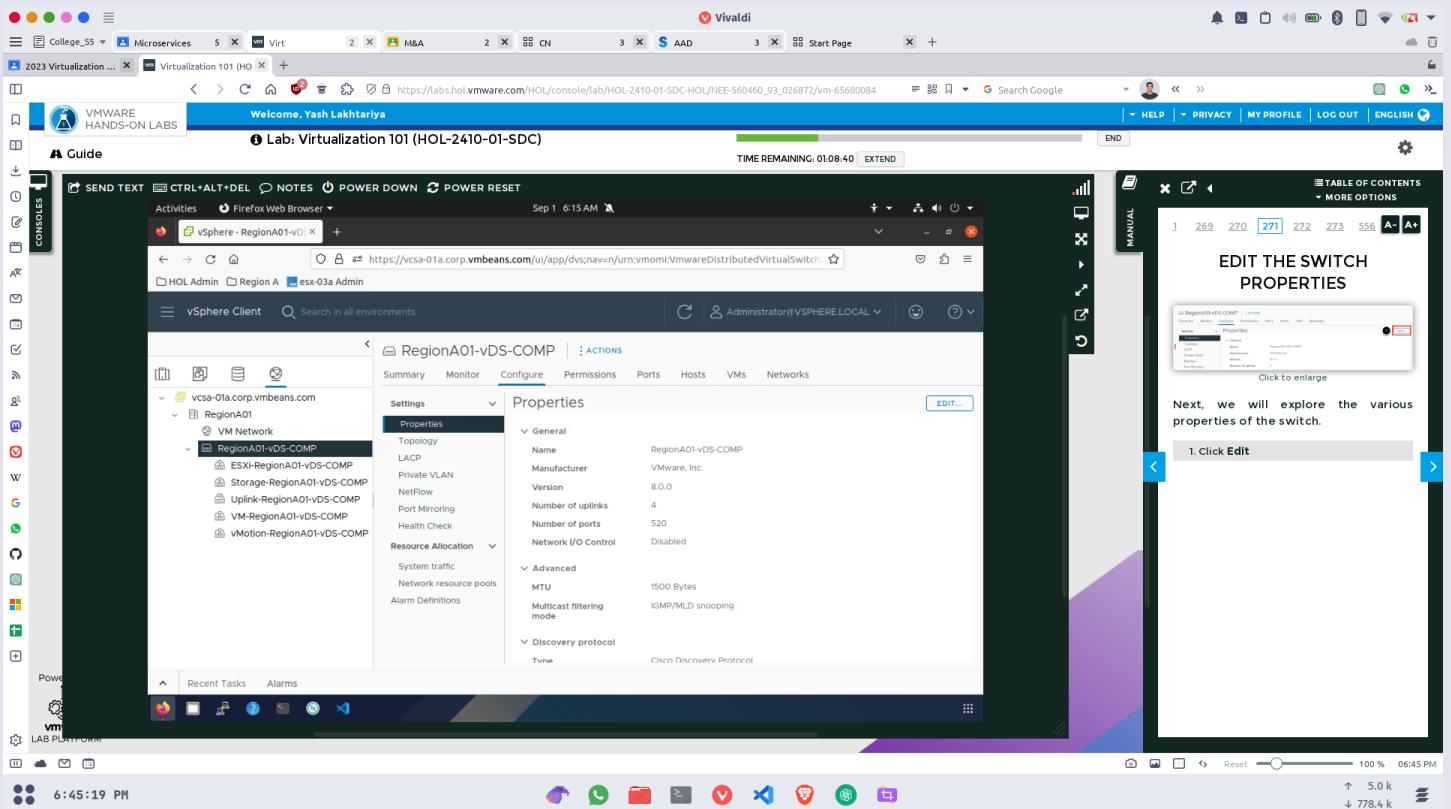


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Practical 3: Addition and configuration of vSphere distributed switch

1. Distributed switches' properties can be explored and edited by right clicking the Region.



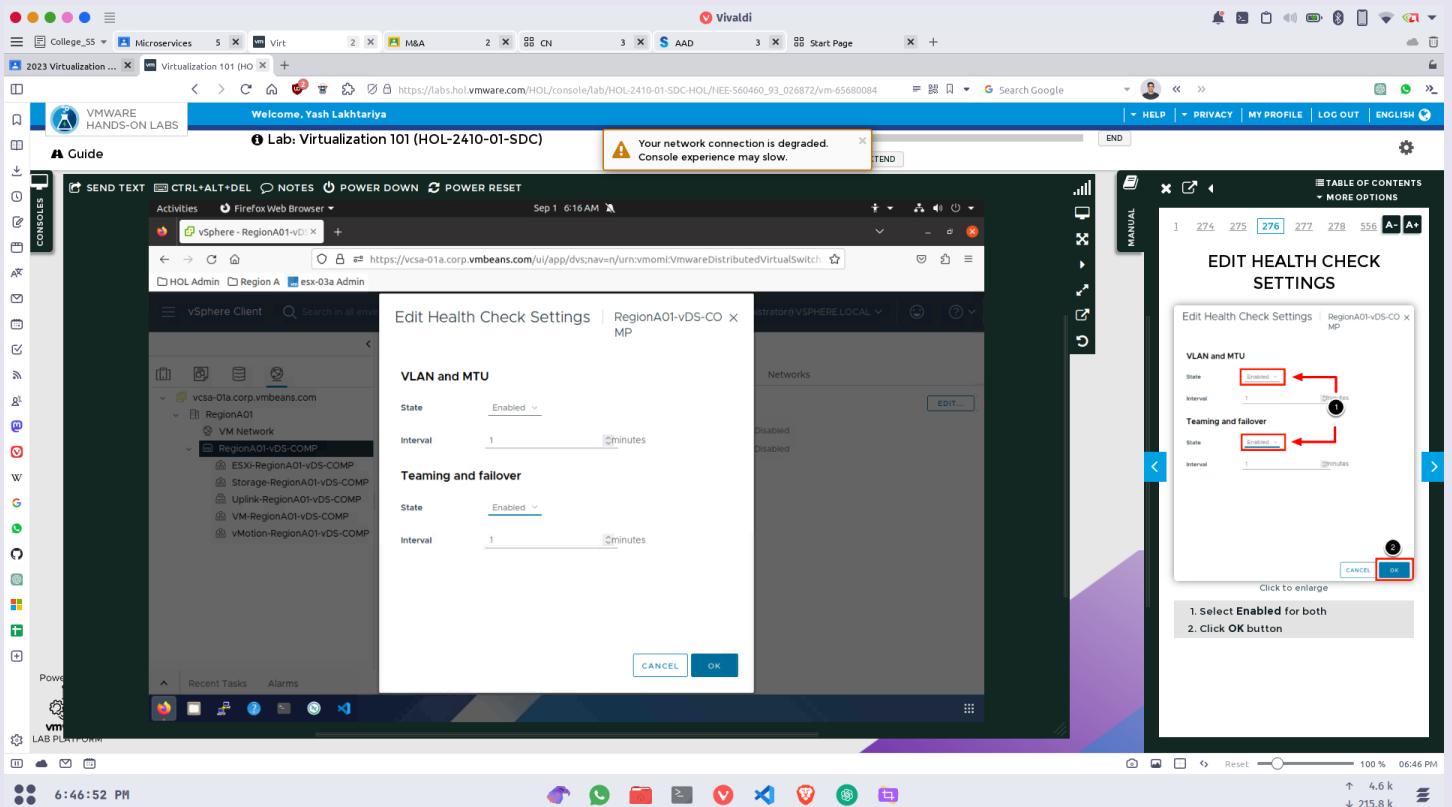
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2. Health check options can be found in *Configure* tab.

