

Atlantis USX in my lab – Installation and configuration

By Vladan SEGET | Last Updated: February 17, 2017

The Atlantis USX deployment is dead easy. It's a simple virtual appliance which gets deployed to your host via vSphere client. File > Deploy OVF template is your friend. You'll chose the obvious network informations and disk types (thin/thick/zeroeagerthick)... That's the easy part.... but what's next is not difficult but needs some planning. You'll need vmkernel port adapter in each host with a label and also virtual machine port group for the USX VM storage interface.

Don't forget the check out the Part 1: [Atlantis USX in my lab – Introduction](#)

Obviously lab environments does not always match real production environments, but we do our best. If you only have flat network or you got only 1Gb network it's ok for the test, but what you need to test the Hybrid volume types is minimum three hosts.



The default login/password combination is admin/poweruser.



After login in it's the time to hook the solution to our vCenter(s). They call it "VM Manager".



Private Sponsors



Featured

- Thinking about HCI? G2, an independent tech solutions peer review platform, has published its Winter 2023 Reports on Hyperconverged Infrastructure (HCI) Solutions.
- Zerto: One Platform for Disaster Recovery, Backup & Cloud Mobility: Try FREE Hands-On Labs Today!

[click to become a sponsor](#)

Most Recent

- VMware ESXi FREE is FREE again!
- Installation of StarWind VSAN Plugin for vSphere
- Protect Mixed environments with Nakivo Physical Machine recovery (bare metal)
- No more FREE licenses of VMware vSphere for vExperts – What's your options?
- Tails – Your Private OS on USB Stick
- StarWind V2V Converter Now has CLI
- Veeam VHR ISO v2 – 2025 Download and Install
- Deployment OVA and Installation of Nakivo Backup and Replication for VMware
- XCP-NG FREE Hypervisor and XO Lite to deploy XOA
- Progress Kemp Loadmaster – Why use Load balancer in your organization?

Get new posts by email:

Perform the following steps to configure USX and create a volume:

01 ADD VM MANAGER Provide information about VM Managers.

02 SELECT HYPERVISORS AND STORAGE Select hypervisors and storage that USX can use.

03 DEFINE NETWORKING Provide information about networks.

04 ADD NAME TEMPLATE Add a Service VM name template or a volume name template (depends on volume type).

05 CREATE VOLUME Create a volume to optimize performance and consolidate storage for an application.

[Subscribe](#)
[Support us on Ko-Fi](#)


To add your vCenter, click the Plus icon and fill in the IP and login informations.

ATLANTIS USX™

VM Managers

Name	VM Manager Address	Platform	Port
vcenter	10.10.7.28	vCenter	443

Add VM Manager

Name:

Address:

Username:

Password:

OK Cancel

You then choose the second point – Select hypervisors and storage. Make sure to hit the floppy to save your settings... -:) You can click to enlarge...

Sponsors

TRUMP INTERNATIONAL HOTEL LAS VEGAS From \$188

RIO HOTEL & CASINO, A DESTINATION BY H... LAS VEGAS From \$71

TROPICANA ATLANTIC CITY ATLANTIC CITY From \$46

FONTAINBLEAU LAS VEGAS LAS VEGAS From \$440

priceline Exclusive app only deals on hotels & flights. 4.8 ★ Free [Install](#)

ATLANTIS USX™

Hypervisors and Storage

ESXvirtualization www.vladan.it

Select	Hypervisor	Status	Usable Memory (GB)	30% of Avail.	Platform	VM Manager
<input checked="" type="checkbox"/>	esxi5-01.lab.local	Connected	6		VMware vCenter	vcenter
<input type="checkbox"/>	esxi5-04.lab.local	Connected	0		VMware vCenter	vcenter
<input checked="" type="checkbox"/>	esxi5-02.lab.local	Connected	6		VMware vCenter	vcenter
<input checked="" type="checkbox"/>	esxi5-03.lab.local	Connected	6		VMware vCenter	vcenter

