ghettoVCB VIB & offline bundle for ESXi

Posted on 05/28/2015 by William Lam

It is still amazing to see that the number of contributions and suggestions from the community continues to grow for my free and simple VM backup solution called **ghettoVCB.** I created ghettoVCB almost 8 years ago which now has over 1.2 million views, pretty insane if you ask me! Although I am quite busy these days which includes a new born, I still try to find time to update the script as time permits. A couple of weeks back I received an email from one of my readers who came across ghettoVCB and was quite happy with the free solution. He also had some feedback asking why I did not provide an installable VIB for ghettoVCB?

A totally valid question and the answer was quite simple. When I had first created ghettoVCB back in the classic ESX 3.x days, the concept of a VIB had not existed yet. With the release of ESXi 5.0, the idea of the VIB was introduced but it was only recently in 2012 did VMware publish a method for customers to create custom VIBs for ESXi using the VIB Author Fling. I do have to admit at one point I did think about providing a VIB for ghettoVCB, but I guess I never went through with it for whatever reason. Looking back now, this was a no-brainer to provide a simplified user experience and not to mention the benefit of having ghettoVCB installed as a VIB is that it will automatically persist on ESXi after reboots which was a challenge for new users to ESXI.

So without further ado, here is ghettoVCB provided in either a VIB or offline bundle form:

- **vghetto-ghettoVCB.vib**
- **vghetto-ghettoVCB-offline-bundle.zip**

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To install the ghettoVCB VIB, you just need to download the VIB and run the following ESXCLI command and specifying the full path to the VIB:

```
esxcli software vib install -v /vghetto-ghettoVCB.vib -f
```

Once installed, you will find all ghettoVCB configuration files located in:

```
/etc/ghettovcb/ghettoVCB.conf
/etc/ghettovcb/ghettoVCB-
restore_vm_restore_configuration_template
/etc/ghettovcb/ghettoVCB-vm_backup_configuration_template
```

Both ghettoVCB and ghettoVCB-restore scripts are located in:

```
/opt/ghettovcb/bin/ghettoVCB.sh
/opt/ghettovcb/bin/ghettoVCB-restore.sh
```

One additional thing I would like to point out is that you can also quickly tell which version of ghettoVCB is running by inspecting the installed VIB by using the following ESXCLI command:

```
esxcli software vib list -n ghettoVCB
```

```
[root@mini:~] esxcli software vib get -n ghettoVCB
virtuallyGhetto_bootbank_ghettoVCB_1.0.0-0.0.0
   Name: ghettoVCB
   Version: 1.0.0-0.0.0
   Type: bootbank
   Vendor: virtuallyGhetto
```

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```
Maintenance Mode Required: False
Hardware Platforms Required:
Live Install Allowed: True
Live Remove Allowed: True
Stateless Ready: True
Overlay: False
Tags:
Payloads: payload1
```

If you look at the screenshot above, I have highlighted two important pieces of information in green. The first is the "**Description**" property which includes the Github commit hash of the particular revision of ghettoVCB and the "**Creation Date**" property which contains the date of that commit. This can be handy if you want to compare it to the latest ghettoVCB repository found on Github here. Thanks again Markus for the suggestion!

For those of you who are interested in the details for creating your own ghettoVCB VIB, the next section is specifically for you. Earlier this week I blogged about a Docker Container that I have created to help build custom ESXi VIBs and as you can see now, that was the basis for us to be able to quickly create ghettoVCB VIB based on the latest revision of the script.

Step 1 - Create a new Docker Machine following the steps outlined here.

Step 2 - Login to the Docker Machine and create a new Dockerfile which contains the following:

```
1  FROM lamw/vibauthor
2
3  # Download ghettoVCB VIB build script
4  RUN curl -O https://raw.githubusercontent.com/lamw/vghetto-scripts/m
5
6  # Run ghettoVCB VIB build script
7  RUN /root/create_ghettoVCB_vib.sh
8
```

