



BIND 9.16 resolver speedup

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2021-11-25

<https://www.isc.org>

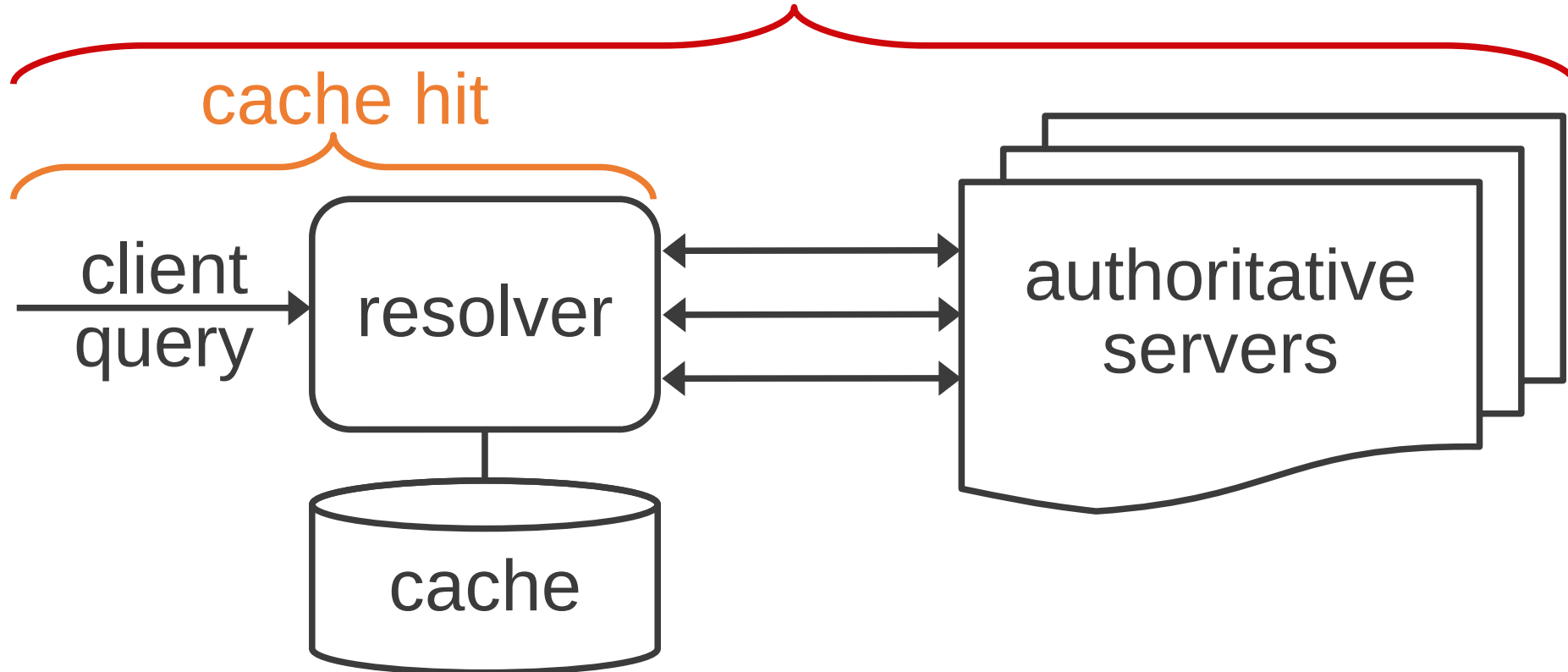
BIND news

- 9.11 series
 - End-of-life on 2021-12-31
- 9.16 series
 - Supported up to end of 2023
- 9.18 behind the corner
 - Supported up to end of 2025
- Details <https://kb.isc.org/docs/aa-00896>



