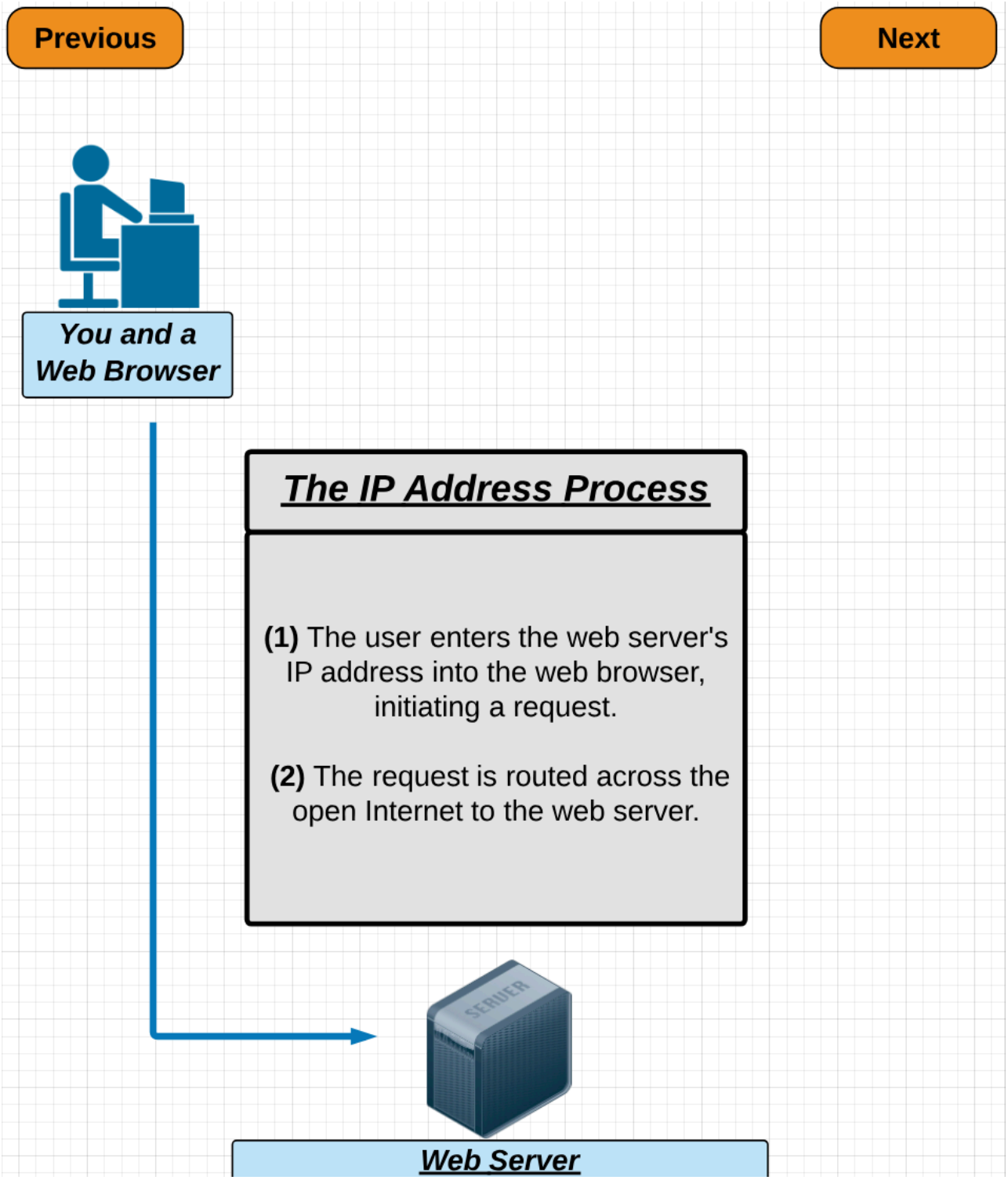
Foundation

2019年2月7日 星期四　　下午9:32

1.How a Website Works?



IP Address: 34.232.56.144

Previous

Next

Cool, what an awesome website!

You and a Web Browser

The IP Address Process

(3) The web server receives the request and sends back the websites page data.

(4) The User then views the web page in their browser.

Web Server

IP Address: 34.232.56.144

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I want to access:
thepractitionersbrief.com

You and a Web Browser

Domain Name System (DNS) Server

The Solution

(3) *Domain Name System (DNS) Servers* were created as a solution. Providing a central location where your browser can send a domain name and get the associated IP address in return.

(4) For this to work, DNS Servers need to be continually updated with current domain name and IP address information.

