AWS Elastic Load balancing inside VPC

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Cloud System Administration
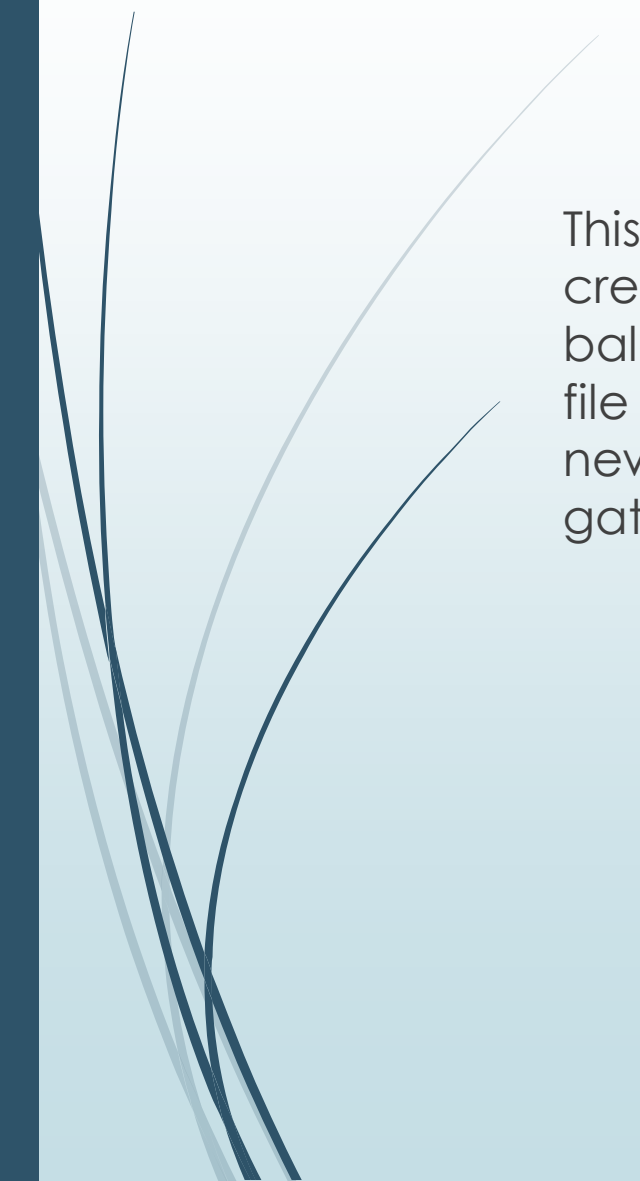
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Introduction

This project involves the creation of at least two linux instances that are created in a virtual private cloud that is not given by default. An elastic load balancer is created to which the instances are attached. A php or html based file is uploaded to the instances by ftp. All the work done is done under a newly created VPC that has suitable number of subnets and an appropriate gateway.

Components of AWS involved

- Amazon EC2 - elastic cloud compute provides web based cloud , allows you to obtain and configure capacity with minimal friction. provides you with complete control of computing resources. reduces time required to obtain and boot new server instances to minutes, quickly change capacity

- Elastic Block Store (EBS) provides persistent block storage volumes and is automatically replicated within its Availability Zones to protect from component failure . It is designed for application workloads that benefit from fine tuning for performance, cost and capacity . typical use cases: Big Data Analysis and NoSQL databases, data warehousing, stream and log processing applications.

►Elastic load Balancing

offers three types of load balancers:

1. classic load balancer for http, htpps and tcp | have an existing application running in ec2

2. application load balance for http and https| when a flexible feature set is required | provide advanced routing

3. network load balancer for tcp and tls | need ultra high performance | handle millions of request/sec automatically distributes incoming application traffic across multiple ec2 instances, enables to achieve fault tolerance in application, seamlessly provides required amount of load balancing capacity needed to route application traffic.