```
9  CMD ["/bin/bash"]
```

Step 3 - Next we need to build our new Docker Container which will use the VIB Author Container by running the following command:

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The output will be quite verbose, but what you will be looking for is text highlighted in green as shown in the screenshot above. You should see the successful build of both the VIB and offline bundle as well as Docker Container showing a successful build.

Step 4 - After a successful build of our Docker Container, we can now launch the container by running the following command:

```
docker run --rm -it lamw/ghettovcb
```


Once logged into the Docker Container, you will see the generated VIB and the offline bundle for ghettoVCB as shown in the screenshot above.

If you wish to copy the VIB and offline bundle out of the Docker Container into the Docker Host, you can use Docker Volumes. I found this useful thread over on Stack overflow which I have modified to include the copying of the ghettoVCB VIB and offline bundle out to Docker Host by running the following command:

```
docker run -i -v ${PWD}/artifacts:/artifacts lamw/vibauthor
sh << COMMANDS
cp vghetto-ghettoVCB* /artifacts
COMMANDS
```

Finally, to copy the ghettoVCB VIB from the Docker Host to your desktop, we first need to identify the IP Address given to our Docker Machine by running the following command:

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```
scp -i /Users/lamw/.docker/machine/machines/osxdock/id_rsa
docker@172.16.195.144:artifacts/vghetto-ghettoVCB.vib .
```

You may also like:

- PowerCLI Core is now available on Docker Hub!
- How to run a Docker Container on the vCenter Server Appliance (VCSA) 6.5?
- 5 ways to a run PowerCLI script using the PowerCLI Docker Container
- VUM UMDS Docker Container for vSphere 6.5
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34 thoughts on "ghettoVCB VIB & offline bundle for ESXi"
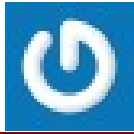
helux says:

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Reply

Khiet Manh says:
06/01/2015 at 11:31 am

Can it do Incremental or Differential backup for VM? Thanks!

Reply

William Lam says:
06/01/2015 at 1:35 pm

No, ghettoVCB only supports full backups as it clones the source VM. For more advanced/efficient backup mechanism you'll need to look at commercial products like vSphere Data Protection as an example which is included in all paid versions of vSphere

Reply
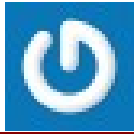
Alex says:

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William Lam says:
06/02/2015 at 5:41 pm

Thanks, I've fixed the typo

Reply

artooro (@artooro) says:
06/22/2015 at 4:56 pm

In the blog post you say there is a config file at /etc/ghetto/ghettoVCB.conf which is not the case. It's under /etc/ghettovcb/ghettoVCB.conf
But the bigger issue is that I can't edit and of the files in that folder. If I try to use vi to edit any of the files under /etc/ghettovcb I get a message saying "Operation not permitted"

But I was able to copy ghettoVCB.conf to myconfig.conf and then edit that. Which is likely what you intended in the first place, but it's not clear at first.

2) Could you add the outgoing port 25 firewall rule to your VIB as well? Currently I have my own VIB that I use for that, but it would be really nice if both ghettoVCB and the port 25 firewall rule could just be a single VIB.

Thanks!

Reply

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Love this script! Been working flawlessly for years…we just replaced the VMWare host hardware and I thought I'd try the vib method, but it's not happy:

esxcli software vib install -v /vghetto-ghettoVCB.vib
[DependencyError]
VIB virtuallyGhetto_bootbank_ghettoVCB_1.0.0-0.0.0 violates extensibility rule checks: [u'(line 23: col 0) Element vib failed to validate content']
Please refer to the log file for more details.

This is ESXi 5.5 fyi. Any ideas?

Thank you so much. — MB

Reply

William Lam says:
07/08/2015 at 3:57 pm

You need to specify -f option (this is mentioned in the instructions above)

Reply

Marion Bates says:
07/08/2015 at 4:34 pm

Duhhhh. That worked of course. Thank you!!

