

Node.js for .NET Developers

What is NodeJS?

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Agenda

- **What is Node.js?**
 - Node.js in a Nutshell
 - Why Node.js?
 - Installing Node.js
 - Hello World Node.js
 - Using Node.js with Visual Studio
 - Dependency Management
 - Node Package Manager



WHAT IS NODE.JS?

Platform for executing JavaScript based on non-blocking I/O, event-driven model that enables fast, scalable network applications.



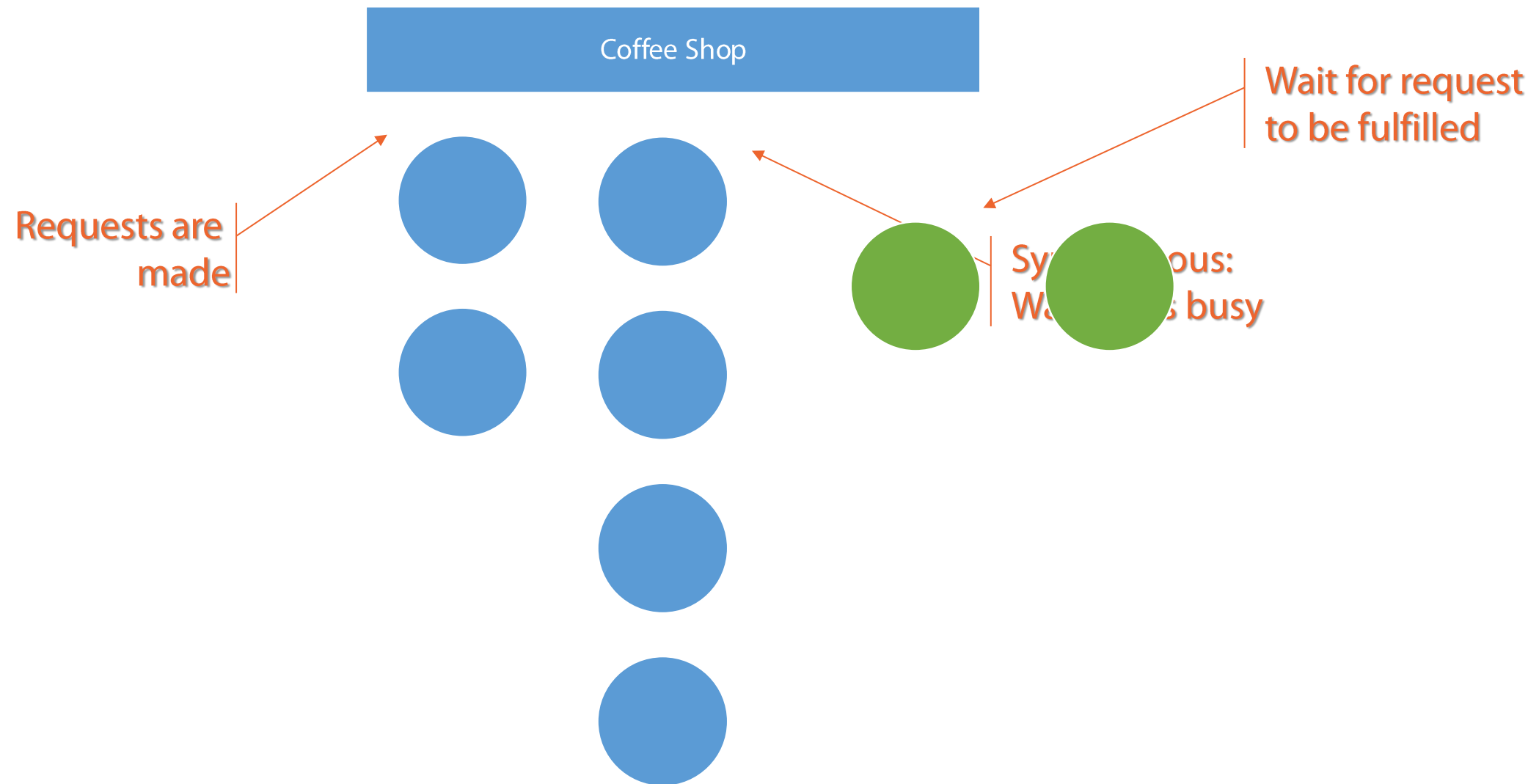
NODE.JS

Server-side JavaScript for Network Applications

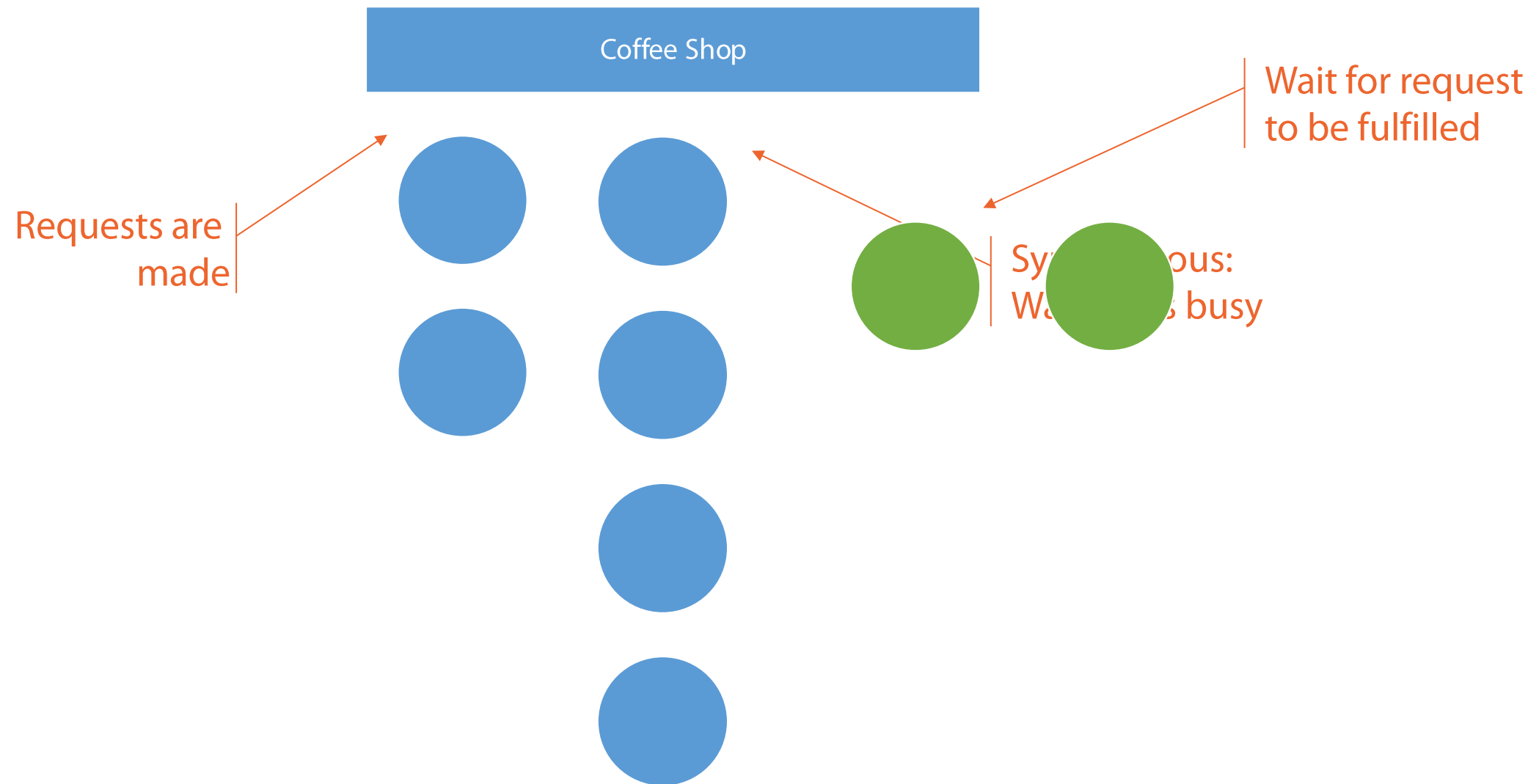
- Supports Modular JavaScript
- Encourages non-blocking (asynchronous) code
- HTTP, Networking, and Web Sockets are 1st class citizens
- Node.js is a low-level, fast platform
 - But wasn't written in JavaScript



