

TWAMP Feature – Intrusive Raw Capacity of Asymmetric Paths

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Another year of New TWAMP Features?

- Even more implementations
- New measurements = New Features
- Decent basis for extension
 - But not the easiest base spec to read...

Capacity is Interesting

- Overseers like to measure something that relates to user experience
- Users like to know what they will achieve
- SPs advertise a different metric:
 - It's the traditional metric for access
 - Has similar units of measure
 - A simple, intrusive test can verify
- See Definitions of Raw & Restricted Capacity in (this is a proposal for Raw):
 - [draft-ietf-ippm-reporting-metrics-04](#)

Intrusive Capacity: Asymmetric Path Assessment (test pkt size)

- Send Load in Forward direction
 - Load is MTU or other size packets
 - Reply with TWAMP Session Format ONLY

OR

- Send TWAMP Session Format ONLY
 - Reply with Load, MTU or other size packets
- Pre-arrange for the Session-Reflector behavior using the TWAMP Control
- Need AGREEMENT from EVERYBODY involved before you do this test!

Advantages of “T”

Yes, you could do this with OWAMP, but

- Server and Session-Reflector are fairly simple functions, for a single session
 - Add to edge/large scale device
- Results returned to Sender
 - No Fetching or Storage at large scale end
- NTP ok (?)
 - Measuring Rate, not the more complicated and demanding inter-packet times

Intrusive Capacity: Mode Field Assignment

Value	Description	Reference/Explanation
...		
8	Unauth. TEST protocol, Encrypted CONTROL	bit position (3)

zzz	Intrusive Capacity	this talk, bit position(2

TWAMP Control Command Number Assignments

Value	Description	Semantics	Definition
0	Reserved		
1	Forbidden		
2	Start-Sessions	RFC4656,	Section 3.7
3	Stop-Sessions	RFC4656,	Section 3.8
4	Reserved		
5	Request-TW-Session	RFC5357,	Sec 3.5
6	Experimentation	RFC5357,	Sec 8.3
7	Start-N-Sessions	this memo,	Section 3.2
8	Start-N-Ack	this memo,	Section 3.3
9	Stop-N-Sessions	this memo,	Section 3.4
10	Stop-N-Ack	this memo,	Section 3.5

11? Request-TW-Sess:Cap add size for both send/reflect

Questions for IPPM

- Is this worth-while to investigate further?
- Want this combined with other features?
- Want to see a draft?