

Technical Guide for Deployment

Installing DVP/DVG using on VMWare vSphere with Combo Installer ISO

1 SCOPE AND PREREQUISITES

This document provides a guide to installing the VideoFlow software on VMware vSphere Virtual machines using vCenter. If using vSphere/ESXi instead of vCenter, some user adaptations to the provided instructions may be required.

This document assumes that the user has the required vCenter credentials.

The installation process will get the latest version of the DVP or DVG software from VideoFlow's repository, therefore the VM machine must have an the first network adapter connected and configured with access to a VLAN with a DHCP server to provide access to the internet during that time.

Prerequisites:

- ✓ All VM network ports in the machine must be connected to the network and have a DHCP server accessible on all of them.
- ✓ Internet Access
- ✓ Sufficient VM Host resources
- ✓ VideoFlow DVG/DCP Combo Installer ISO file downloaded

Recommended Configurations – Up to 80Mbps of Protected Steam Capacity

Option	Selection
Processor	4 Core >3.0Ghz
Operating system	CentOS 7.7 Minimum
Memory	4GB, Recommended 8GB
Hard drive	SSD 32GB

Recommended Configurations – Up to 200Mbps of Protected Steam Capacity

Option	Selection
Processor	6 Core >3.0Ghz
Operating system	CentOS 7.7 Minimum
Memory	8GB, Recommended 16GB
Hard drive	SSD 32GB, Recommended 64GB SSD

Recommended Configurations – Up to 500Mbps of Protected Steam Capacity

Option	Selection
Processor	8 Core >3.0Ghz
Operating system	CentOS 7.7 Minimum
Memory	8GB, Recommended 16GB
Hard drive	SSD 32GB, Recommended 64GB SSD

2 OBTAIN THE LATEST VIDEOFLOW COMBO INSTALLER

You can find an image file of the installation on our FTP server.

FTP Download (Permanent Repository)

User can open a Windows FTP application like FileZilla and download the ISO manually with the following parameters:

FTP Username: image@video-flow.com

FTP Password: nhtfvf75ym9p84b

FTP server: <ftp.video-flow.com>

FTP & explicit FTPS port: 21

FTP name to download: VF-combo-CentOS-7-x86_64-NetInstall-1804.iso

Browser Download (Temporary Link)

https://mswlab-my.sharepoint.com/:u:/p/mikewells/Ed1tQc8aH9RDIPWs1_CjyqgBmhWufBKjAz-Hqw9jGPdzqw?e=fo3aIU

When download is complete, upload the VF-combo-CentOS-7-x86_64-NetInstall-1804.iso to a vSphere Datastore

Note: This install requires DHCP and Internet access for the initial installation.

VM Guest needs access to <http://repo.videoflow1.com>

Select the Cluster or Host on which the Guest Will Reside

New Virtual Machine

✓ 1 Select a creation type

✓ 2 Select a name and folder

3 Select a compute resource

4 Select storage

5 Select compatibility

6 Select a guest OS

7 Customize hardware

8 Ready to complete

Select a compute resource

Select the destination compute resource for this operation

▼

>

Compatibility

✓

Compatibility checks succeeded.

CANCEL

BACK

NEXT

Select the Datastore

New Virtual Machine

✓ 1 Select a creation type

✓ 2 Select a name and folder

✓ 3 Select a compute resource

4 Select storage

5 Select compatibility

6 Select a guest OS

7 Customize hardware

8 Ready to complete

Select storage

Select the storage for the configuration and disk files

☐

Encrypt this virtual machine (Requires Key Management Server)

VM Storage Policy

Datastore Default

▼

☐

Disable Storage DRS for this virtual machine

	Name	Storage Compatibility	Capacity	Provisioned	Free	Type	Cluster
<input checked="" type="radio"/>	DS-SAS-10K-278	--	278.75 GB	332.83 GB	109.19 GB	VMFS 6	
<input type="radio"/>	DS-SAS-10K-836	--	836.5 GB	2.11 TB	126.65 GB	VMFS 6	
<input type="radio"/>	DS-SAS-15K-146	--	128.5 GB	157.75 GB	51.91 GB	VMFS 6	
<input type="radio"/>	DS-SATA-7K-931	--	931.25 GB	34.37 GB	896.88 GB	VMFS 6	
<input type="radio"/>	DS-SATA-SSD-2...	--	238.25 GB	620.34 GB	145.03 GB	VMFS 6	

5 items

Compatibility

✓

Compatibility checks succeeded.

