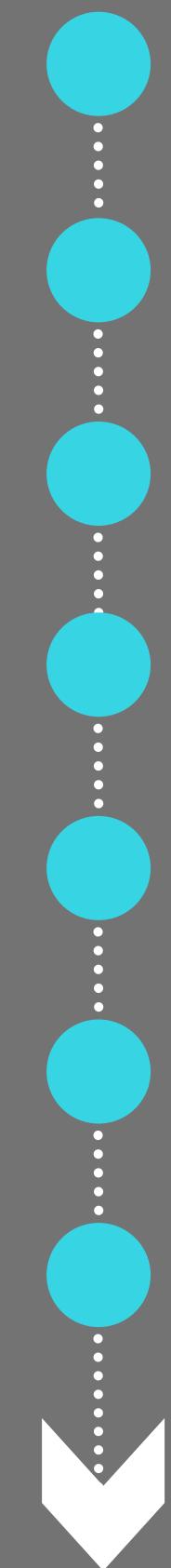


CLOUD COMPUTING

ROAD MAP for DAY 1



Why Learn Cloud Computing?

Traditional IT Infrastructure

What is Cloud?

Cloud Computing Architecture

Deployment Models

Service Models

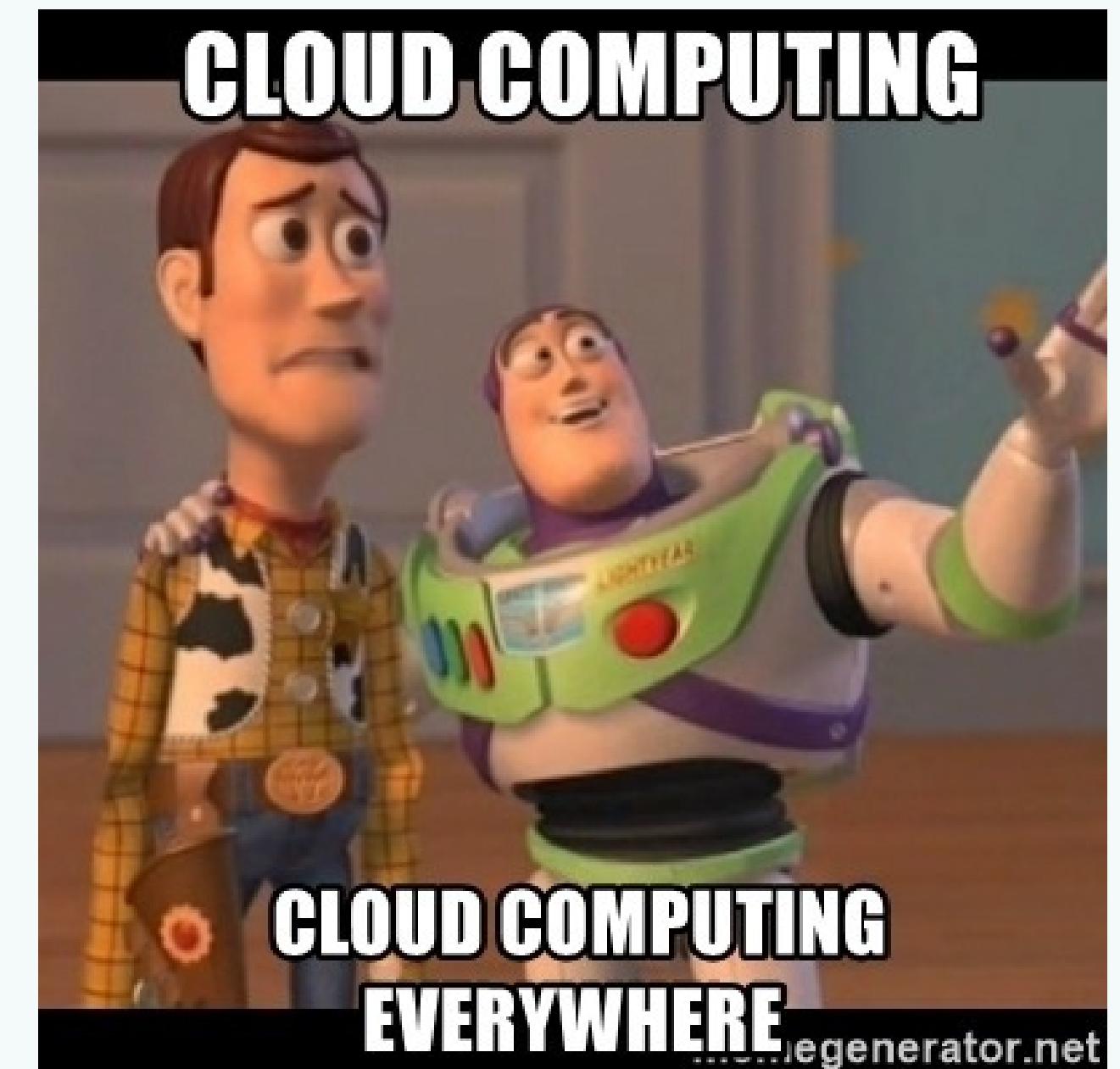
Few Cloud Services

DAY 2: Microsoft Azure