Web Server
IP Address: 34.232.56.144

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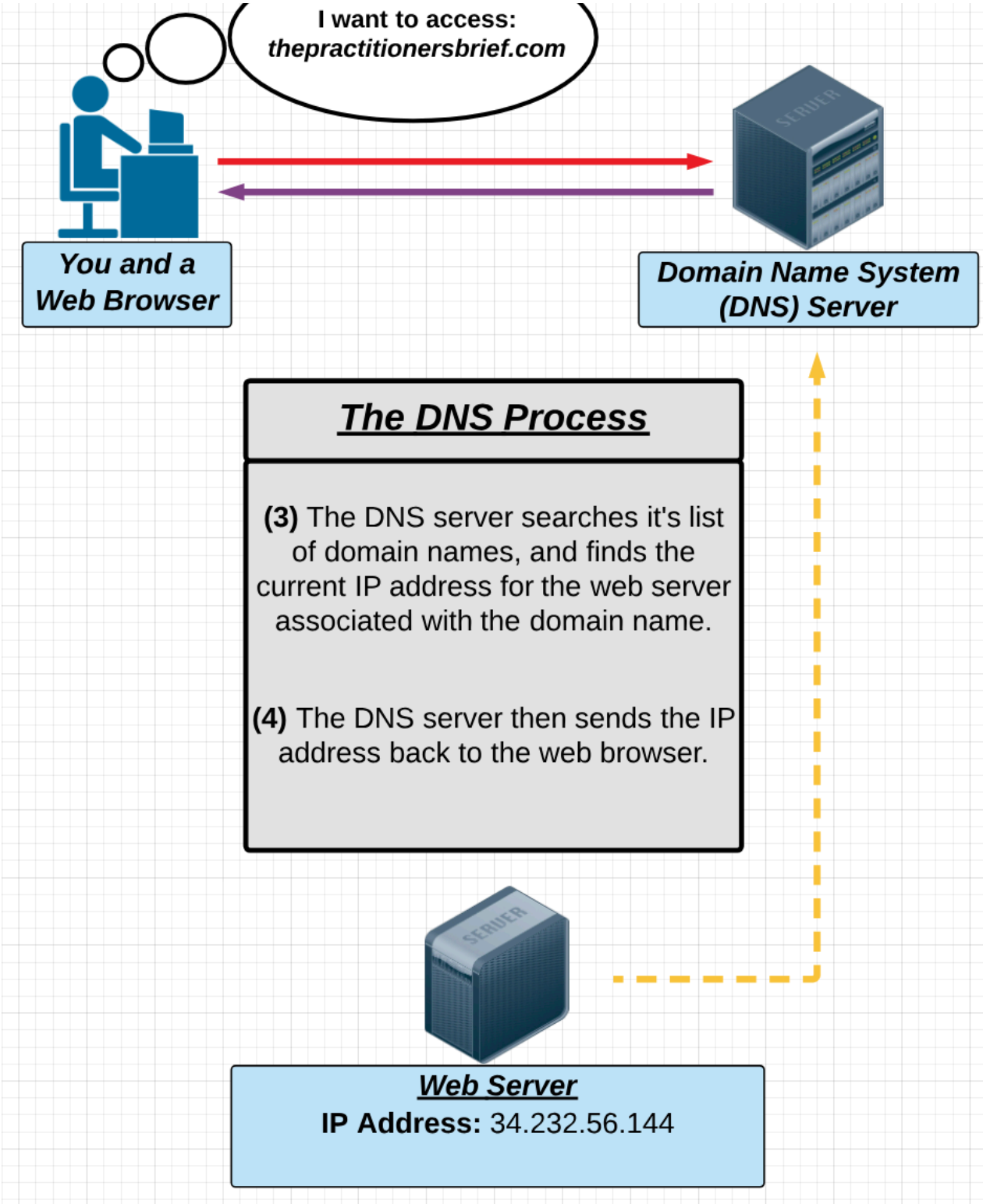

