The Argument for NodeJS Versus Java

	NodeJS (v 14.15.0)	Java (v SE14)
Creation	Primarily a functional scripting framework derived from C/C++	Class-based, Object Oriented language derived from C++
Application	Fast, scalable server-side application	Complex web-based, highly concurrent application
Project	Flexible, multipurpose framework	Best suited for complex web-based concurrency project
Usage	Business Case: Application Row	Messaging, web application, highly concurrent application
Scope	Full-Stack	Server-Side
Frameworks	Express, Sails, Partial, Fast, et al	Spring, Struts, JSF, Tapestry, et al
Application	Leverage Asynchronous Functionality	Simplify development with inherent Object Oriented approach
Recommendation[12]	X	

What is NodeJS?

Node.js is a framework for writing server-side JavaScript applications. It is built on top of Google Chrome's V8 JavaScript runtime and uses an event-driven, non-blocking I/O model that makes it perfect for data-intensive, real-time applications. Some of the companies using Node in production: Netflix, PayPal, Walmart, Uber, et al.

Technical Rationale

1. Existing application functionality would demonstrably benefit from the innately asynchronous functionality NodeJS offers.
2. Open-source technology communities mature frameworks, services, packages, libraries, plugins and codebases substantially quicker than private service offerings.
3. Better documentation support, and subject discussion in open-source technology communities.

Business Rationale

1. Adopting NodeJS for the server-side architecture allows full-stack development for the application under 1 programming language umbrella: JavaScript; reducing hiring requirements.
2. JavaScript Developers are, on average, less expensive assets than Java Developers ($35 per hour[3] versus $50 per hour[4]).
3. Web Service costs are benchmarked as *slightly* cheaper (typically 2-3% at minimum).
4. Web Services are *slightly* more performant when using NodeJS[5] versus Java.

Additional Reading Material

1. Java versus NodeJS
2. Java versus JavaScript
3. Average JavaScript Developer Salary
4. Average Java Developer Salary
5. **NodeJS Web Service Concurrency**