The screenshot shows the vSphere Client interface within a browser window. The main pane displays the configuration for a 'RegionA01-vDS-COMP' distributed switch. On the left, a tree view shows the network structure under 'vcsa-01a.corp.vmbeans.com' and 'RegionA01'. The 'Configure' tab is selected in the top navigation bar. In the center, the 'Health Check' section is open, showing two items: 'VLAN and MTU' and 'Teaming and failover', both of which are currently 'Disabled'. A tooltip message at the top right of the central pane states: 'Your network connection is degraded. Console experience may slow.' To the right of the main pane, there is a sidebar with a table of contents and a detailed explanation of the 'ENABLE OR DISABLE VS SPHERE DISTRIBUTED SWITCH HEALTH CHECK IN THE VS SPHERE CLIENT'. It includes a screenshot of the configuration screen and instructions: 'Click to enlarge' and 'The Distributed Switch Health Check monitors for changes in vsphere Distributed Switch configurations. You must enable vSphere Distributed Switch Health Check to perform checks on Distributed Switch configurations.' Below this, a note says 'Health Check is available on ESXi 5.1 Distributed Switches and higher.' and a callout box says '1. Click on the Health check tab for Distributed Switch'. At the bottom of the sidebar, it says 'We can see that Health check is disabled for VLAN and MTU as well as Teaming and failover.'

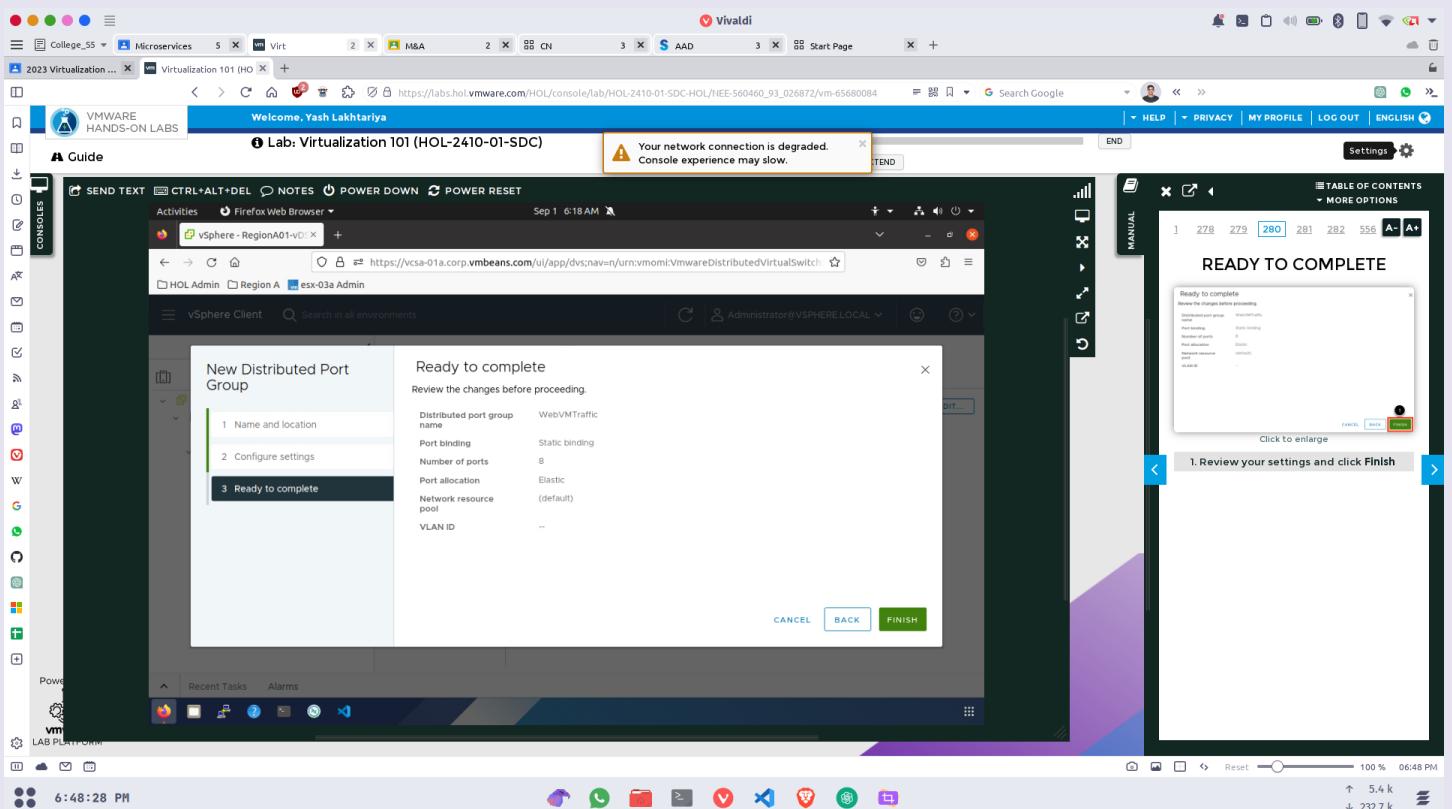
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3. Edit those options and enable health checks for both VLAN and MTU, and Testing and Failover.



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4. Create a new distributed port group with the following configurations.