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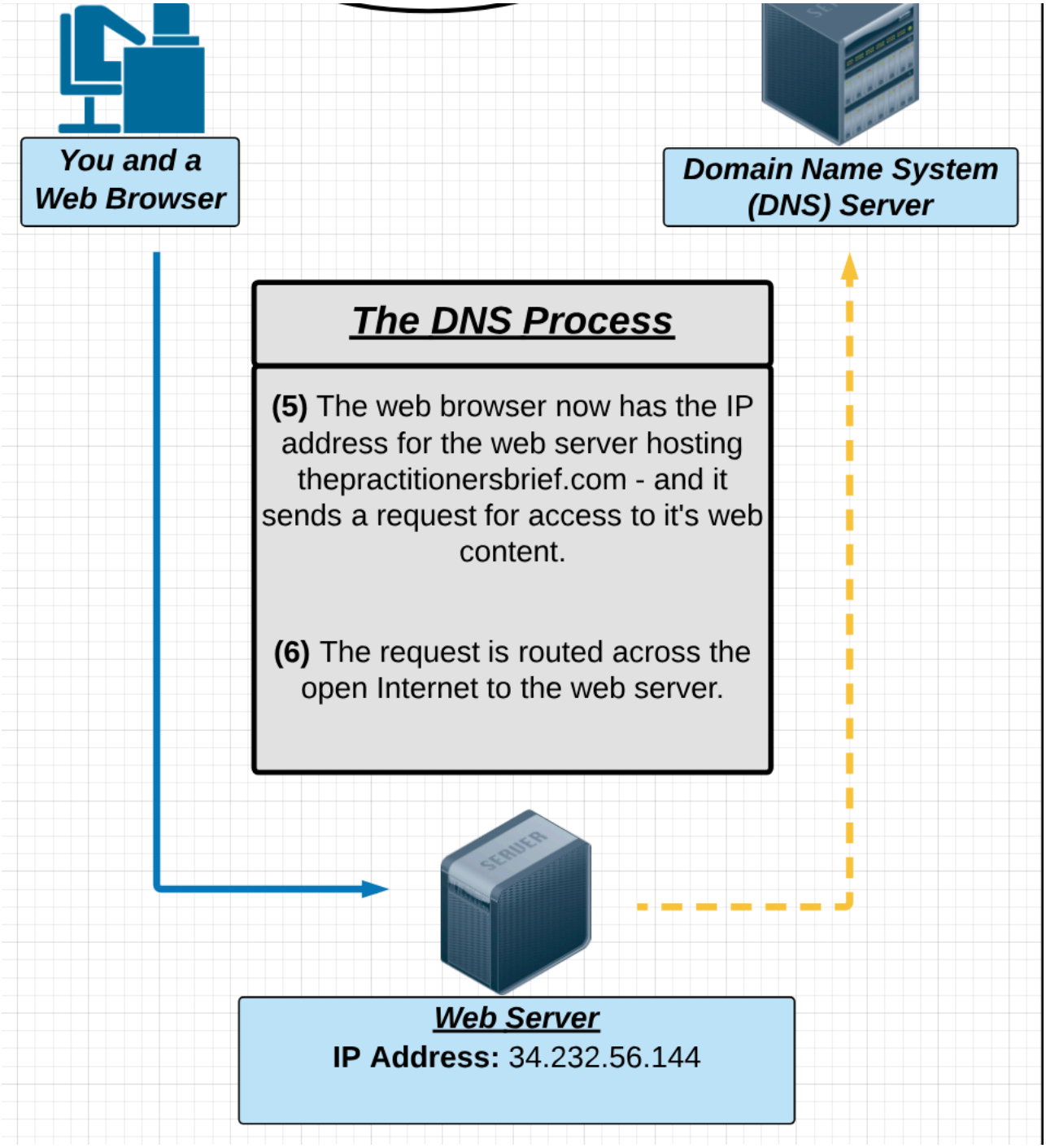
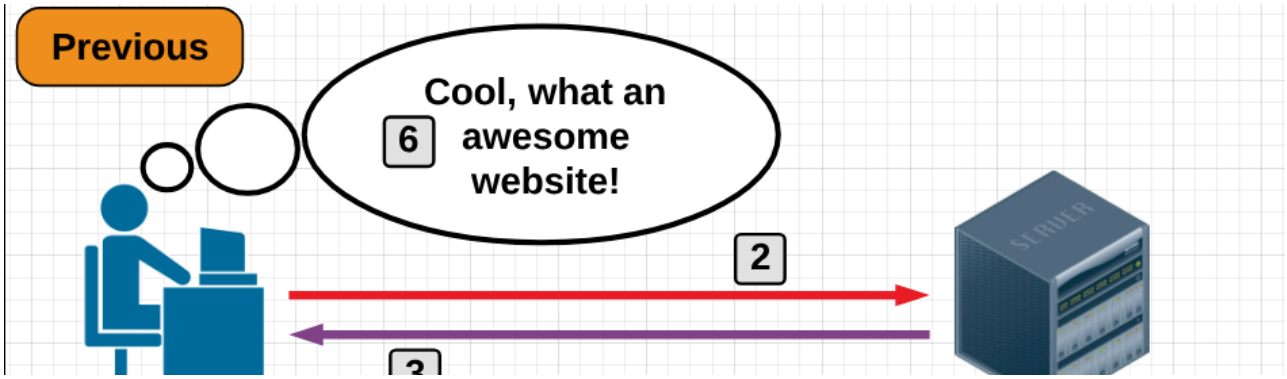