Select	Datastore Name	Hypervisor	Usable Storage (GB)	Type	Mounted
<input checked="" type="checkbox"/>	local140SSD01	esxi5-01.lab.local	213	Flash	true
<input checked="" type="checkbox"/>	local1TbSATA01	esxi5-01.lab.local	837	Disk	true
<input checked="" type="checkbox"/>	110ssd01	esxi5-01.lab.local	99	Flash	true
<input checked="" type="checkbox"/>	local240GSSD02	esxi5-02.lab.local	213	Flash	true
<input checked="" type="checkbox"/>	local1TbSATA02	esxi5-02.lab.local	837	Disk	true
<input checked="" type="checkbox"/>	110ssd02	esxi5-02.lab.local	99	Flash	true
<input checked="" type="checkbox"/>	local447GbSSD03	esxi5-03.lab.local	171	Flash	true
<input checked="" type="checkbox"/>	local1TbSATA03	esxi5-03.lab.local	744	Disk	true
<input checked="" type="checkbox"/>	110ssd03	esxi5-03.lab.local	99	Flash	true

Third point is the network. You can create two network types (storage and management).

The screenshot shows the ATLANTIS USX interface with the Networking tab selected. On the left, there's a sidebar with Manage, Analytics, Monitoring, and System sections. The main area shows a list of networks under 'Storage Network'. A modal window titled 'Add Network Profile' is open, showing fields for 'Network Profile Name' (with 'Enter' placeholder), 'DHCP' (radio button selected), and 'Static IP' (radio button). Below these are fields for 'IP Range Start', 'IP Range End', 'Netmask', and 'Default Gateway'. At the bottom of the modal is a 'Network Type:' dropdown menu with three options: 'Storage', 'Storage' (selected), and 'Management'. A blue arrow points to the 'Management' option.

Fourth point is name template. The name template is necessary point as based on that template, the service VMs or the USX Volumes are named. The system and the scripting which runs under the cover needs that....

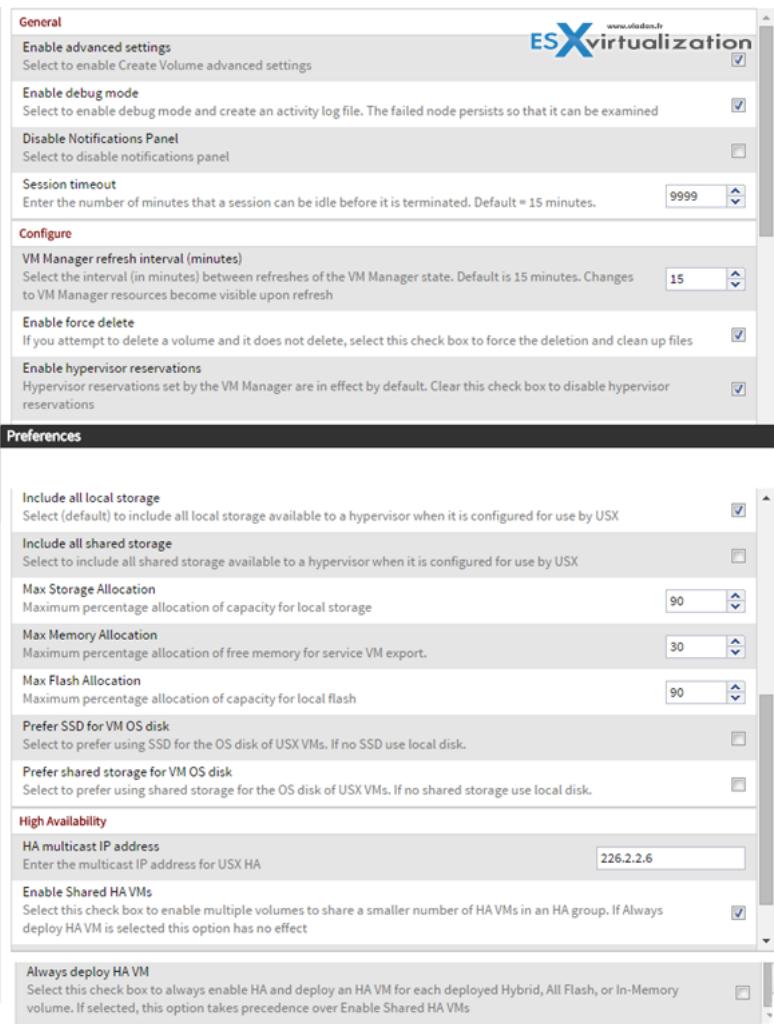
The screenshot shows the ATLANTIS USX management interface. On the left, there's a sidebar with icons for Manage, Analytics, Monitoring, and System. The main area has tabs for 'Name Templates' and 'Manage'. Under 'Name Templates', there's a table with two rows: 'srv' (Service VM) and 'vol' (Volume). The 'Manage' tab is active, showing a modal dialog titled 'Add Name Template'. The dialog contains fields for Type (set to Service VM), Template Name (left empty), Prefix (set to 'servicevm'), Number of Digits (set to 2), and Postfix (left empty). Below these fields is a 'Sample' field containing 'servicevm00'. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Before going to the point 5 – creating volume I should point out that you may (or may not) needs to go and take a look at the settings.

