

BEHAVE Working Group

IETF 81 – Quebec City
July 2011

Chairs:

Dave Thaler, dthaler@microsoft.com

Dan Wing, dwing@cisco.com

Note Well

Any submission to the IETF intended by the Contributor for publication as all or part of an IETF Internet-Draft or RFC and any statement made within the context of an IETF activity is considered an "IETF Contribution". Such statements include oral statements in IETF sessions, as well as written and electronic communications made at any time or place, which are addressed to:

- the IETF plenary session,
- any IETF working group or portion thereof,
- the IESG or any member thereof on behalf of the IESG,
- the IAB or any member thereof on behalf of the IAB,
- any IETF mailing list, including the IETF list itself, any working group or design team list, or any other list functioning under IETF auspices,
- the RFC Editor or the Internet-Drafts function

All IETF Contributions are subject to the rules of RFC 5378 and RFC 3979 (updated by RFC 4879).

Statements made outside of an IETF session, mailing list or other function, that are clearly not intended to be input to an IETF activity, group or function, are not IETF Contributions in the context of this notice. Please consult RFC 5378 and RFC 3979 for details.

A participant in any IETF activity is deemed to accept all IETF rules of process, as documented in Best Current Practices RFCs and IESG Statements.

A participant in any IETF activity acknowledges that written, audio and video records of meetings may be made and may be available to the public.



Logistics

- Note taker and jabber scribe?
- Meeting Materials (Slides, Agenda, etc.)
 - <http://tools.ietf.org/wg/behave/agenda>
- `xmpp:behave@jabber.ietf.org?join`
- Mailing List
 - `behave@ietf.org`
 - <http://www.ietf.org/mailman/listinfo/behave>

Agenda (1/2)

Wednesday, 15:10-16:10, 206 B

- | | | |
|-------|--|-----------------------|
| 15:10 | Note takers, agenda, existing milestones | (Chairs, 5) |
| 15:15 | Carrier Grade NAT Requirements
draft-ietf-behave-lsn-requirements | (Simon Perreault, 10) |
| 15:25 | NAT64 Discovery Heuristic
draft-ietf-behave-nat64-discovery-heuristic | (Jouni Korhonen, 15) |
| 15:40 | BEHAVE: The Future | (Chairs and WG, 30) |

Document Status (1/2)

- Published:
 - dns64 (RFC6147), v6v4-framework (RFC6144), v6v4-xlate (RFC6145), v6v4-xlate-stateful (RFC6146), turn-ipv6 (RFC6156)
- Sent to IESG:
 - v4v6-bih
- Finished IESG Review:
 - ftp64

Document Status (2/2)

- Waiting for updates from authors
 - sctpnat ...

Milestones (1/2)

- ✓ FTP ALG: Oct 2010
- CGN Requirements: Dec 2010
 - draft-ietf-behave-lsn-requirements
- Analysis of NAT-PT: Feb 2011
 - draft-ietf-behave-64-analysis
- avoiding NAT64: Apr 2011
 - draft-ietf-behave-nat64-learn-analysis (WGLC'd)
 - draft-ietf-behave-nat64-discovery-heuristic

Milestones (2/2)

- SCTP NAT: Apr 2011
 - draft-ietf-behave-sctpnat ← drop??
- ✓ BIH: Apr 2011, sent to IESG
 - draft-ietf-behave-v4v6-bih
- NAT64 load balancing: Apr 2011 (dropped)
 - draft-zhang-behave-nat64-load-balancing

BEHAVE: The Future

- IPv4 is Full
- Invest in IPv6
- Completed original work:
 - NAT44 – IPv4 NAT consistent behavior
 - NAT64 – IPv4 hosts talk to IPv6 hosts

BEHAVE: The Future

CLOSE BEHAVE

- Manage existing NAT44, NAT64
 - MIBs??
- Redirect new work to other working groups

POTENTIAL WORK

- Recharter BEHAVE
- Add new milestones

Area director's decision,
with input from working group

Existing Work: NAT Management

- Problem:
 - RFC4008 insufficient for CGN, NAT64
- Solution:
 - New MIBs
- Documents:
 - draft-schoenw-behave-nat-mib-bis (std)
 - draft-jpdionne-behave-cgn-mib (std)
 - draft-jpdionne-behave-nat64-mib (std)

Potential Work

- Address Sharing Abuse Mitigation
- A+P Characteristics
- Dual-IVI
- NAT Logging
- Bis, bis, bis
- NAT44/CGN Deployment Options/Experiences
- NAT64 for IPv4 servers
- Radius Extensions for CGN Configurations

Potential Work:

Address Sharing Abuse Mitigation

- Problem:
 - Attacker and legitimate user share same address
 - Server wants to throttle attacker
- Solution:
 - Provide distinguishing information
- Documents:
 - draft-wing-nat-reveal-option (std)
 - draft-boucadair-intarea-nat-reveal-analysis (info)

Potential Work: A+P Characteristics

- Problem:
 - Industry lacks overview of A+P-like systems
- Solution:
 - Informational document
- Document:
 - draft-dec-stateless-4v6 (info)

Potential Work: dIVI

- Problem:
 - Provide stateless IPv4 address sharing
- Solution:
 - Create standard
- Document:
 - draft-xli-behave-divi (std)
 - draft-xli-behave-divi-pd (std)

Potential Work: NAT Logging

- Problem:
 - Mappings need to be logged
- Solution:
 - Standardize data format
- Document:
 - draft-sivakumar-behave-nat-logging (std)

Bis, bis, bis

- Problem:
 - Existing UDP/TCP/ICMP NAT Behavior RFCs don't specify everything
- Solution:
 - Fill the gaps
- Document:
 - draft-penno-behave-rfc4787-5382-5508-bis

NAT44/CGN Deployment Options/Experiences

- Operational experience document
- Document:
 - draft-kuarsingh-lsn-deployment

NAT64 for IPv4 Servers

- Operational experience document
- Document:
 - draft-sunq-v6ops-contents-transition

Radius Extensions for CGN Configurations

- Configure CGN with RADIUS
- Document:
 - draft-cheng-behave-cgn-cfg-radius-ext