You and a Web Browser
Domain Name System (DNS) Server
The DNS Process
(5) The web browser now has the IP address for the web server hosting thepractitionersbrief.com - and it sends a request for access to it's web content.
(6) The request is routed across the open Internet to the web server.
SERVER
Web Server
IP Address: 34.232.56.144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Cool, what an awesome website!
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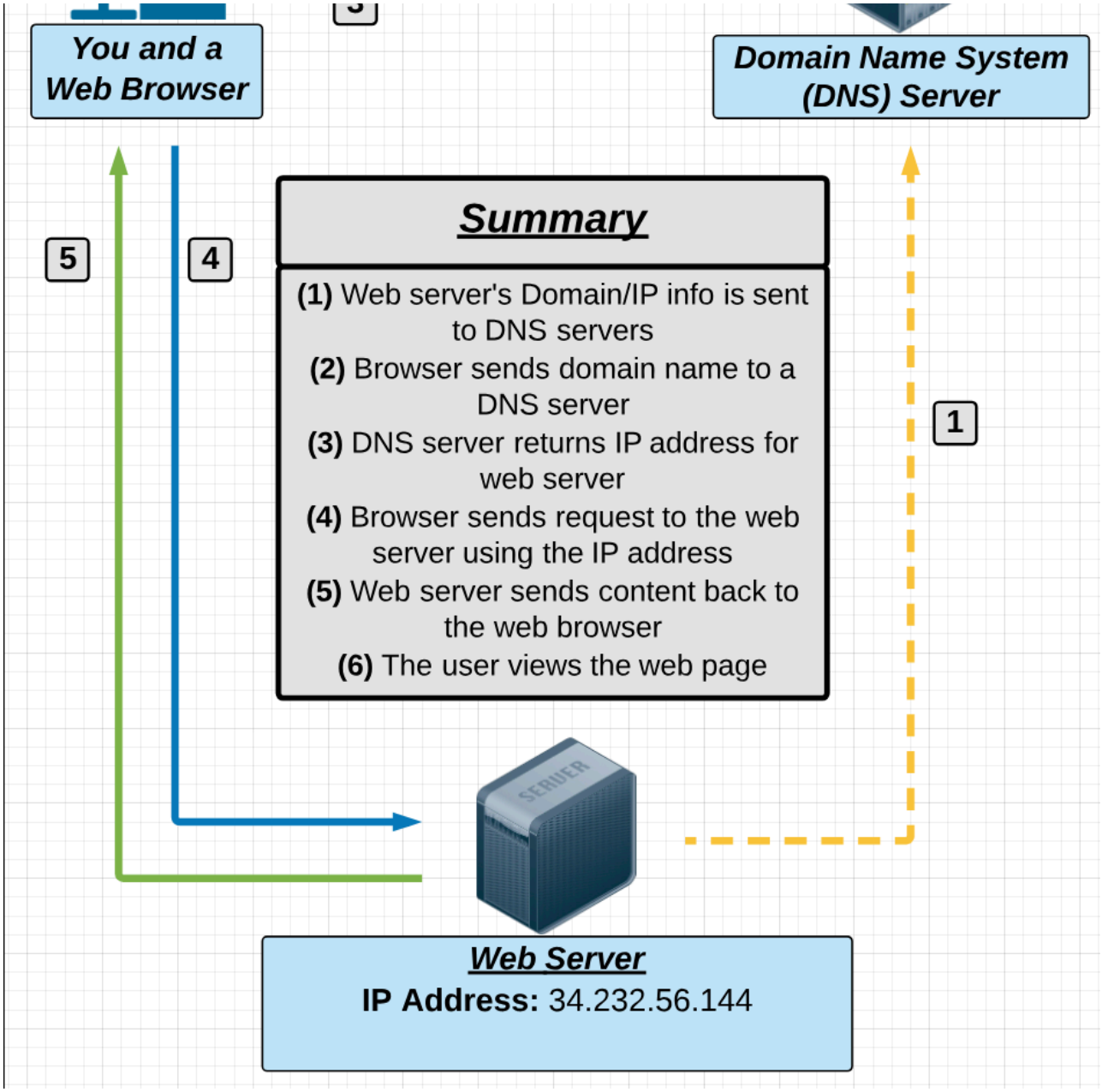
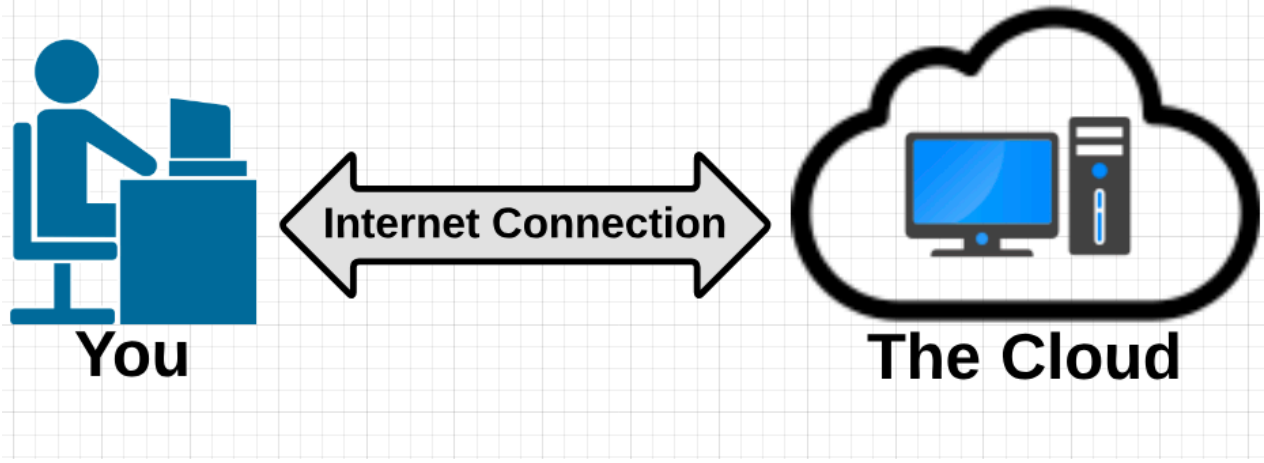
SERVER

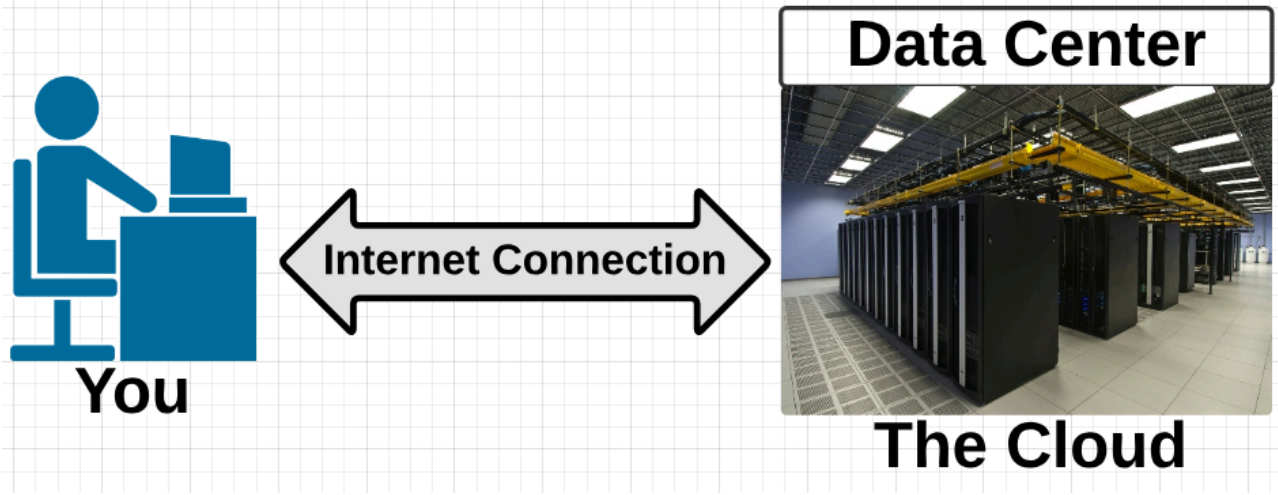


2.What is Cloud/AWS?

