# Setting up Veeam on the Dell™ DR4000 Disk Backup Appliance

A Dell Technical White Paper

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# Executive Summary

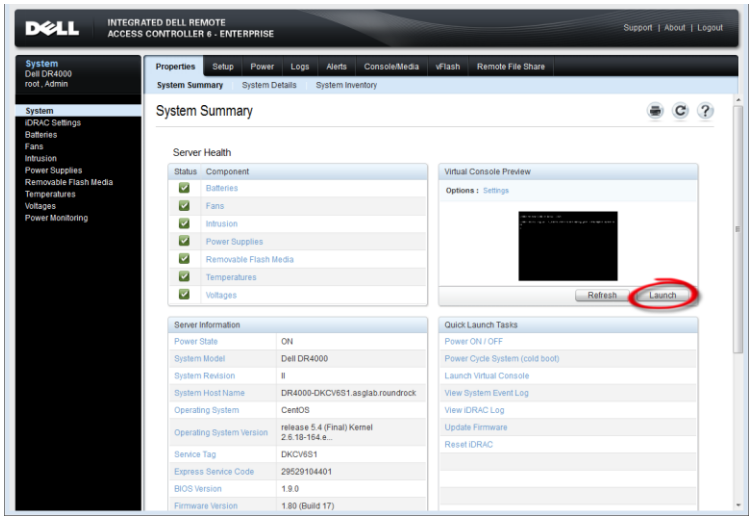
This paper provides information about how to set up the Dell DR4000 as a backup to disk target for Veeam® Backup & Replication™ software. This paper is a quick reference guide and does not include all DR4000 deployment best practices.

See the DR4000 documentation other data management application best practices whitepapers for additional information.

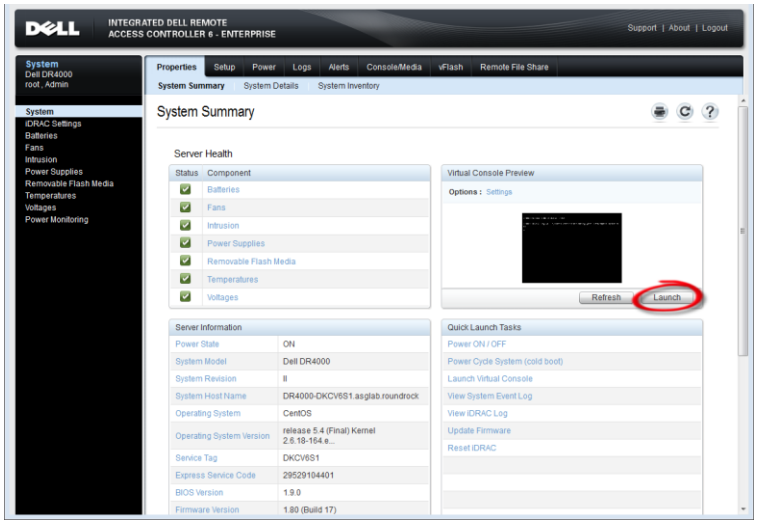
**NOTE:** The DR4000 build version and screen shots used for this paper may vary slightly, depending on the version of the DR4000 operating system.

# 1 Install and Configure the DR4000

1. Rack and cable the DR4000 appliance, and power it on.
2. Log into iDRAC using the default address **192.168.0.1**, user name **root**, and the password **calvin**.

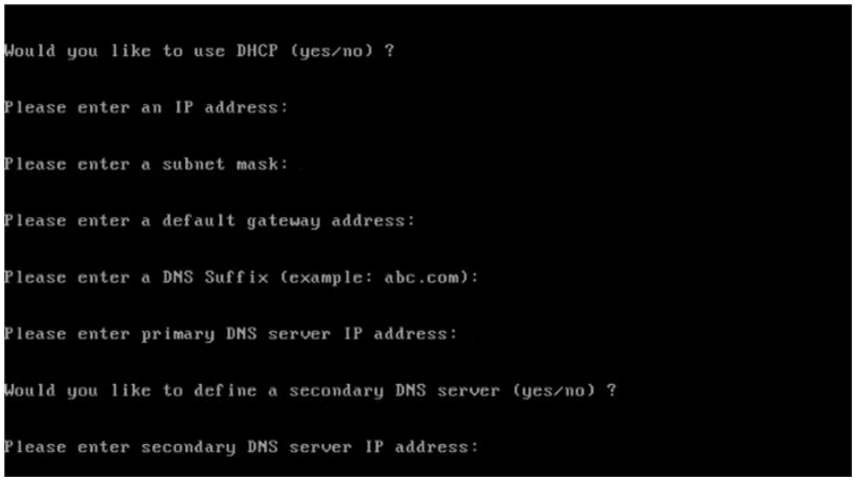



3. Launch the virtual console.

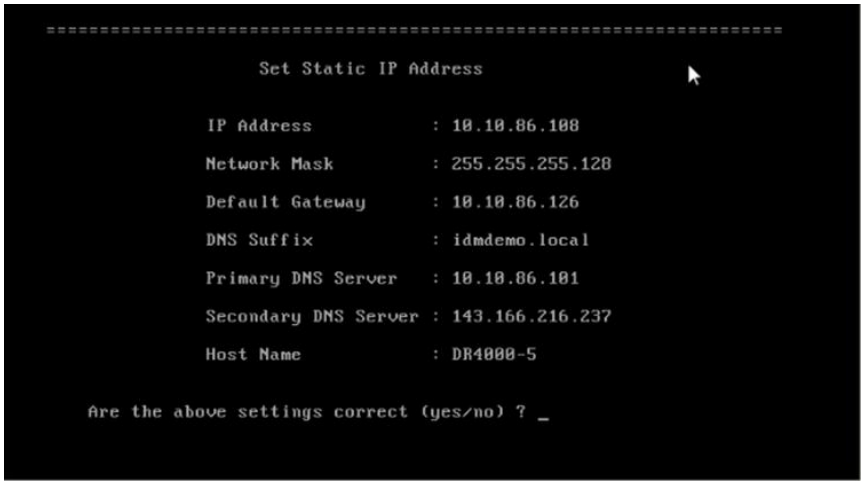



4. Once the virtual console is open, log in to the system as user **administrator** and the password **St0r@ge!** (The "0" in the password is the numeral zero.).

