DST

vCenter Server Migration

VMware Team

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Version

Date	Version	Description	Modified By
10/1/2016	v1.0	Submitted	Aman Sapra
3/1/2017	V1.1	Modified	Aman Sapra

Migration of vCenter Server 5.5 to vCenter Appliance 6.0 U2

Requirements:

1. Root Password for SSO user administrator@vsphere.local
2. Reserve a static IP Address for PROD613 VLAN (10.193.160.48).
3. Database Admin Credentials.
4. AD account with permissions to add target vCenter appliance to domain.

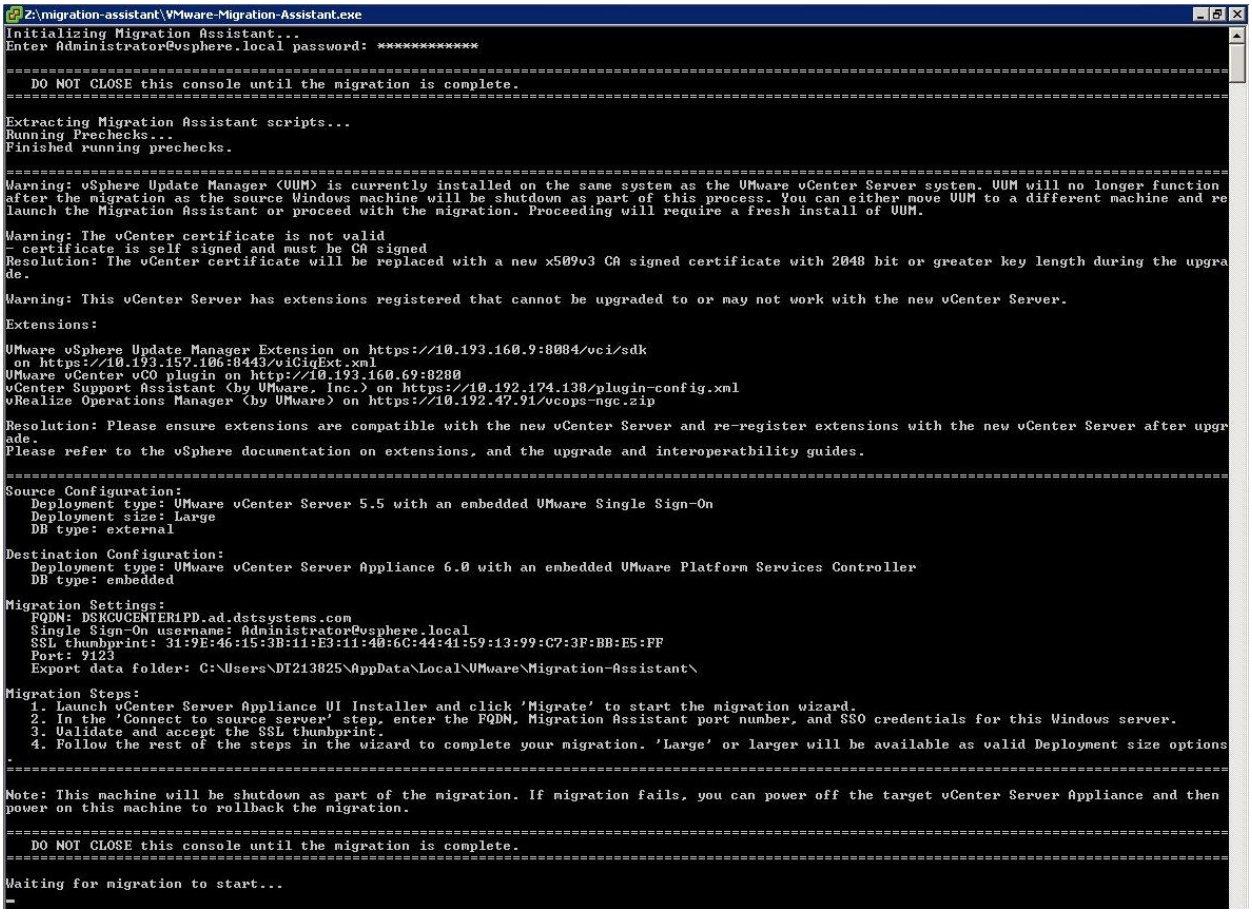
Pre-requisites:

1. Add dskcvcenter1pd server to white list so disconnect pages are not sent out
2. Snapshot vCenter Windows Server
3. Take full backup of database server after stopping the vCenter Server Service.
4. If an external database is being used, ensure that the size of database is not more than 20 GB.
5. Validate connectivity and Name resolution of NFS server with vCenter Server and ESXi hosts selected to host target vCenter Server Appliance.
6. Create a DNS record and AD object for DSKCVCENTER1PD_vcsa appliance. Check NTP settings.
7. Request Windows and Database teams to backup DSKCVCENTER1PD & DSKCVCENTER1DB.
8. Validate the below services are running on a single vCenter server:
   a. VMWare vCenter Inventory Service
   b. VMware Single Sign On
   c. VMware vSphere Web Client
9. Disable DRS on clusters hosting the source and target vCenter instances.
10. Target ESXi host selected to host the Target vCenter Server Appliance should not be in Maintenance Mode or in Lockdown Mode.
11. Verify both the vCenter and database are on the same host by themselves
12. Run DB cleanup script cleanup_orphaned_data_MSSQL.sql located in ISO for migration tool.
13. Create a new standard port group (VLAN613-Temp)
14. Stop Monitoring scripts running on DSKCVCENTER1.
15. Install Client Integration Plugin on DSKCVMWARENFS server.

Migration Steps:

1. Start the VMware Migration-Assistant exe on DSKCVCENTER1 Source Windows server using administrator@vsphere.local account password and perform the below steps:
    - Validate the Source & Destination Configuration
    - Note down the Migration Settings:
        a. FQDN:
        b. Single Sign-On username: administrator@vsphere.local
        c. SSL Thumbprint:
        d. Port: 9123
        e. Export Data Folder:

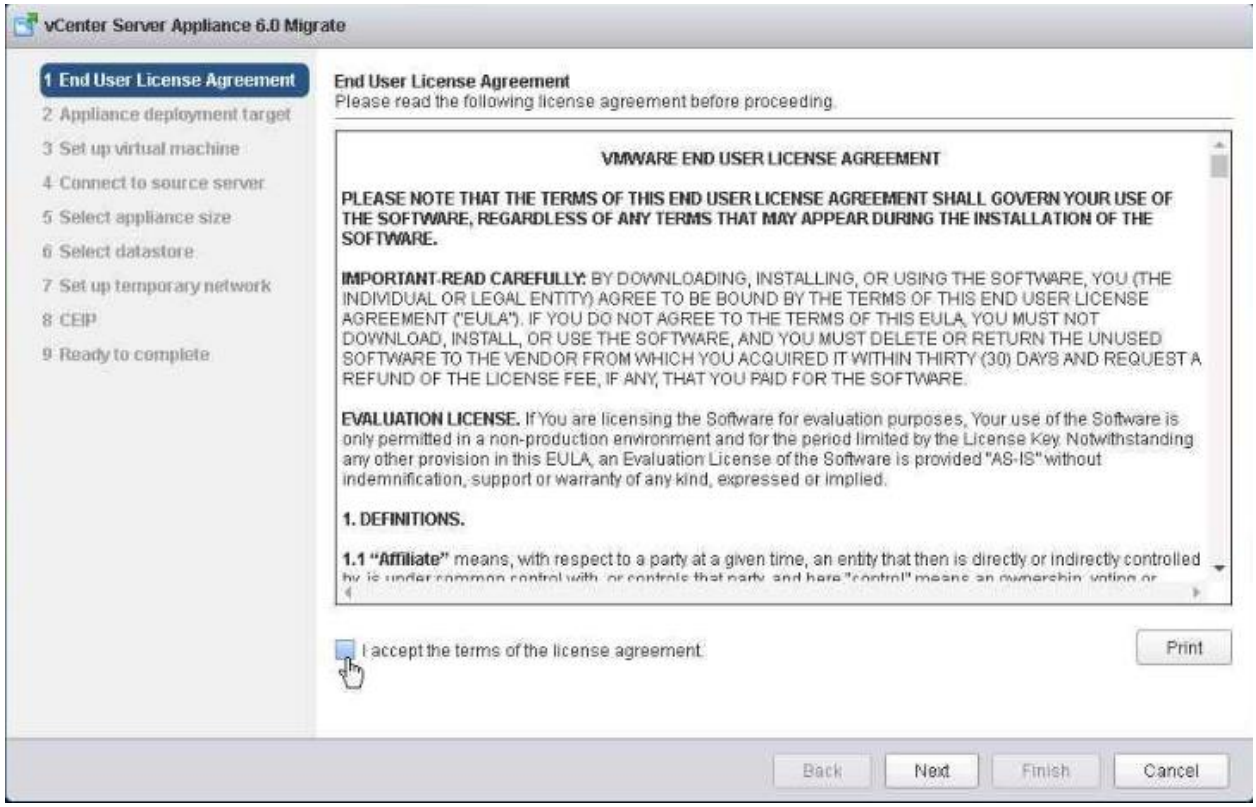
    Note: DSKCVCENTER1 Windows Server will be shutdown as part of the migration.



