

perfSONAR

2021 Update

Latest developments and news

Antoine Delvaux ▪ PSNC / GÉANT project ▪ antoine.delvaux@man.poznan.pl

2nd European perfSONAR User Workshop

14-15 April 2021

perfSONAR is developed by a partnership of

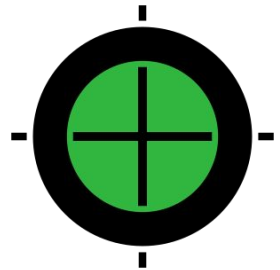


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A quick look behind...

...London, May 2019

1st European perfSONAR Users Workshop

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

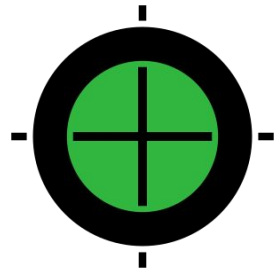
You asked for:

- **Repetition of the workshop**

What happened since then?

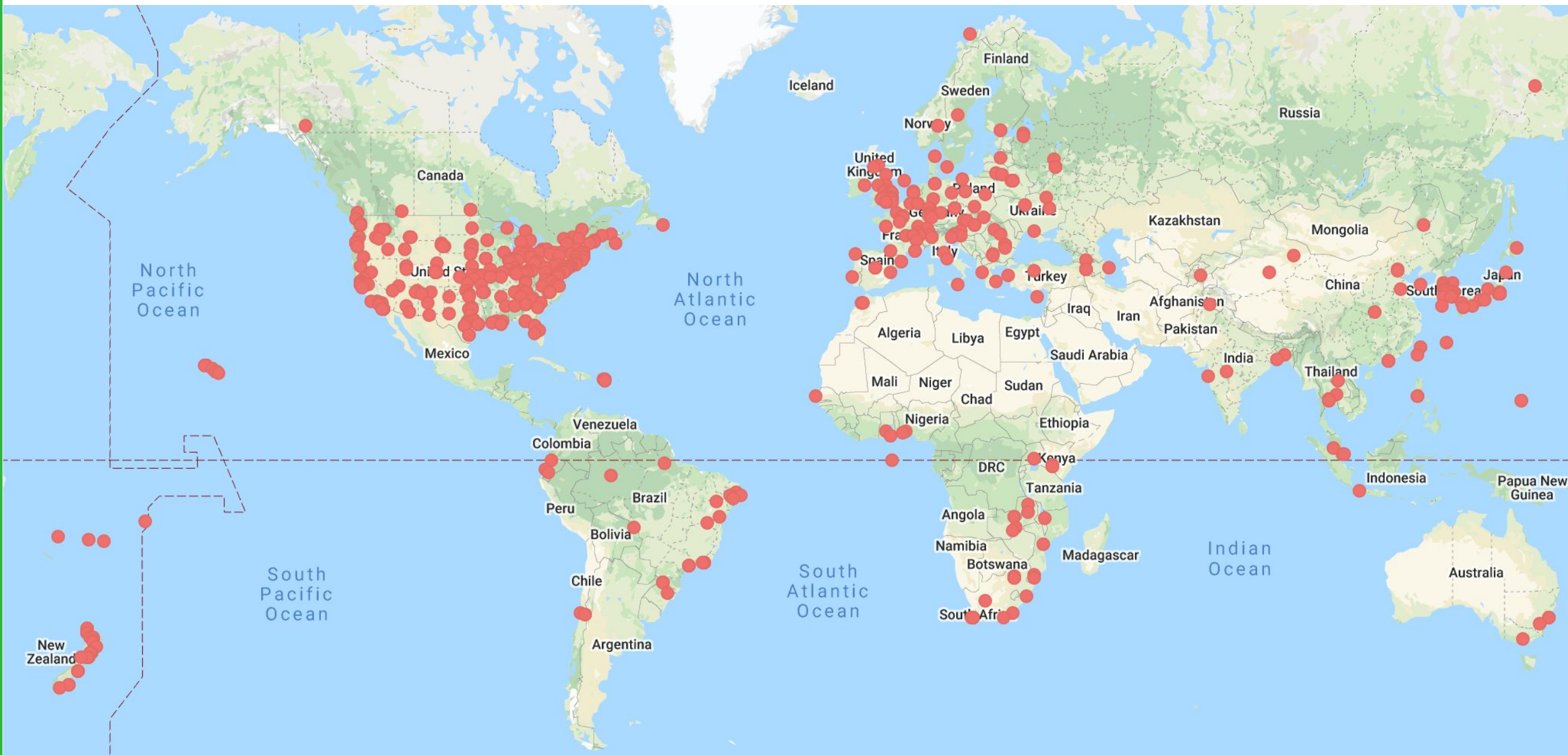
- New releases
 - 4.2.0-b1 to 4.3.4
- New website in March 2020
 - With new logo!
- 1st perfSONAR day hosted by Internet2 in November 2020
- New Development partner: RNP
- Lots of discussion, meetings, calls ...
- ... and some dev work!