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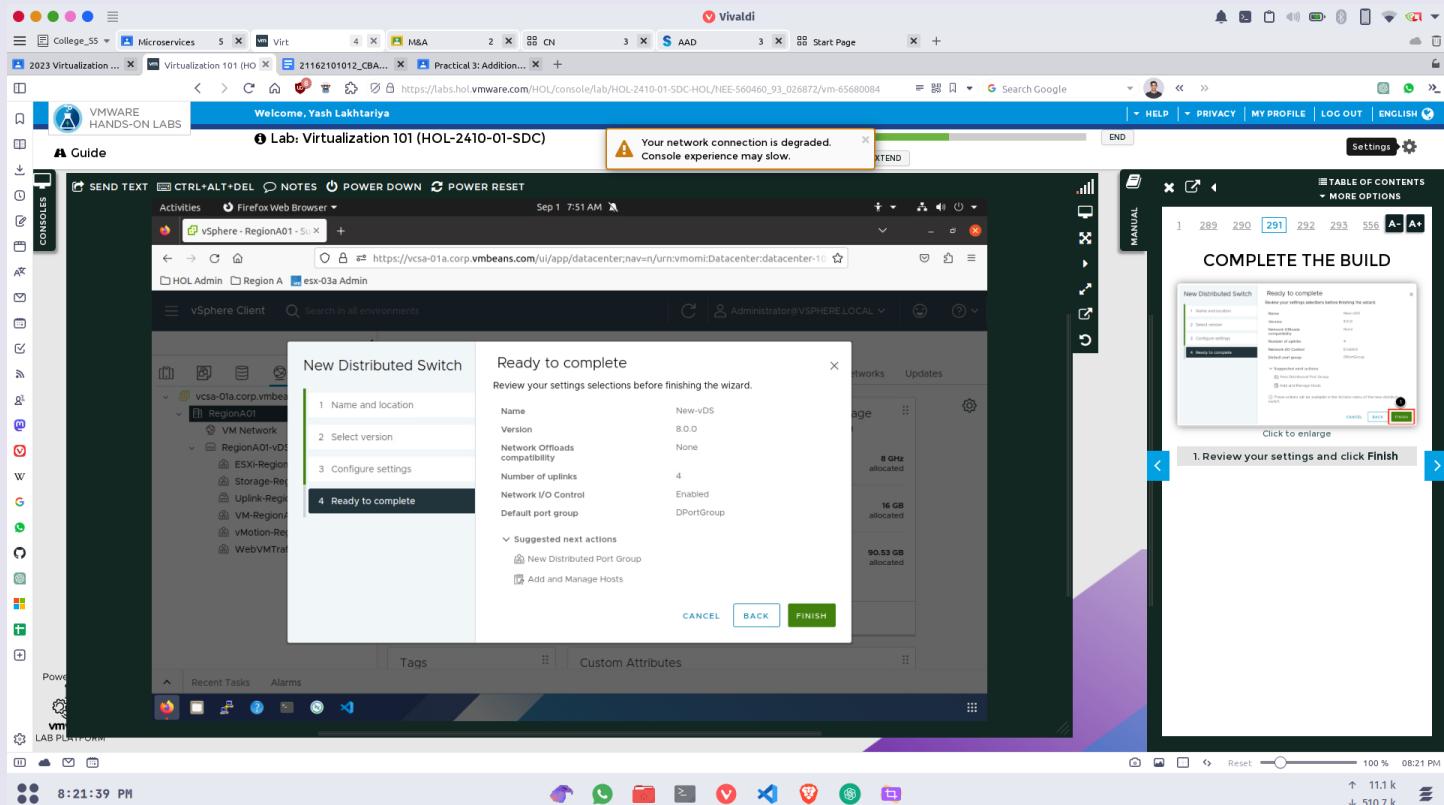
5. Topology configurations can be viewed and edited in the Topology tab.

The screenshot shows the VMware vSphere Client interface. On the left, the navigation pane displays a tree structure of vSphere objects, including 'RegionA01' under 'VM Network'. In the center, the main pane shows the 'RegionA01-vDS-COMP' settings page with the 'Topology' tab selected. The topology diagram illustrates the network connections between VMs, storage, and uplinks. A tooltip on the right provides step-by-step instructions for modifying the topology:

1. Click on RegionA01-vDS-COMP
2. Select Configure
3. Click on Topology
4. On the left side of the diagram you will see the ports groups associated with the distributed switch RegionA01-vDS-COMP. These port groups are how the virtual machines and kernel ports are connected to the vDS. Note how there are VMkernel ports for Management, Storage and VMotion. This is very similar to a Standard vSwitch, except that these are defined and configured in one central location instead of individually at each host.
5. On the right you will see the uplinks associated with this vDS. These are used to connect the vDS directly to the physical NICs on the hosts that are tied to this distributed vswitch.

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6. Create a new distributed switch with the following configurations.



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7. Add hosts in the newly created distributed switch. Select all hosts.

New-vDS - Add and Manage Hosts

Select hosts

Select hosts to add to this distributed switch.

All hosts Selected (2)