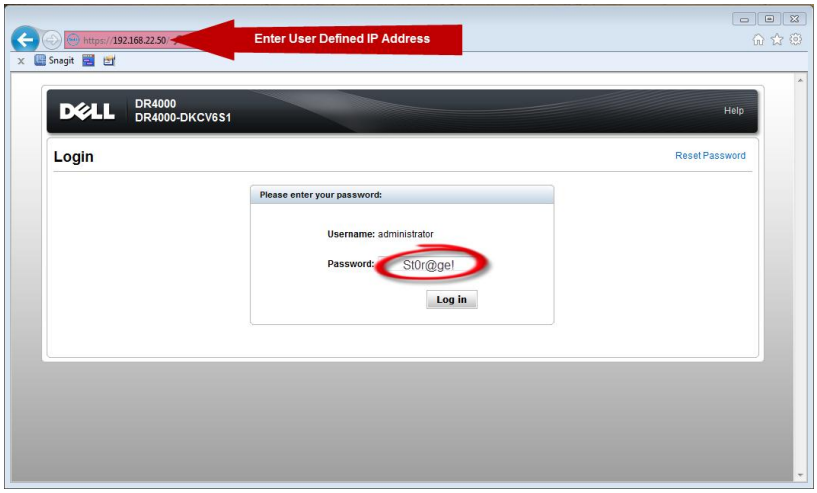
5. Set the user-defined networking preferences.




6. View the summary of preferences and confirm that it is correct.



7. Log into the DR4000 administrator console, using the IP address you just provided for the DR4000, user **administrator** and the password **St0r@ge!** (The "0" in the password is the numeral zero.).

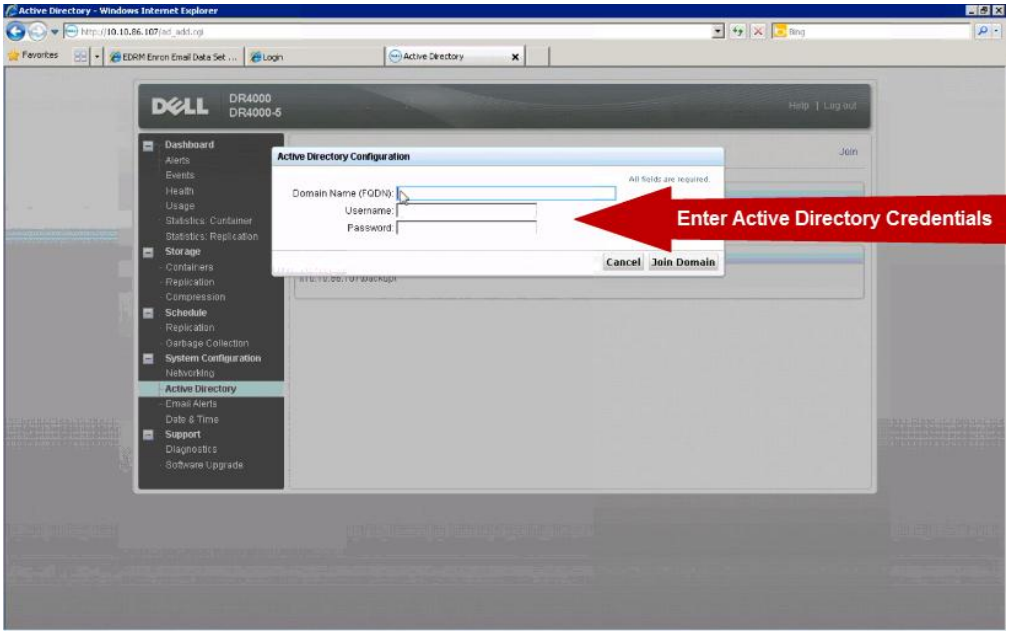



8. Join the DR4000 to Active Directory.

**NOTE:** if you do not want to add DR4000 to Active Directory, see the *Owner's Manual* for guest login instructions.

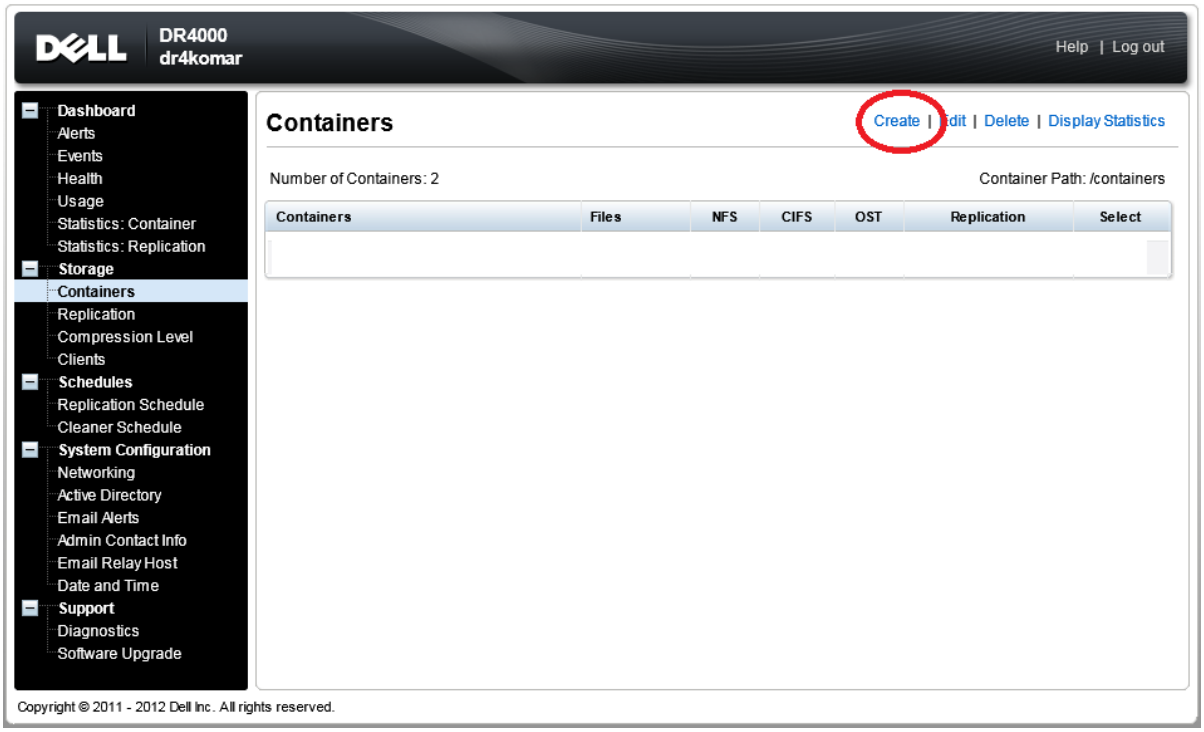
a. Select **Active Directory** in the tree on the left hand side of the dashboard.

b. Enter your Active Directory credentials.

