



# ISC Support Subscriber News

2021 Q1

For ISC's BIND 9, ISC DHCP, and Kea DHCP support subscribers.



## BIND/DNS News

### BIND 9.16 branch

If you are already running BIND 9.16 in production we recommend you follow our monthly maintenance updates closely, as we have fixed some significant issues. At this time we can recommend 9.16 use for authoritative applications. If you are not yet running 9.16 on your resolver, we recommend you hold off for now while we investigate resolver performance. We are developing a new resolver performance testbed using [DNS Shotgun](#) and anonymized traffic captures which we think will provide a better simulation of 'real world' performance than our existing [Perflab](#). We will be optimizing BIND based on these samples, so if you would like to share some of yours, please contact us via support ticket.

We expect that by June, we will have completed the backporting of the network manager infrastructure from 9.17, and we will be ready to declare 9.16 ESV and put it into a more quiescent, traditional stable version maintenance mode. At that time, we will advise more conservative users to start migrating from 9.11.

- If you have not yet seen it, take a look at this January blog post about our [updated BIND Release Model](#).

### BIND 9.16-S branch

We have a 9.16-S branch available for subscribers. Similar to 9.16, at this time we recommend its use for authoritative applications but we do not yet recommend 9.16-S for resolver operators.

### Encrypted DNS status

BIND 9.17.7 included our initial implementation of DNS over TCP (DoT); BIND 9.17.10 added our initial implementation of [DNS over HTTPS \(DoH\)](#) as well as XoT (transfers via TLS). We are eager for feedback from anyone testing either of these. We will be continuing to polish these implementations, adding better tests and metrics. We got some criticism for our choice to implement DoH, given that many think it [contributes to centralization of control](#) on the Internet. [Our feeling is](#) that we should stick to what we do best: providing people with quality tools for deploying their own DNS services, including DoH.

### New Knowledgebase articles

- [Operational Notification - Zone Journal File Incompatibility After Upgrading to BIND 9.16.12 and 9.17](#)
- [Operational Notification - Enabling New BIND Option State Answer Client Timeout Can Result in Unexpected Server Termination](#)
- [CVE-2020-8625: A vulnerability in BIND's GSSAPI security policy negotiation can be targeted by a buffer overflow attack](#)



## Kea/DHCP News

### Kea 1.9.4 Released

Our latest Kea development release added two significant new features. The first is **cache threshold**, which is a popular feature of ISC DHCP that so far was missing in Kea. The renew-timer governs when devices are supposed to renew their leases, but clients sometimes renew earlier than specified, either because they are ignoring the timer or because they are broken. Frequent early renewals put an extra burden on the server, which has to write updated leases, even though they may have been already renewed seconds earlier. The `cache-threshold` (expressed as a percentage) and `cache-max-age` (expressed in seconds) parameters help reduce that extra burden on Kea. Kea still responds to the client but merely resends the existing lease lifetime, thus eliminating the need to update the lease database.

The second new feature is an improvement in our **HA failover procedure**; specifically, we introduced a new communication-recovery state. In this state, the load-balancing servers remain responsive to DHCP queries even when the communication between them is interrupted. The new feature is controlled using the `delayed-updates-limit` configuration parameter.

Kea 1.8.2 is the current stable version. The Kea Software Support Policy is [documented in our Knowledgebase](#).

### HA Performance Improvements

Since we implemented multi-threading, we have been aware that our HA implementation is constraining performance for many users. After experimentation and performance testing, we have an [updated design](#) that will dramatically improve HA performance. This will be coming out soon, probably in May.

### Application Security Status Update

We are making steady progress in adding HTTPS security to the Kea remote management interface. This project will require several development cycles to complete; if you're interested, you can follow the tasks required to add [TLS support to the Control Agent](#). After that, we need to account for certificate management for HA pairs, and we also need to obscure the user passwords in the Kea configuration file. Finally, we will be able to integrate the Kea login security with Stork to secure that interface. Once we have a framework for security, we can add some role-based access controls to that (e.g. in Stork).

### New Kea Knowledgebase article

- [Why doesn't Kea support ping-check?](#)

### Stork Update

Yes, we are still working on Stork, but we have been stretched with all the significant Kea improvements underway (it is the same team), so we have deferred monthly updates when there is nothing new to share. Stork 0.15 adds HTTPS security to the connection with Kea and includes a more meaningful (and user-configurable) AppID.

