

RFC 4601 Revision

Prague, March 2011

Rishabh Parekh (Cisco)
Jeffrey Zhang (Juniper)
Vero Zheng (Huawei)

Motivations

- Advancing PIM specification from Proposed Standard to Draft Standard
 - Address about 100 open errata
 - Identify optional features that do not meet the following requirements per RFC 2026:
 - at least two independent & interoperable implementations
 - From different code bases
 - sufficient & successful operational experience

Work & Plan

- -00 draft in 2~3 weeks
 - With all verified errata corrected
- -01 draft with certain optional features removed before July meeting
 - Per consensus on the mailing list
 - Implementation/deployment survey required
- Adopted as WG draft in July meeting?

Errata: Reference & Past Effort

- http://www.rfc-editor.org/errata_search.php?rfc=4601
 - Reported/Verified/Rejected/Held-for-update
- <http://www.ietf.org/mail-archive/web/pim/current/msg01802.html>
 - Stig's swag in November, 2009
- http://www.ietf.org/proceedings/77/slides/pim-0/pim-0_files/v3_document.htm
 - Stig's presentation in March, 2010 meeting
- <http://www.ietf.org/mail-archive/web/pim/current/msg01827.html>
 - Bill's response in March, 2010

Errata: On-going Effort

- Three volunteers from Cisco/Huawei/Juniper
 - Went through all the errata and past discussions
 - No real technical errors
- <http://www.ietf.org/mail-archive/web/pim/current/msg02124.html>
 - A brief report
 - Reasons for rejections
 - One open issue: 1161
- Feedback really important!

Optional Features

- **Candidates**

- (*,*,RP) and Border bit for PIM registers
- Explicit tracking
- Group to RP mappings
 - Referring to the new group-to-rp mapping RFC?
 - Hashing - for BSR only or static as well, or nothing at all?

- **Survey: vendors and operators**

- Implementations & Deployments
- Operational experiences

Request For Comments!

- Your involvement and feedback are very important
 - Past effort by Stig/Bill have not got much responses
 - The RFC advancement needs to proceed
 - The 2+3 party have got consensus on the errata
 - Stig/Bill + Rishabh/Jeffrey/Vero
 - Would prefer to get more feedback
 - Optional feature discussion/survey needs wider involvement

Errata 1161 (1/2)

- Section 4.5.6 says:

```
bool JoinDesired(*,G) {  
    if (immediate_olist(*,G) != NULL OR  
        (JoinDesired(*,*,RP(G)) AND  
         AssertWinner(*, G, RPF_interface(RP(G))) != NULL))  
        return TRUE else return FALSE  
}
```

JoinDesired(*,G) is true when the router has forwarding state that would cause it to forward traffic for G using shared tree state.

- Question: When would immediate_olist(*,G) be NULL and forwarding state exist?
- Answer: When there is a (*, *, RP) join

Errata 1161 (2/2)

- Our follow-up question:

Why would we want to send a $(*, G)$ join, if we only have a $(*, *, RP)$ join but no $(*, G)$ join downstream, even if there is a $(*, G)$ assert winner?