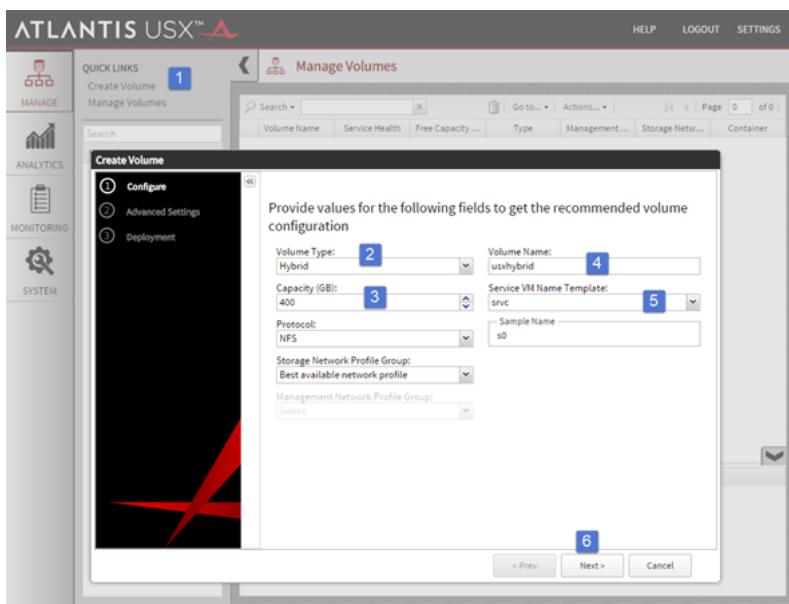
The screenshot shows the ATLANTIS USX interface with the 'MANAGE' tab selected. The main area is titled 'Manage Volumes'. In the top right corner, there's a 'SETTINGS' menu with a blue arrow pointing to its dropdown. The dropdown menu includes 'Preferences', 'Licensing', and 'Change Password'. Below this, a box highlights the 'About Atlantis USX 2.1' section, which contains the text 'Build: 2.1.0.45' and 'Grid ID: atlantis_1419849356157'.

The advanced settings might be your interest as it gives you some more options which are otherwise hidden during the volume wizard assistant. During the creation of the volumes.

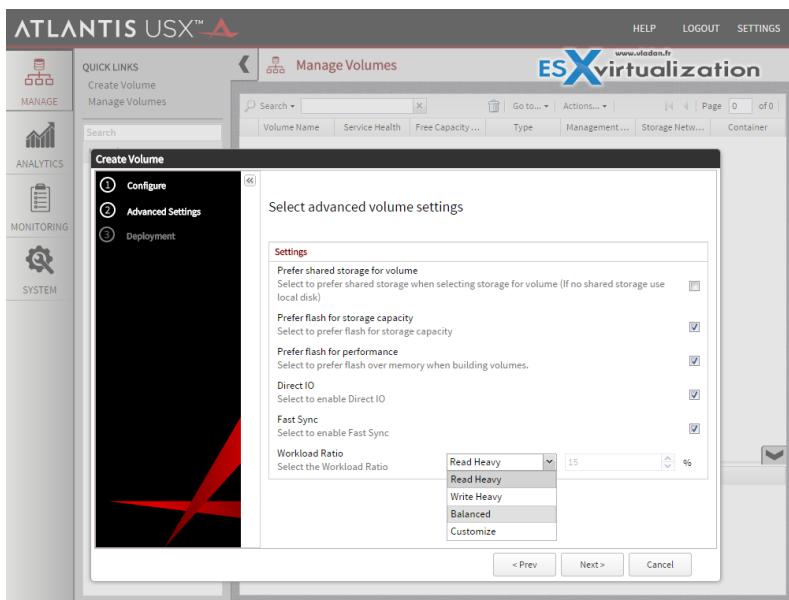
The preferences page gives you possibility also to tweak the maximum values that are allowed for the storage allocation for local storage, flash and memory. Quite exhaustive...