Reply

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Many thanks for VIB/bundle of this great tool! Just one question, how is it now with config-file? I think /etc is non-persistent, so any change I do to /etc/ghettovcb/ghettoVCB.conf will be lost after reboot. Or am I wrong?
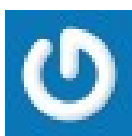
Reply

stephen boyle says:

09/19/2015 at 12:23 pm

i was wondering the same thing…

Reply

Tilo says:

10/08/2015 at 11:35 am

No,if you want to backup your configs, you can use the auto-backup.sh before rebooting. Thats backup your configs, but not all. Shell commands can be restore the configs by commands in /etc/rc.local.d/local.sh. Put in this your routines to restore the config in /etc's. I have in datastore a folder with scripts and configs. You can't edit

the etc-files directly, edit this from datastore with copy
promt to send etc-folders.

Reply

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I managed to get this up and running in ESXI 6

I use a NFS share here is my install Guide

#First mount share and install vib

esxcli storage nfs add –host=10.10.10.206 –share=/var/nfs –
volume-name=RemoteNFS || true

esxcli software vib install -v
/vmfs/volumes/RemoteNFS/BackupSolution/vghetto-
ghettoVCB.vib -f

#add to /etc/rc.local.d/local.sh## THis sets up the crontab and
makes a local script at boot##

mkdir /etc/cron
echo '#!/bin/sh' > /etc/cron/script.sh
echo 'esxcli storage nfs add –host=10.10.10.206 –share=/var/nfs
–volume-name=RemoteNFS || true' >> /etc/cron/script.sh
echo 'sh /opt/ghettovcb/bin/ghettoVCB.sh -a -g
/vmfs/volumes/RemoteNFS/BackupSolution/config/esxi105.con
f >>
/vmfs/volumes/RemoteNFS/BackupSolution/log/cron.esxi105.lo
g' >> /etc/cron/script.sh
chmod +x /etc/cron/script.sh

/bin/kill $(cat /var/run/crond.pid)
/bin/echo '* 2 * * * /etc/cron/script.sh' >>
/var/spool/cron/crontabs/root
/usr/lib/vmware/busybox/bin/busybox crond

#see that I utilize the remote share for my logs in the script. The esxi file system requires the script be built every boot.
I'm sure there are better ways to do this but this works for now.

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10/29/2015 at 8:09 pm

#please not this is a single line from the above setup

echo 'esxcli storage nfs add –host=10.10.10.206 –share=/var/nfs –volume-name=RemoteNFS || true' >> /etc/cron/script.sh

Reply

Robert says:
11/06/2015 at 12:27 am

Question
If I change the number of backups I want to keep per VM from 3 to 2 will it automatically delete the third one from the folders or do I have to do this manually?

Reply

Vance says:
12/10/2015 at 12:25 pm

This has been a great solution for our remote offices. Thanks for all that you have done.
I ran into an issue today testing upgrading hosts to ESXI 6 via the vSphere Update Manager. During the upgrade process, it errors out with the following error. Is there a way around this

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Reply

Keizo Fujii says:
01/13/2016 at 9:14 pm

I found 1 error(no white space before]]) and 1 warning (no double quote) in ghettoVCB.sh.
I hope already someone had modified.

$ diff ghettoVCB.sh ghettoVCB.sh.org

− if [["${EMAIL_LOG}" -eq 1]] || [["${EMAIL_ALERT}" -eq 1]] ; then
+ if [["${EMAIL_LOG}" -eq 1]] || [["${EMAIL_ALERT}" -eq 1]] ; then

− [["${BACKUP_ALL_VMS}" -eq 1]] && touch ${VM_FILE}
+ [[$BACKUP_ALL_VMS -eq 1]] && touch ${VM_FILE}

Reply

Keizo Fujii says:
01/13/2016 at 9:45 pm

Also I added SMTP=0 in function sendMail().

diff ghettoVCB.sh ghettoVCB.sh.org
— ghettoVCB.sh
+++ ghettoVCB.sh.org
@@ -1323,8 +1323,7 @@

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Luke Currier says:

06/06/2016 at 2:33 pm

Is ghettoVCB compatible with VMware vSphere Enterprise 6.0? I am seeking a backup solution, but have heard it is compatible with 5.0 and maybe 5.5 and not 6.0.

