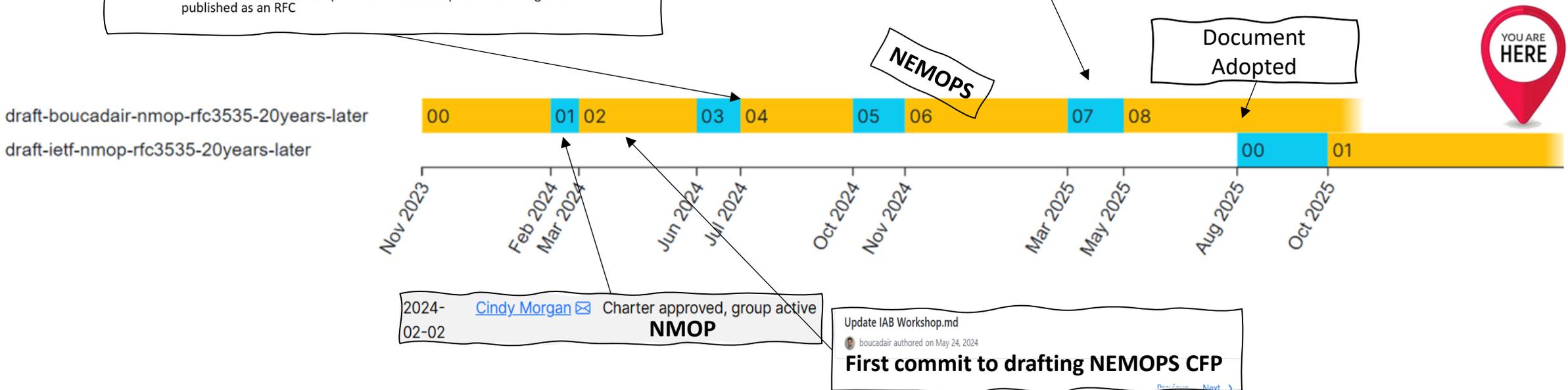
- The WG coordinates with the IAB to organize NEMOPS Workshop with the hope to collect inputs from *a wider operators' community* (not only those participating to the IETF)
 - A workshop report will be published by the IAB
 - That report *does not reflect IETF consensus*
- Options for discussion
 - #1: Submit [nmop-rfc3535-20years-later](#) as an individual contribution to NEMOPS
 - #2: Maintain an NMOP document that reflects the WG consensus and build IETF consensus on specific key/engineering items
- #1 seems reasonable for the long-term transformations
- However,
 - #2 seems more appropriate for IETF-specific adjustments (e.g., new YANG publication process, guidance about device models in the IETF)
 - The document can be adopted with the assumption that it might not be published as an RFC

NEMOPS Workshop Call for Action



- Feedback on the outcome of the workshop at nemops-interest@iab.org
- The Program Committee is working on the workshop reports:
 - <https://datatracker.ietf.org/doc/draft-iab-nemops-workshop-report/>
 - Send feedback or GitHub PR: <https://github.com/intarchboard/draft-iab-nemops-workshop-report>
- Reminder: workshop is not the end, it is just a trigger for further discussion!
- New requirements being finalized in NMOPS WG
- Time for some process experimentations...

OPSAREA IETF#122



Focus on

- A consolidated list of **new requirements** together with operators' **prioritization** of that list (strong, nice-to-have)
 - *draft-iab-nemops-workshop-report* **does not update** RFC3535 requirements
- A collaborative effort that involves all interested parties to build **a very few set of actionable items** that will be the focus of immediate work in the IETF
 - Actionable by the IETF as a whole, including WGs, ADs, etc.
- All data is publicly available for a **more inclusive approach**, getting requirements from outside IETF: **Source**

From draft-boucadair-nmop-rfc3535-20years-later-08 to draft-ietf-nmop-rfc3535-20years-later-01

- Mostly editorial changes
 - Removal of “RFC 3535, 20 Years Later:” from the title
 - Authors in 1st page reduced to 5
 - Previous sections 2 and 3 on “Assessment of RFC 3535 Operator Requirements” and “Assessment of RFC 3535 Recommendations” moved to appendix
 - Refinement on the naming of requirements (removal of NEW prefix, ...)

