Cloud support providing services:

* Azure, Aws, Google cloud Services, Digital Oceans, Oracle, IBM

Cloud types:

* IaaS(Infrastructures as a service) : aws compute engine, ece(elastic compute engine)
* Paas(Platform as a service) : ex- ML dev environment with AutoML and other tools(Azure)
* Saas(Software as a service) : ex facebook, gmail, pubg
* STaaS: (Storage as a servie): one drive, gdrive, dropbox

Cloud architecture:

NAS

Network attached Storage

Network ROM for storing ISOs

SAN

Storage Area Network

Network File system (iScsi)

LVM(Logical volume mgmt.)

Storage flexibility assured

Cloud Server

Ex: Xen, xcn

RAID

Used to make many backups from same data

External ram and processor

Client machine

Types of server:

Web: nginX, Apache, Microsoft IIS(internet information services)

DNS: 8.8.8.8(google’s dns server ip)

DHCP:

NTP:network time protocol, time.msn.com,time.google.com

NFS: (Network file system) for flexible cloud storage solutions

SSL: (Secure Socket layer: works on presentation layer)| (generally used with TLS transport layer security)

Types of linux (based on different kernel)

* Debian based: ex- ubuntu, kali, parrot, linuxmint
* Redhat based: RHCE(redhat commercial enterprise), CentOS : community enterprise OS, Fedora)
* openSUSE
* Arch Linux

File systems of different type:

Primary file system:

Note: logical partitions are the partitions like local disk C, D, E,F

|  |  |
| --- | --- |
| GPT(graphical partition table)  Supports upto 4000 logical partitions on hdd | MBR(master boot record)  Supports only 4 logical partition on hdd |

Secondary file system:

|  |  |
| --- | --- |
| Linux uses: ext4 | Windows uses: FAT(old partition scheme)  FAT32 (max file size around 4 gb), NTFS (can support singleton file sizing 1 tb or more) |

Hypervisor: a software used for virtualizing the given OS or machine.

Types:

* Type 1 (more efficient): installed directly on hardware as Host operating system along with hypervisor capabilities (Microsoft RT, VMWare EsX, Xen)
* Type 2 (less efficient): installed on host operating system as a software which then facilitates virtualization of different operating system as ‘guest OS’, (VMware, oracle virtual box)

Note: cloud computing server uses type 1 virtualization