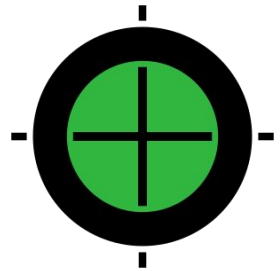


Deployments update

*2000+ nodes around the world ...
... and yours!*



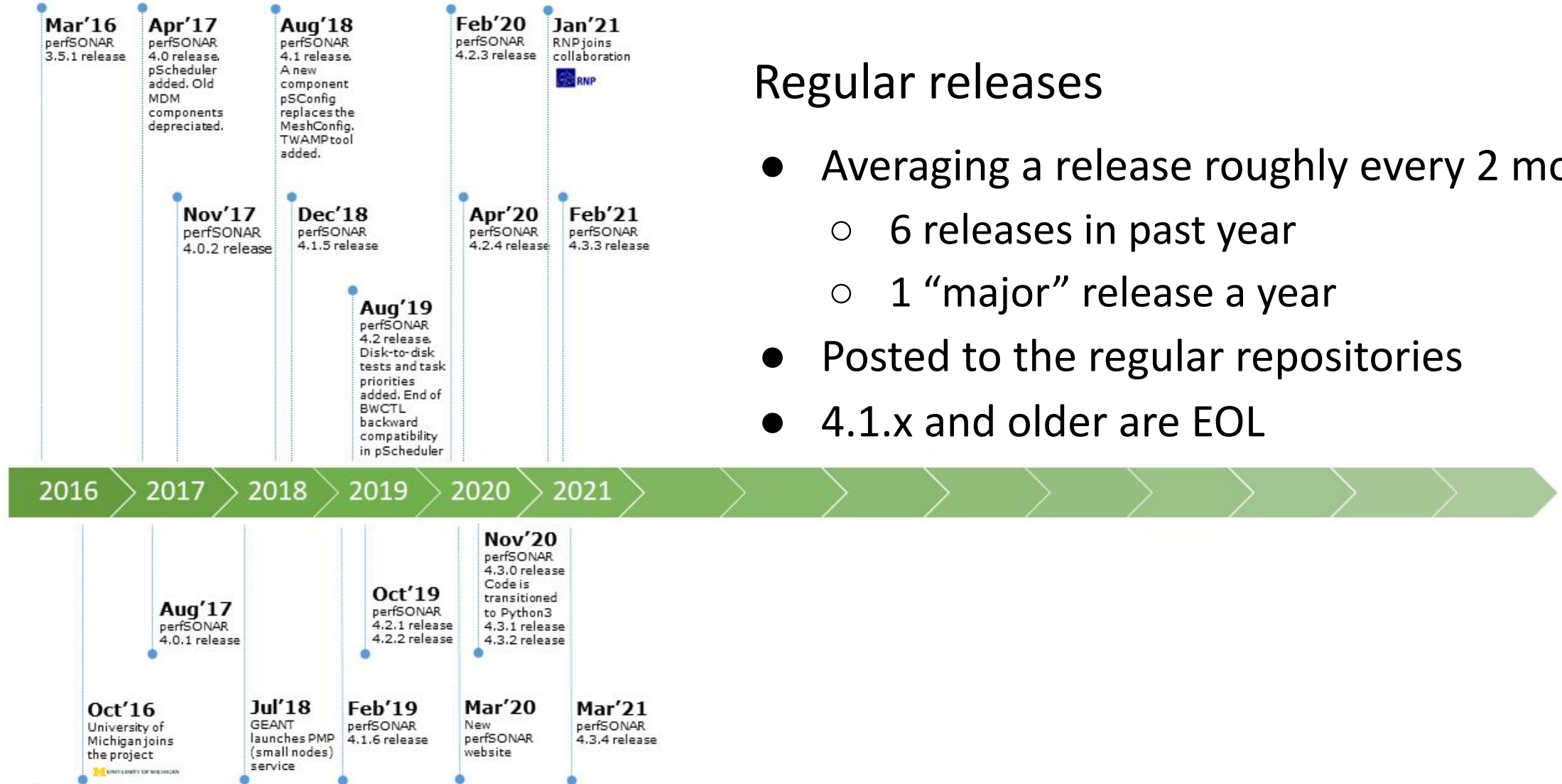




Software update

Latest releases

perfSONAR HISTORY TIMELINE 2016 - present



Regular releases

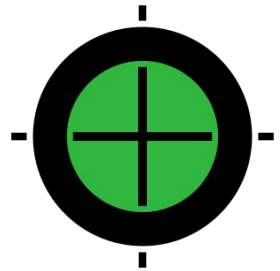
- Averaging a release roughly every 2 months
 - 6 releases in past year
 - 1 “major” release a year
- Posted to the regular repositories
- 4.1.x and older are EOL

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, May 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

- ✓ Addressed
- In progress
- X Pending

Recommendations - Day 1

- ✓ **Auto** • **Mesh activation process** should be improved
- **Docs** • Better **documentation on the installation** - more quicksheets
- **Docs** • Better **interpretation of error messages**
- **Docs** • More information on how any of the **reported events in logs** impacts the installation
- X **Docs** • Documentation on how to configure parameters for individual tests
- **Vis** • Have MaDDash react more quickly to changes in past measurements
- **Vis** • **Different threshold per host** in MaDDash
- X **Vis** • New **alerting mechanism** for MaDDash: open OTRS ticket

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- ✓ Addressed
- In progress
- ✗ Pending

Recommendations - Day 1 (2)

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

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- ✓ Addressed
- In progress
- ✗ Pending

Recommendations - Day 2

- ✗ Vis • perfSONAR for **SLA verification and reporting**
- ✗ Others • perfSONAR support for **L2 measurement protocols** (i.e. CFM)
- Vis • Measurements results **visualisation** can be improved
- Vis • Provide **jitter measurement visualisation**
- ✓ Others / Vis • Integration with **other time series databases**, not only Elasticsearch
- ✓ Others / Vis • Make it **flexible/open enough for different tools**

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- ✓ Addressed
- In progress
- ✗ Pending

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 **infoshares** to present it and ask for the feedback
- ✗ **Engage**
 - 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**

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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/>

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



elasticsearch



Grafana

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

perfSONAR



Thanks icon by priyanka from The Noun Project

Thanks!

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

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