SIT706 Cloud Computing Technologies

Practical 8:

Storage and VMFS

Aims and Objectives

In this week's practical we continue examining how to construct cloud infrastructure, working with the VMware virtualization systems and completing practical tasks aligned with the VMware vSphere ICM 6 certification curriculum. This week we examine the use of two different types of storage protocols, iSCSI and NFS. Both of these are network protocols for communicating storage data over a network. The NFS protocol has been in use on the Internet for many years, first developed by Sun Microsystems in the 1980s with a focus on file sharing and access. The iSCSI protocol was developed in the 2000s, extending SCSI disk access (a high performance alternative to SATA common on server infrastructure) to allow such devices to be accessed over a common network infrastructure and form Storage Area Networks (SANs). Finally, you will learn how to create, remove, expand and extend a VMFS datastore.

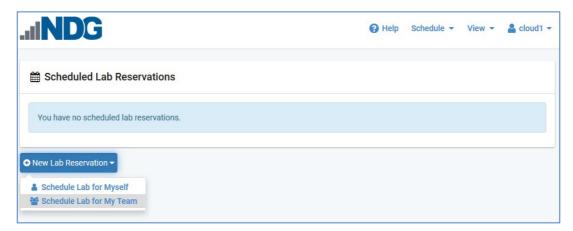
Using NetLab+ VE

In this week's practical, you are required to complete the following two labs:

- Lab 8: Accessing iSCSI Storage;
- Lab 9: Accessing NFS Storage; and
- Lab 10: Managing VMware vSphere.

As in the previous practicals, you will use the School's NetLab infrastructure which can be accessed via https://vmlab.it.deakin.edu.au/

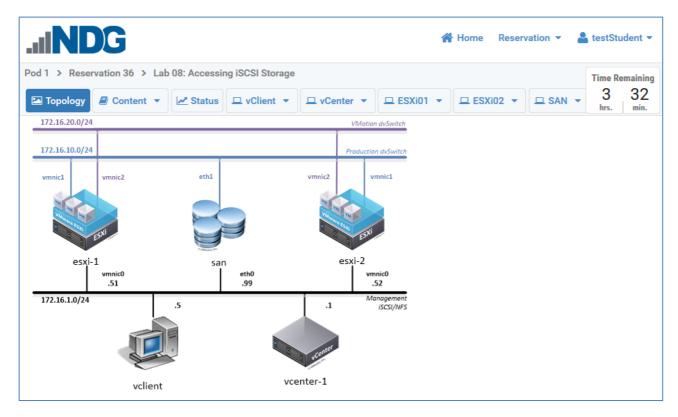
Once you have logged in, book an appropriate Pod and Lab by clicking on the **New Lab Reservation** menu and then the **Schedule Lab for Myself** menu item:



Ensure you have selected the **VMware vSphere ICM 6** topics to view the list of available labs. Using the **Action** menu, click on the **Schedule** menu-item to start a Pod booking for the lab named:

Lab 8: Accessing iSCSI Storage.

After successfully booking this lab, click on the **Enter Lab** button to begin your work. You will now be shown the topology (the virtual machines and networks) associated with this lab:



The instructions for this lab can be found by clicking on the **Content** menu.

NOTE – After step 2.3, you might need to refresh the Storage Adapters to see **iSCSI Software Adapter** in the list.



Once you have completed work all on this Lab, ensure you click on the **Reservation > End Reservation Now** menu-item to free the Pod's resources for others to use.

As above for Lab 8, you should now complete the following lab:

- Lab 9: Accessing NFS Storage; and
- Lab 10: Managing VMware vSphere.