2. Open vcsa-setup.html using a Web Browser. Install Client Integration Plugin on DSKCVMWARENFS server and then click on Migrate. Select ok to continue the migration process.

3. Enter the below details in the Migration Wizard:

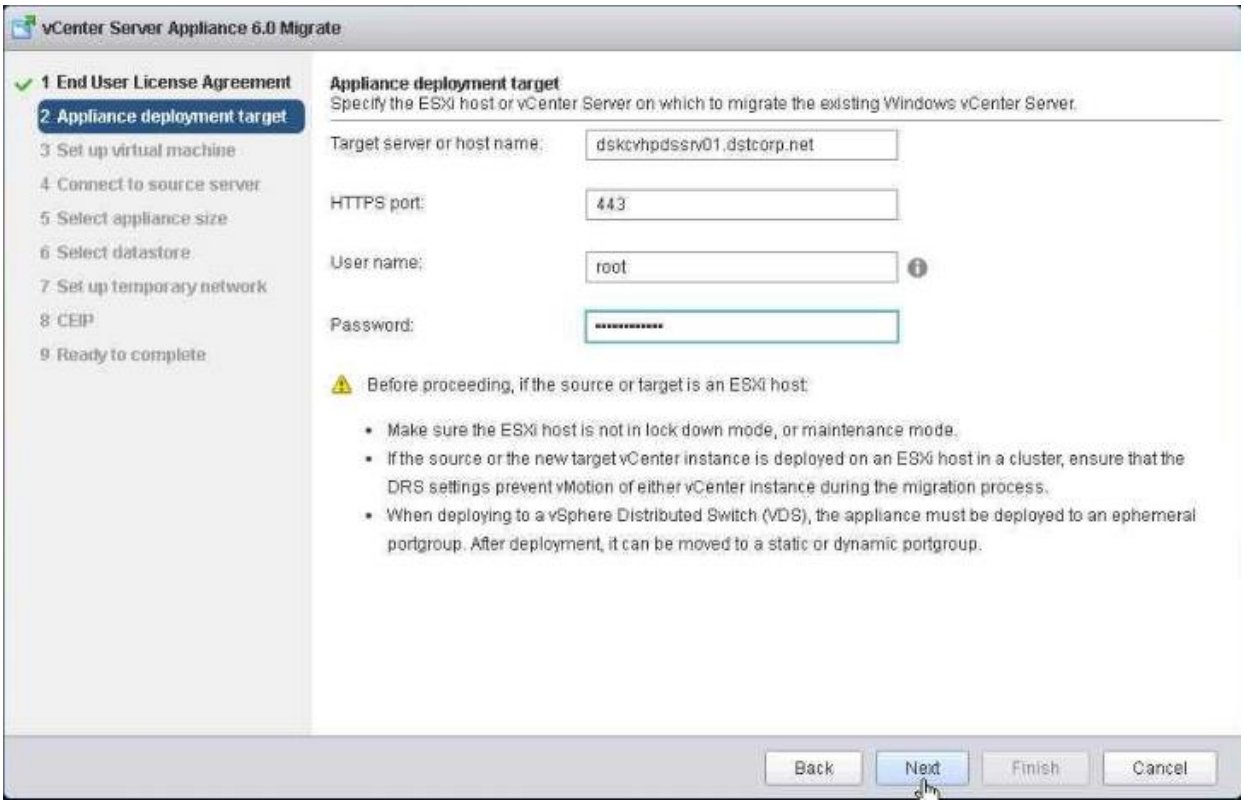
a. Accept End User License Agreement.