SELECT ALL CLEAR SELECTION

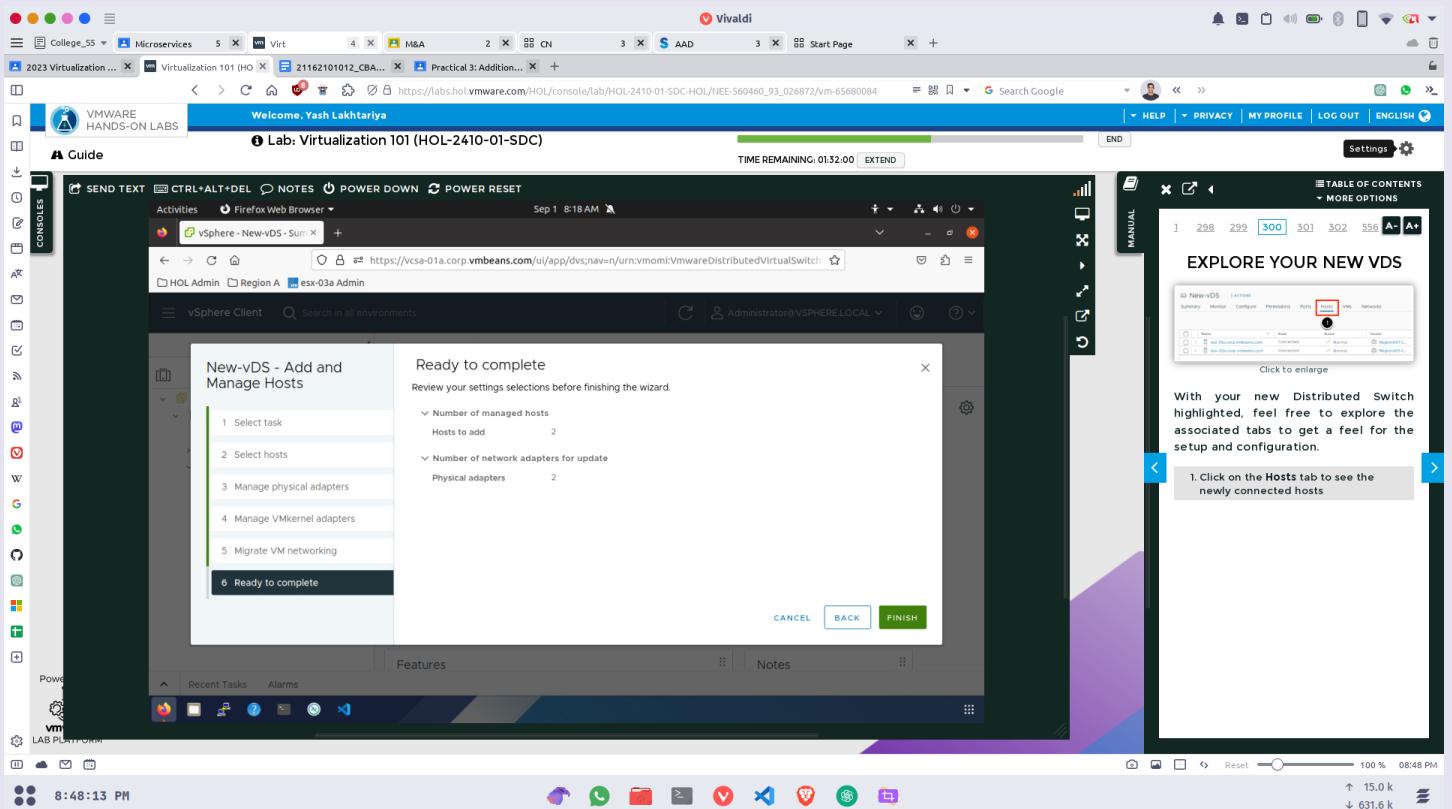
Host	Host state	Cluster	Compatibility
esx-Ola.corp.vmbeans.com	Connected	RegionA01-COMP01	Compatible
esx-O2a.corp.vmbeans.com	Connected	RegionA01-COMP01	Compatible

CANCEL BACK NEXT

1. Click the check box on the left to select both hosts in the datacenter
2. Click OK

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8. Confirm adding hosts with following configurations.



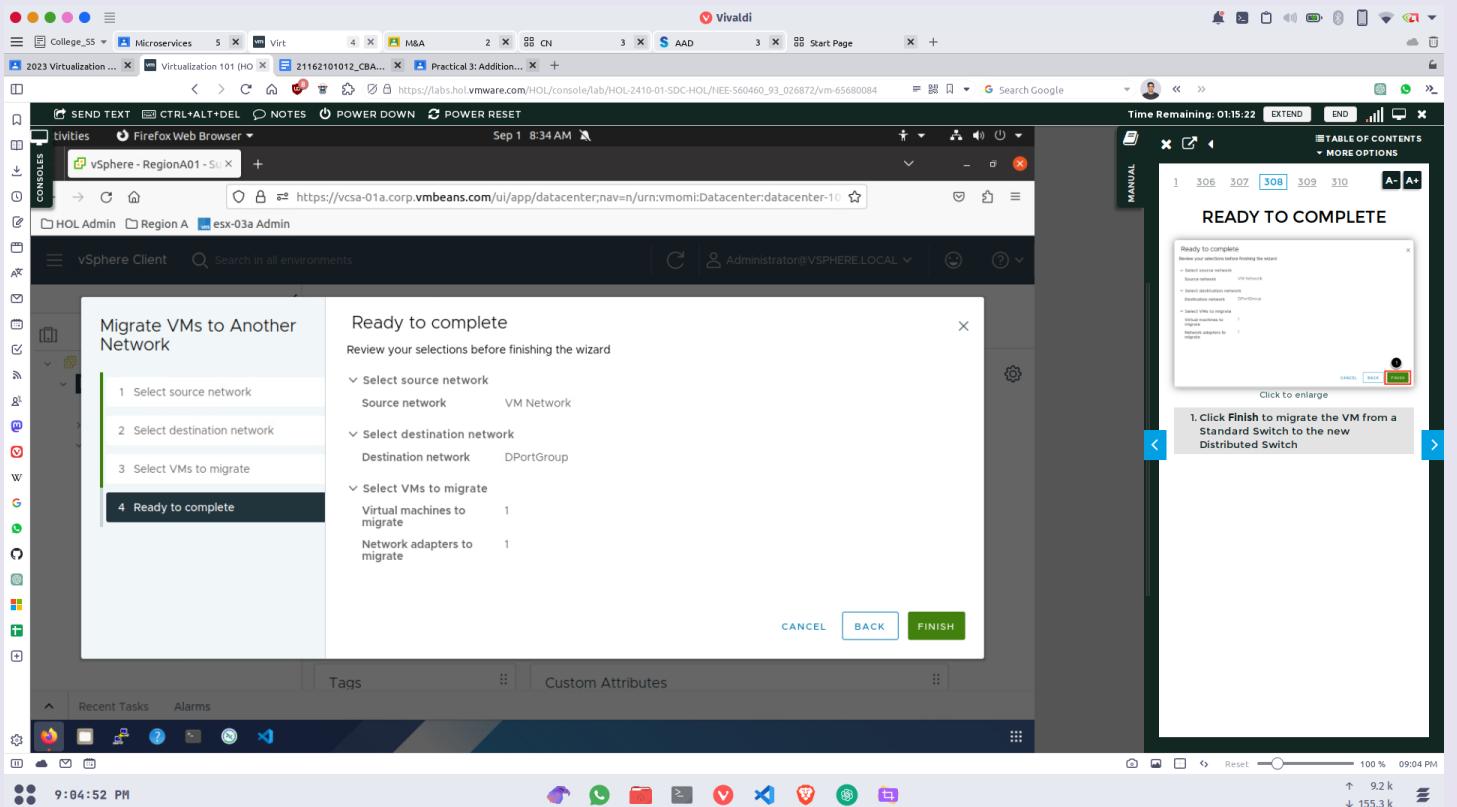
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9. As seen, there are no virtual machines.

