2021 Update

Latest developments and news

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2nd European perfSONAR User Workshop
14-15 April 2021

perfSONAR is developed by a partnership of

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A quick look back…

...London, June 2019
1st European perfSONAR Users Workshop

- In London in June 2019, hosted by Jisc
- More than 20 presenters and participants on site
  - And probably about 20 remotes

You asked for:

- Repetition of the workshop
What happened since then?

- New releases
  - 4.2.0-b1 to 4.3.4
- New website in March 2020
  - With new logo!

- 1\textsuperscript{st} perfSONAR day hosted by Internet2 in November 2020
- New Development partner: RNP
- Lots of discussion, meetings, calls …
- … and some dev work!
Deployments update

2000+ public nodes around the world …

… and yours!
Software update

Latest releases
Regular releases

- Averaging a release roughly every 2 months
  - 6 releases in past year
  - 1 “major” release a year
- Posted to the regular repositories
- 4.1.x and older are EOL
perfSONAR 4.2.0 - 4.2.4

- Release dates: 2019-2020
- Main new feature: pSConfig Web Administration (PWA)
  - Graphical User Interface
  - List hosts, tests and parameters
  - No need to deal with JSON file anymore
- pScheduler
  - New pScheduler plugins:
    - Disk to Disk measurements (FTP, Globus)
    - DNS and HTTP response time
  - Task priorities
- End of BWTCL support (pS 3)
perfSONAR 4.3.0 - 4.3.4

- Initial release date: November 2020
  - 4.3.4 in March 2021
- Stabilisations, performance improvements, technical debt
  - Python 3 port
- Debian 10 support (testpoint)
- New pScheduler plugins:
  - S3 benchmark
  - ethr (Microsoft) for throughput tests
1st European pS Users Workshop

In London, June 2019
1st European perfSONAR Users Workshop

You asked for:

- Repetition of the workshop
- Feature requests and improvements
- Better documentation and training

Lots of work in progress…
Improvement themes

- Better documentation and help
- Easier setup and less maintenance
- Improved MaDDash and visualisation
- Engagement
- And more specifics…

Docs
Auto(mation)
Vis(ualisation)
Engage(ment)
Others
Recommendations - Day 1

- **Doc**s
  - Mesh activation process should be improved
  - Better documentation on the installation - more quicksheets
  - Better interpretation of error messages
  - More information on how any of the reported events in logs impacts the installation

- **Doc**s
  - Documentation on how to configure parameters for individual tests
  - Have MaDDash react more quickly to changes in past measurements
  - Different threshold per host in MaDDash

- **Vis**
  - New alerting mechanism for MaDDash: open OTRS ticket
Recommendations - Day 1 (2)

- Vis
  - Vis
  - Engage
  - Auto / Vis
  - Vis

- Throughput visualisation option: don’t draw lines, but only plot dots
- Make TWAMP a 1st class citizen in the perfSONAR ecosystem (dashboard, graphs, toolkit)
- Seek the input from NOC engineers
- Minimize the efforts for monitoring of perfSONAR itself
- For better understanding, measurement tuning and thus better and more relevant results, combine perfSONAR lab and field testing
Recommendations - Day 2

✗ Vis
- Vis
✓ Others / Vis

- Others

✗ Others

✗ Pending

✗ In progress

✓ Addressed

• perfSONAR for SLA verification and reporting
• perfSONAR support for L2 measurement protocols (i.e. CFM)
• Measurements results visualisation can be improved
• Provide jitter measurement visualisation
• Integration with other time series databases, not only Elasticsearch
• Make it flexible/open enough for different tools
Recommendations – Day 2
Visualisation, On-demand measurements, Vendor integration

- Vis / Engage
  - Gather use-cases in order to be able to examine and feedback the visualisation for on-demand measurements and measurement data results visualisation

- Engage
  - Organise infoShare to present it and ask for feedback
  - Offer the tool for beta testing and ask for feedback

- Vis
  - Offer the PoC tool for alpha/beta testing and ask for feedback

- Others
  - Support perfSONAR on BSD
Better documentation and help

- Regular updates to the documentation
- More and improved log messages
- Some new quicksheets
  - pSConfig Web Administration
  - And presentations today
- Videos of webinars and infoshares collected on Youtube:
  - [https://www.youtube.com/perfSONARProject/](https://www.youtube.com/perfSONARProject/)
Easier setup and less maintenance

- Ansible roles and example playbooks
  - Deploy and configure any pS bundle
  - Centrally maintain your pS hosts
- Automatic restart of services (pScheduler)
Improved MaDDash and visualisation

- Opening new possibilities (perfSONAR 5)
- Working on it for perfSONAR 5
  - Changing backend
  - Changing frontend
  - More details tomorrow
- psGUI for on-demand measurements
  - Throughput, latency, RTT, …
  - WIP, demo at TNC21
Specifics about measurements

- Developing your own plugins
  - pScheduler Plugin Development Kit (PDK)
- Looking at some jitter measurements with LoLa project
  - TWAMP and other tools

And…

- perfSONAR on BSD…
  - We’ll talk OS support tomorrow
Tracking progress and engagement

- Issue tracker
  - https://github.com/perfsonar/
  - Add your own bug report or feature request
- User lists reports and discussions
- Dev meetings and standups
  - Bi-weekly standups, weekly QA call, weekly automation and containers call
  - Fortnightly 1 hour open Dev call alternating with Docs & Training call
  - Yearly Developers meeting
- perfSONAR day, Workshops, Infoshares, Conferences
2nd European perfSONAR Users Workshop

- 1st day: Users experience, use cases
- 2nd day: Developers corner, new features, work in progress
Thanks!

For more information, please visit our web site:
https://www.perfsonar.net