## Updates from Support

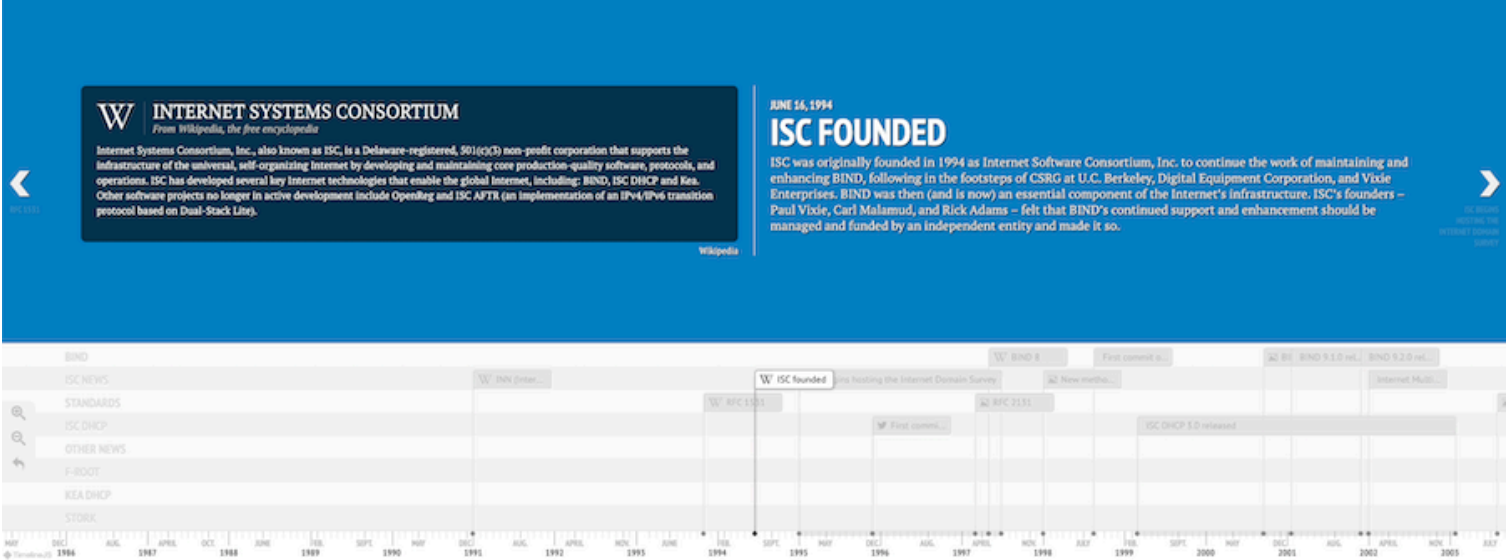
### Meet an ISC Engineer!



Chuck Stearns, New Senior Support Engineer

Chuck is the newest member of our Support team, and we know you will enjoy interacting with him. (And check out his super cool ISC hat, available at our [swag store](#)!) He has already hit the ground running with assisting customers, and he is leading our migration from Support RT to Zendesk. (More updates about that to come.)

Read more about Chuck at <https://www.isc.org/blogs/isc-profile-stearns/>!



Have you seen our new timeline yet? It's a fascinating look at some of ISC's – and the Internet's – history. Check it out at <https://www.isc.org/blogs/isc-timeline/>!



### ISC's new [swag store](#) is open!

We recognize some of you are hurting for nerd shirts, given the fact that tech conferences have moved online. We have mugs, shirts, hats, laptop sleeves, and more - please let us know if there is something else you would like to see. And thank you for supporting ISC!

## ISC Webinars

We are in the midst of an online BIND 9 training series on "**Practical BIND 9 Management**." We invite all interested subscribers to [sign up](#) or read more about the topics to be covered at <https://www.isc.org/blogs/bind-management-webinar-series-2021/>. All five sessions of this class are being recorded and will be available for viewing at <https://www.isc.org/presentations/>. If you would like to be notified of new webinars, please sign up for our [training-info](#) mailing list, or monitor our social media ([Facebook](#), [LinkedIn](#), and [Twitter](#)) or website.

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