

DNS Performance Testing Tools

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Free Tools for Testing DNS Performance

- Performance and latency measurement tools
- Comparative testing
 - Different SW versions
 - Different vendors
 - Different HW and OS

Two Test Tools

- dnssperf is for testing authoritative servers and for testing caching servers in a closed laboratory environment with a low recursion load.
 - dnssperf can regulate the queries in flight
- resperf is for testing caching servers in a live Internet environment or in a laboratory environment with a high recursion load
 - Settable query rate, iterate to find a maximum
- Queries for testing obtained from logging
- Software available at:

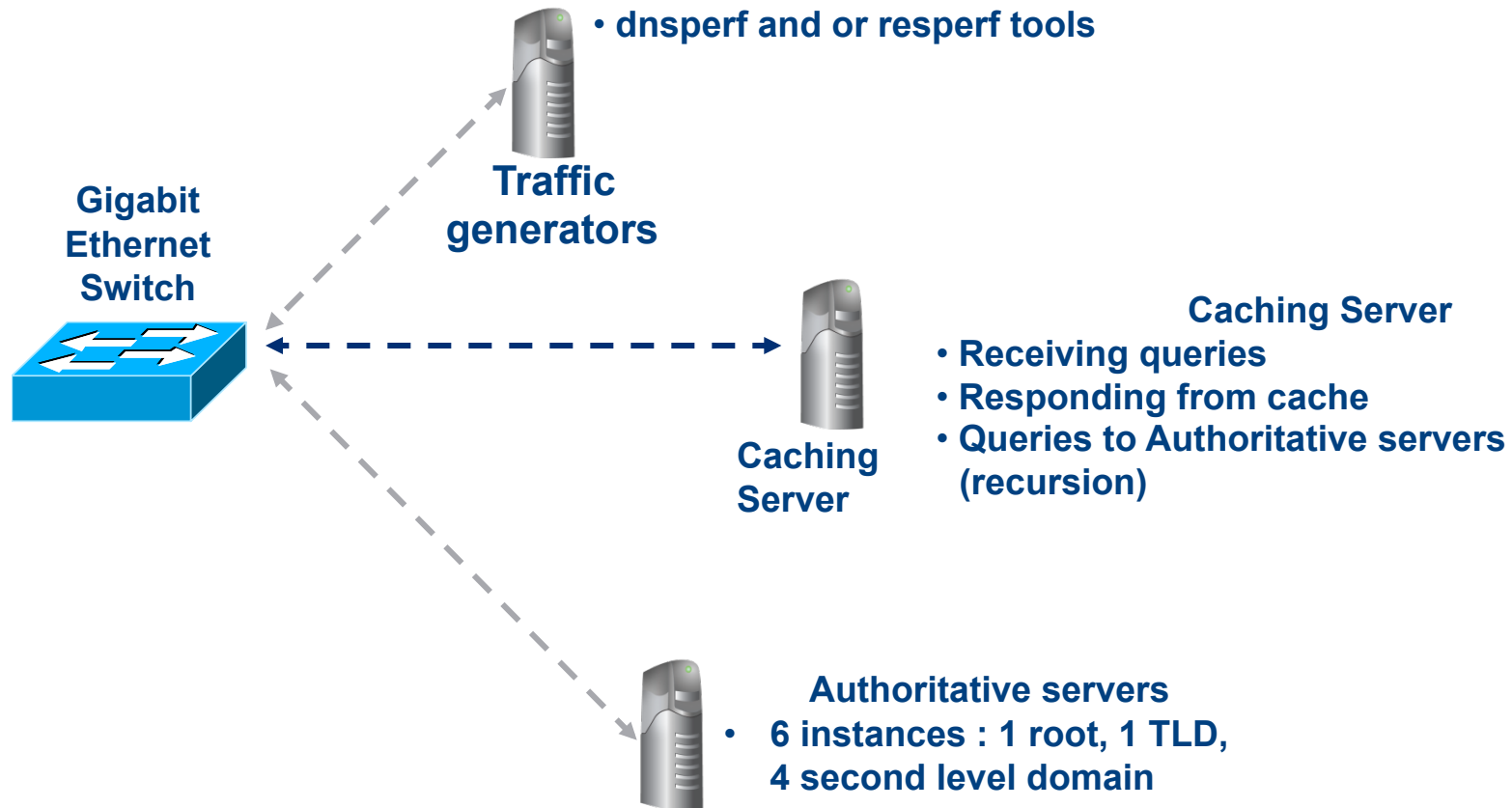
<http://www.nominum.com/resources/measurement-tools>

White Paper with additional details is here too

Some Things We've Tested in the Lab

- “Hot” cache performance (QPS) and latency
 - Every query matches an entry in the cache
- Varying cache hit rates
- “Cold” cache performance (QPS) and latency
 - No query matches an entry in the cache
 - Stresses recursion algorithms
 - Large query files!
- DNSSEC validation
- DNS policies
- Logging
- etc

Typical Lab Set Up



Configurations

Vantio: listen-on, hints

Authoritative server: listen-on, zone data

dnsperf-2.0.0.0 for traffic generation: -l 120 -q 1000' (120 seconds, 1000 queries in flight)