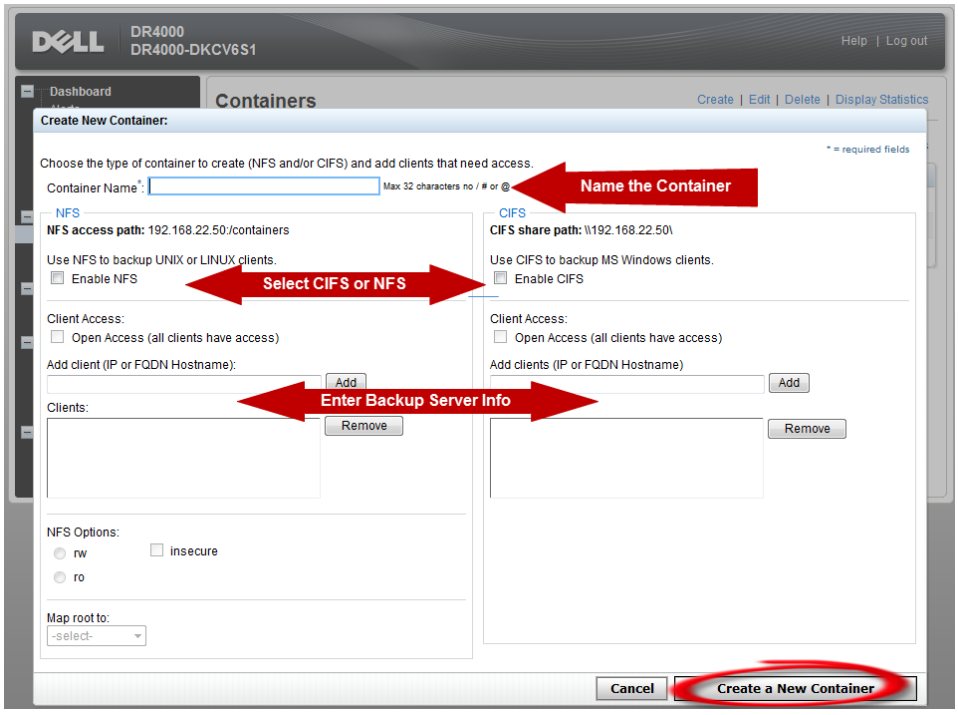



9. Create and mount the container.

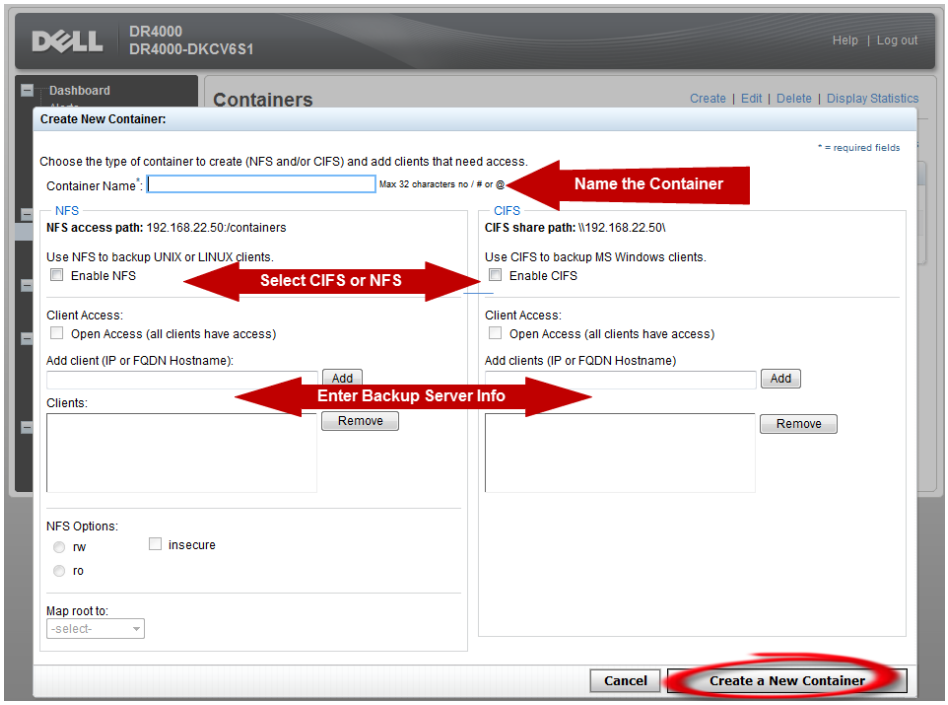
a. Select **Containers** in the tree on the left side of the dashboard, and then click the **Create** link at the top of the page.



b. Enter a **Container Name** and select the **Enable CIFS** check box.