Resolver \neq authoritative server

- Forget about queries-per-second (QPS) metric
cache miss



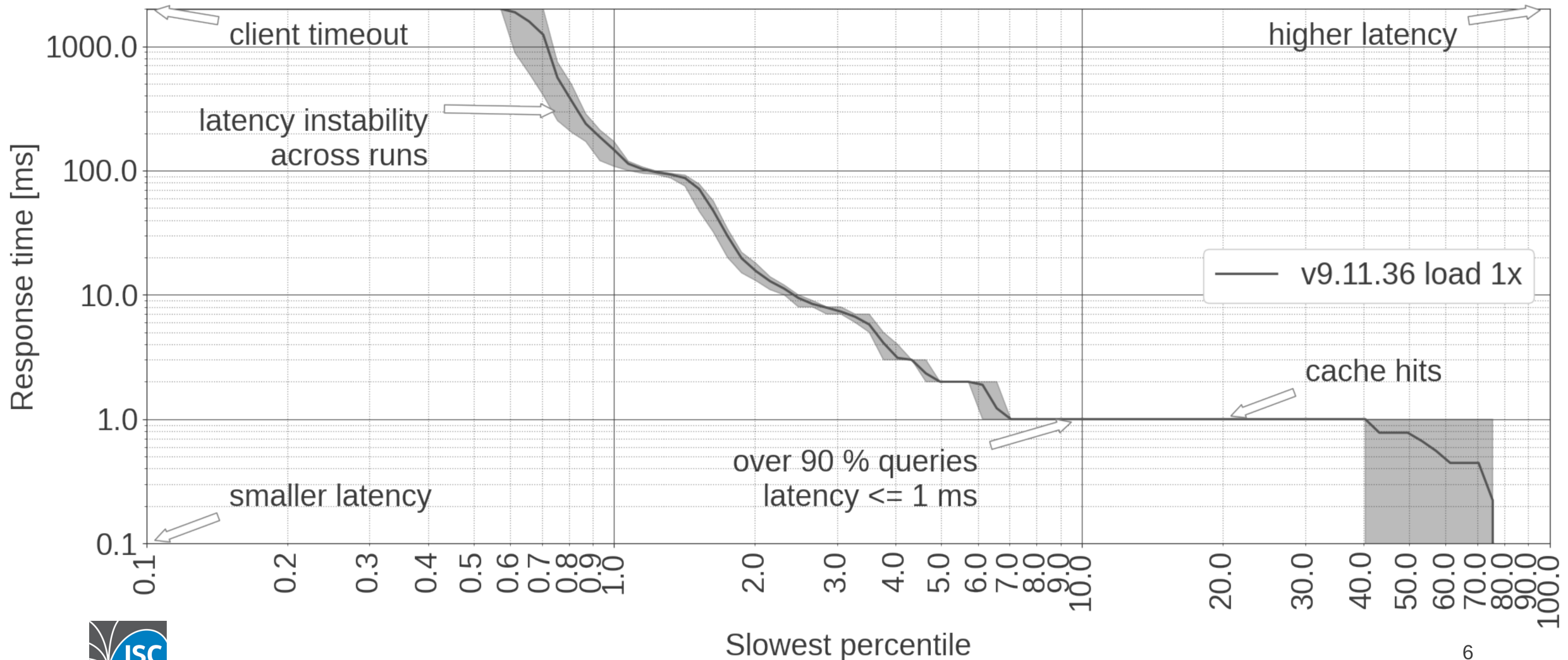
Latency: the metric for resolvers

- Reflects client experience
- Traffic replay difficulties
 - Cache hit rate
 - TTL in answers
- Replay methodology details
<https://ripe79.ripe.net/archives/video/198/>

