



MAX

Node.js and You

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- Introductions
- Server Side JS
- What is Node.js
- Getting Started with Node
- Frameworks
 - Connect
 - Express
 - Socket.IO
- Questions and Answers

- Building Web Applications since 98
- Developing Flex applications since 04
- Training Developers since 06
- Tech Junky – My whole life

How Did We Get Here



- Everybody has some experience with it
- Supports different programming styles
- Once upon a time browser differences were a challenge
- Amazing applications are being built in JS (Gmail)
- Many teams have separate front end and back end engineering teams
- What if those teams could share one language.



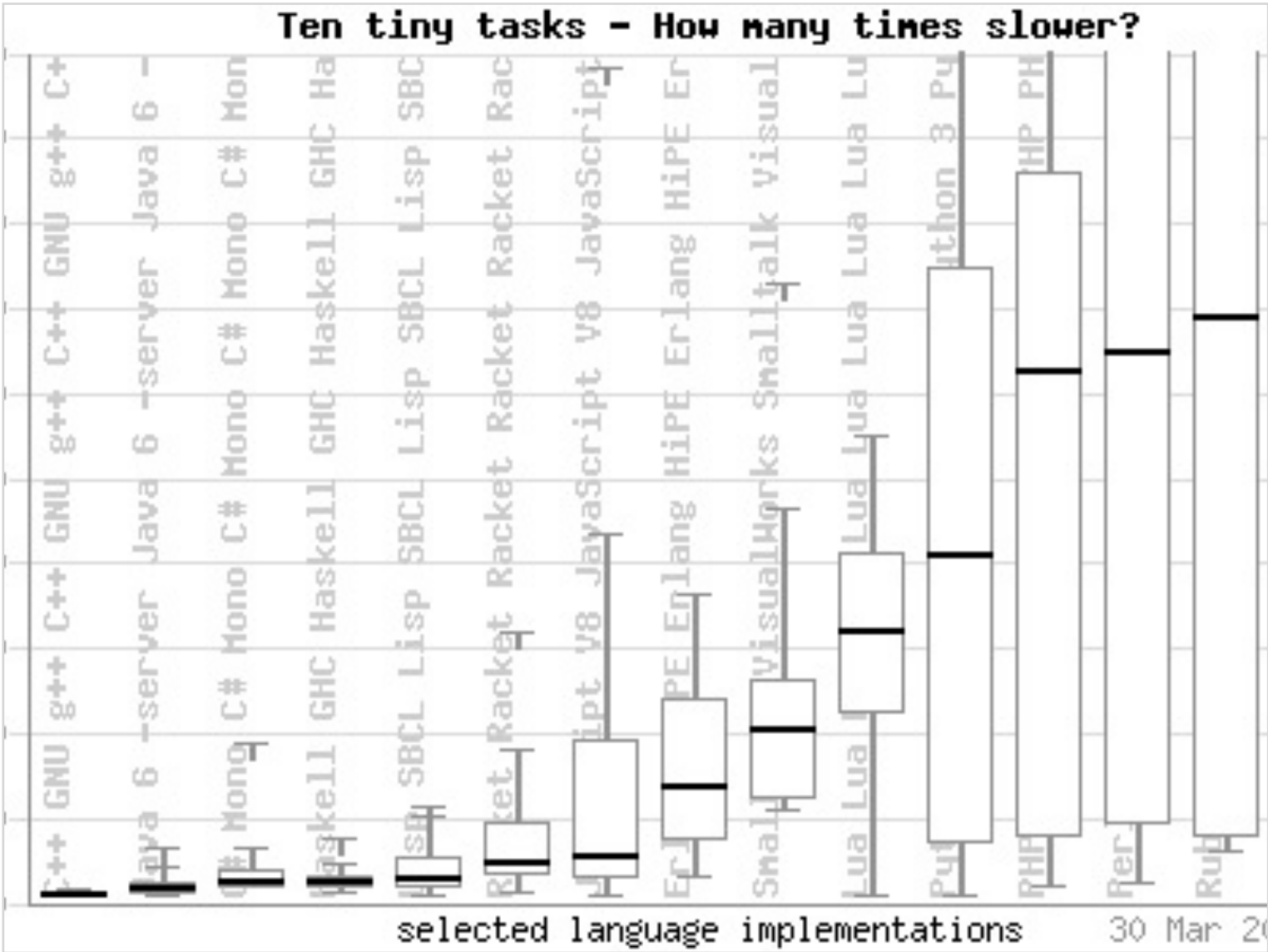
- <http://www.commonjs.org/>
- Create Common API for non browser implementations
- Defines Spec for
 - Modules
 - Class Libraries
 - “Export” functionality
 - System
 - Standard Input and Output
 - Environmental Variables
 - Command Line Arguments
 - Packages
 - Distribution
 - Dependency Definition
 - Project Documentation
- 30 different Implementations currently

CommonJS

- <http://nodejs.org>
- Node.js is a non blocking event driven javascript environment
- Built by Ryan Dahl of Joyent
- Focuses on making http and networking first class parts of the environment.
- Runs on Linux, Solaris, OS X, and Window (in the unstable 0.5.x branch)
 - <https://github.com/joyent/node/wiki/Installation>



- Asynchronous
- Event Driven
- Built on top of Google V8 Javascript Engine
- Its Fast!