The *simplest* way to define the *"cloud"* is that it is a computer located somewhere else that you access via the Internet and utilize in some capacity.

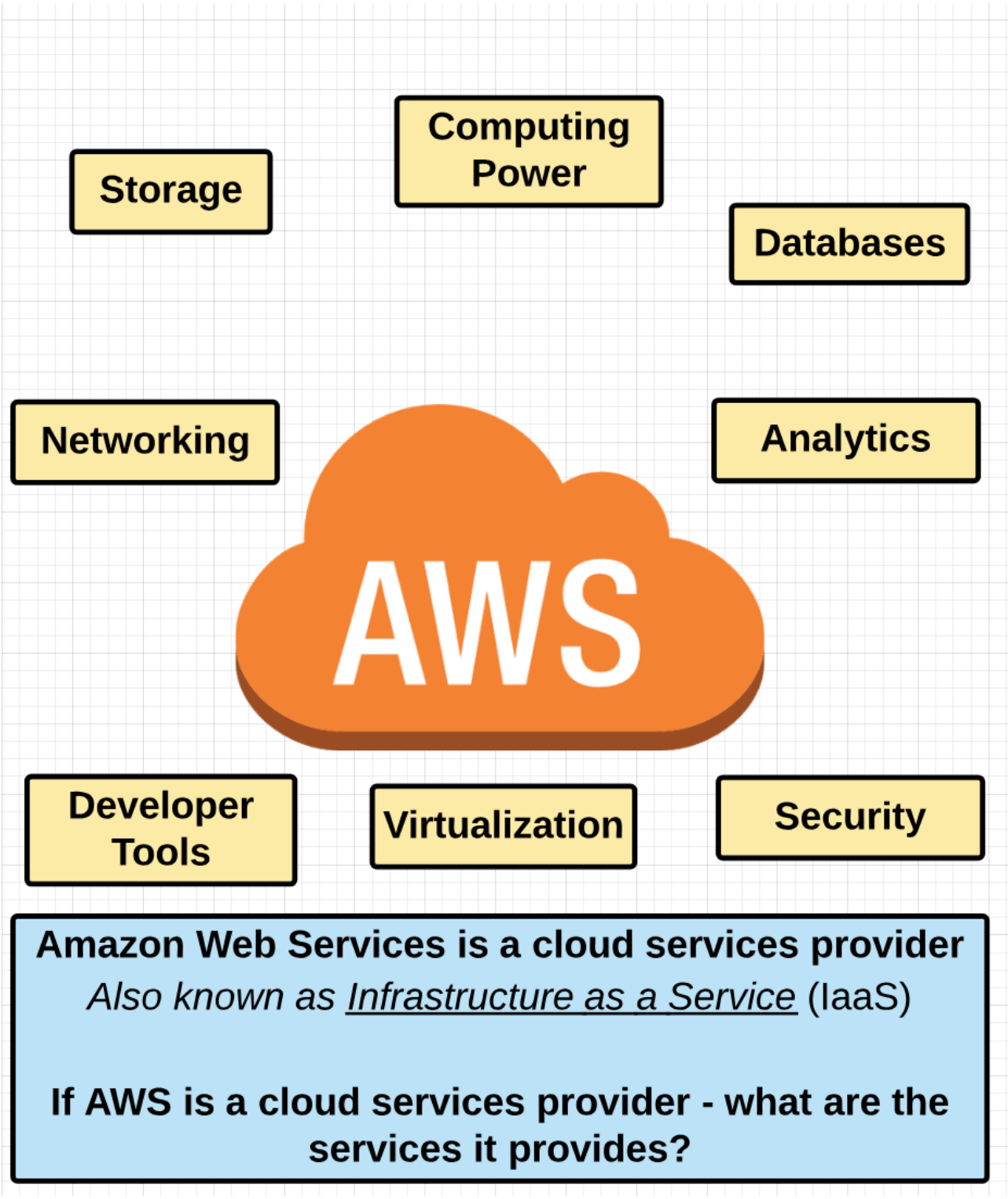


More aptly, the "cloud" is comprised of server computers located in large data centers placed all around the world.



When you use a "cloud" service such as iCloud, DropBox, or Amazon Web Services - you are just utilizing server computers owned and managed by

those companies.



Amazon Web Services is a cloud services provider

Also known as Infrastructure as a Service (IaaS)

If AWS is a cloud services provider - what are the services it provides?

3.Cloud Technology

High Availability

(alternate usage: Highly Available)

Refers to the concept of something being accessible when you attempt to access it (and/or the ability to access something via multiple platforms).

Fault Tolerant

(alternate usage: Fault Tolerance)

The ability to withstand a certain amount of failure and still remain functional (and/or be self-healing and return to full capacity).

Scalable

(alternate usage: Scalability)

The ability to easily grow in size, capacity, and/or scope when required (usually based on demand).