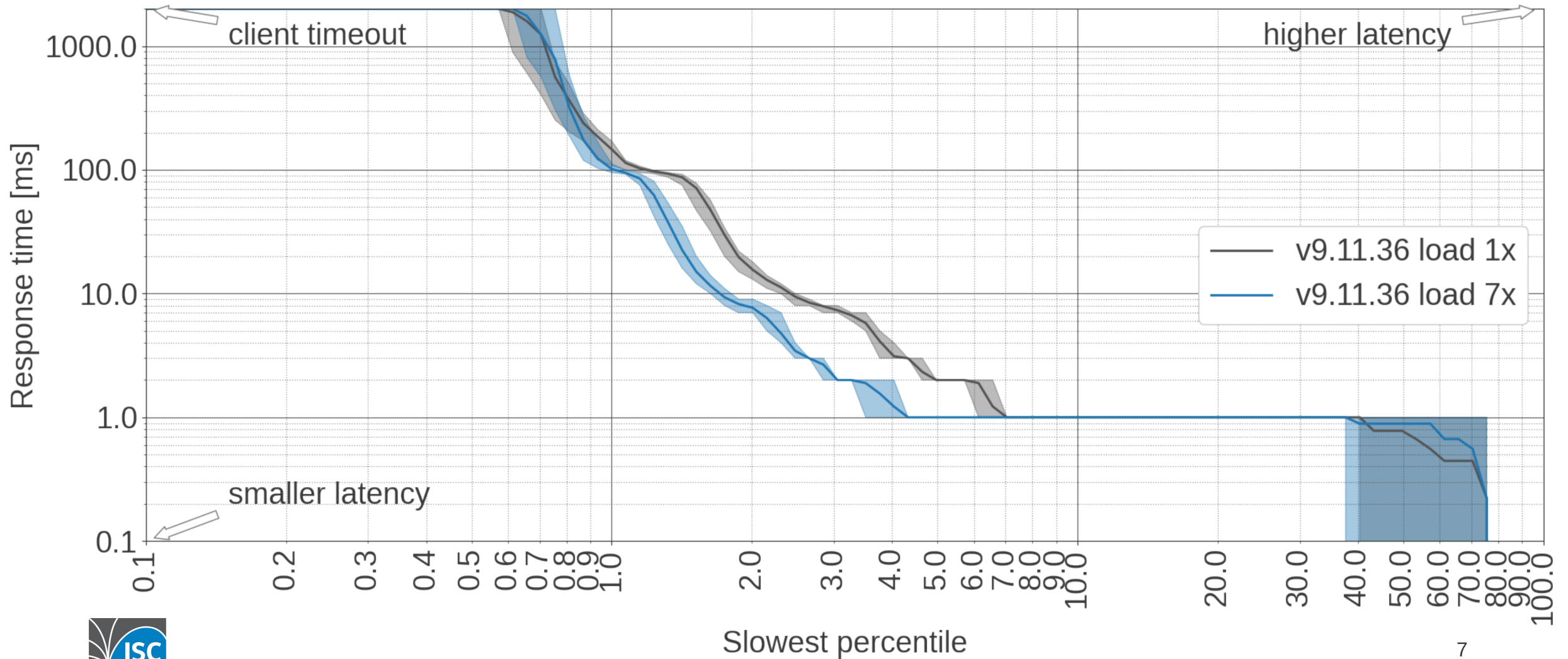
Test data set

- Real traffic capture
 - 20 telco resolvers
 - Similar load on each
 - Mix of landline & mobile clients
- Replay <number> captures at once
 - 1 – 20 to a single resolver
 - Load factor <N> **times** (×)