Where we are

- 24 requirements identified so far, across different categories

Overall New Requirements Levels: Operators View

| NEW Ops Requirement Label | DM | Protocol | Deployability | Integration | SDO Process | Collaboration & Cooperation | Skills |
|---------------------------|----|----------|---------------|-------------|-------------|-----------------------------|--------|
| OPS-REQ-STRENGTHEN-DM | X | | X | | | | |
| OPS-REQ-DM-RATIONALIZE | X | | X | | X | X | |
| OPS-REQ-QUICK-BUT-WELL | X | X | X | | | | |
| OPS-REQ-GUIDE-PROFILE | X | X | X | | | | |
| OPS-REQ-ARCH | | X | X | | | | |
| OPS-REQ-EASE-EXPOSURE | X | X | X | X | | | |
| OPS-REQ-TIMELY-DM | X | | X | | | | |
| OPS-REQ-READILY-IMPLEM | X | X | X | | X | | |
| OPS-REQ-DM-API | | | X | | | | |
| OPS-REQ-NW-API-DISCOVERY | | | X | X | | | |
| OPS-REQ-REASSESS | | X | | | | | |

| NEW Ops Requirement Label | DM | Protocol | Deployability | Integration | SDO Process | Collaboration & Cooperation | Skills |
|---------------------------|----|----------|---------------|-------------|-------------|-----------------------------|--------|
| OPS-REQ-BRIDGE | | | | | | X | X |
| OPS-REQ-INTEGRATION | | | X | X | X | | |
| OPS-REQ-LOSSLESS | | | X | X | X | | |
| OPS-REQ-REUSABILITY | | X | | X | X | | |
| OPS-REQ-SCALE | X | X | | | | | |
| OPS-REQ-UNSILO | | | X | X | | | |
| OPS-REQ-IT-INTEGRATION | | | X | X | | | |
| OPS-REQ-ITER | | | | | X | X | |
| OPS-REQ-Y2KG | | | X | X | | | |
| OPS-REQ-TOOLS | | | X | X | | | X |
| OPS-REQ-IETF-TOOLS | | | | | X | | X |
| OPS-REQ-NEW-NEED | | X | | | | | |
| OPS-REQ-GLUE | | | | X | | | X |

| NEW Ops Requirement Label | Overall Level |
|---------------------------|---------------|
| OPS-REQ-STRENGTHEN-DM | Strong |
| OPS-REQ-DM-RATIONALIZE | Strong |
| OPS-REQ-QUICK-BUT-WELL | Strong |
| OPS-REQ-GUIDE-AND-PROFILE | Nice to have |
| OPS-REQ-ARCH | Strong |
| OPS-REQ-EASE-EXPOSURE | Strong |
| OPS-REQ-TIMELY-DM | Strong |
| OPS-REQ-READILY-IMPLEM | Strong |
| OPS-REQ-DM2API | Strong |
| OPS-REQ-NW-API-DISCOVERY | Nice to have |
| OPS-REQ-REASSESS | Strong |
| OPS-REQ-BRIDGE | Strong |
| OPS-REQ-INTEGRATION | Strong |
| OPS-REQ-LOSSLESS | Nice to have |
| OPS-REQ-REUSABILITY | Strong |
| OPS-REQ-SCALE | Strong |
| OPS-REQ-UNSILO | Strong |
| OPS-REQ-IT-INTEGRATION | Nice to have |
| OPS-REQ-ITER | Strong |
| OPS-REQ-Y2KG | Nice to have |
| OPS-REQ-TOOLS | Strong |
| OPS-REQ-IETF-TOOLS | Nice to have |
| OPS-REQ-NEW-NEED | Nice to have |
| OPS-REQ-GLUE | Nice to have |

What's next

- Very next step is to prioritize the requirements to get focus
- We are working for a collaborative prioritization with the aim of gathering feedback from the WG
 - Couple of mails sent to NMOP ML for incentivizing discussion
- This means essentially to document section 3.4. So far, this is what we have:
 - Move much faster (OPS-REQ-QUICK-BUT-WELL, OPS-REQ-TIMELY-DM)
 - Implement minimal functionality, not bells and whistles (OPS-REQ-GUIDE-AND-PROFILE, OPS-REQ-ITER)
 - Have running code (OPS-REQ-READILY-IMPLEM, OPS-REQ-TOOLS)
 - Have vendors and operators on board at the time of developing the solution independent compliance suite to validate things.
 - Need to correlating data learned from different means (IPFIX, BMP, Models)
- Target is to update 3.4 with feedback received for IETF 125