Responsiveness under Working Conditions

draft-ietf-ippm-responsiveness-02

Christoph Paasch, Randall Meyer, Stuart Cheshire, Will Hawkins

01 to 02: Major update

GitHub ChangeLog

- Closed <u>12 issues</u>

- Merged <u>6 pull-requests</u>

- Pushed <u>22 commits</u>

Major changes

- Entirely revised algorithm

- Discovery through DNS

- .well-known URL for configuration

Revised algorithm

Load-generation

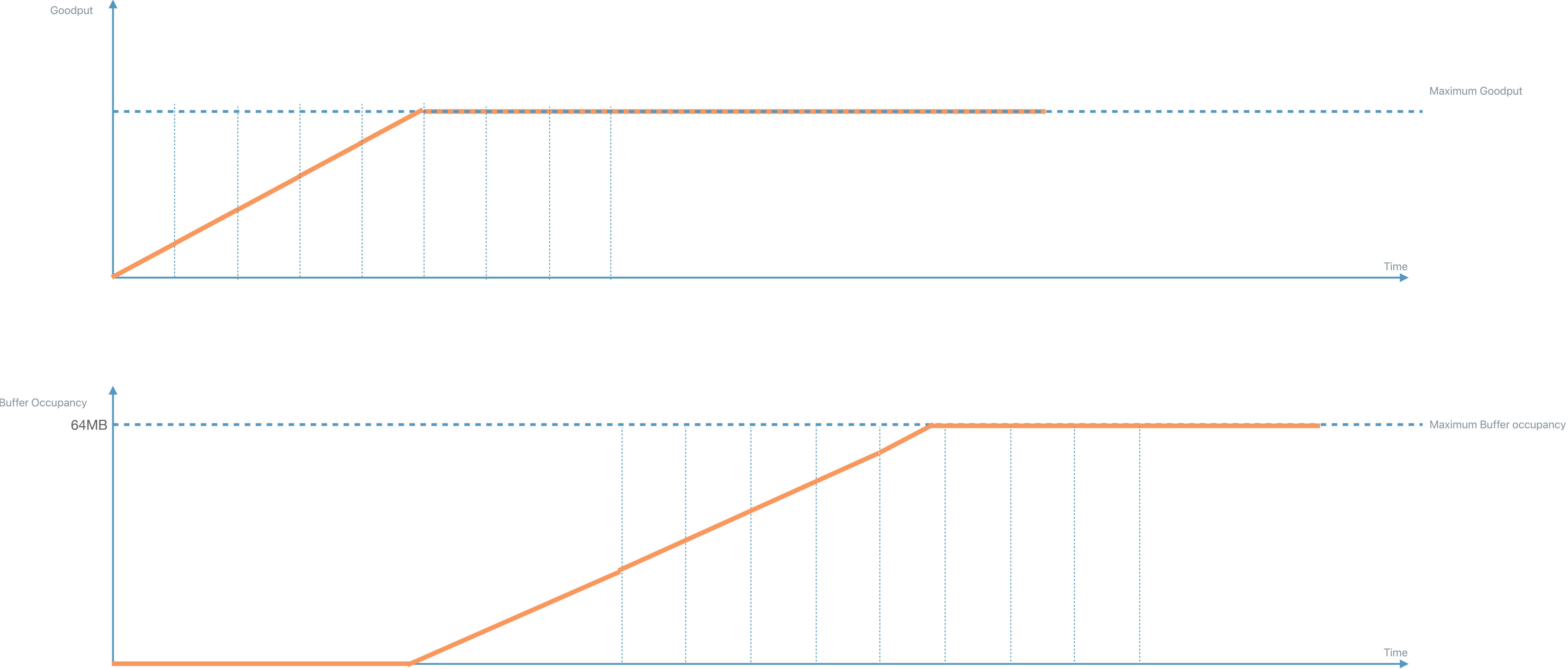- Add one load-generating connection per interval

Stability Detection

- Standard-deviation of last 4 intervals is within 5% of moving average

- Achieving stability not only for capacity but also for responsiveness

Responsiveness computation

- 95th percentile Trimmed Mean of last 4 intervals

Revised algorithm

DNS-based service discovery

- Service-Type _nq._tcp

- Example: Organization "obs.cr" hosting a test-server at rpm.obs.cr

```
$ nslookup -q=ptr _nq._tcp.obs.cr

Non-authoritative answer:

_nq._tcp.obs.crname = rpm._nq._tcp.obs.cr.

$ nslookup -q=srv rpm._nq._tcp.obs.cr.

Non-authoritative answer:

rpm._nq._tcp.obs.crservice = 0 0 443 rpm.obs.cr.
```

Next Steps

- Minor cleanups

- Review structure/wording of algorithm description

RPM-Community
https://github.com/network-quality/community/wiki

Scope-of-work

- Design and develop measurement methodologies for the metrics that matter.

- Integrate those methodologies in existing open-source tools.

- Work on improving open-source implementations like webservers, networking stacks,...

RPM-Community
https://github.com/network-quality/community/wiki

- ~ 3 months old

- 31 members on Slack workspace (more than10 companies/universities)

- Open-source work on goresponsiveness, librespeed, iperf2, go-lang, Apache Traffic Server,… (more to come)

  - More than 10 open-source contributions

- Join our Slack workspace, join our weekly meeting !

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