

NGINX AND EC2 LAUNCH TEMPLATE

Today's Takeaways

- ▶ Launching EC2 Instance
- ▶ NGINX Web Server
- ▶ EC2 Launch Template

Launching EC2

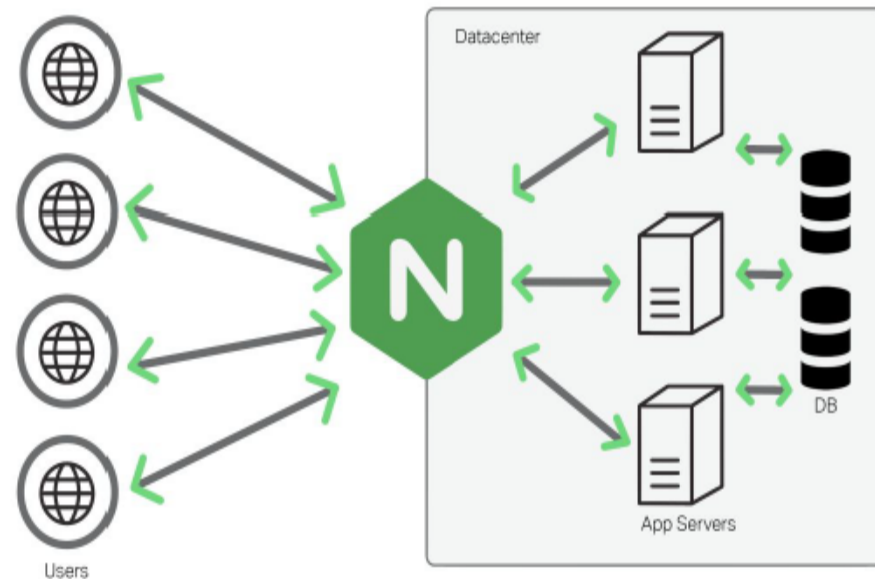


- EC2 stands for Elastic Compute Cloud in AWS.
- EC2 is a virtual server that is physically in the AWS Data Center.

NGINX WEB SERVER

What is NGINX?

NGINX, which is pronounced as 'engine ex,' is a widely used open-source web server software. It was a project started by Igor Sysoev in 2002. It got officially released in October 2004. It was created to solve the problem of C10k, which is defined as a challenge to manage the ten thousand connections all at the same time.







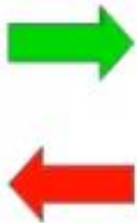
NGINX is open source software for **web serving**, reverse proxying, caching, load balancing, media streaming, and more. It started out as a web server designed for maximum performance and stability. In addition to its HTTP server capabilities, NGINX can also function as a proxy server for email (IMAP, POP3, and SMTP) and a reverse proxy and **load balancer for HTTP, TCP, and UDP servers.**

What Can NGINX Do for You?

NGINX are the best-in-class web server and application delivery solutions used by high-traffic websites such as **Dropbox, Netflix, and Zynga.** More than **350 million websites** worldwide rely on NGINX Plus and NGINX Open Source to deliver their content quickly, reliably, and securely.

Challenge of Webserver:

Parallel execution, maintaining connections to thousands of users at the same time (concurrency).



Maintains the **communication** channel between the **server** and **client**

Web-server **invokes** framework and the web-framework **figures out** what to return to the client.

Frameworks- Flask, Django...



Challenge of Framework: To ease of development, complete access to the request object, the ability to maintain some state if required and most importantly, to have a way to write all the business-level logic.

It works!

cd /var/www/html

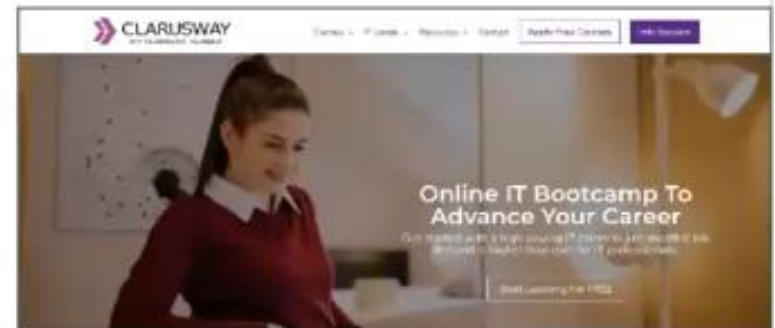
-----(NOTHING)

+ -----Index.html

/etc/httpd/conf.d/

/usr/share/httpd/noindex

CUSTOMIZED PAGE



/usr/share/nginx/html

+

-----default (index.html)