b. Appliance Deployment Target: Enter the details for the Target ESXi host where the new vCenter Server Appliance will be deployed. *Note – Deploy vcsa to same host as the vcenter

1. Target ESXi Host IP address/Hostname
2. Root username and Password

Validate SHA1 Thumbprint of Target ESXi Host and click Yes to Continue.



c. Setup virtual machine: Enter the details of the new vCenter Server Appliance.

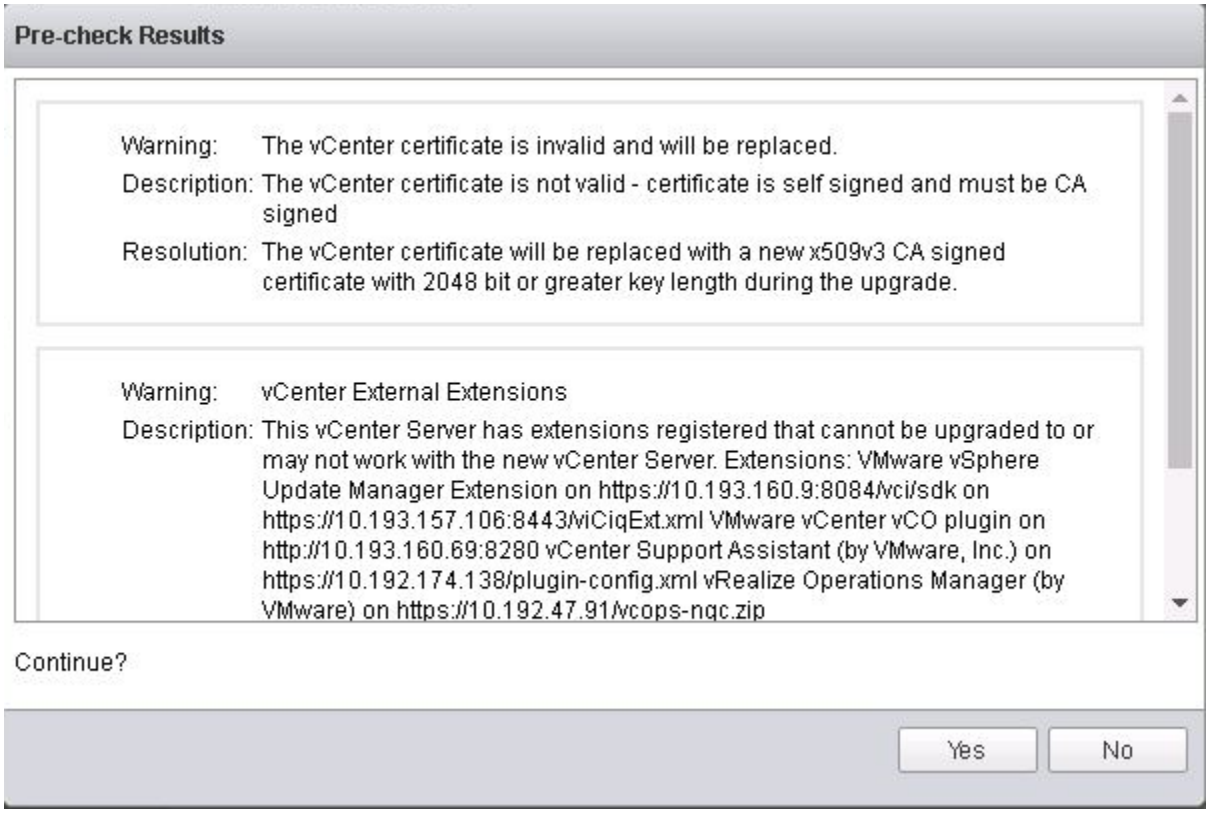
1. Appliance name: DSKCVCENTER1_vcsa
2. Create an OS password for the appliance and confirm the same in confirm box.
3. Enable SSH.

