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Brief: IBM Acquires StrongLoop

What It Means To IBM, Enterprise Applications, And The Future Of Software Development

by Michael Facemire
September 23, 2015

Why Read This Brief

On September 10, 2015, IBM announced the acquisition of StrongLoop, a company that builds products and delivers services around Node.js. A JavaScript environment built around the V8 JS engine, Node.js is quickly becoming the core aggregation-tier technology for many enterprises' four-tier architectures. This report evaluates this acquisition, the impact to IBM's MobileFirst Platform, and the message it sends to the market and application development and delivery (AD&D) pros regarding enterprise JavaScript.

Key Takeaways

Node.js Is No Longer A Developer Fad
Node.js started as a developer-led open source community project. It's now becoming the dominant engine underpinning the aggregation tier of companies' engagement architecture.

Enterprise-Grade Node Is A Growing Need
The open source Node.js project alone is not enough to serve enterprise demands for security, module management, and more. Service providers are appearing to help address this need.

IBM Strengthens Its Position With StrongLoop
IBM gains not only Node-built products with this acquisition, but also mature skills and strong thought leaders, bolstering its ability to aid companies in building modern applications.

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IBM Reaffirms The Growing Importance Of Node.js

Node.js is quickly becoming the key technology powering the aggregation tier of companies' four-tier engagement platforms.[1] Need proof? Wal-Mart consistently brags about its usage of Node, relying on it to underpin 100% of its Black Friday eCommerce transactions in 2014.[2] At the same time, PayPal announced that it serves more traffic over Node.js apps than Java-built apps.[3]

More recently, look to IBM's acquisition of StrongLoop. IBM has a glistening acquisition track record — its vast clientele, combined with its understanding of the technology market, affords the company the opportunity to not jump at every new shiny object, but wait and see which technologies will be critical for businesses moving forward. Want to know if a technology has lasting power? If IBM puts its chips in a market, be assured that the market has legs.

Prior its acquisition of StrongLoop (announced September 10, 2015), IBM already had a robust mobile solution (IBM MobileFirst platform), a cloud platform-as-a-service (PaaS) on which to run that mobile solution (IBM Bluemix), and a data integration solution to synchronize back-end data (IBM MobileFirst Platform Cloudant Data Layer). Why did it then need to acquire StrongLoop, a Node.js-driven API service and solution provider that grew out of a backend-as-a-service cloud product that connects mobile apps to back-end data? Because of Node.js.

Universal JavaScript Is Becoming The Norm, Not The Exception

Node.js is a JavaScript (JS) environment built on Google V8, the engine that powers dynamic JS execution in Google Chrome, the most popular web browser in use today.[4] The excitement around Node comes from three characteristics. Node is:

› **Built for scalable, high-performance applications.** Single-threaded, event-driven architectures are a requirement for highly scalable, highly performant platforms. Node.js is built on this core pattern, making it an ideal application platform for cloud environments that spin up and shut down services as needed. Whereas Java and .NET containers may take seconds or minutes to start and stop, Node takes only fractions of a second.

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› **Written in JavaScript.** JavaScript is quickly becoming the language of the Web — soon it will be the language of tomorrow's connected applications and devices. Node is built on JavaScript, thus creating the possibility for a "universal JavaScript stack" in that all code, front to back, is written in the same language.

› **Built to run anywhere.** The V8 engine that Node.js uses runs on nearly every popular 32- and 64-bit computing stack. Development shops can be confident that whether they are building applications for the Web, connected devices, or even embedded software, Node will run there. And developers can celebrate that their skills become useful in a multitude of environments.

One concern development leaders have had with Node.js is its lack of formal direction, leading to the fork of the codebase into io.js. Fortunately, this concern is being addressed with the creation of the Node.js Foundation, of which IBM is a founding member.[5] The community release of Node v4 on September 8, 2015 merges the io.js and Node.js codebases, and creates a plan for long-term support. These two events signal a stable future for Node.js that companies can be confident building on.

Companies Building Modern Applications Need Enterprise-Grade Node

In our daily discussions with clients, we hear a constant drumbeat of demands for a scalable, highly performant application platform. ForTJT mnsow')74(dir)18(6denMosibe Infrastrucfutur)18(Serdeviche 37(havevalui

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› **StrongLoop provides developers support for building API-driven applications.** Developers creating new APIs today often consider Node.js as the platform on which to build. StrongLoop provides an API gateway to host these APIs as well as the LoopBack Framework that can be used to compose these APIs.

The StrongLoop Acquisition Bolsters IBM's Node.js Capabilities

As a founding member of the Node.js Foundation, IBM is not new to the Node community. Node-Red is a product built out of IBM research that provides developers a visual tool for composing APIs into higher-order services, as well as for wiring together hardware devices, a growing need in the Internet-of-Things (IoT) space. The StrongLoop acquisition strengthens this position by providing a mature, Node-based data integration platform that should be quickly integrated into the MobileFirst Platform. This will allow companies to use JavaScript for all mobile project data integration, a request that we're hearing regularly from AD&D professionals.

Finally, you can't overlook the people that come along with this acquisition. As IBM looks to be a top-line competitor in the cloud space, it now has a true cloud innovator in Issac Roth, the creator of OpenShift, Red Hat's PaaS platform. Al Tsang, before leading the StrongLoop LoopBack architecture team, helped build the Shutterfly platform that handles wildly elastic web traffic at scale. These are key thought leaders that will help IBM build solutions for developing modern applications.

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Supplemental Material

Companies Contributing To This Brief

IBM

Endnotes

[1] Adoption of JavaScript — and the Node.js runtime environment in particular — sets the stage for the biggest shift in enterprise application development in more than a decade. When building a technology platform to power their customer-facing web presence, enterprise development shops have generally chosen between two options, Java or .NET. The demands of mobile, particularly speed and scale of delivery and deployment, are fracturing this duopoly. See the "The Dawn Of Enterprise JavaScript" Forrester report.

Mobile is pushing aging web architectures to the brink. The three-tier architecture built for a browser-led PC world can't flex, scale, or respond to the needs of a good mobile experience or the emerging requirements for connected products. Mobile's volatility and velocity of change requires a distributed four-tier architecture that we call an "engagement platform." The engagement platform separates technical capabilities into four parts: client, delivery, aggregation, and services. The new requirements of modern apps will force content distribution networks, application server vendors, mobile middleware vendors, platform-as-a-service suppliers, a myriad of startups, and their enterprise customers to coalesce around this four-tier architecture. App development teams need to start planning immediately for the migration from three tiers to four. See the "Mobile Needs A Four-Tier Engagement Platform" Forrester report.

[2] Source: Cian O'Maidin, "Why Node.js Is Becoming The Go-To Technology In The Enterprise," nearForm, March 10, 2014 (http://www.nearform.com/nodecrunch/node-js-becoming-go-technology-enterprise/).

[3] Source: "Node.js is Enterprise-Ready," RisingStack blog, January 4, 2015 (https://blog.risingstack.com/node-js-is-enterprise-ready/).

[4] Source: "Usage Table," Can I Use (http://caniuse.com/usage-table).

[5] Source: "Node.js Foundation," Node.js (https://nodejs.org/en/foundation/).

[6] In Forrester's 112-criteria evaluation of mobile infrastructure service vendors, we identified 10 significant software and service providers — AnyPresence, Appcelerator, IBM, Kinvey, Kony, Microsoft, MobileSmith, Oracle, Red Hat, and SAP — in the category and researched, analyzed, and scored them. See the "The Forrester Wave™: Mobile Infrastructure Services, Q3 2015" Forrester report.

[7] Source: Npm (http://npmjs.com).

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