Vmware 6.7 documentation pdf

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This topic explains how to prepare your environment before you deploy a management cluster to vSphere. You must: Download and import the OVF image and covert it to a template. Create a ssh key pair to Tanzu Installer. Before you begin ¶ Ensure the Tanzu CLI is installed locally on the bootstrap machine. See Install the Tanzu CLI. Review the vSphere account reference information here: Reference for vSphere account Ensure that vSphere e.7u3 or later, VMware Cloud on AWS, or Azure VMware Solution account One of the following general requirements: vSphere e.7u3 or later, vSphere account Ensure that vSphere meets the following general requirements: vSphere e.7u3 or later, vSphere e. Standard, vCenter Essentials, vSphere Essentials, or vSphere Essentials Plus If you are deploying to a vSphere cluster, ideally the cluster is composed of two or more hosts Optionally, a resource pool in which to deploy the Tanzu Community Edition VMs A datastore with sufficient capacity for the control plane and worker node VM files If you intend to deploy multiple Tanzu Community Edition instances to the same vSphere instance, create a dedicated resource pool, VM folder, and network for each instance that you deploy. A network with:NOTE: To make DHCP-assigned IP addresses static, after you deploy the cluster, configure a DHCP reservation with enough IPs for each control plane and worker node in the cluster. If your vSphere environment runs NSX-T Data Center, you can use the NSX-T Data Center interfaces when you deploy management clusters. Make sure that NTP is configured on all ESXi hosts, on vCenter Server, and on the bootstrap machine. You will need a VMware Customer Connect account to download the OVAs, register here. Procedure Townload the OVAs, register here. Procedure the OVA, register here. For details of the supported Kubernetes Node OS for vSphere, see the Support Matrix.Complete the following steps to deploy OVF template.Select Local file, click the button to upload files, and navigate to the downloaded OVA file on your local machine. Follow the installer prompts to deploy a VM from the OVA: Accept or modify the appliance nameSelect the destination datacenter or folderSelect the destination datastoreSelect the network for the VM to connect to Click Finish to deploy the VM. When the OVA deployment finishes, right-click the VM and select Template. Complete the following steps to create an SSH Key Pair: On the bootstrap machine on which you will run the Tanzu CLI, run the following ssh-keygen command:ssh-keygen -t rsa -b 4096 -C "email@example.com" At the prompt Enter file in which to save the key (/root/.ssh/id rsa): press Enter to accept the default.Enter and repeat a password for the key pair.Add the private key to the SSH agent running on your machine, and enter the password you created in the previous step:Open the file .ssh/id rsa.pub in a text editor so that you can easily copy and paste it when you deploy a management cluster. For information about how to install OpenSSH. MyLibrary Apache CloudStack If you want to use the VMware vSphere hypervisor to run guest virtual machines, install vSphere on the host(s) in your cloud. vSphere and vCenter, versions 6.0, 6.5 or 6.7. vSphere Standard is recommended. Be sure all the hotfixes provided by the hypervisor vendor are applied. Track the release of hypervisor patches as soon as possible after they are released. CloudStack will not track or notify you of required hypervisor patches. It is essential that your hosts are completely up to date with the provided hypervisor patches. The hypervisor vendor is likely to refuse to support any system that is not up to date with patches. Warning Apply All Necessary Hotfixes. The lack of up-do-date hotfixes can lead to data corruption and lost VMs. Note When using vSphere and vCenter versions 6.0 and 6.5 there is a limitation on instance names with a sequence number between 99999 and 1000000. For example if you take a snapshot of a VM, the expected filename will be different to what cloudstack expects. It is advisable to set the sequence set is advisable to set is advisable to set the sequence set to set the sequence set to set to set to set to must be certified as compatible with vSphere. See the VMware Hardware Compatibility Guide at . All hosts must be 64-bit and must support HVM (Intel-VT or AMD-V enabled). All hosts within a cluster must be homogenous. That means the CPUs must be of the same type, count, and feature flags. 64-bit x86 CPU (more cores results in better performance) Hardware virtualization support required 4 GB of memory 36 GB of local disk At least 1 NIC Statically allocated IP Address Processors. Processor requirements may be higher if the database runs on the same machine. Memory - 3GB RAM. RAM requirements may be higher if your database runs on the same machine. Disk storage - 2GB. Disk requirements may be higher if your database runs on the same machine. Microsoft SOL Server 2005 Express disk requirements. The bundled database requires up to 2GB free disk space to decompress the installation archive. Networking - 1Gbit or 10Gbit. For more information, see "vCenter Server and the vSphere Client Hardware Requirements". VMware vCenter Standard Edition 6.0, 6.5 or 6.7 must be installed and available to manage the vSphere hosts. vCenter must be configured to use the standard port 443 so that it can communicate with the CloudStack Management Server. You must re-install VMware ESXi if you are going to re-use a host from a previous install. CloudStack requires VMware vSphere 6.0, 6.5 or 6.7. VMware vSphere 5.5 and older not support HVM (Intel-VT or AMD-V enabled). All