The screenshot shows the vSphere Client interface. On the left, the navigation pane displays a tree structure of network resources under 'vcsa-Ola.corp.vmbeans.com'. A 'New-vDS' entry is selected. The main workspace shows the 'Topology' tab of the 'New-vDS' settings. It features a diagram where a 'DPortGroup' is connected to four 'Uplink' ports. The 'Uplink' section lists 'Uplink 1 (2 NIC Adapters)', 'Uplink 2 (0 NIC Adapters)', 'Uplink 3 (0 NIC Adapters)', and 'Uplink 4 (0 NIC Adapters)'. To the right of the workspace is a vertical panel titled 'MIGRATING VMS FROM VSS TO VDS', which contains a brief description of the task and a link to 'MORE OPTIONS'.

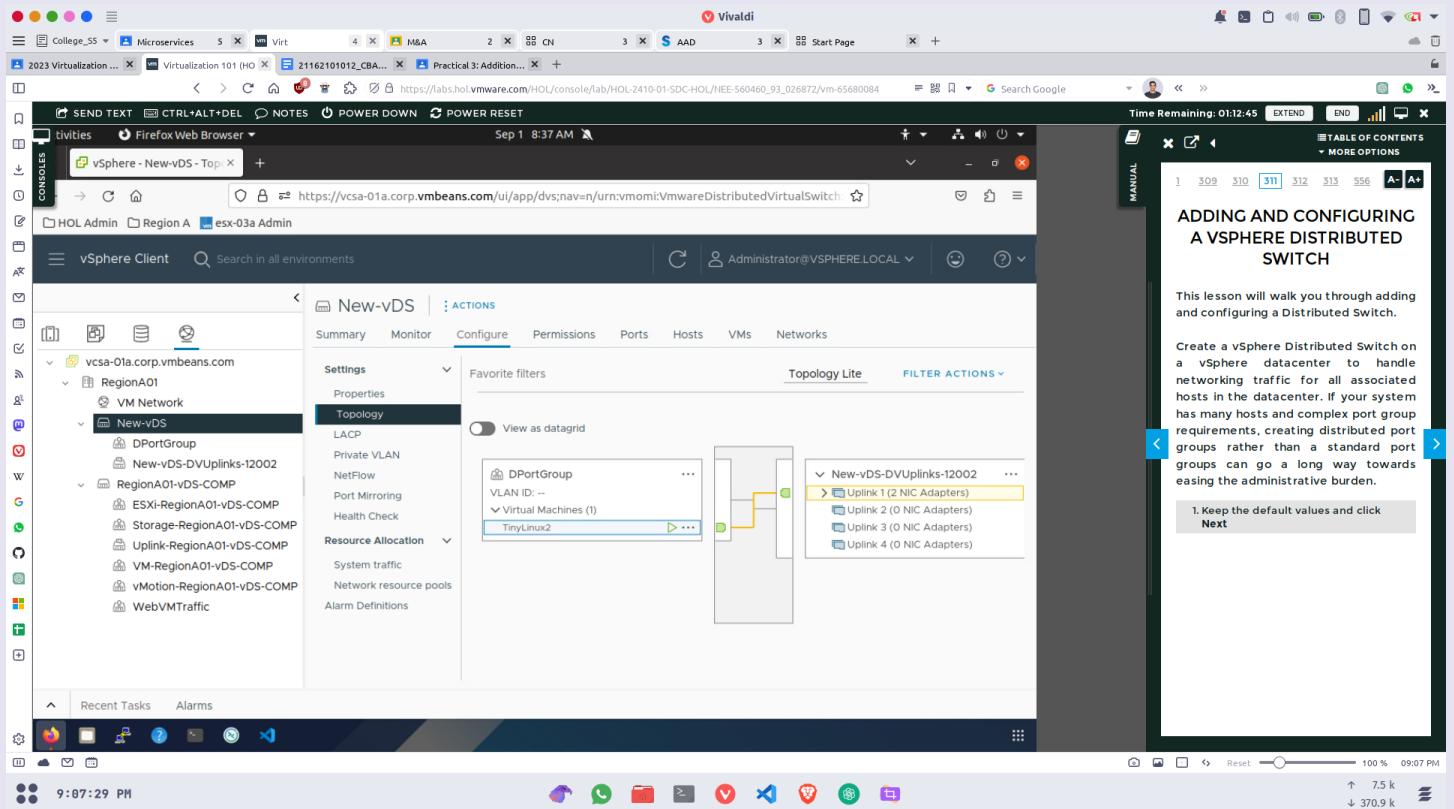
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10. Migrate virtual machine from VM Network to DPort group, in which our new distributed switch is there.



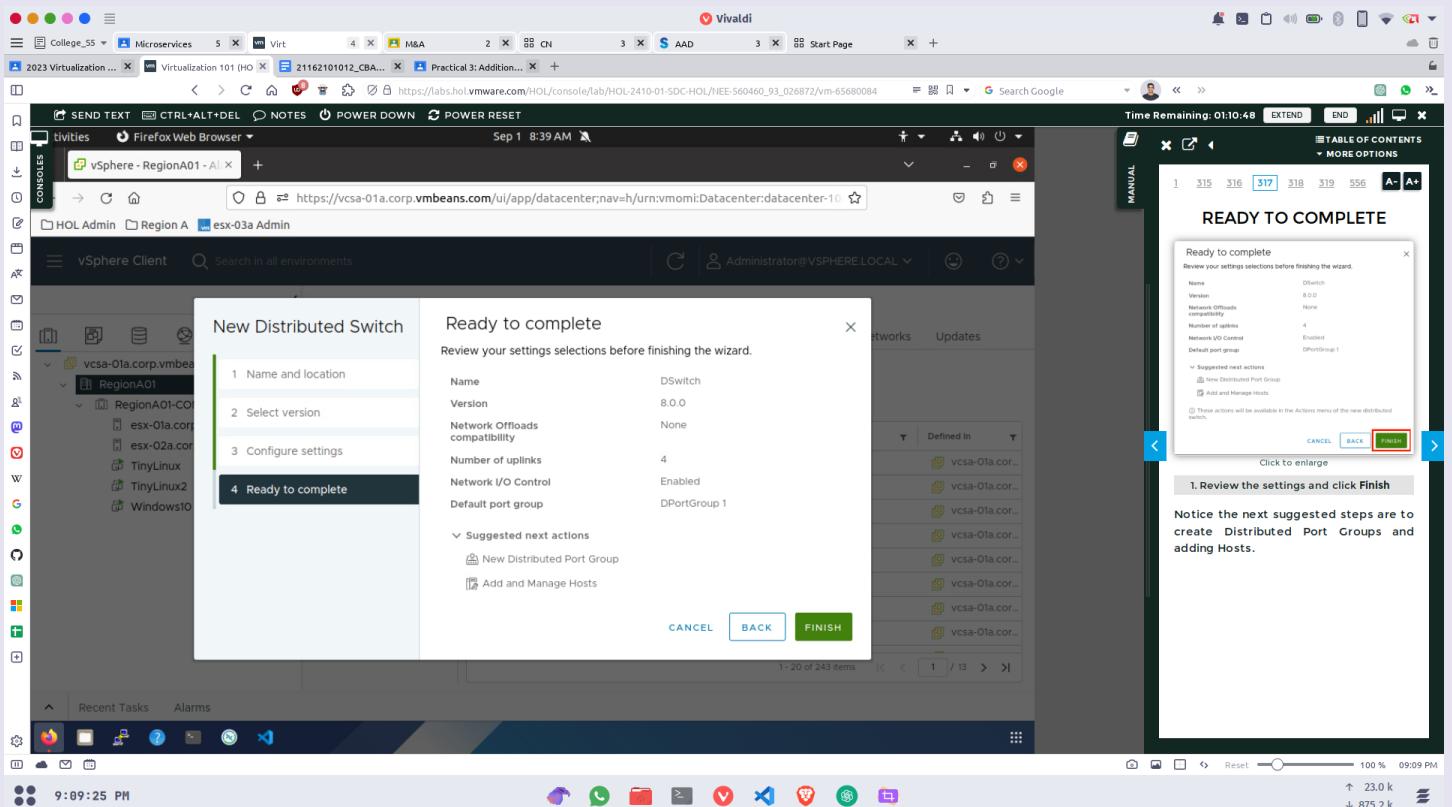
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11. Now, as seen, our VM is migrated.