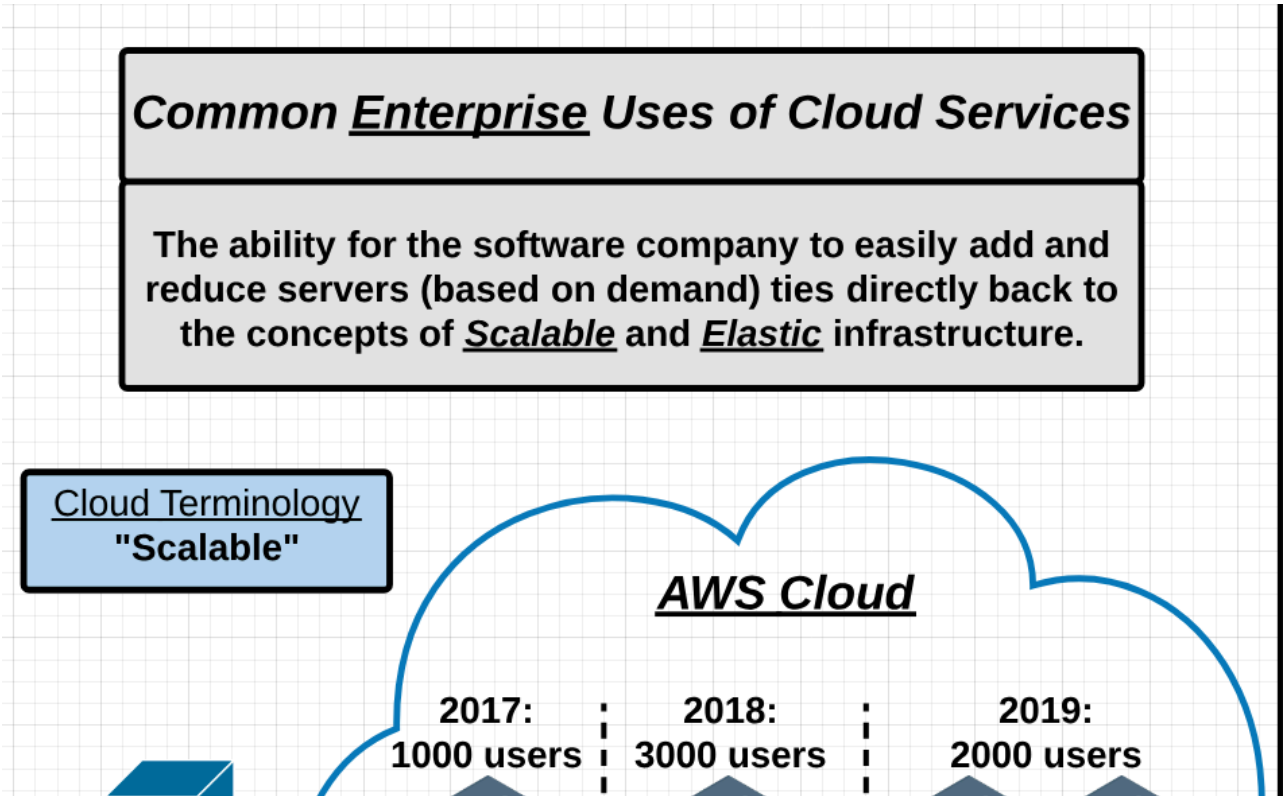
Elastic

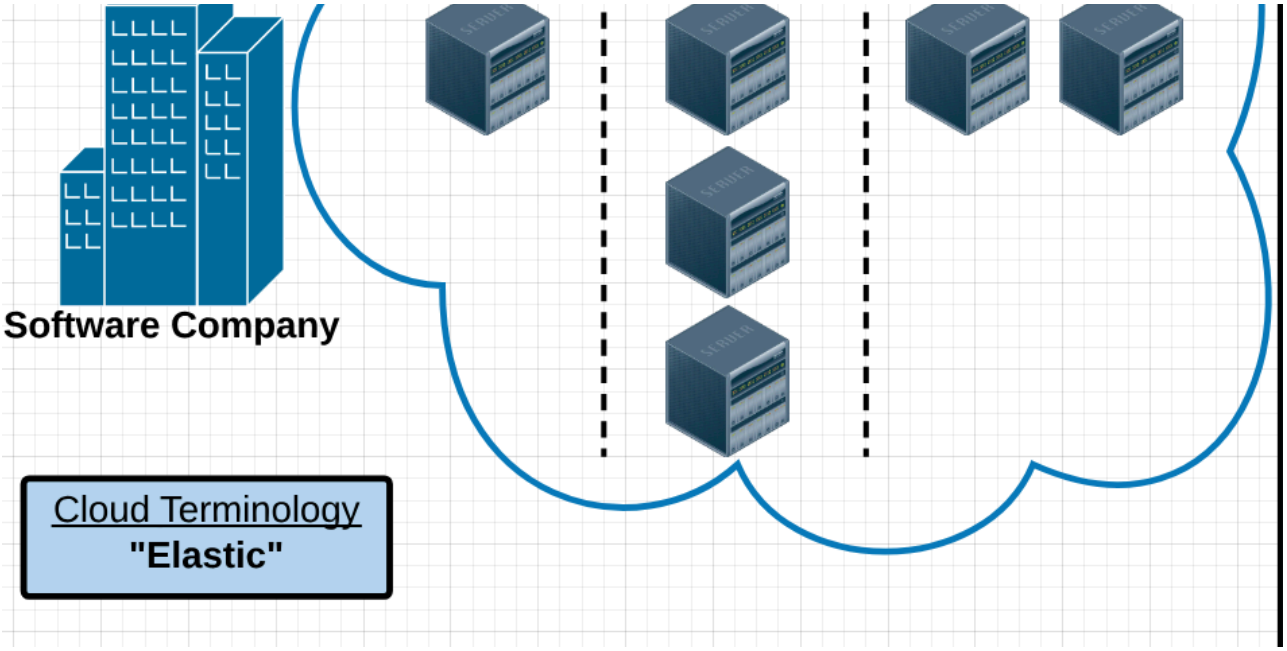
(alternate usage: Elasticity)

The ability to not only grow (scale) when required, but also reduce in size when required.

