Troubleshooting: vCenter Upgrade/Migrate Procedure

This procedure has been tested with vCenter 5.5U2 and we got it down to 4 hours, including commissioning/testing the software. Keep in mind that if you are using vCOps or vROps in your environment, you may need to purge your database, deregister, and re-register the vCenter Server. This is because the procedure explained below will regenerate the vCenter UUID, which will cause a mismatch and prevent Operations Manager from connecting.

Step	Task Description	Mins
1	Install SQL 2014. *2008R2 - 2014 are supported. You might need to upgrade the database if you are moving to a different version.* Or install your chosen DB package, unless you intend to use the embedded Postgres DB, which will install automatically to the target VM, if a SQL server is not nominated. Depending on your deployment, this might be hosted on the vCenter host or on a remote machine.	60
2	Ensure that .NET framework 3.5 is installed on the target server. This is required for a number of VMware applications	10
3	Make a copy of your "C:\ProgramData\VMware\VMware Virtual Center\SSL" folder and send it to shared storage. *If your vCenter deployment uses a basic alphanumeric password, you should be able to reuse these at the end.*	5
4	Single Sign-On, in our example was an external SSO server that was already deployed to an external host, so we avoided any complications here. You may want to take a backup of your SSO database if you plan to migrate it, or just recreate it at the end of the migration and use vSphere.local credentials until you are able to reapply domain credentials.	0
5	Backup Inventory DB to shared storage - we used the following command: Center_Server_installation_directory\Infrastructure\Inventory Service\scripts\backup.bat -file backup_file_name *Our inventory database ended up being about 10GB, as a guide. There were a few thousand VMs in the environment, however.*	10
6	Backup the vCenter SQL database to shared storage. The method will be determined by whether you are using a Postgres DB, or MS/Oracle. *If using Postgres, please take a look at KB2034505 as the process is a little more complex.*	15
7	Snapshot old vCenter server while all services are stopped - connect to the ESXI host running vCenter. *We're about to change names etc. which will likely break vCenter services on this host since certificates will become invalid. The snapshot will let us back out to a working point if need be.*	20
8	Rename the old vCenter host via System so that DNS and AD are updated and no conflicts created in preparation to relocate the new host to this location.	10
9	Shutdown old vCenter server and remove its network adapters from the VM in case someone turns it back on. *These will need to be re-added if you decide to roll back.*	5
10	Rename the new VC server and IP to match the details on the host being replaced.	5
11	Restore the vCenter database from shared storage if using ORACEA/MS Dbs. Create DSNs and test access if this is for non-embedded SQL deployment. You may need to install some Native SQL components if the DB is hosted remotely. *We'd also recommend using SQL Authentication against the database. If you want to use a domain account, then you should run the vCenter services as that same service user. vCenter will insist that the services and SQL access run under the same authentication domain or local accounts, not both. Obviously, running under domain authentication creates a dependency on the DC to start the environment.*	15
12	Install the following vCenter 5 components: (SSO if not external), web client, Inventory Service. Do not install the server yet.	15
13	Copy the vCenter Certs back to the "C:\ProgramData\VMware\VMware Virtual Center\SSL" folder	1
14	Restore old Inventory DB: vCenter Server install location\Infrastructure\Inventory Service\scripts\restore -backup backup_file_name	5
15	Ensure Inventory service restarts via Services. msc	5
16	Install the following vCenter 5 component: install vCenter Server. *You should be asked for DSNs if using SQL or Oracle. If you are using Postgres, you will need to restore the DB once the server has finished installing. To restore the Postgres DB, follow KB2034505 as the process is a bit lengthy.*	40
17	Test the C++ vSphere web client can connect. Check licenses are still applied and hosts appear in clusters. Check that ESXI hosts have connected again. *If you had to redeploy SSO, ensure AD is still linked as a source and that AD permissions have been applied to the environment.*	4
18	Re-Connect hosts *(In our case a password was used with 'special characters', so our cert couldn't be reused. Hosts came back needing to be connected - username and password re-entered, before full control over them was returned). This takes approximately 20 seconds per ESX host*	15

And now you should have an entirely new Virtual Machine hosting your running vCenter services with an under control environment in the space of an afternoon, placing you in a great position to consider the next step in uplifting your environment. Let me know how it went.

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