Why Learn Cloud Computing?

Cloud computing is a new way of using computers in business, education, hospitals, the military, aeronautics, and communication.

There are three reasons why we think you need to learn Cloud Computing:



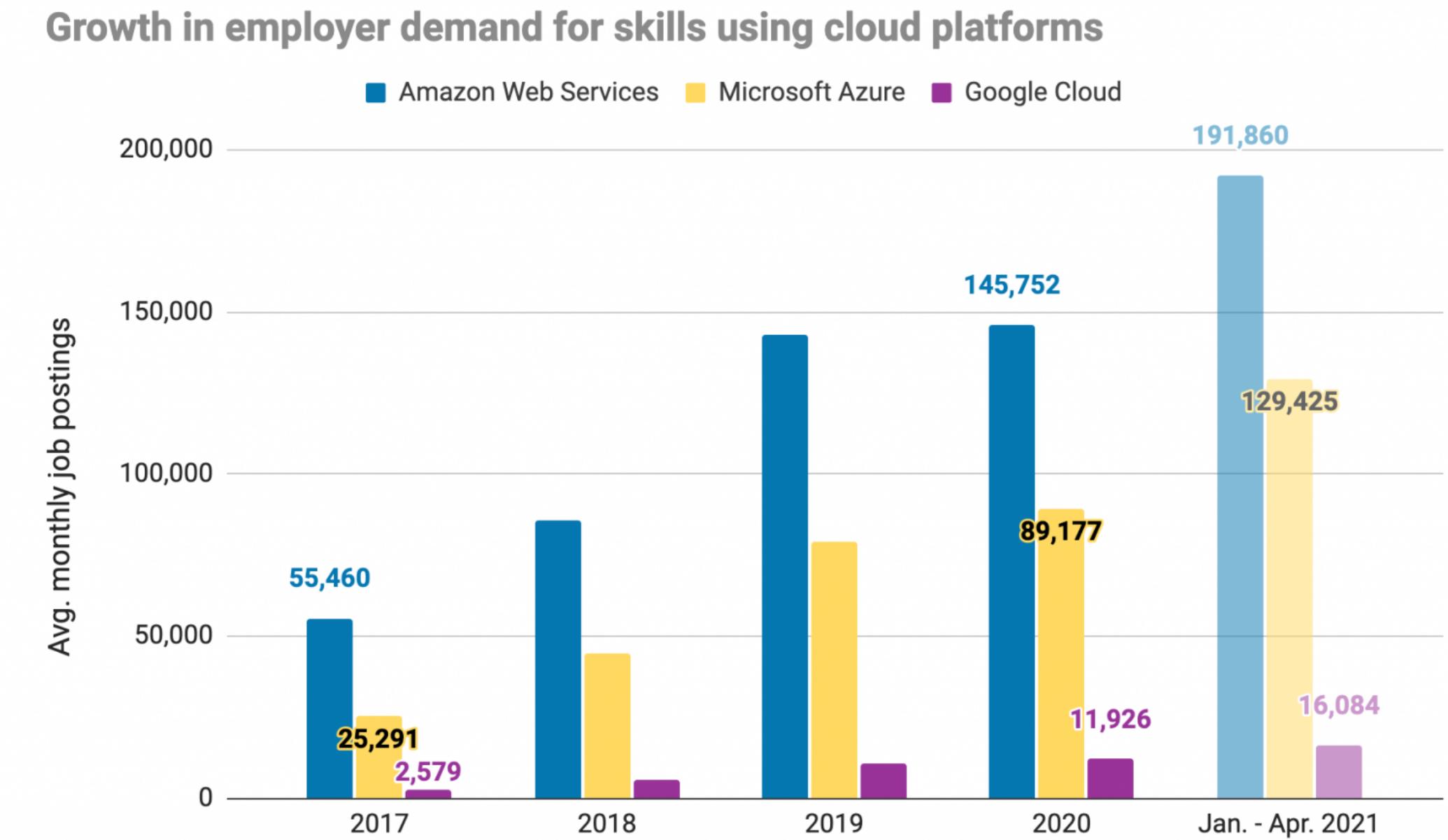
Why Learn Cloud Computing?

