



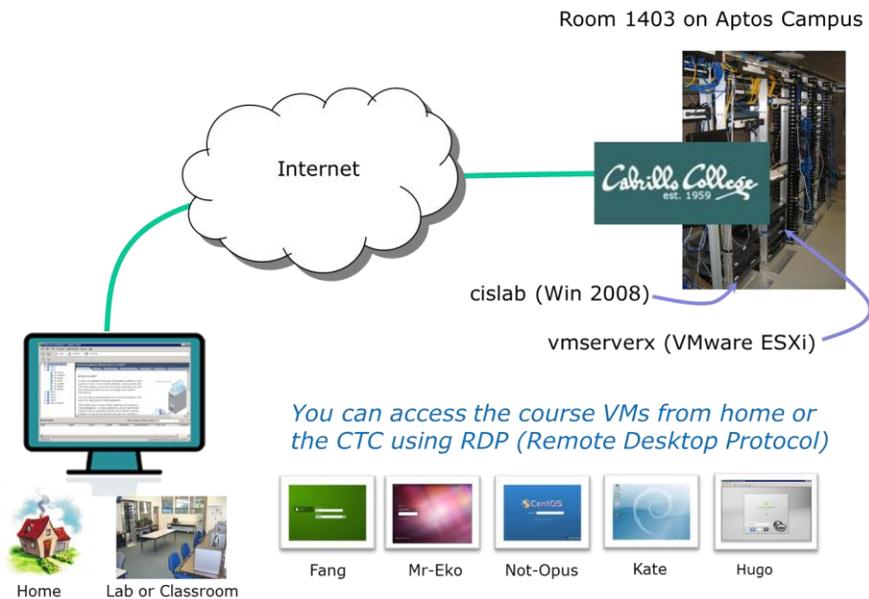
Remote Access to the CIS VLab (305)

This Howto shows to remotely access the pods CIS 90 VMs in the CIS Virtual Lab (VLab). The CIS VLab was developed to remotely provide Distance Education students with the same resources found in the physical CIS Lab on campus. The CIS VLab provides current CIS students with a number of Linux and Windows virtual machines (VMs) that can be accessed remotely for doing lab assignments.

Supplies

- A reasonably fast computer running Windows
 - or a Windows virtual machine on a Mac computer
 - or using the CoRD: Simple RDP Remote Desktop on a Mac (download from <http://cord.sourceforge.net/>)
- A reasonably fast Internet connection

Overview



From home you will use a Remote Desktop Protocol (RDP) file to first connect to the Windows 2008 server named **cislab** on the Aptos campus, from there you will use the VMware vSphere Client and a vCenter server to access the VMs.

The following VMs available for use by CIS 90 students:

VM	Operating System
Fang	Linux (OpenSUSE)
Hugo	Linux (Linux Mint)
Mr-Eko	Linux (Ubuntu)
Kate	Linux (Debian)
Not-Opus	Linux (CentOS)

Each VM is a fully functional computer system that can be powered up, connected to networks, used to complete lab assignments, and then powered down. All VMs are connected to the CIS Lab network.

To meet the needs of multiple students wanting to use VLab at the same time, the VMs have been cloned and placed into virtual pods. Each pod has one Hugo, one Mr-Eko, one Kate and one Not-Opus VM. The VM named Fang has a spreadsheet where students can reserve a pod for their own use.

Step 1 – Connect to VLab using CoRD (Mac)

Mac users will need to download and install CoRD. CoRD works but VMs cannot be moved outside of the CoRD Window as they can in native Windows. Use CoRD to connect to cislabs.cabrillo.edu and specify your credentials: **cislabs\username** and *password*.

Proceed to Step 4 to continue.

Step 2 – Download the RDP file (Windows)

Go to the CIS 192 Calendar page on the course website at <http://simms-teach.com/> and in Lesson 1 locate the link for the "CIS VLab RDP File."