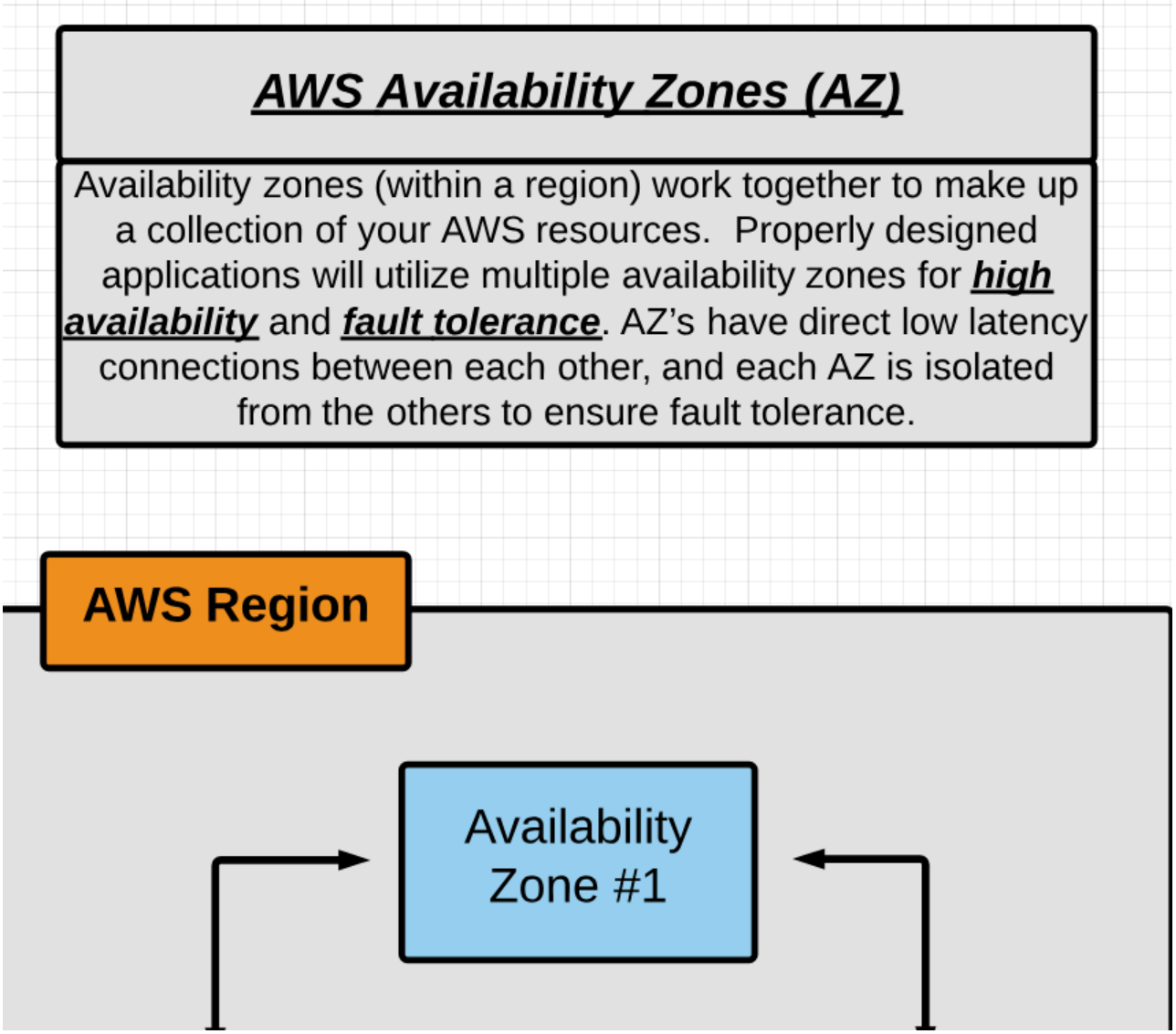
4.Benefits of AWS

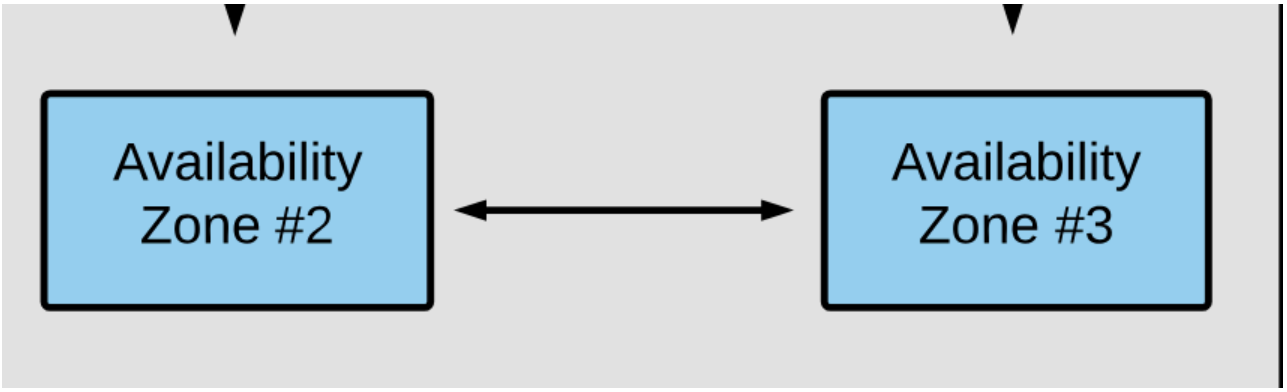
Personal: Backup/Sharing





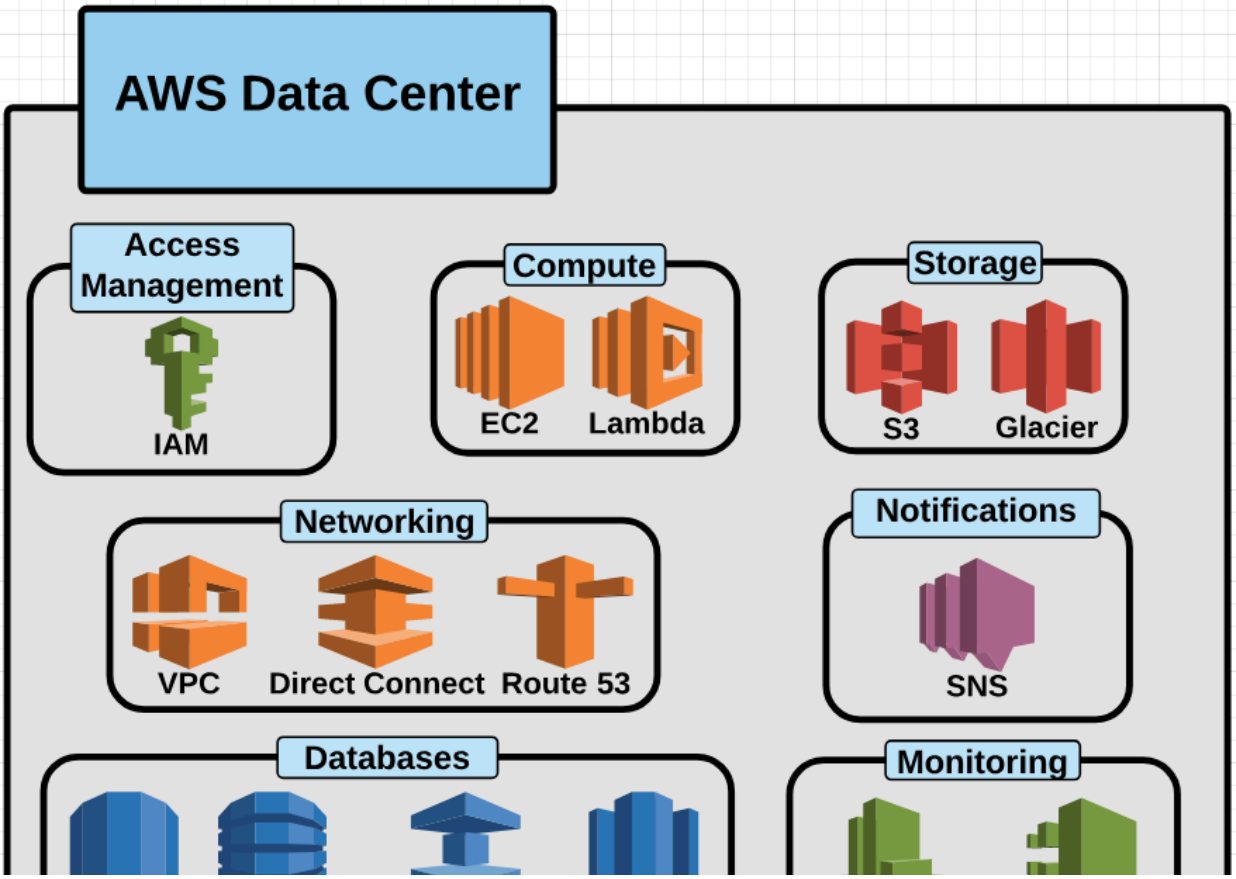
5.AWS Global Infrastructure





AWS Data Centers

When you use an AWS service (like the ones shown below), you are utilizing one of the servers in an AWS data center.



6.Summary

1. How a Website Works

Web Servers - DNS Servers - Serving Web Traffic

2. What is the Cloud/AWS?

Cloud Defined - AWS Defined

3. Intro to Cloud Terminology

High Availability - Fault Tolerance - Scalability - Elasticity

4. Primary Benefits of AWS

On-premises vs. cloud-based infrastructure

5. AWS Global Infrastructure

Regions - Availability Zone - Data Centers.

(A brief introduction to two AWS Services & one additional concept)

Simple Storage Service (S3): A fully-managed bulk file storage service

Elastic Cloud Compute (EC2): A compute capacity service (i.e. servers)

AWS Shared Responsibility Model: Defines how Security and Compliance are shared between AWS and it's customers.

What is the relationship between AWS global infrastructure and the concept of high availability?

- ○ AWS is centrally located in one location and is subject to widespread outages if something happens at that one location.
- ◉ AWS regions and Availability Zones allow for redundant architecture to be placed in isolated parts of the world.