



## 2021 Q2

Important updates for ISC's BIND 9, ISC DHCP, and Kea DHCP support subscribers.



BIND/DNS News

### BIND 9.16 approaches ESV

We expect that by the May release, we will have completed the transition to the new libuv-based network manager infrastructure in 9.17. Our internal testing shows that our latest change to the network manager will fix the resolver performance problems that have been plaguing 9.16.

We are still verifying this, but we are cautiously optimistic that back-porting this change to 9.16 (in June) will enable us to finally end the refactoring work in this branch. This means we will be ready to declare 9.16 an extended-support version (ESV) in July, and put it into a more stable version-maintenance mode. At that time, we will advise more conservative users to start migrating from 9.11.

### Encrypted DNS moves to 9.18

In order to quiesce the 9.16 branch for ESV status, we may have to retract our earlier pledge to backport DNS-over-HTTPS (DoH) and DNS-over-TLS (DoT) to 9.16. Backporting that to 9.16 at this point (we have almost no operator feedback on it yet) could mean months of further changes in 9.16. The next stable version, BIND 9.18, is now only six months away (expected release January 2022) and that seems a better target for production deployment of DoH and DoT. We think we have only one, possibly two support customers who were planning to deploy DoH on 9.16 and we will reach out to them directly. Please let us know if this change in plans poses a significant problem for you.

### Windows and built-in PKCS#11 support on the chopping block for 9.18

Currently, [BIND 9 has two PKCS#11 interfaces](#):

- native PKCS#11
- OpenSSL engine PKCS#11 from the OpenSC project

ISC has sponsored significant improvements to the OpenSC engine\_pkcs11, and the next OpenSC version ([libp11 0.4.12](#)) will include those improvements. The new version has better performance and is maintained by people with specific expertise in PKCS#11. Therefore, we intend to drop the native PKCS#11 interface from BIND 9.18.

We would also like to deprecate support for the Microsoft(TM) Windows platform. Our reasons are:

- Neither VisualStudio 2017, which we use, nor VS2019 support the C11 features we use extensively (stdatomic.h), which forces us to write shims on top of the Windows API.
- No BIND 9 developer normally uses Windows at this time.
- BIND 9 does not compile on Windows 10, nor with VS2019; making either of those work would require extensive effort.
- Windows now has WSL2 (<https://docs.microsoft.com/en-us/windows/wsl/install-win10>), which can be used to run BIND 9 natively.

We believe that the resources that would be required for us to support new Windows and Visual Studio versions would be better spent elsewhere; therefore, we are planning to deprecate official support for Windows starting with BIND 9.18.

As far as we know, none of our support customers are using BIND on Windows in production deployment. Of course, please contact us right away if either of these changes will cause difficulties for you.

### New BIND/DNS Knowledgebase articles

- [BIND 9 Supported Platforms](#)
- [CVE-2021-25216: A second vulnerability in BIND's GSSAPI security.policy.negotiation can be targeted by a buffer overflow attack](#)
- [CVE-2021-25215: An assertion check can fail while answering queries for DNAME records that require the DNAME to be processed to resolve itself](#)
- [CVE-2021-25214: A broken inbound incremental zone update \(IXFR\) can cause named to terminate unexpectedly](#)



## Kea/DHCP News

### Planning for Kea 2.0

We have updated [the Kea release plan](#) to reflect our current expectation that we will be ready to release Kea 2.0 in August or September. The major changes we want to complete before the 2.0 release include improved application security and multi-threading performance improvements. Our latest Kea development release continued the multi-threading work, with a major architectural change to High Availability (HA). The HA hook now bypasses the single-threaded Kea Control Agent, with dramatically improved performance. We are still testing, but it looks like we are finally nearly finished with multi-threading Kea.

### Application security status update

We have made a lot of progress in adding application security to Kea and Stork. Although Kea was originally designed to be run on a protected network segment, enterprises now require that applications meet "zero trust" environment security requirements. We have added a new section to the [Kea ARM, describing security features](#) and suggestions for a more secure deployment.

### Configurable forensic logging

In response to numerous customer requests, we have added the ability to script the forensic log, adding other information you may need using expressions. Note that evaluating expressions is more computationally expensive than using the default forensic log.

### Captive portal support

We are working on an improved solution for captive portals, making it easier to identify "known" and "unknown" clients so the "unknown" clients can be dropped or directed to a registration or payment system.

### New Kea Knowledgebase article

- [Getting Started with Galera or Percona Clusters](#)

### Stork update - Where are my leases?

You can now search for and view leases in Kea; with the June release you will be able to see the current status of host reservations as well. Stork is also now able to search for declined leases, which are a tell-tale sign of address duplication problems in a network. Details about database backends and the location of the lease files are gathered and shown in the Kea application tabs.

We are currently [looking for another developer](#) to focus on Stork so we can tackle Kea configuration.

## Updates from Support

### Upcoming Support Holiday Schedule

- Monday, May 31st, 2021
- Monday, July 5th, 2021

For these observed Holidays, the "Next Business Day" response on any tickets is deferred until the first day we are back at work again (i.e., the clock on responses stops ticking as the last working day ends and resumes on the morning of our return).

These closures do not affect Critical tickets for our Silver and Gold subscribers with 7x24-hour support. As always, our Critical phone numbers and ticketing system will be responded to per your contracted SLA. Bronze support customers (without 24x7 coverage) will receive responses to their critical tickets on the first business day following the ISC holiday days.

### Meet an ISC Engineer!



Everett Fulton, New Support Engineer

Everett recently joined our Support team and is already hard at work assisting customers. His years of experience make him a great asset for ISC and we know you will enjoy working with him.

Read more about Everett at <https://www.isc.org/blogs/isc-profile-fulton/>



### How would you prefer to get news from ISC?

[BIND/Kea/DHCP users](#)

[ISC website](#)

[Customer newsletter \(like this one\)](#)

[Banner at support.isc.org](#)

[Ticket in support queue](#)

[Secret customer-only section of kb.isc.org](#)

## ISC Webinars

Our online BIND 9 training series on "Practical BIND 9 Management" continues, and has been very popular! The April session included a hands-on configuration demonstration that was very well-received. 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.

All our webinars are archived on [ISC's YouTube channel](#) and on our [website](#).

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