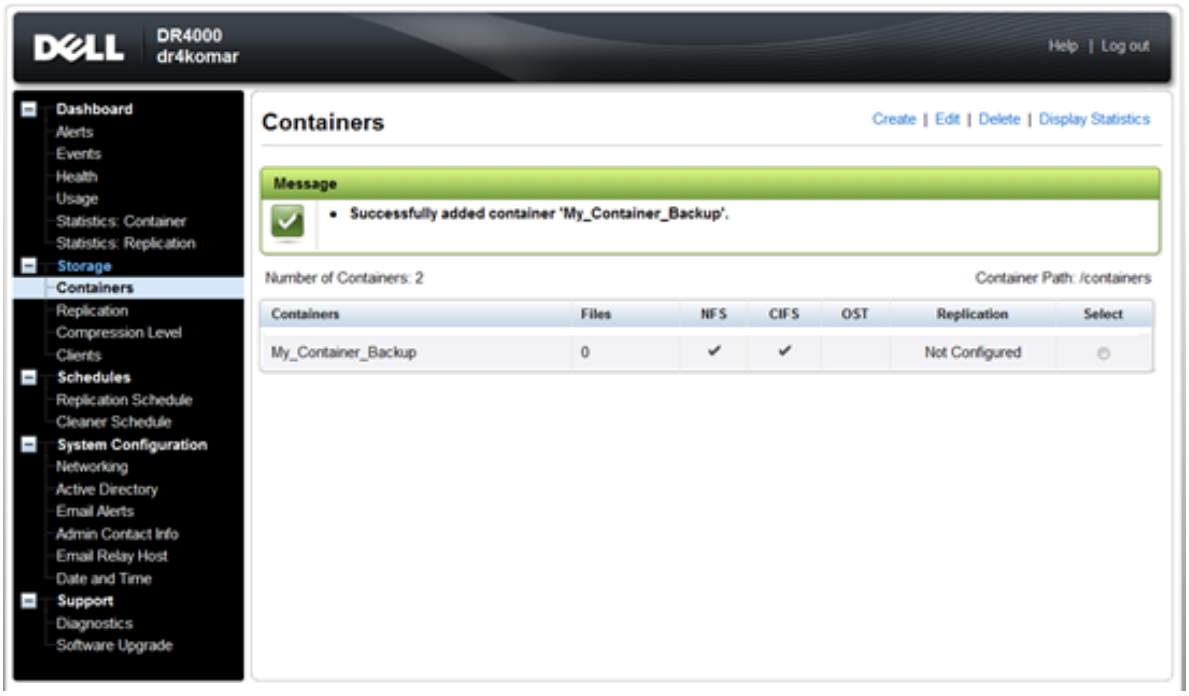

c. Select the client access credentials preferred.



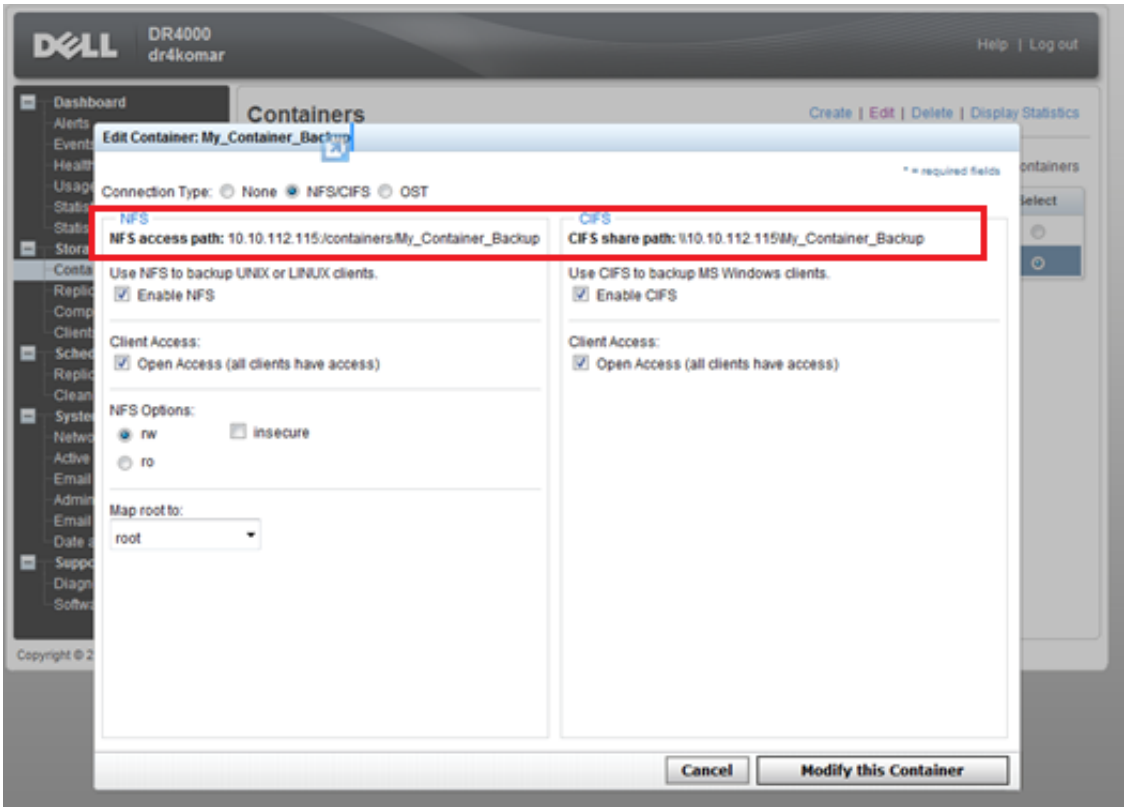

For improved security, Dell recommends adding IP addresses for the following (Not all environments will have all components):

- Backup console (Veeam Server)
- Hyper-V hosts (on-host proxy for Hyper-V environments)s
- Off-host proxies (for Hyper-V environments)
- Backup proxies (for vSphere environments)

d. Click **Create a New Container**.
e. Confirm that the container was added.



