

Unsolicited BFD for Sessionless Applications

draft-chen-bfd-unsolicited-02

Enke Chen, Naiming Shen & Robert Raszuk

IETF 101, London

Problem Statement

- Explicit configuration/registration required on both sides by the current BFD implementation & deployment
- Works well for apps with “sessions”, e.g., BGP, OSPF
- But too restrictive & difficult for apps without “sessions”

Examples of “Sessionless” Apps

- Nexthop of a static route
 - Only one side needs BFD tracking
 - Current workaround is to configure/coordinate on both sides
- Third-party nexthop of BGP routes from the Route Server at an IXP
 - No direct session between two BGP speakers

Procedures for Unsolicited BFD

- One side plays the “Active role”, and the other side plays the “Passive role”
- Only the active side initiates BFD control packets
- The passive side accepts connection from the active side
 - feature SHOULD be on per-interface basic
 - BFD parameters can be interface/router based
- “Passive role” may change to “Active role”

Security Considerations

- Limit the feature to specific interfaces, and to single-hop BFD with “TTL=255”
- Deploy the feature only in “trustworthy” environment, e.g., at IXPs or between a provider and its customers
- Apply subnets/hosts based “access control” for BFD packets
- Use BFD authentication

Next Step

- WG adoption?