CANCEL

BACK

NEXT

5

Select the Default Compatibility

New Virtual Machine

✓ 1 Select a creation type

✓ 2 Select a name and folder

✓ 3 Select a compute resource

✓ 4 Select storage

5 Select compatibility

6 Select a guest OS

7 Customize hardware

8 Ready to complete

Select compatibility

Select compatibility for this virtual machine depending on the hosts in your environment

The host or cluster supports more than one VMware virtual machine version. Select a compatibility for the virtual machine.

Compatible with: ESXi 6.7 and later

This virtual machine uses hardware version 14, which is compatible with ESXi 6.7 and later. Some virtual machine hardware features are unavailable with this option.

CANCEL

BACK

NEXT

Select the Guest OS

Guest OS Family: Linux

Guest OS Version: CentOS 7 (64-bit)

New Virtual Machine

✓ 1 Select a creation type

✓ 2 Select a name and folder

✓ 3 Select a compute resource

✓ 4 Select storage

✓ 5 Select compatibility

6 Select a guest OS

7 Customize hardware

8 Ready to complete

Select a guest OS

Choose the guest OS that will be installed on the virtual machine

Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.

Guest OS Family: Linux

Guest OS Version: CentOS 7 (64-bit)

Compatibility: ESXi 6.7 and later (VM version 14)

CANCEL

BACK

NEXT

Customize Virtual Hardware Requirements per Application Requirement Guidelines

CPU: 4 – 8 cores as required

Memory: 4GB -16GB as required

Hard Disk: 16GB – 64GB as required (Thin or Thick Provisioned)

SCSI Controller: VMware Paravirtual

NICs: 6 VMXNet3

CD/DVD: Connect to VF-combo-CentOS-7-x86_64-NetInstall-1804.iso

New Virtual Machine

✓ 1 Select a creation type

✓ 2 Select a name and folder

✓ 3 Select a compute resource

✓ 4 Select storage

✓ 5 Select compatibility

✓ 6 Select a guest OS

7 Customize hardware

8 Ready to complete

Customize hardware

Configure the virtual machine hardware

Virtual Hardware

VM Options

ADD NEW DEVICE

> CPU *	4		
> Memory *	8		GB
> New Hard disk *	32		GB
> New SCSI controller *	VMware Paravirtual		
> New Network *	VM Network		<input checked="" type="checkbox"/> Connect...
> New Network *	VM Network		<input checked="" type="checkbox"/> Connect...
> New Network *	VM Network		<input checked="" type="checkbox"/> Connect...
> New Network *	VM Network		<input checked="" type="checkbox"/> Connect...
> New Network *	VM Network		<input checked="" type="checkbox"/> Connect...
> New Network *	VM Network		<input checked="" type="checkbox"/> Connect...
> New CD/DVD Drive *	Datastore ISO File		<input checked="" type="checkbox"/> Connect...
> Video card *	Specify custom settings		

