Week II - Introduction to Cloud

~Top 10 Strategic Technology Trends~

* Applied AI and Advanced ML
* Intelligent Apps
* Intelligent Things
* Virtual and Augmented Reality
* Blockchain and Distributed Ledgers
* Mesh App and Service

Intelligent
AI Foundations, Intelligent Apps, Intelligent Things

Digital
Digital Twins, Cloud to the Edge, Conversational Platform, Immersive Experience

Mesh
Blockchain, Event-Driven, Continuous Adaptive Risk and Trust

Apache nifi : Scalable directed graphs of data routing, transformation and system mediation logic.

Clickhouse : High performance, column-oriented SQL DBMS for online analytical processing.

YugabyteDB : High performance transactional distributed SQL database for cloud-native applications.

Neo4j : High performance, scalable analytics graph data platform

~ 2022 Trends ~

* Digital Immune System
* Applied Observability
* AI TRiSM
* Industry Cloud Platforms
* Platform Engineering
* Wireless - Value Realization
* Superapps
* Adaptive AI
* Metaverse (strava, zwift)
* Sustainable Tech

Service Models

$$XaaS \rightarrow X \text{ as a Service}$$

Cloud
- SaaS (Software as a Service)
  Salesforce CRM, Office 365 etc.
- PaaS (Platform as a Service)
  If your code running with scalability on XaaS
  X is a "P".
- IaaS (Infrastructure as a Service)

$X \rightarrow$ Blockchain, Security, LB as a Service
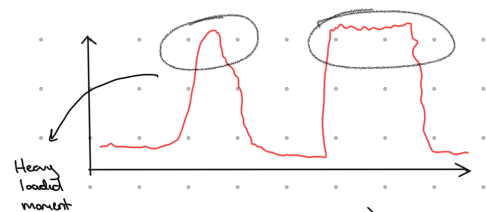Storage as a Service

Cloud must be a...

* Self service
* Services can be reach with network (LAN, WAN, PAN) and we don't touch machine physically.
* Pay as you go. We don't buy any server or machine.
* Must be a scalable and flexible.

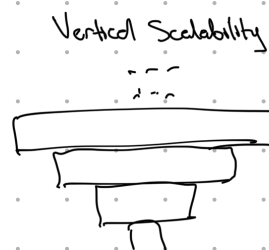OpenStack for custom cloud
Proxmox for desktop virtualization

Why we are not buying the IT Requirements?

1) We need high configurations only heavy loaded and short times.

Heavy loaded moment

* Do not buy
* Flexible capacity aggrement
* Pay as you go

} SLA
Service Level Aggrement

% 99.995 reachable guarantee

CLOUD CAN DO THAT!

Vertical Scalability }   Horizontal Scalability