BEHAVE Working Group

IETF 77 – Anaheim
March, 2010

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.

I E T F

Logistics

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

Session 1, Thursday (1/1)

```
13:00   Note takers, agenda, existing milestones                    (Chairs, 10)

13:10   Area Director review comments             (Magnus Westerlund, 25)
        draft-ietf-behave-address-format-04
        draft-ietf-behave-dns64-07
        draft-ietf-behave-v6v4-framework-07
        draft-ietf-behave-v6v4-xlate-stateful-09
        draft-ietf-behave-v6v4-xlate-10

13:35   Stateless/Partial-state 1:N Network Address and        (Xing Li, 15)
        Protocol Translation between IPv4 and IPv6 nodes
        draft-xli-behave-xlate-partial-state-01

13:50   Stateless Source Address Mapping Algorithm for ICMPv6    (Xing Li, 15)
        draft-xli-behave-icmp-address-00

14:05   NAT46 considerations                            (Dapeng Liu, 10)
        draft-liu-behave-nat46-02

14:15   Redundancy and Load Balancing Framework            (Xiaohu Xu, 10)
        draft-xu-behave-stateful-nat-standby-03

14:25   NAT State Synchronization Using SCSP            (Dean Cheng, 15)
        draft-xu-behave-nat-state-sync-01
```

Session 1, Thursday (1/2)

```
14:40   Avoiding hairpinning NAT64: a handful of approaches      (Dan Wing, 15)
        draft-wing-behave-dns64-config-02


14:55   IPv6 host learning its NAT64's prefix                    (Dan Wing, 15)
        draft-wing-behave-learn-prefix-04
        draft-wing-v6ops-v6app-v4server-01


15:10   Hybrid Type Prefix for IPv4-Embedded IPv6 Addresses    (Xu Xiaohu, 10)
        draft-xu-behave-hybrid-type-prefix-00


15:20   Unique IPv4-Mapped Addresses                          (Dave Thaler, 10)
        draft-thaler-6man-unique-v4mapped-00


15:30   Bump in the Stack / Bump in the API                     (Hui Deng, 10)
        draft-huang-behave-rfc3338bis
        draft-huang-behave-rfc2767bis


15:40   Generation of ICMPv6 Echo Replies for Teredo    (Teemu Savolainen, 10)
        Clients
        draft-denis-icmpv6-generation-for-teredo-01


15:50   LSN and NAT444 update                             (Shin Miyakawa, 10)
        draft-nishitani-cgn-04
        draft-shirasaki-nat444-01


16:00   finished


16:10   end
```

Session 2, Friday

```
13:00   Agenda, note takers                                    (Chairs, 5)

13:05   Source IP NAT                                       (Perkins, 10)
        draft-perkins-sourceipnat

13:15   Analysis of 64 Translation                  (Reinaldo Penno, 10)
        draft-penno-behave-64-analysis

13:25   Re-charter, milestone discussion                   (Chairs, 45)
        BEHAVE Wiki

15:15   end
```

Document Status

- Publishing before Friday:
  - turn

- AUTH48:
  - behavior-discovery, stun-test-vectors

- IESG Processing:
  - turn-uri (DISCUSS from Cullen)

- IETF Last Call:
 - turn-tcp
  - turn-v6

Document Status

- Submitted for IESG Review:
  - address-format
  - dns64
  - v6v4-framework
  - v6v4-xlate-stateful
  - v6v4-xlate
- Waiting for updates from authors:
  - ftp64
  - sctpnat

FTP64:
Submit to IESG: FTP ALG for IPv6/IPv4 translation (std)

- Milestone:

  "Submit to IESG: FTP ALG for IPv6/IPv4 translation (**std**)"

- WG consensus is

  – normative specification for FTP ALG

  – FTP client and FTP server text is informational

Purpose of Today

- Decide new charter items and milestones

- Presenters:
  - Motivate working group there is a **problem**
  - Show the problem can be **solved**