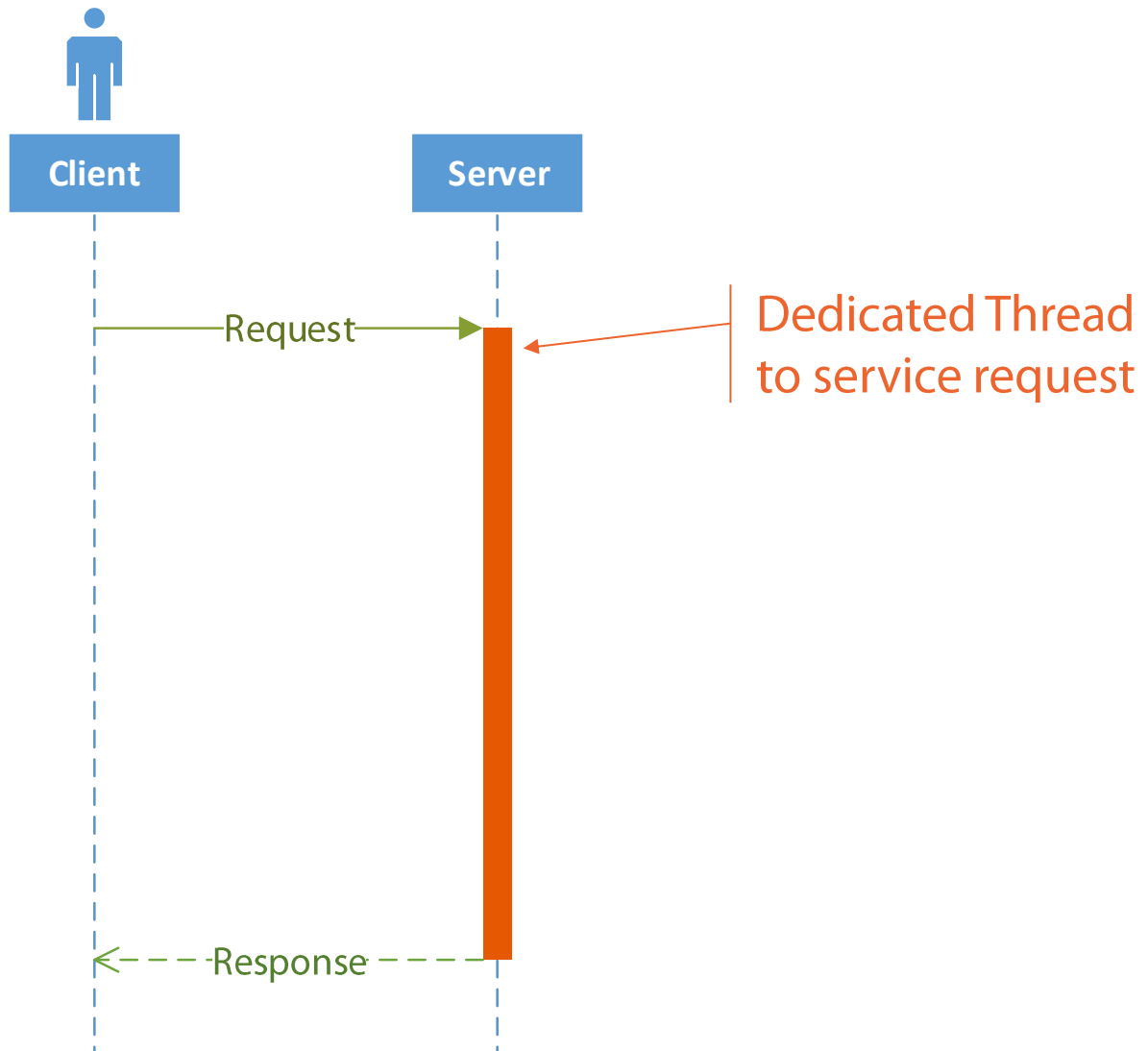
Node.js and Traditional Web Servers



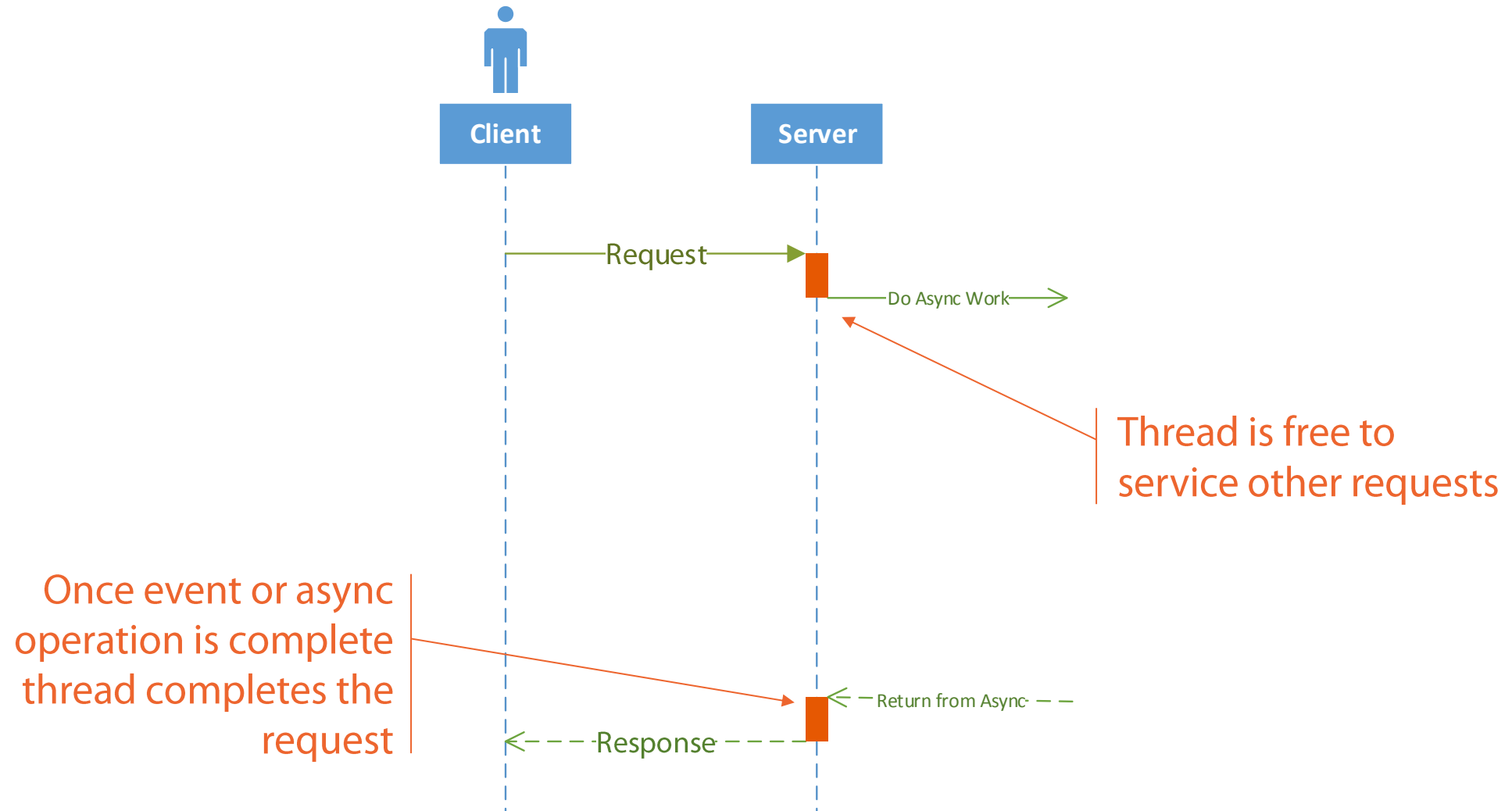
Node.js and Traditional Web Servers



Traditional Web Server Model



Async Web Server Model

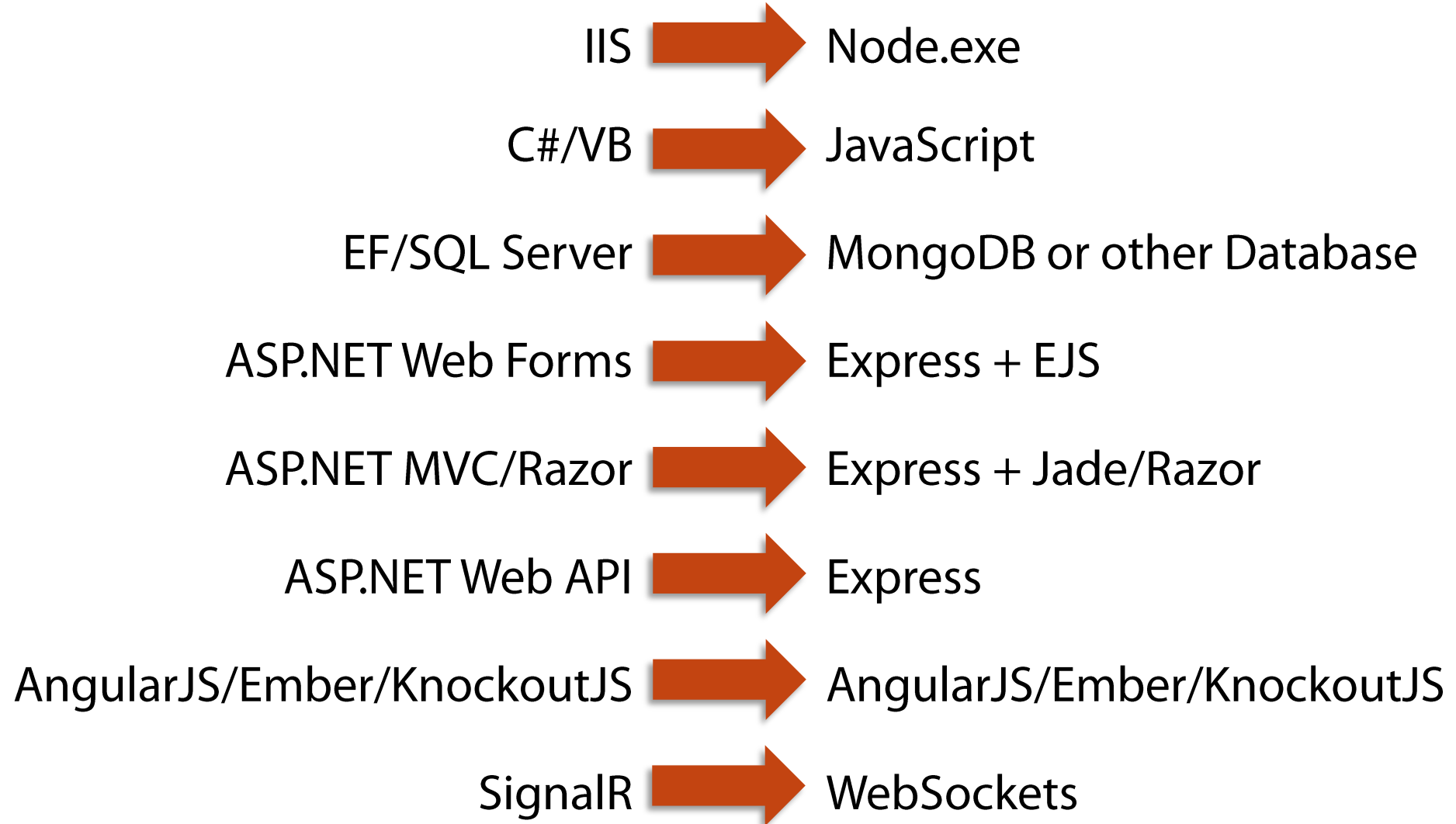




NODE.JS IS ASYNCHRONOUS BY
NATURE

YOU CAN ACCOMPLISH THIS IN
ASP.NET BUT IT'S NOT THE DEFAULT
BEHAVIOR

Mapping the Nomenclature



JAVASCRIPT IN NODE.JS

All JavaScript is executed under Google's V8 Engine

- Predictable execution model
- EcmaScript 5 is supported in NodeJS 0.5.1 and later
- V8 supports JIT and Optimizing Compiler





Lots of JavaScript problems go away in Node.js because you have complete control over the environment.



demonstration

INSTALL NODEJS



demonstration

HELLO WORLD NODEJS



demonstration

NODEJS IN VISUAL STUDIO



demonstration

DEPENDENCY MANAGEMENT IN NODEJS



demonstration

FOLDER DEPENDENCIES



demonstration

THE NODE PACKAGE MANAGER

Summary

- **What is Node.js?**

- Node.js is a simple but powerful web server environment
- By utilizing your existing knowledge of JavaScript, you can get up to speed quickly
- Node.js uses the latest in JavaScript execution using the Chrome V8 engine
- Installing Node.js is simple and easy
- If you want to stay in the comfortable environment of Visual Studio there is a solution for that
- Node.js encourages good software practices out of the box like asynchrony and inversion of control