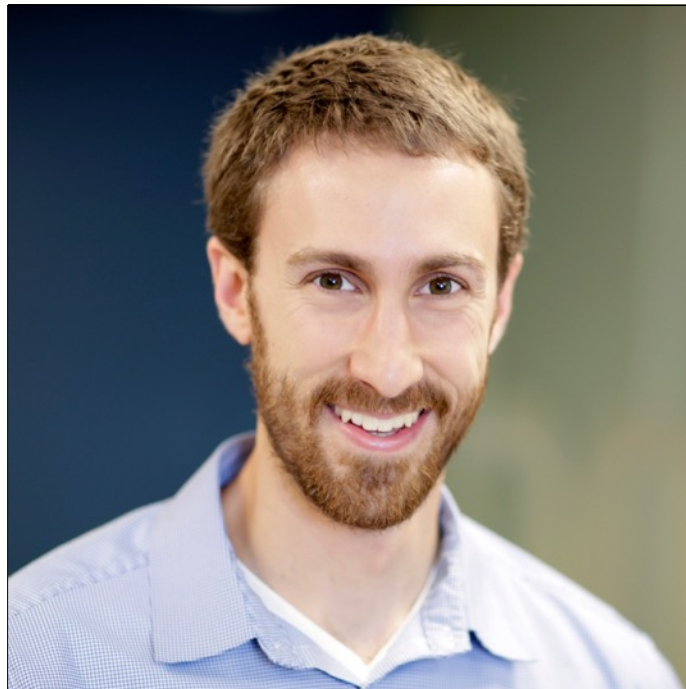


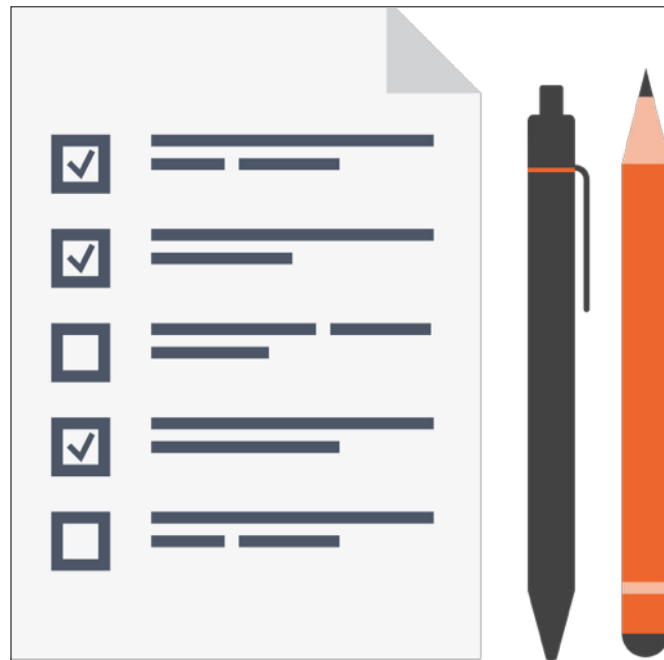
Choosing and Configuring a Web Server



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Module Outline



Nginx vs Apache

Configuring nginx

Configuring php-fpm

Evolution of Apache

Old School Apache:
Apache 2.2

mod_php

mpm_prefork / mpm_worker

Memory and Performance Issues at Scale

Modern Apache:
Apache 2.4

php-fpm

mpm_event

Fast and Scalable

Why Nginx?

