

Open Source Software Selection Report

Team MGN

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Node.js

Node.js is licensed with an MIT license. Thus, it is extremely friendly with lots of flexibility toward developers who wish to use, copy, revise, etc. the source code. The only constraint is that the license must be kept with any copied code.

There has been a lot of enthusiasm around Node.js, which has encouraged a lot of developers to create tutorials. The Node Source community has seen some shake-up but seems to be surviving well.

Due to well documented tutorials, the Node is adopted quite well, and fairly simply. It has been implemented by many well known organizations such as Ebay, LinkedIn, Paypal, and Netflix.

The documentation is in GitHub, as many of us would expect. It is well written and fairly simple to follow.

Node does provide support for several months following a release. However, several other external organizations (such as Joyent) also provide long-term Node.js support.

The functionality of Node allows for customization in the way it is implemented. Although it is possible to pull the source code and change it as needed, it is relatively unlikely that such would need to occur for the proposed system.

The project is governed by a Community. Seemingly, there are some within the Node community that are stubborn and thus the chances of influencing the project road map may be limited.

The product has lots of functionality, allows for usage with multiple other technologies, and is being further developed. Thus, it appears the product will scale well.

There is ongoing work being carried out on Node. Patches and security updates are released relatively regularly. As such, the security of this OSS is expected to be sufficient.

Google Actions SDK

Google Actions is licensed with an Apache license, meaning the code can be used only if the original authors are attributed. The license terms for Google Actions are compatible with our requirements. None of the content restrictions defined in the Google Actions policies conflict with the business requirements of the system.

The Google Actions SDK is a relatively young development platform. Thus, it is just now starting to gain strength and numbers. However, the Google community in general is huge and constantly growing, so it's likely the Google Actions SDK will continue to grow and accumulate developer numbers.

A number of organizations including Dominos, Tender, and Spotify have created or integrated existing apps with Google Actions. Once again, since the Google Actions platform is relatively new and Google's approval process is fairly lengthy, few well known Google Assistant apps exist yet.

Google does provide support for its Google Actions platform.

Google has an extensive approval process for all Actions that are submitted for use with Google Assistant. They provide a checklist of requirements for all Actions, and then perform similar testing on these requirements once the Action is submitted.

Fairly detailed documentation for the Google Actions API exists, which has proved very helpful. However, due to the newness of the platform, very few troubleshooting and/or tutorial articles exist for Google Actions.

A lot of flexibility is provided by Google Actions. It allows custom query patterns and a custom server side implementation. However, there is little to no evidence that it is easy to make changes to the Google Actions API itself.

As a part of Google, Google Actions is governed pretty much exclusively by the developer section of Google. Developers can make requests/recommendations via the Actions community, but any decisions made on those appear to generally be made by the Google developers themselves.

Google is such a large company with such a large infrastructure, and have provided a solid enough API for Google Actions that it is extremely, extremely unlikely that American Printing House for the Blind (or most any other organization, for that matter) will have issues with Google Actions not scaling well for them.

The product is still very new, so few updates have been released. However, within the first several months after the initial launch of the platform, Google released another version with improvements and fixes, so it appears they will be releasing updates, security patches, and so forth fairly regularly.

MongoDB

The license requires that any distribution we create that uses Mongo DB have the source code included. However, the AGLP3 license does not extend to work done that uses MongoDB as a backend. The license essentially demands we provide source code if we make modifications to the server code, and distribute that. The license works perfectly for our business requirements.

A simple search for MongoDB tutorials will net you several accurate results on the front page of your preferred search engine. The community seems lively, and constantly expanding. StackOverflow has active community members asking and answering questions. This is indicative of an active community.

For teams and developers very used to Relational Database Managements Systems, and with little experience in nosql databases it's a difficult technology to convince them of the advantages. Having gone into a discussion about RDBMS vs Nosql Michael can inform the reader that the vitriol around the subject can get out of hand very quickly. So for the right job the database can work well. It depends on the system that's being planned.

MongoDB offers an Enterprise license. This includes a warranty and support services.

MongoDB can be verified with integration tests, and with end to end tests. The internal workings of the Database Management System is handled by MongoDB themselves. They take such practices seriously, and have job listings for Quality Assurance positions showing an active development cycle for the software.

Documentation for the MongoDB server are very thorough and available as a manual for users. It is available to all users via the web on their website

MongoDB is managed by the MongoDB Corporation. Influence on the product however is possible thanks to its status as an open source project. The influence on where it goes is somewhat limited as the direction of further development is mostly in the hands of MongoDB, and not the community itself.

MongoDB's document style is perfect for the projects requirements. Since we are designing it to have three difficulties we can create three collections to draw from. With this organization style scaling a single test is easy and theoretically infinite. Adding, removing, or changing information will be quick and easy for later development.

MongoDB patches security flaws regularly and quickly when one such flaw is identified.