

Back end components

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Back end Servers

Hardware and OS that hosts all apps necessary to run the web app

data access layer

Software

the backend server contains the other 3 backend components

- web server
- DB
- Development framework

other software components may be
hypervisors, containers, WAFs

common back end server stacks:

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- **LAMP** = Linux Apache MySQL PHP
- **WAMP** = Windows "
- **WINS** = Windows IIS .NET SQL server
- **MAMP** = macOS ...
- **XAMPP** = cross-platform Apache MySQL PHP/PERL

Hardware

Many large web apps distribute load over many back end servers

Web servers

apps that run on the back end server that handles HTTP requests from browser, routes it to requested pages, and responds to browser

and responds ~

run on port 80 or 443

connect end users to parts of web app

accept user input within HTTP requests

responsible for routing request, run
processes needed, and return response

pages that servers route traffic to are web
app core files

could create our own web servers w/
python, JS, or PHP but there are

many apps to help w/

Apache

httpd

most common web server

more than 40% of all sites

run -

more than 40% of all sites

all OS

Usually PHP but can be .NET, Python, Perl

NGINX

Second most common
30% of all sites

focus on serving many concurrent requests
with low memory and CPU load
with async architecture

60% of top traffic sites use it

IIS

internet information services

3rd most common

15%

. it developed; mainly runs on

Microsoft developed; mainly runs on
MS Windows servers

.NET mostly but can be for others

well optimized for AD and includes

Windows Auth to auto sign

users in to web apps

other popular servers can be Apache
Tomcat for Java and Node.js

for JS