

# OpenDaylight becomes Industry Standard through Collaborative Development



## THE PROJECT

OpenDaylight is an open source, software-defined network (SDN) controller – an application that manages flow control to enable intelligent networking. SDN controllers are based on protocols, such as OpenFlow, that let servers instruct switches where to send packets.

The goal of the OpenDaylight project community is to make interoperable, programmable networks a reality by uniting the industry around a common SDN platform, accelerating SDN adoption.

[www.opendaylight.org](http://www.opendaylight.org)

## HIGHLIGHTS

- Independent technical review helped establish project beginnings
- Separate project and technical governance preserved code independence
- Through shared R&D, OpenDaylight has become the de facto industry standard in modern networking

## OpenDaylight Background

In 2012, Cisco, IBM and other tech industry leaders sought to create an open source SDN platform that would become “the Linux” of the networking industry. In April 2013, The Linux Foundation launched the OpenDaylight Project as a community-led, ecosystem-supported effort to create a new and transparent approach to implementing SDN. Project founders included Arista Networks, Big Switch Networks, Brocade, Cisco, Citrix, Ericsson, HP, IBM, Juniper Networks, Microsoft, NEC, Nuage Networks, PLUMgrid, Red Hat, and VMware.

## The Challenge

Bringing IT and networking industry leaders together to propose standards and promote collaboration was challenging. Fostering actual collaborative development is harder still. For the project to be successful, it was essential to find a vendor-neutral home, a place where participants “leave their badges at the door” to help define a viable SDN platform - a de facto standard in a space previously accustomed to vendor-biased de jure (paper) standards.

## The Approach

The OpenDaylight project looked to The Linux Foundation for several key competencies:

- Facilitate independent technical review to help determine which existing codebases could form the basis of the platform

- Establish a project governance model based on The Linux Foundation's decade-long experience with successful initiatives and industry best practices

Only with the codebase established and a governance model in place could development begin in earnest.

Also critical was the separation of technical and commercial activities, insulating code development from corporate influence. This partition of effort and interests ensures acceptance and integration of only the best and most appropriate code, benefiting the entire project and all participants.

## The Results

Today, OpenDaylight boasts almost 50 members – a direct result of working with The Linux Foundation and its experience in creating, managing, and scaling large development projects.

In spite of (or perhaps because of) its size, the project has made four major releases in the three years since its founding, the most recent (Carbon) anticipated in summer 2017, will stabilize and energize the open governance and open source project infrastructure afforded it by The Linux Foundation.

**“The OpenDaylight Project is an important step toward wide adoption and pragmatic implementation of SDN through a standard, open platform,”**

*-David Meyer, Service Provider business CTO and chief scientist at Brocade*

Release Name	Date
Hydrogen	Feb 2014
Helium	Oct 2014
Lithium	Jun 2015
Beryllium	Feb 2016
Carbon	Summer 2017

With over 629 contributors, the OpenDaylight ecosystem is growing and the codebase continues to mature with almost 29,000 code commits. As of 2016, OpenDaylight is being leveraged by a range of users, of those, 30% are service providers, 28% ecosystem vendors, 25% research/education and 17% enterprise. The use cases are diverse as well, with 28% NFV and cloud, 27% network monitoring, management and analytics, 16% traffic engineering and 19% new service creation.

Most importantly, OpenDaylight has achieved its goal of becoming a de facto standard. The codebase, the APIs, and capabilities have grown more rapidly than any one company could achieve, with numerous and varied contributions from across the IT and networking ecosystems. Related industries, technologies, and projects look to OpenDaylight as well:

- OpenDaylight provides the foundation for Network Function Virtualization (NFV), including The Linux Foundation OPNFV project
- IoT projects leverage OpenDaylight code for end-to-end node management
- Enterprise and financial institutions use OpenDaylight for Network Resource Optimization (NRO), dynamically optimizing the network based on load and state using the near-real-time state of traffic, topology, and equipment

As OpenDaylight continues to attract new members and code contributors we can expect to see its functionality and adoption continue to increase across industries and by fraternal open source communities.

For more information on OpenDaylight, visit [www.opendaylight.org](http://www.opendaylight.org).

To learn more about hosting your open source project at The Linux Foundation, please contact us at [membership@linuxfoundation.org](mailto:membership@linuxfoundation.org).