If you you can go and create a volume.

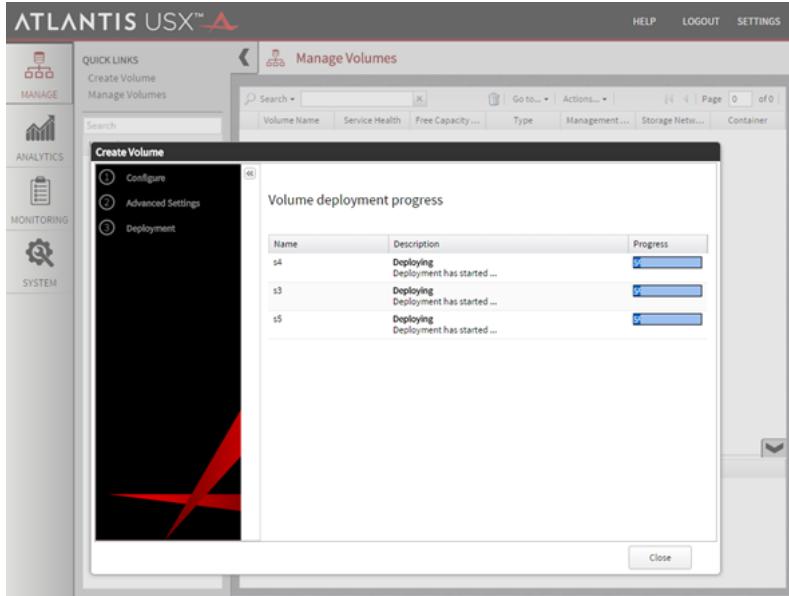


On the next page you have other options (those might differ in case you did not go into preferences page, like I did). You can check out the Atlantis computing blog on which preferences to check (uncheck) here. You'll find a whole series on the deployment as well.

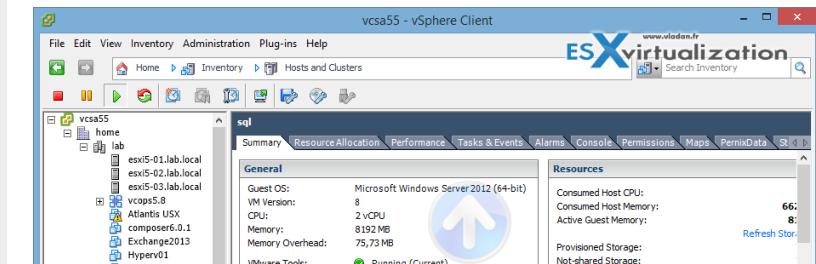


Note that if you're using lab software (which is quite limited in my case) you might get an error that there is no host with enough memory. Then if no errors you should see some nice progress bars when deploying the volume.

progress bars when deploying the volume...



So in my case the service VMs got deployed first.... Here is the shot from my vSphere client.



VMs Overview

- Hyperv02
- Loginsight
- MGMT-w7
- Nicole
- s3
- s4
- s5
- SBOOK2.lab.local
- SCVMM

IP Addresses: 10.10.7.9

DNS Name: sql.lab.local

EVC Mode: Intel® "Nehalem" Generation

Status: Powered On

Host: esx5-03.lab.local

Active Tasks:

Used Storage: local447GbSSD03 Normal SSD

Network: drobo-storage Standard port group

Recent Tasks

Name	Target	Status
Deploy OVF template	s5	18% [progress bar]
Deploy OVF template	s4	40% [progress bar]
Deploy OVF template	s3	42% [progress bar]

First the service VMs gets deployed. Each one on different host. Those VMs are quite beefed (16 vCPUs....)

Then the “reconfiguring service VM” message is on...

Create Volume

- Configure
- Advanced Settings
- Deployment

Volume deployment progress

Name	Description	Progress
s4	Reconfiguring Service VM ...	85%
s3	Reconfiguring Service VM ...	85%
s5	Reconfiguring Service VM ...	85%

and the VM gets some more convenient resources... (4 vCPU).

Guest OS: Ubuntu Linux (64-bit)

VM Version: 8

CPU: 4 vCPU

Memory: 7168 MB

Memory Overhead: 73,87 MB

VMware Tools: Running (3rd-party)

IP Addresses: 10.10.1.52

Followed by PowerOn and Bootstrap...