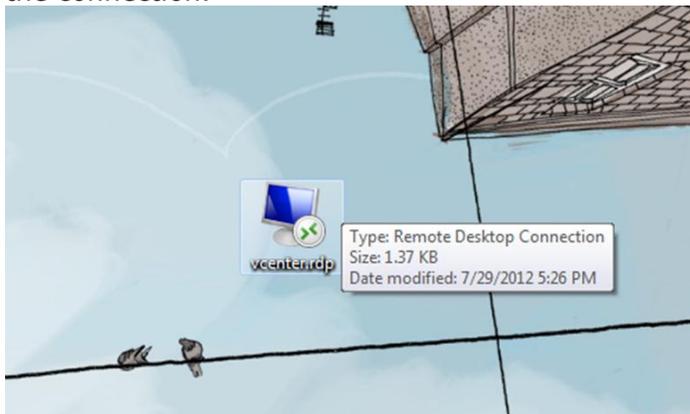
Lesson	Date	Topics	Chapter	Due
1	8/29	<p>Class and Linux Overview</p> <ul style="list-style-type: none"> Understand how this course will work High-level overview of computers, operating systems and virtual machines Overview of UNIX/Linux market and architecture Learn first commands and how to navigate between terminals Use a remote Linux server Use Linux running on a local virtual machine <p>Materials</p> <ul style="list-style-type: none"> Presentation slides (download) Logins Sheet (download) CIS VLab RDP file: (download) <p>Supplemental</p> <ul style="list-style-type: none"> Howto #134: Accessing Opus (download) Howto #135: Accessing Sun-Hwa (download) Howto #304: Accessing VLab (download) <p>Assignment</p> <ul style="list-style-type: none"> Student Survey Lab 1 <p>CCC Confer</p> <ul style="list-style-type: none"> Enter virtual classroom Class archives 	1.1-1.15 (Gillay)	2,4,5, p113-115, p164-172 (Hahn)

Download this file to your computer to your Desktop or some other location that you can easily find it again.

You only need to download this RDP file once. It can be used over and over whenever you want to connect to VLab.

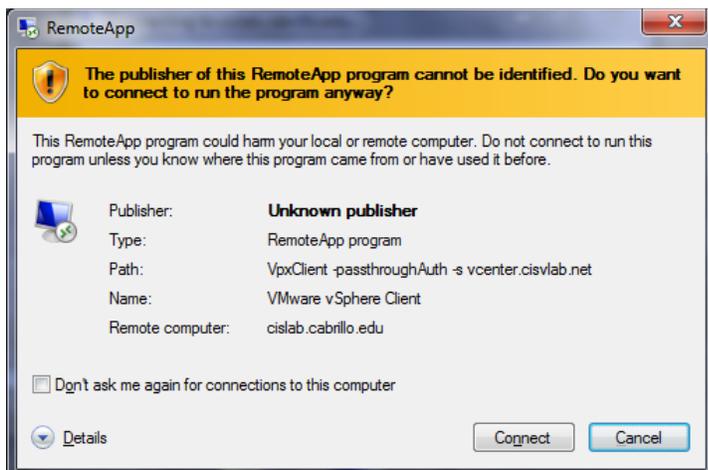
Step 3 - Connect to VLab using the RDP file (Windows)

Locate the new RDP file on your Desktop and double click, or Right-Click > Connect, to start the connection.



The downloaded RDP file shown on the Desktop.

You may see this warning:



Go ahead and Click on Connect button

When prompted for credentials, select "Use another account" and type **cislab\username** in the first field. Type your *password* into the second field.



Click OK to continue

You may get this warning:



Click Yes to continue

The connection process will automatically start up the vSphere Client using your VLab credentials:



Just be patient as this can take a few seconds ...

You may get this warning:

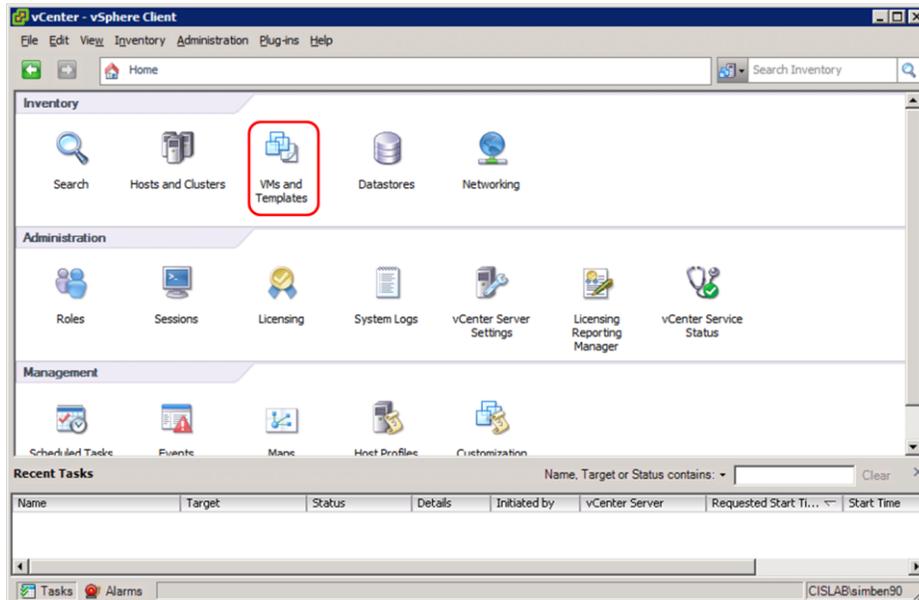


Click Ignore to continue

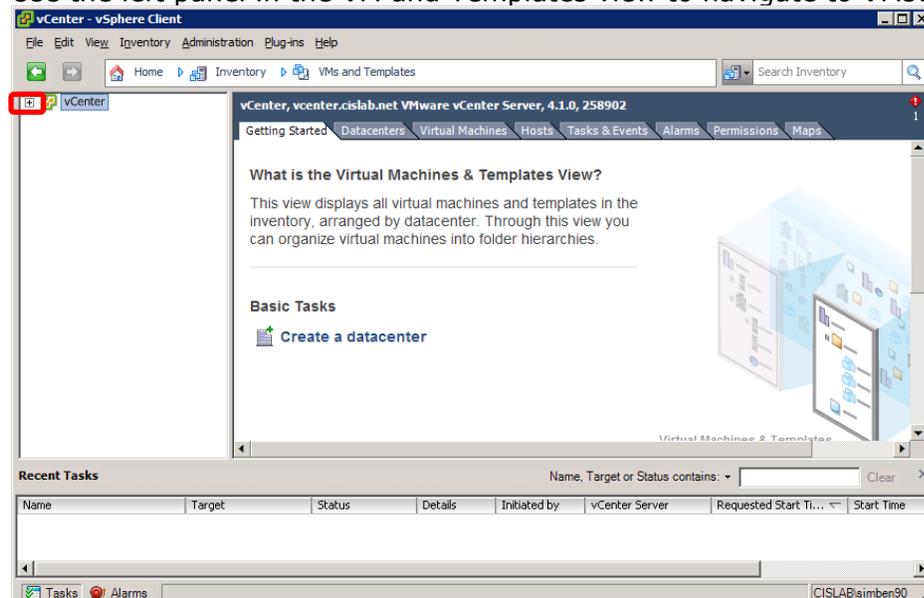
Step 4 – Navigate the VLab CIS 90 Pods and VMs

After the connection is complete you will have successfully logged into VLab! At this point you will be running the vSphere Client and attached to the vCenter server:

Click the VMs and Templates icon to continue.

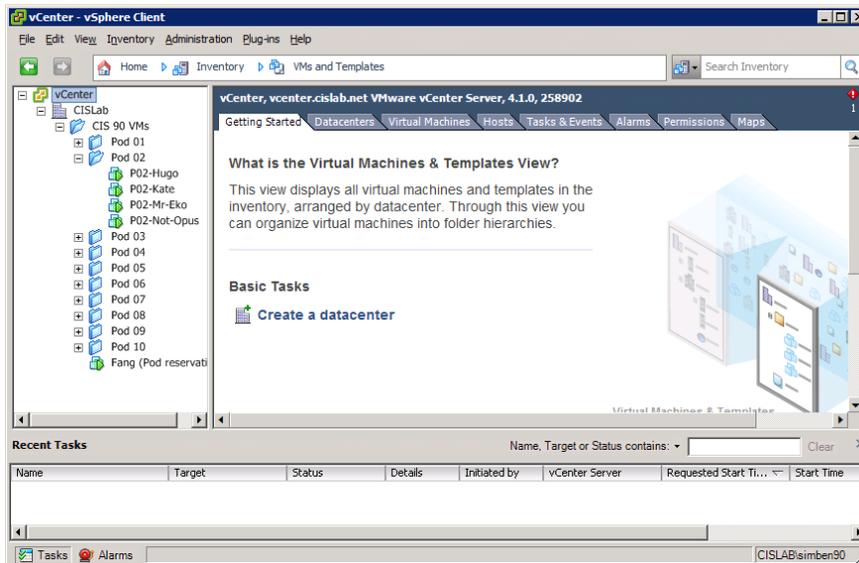


Use the left panel in the VM and Templates view to navigate to VMs:



Click the small "x" as necessary to open vCenter VM folders

Browse pods by clicking the "+" and "-" as to navigate the various CIS 90 VMs:



Pod 02 folder open

IMPORTANT
Don't use any VMs without
reserving them first on Fang
(see next step)

Step 5 – Reserve VMs

VLab VMs can be used by more than one student at a time. This is great when working as a team but can become chaotic when two or more people are unintentionally using the same VM at the same time!

Please use the Fang VM to reserve VM's for exclusive use. Fang does not enforce the reservations but it can be used as a collaboration tool by students so they don't step on each other.

Reserve a VM or a whole pod using the spreadsheet on Fang. Put your initials into the spreadsheet cells to reserve VMs in a pod for a specific period of time Note, only one person can do this at a time!

