

NAT YANG model

<https://tools.ietf.org/html/draft-sivakumar-yang-nat-07>

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Background

- Draft -00 was published in Sept. 2015
- Has gone through multiple revisions
- Reviewed by NAT experts
 - Other reviews are welcome
- Since BEHAVE and other NAT-related WGs are done, we are presenting in opsawg

Overview

- Supports various NAT flavors
 - Basic NAT (RFC 3022), NAT (RFC 3022), CGN (RFC6888), NAT64 (RFC 6146), NPTv6 (RFC 6296)
 - Individual port and port set translation schemes
- Covers all the requirements defined in NAT baseline RFCs/BCPs
 - UDP (RFC 4787), TCP (RFC5382), ICMP (RFC 5508), and updates in RFC 7857
- Supports configuration and state management of NAT

Out of Scope

- Dynamic explicit mappings
 - e.g., PCP is defined in a separate document ([draft-boucadair-pcp-yang](#))
- Deterministic NAT assignment scheme
 - Not an IETF standard ([RFC7422](#))
- DSCP-related operations
 - It is tempting to demux NAT mappings by means of DSCP marking ...
 - ..but there is no RFC defining such behavior
 - Further, DSCP re-marking is usually not part of “standard” NAT operations

Dependency: Software WG

- A side effect of having “no home” for the NAT YANG document is that **draft-ietf-software-dslite-yang** clones the NAT module
 - We (Software) prefer to adopt a clean design in which the NAT module is defined as a separate module
 - DS-Lite YANG will augment it as required
 - *software wg* is chartered to deal with softwires not NAT
- **draft-ietf-software-yang** is also impacted
 - Port-restricted NAT44

What's Next?

- Consider WG adoption
- If the document is accepted, we will report back to *sofwtire wg* and update draft-ietf-sofwtwire-dslite-yang & draft-ietf-software-yang as follows:
 - ds-lite module will augment the *opsawg* NAT YANG module
 - Add the *opsawg* NAT YANG as a normative reference to draft-ietf-software-yang
- Questions and suggestions are more than welcome

Backup

DS-Lite Flow Exchange