Growing number of businesses which use Cloud Services is increasing sharply



Why Learn Cloud Computing?

There is growing demand for professionals who can work with major existing cloud platforms

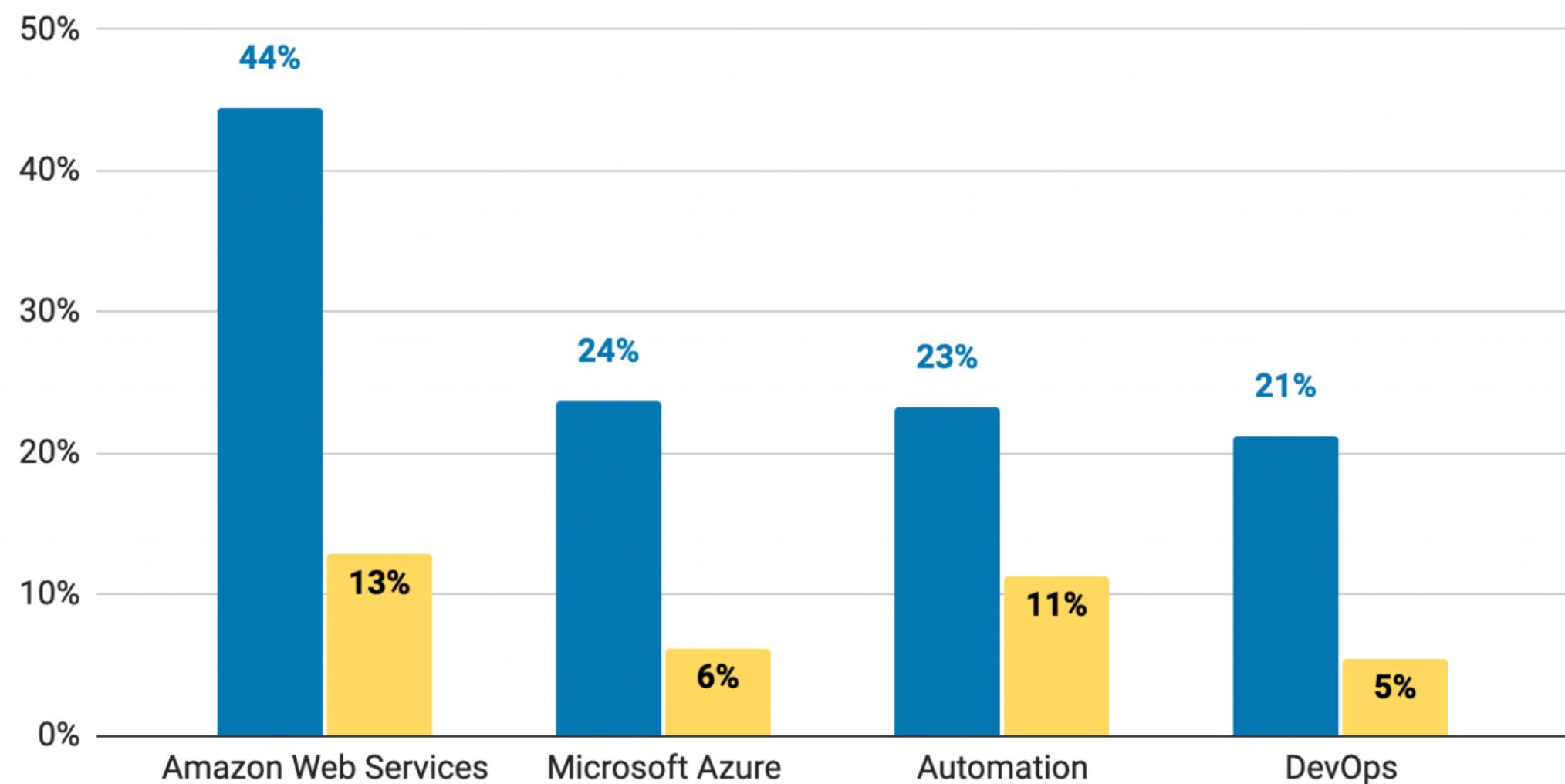


Why Learn Cloud Computing?

**There is a potential
cloud computing skills
gap**

Potential skills gaps in cloud computing jobs

■ Frequency in Job Postings ■ Frequency in Professionals' Profiles



Why Learn Cloud Computing?

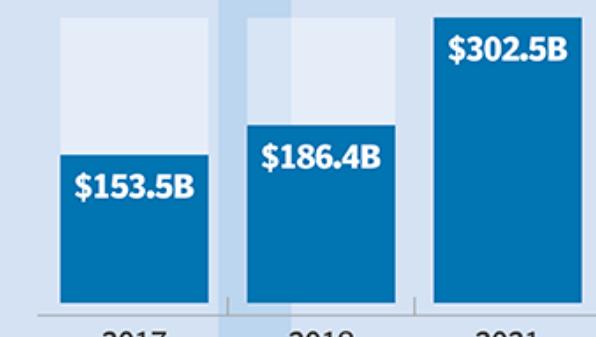
Cloud Architect is a highly paying job



Cloud market brims with opportunity for IT pros



Global spend on public cloud services expected to soar



121%

growth rate for job postings, between 2013 and 2017, that include the term *cloud computing*

SOURCE: BURNING GLASS TECHNOLOGIES

Traditional IT Infrastructure

Traditional data centres consist of various pieces of hardware which are connected to a network via a remote server which is always on-premises and provides access to everyone in that building access to the data and applications on the network.



Drawbacks

- Cost and space for hardware
- Skills required
- Round-the-clock support
- Security