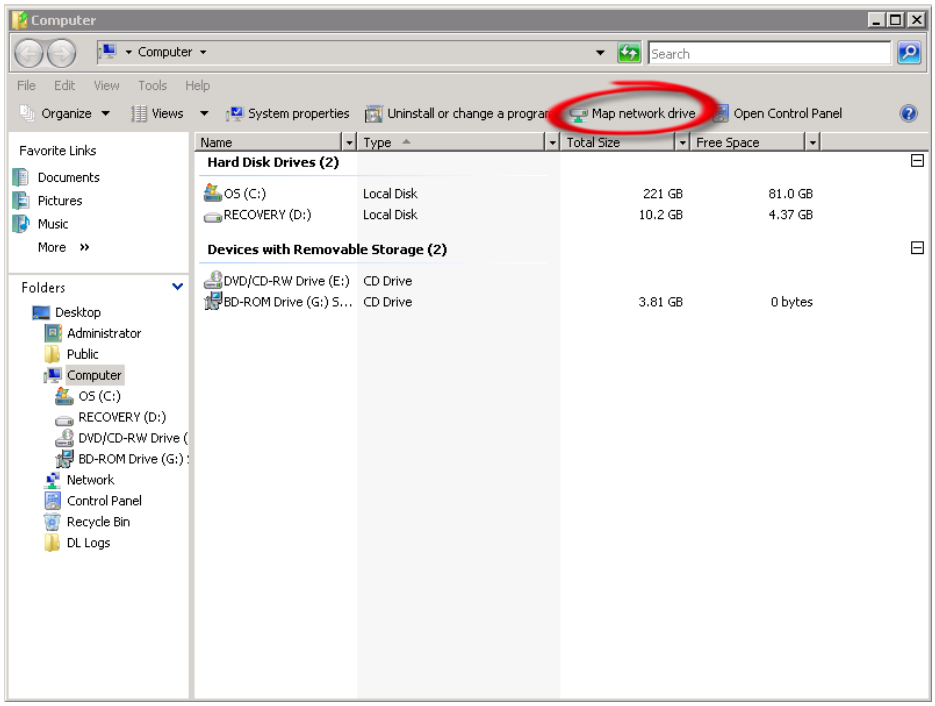
f. Click **Edit**, and write down the container path, which you will use later to target the DR4000.



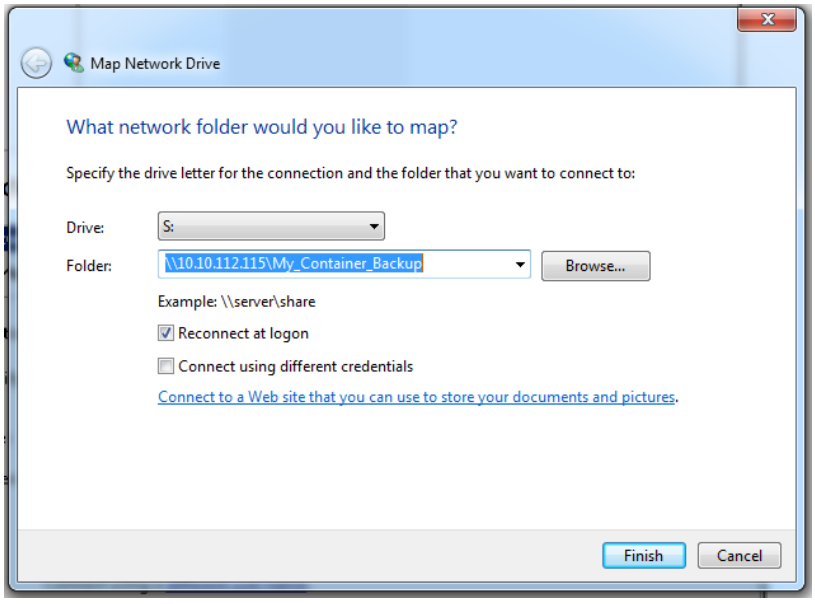

g. Click **Cancel** to exit.

# 2 Configure the Backup Server

1. Log into the media server and click on **Start→My Computer**.
2. Click **Map network drive**.




3. For **Folder**, enter the path to the container on the DR4000.



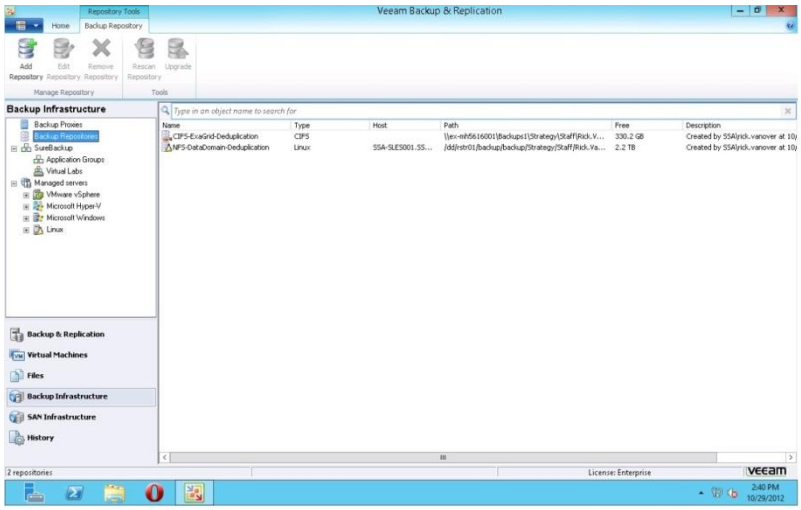

4. Select the **Reconnect at logon** check box.

5. When prompted, enter the DR4000 login credentials.

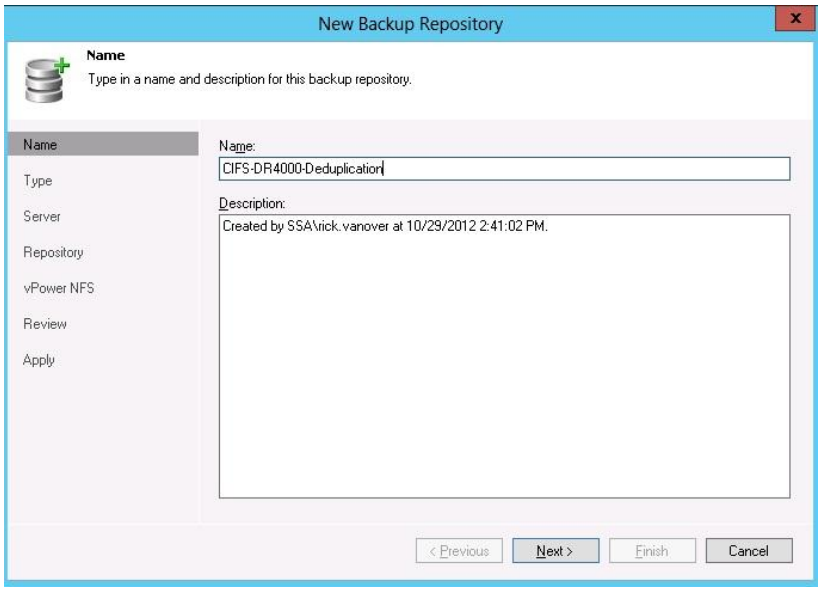
   The DR4000 container is now mounted to your backup server.

