Routing Protocol Standardization Criteria

How it affects the Internet Area

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A Note About Running Code

1. At the end of the day, without Running Code we are all wasting our time here.

2. The discussion today is not about implementation experience being good or bad, it is about where in our standardization process to freeze a document and publish it as an RFC.
RFC1264
Internet Routing Protocol Standardization Criteria

• Informational RFC published in 1991
• Authored by then RTG AD, Bob Hinden
• Reflects the thinking at the time of the IAB and IESG
• Predates RFC2026, referring to a time when the IAB approved documents, not the IESG
• Refers specifically to IGP and EGP (Interior and Exterior Gateway Protocols)
• Outlines additional procedures to standardize Routing Protocols
RFC1264 - Motivation

• Routing protocols are:
  – Complex, widely distributed, real-time algorithms
  – Difficult to implement and test
  – Are key elements in the successful operation of the Internet

• Thus, they should be subject to more stringent publishing criteria
RFC1264 - Current Impact

- RFC1264bis:
  - draft-fenner-zinin-rtg-standard-reqts-01.txt
- Additional req’s at Proposed Standard
  - MIB ID must exist
  - Major features tested
  - 2 interoperable implementations must exist
- Much Like Draft Standard
- This impact has evolved over time, application not entirely consistent
- Scope - Beyond IGP and EGP (i.e., also includes LDP and RSVP-TE)
- Currently affecting a number of documents in the IESG queue from the L2VPN and L3VPN WGs.
- “Escape mechanism” procedures defined - Experimental track, IETF Last Call for Variance
## Process Summary

<table>
<thead>
<tr>
<th></th>
<th>PS</th>
<th>DS</th>
<th>S</th>
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</thead>
<tbody>
<tr>
<td>Change Summary</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<td>MIB Requirement</td>
<td>I-D</td>
<td>PS</td>
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<td>Implementations</td>
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<td>All-2imp</td>
<td>All-2ind</td>
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<td>Operational Experience</td>
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<td>Significant</td>
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<tr>
<td>Protocol Analysis</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Obvious Questions for the Int-Area

• Why does this affect me? I thought this was just a RTG-Area thing?
  – Criteria targets the protocol not the area
  – RFC1264 is not “binding” IETF consensus, but RFC 2026 does allow demanding additional criteria
  – RFC1264bis, If/when published as a BCP, would be official binding IETF process
• Will this slow down my draft getting to RFC?
  – Probably, at least for PS.

• What about IPv6?
  – IPv6 extensions w/o 2 implementations will advance on Experimental, or a variance requested via IETF Last Call
    • Recent example: draft-ietf-l2vpn-signalling held two discusses, one requesting specification of IPv6, and another that an implementation report is necessary to advance to PS.
• **Will our documents improve?**
  – Yes and No.
    • Implementation experience is always good.
    • Procedural hurdles can have adverse affects

• **What about newtrk?**
  – Newtrk can only affect some day in the future, we have to decide what we are doing today.
  – A significant change in standards track procedures resulting from the newtrk effort could render RFC1264bis obsolete.
• What about my document? Do I need to write up an implementation report?
  • If your document touches a routing protocol, be prepared for the IESG to ask for an implementation report at PS
  • Blocked L2VPN and L3VPN documents in IESG queue
    – draft-ietf-l2vpn-signaling
    – draft-ietf-l2vpn-vpls-bgp
    – draft-ietf-l2vpn-vpls-ldp
    – draft-ietf-l3vpn-bgp-ipv6
    – draft-ietf-l3vpn-rt-constrain
  – Can the int-area and rtg-area keep separate policies on this for routing protocols?
    – No. We don’t want to see “area shopping” for routing protocol extensions. We MUST work together on this.
Comments, Please

• Discussion with the rtg-area
  – routing-discussion@ietf.org
  – http://rtg.ietf.org
  – rtg-area open meeting this afternoon

• Open Mic here until end of session
End