d. Connect to Source Server:

1. Enter IP address/Hostname of Source vCenter Windows Server.
2. Password for SSO username administrator@vsphere.local
3. Uncheck the checkbox for migration of Optional Performance data.

Validate SHA1 Thumbprint of Source Windows vCenter Server. Wizard will prompt for plugins registered with existing vCenter Server which cannot be migrated to vCenter Appliance. Carefully validate the plugins and click Yes if you want to proceed with the migration.

Note: Do not run this installer from source Windows vCenter Server. You may receive a prompt for vCenter Update Manager Extension as Update Manager is not supported with vCenter Server Appliance. Click Yes to continue.



e. Join AD Domain: Enter username and password for AD account to join the appliance to AD.

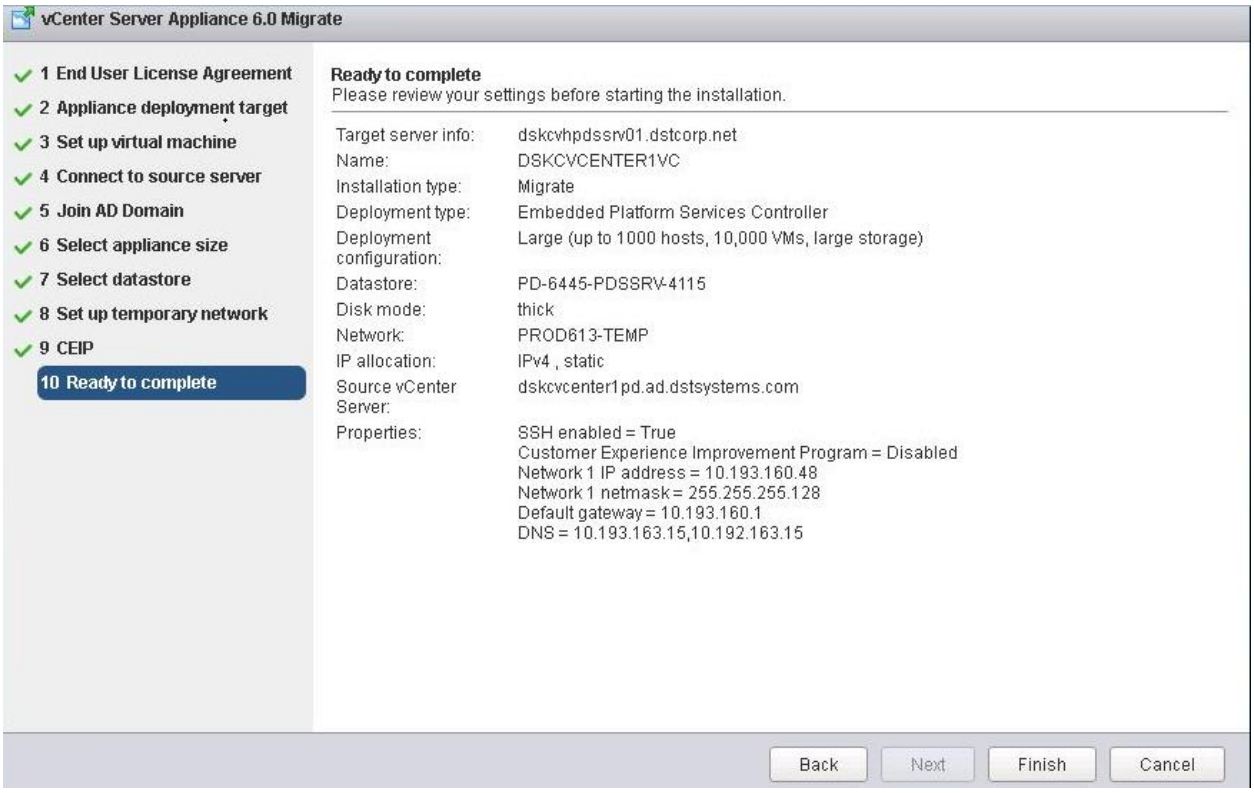
f. Select Appliance Size: Select the size as Large more storage (up to 1000 hosts, 10,000 VMs, 900 GB)

