

CASE STUDY

Uniting the Web's Fastest Moving Web Development Community



PROJECT DESCRIPTION

Node.js, often referred to simply as Node, is an open source, cross-platform runtime for developing front end, server side, desktop, mobile and IoT web applications. Formed in 2015, the Node.js Foundation is managed by The Linux Foundation, which provides a governance structure for the project and includes IBM, Intel, Joyent, Microsoft, Paypal and Red Hat and numerous other users and solution providers as members.

www.nodejs.org

HIGHLIGHTS

- Active users of Node.js has grown to more than 7 million users per month
- Over 15 million downloads per month and more than a billion package downloads per week
- In 2016, Node.js had 476 new contributors, a 197% increase year over year
- The total number of recorded downloads of Node.js is 177,188,140, which averages to 484,121 downloads each day

About Node.js

Node.js works well in modern web-connected applications that need to gather data from different sources, consolidate that data and push it to many clients in real-time. This makes it an excellent technology to bridge existing systems as it provides an easily deployable migration layer that either proxies data to existing systems or collects and reformats data for different uses. Since its inception in 2009, Node.js has been one of the fastest growing open source infrastructure projects of all time.

The Challenge

Node.js is used by tens of thousands of organizations and has more than 7 million active users per month. With over 15 million open source downloads per month and more than a billion package downloads per week, Node.js is considered the biggest digital transformation platform powering everything from web, IoT and desktop applications to microservice architectures. It is the runtime of choice for high-performance, low latency applications, powering everything from enterprise applications, robot, API engines, cloud stacks, and mobile websites.

As an extremely popular open source project Node.js struggled with growing pains. The original development was funded by Joyent (acquired by Samsung) and after almost three years of breakneck development, the project had grown substantially and had hundreds of thousands of developers downstream who were becoming increasingly reliant on Node.

By 2014, it was apparent that Node.js was having a transformative effect on the industry.



Forecast ?

News headlines ?

Node.js Software Technology Groovy Programming Language

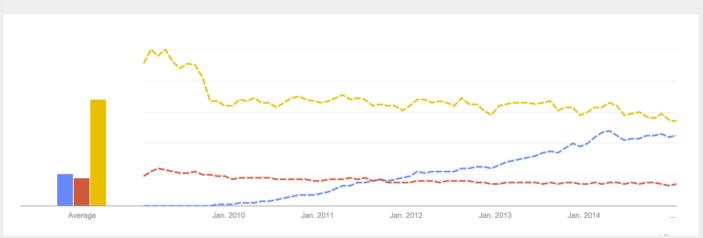
Nage We

Ruby on Rails Web Framework

+Add term

Beta: Measuring search interest in topics is a beta feature which quickly provides accurate measurements of overall search interest. To measure search interest for a specific query, select the "search term" option. (?)

Interest over time



Google Trend for Node.js compared to Groovy and Ruby on Rails¹

The stakes around Node.js were getting higher. Growing success as an open source project and a growing ecosystem of vendors created a tumultuous landscape. This resulted in many parallel and often conflicting development efforts and disagreements that slowed releases.

Despite the slow releases, Node.js adoption was growing quickly and enterprises were looking for more stability with Node.js, including plans for long term support. While independent developers were looking for faster release cycles. The current state of the project needed a different governmental structure.

The Approach

The Linux Foundation, a neutral-third party, stepped in to work with key stakeholders and provide guidance on open source foundation concepts, how to unify a roadmap and how to decide what operational support was needed. Due to its neutral position and extensive experience in setting up collaborative projects, The Linux Foundation team quickly became trusted counsel in this process. In addition, The Linux Foundation was able to provide a roadmap for setting up a successful foundation including governance models, financial models and legal support.

At the same time, the flexibility in The Linux Foundation's collaborative approach allowed the Node stakeholders to create their own foundation around their unique component subsets and objectives for the community. The idea of a separate, independent foundation was really important to all of the players – it allowed everyone to feel that they owned it equally.

As the shape of a foundation began to coalesce there was a wealth of uncertainty among interested parties based on recent events. A leap of faith was required for many of them to become formally involved. Fortunately, most of the companies involved with Node.js were already working with The Linux Foundation through other successful open source projects, which lent confidence that Node could be successful in that context.



CASE STUDY

"We serve billions of requests for our customers' websites every month with Node is and are using it more and more throughout our business. Joining the Node is Foundation is another example of our commitment and we want to share the skills, benefits and lessons we learned."

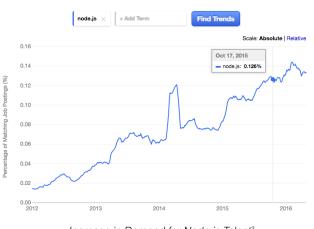
- Charlie Robbins, Director of Engineering, GoDaddy

The deciding factor in contributing the Node codebase was The Linux Foundation's mature governance model, the support resources and an extensive track record with Linux, OpenDaylight, Cloud Foundry, OPNFV and so many others where competitors could find common ground. The Linux Foundation provided a helpful foundation structure on which to make the move.

The Results

In August 2014, the Node.js Foundation was incorporated and began to function immediately as a project under The Linux Foundation to provide a working focus for the Node. js communities of developers, sponsors and partners.

The desire for Node.js talent has grown quickly, as shown by the Indeed.com trend engine:



node.is Job Trends

The Node.js project has demonstrated measurable success in mulitple dimensions as of April 2017:

- 26 corporate members, whose businesses use and depend on Node, are participating in the development and funding for the foundation and project activities.
- 7 million active Node.js users every month.
- Milestone with efforts to make Node.js VM-neutral:
 - Node.is API (ABI Stable Module API or NAPI for short), which is focused on defining a stable module API that is independent from changes in V8.
 - The Node.js build system produces nightly nodechakracore builds, enabling Node.js to be used with the ChakraCore JavaScript engine.
- Increased focus on the Node.js Security Project to further improve stability for enterprises.

The Node is Foundation and the guidance and support provided by The Linux Foundation has helped the Node. is community see continued exponential adoption of the technology. With a strong community and flexible governance structure in place, we can expect to see Node.js continue to achieve milestones of success.

Sources:

- ¹ http://apmblog.dynatrace.com/2015/04/09/node-js-is-hitting-the-big-time-inenterprise-markets/
- ² http://www.indeed.com/jobtrends/q-node.js.html
- ³ https://nodesource.com/blog/the-enterprise-node-community/#theenterprisenode community
- https://nodesource.com/blog/node-by-numbers

To learn more about Node.js Foundation, visit www.nodejs.org To learn more about hosting your open source project at The Linux Foundation, please contact us at membership@linuxfoundation.org

Increase in Demand for Node.js Talent²