



4.0 Virtualization and Cloud Computing

4.1 Explain virtualization concepts.

- Purpose of virtual machines
 - Sandbox
 - Test development
 - Application virtualization
 - Legacy software/OS
 - Cross-platform virtualization
- Requirements
 - Security
 - Network
 - Storage
- Desktop virtualization
 - Virtual Desktop Infrastructure (VDI)
- Containers
- Hypervisors
 - Type 1
 - Type 2

4.2 Summarize cloud computing concepts.

- Common cloud models
 - Private cloud
 - Public cloud
 - Hybrid cloud
 - Community cloud
 - Infrastructure as a service (IaaS)
 - Software as a service (SaaS)
 - Platform as a service (PaaS)
- Cloud characteristics
 - Shared resources vs. dedicated resources
 - Metered utilization
 - Ingress/egress
 - Elasticity
 - Availability
 - File synchronization
 - Multitenancy