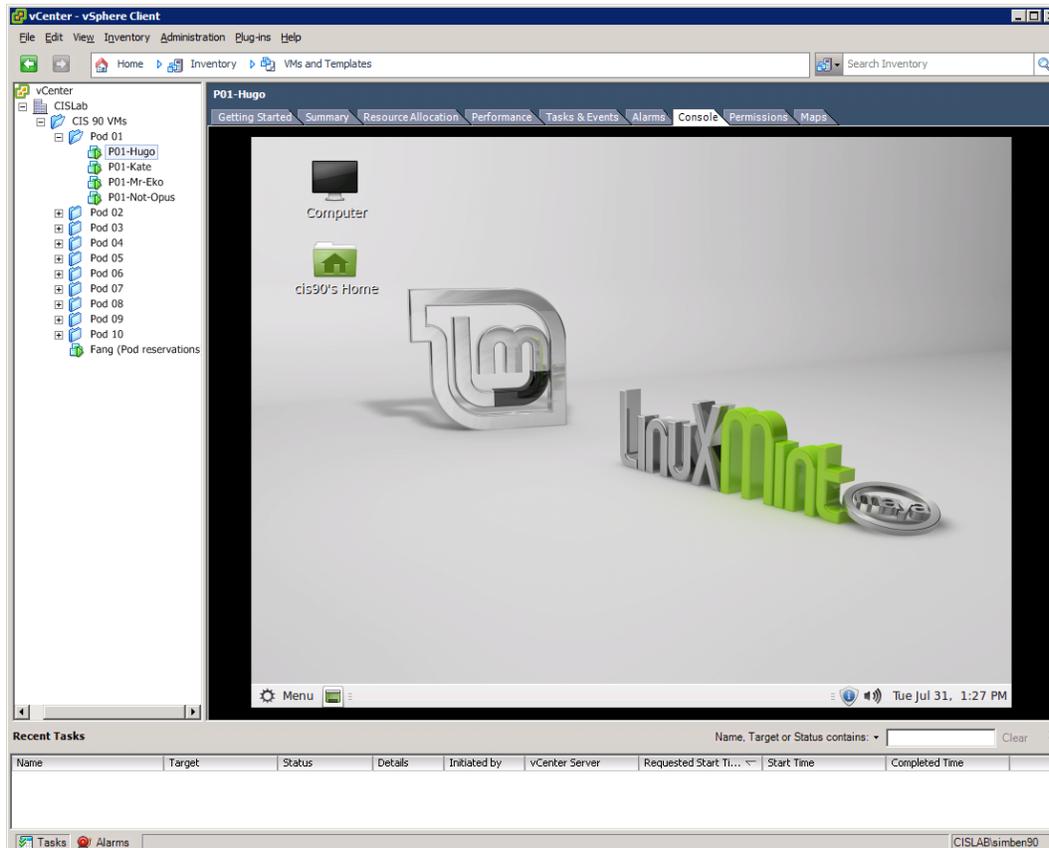
The screenshot shows the vCenter Client interface with a spreadsheet open. The spreadsheet is titled "Fall-2012-Pod-Reservations-cis90.ods" and is open in LibreOffice Calc. The spreadsheet has columns for "Hugo", "Kate", "Mr. Bo", and "Not Opus" under three "POD" headers. The rows represent time slots from 12 AM to 6 AM. A red box highlights the cell for "Hugo" at 2 PM, containing the initials "RJS". Another red box highlights the "Fang (Pod reservations)" folder in the vCenter inventory tree. The "Console" tab is also highlighted in the vCenter interface.

	POD 1				POD 2				POD 3				Hugo	
	Hugo	Kate	Mr. Bo	Not Opus	Hugo	Kate	Mr. Bo	Not Opus	Hugo	Kate	Mr. Bo	Not Opus		
12 AM														
1 AM														
2 AM														
3 AM														
4 AM														
5 AM														
6 AM														
7 AM														
8 AM														
9 AM														
10 AM														
11 AM														
12 PM														
1 PM														
2 PM	RJS	RJS												
3 PM														
4 PM														
5 PM														
6 PM														
7 PM														
8 PM														
9 PM														
10 PM														
11 PM														
12 AM														
1 AM														
2 AM														
3 AM														
4 AM														
5 AM														
6 AM														

Rich has reserved Hugo and Kate VM from 2-3PM on 8/27/2012

Step 6 – Use the VMs

Feel free to use any VMs you have reserved. If the VM is powered off you can power it back on again by right clicking on the name and selecting Power > Power On.



The Hugo VM in Pod 01

Some tips for using VMs:

- Use the username: cis90 to log into the pods VMs.
- Hold down the Ctrl and Alt keys to release the mouse from a VM.
- While holding down the Ctrl, Windows and Alt keys tap the space bar, then F1-F7 to select a virtual terminal (tty1 to tty7).

Step 7 – Disconnect from VLab

To disconnect, use File > Exit or just click the upper-right "X" to close the VMware vSphere Client. You will then be disconnected from VLab. VMs that you did not shutdown will continue to run.

Demonstration

Watch this video to see how to access VLab:
<http://www.youtube.com/watch?v=2geF2uNjuFw>