Welcome!

- Presentation – 45 minutes
- All attendees are on mute
- Q&A at the end of this webinar
  - 10 minutes
  - Use WebEx chat window to submit questions
  - In the interest of time, please email unanswered questions to info@isc.org
- A recording of this event will be sent to all registered attendees
Agenda

- ISC and DNSco
- Upcoming Releases
- Next Generation
Presenters

- Laura Hendriksen, VP Business Development
- Vicky Risk, Product Management
- Eddy Winstead, Senior Systems Engineer
Leadership Update

- Jeff Osborn
  - Executive Director of ISC
  - President of DNSco

- Vicky Risk
  - Product Management
  - Product Advocate
  - vicky@isc.org
ISC at a Glance

**Sponsored R&D**
- Open Home Gateway
- Open Source Routing

**Public Benefit**
- Hosted@
- F-Root
- Open Source Software

**Commercial Services**
- Subscription Services
- DNS Hosting
- Training
User Profile Survey
Stats

- Survey went live on: 9/23/2013
- Duration (so far): 21 days
- Total Started Survey: 211
- Total Completed Survey: 147 (70%)
## Upgrade Stats

<table>
<thead>
<tr>
<th>Upgrade Frequency</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than six months</td>
<td>39%</td>
</tr>
<tr>
<td>Once a year</td>
<td>31%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upgrade Influence Factor</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Latest bug fix</td>
<td>67%</td>
</tr>
<tr>
<td>New features</td>
<td>52%</td>
</tr>
</tbody>
</table>
## DNS System Parameters

<table>
<thead>
<tr>
<th>Design Parameters</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you using an external database to manage DNS?</td>
<td>34%</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Are you running DNSSEC?</td>
<td>34%</td>
<td>62%</td>
<td></td>
</tr>
<tr>
<td>If not, do you plan on running DNSSEC?</td>
<td>49%</td>
<td>30%</td>
<td>21%</td>
</tr>
<tr>
<td>Have you implemented IPv6?</td>
<td>47%</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>If not do you plan on implementing IPv6?</td>
<td>46%</td>
<td>18%</td>
<td>36%</td>
</tr>
</tbody>
</table>
### DHCP System Parameters

<table>
<thead>
<tr>
<th>Design Parameters</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you running Dynamic DNS (DDNS)?</td>
<td>37%</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>Have you implemented IPv6?</td>
<td>44%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>If not do you plan on implementing IPv6?</td>
<td>48%</td>
<td>21%</td>
<td>31%</td>
</tr>
<tr>
<td>Do you use OMAPI?</td>
<td>13%</td>
<td>70%</td>
<td>17%</td>
</tr>
</tbody>
</table>
Add your Feedback

- Earn a Shirt

- We’d like your help to continue to improve BIND & ISC DHCP

https://www.surveymonkey.com/s/isc-downloads
Upcoming Events

- **LISA: Nov 3-8, Washington, D.C.**
  - Visit us at booth #309

- **IETF 88 Vancouver Technology Demo**
  - Open Home Gateway
  - Nextgen DHCP

- **Webinars**
  - November: RRL Classifier
  - December: DHCP 4.3
POLL

Do you use ISC DHCP?
- If so, what version are you running?
- If not, what are you using?
DHCP Releases

- Prefix Delegation support
- Basic DHCPv6 relay agent
- IA_TA address support

- Support for client side rapid-commit option
- Basic and partial DHCPv6 lease query support
DHCP Releases

- 4.2.0 (2010 - Jul): Asynchronous DDNS and Rewind capability for failover
- 4.1.0 (2008 - Dec): Prefix Delegation support, Basic DHCPv6 relay agent, IA_TA address support
- 4.1-ESVR8 (2013 - Jan): Support for client side rapid-commit option
- 4.1-ESVR9 (2014 - Feb): Basic and partial DHCPv6 lease query support
- 4.2.5-P1
- 4.2.6
- 4.1-EOL (2014 - Dec)
DHCP Releases

- IPv6 feature uplift

4.3.0

2010 - Jul
- Asynchronous DDNS
- Rewind capability for failover

4.2.0

4.2.5-P1

4.2.6

2008 - Dec
- Prefix Delegation support
- Basic DHCPv6 relay agent
- IA_TA address support

2013 - Jan
- Support for client side rapid-commit option

4.1-ESV-R8

4.1-ESV-R9

2014 - Feb
- Basic and partial DHCPv6 lease query support

4.1-EOL

2014 - Dec
ISC DHCP 4.3 “IPv6 Uplift”

