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RFC 4148 and the IPPM Metrics Registry are Obsolete
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Abstract

This memo reclassifies RFC 4148, the IP Performance Metrics (IPPM) Registry as Obsolete, and withdraws the IANA IPPM Metrics Registry itself from use because it is obsolete. The current registry structure has been found to be insufficiently detailed to uniquely identify IPPM metrics. Despite apparent efforts to find current or even future users, no one has responded to the call for interest in the RFC 4148 registry during the second half of 2010.

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1. Introduction

The IP Performance Metrics (IPPM) framework [RFC2330] describes several ways to record options and metric parameter settings, in order to account for sources of measurement variability. For example, Section 13 of [RFC2330] describes the notion of "Type P" so that metrics can be specified in general, but the specifics (such as payload length in octets and protocol type) can replace P to disambiguate the results.

When the IPPM Metric Registry [RFC4148] was designed, the variability of the Type P notion, and the variability possible with the many metric parameters (see Section 4.1 of [RFC2679]) was not fully appreciated. Further, some of the early metric definitions only indicate Poisson streams [RFC2330] (see the metrics in [RFC2679], [RFC2680], and [RFC3393]), but later work standardized the methods for Periodic Stream measurements [RFC3432], adding to the variability possible when characterizing a metric exactly.

It is not believed to be feasible or even useful to register every possible combination of Type P, metric parameters, and Stream parameters using the current structure of the IPPM Metric Registry.

The IPPM Metrics Registry is believed to have very few users, if any. Evidence of this provided by the fact that one registry entry was syntactically incorrect for months after [RFC5644] was published. The text "!=" was used for the metrics in that document instead of "::=". It took eight months before someone offered that a parser found the error. Even the original registry author agrees that the current registry is not efficient, and has submitted a proposal to effectively create a new registry.

Despite apparent efforts to find current or even future users, no one has responded to the second half of 2010 call for interest in the RFC 4148 registry. Therefore, the IETF now declares the registry Obsolete without any further reservations.

When a registry is designated Obsolete, it simply prevents IANA from registering new objects, in this case new metrics. So, even if a registry user was eventually found, they could continue to use the current registry and its contents will continue to be available.

The most recently published memo that added metrics to the registry is [RFC6049]. This memo updates all previous memos that registered new metrics, including [RFC4737] and [RFC5560], so that the registry's Obsolete status will be evident.

2. Action to Reclassify RFC 4148 and the corresponding IANA registry as Obsolete

Due to the ambiguities between the current metrics registrations and the metrics used, and the apparent minimal adoption of the registry in practice, it is required that:

- o the IETF reclassify [RFC4148] as Obsolete.
- o the IANA withdraw the current IPPM Metrics Registry from further updates and note that it too is Obsolete.

It is assumed that parties who wish to establish a replacement registry function will work to specify such a registry.

3. Security Considerations

This memo and its recommendations have no known impact on the security of the Internet (especially if there is a zombie apocalypse on the day it is published; humans will have many more security issues to worry about stemming from the rise of the un-dead).

4. IANA Considerations

Metrics defined in IETF have been typically registered in the IANA IPPM METRICS REGISTRY as described in initial version of the registry [RFC4148]. However, areas for improvement of this registry have been identified, and the registry structure has to be revisited when there is working group consensus to do so.

The current consensus is to designate the IPPM Metrics Registry, originally described in [RFC4148], as Obsolete.

The DESCRIPTION of the registry MIB should be modified as follows, and the first two sentences should be included on any IANA-maintained web-page describing this registry or its contents (with the RFC number of this memo replacing "XXXX"):

DESCRIPTION

"With the approval and publication of RFC XXXX, this module is designated Obsolete.

The registry will no longer be updated, and the current contents will be maintained as-is on the day that RFC XXXX was published.

The original Description text follows below:

This module defines a registry for IP Performance Metrics.

... "

5. Acknowledgements

Henk Uijterwaal suggested additional rationale for the recommendation in this memo.

6. References

6.1. Normative References

[RFC4148] Stephan, E., "IP Performance Metrics (IPPM) Metrics Registry", BCP 108, RFC 4148, August 2005.

6.2. Informative References

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[RFC3432] Raisanen, V., Grotefeld, G., and A. Morton, "Network performance measurement with periodic streams", RFC 3432, November 2002.

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[RFC5560] Uijterwaal, H., "A One-Way Packet Duplication Metric", RFC 5560, May 2009.

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