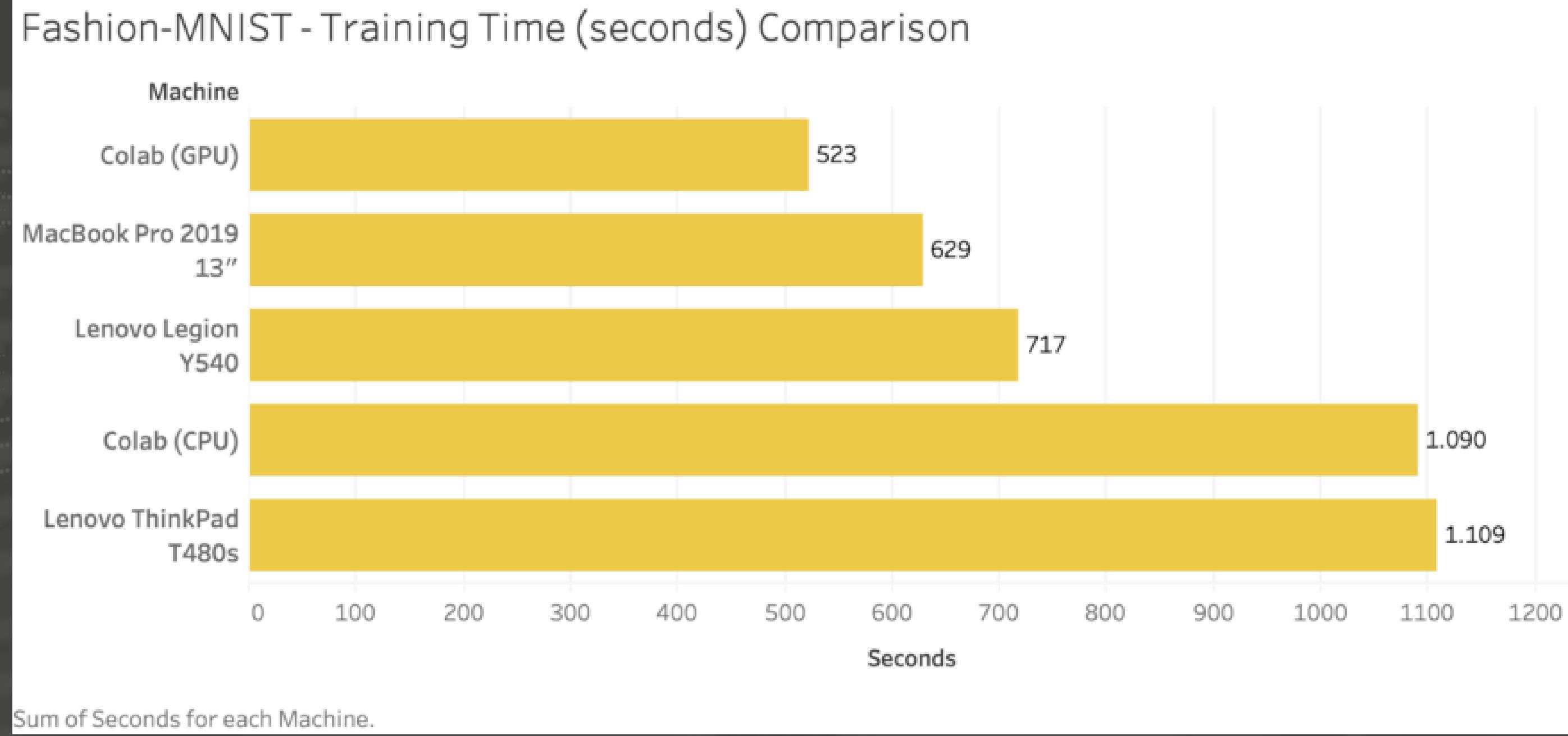


What is Cloud?

"The cloud" refers to servers that are accessed over the Internet, and the software and databases that run on those servers. Cloud servers are located in data centers all over the world.