Please advise

Reply

William Lam says:

06/07/2016 at 12:44 pm

Yes, vSphere 6.0 is supported

Reply

sathish says:

08/02/2016 at 3:12 am

Hello William ,

do you have any Videos regard use your toll.

I'm not Master to understand your Post can you just share step

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thirumalai says:
08/26/2016 at 2:51 am

I don't see complete installation method for ghetto.vib, Could you please share the link for backup and restore and details ASAP.

Regards,
Thirumalai.M

Reply

Stefano says:
11/10/2016 at 10:42 am

In Esxi 6 free, I start my script with cron tab. My script savevm.sh calls ghettovcb.sh but it doesn't wait the end of this. How I can call ghettovcb.sh and wait the results BEFORE continuing with the other lines of my script ? Thanks you for your answer and for your blog (and for ghetto, sure !)

Regards,
Stefano

Reply

Eric Young says:

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~~https://github.com/toogery/ghetto-container~~

Reply

Silvan says:
11/29/2016 at 5:16 am

Hi,
Just for Information. in the ghettoVCB.sh
(LAST_MODIFIED_DATE=2016_11_20) you have to modify line
781 from:
if [[${ESX_RELEASE} == "5.5.0"]] || [[${ESX_RELEASE} == "6.0.0"]]
; then

to:

if [[${ESX_RELEASE} == "5.5.0"]] || [[${ESX_RELEASE} == "6.0.0"]]
|| [[${ESX_RELEASE} == "6.5.0"]] ; then

otherwise ESXi 6.5 host will not mount the NFS Share and you
probably get an Error like:

Add a NAS datastore.
readonly is a boolean value, 1 for readonly and 0 for rw access.
NFS Version must be nfs for nfs v3 or nfsv41 for version 4.1 or
later

Reply

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without uninstalling ghettoVCB?

VIB virtuallyGhetto_bootbank_ghettoVCB_1.0.0-0.0.0 violates extensibilty rule checks irtuallyGhetto_bootbank_ghettoVCB_1.0.0-0.0.0's acceptance level is community, which is not compliant with the ImageProfile acceptance level partner

Reply

Yaroslav says:
01/11/2017 at 4:57 am

Hello, William.
Are you have ghettoVCB-restore.sh with ESXi 6.5 support?

I'm download it from github and after run:

./ghettoVCB-restore.sh -c vms_to_restore
You're not running ESX(i) 3.5, 4.x, 5.x & 6.x!

Thnx for the answear.

Reply

Eric Young says:

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to
6.0.0|6.5.0) VER=6; break;;

Reply

Yaroslav says:
01/11/2017 at 6:03 am

Thnx, dude, its realy works!

Reply

William Lam says:
01/11/2017 at 6:27 am

Thanks for suggesting the quick fix Eric.

I've not had time to go and update the script but its pretty easy as nothing has changed from what ghettoVCB relies upon 🙂

Reply

William Lam says:

I've just rev'ed the scripts as well as the VIB/offline bundle for 6.5 on Github. Enjoy

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Great work. Thanks, William, it very perfect tool!

Cihan Akgun says:

I'm getting errors when I try to install this on ESXi 6.0

esxcli software vib install -d vghetto-ghettoVCB.vib -f
[MetadataDownloadError]
Could not download from depot at /vghetto-
ghettoVCB.vib/index.xml, skipping (('/vghetto-
ghettoVCB.vib/index.xml', '', "[Errno 4] IOError: "))
url = /vghetto-ghettoVCB.vib/index.xml
Please refer to the log file for more details.

Reply

Vance Price says:

01/31/2017 at 6:11 am

I had the same issue. I ended up uninstalling ghettoVCB
and then reinstalling after the upgrade.

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