Around the World with NTS
deployment and usage

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Intro

- Christer Weinigel, work for Netnod in Sweden
  - Time & Frequency group
- Netnod, NTP since 1997
  - NTP has been around since the 1980-ies
  - Fairly long in the tooth
  - Authentication used shared secret, does not scale
- I have been working on NTS, RFC 8915
  - NTP with scalable security
  - Solves shared secret distribution
  - Stateless server
NTS details

- RFC 8915
- Simplified explanation of NTS
  - Manages shared secrets for authenticated NTP
  - No state on the server
  - Scales to an unlimited number of clients
Netnod NTS-KE

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Heatmap produced with Datashader
Geo-IP provided by DB-IP (CC BY 4.0)

2022-02-23 18:00 UTC
838 hits per hour
Timeline

- New servers in Stockholm
  - February 2022, 1000-2000 hits per hour, only enthusiasts
- Nothing happened for 8 months
  - Mid October, usage started to rise slowly
- During November usage exploded
  - November 7, 10 000 hits per hour
  - November 14, 100 000 hits per hour
- Usage kept rising until January
  - Mid January, 1 000 000 hits per hour
  - End of January, 2 000 000 hits per hour
- Thousandfold increase in traffic in less than three months
- At least 5 million unique IP addresses
Thanks for listening!

I'm Christer Weinigel <wingel@netnod.se>
feel free to contact me if you have any questions

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