hosts must be 64-bit and must support ed. All hosts must be 64-bit and must support HVM (Intel-VT or AMD-V enabled). CloudStack management network must not be configured as a separate virtual network. The CloudStack management network, and will inherit its configure vCenter Management network, and vCenter management network is the same as the vCenter management network. CloudStack must be used for CloudStack should not share instance of ESXi or storage with other management consoles. Do not share the same storage with a different set of ESXi servers that are not management consoles. Do not share the same storage with a different set of ESXi servers that are not management consoles. Datacenter in vCenter. Ideally clusters that will be managed by CloudStack should not contain any other VMs. Do not run the management server or vCenter on the cluster for use of CloudStack and make sure that they are no VMs in this cluster. All of the required VLANs must be trunked into all network switches that are connected to the ESXi hypervisor hosts. These would include the VLANs for Management, Storage, vMotion, and guest VLANs that will be managed by CloudStack. For a smoother installation, gather the following information before you start: You will need the following information about vCenter User This user must have admin privileges. vCenter User This user information about your VLANs. VLAN Information Notes ESXi VLAN on which all your ESXi hypervisors reside. ESXI VLAN IP Address per Virtual Router is used from this range. ESXi VLAN IP Gateway ESXi VLAN Netmask Management Server VLAN VLAN on which the CloudStack Management server is installed. Public VLAN for the Public VLAN for the Public VLAN Range for CloudStack use. These addresses will be used for virtual router on CloudStack to route private traffic to external networks. VLAN Range for Customer use A contiguous range of non-routable VLANs. One VLAN will be assigned for each customer. If you haven't already, you'll need to download and purchase vSphere from the following installation, which are described in the next few sections: Required Optional ESXi host setup NIC bonding Configure host physical networking, virtual switch, vCenter Management Network, and extended port range for iSCSI Configure clusters in vCenter and add hosts to them, or add hosts without clusters to vCenter All ESXi hosts should have CPU hardware virtualization support enabled in the BIOS. Please note hardware virtualization support is not enabled by default on most servers. You should have a plan for cabling the vSphere hosts. Proper network configuration is required before adding a vSphere host to CloudStack. To configure an ESXi host, you can use vClient to add it as standalone host to vCenter first. Once you see the host appearing in the vCenter inventory tree, and navigate to the Configuration tab. In the host configuration tab, click the "Hardware/Networking" link to bring up the networking configuration tab. In the host a default virtual switch vSwitch0 is created. You may need to create additional vSwiches depending on your required architecture. CloudStack requires all ESXi hosts in the cloud to use consistently named virtual switches. If you change the default virtual switches as well. CloudStack requires all ESXi hosts in the cloud to use consistently named virtual switches. allows you to configure three separate networks for configuration are public (for traffic to/from the public internet), guest (for guest-guest traffic), and private (for management and usually storage traffic). You can use the default virtual switch for all three, or create one or two other vSwitches for those traffic types. If you want to separate traffic in this way you should first create and configure vSwitches in vCenter instructions. Take note of the vSwitches in vCenter instructions. By default a virtual switch on ESXi hosts is created with 56 ports. We recommend setting it to 4088, the maximum number of ports allowed. To do that, click the "Properties link for virtual switch (note this is not the Properties link for virtual switch on ESXi hosts). In vSwitch properties link for virtual switch (note this is not the Properties link for virtual switch on ESXi hosts). In this dialog, you can change the number of switch properties dialog box, you may see a vCenter management network. This same network will also be used as the CloudStack management network. CloudStack requires the vCenter management network to be configured properly. Select the management network item in the dialog, then click Edit. Make sure the following values are set: VLAN ID set to the desired ID vMotion enabled. If the ESXi hosts have multiple VMKernel ports, and ESXi is not using the default value "Management Network" as the management network name, you must follow these guidelines to configure the management network port group so that CloudStack Can find it: Use one label for the management network port across all ESXi hosts. In the CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use one label for the management network port group so that CloudStack Can find it: Use from the ESXi hosts. In production environments (large number of VMs), it's needed to extend the range of firewall ports that the console proxy works with on the hosts. The default additional.vnc.portrange.start). Change global settings vmware.additional.vnc.portrange.start). vmware.additional.vnc.portrange.size to i.e "10000" and restart the management-server service on each management server. Add those additional ports to the ESXi firewall on each host. Log in via SSH to every VMware ESXi host and edit the file /etc/rc.local.d/local.sh by adding the following lines just above the "exit 0" line.: cat