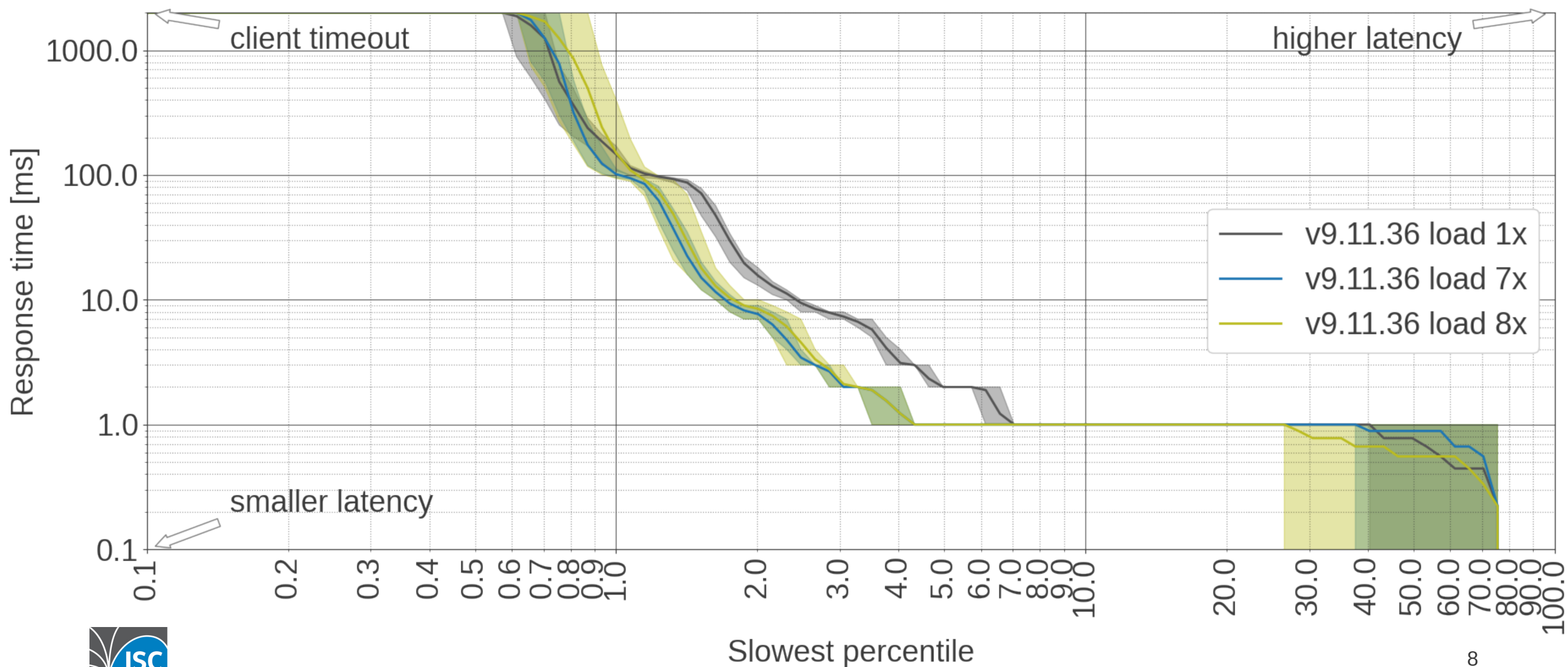
Baseline: 9.11.36, load 1x, 9 runs



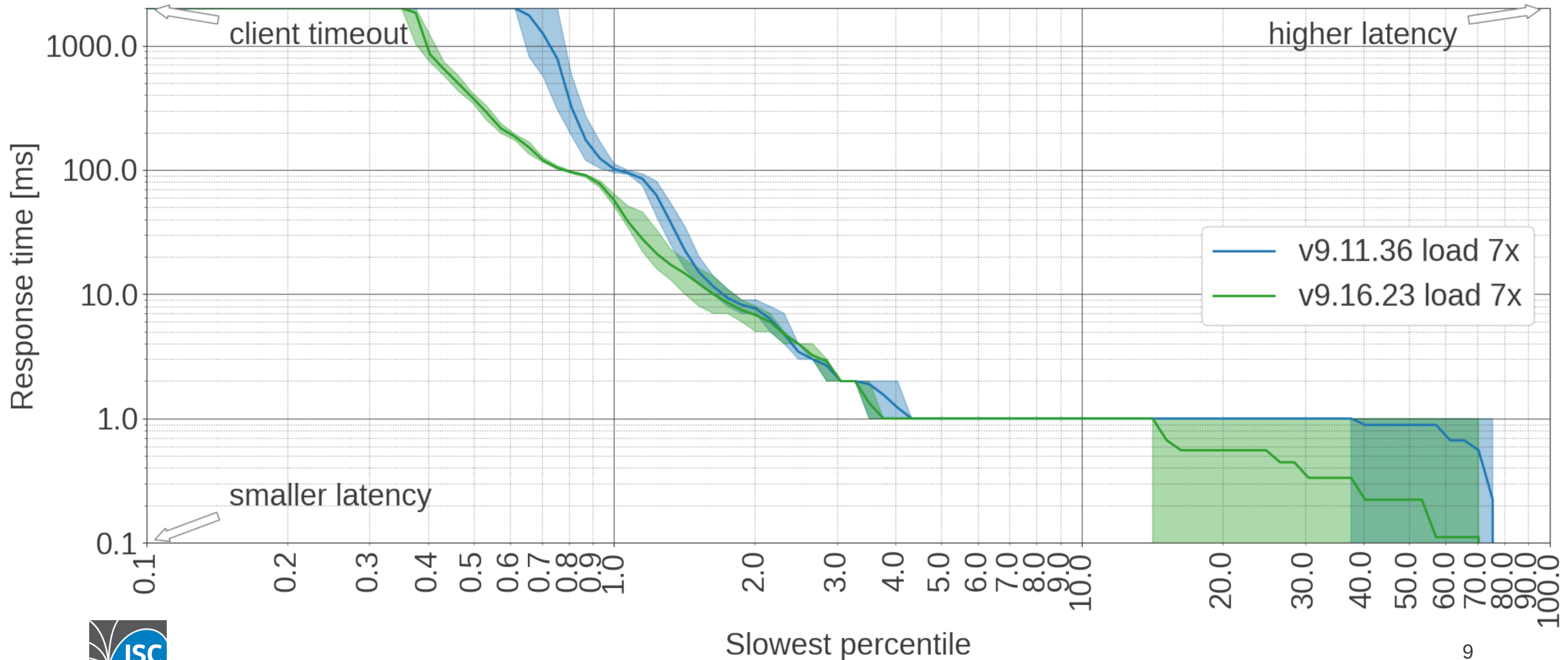
9.11.36, load 1x vs. 7x, 9 runs



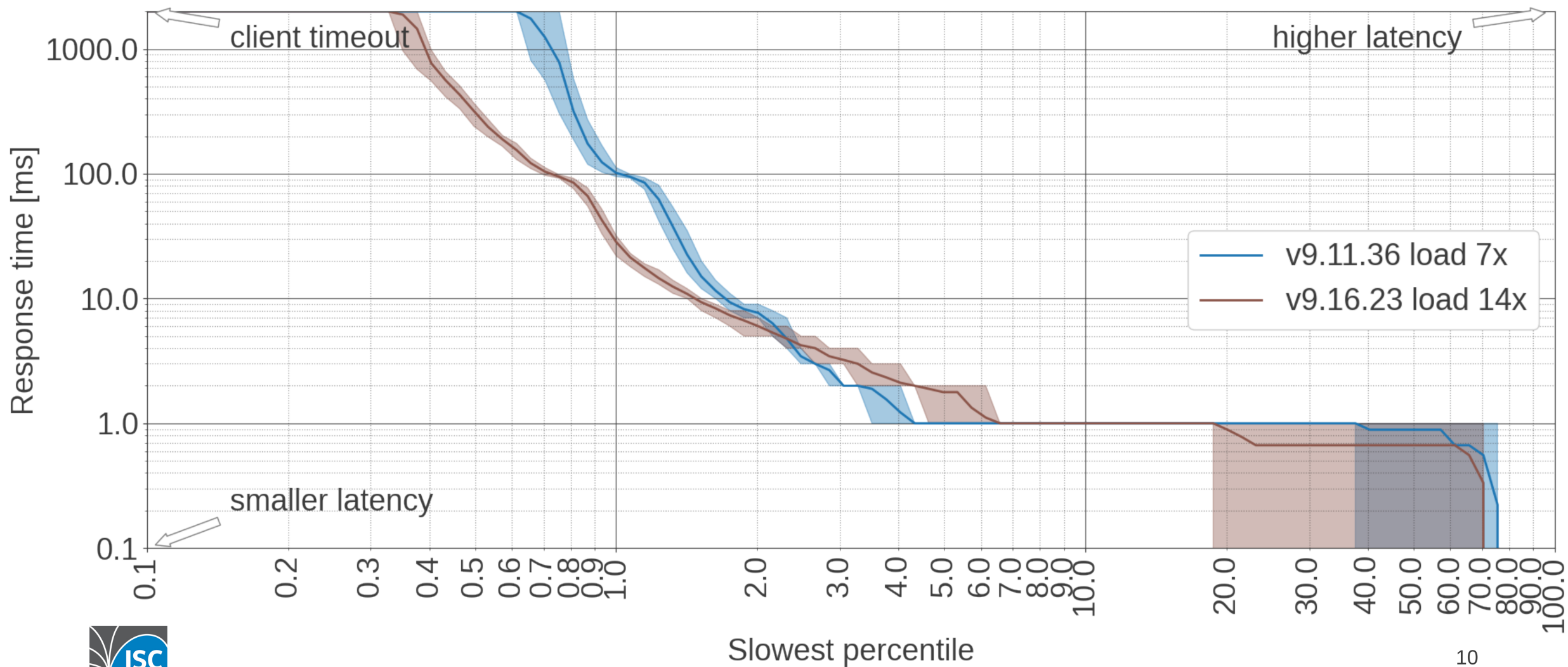
9.11.36, load 1x vs. 7x vs. 8x, 9 runs



9.11.36 vs. 9.16.23, load 7x, 9 runs



9.11.36 7x vs. 9.16.23 14x, 9 runs



Closing words

- 9.11 end-of-life on 2021-12-31
 - Upgrade!
- 9.16 ~ doubles telco resolver efficiency
- Read more
 - Resolver performance
<https://www.isc.org/blogs/bind-resolver-performance-july-2021/>
 - Authoritative performance
<https://www.isc.org/blogs/bind-performance-march-2020/>

Thank you!

- Main website: <https://www.isc.org>
- Software downloads:
<https://www.isc.org/download> or
<https://downloads.isc.org>
- Presentations:
<https://www.isc.org/presentations>
- Main GitLab: <https://gitlab.isc.org>