

ESXi backup with GhettoVCB

ESXi is a free and easy way to get full utilization on computer hardware for light use servers. Lab and development servers are what we primarily support on ESXi. Don't use this if high availability (HA) is required. For HA, use the full blown ESX server license and clustering.

Backups on ESXi are a challenge. VMWare has limited methods available and typically require shutting down the VM to perform a backup. One excellent tool that's available is GhettoVCB. This is available on ESXi and is simple to implement.

What's required:

- A download of the GhettoVCB software from:
 - <http://www.magikmon.com/mksbackup/ghettovcb.en.html>
- A linux host with SSH enabled to the ESXi server
- Sufficient disk space to allow multiple copies of each VM that needs backups.

Pros:

- Free
- Simple to deploy
- Simple to restore

Downsides:

- Space – you have to keep at least two copies of each VM.
- Time – Since you are copying the files each time, backups can take significant time relative to doing a snapshot approach on ESXi
- Disk IO – each VM is copied every run

How it works

GhettoVCB is simple. It copies each VM's disk and configuration to a NFS mounted partition where a normal backup utility such as Bacula can take over and perform the backup.

The configuration file:

```
VM_BACKUP_VOLUME=/vmfs/volumes/server1:vm2/  
DISK_BACKUP_FORMAT=thin  
VM_BACKUP_ROTATION_COUNT=1  
POWER_VM_DOWN_BEFORE_BACKUP=0  
ENABLE_HARD_POWER_OFF=0  
ITER_TO_WAIT_SHUTDOWN=3  
POWER_DOWN_TIMEOUT=5  
ENABLE_COMPRESSION=0  
ADAPTER_FORMAT=buslogic  
VM_SNAPSHOT_MEMORY=0  
VM_SNAPSHOT_QUIESCE=0  
ENABLE_NON_PERSISTENT_NFS=0  
UNMOUNT_NFS=0  
NFS_SERVER=192.168.1.2  
NFS_MOUNT=/naebus11/vm4  
NFS_LOCAL_NAME=nfs_storage_backup  
NFS_VM_BACKUP_DIR=mybackups  
SNAPSHOT_TIMEOUT=15  
EMAIL_LOG=0  
EMAIL_DEBUG=0  
EMAIL_SERVER=smtp.mycompany.com  
EMAIL_SERVER_PORT=25  
EMAIL_TO=backupgroup @mycompany.com  
EMAIL_FROM=andrew @mycompany.com
```

The calling program runs from CRON:

```
#!/bin/bash  
#Cleans up any old backups  
find /server1/vm2/backup/ -type f -mtime +0 -exec /bin/rm -r {} \;  
d=`date +%d`  
#creates new backup  
ssh vm2 /ghettoVCB/ghettoVCB.sh -g /ghettoVCB/ghettoVCB.conf -f  
/ghettoVCB/vms_to_backup.$d
```