

**Advancement of metrics specifications
on the IETF Standards Track**

draft-bradner-metricstest-00.txt

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Giving metrics the weight of standards:

- We'd like metrics to be viewed as fully developed/endorsed IETF technology.
- Hence, they should be standards-track ([Exp/]PS/DS/FS), not Informational. BCP doesn't seem right, it's mostly for guidelines and IETF process stuff.
- Progressing along standards track requires (1) interoperable implementations, and (2) checking whether options are actually implemented.
- What does such a progression mean for a metric?

Progressing metrics as standards, con't:

Note #1 : similar issues arise for MIBs (see RFC 2438).

Note #2 : this arose in discussions of IPPM, but seems should be applicable to BMWG, too.

Note #3 : the I-D is to *generate discussion*, not a proposed tidy solution.

Proposed procedure:

- #1 goal is that metric specifications lead to repeatable, reliable measurements.
- Problem: network conditions may change between trials.
- Idea: require in *implementation report* discussion of different implementations (running on same or different hardware) repeatedly measuring the same network property.
- Randomized scheduling suggested.
- Could run simultaneously if appropriate for network paths, metric (e.g., low frequency delay; but not BTC).

Proposed procedure, con't:

- Perhaps: method B 's value falls within 2σ of A 's value at least 90% [*] of the time. (If truly identical, expect 95%.)
- Explicit IESG prerogative to modify these numbers in light of particular measurement factors/difficulties.
- ADs recommend to IESG that test coverage adequate.

What about options?

- IPPM's *Type P* is very generic.
- Wording in I-D should mention the expectation is to cover a representative range.
- Need to avoid cross-product of different parameter ranges.

Further discussion: on IPPM mailing list.