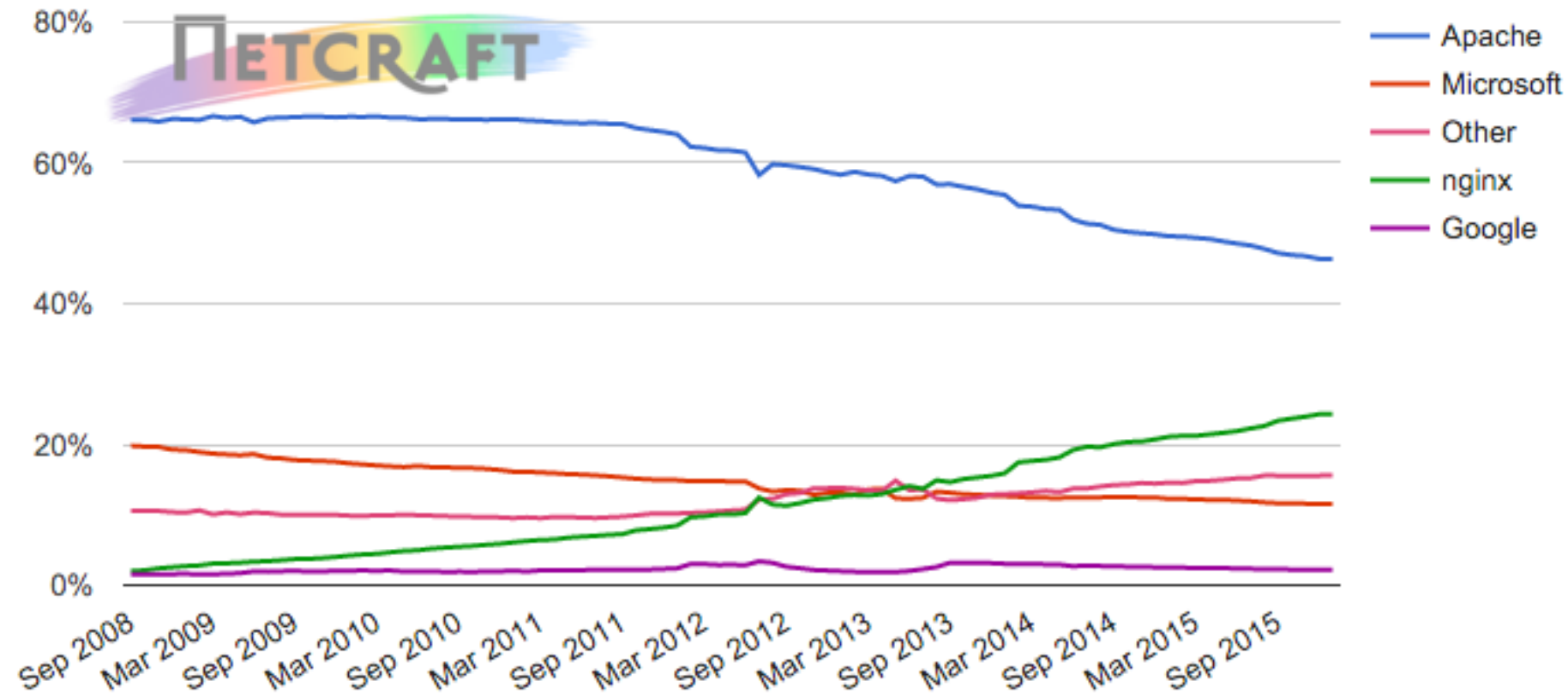
Ease of
Configuration

Optimized for
Static Content

Flexibility

Knowledge Applies
Across Many
Stacks

Web server developers: Market share of the top million busiest sites



Developer	December 2015	Percent	January 2016	Percent	Change
Apache	463,643	46.36%	463,092	46.31%	-0.06
nginx	242,852	24.29%	243,340	24.33%	0.05
Microsoft	115,825	11.58%	115,358	11.54%	-0.05
Google	22,072	2.21%	21,824	2.18%	-0.02