Create Volume

- Configure
- Advanced Settings
- Deployment

Volume deployment progress

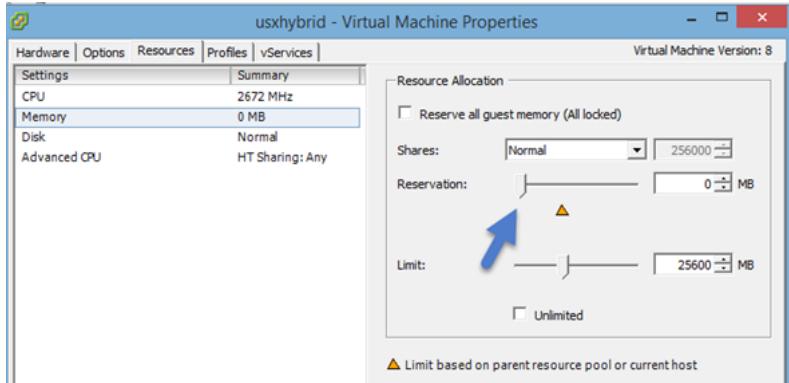
Name	Description	Progress
s4	Power on Service VM ...	100%
s3	Power on Service VM ...	100%
s5	Power on Service VM ...	100%
s4	Bootstrap	100%
s5	Bootstrap	100%
s3	Bootstrap	100%

Next, the volume VM gets deployed, automatically. All this orchestration happens behind the scenes without user's interaction. Next time I should have probably shoot a small video :-).

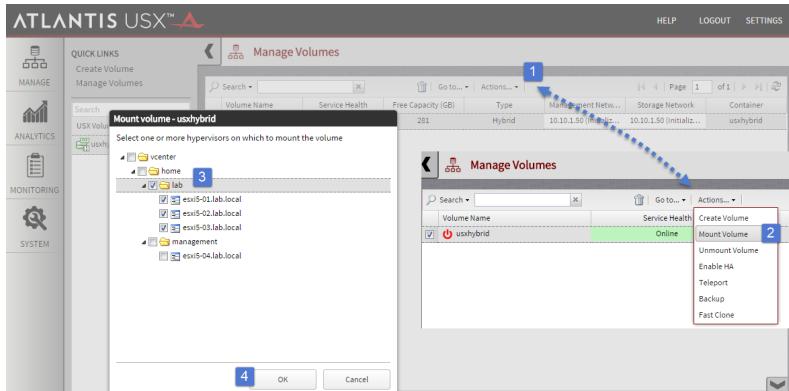


Note: I had to modify the reservation for the volume VM otherwise it would not power on.

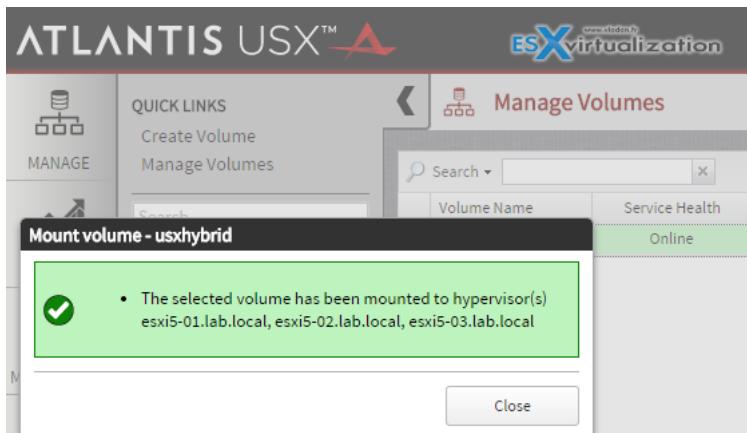
Note: I had to modify the reservation for the volume VM otherwise it would not power on... (which is no good in prod.) But in my lab which is memory constrained it was the only way to move on... So manual start of the VM and off we goes...



Once the VM fully initialized you should get a view like this where you can mount the volume to your selected ESXi hosts as an NFS share...



Message confirming that will appear...



And to confirm, just check the storage any of those ESXi to which we asked to mount the NFS datastore...