Comparison of running on GPUs vs using Google Colab



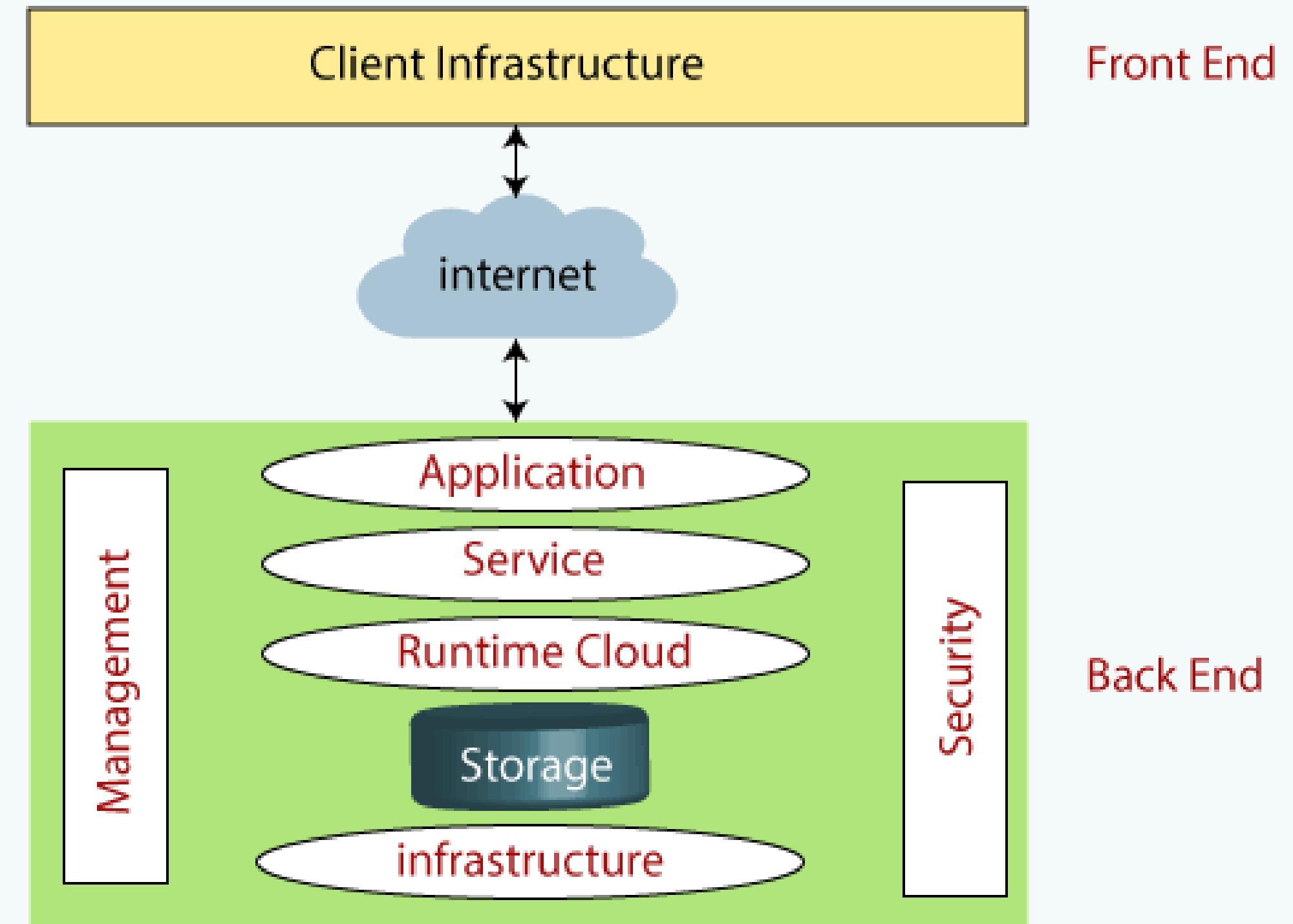
Advantages of Cloud Computing

- Cost Savings
- Security
- Flexibility & Mobility
- Increased Collaboration
- Quality Control
- Disaster Recovery & Loss Prevention
- Automatic Software Updates



Cloud Computing Architecture

Architecture of Cloud Computing



Deployment Models

Public Cloud

Typically have massive amounts of available space, which translates into easy scalability. Recommended for software development and collaborative projects.

Private Cloud

Usually reside behind a firewall and are utilized by a single organization. Recommended for businesses with very tight regulatory requirements.

Hybrid Cloud

Combine public clouds with private clouds to allow the two platforms to interact seamlessly. Recommended for businesses balancing big data analytics with strict data privacy regulations.

Community Cloud

A collaborative, multi-tenant platform used by several distinct organizations to share the same applications. Users are typically operating within the same industry or field.



Types of Cloud Deployment

Services Models

SOFTWARE AS A SERVICE (SAAS)

SaaS applications run directly through the web browser means we do not require to download and install these applications.

Example: Google Apps, Dropbox, Slack, Cisco WebEx.



Services Models

PLATFORM AS A SERVICE (PaaS)

PaaS provides a platform for software creation and hosting which we can access anywhere.

