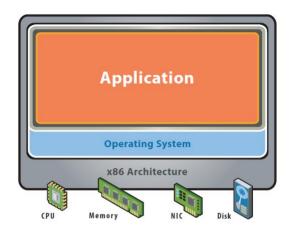
Sri Lanka Institute of Information Technology

Faculty of Computing

Network Design & Management - IT3010

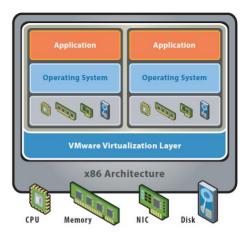
Practical 1 – Lab Report

The term *virtualization* broadly describes the separation of a resource or request for a service from the underlying physical delivery of that service (refer Fig.1). Central to virtualization is the Virtual Machine Manager (VMM), aka Hypervisor. The VMM is responsible for monitoring and enforcing policy on the VMs for which it is responsible. This means that the VMM keeps track of everything that happens inside of a VM. When necessary, it provides resources, redirects the VM to resources, or denies access to resources.



Before Virtualization:

- · Single OS image per machine
- Software and hardware tightly coupled
- Running multiple applications on same machine often creates conflict
- · Underutilized resources
- · Inflexible and costly infrastructure



After Virtualization:

- Hardware-independence of operating system and applications
- Virtual machines can be provisioned to any system
- Can manage OS and application as a single unit by encapsulating them into virtual machines

Figure 1 – Virtualization in a nutshell

Different providers provide different type of virtual network adaptors for specific reasons.

- 1. Get in to groups of three.
- 2. Select three Virtualization providers one for each member.
- 3. Name and briefly describe the type of virtual interface cards provided by each provider.
- 4. Compare and contrast the different type of interface cards of each provider itself.
- 5. Develop a one scenario (practical usage) each for each of the providers of a practical usage of one of the interface cards. (Note: if all the providers have similar interface cards the three scenarios should be of three different type of interface cards)
- 6. Upload your report to the given link