# 3 Set up Veeam

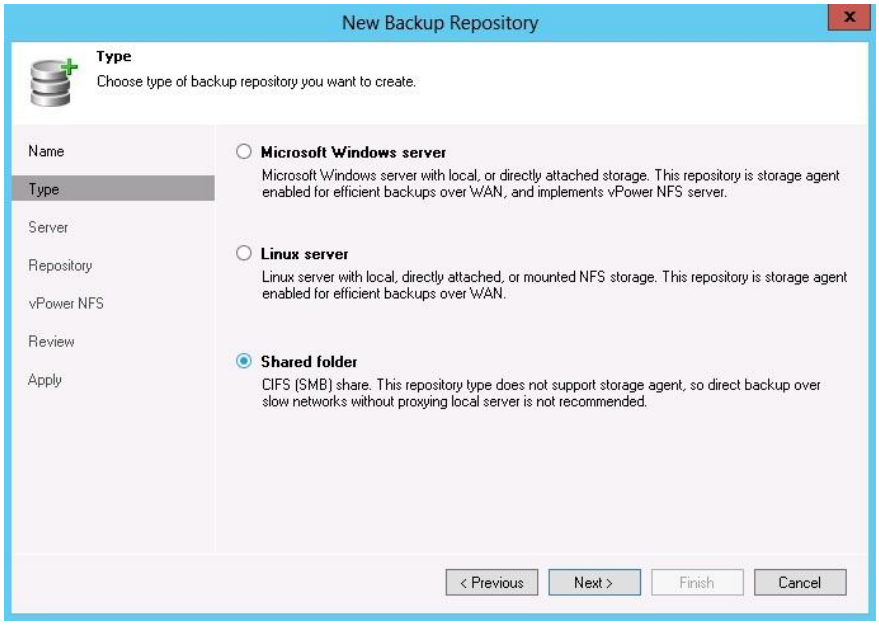
1. Open the Veeam Backup & Replication console.
2. Click the **Backup Infrastructure** section, right-click on **Backup Repositories**, and select **Add Backup Repository.**



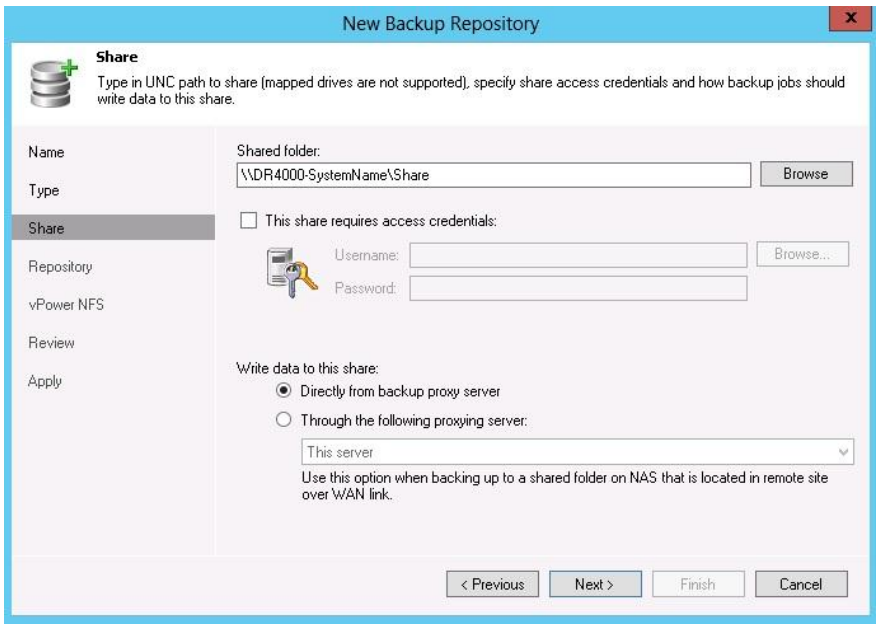

3. Enter a name that is self-documenting, such as "CIFS-DR4000-Deduplication," to indicate the device, protocol and feature of the repository.



4. Select **Shared folder**.

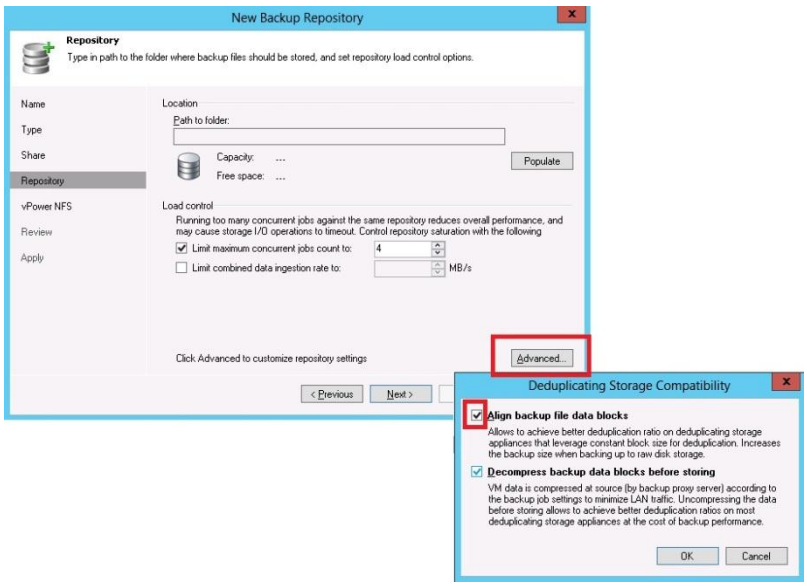



5. For **Shared folder**, enter in the name of the DR4000 (or TCP/IP address used above) and the share name, and then click **Next**.

