

# Large Scale NAT Requirements

<https://datatracker.ietf.org/doc/draft-ietf-behave-lsn-requirements/>

and <https://datatracker.ietf.org/doc/draft-shirasaki-nat444/>

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# LSN requirements

- became BEHAVE WG draft at IETF78th
  - Now the name has been changed from draft-nishitani-cgn to draft-behave-lsn-requirements
- recent changes
  - delete some requirements which are included in RFCs already exist
  - add requirements which comply with RFC4787, RFC5382 and RFC5508

# Comments from ML and/or off-line

- However we do not want to change the name so often to avoid confusions and misunderstandings,
  - Large Scale NAT(LSN) → What name is good ?
    - We'd like to point out the COMMON PART of the NAT444, DS-LITE and so on which essentially a NAT which provide multiple entity (users, organizations and/or subscribers...) with fair connections
    - Some people said that it must not be Large. Dave suggested to me use the word “multi **entity**”... fmmm
    - Of course, if so, **CPE -> Entity**
  - How do you think ?
    - Can we use (and settled down) its name as **Multi Entity NAT(MEN) ?????**
      - MEN + NAT at CPE -> NAT444
      - MEN + v4 over v6 Tunnel -> DS-Lite

# Con't

- Which means that Draft's title and many text in I-D should use this term
  - Requirements for Multi Entity NAT
- Also all the related text **must** use MEN to express the notion

# High availability

- written in “NAT Redundancy Requirements and Framework”
- We think to merge or refer in our draft
- We think high-availability is not always necessary. So “**SHOULD**” is appropriated (or keep separated draft, maybe)
- We’d like to know about how WG feel ?

# NAT translation log

- written in some drafts about port assignment and logging
  - Issues with IP Address Sharing
  - NAT44 with Pre-allocated Ports
  - Port Management To Reduce Logging In Large-Scale NATs
  - Logging recommendations for Internet facing serversAnd more...
- Should we create another text about logging or not ?
  - If so, we could delete the portion describing how to assign address/port (maybe) and what LSN(or MEN) logs from our draft and create references to the dedicated text
- We'd like to know how we should do ?

# Session limitations

- We have already discussed about the maximum speed of the creation of the new TCP sessions at LSN
- We also may need to discussed about the speed for UDP and ICMP as well
- We think so too but how about this ?

# About over subscription

- At least, we must guarantee the numbers of the ports (or sessions) which are assigned to each CPE (or “entity”).
- Then, we could allow over subscription or to reduce the log cost, we may not allow do so in some case.
- We should know a good text for this

# Port Randomizations

- Should LSN use randomized source port towards outside ? Or statically assigned port ?
- We believe that
  - Randomized Source Port is good for security
  - But that increases log
- How do you think this too ?

## Enforcement of some BEHAVE RFCs

- We agree with that RFC4787, 5382, 5508 (mostly about transparent)
  - SHOULD -> MUST
- Or should not we do so ?

# And others ?

- Please provide us with your comments on the mailing list so that we can achieve better text for next IETF meeting
- We'd like to finish the text by next IETF and will ask the last call at Prague

# (optional) NAT444

- Still we'd like to have some text describing what the NAT444 model is
  - Double NAT NW model of MEN(LSN) and CPE
- Please allow us to create the I-D as WG ID or should we work on this in other area ?

# (optional) ISP Shared ADDRESS

- We have no strong opinion for now 😊