Identification	Status	Device	Drive Type	Capacity	Free	Hardware Acceleration	Type
110ssd02	Normal	Local ATA Disk (naa.5...	SSD	111,75 GB	106,91 GB	Unknown	VMFS
drobo	Normal	Drobo iSCSIDisk (naa...	Non-SSD	499,75 GB	285,21 GB	Not supported	VMFS
local1TbSATA02	Normal	ATA Serial Attached S...	Non-SSD	931,25 GB	919,18 GB	Unknown	VMFS
local240GbSSD02	Normal	Local ATA Disk (naa.5...	SSD	238,25 GB	235,78 GB	Unknown	VMFS
usxhybrid-ds	Normal	10.10.1.51:/exports/u...	Unknown	299,05 GB	296,64 GB	Supported	NFS

So as you can see, the process is quite straightforward and without much hassle. It took me definitely more time to take the screenshots than to configure and mount the volume... -:)

Note the hardware acceleration column. It says supported. It's because I installed a VAAI plugin provided by Atlantis which can accelerate some VM operations like cloning etc... It's a simple vib which needs to be installed in each of your ESXi hosts which are connected to the NFS datastore. The installation is simple, you have the choice between CLI or you can use vSphere update manager for the job.

01. First, copy the plugin VIB file to the ESXi host, either by placing the VIB on an accessible

HTTP server, or by using pscp or scp to copy the file to the ESXi host.

02. Set the acceptance level to accepted for the ESXi packages.

```
esxcli software acceptance set --level=accepted
```

03. Install the bundle using the following command:

```
esxcli software vib install --viburl=https://<path to vib>/AtlantisILIO_VAAI_Plugin_2.0-1.vib
```

Note that reboot of the host is necessary after installing the VIB.

Deploying VMs into this new volume does not need any write up as it does not differ from standard process of deploying a VM to shared storage or VSAN.

The Atlantis USX hyperconverged solution is relatively easy to Install and (or) implement. There is a lot of the "behind the covers" scripting and orchestrating going on behind the scenes and as an admin there is not much to worry about. Particular attention must be however taken when working with hosts which does not carry much RAM (my lab case) so then you're fairly limited in terms of volume creation. Because less RAM you have, lower capacity volumes you'll be able to create. If you don't have RAM capacity then you won't be able to create a volume. A message saying that there is no host with enough memory....

The final screen showing the volume details through the USX dashboard.



You also have an access to a analytics screen showing detailed informations about your environment. A monitoring of CPU, Network throughput, Memory utilization, IOPs offload, disk throughput, disk utilization, etc...



Generaly I liked this solution by its relative simplicity of deployment, as the deployment process is reduced to the minimum. The 5 step to complete screen helps a lot in which tasks to accomplish first and which one to carry on a next one. I haven't been able to create every possible volume type or try the large majority of the USX features (teleport, fastclone, HA) as my lab environment does not allow that.

Don't forget to check out the Part 1: [Atlantis USX in my lab – Introduction](#).

5/5 - (1 vote)

| Filed Under: [Home Lab](#) Tagged With: [Atlantis USX installation](#)



About Vladan SEGET

This website is maintained by [Vladan SEGET](#). Vladan is an independent consultant, professional blogger, vExpert x16, Veeam Vanguard x9, VCAP-DCA/DCD, ESX

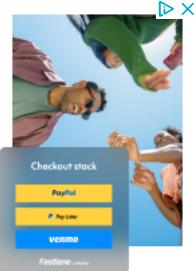
Virtualization site has started as a simple bookmarking site, but quickly found a large following of readers and subscribers.

Connect on: [Facebook](#). Feel free to network via Twitter @vladan.

73%
conversion
rate. 100%
crushing it.

Give 92M Venmo
users the payment
option they love.

[Sign Up](#)



PayPal

Source: PayPal internal data of overall conversion rate results for Pay with Venmo from August 2023 - July 2024. Individual results may vary.

Free Trials

- **DC Scope for VMware vSphere – optimization, capacity planning, and cost management.** Download [FREE Trial Here](#).
- **Augmented Inline Deduplication, Altaro VM Backup v9 For #VMware and #Hyper-V**
– [Grab your copy now download TRIAL](#).

VMware Engineer Jobs

[VMware Engineer Jobs](#)

YouTube



...

Find us on Facebook



...

Copyright © 2025 ·Dynamik-Gen · Genesis Framework · Hosted with HostColor.com

Do Not Sell or Share My Personal Information