- Working group:
  - Is problem important for deployments?
  - Is it solvable?
  - Energy and people interested in the work?
  - http://trac.tools.ietf.org/wg/behave/trac/wiki/WikiStart
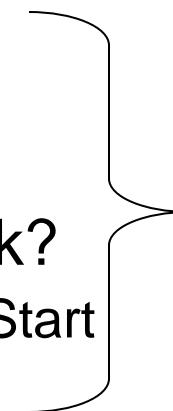
Re-charter and milestone discussion on Friday

(Friday Slides)

Re-Charter and Milestone

Chartered and Milestoned Work Items

Scenarios from
Feb-2009 doodle poll
(NAT-PT+implement+deploy)

1. An IPv6 network to IPv4 Internet (3+5+7=15)
   - v6v4-xlate, dns64, v6v4-xlate-stateful
2. IPv6 Internet to an IPv4 network (4+5+8=17)
   - xlate-v6v4-stateful, dns64
3. An IPv4 network to IPv6 Internet (2+1+2=5)
4. IPv4 Internet to an IPv6 network (2+6+8=16)
   - v6v4-xlate
5. IPv6 to IPv4 within the same organization (4+3+4=11)
   - v6v4-xlate, dns64, v6v4-xlate-stateful
6. IPv4 to IPv6 within the same organization (2+2+3=7)
   - v6v4-xlate

Problem: SCTP NAT

- Currently chartered work, due Dec-2009
- draft-ietf-behave-sctpnat

- Need new milestone date

Re-Charter and Milestone

Chartered Work Items
(no milestone dates)

Problem: BEHAVE scenario 3 (An IPv4 network to IPv6 Internet)

- draft-liu-behave-nat46
- draft-huang-behave-pnat
- draft-huang-behave-rfc2767bis
- draft-huang-behave-rfc3338bis
- draft-thaler-6man-unique-v4mapped
- draft-perkins-behave-dpinat
- draft-perkins-sourceipnat

Problem: BEHAVE scenario 4 (IPv4 Internet to an IPv6 network)

- draft-perkins-behave-dpinat
- draft-perkins-sourceipnat
- draft-xli-behave-dns46-for-stateless
- draft-wing-behave-http-46-relay
- draft-xli-behave-xlate-partial-state
- draft-xli-behave-divi

Problem: multicast IPv6/IPv4 translation

- Scope: IPv6 senders and IPv4 listeners, or IPv4 senders and IPv6 listeners? SSM or ASM?

- draft-venaas-behave-v4v6mc-framework
- draft-jiang-behave-v4v6mc-proxy

Re-Charter and Milestone

Un-Chartered Work Items

Problem: IPv6-only hosts encountering IPv4 address literals

- draft-wing-behave-http-ip-address-literals
- draft-wing-v6ops-v6app-v4server
- draft-wing-behave-learn-prefix

Problem: avoiding NAT64 with dual-stack host for local networks

- draft-wing-behave-dns64-config
- draft-boucadair-behave-dns-a64
- draft-boucadair-behave-dns64-discovery
- draft-cao-behave-dsdns64
- draft-xu-behave-hybrid-type-prefix

Problem: avoiding NAT64 with dual-stack hosts for remote networks

• draft-xu-behave-hybrid-type-prefix

Problem: high availability stateful NAT

- draft-chen-behave-rsnat
- draft-xu-behave-nat-state-sync
- draft-xu-behave-stateful-nat-standby

Problem: NAT load balancing

- draft-chen-behave-olnat
- draft-wang-behave-nat64-load-balancer
- draft-xu-behave-stateful-nat-standby

Problem: analysis against NAT-PT

- draft-penno-behave-64-analysis

Problem: improved traceroute across a translator

- draft-xli-behave-icmp-address

Problem: large scale NAT

- draft-nishitani-cgn
- draft-shirasaki-nat444
- draft-ietf-v6ops-incremental-cgn

Problem: problems with shared IP addresses

- draft-ford-shared-addressing-issues

- Adopted by INTAREA Working Group

Problem: Improving Teredo's peer reachability

- draft-denis-icmpv6-generation-for-teredo

Problem: IPsec across an IPv6/IPv4 translator

- RFC 3947 is IPsec across a NAT44

- Problem: want to explain IPsec over NAT64?

END