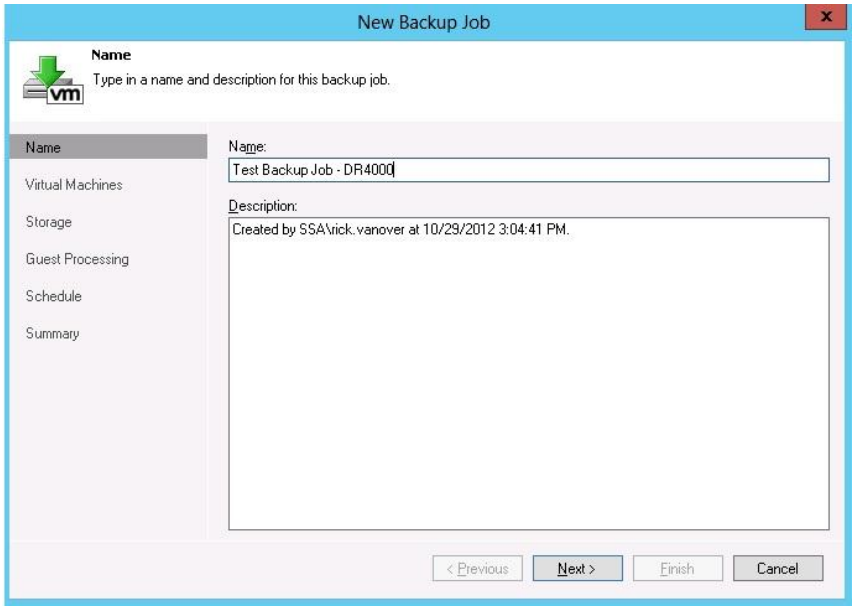


6. Configure the repository wizard to note that the DR4000 is a deduplication target. Click the advanced button and select the additional option for "Aligning backup file data blocks" (fixed length write). Optionally select the decompress value. The decompress option will make the DR4000 do all of the compression.

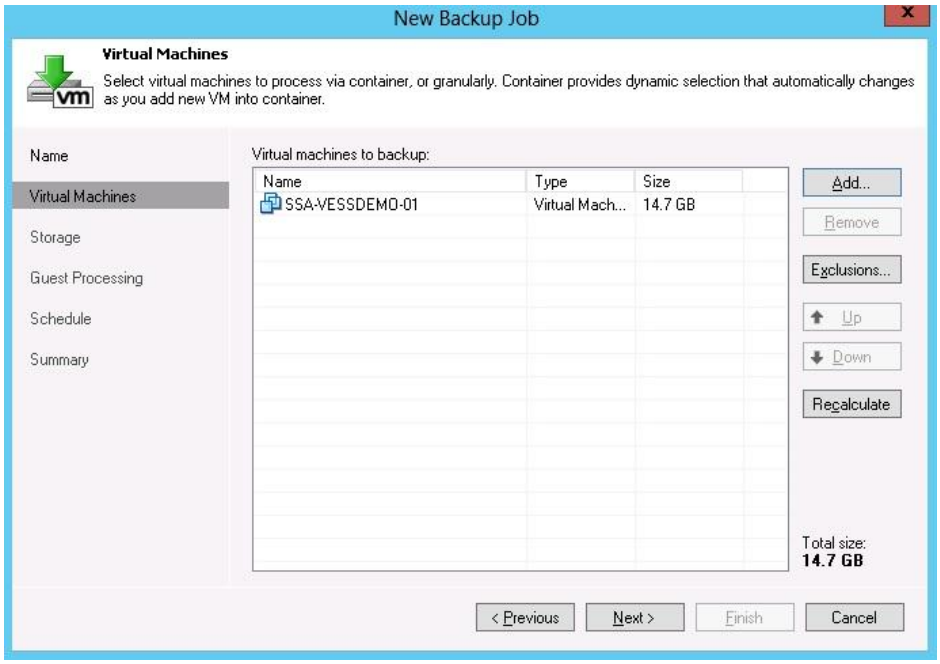
   All other options for the new repository wizard are independent of anything related to the DR4000.




7. Create a new backup job in the Veeam Backup console, for either Hyper-V or vSphere; the options specific to the DR4000 are the same.