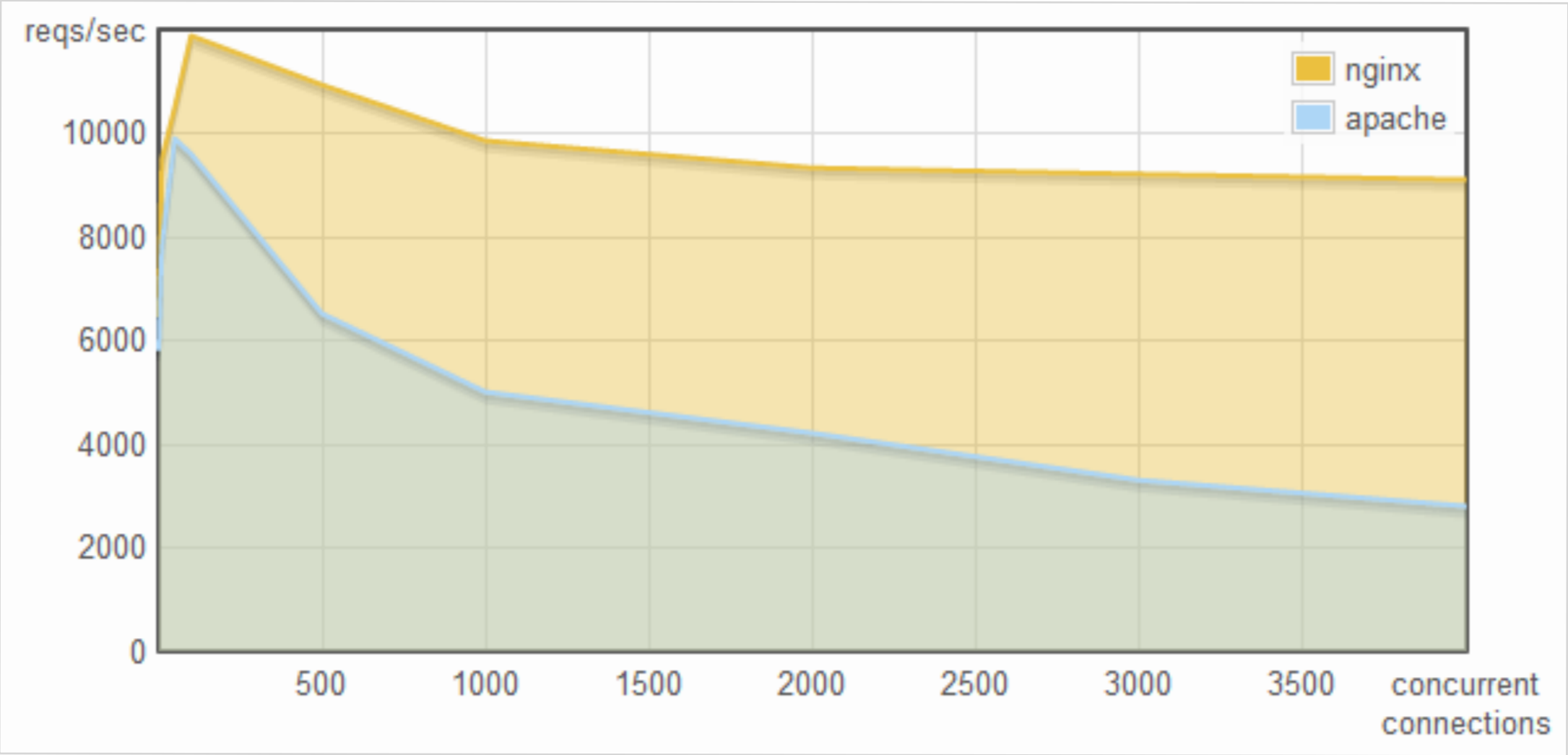
Blocking Architecture

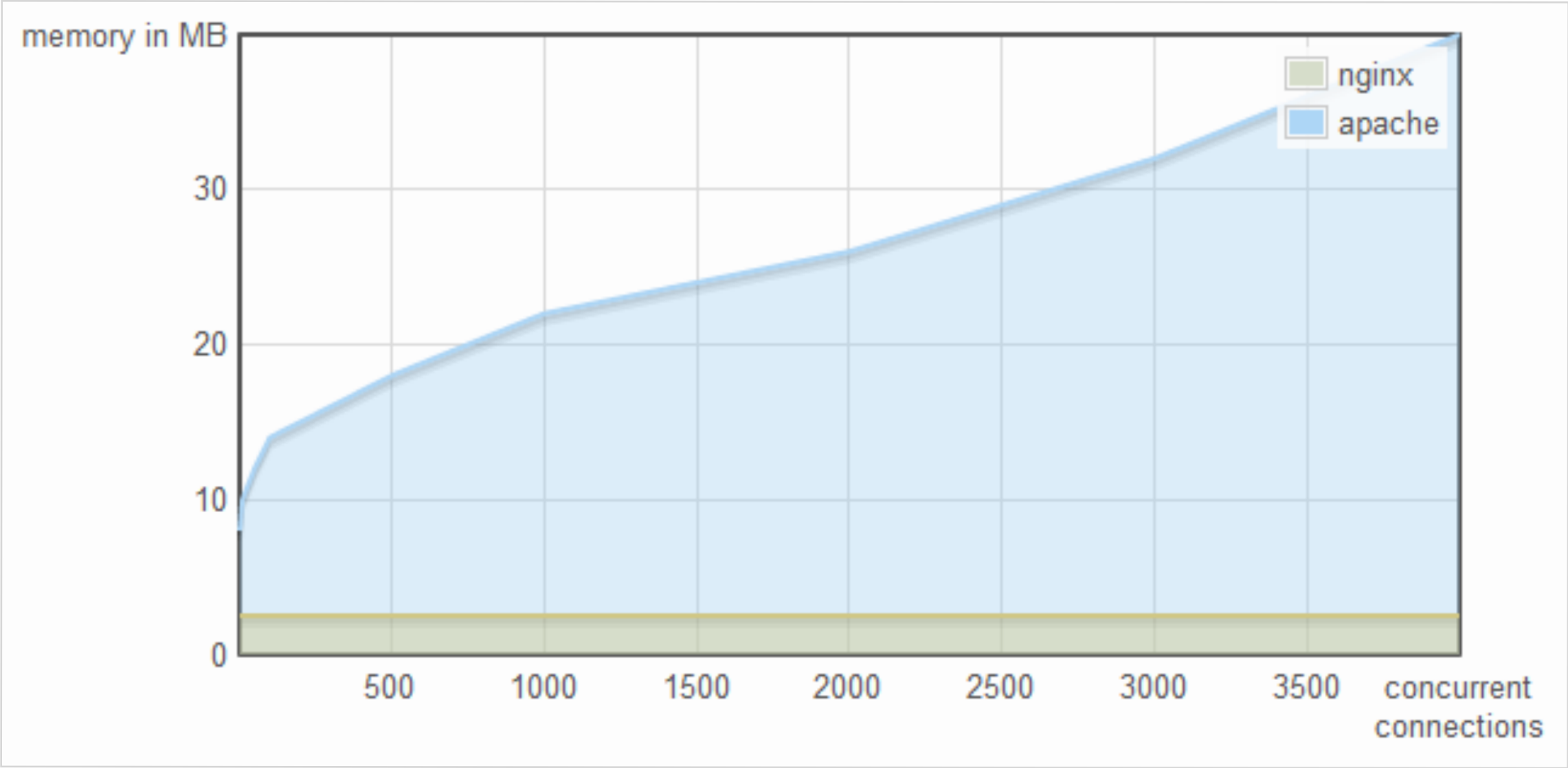


Non-Blocking Architecture



Non Blocking Connections





- Build a HTTP web server

- Node Package Manager
<http://npmjs.org>
- Allows for installation of packages
- Manages dependencies
- Installation local for each project or globally
- Has helper for creating new package.json



- Developed by Sencha
<http://senchalabs.github.com/connect/>
- Adds the normal HTTP server functionality we are used to
- Includes
 - Logging
 - Session
 - Cookies
 - Body Parser
 - Static File Provider
 - Directory
 - vhost
 - favicon
 - Lots more ...

Connect

- Build a static file server
 - Often when building web applications, files need to be served from a web server to function correctly.
 - `npm init` .
 - Add Connect as a Dependency
 - `npm install` .

- Developed by LearnBoost
<http://expressjs.com/>
- Built on top of Connect to add developer friendly functionality
- Includes
 - Robust routing
 - Redirection helpers
 - Dynamic view helpers
 - Application level view options
 - Content negotiation
 - View rendering and partials support
 - Environment based configuration
 - Session based flash notifications
 -



- Create Express application
 - `npm init .`
 - Add express as dependency
 - Create `server.js` and code away
- Generate application using Express
 - `npm install express -g`
 - `express [foldername]`

- Developed by LearnBoost
<http://socket.io/>
- Allows for real time push communication in node
- Supports WebSockets in the browsers that support them
 - Implements automatic failover to flash and polling
- Includes both server side and client side libraries
- Socket.IO is more than sockets
 - heartbeat
 - Multiple channels
 - set properties
 - rooms
 - broadcast



- Build simple chat server using Socket.io

That's All Folks

- Simeon Bateman
 - <http://simb.net>
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- Code and Slides at <https://github.com/simb/NodeJSandYou>

Q & A



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CONNECT. DISCOVER. INSPIRE.