Network Working Group
Request for Comments: 1370

Internet Architecture Board
Lyman Chapin, Chair

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Applicability Statement for OSPF

Status of this Memo

This memo is an IAB standards track Applicability Statement for the Internet community, and requests discussion and suggestions for improvements. Please refer to the current edition of the "IAB Official Protocol Standards" for the standardization state and status of this specification. Distribution of this memo is unlimited.

1. INTRODUCTION

Users and vendors have expressed a strong need for IP routers from different vendors that can interoperate using a common Interior Gateway Protocol (IGP). There is therefore an urgent requirement for a high-functionality non-proprietary 'open' IGP that will be ubiquitously available from all IP router vendors.

The Open Shortest Path First (OSPF) routing protocol [1] was developed by the IETF to fill this need. This Applicability Statement specifies the circumstances under which OSPF must be implemented by router vendors. The history of OSPF development and the reasoning behind this Applicability Statement will be found in [5].

This Applicability Statement places a requirement on vendors claiming conformance to this standard, in order to assure that users will have the option of deploying OSPF when they need a multivendor, interoperable IGP in their environment. Users are of course free to use whatever routing protocol best meets their requirements.

2. APPLICABILITY OF OSPF

An IP router that implements any routing protocol (other than static routes) is required to implement OSPF [1] and the OSPF MIB [2]. Within OSPF, implementation of all features except TOS (Type-of-Service) routing is required; implementation of TOS routing is recommended.

This requirement does not prevent a router from implementing other routing protocols in addition to OSPF. Complete and definitive requirements on all aspects of an IP router will be found in a forthcoming Applicability Statement: "Requirements for IP Routers"

[4], currently in preparation in the IETF. "Requirements for IP Routers", when it becomes a Standard, will take precedence if its requirements for OSPF should conflict with this present RFC.

It should be noted that OSPF is intended for use by routers for exchanging dynamic routing information, and not for use by hosts. As discussed in Section 3.3.1.4 of STD-2, "Requirements for Internet Hosts -- Communication Layers" [3], 'wiretapping' of routing protocols by hosts is not recommended. Recommended mechanisms for a host to use for discovering local routers and detecting dead routers will be found in [3]. In particular, the ICMP Router Discovery messages, under development, will provide a standard way for a host to learn the addresses of local routers [6].

3. REFERENCES

[1] Moy, J., "OSPF Version 2", RFC 1247, Proteon, Inc., July 1991.

[2] Baker, F., and R. Coltun, "OSPF Version 2 Management Information Base", RFC 1253, ACC, Computer Science Center, August 1991.

[3] Braden, R., Editor, "Requirements for Internet Hosts -- Communication Layers", IETF, STD 3, RFC 1122, October 1989.

[4] Almquist, P., Editor, "Requirements for IP Routers", Work in Preparation, IETF.

[5] Gross, P., Editor, "Choosing a "Common IGP" for the IP Internet (The IESG's Recommendation to the IAB)", RFC 1371, IESG, October 1992.

[6] Deering, S., Editor, "ICMP Router Discovery Messages", RFC 1256, Xerox PARC, September 1991.

Security Considerations

Security issues are not discussed in this memo.

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