

# Yeti DNS: Status after a Year

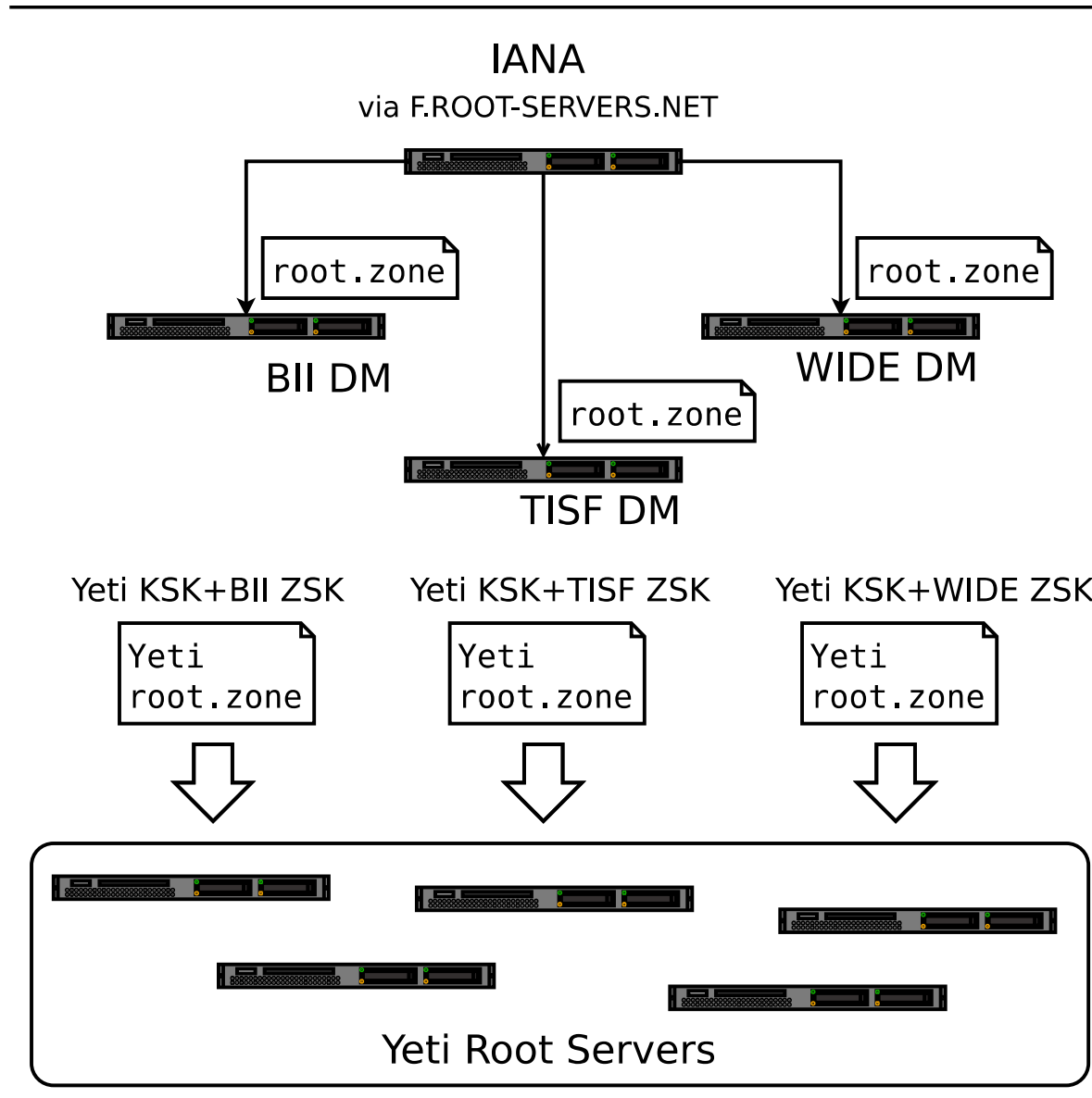
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# Introduction

- Yeti Project Motivation
- Initiation
- Project coordination & setup

# Technical Setup



# Technical Setup

- Web site, Mailman, Trac, Nagios, ...
- 3 distribution masters (DM)
  - Using shared git repository for synchronization
- <http://yeti-dns.org/operators.html>
  - 25 Yeti root servers (soon 26)
  - 14 Yeti root servers (soon 15)
- About 30 resolvers
  - <http://dsc.yeti-dns.org/dsc-grapher.pl?binsize...>

# Current Need: Traffic

- DNS caching is really efficient
- 30 resolvers yield < 100 queries/second
- Please help!



- Set up a Yeti resolver  
<http://yeti-dns.org/join.html>
- Use dnssdist with a Yeti resolver  
<http://yeti-dns.org/.../Mirroring-traffic-using-dnssdist.html>
- Try the ymmv query mirror (alpha code)  
<https://github.com/shane-kerr/ymmv>

# Experiments

- Yeti is for research!
- Experimental protocol
  - Lab test
  - List proposal
  - Experiment
  - Report
  - <https://github.com/Bii-Lab/.../Experiment-Protocol.md>
- Queue of experiments
  - <https://github.com/Bii-Lab/.../Experiment-Schedule.md>



# Experiment: MZSK

- MZSK is "Multiple ZSK": separate ZSK for each DM
- Phase 1: lots of DNSKEY (1 KSK, 6 ZSK)
  - Simulates all ZSK rolling at once
- Phase 2: actual separate ZSK
- Various bugs: Linux kernel bug, IXFR issues, ...
- Completed, report written (pending data analysis)
- <https://github.com/Bii-Lab/.../Report-MZSK.md>
- Future work:
  - Non-shared KSK
  - Zone verification by Yeti root servers

# Experiment: BGZSK

- BGZSK is "Big ZSK": 2048 bit ZSK
- Moved to top of list by Verisign announcement
- Skipped lab test
- No surprises (good!)
- Completed, pending report
- <https://github.com/.../Experiment-BGZSK.md>



# Experiment: KROLL

- KROLL is "KSK roll": KSK roll
- Test root KSK roll before ICANN
- First of two experiments:
  - KROLL is normal double-DS KSK roll
  - IROLL is like the proposed ICANN roll
- Takes at least 30 days, maybe 60 days 😞
- KROLL IN-PROGRESS
- <https://github.com/.../Experiment-KROLL.md>

# Pending Experiments

- RENUM: Root Server Renumbering
- 5011X: RFC 5011 Roll-Back
- FAKER: *Lots* of Root Servers
- DOT-Y: Rename Servers to .YETI-DNS
- PMTNC: Priming Truncation
- ECDSA: KSK ECDSA Roll
- FSTRRL: Frequent ZSK Roll
- TCPRT: TCP-only Root

# Conclusion

- Results are finally appearing
- Don't forget to send us queries!
- Join us at the next Yeti Workshop
  - Before IETF 97 in Seoul (2016-11-12)

# Image Credits

- Traffic:  
<https://www.youtube.com/...0rOO4qlzJVQ>
- Science:  
<https://commons.wikimedia.org/...nd.svg>