nsd
a Name Service Daemon

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Presentation Outline

Why nsd?

What is nsd?

Who should use nsd?
Why nsd?

• **Code Diversity**
  
  • Simplicity
  • Performance
  • Open Source
What is nsd?

- Authoritative-Only DNS Name Server
  - No recursion
  - No caching
  - No dynamic update
- Implemented from Scratch
- High Performance Design
- DNSSec
- Well Tested
Basic nsd Design

Zone Files

Zone Compiler

Responses

Queries

daemon

Responses

Responses

http://www.nlnetlabs.nl/
RIPE 43, September 2002, ____
http://www.ripe.net
Performance Results

% of Queries Answered

Average Queries to k.root-servers.net per Second

bind-8
Performance Results

![Diagram showing performance results for bind-8 and bind-9. The x-axis represents the average queries to k.root-servers.net per second, ranging from 0 to 50,000. The y-axis indicates the percentage of queries answered, ranging from 0 to 100. The graph shows the performance comparison between bind-8 and bind-9.](http://www.nlnetlabs.nl/RIPE 43, September 2002, ______. http://www.ripe.net)
Performance Results

% of Queries Answered

Average Queries to k.root-servers.net per Second

bind-8
bind-9
nsd-1
Goals Achieved?

• Code Diversity
  – Totally New Design
  – Bug Diversity

• Simplicity
  – Daemon kept as small as possible
  – No creeping featurism

• Performance
  – See above

• Open Source
  – Yes (BSD License)
Who should use NSD?

- Publishers of authoritative zone info
  - Root Servers (some)
  - TLD servers
  - ...

- Who should *not* use nsd
  - Recursing name servers
  - Servers really needing dynamic updates

- Current version nsd 2.3.1
Questions???

- /http://www.nlnetlabs.nl/nsd/index.html