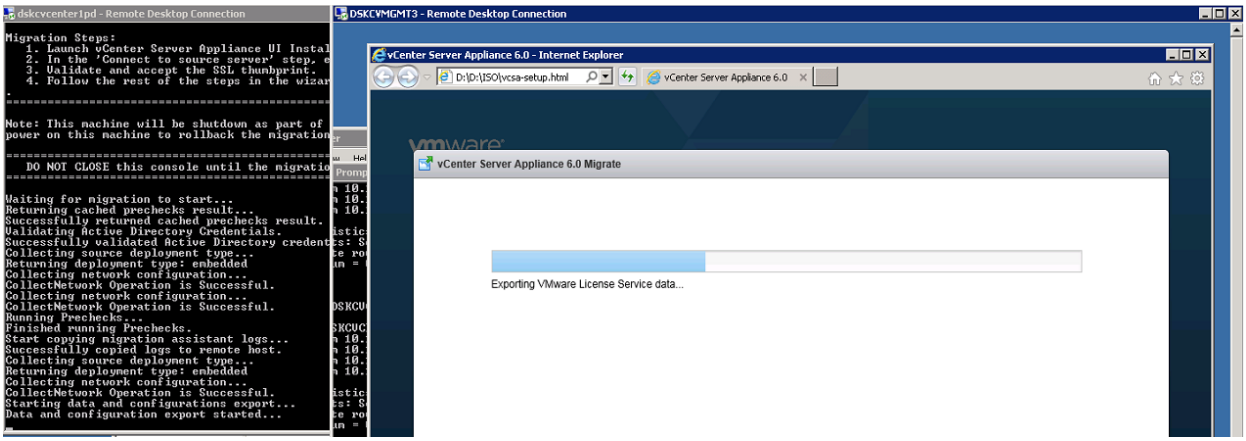
g. **Select Datastore:** Select the datastore where Target vCenter Appliance will be hosted.

h. **Setup Temporary Network:** During migration, the new appliance requires temporary network settings during the migration. After the migration completes, the new appliance acquires the network identity of the existing Source instance and stops the temporary network settings.
    1. Temporary Network:
    2. IP Address:
    3. Subnet Mask:
    4. Network Gateway:
    5. Network DNS Servers:

i. **Customer Experience Improvement Program:** Uncheck Join the Customer Experience Improvement Program.

j. **Ready to Complete:** Check the Summary of the task at Ready to complete screen and click Finish. Monitor the migration process until completion.