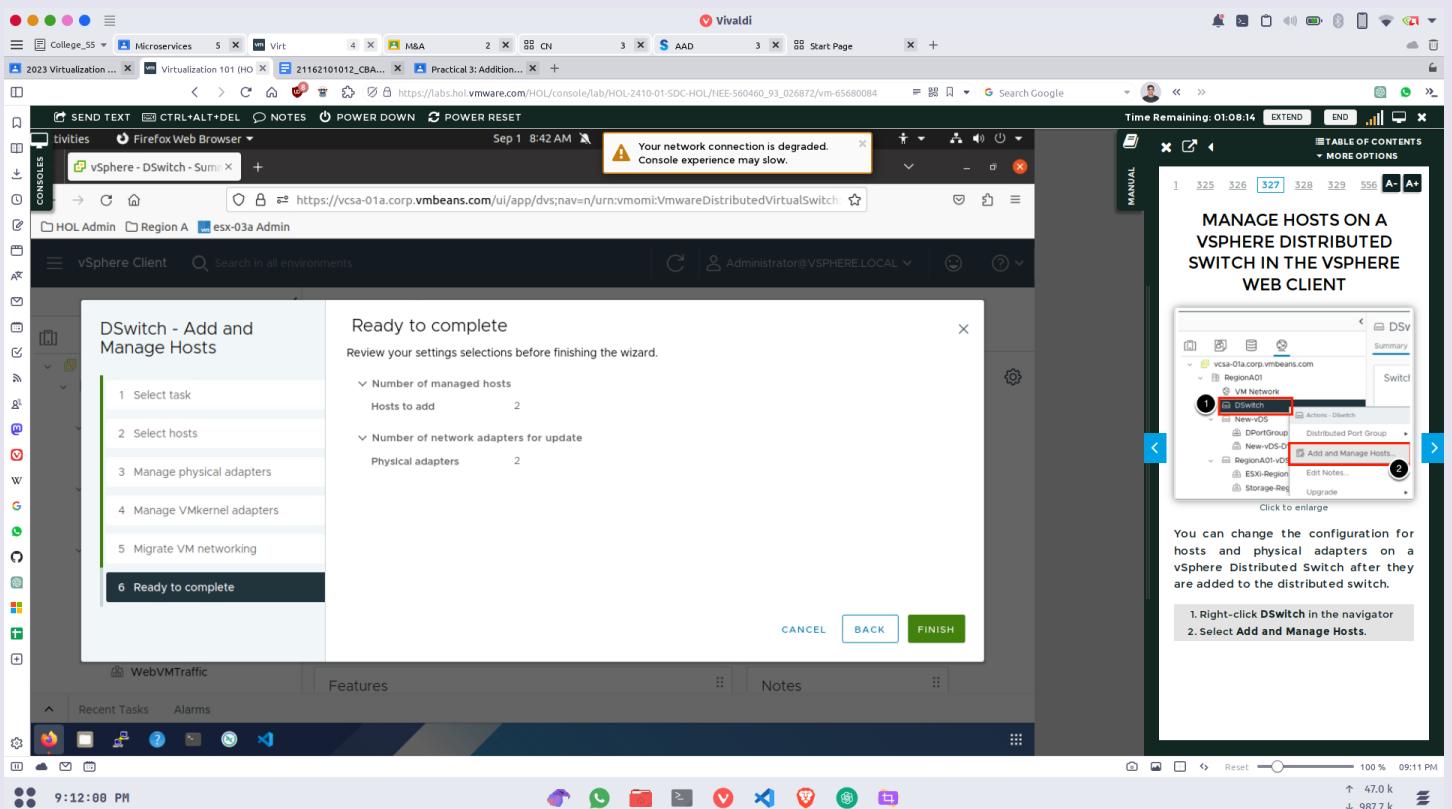
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12. Now, create a new distributed switch with given configurations.