Amazon VPC lets you provision logically isolated section of AWS where you can launch AWS in a virtual network

that you define

complete control over virtual networking environment includes section of ip address range, creation of subnets,

configuration of route tables and network gateways

features:

multiple connectivity options, connect directly to internet

connect to internet using network address translation

connect securely to corporate datacenter

connect privately to other vpc

connect to amazon s3 without using internet gateway or NAT
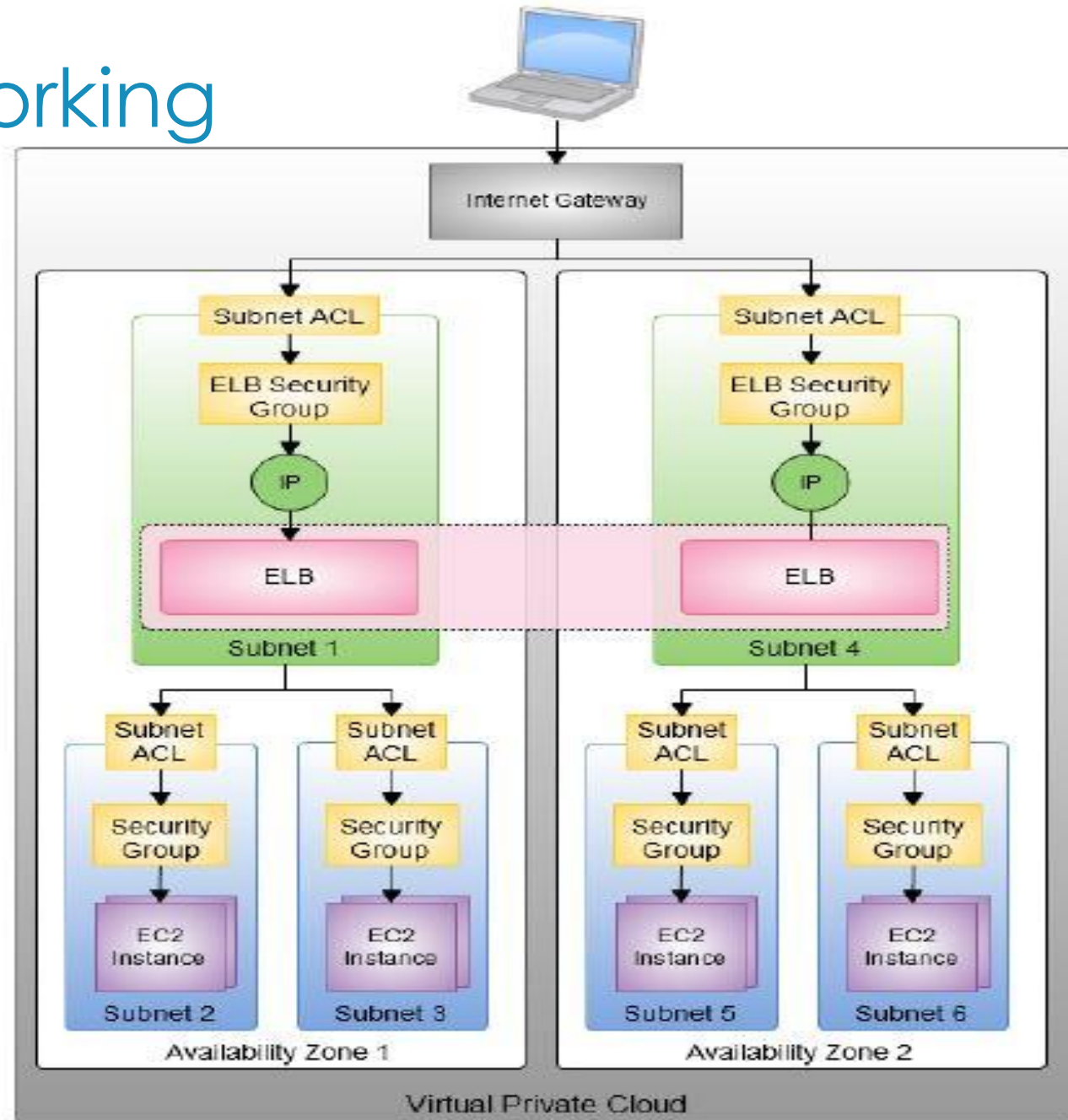
secure

simple

scalability and reliability of aws

Procedure

- Create desired VPC, its subnets (2 or 4) and a gateway

- Create 2 or more linux instances for each subnet in the created VPC

- Install httpd, vsftpd and php in those instances, open ports for http, ftp in the instances and transfer index.php and Auth.php from system to instances and move them to /var/www/html

- Create a classic/application load balancer and register those instances created to this load balancer

Working

Thank You