Static Content

APACHE

10770 req/s

@ 512 PARALLEL REQUESTS

NGINX

20232 req/s

@ 512 PARALLEL REQUESTS

Via www.speedemy.com

Dynamic Contact

APACHE

108 req/s

@ 16 PARALLEL REQUESTS

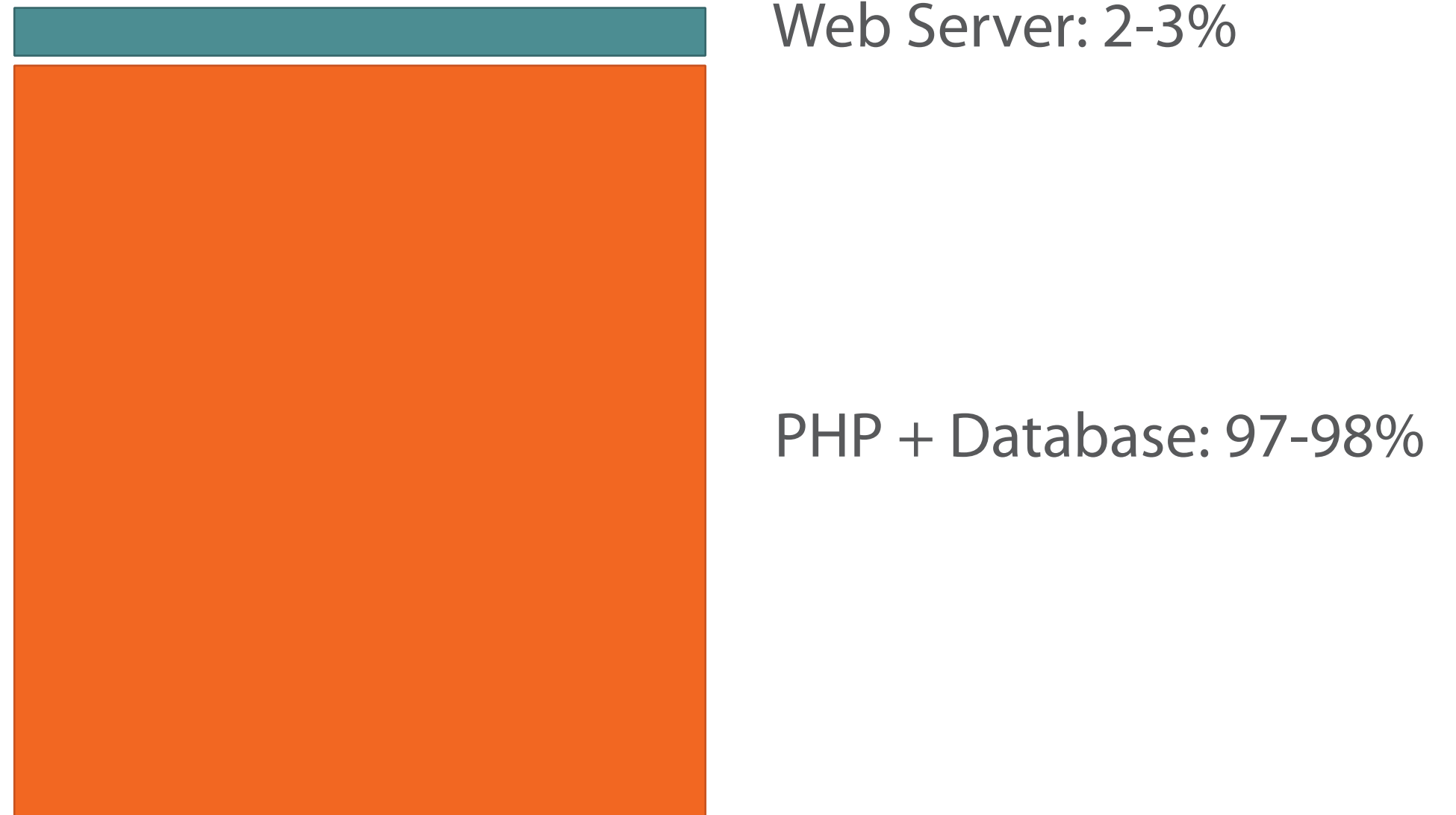
NGINX

108 req/s

@ 16 PARALLEL REQUESTS

Via www.speedemy.com

Typical Application Breakdown



Example Speedup

Static Request:

With Apache: 5ms total

With Nginx: 3ms total

40% Improvement!

Dynamic Request:

With Apache: 200ms total

With Nginx: 198ms total

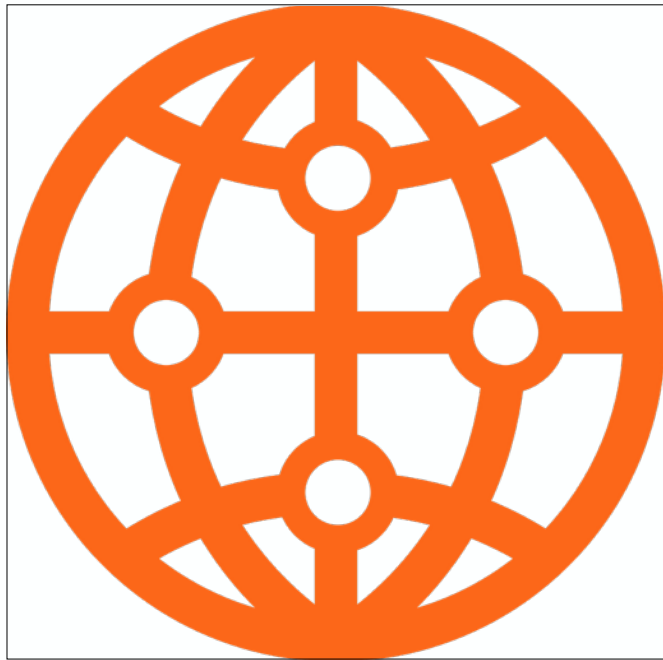
1% Improvement

PHP-FPM Configuration

`pm.max_children = (MAX_MEMORY-500MB)/20MB`

`pm.start_servers = 10% * max_children`

Glossary



[January 2016 Web Server Survey](#)

[Apache vs. Nginx: Speedemy](#)