Monthly Server Backup

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Outline – Following the principles of 3 2 1 and grandfather father son, create external backups of SimIS On-Prem servers. Obtain the external drive, ensure it is ready for use. Check backups and make sure they are ready for copy. Conduct fully copy and store offsite.
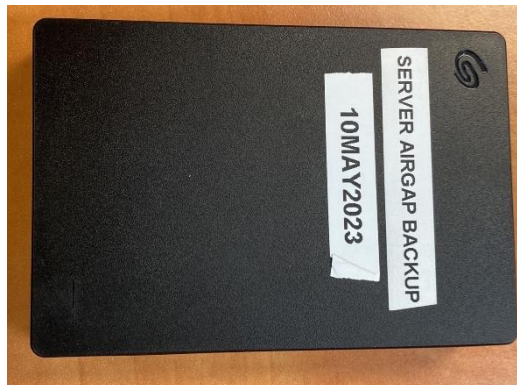
Article I.   Prepare External Backup Drive

Section 1.01   Obtain drive

(a)   The drive is kept offsite, typically with the Chief Operations Officer (COO). It is brough in for monthly backups. These backups are unencrypted.

Section 1.02   Prepare external drive

(a)   The monthly backups should be dated and labeled

   (i)   *There are five VM's to be backed up from on-premises servers (listed with approximate uncompressed used size 6JUN2023. Most VM's are thin-provisioned. Servers documented in Service Portfolio). The approximate backup size for one full of each is 1.5 TB (compressed to 700 GB). Recommend there is at least 1.5 TB of free space on external drive before continuing.*

   1)   SLOFFHQADC01 – 70 GB

   2)   SLOFFHQRDS01 – 90 GB

   3)   SLOFFQB13 – 520 GB

   4)   SLOFFHQDC001 – 180 GB

   5)   SLOFFHQFS002 – 750 GB

Example labeling of External Backup Drive

# Article II.   Connect Drive

Section 2.01   Physical connection

(a) Connect external backup to the physical server hosting the VEEAM VM using front USB-A on server and Micro-USB-B on external drive.

  (i) At present, this is SLOFFHQVeeam, hosted on R740 in server room. Location can be verified in Service Portfolio VM documentation.

  (ii) The USB-A to Micro USB-B cable should be stored in the in-rack server drawer when not in use.

External drive connected to front of VEEAM VM Host (R740) via USB

Section 2.02   Logical connection

(a)   Log into VEEAM VM, typically through ESXi web console.

(b)   Open file explorer and ensure external drive shown and adequate space available. As discussed in previous articles of this guide that is estimated at around 1 TB at present due to compression. The growth of this figure is normal and should be tracked over time.

   (i)   *If there is not enough space present, consider deleting older backups in the short term.*

  (ii)   *Follow the Grandfather Father Son strategy if forced to delete full backups.*

(c)   Ensure the external drive in question is not the SLOFF QuickBooks external backup drive instead of the server backup drive.

(d)   If no device is detected, conduct troubleshooting. Common problems include:

   (i)   *Device failing to auto-mount (solved by restarting VM or/and Host often)*

  (ii)   *Device does not show as present on VM after updates (solved by re-adding that USB bus controller / device to VM from ESXi console).*

  (iii)   *USB Ports on server are disabled.*
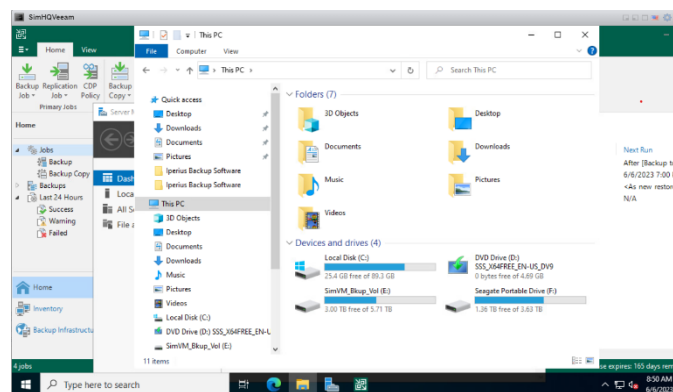
File explorer showing 1.36 TB available on Drive F: (close to full)

Article III.   Pre-Copy Backup Check

Section 3.01   Launch VEEAM Application on VEEAM VM

(a) VEEAM Application is located on the VEEAM VM previously logged into through the ESXi web console. Double click the icon on the desktop and select 'connect'.

(b) Wait a few minutes for VEEAM to fully start.

(c) On the left pane select 'Backups' then the arrow next to 'Weekly w/ Daily Incremental'.

(d) The five VM's listed earlier in this guide should be displayed along with when the last backup process completed.

   (i) *For information on when the last Full, Synthetic, Incremental etc. was taken you may select an individual VM and right click on it then select 'Restore Guest Files' then 'Microsoft Windows'. You may exit without restoring after verifying information.*

(e) Repeat the process for the Backup named 'Backup to NAS' and verify backup date.

   (i) *Both backup jobs have health / integrity checks that run periodically on the backups. This is to say all proper precautions have been taken to ensure that the backups will work if needed. However, annual testing of backups or more frequent is encouraged when possible.*
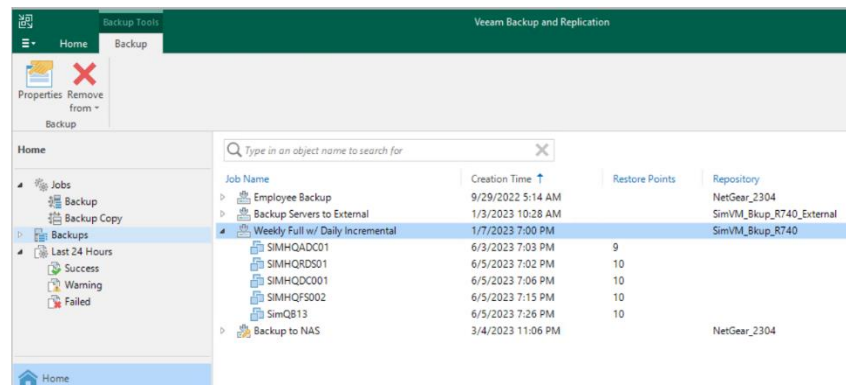
VEEAM console showing backups managed and dates created.

Article IV.   Copy Backups

Section 4.01   Active Full Copy

(a)   On the left navigation pane select 'Jobs' then 'Backup Servers to External'.

    (i)   If showing as disabled, select 'disable' again on top navigation bar to re-enable

(b)   With 'Backup Servers to External' selected, select 'Active Full'

    (i)   Backup speed is limited to USB 2.0 480 mbps but more realistically 320 mbps is the maximum.

    (ii)   It is common due to size limitations to first delete all incremental and most recent full backup before the 'Active Full' has enough space.

    (iii)   Note that pressing 'F5' refreshes VEEAM dashboard to see updated job status.

(c)   Ensure backup copy job has started (shown in 'Running' section of left navigation). Backup may take several hours.

Section 4.02   Verify Backup Copy

(a)   Repeat steps from 'Pre-Copy Backup Check' but for the backups on the external drive after copy has completed.

Article V.   Move Backups Offsite

Section 5.01   Move external drive offsite in accordance with 3 2 1 principle

(a)   The current standard procedure is to give the Chief Operations Officer (COO) for storage in offsite safe.