



# AS112 by BIND 10

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# Motivation



- BIND 10 is next generation BIND
  - Authoritative nameserver is close to user test
- Want to run BIND 10 in production
- AS112 is a service for RFC 1918 DNS
  - NXDOMAIN for:
    - 10.0.0.0/8
    - 172.12.0.0/12
    - 192.168.0.0/16
- Low-risk as far as production service goes
  - Just an optimization for broken resolvers
  - If it has problems, just turn it off!

# Take 1



- Ops team put together server, installed, configured
  - With a little help from BIND 10 team
- Server fell over
- Getting 50k queries/second
  - Other AS112 servers a few 1000's/second
  - Had not checked *our* query load (oops!)
  - Open question: why ISC gets so much more junk

# Take 1 (continued)



- Problem reports through roundabout channels
- BIND 10 engineer tried a few things, but ultimately rollback necessary



# Take 2



- BIND 10 team optimized performance
  - Now slightly faster than BIND 9  
<http://bind10.isc.org/wiki/DnsBenchmarks>
- Server put into production, more cautiously now
  - OSPF routing to hosts to allow either or both BIND 9 and BIND 10
- Server load acceptable, packet loss issues resolved!

# Take 2.1



- Started getting IDS reports
- BIND 10 was sending replies back from different interface
- Configuration tweaked to use interfaces correctly, problem resolved



# Open Issues



- Query load now steady at about 15k queries/second... what happened to the other queries?
- BIND 10 being updated to handle multiple interfaces properly (non-trivial, talk to a BIND 10 developer for details)

# Conclusion



- BIND 10 now running a production AS112 server
- BIND 10 User test push (followed by production ready auth server) will begin October 2012
- Check out [bind10.isc.org](http://bind10.isc.org) for more information or join [bind10-users@lists.isc.org](mailto:bind10-users@lists.isc.org)