CANCEL

BACK

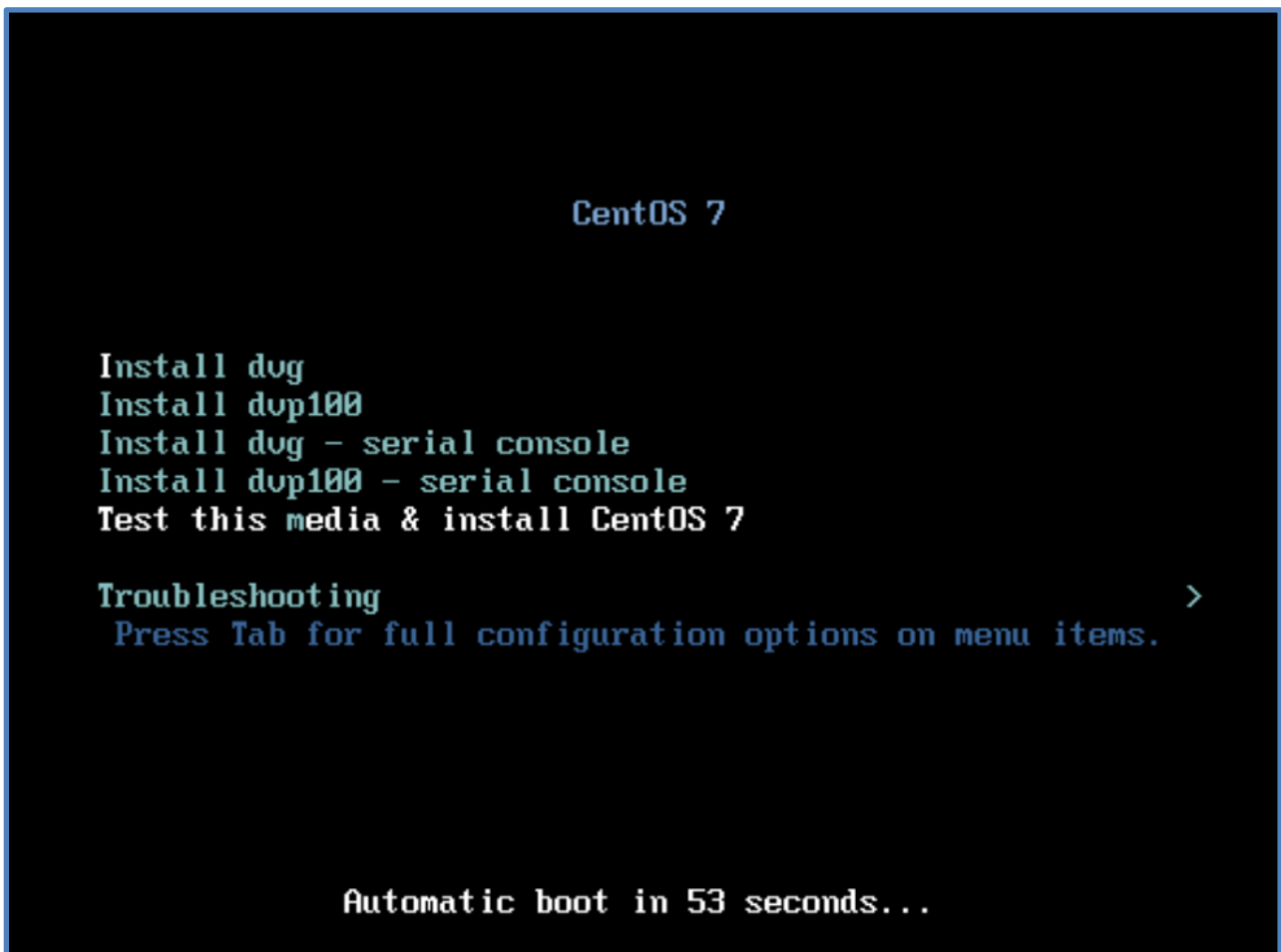
NEXT

7

4 TARGET VM GUEST INSTALLATION STEPS

Using the cursor keys, select the “Test this Media and install CentOS 7” option and press ‘Enter’

During the install, the installer will download required components, and this may take a while depending on available bandwidth.

A screenshot of the CentOS 7 installer boot screen. The background is black with white text. At the top, it says "CentOS 7". Below that, there is a list of installation options: "Install dvd", "Install dvd100", "Install dvd - serial console", "Install dvd100 - serial console", and "Test this media & install CentOS 7". The last option is highlighted with a blue bar. Below the list, it says "Troubleshooting" followed by a right arrow, and "Press Tab for full configuration options on menu items." At the bottom, it says "Automatic boot in 53 seconds...".

```
CentOS 7

Install dvd
Install dvd100
Install dvd - serial console
Install dvd100 - serial console
Test this media & install CentOS 7

Troubleshooting >
Press Tab for full configuration options on menu items.

Automatic boot in 53 seconds...
```

Once setup is complete the VM Guest will automatically power off

Once VM Guest is powered off, edit the VM Settings

Select VM Options | Boot Options | Force BIOS Setup and Check 'During the next boot, force entry into the BIOS setup screen' then click OK

