Kea DHCP Server

Extensible, Open Source DHCPv4, DHCPv6, and DDNS Servers With a Well-Documented API

DHCP is the network protocol used to assign IP addresses and provide configuration information to Internet devices. Kea is ISC’s open source DHCP server that offers users a modular, component design and on-the-fly reconfiguration via a REST API.

ISC offers customers high-quality, professional support, including Advance Security Notifications. These alerts notify customers before vulnerabilities are announced to the public, allowing administrators to patch their systems before malicious actors can cause harm.

RHEL users can easily manage their Kea network deployments with ISC’s pre-compiled packages.

Executive summary

Kea is a modern, high-performance open source DHCP system that is designed with a robust, well-documented REST API to facilitate integration with existing systems. Program hooks are available at every step of the DHCP process, and can be used to fetch information, write data to a log, or launch an external script, using dynamically loaded modules.

ISC’s professional support services help customers protect their critical infrastructure.

Product profile

Kea DHCP is ISC’s next-generation DHCP implementation for Linux. It supports both the DHCPv4 and DHCPv6 protocols and provides dynamic DNS updates. Stork is a Web-based graphical dashboard for Kea that makes it easy to monitor multiple Kea servers.

ISC offers SLA-based 7x24 level 3 technical support for Kea, which includes access to our premium hooks modules. These modules enable advanced management capabilities, such as management of host reservations and configuration in separate SQL backend systems.

Product benefits

Leases, host reservation definitions, and most configuration data can be located separately from the DHCP server itself, using an open source SQL database “backend.” Benefits of this design include:

- **Integration:** Integrate Kea easily with other structures, such as provisioning systems and IPAMS, by retrieving critical data from a standard database.
- **Centralized systems:** Use a centralized hosts reservations database for multiple DHCP servers.
- **Structured data:** Manage large numbers of subnets with fewer errors, in a database rather than a text file.
- **High availability:** Leverage Kea’s High Availability feature and/or anycast with database clustering to provide maximum uptime.
Users of Red Hat Enterprise Linux can download and install pre-compiled Kea packages that include all necessary dependencies, to simplify DHCP management.

“You have to have a DHCP server for each subnet... Kea gives you a great way to manage all the subnets without too much overhead.”

— Vicky Risk, Product Manager at ISC

Use cases

Kea is popular with users who don’t want or need an inflexible, pre-configured IPAM or appliance.

- **Regional network access providers** love the free software, reasonable support pricing, and high-performance multi-threaded implementation.

- **Enterprises and public carriers** with internal provisioning systems love Kea’s API-first design.

- **Administrators with complex networks** - many subnets or host reservations - prefer Kea because of its ability to manage those via a database.