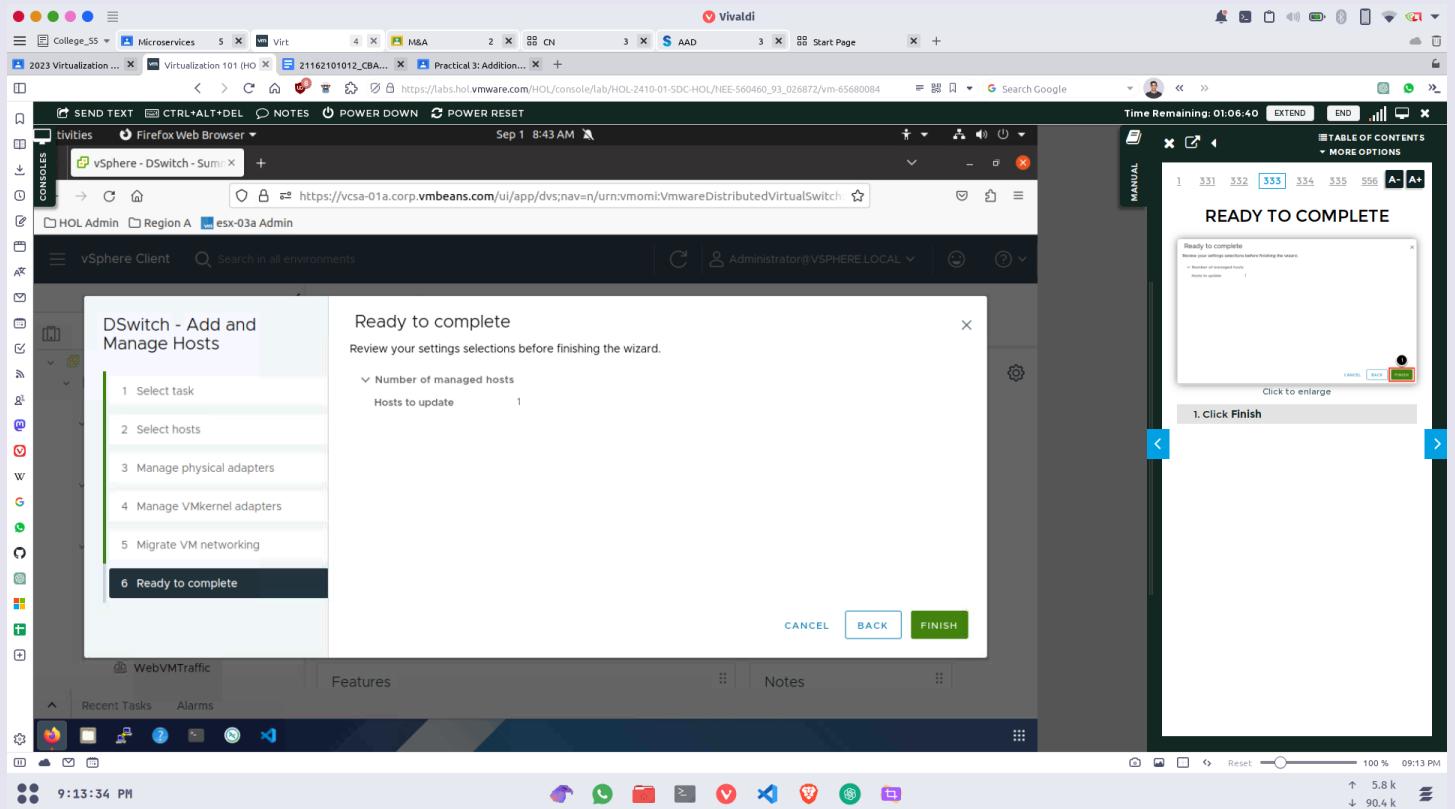
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13. Again, add all hosts to it similar to previous switch.



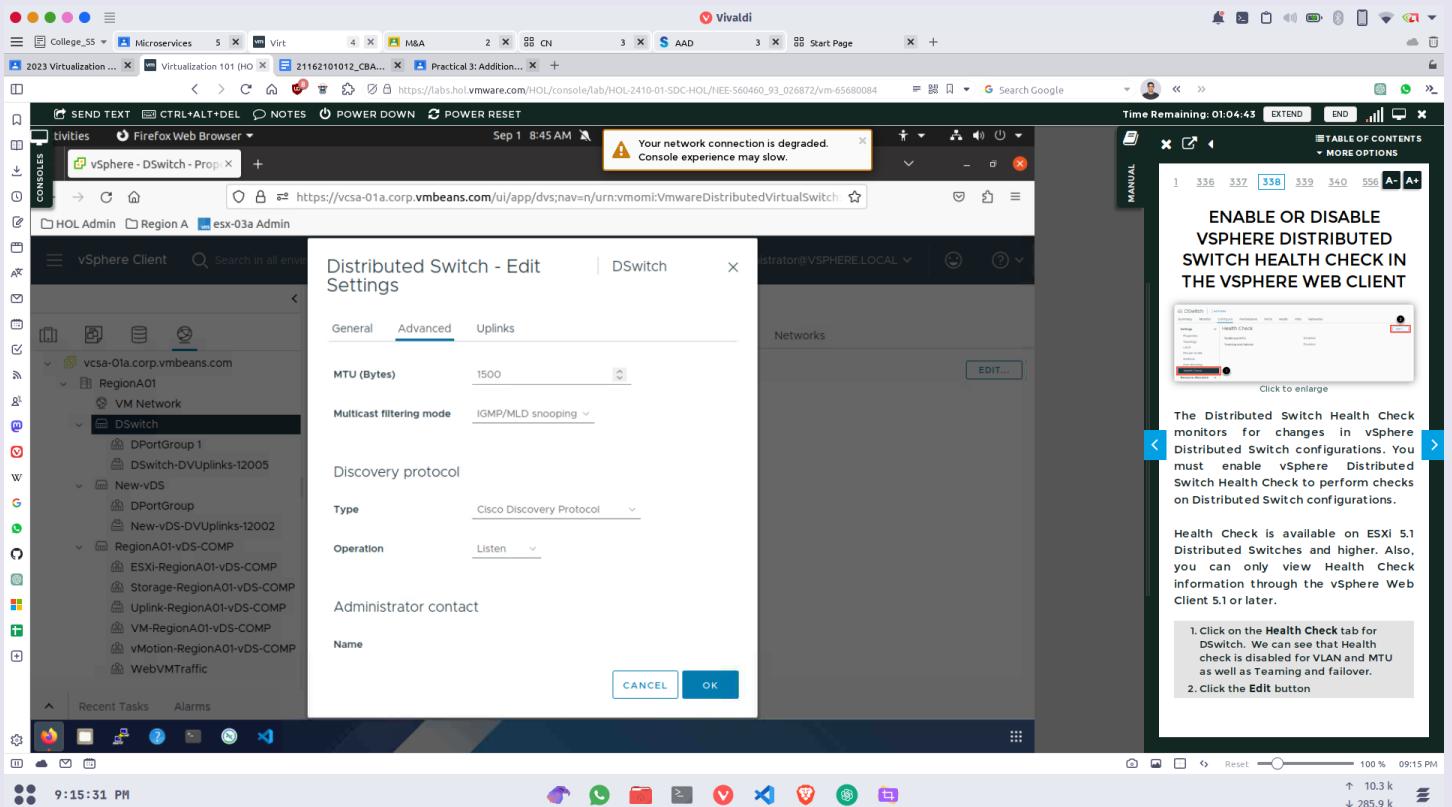
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14. Manage host networking and select hosts of 01 numbered option.