Example: Heroku, Netlify, Vercel, Google App Engine, OpenShift



Services Models

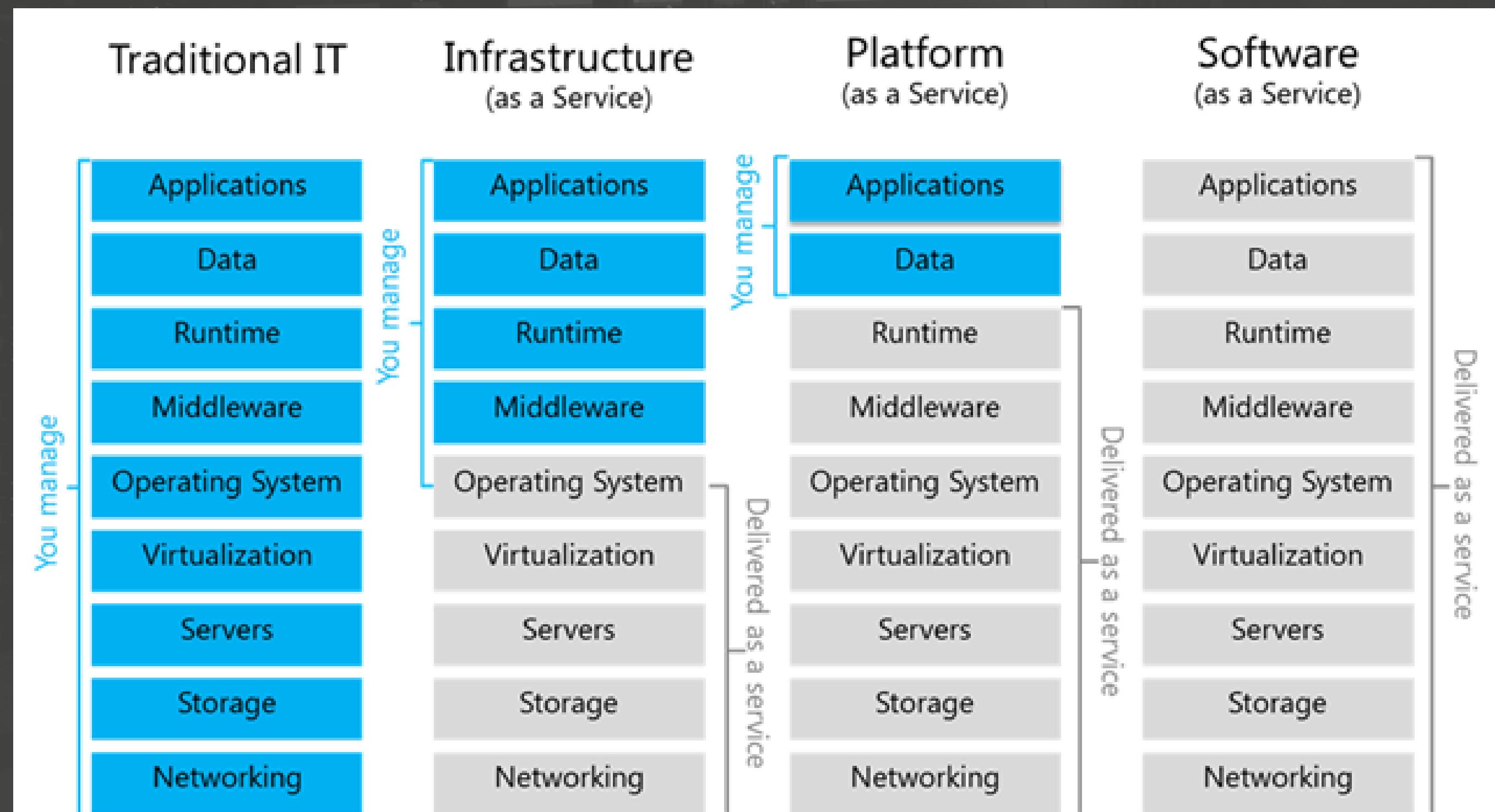
INFRASTRUCTURE AS A SERVICE (IAAS)

SaaS applications run directly through the web browser means we do not require to download and install these applications.

Example: Amazon Web Services (AWS), Linode, Microsoft Azure



Services Models





SOME USEFUL CLOUD SERVICES



CLOUD
SERVICE

Media Hosting Service

Cloudinary

Optimize media for fast delivery on any device. Transform images and videos to load faster with no visual degradation, automatically generate image and video variants and deliver high quality, responsive experience to increase conversions.



Backend as a Service

Supabase

Create a backend in less than 2 minutes. Start your project with a Postgres Database, Authentication, instant APIs, Realtime subscriptions and Storage.



JavaScript Hosting Service

Vercel

Vercel is the best place to deploy any frontend app. It provides fast refresh, flexible data fetching and easy CI-CD pipeline.



WORKSHOP

THANK YOU