- DDNS Changes
  - Upgrade to newer standards, allows v4 and v6 clients to cooperate on naming
- OMAPI subclass control
- IPv6 feature uplift
  - Class support for IPv6
  - Allows access to IPv6 relay options
  - On expiry/on renew features
  - Implements existing data type options
POLL

What BIND version(s) are you running?
BIND Releases

- DNSSEC support
- Automatic zone re-signing
- New update policy methods tcp-self and 6to4-self
BIND Releases

2011 - Easier DNSSEC deployment (9.7)
  - Built-in trust anchor for root
  - DNS64

2013 - Sept

2013 - Nov

- Response Policy Zones (RPZ)
- Writable DLZ zones, static stub zones
- Configurable resolver timeouts

2014 - Jan

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BIND Releases

2005
- DNSSEC support
- Automatic zone re-signing
- New update policy methods tcp-self and 6to4-self

2006.0
- DNSSEC support
- Automatic zone re-signing
- New update policy methods tcp-self and 6to4-self

2011
- Easier DNSSEC deployment (9.7)
- Built-in trust anchor for root
- DNS64

2012
- In-line signing
- NXDOMAIN redirect

2013 - Sept
9.6-ESV-R10
- Response Policy Zones (RPZ)
- Writable DLZ zones, static stub zones
- Configurable resolver timeouts

2013 - Nov
9.9.4
- Basic RRL

2013 - Nov
ESV

2014 - Jan
9.9.5

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BIND Releases

- 9.9.3-S1: Basic RRL, GeoIP ACL, DSCP, RPZ
- 9.9.4-S1
- 9.9.5-S1: RRL QNAME Classifier, RRL response size
- 9.10 (alpha): Performance improvements, Multiple DLZ (per zone), GeoIP ACL, JSON stats, 64-bit Windows, PKCS#11 native
- 9.9.0: In-line signing, NXDOMAIN redirect
- 9.9.4
- ESV
- 9.9.5
- 9.8.0: Easier DNSSEC deployment (9.7), Built-in trust anchor for root, DNS64
- 9.8.6: Response Policy Zones (RPZ), Writable DLZ zones, static stub zones, Configurable resolver timeouts
- 9.6-ESV-R10
- EOL

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BIND 9.10 in Alpha

- RPZ performance improvements
- ACL based on GeoIP
- Stats: JSON option
- 64-bit Windows support
- PKCS#11 native support
- “map” zone format (faster loading)

- “rndc zonestatus” per-zone status
- Named-{check,compile}zone can now read journal files
- Multiple DLZ databases now possible
  - Configured per zone
- Listens on IPv4 and IPv6 by default
Future BIND 9 Features

- BIND 9.n
  - RRL classifier, QNAME / RespSize
  - Negative trust anchor support
- BIND 9.n+1
  - EDNS0 client subnet identifier
  - DNS client cookies
  - EDNS0 server diagnostics
- More versions planned
Next Generation

- Formerly known as BIND 10
POLL

Have you downloaded or tried BIND 10?
Key Requirements

- New DNS server with separate Authoritative and Recursive
- Modular extensible platform with software bus and plug-in capability
- New DHCP server is such a plug-in
- Easy for users or OEMs to customize and extend
- Scalable & high performance
Authoritative DNS

- v1 available now with basic functionality
- Future modules will enable database back-end, customizable response routing, real-time intrusion detection, much more
- Extensible: software bus can traverse multiple processors for incremental capacity expansion
Next Gen DHCP Server

CODENAME: KEA

- Kea PD engineering drop
  - DHCP & DHCPv6
  - Backends: MySQL database, experimental high performance in-memory backend
  - Hooks (ability to handle 3rd party libraries)
  - IPv6 Prefix Delegation support
  - Performance testing tool
- Demo at IETF88 in Vancouver
  - Comcast sponsored

Nov 2013
Next Generation News

bind10-users@isc.org

https://lists.isc.org/mailman/listinfo/bind10-announce

https://lists.isc.org/mailman/listinfo/bind10-dev

http://bind10.isc.org/
# Research Project – OSR

## Open Source Routing Forum

### Anchor Sponsors

Google, Intel

### Mission

To provide development and testing support to Quagga branches

Works to encourage combining branches

http://opensourcerouting.org/

https://confluence.isc.org/display/osr/Home
Research Project – OHG

Open Home Gateway Forum

Anchor Sponsor
Comcast

Mission
Lead evolution of new home router and gateway platforms

Demo at IETF88 in Vancouver

http://ohgf.org/
https://confluence.isc.org/display/OHGF/OHGF+Home
QUESTIONS?
We want to hear from you!

- Come see us at LISA
- Check out demos at IETF
- Look for follow-up email with links to webinar recordings and this presentation
- Take the user profile survey

https://www.surveymonkey.com/s/isc-downloads