4. Login to vSphere Web Client and verify the version information.

5. License the new vCenter Server Appliance with version 6.0 license.

6. Request all teams to validate the functionality of 3rd Party Plugins.

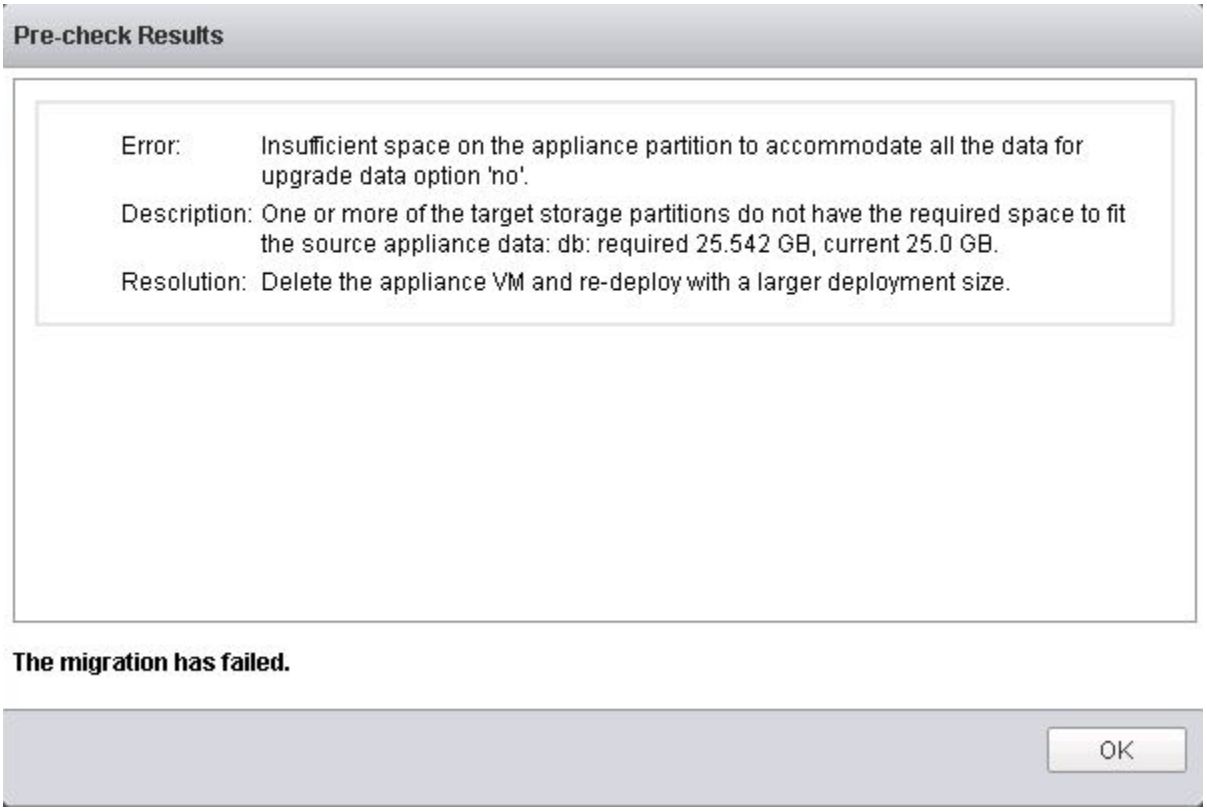
Estimated Completion Time: Migration process takes around 5-6 hours without performance data depending upon the size of the database

Back Out/Rollback:

1. Power off the newly deployed vCenter Server Appliance 6.x.
2. Bring the old vCenter Server instance online:
    a. If the old vCenter Server instance is powered off, power on the instance.
    b. If the old vCenter Server instance is powered on, restart the instance.
3. If the vCenter Single Sign-On server was joined to an Active Directory domain, it may need to be joined again.
4. vCenter Windows Server needs to be restarted to kill running migration processes
5. Wait for all vCenter Server services to start and log in to the vSphere Web Client to verify the vSphere inventory.

Known Issues:

1. **Error: Insufficient space on the appliance partition to accommodate all the data for upgrade data option 'no'.**
   Description: One or more of the target storage partitions do not have the required space to fit the source appliance data: db: required 25.542 GB, current 25.0 GB.
   Resolution: Delete the appliance VM and re-deploy with a larger deployment size.
   If the migration fails with the error mentioned above and vCenter server is using an external database, verify the size of vCenter database and ensure that the size of vCenter database is not more than 20 GB. If the size of database is more than 20 GB, engage DB team to shrink the size of the database.



2. **Error while exporting core data: pyodbc.Error: ('08S01', '[08S01] [Microsoft][SQL Server Native Client 10.0]TCP Provider: The semaphore timeout period has expired.\r\n (121) (SQLGetData); [08S01] [Microsoft][SQL Server Native Client 10.0]Communication link failure (121)'). Read the log files and address the issues found in your source VCDB.**
   If the migration fails with above error, disable TCP Chimney Offload feature in NIC settings for vCenter Windows Server. For more information refer to: https://support.microsoft.com/en-us/help/942861/-general-network-error,-communication-link-failure,-or-a-transport-level-error-message-when-an-application-connects-to-sql-server