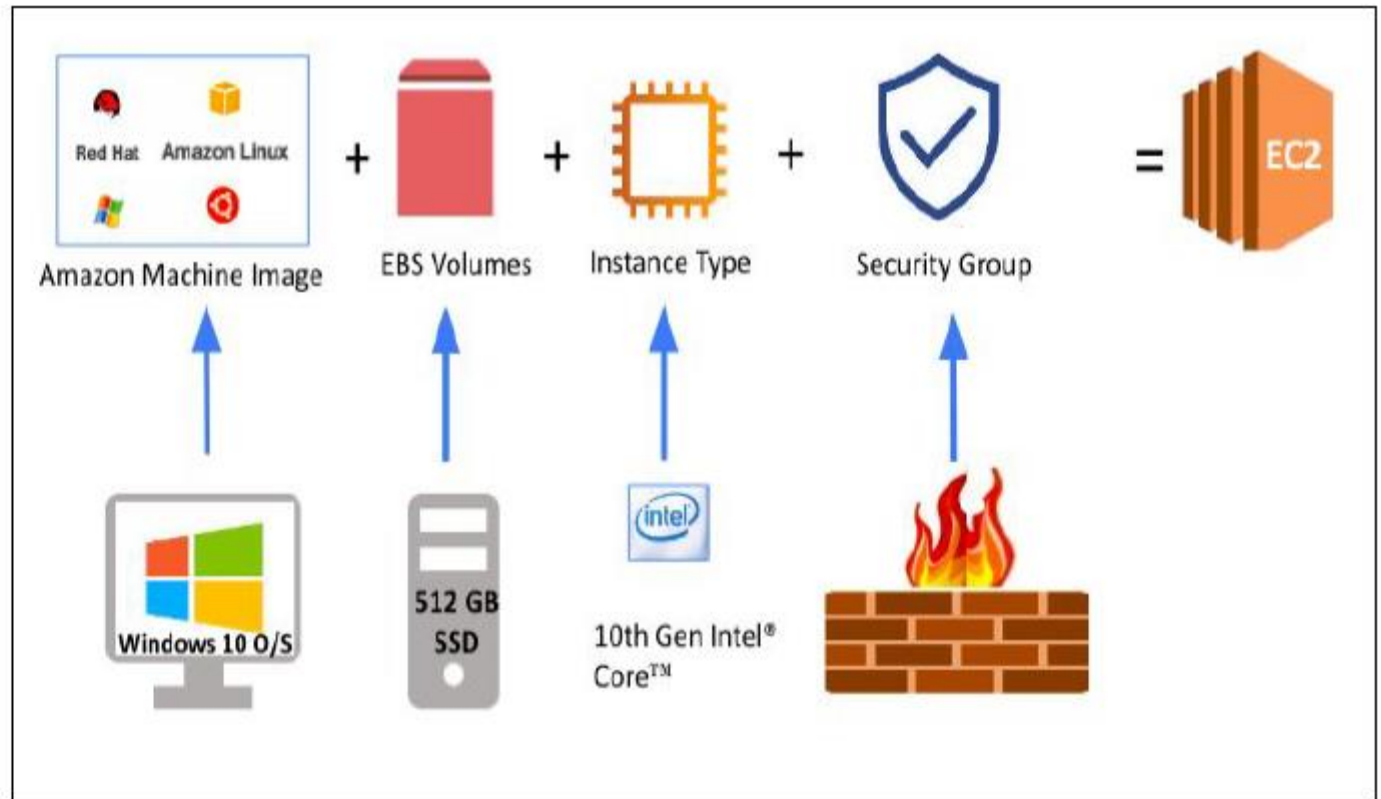
----- (new)index.html

CUSTOMIZED PAGE



EC2 Launch Template

What is EC2?





www.e-commerce...



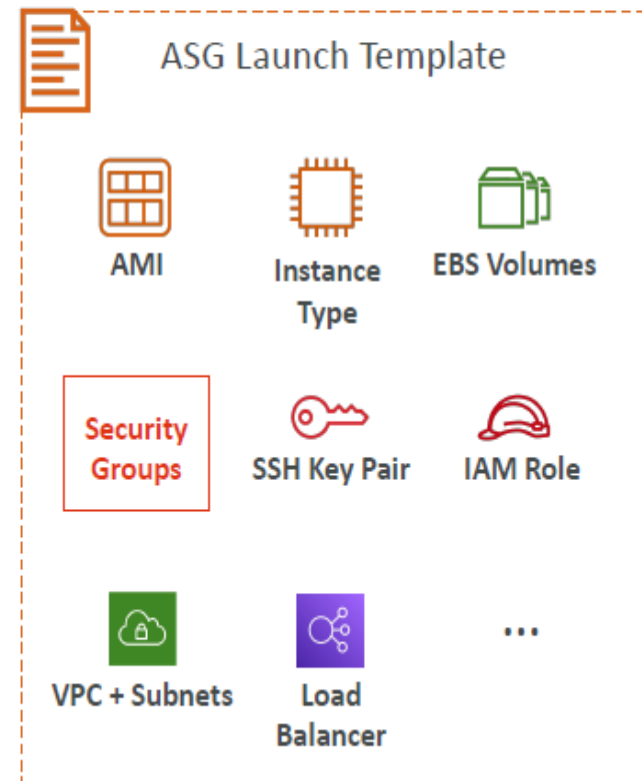
Publishing the website



aws

Auto Scaling Group Attributes

- A **Launch Template** (older “Launch Configurations” are deprecated)
 - AMI + Instance Type
 - EC2 User Data
 - EBS Volumes
 - Security Groups
 - SSH Key Pair
 - IAM Roles for your EC2 Instances
 - Network + Subnets Information
 - Load Balancer Information
- Min Size / Max Size / Initial Capacity
- Scaling Policies

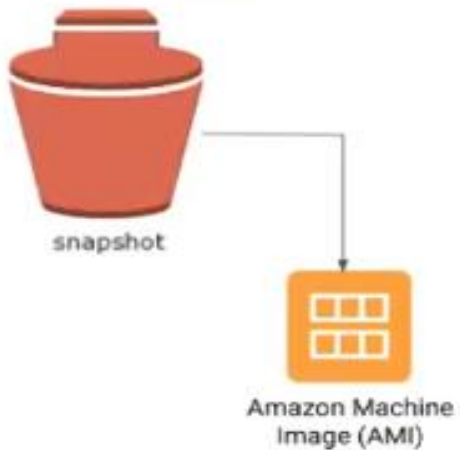


Option 1



Launch
Template

Option 2- Later



Option 3 -Later



Launch Configuration



Orijin Version



Version 1



Version 2

Version 3 = Version 2
user data