

Knot DNS update



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Agenda

- What is Knot DNS
- Current state
- Work in progress
 - DNSSEC signing
 - Memory consumption optimization



What is Knot DNS

- Open-source authoritative only DNS server
 - Alternative to Bind and NSD
- Unix like systems (Linux, FreeBSD, ...)
- Full featured:
 - AXFR, IXFR, TSIG, EDNS0, DNSSEC with NSEC3
 - DDNS, NSID, Response Rate Limiting, DANE
 - Online addition/removal of zones



Current state

- Current version - 1.3.2
 - Released during summer
 - Zone parser rewritten => much faster zone upload
- Deployments
 - .CZ (1.08 mil. domains), .DK (1.20 mil. domains)
 - A few Czech registrars/webhosters
 - Tested by ICANN(l-root) and RIPE NCC (k-root)



Work in progress - DNSSEC

- Currently DNSSEC only in “passive” mode
- Survey among DNS operators
 - <https://gitlab.labs.nic.cz/labs/knot/wikis/survey-dnssec-results>
- The goal is to have OpenDNSSEC comfort but with support for DDNS
- First version: automatic signing using keys on filesystem
- Next version: key management + HSM support

Work in progress – optimization

Memory/GB	cz	net	com
1.2.0	2.1	17.0	-
1.3.2	1.5	8.6	-
1.4	1.2	6.5	45

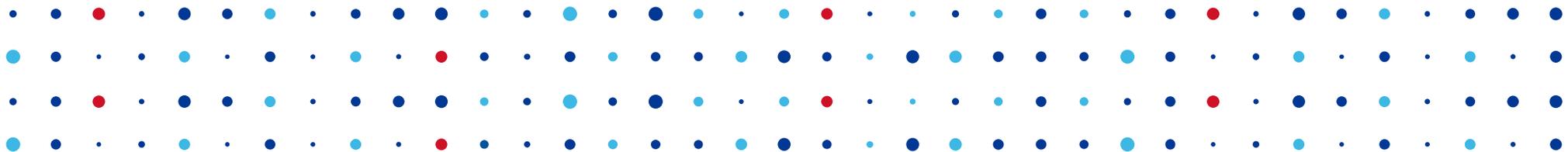
Load speed/sec	cz	net	com
1.2.0	97	1276	-
1.3.2	23	158	-
1.4.	18	93	858



Conclusion

- Knot DNS is ready to be used
- Version 1.4 (release candidate) with DNSSEC will be out in a few weeks
- Go to www.knot-dns.cz, try it and give us any kind of feedback!





Thank You

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