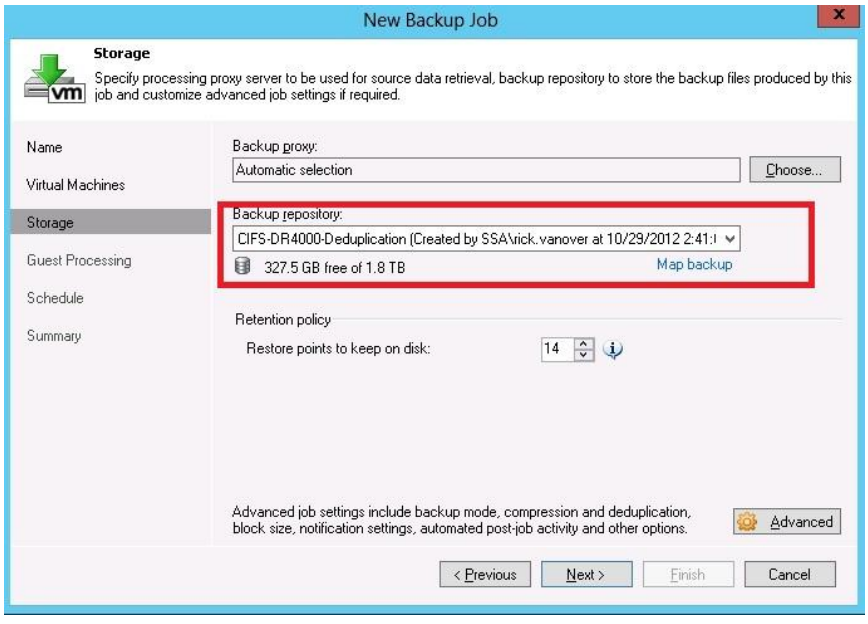


8. Select one or more virtual machines, folders, datastores, resource pools, vApps, SCVMM clusters, etc. for the backup.

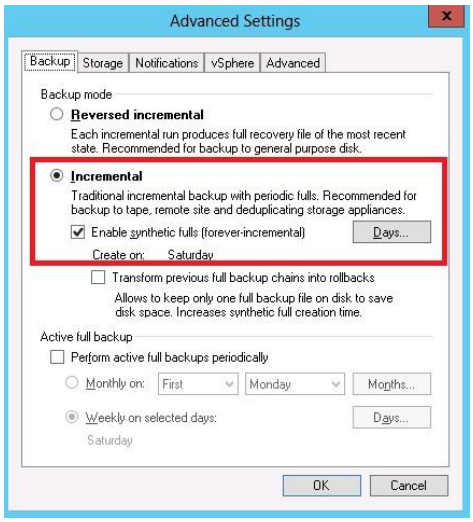



9. Ensure that the repository for this job is the DR4000.

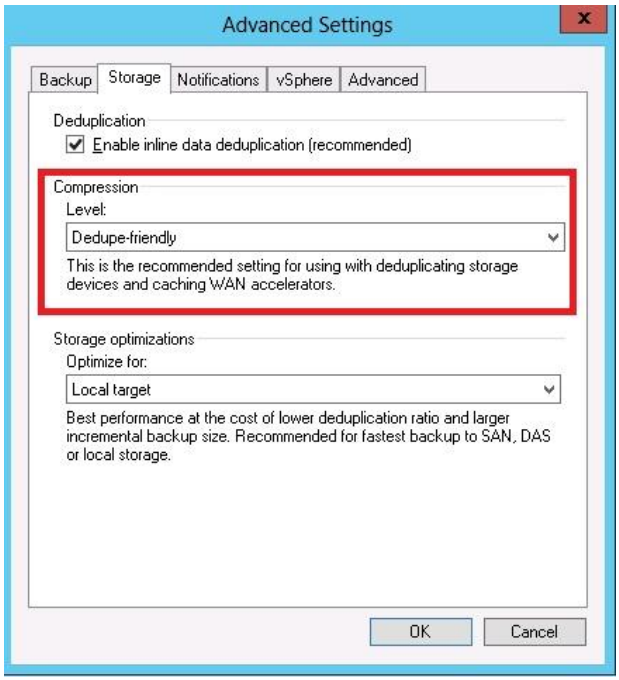
10. On the storage wizard of the backup job, click the **Advanced** button to check a number of important settings.



11. Ensure the backup job is running in **Incremental** mode, and avoid the rollback transformation option. This is a default for new jobs.




12. Change the compression engine to **Dedupe-friendly** in the storage tab of the advanced settings. The deduplication option to local target will perform deduplication by Veeam at 1 MB, landing on the DR4000 for additional deduplication and compression.



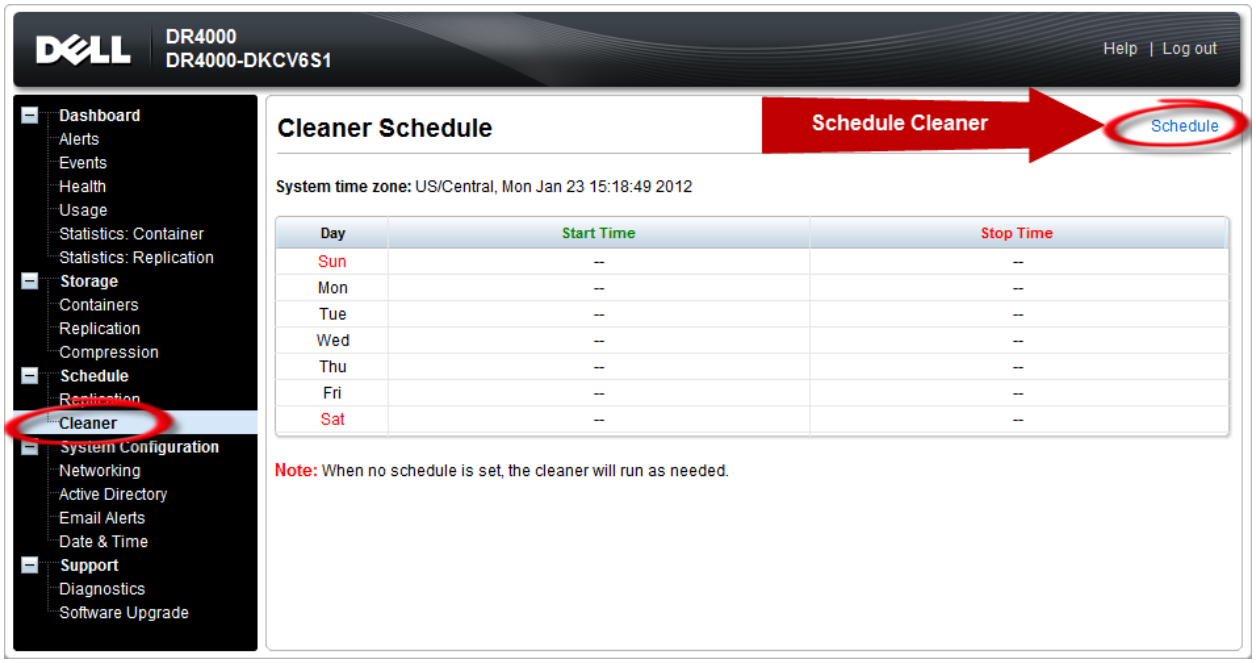

**NOTE:** If overall space savings is the overall priority, it is recommended to use both in this fashion.

All other options are independent of the backup target.

# 4 Set up the DR4000 Cleaner

Once all the backup jobs are setup the DR4000 cleaner must be scheduled. The DR4000 cleaner should run at least 6 hours per week when backups are not taking place, generally after a backup job has completed.

Performing scheduled disk space reclamation operations are recommended as a method for recovering disk space from system containers in which files were deleted as a result of deduplication.



# 5 Monitoring Dedupe, Compression & Performance

After backup jobs have run the DR4000 will track Capacity, Storage Savings and Throughput on the DR4000 dashboard. This information is valuable in understanding the benefits the DR4000.

**NOTE:** Deduplication ratios increase over time, it is not uncommon to see a 2-4x reduction (25-50% total savings) on the initial backup. As additional full backup jobs complete the ratios will increase. As mentioned before backup jobs with 12 week retention will average a 15x ratio in most cases.