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15. The advanced settings of the distributed switches can be found in edit properties tab.



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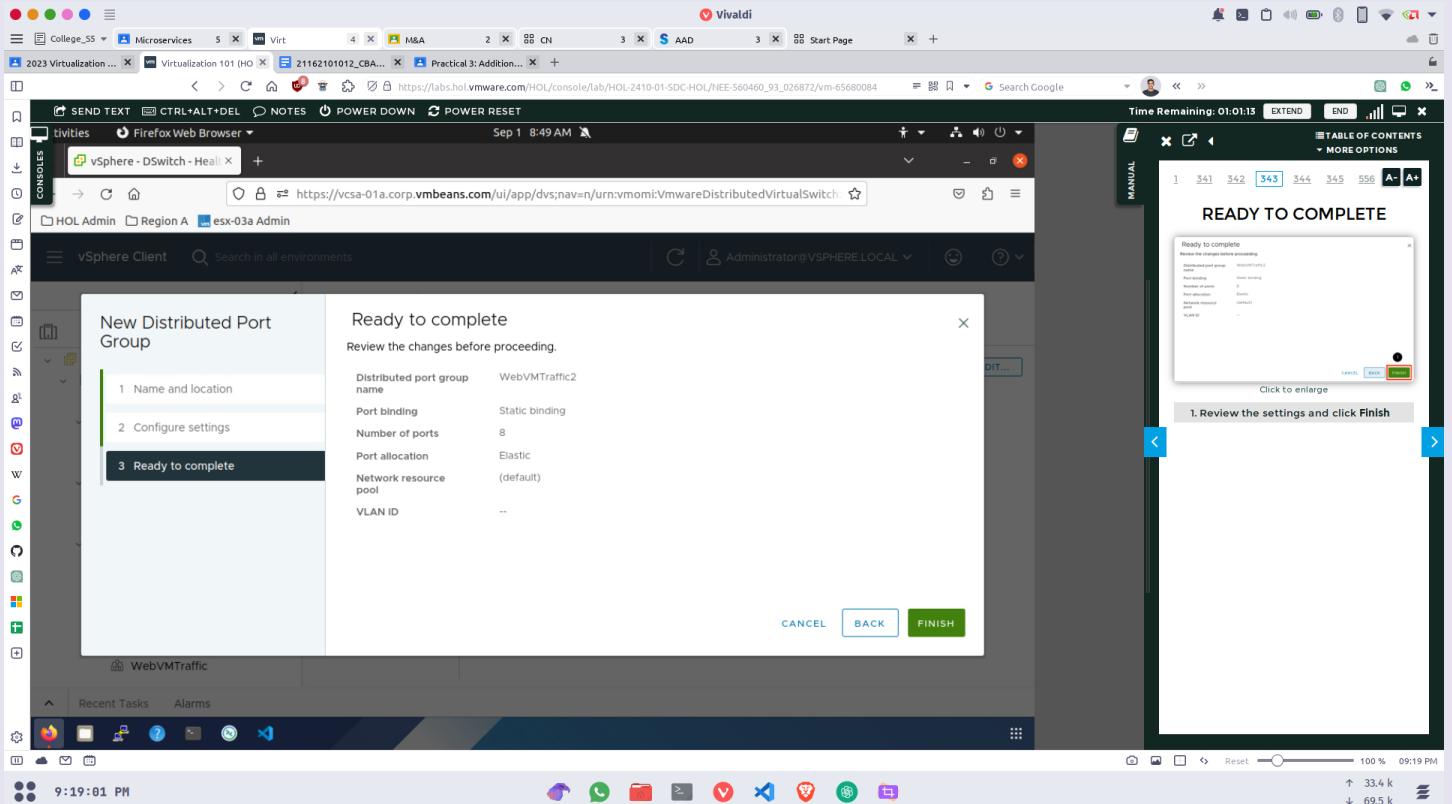
16. Similarly like previous steps, enable health check for the new switch also.

The screenshot shows the vSphere Client interface with the 'vSphere Client' tab selected. In the left navigation pane, under 'vSphere Client', there is a tree view showing various network components: 'vcsa-Ola.corp.vmbeans.com', 'RegionA01', 'DSwitch', 'New-vDS', and 'RegionA01-vDS-COMP'. The 'DSwitch' node is expanded, showing 'DPortGroup 1' and 'Dswitch-DVUplinks-12005'. The 'New-vDS' node is expanded, showing 'DPortGroup' and 'New-vDS-DVUplinks-12002'. The 'RegionA01-vDS-COMP' node is expanded, showing 'ESXi-RegionA01-vDS-COMP', 'Storage-RegionA01-vDS-COMP', 'Uplink-RegionA01-vDS-COMP', 'VM-RegionA01-vDS-COMP', 'VMotion-RegionA01-vDS-COMP', and 'WebVMTraffic'. On the right, the main panel displays the 'DSwitch' configuration page. Under the 'Settings' section, the 'Health Check' tab is selected. It shows 'VLAN and MTU' and 'Teaming and failover' both set to 'Enabled'. Below this, under 'Resource Allocation', there are sections for 'System traffic' and 'Network resource pools', and 'Alarm Definitions'. A tooltip on the right side of the screen provides instructions for creating a new distributed port group:

1. Right-click the DSwitch in the navigator
2. Select Distributed Port Group and then click New Distributed Port Group

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17. Create a new port group for the distributed switch with following configurations.



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18. As seen in the screenshot below, distributed group's properties can be seen and edited.

The screenshot shows a Vivaldi browser window with multiple tabs. The main tab displays the vSphere Client interface, specifically the 'Configure' tab for a 'WebVMTraffic2' distributed port group. The 'Properties' section is open, showing settings like Name (WebVMTraffic2), Port binding (Static binding), and Number of ports (8). Other sections include Policies, Traffic filtering and marking, Alarm Definitions, Advanced, and Override port policies. A blue box highlights the 'WebVMTraffic2' entry in the tree view. To the right of the client, a separate window is open to a VMware-hosted article titled 'USING HOST LOCKDOWN MODE'. The article discusses how to increase security by enabling lockdown mode on ESXi hosts, noting that it prevents unauthorized users from performing operations directly against the host. It also mentions that lockdown mode is available on ESXi hosts added to vCenter Server and can be enabled via the Add Host wizard. The article includes a table of contents and a sidebar with navigation links.