Edit Settings | VideoFlow DVG
×

Virtual Hardware
VM Options

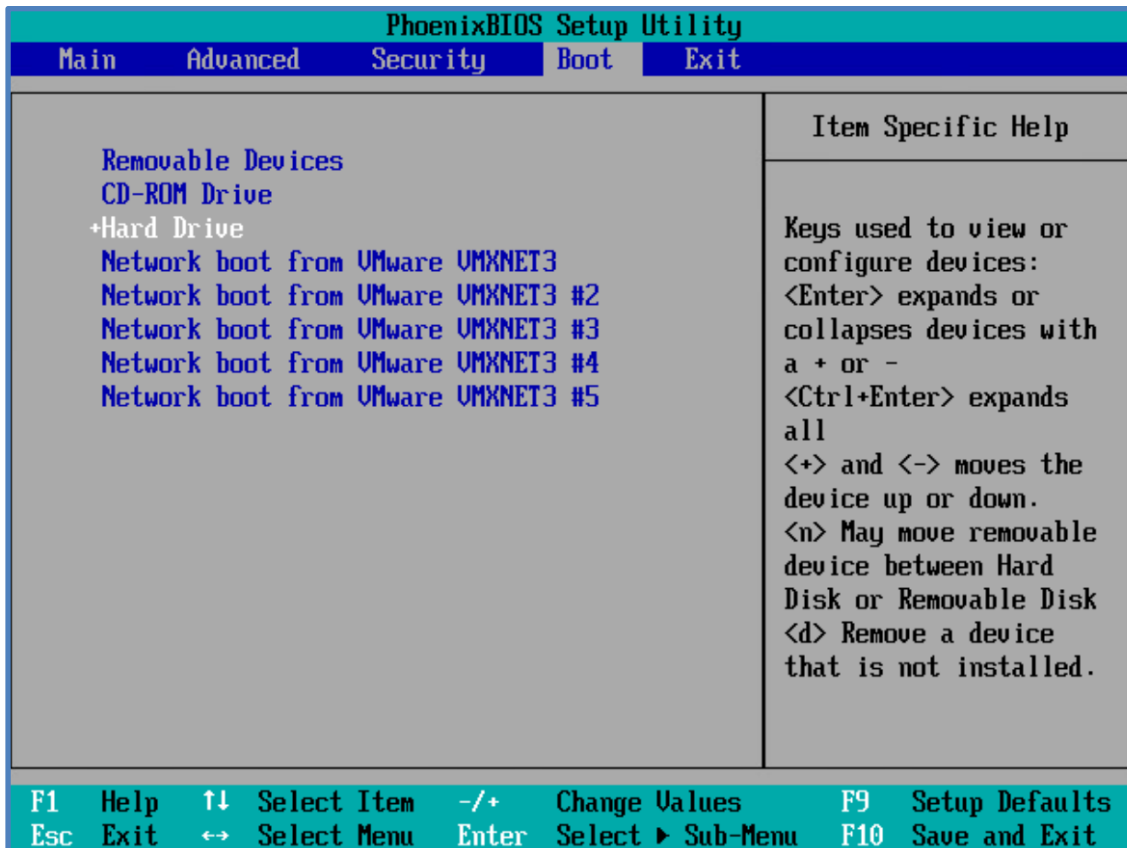
> General Options	VM Name: VideoFlow DVG
VMware Remote Console Options >	<input type="checkbox"/> Lock the guest operating system when the last remote user disconnects
> Encryption	Expand for encryption settings
> Power management	Expand for power management settings
> VMware Tools	Expand for VMware Tools settings
<div> ▼ Boot Options </div>	
Firmware	BIOS (recommended) ▼
Boot Delay	When powering on or resetting, delay boot order by 0 milliseconds
Force BIOS setup	<input checked="" type="checkbox"/> During the next boot, force entry into the BIOS setup screen
Failed Boot Recovery	<input type="checkbox"/> If the VM fails to find boot device, automatically retry after 10 seconds
> Advanced	Expand for advanced settings
> Fibre Channel NPIV	Expand for Fibre Channel NPIV settings

CANCEL
OK

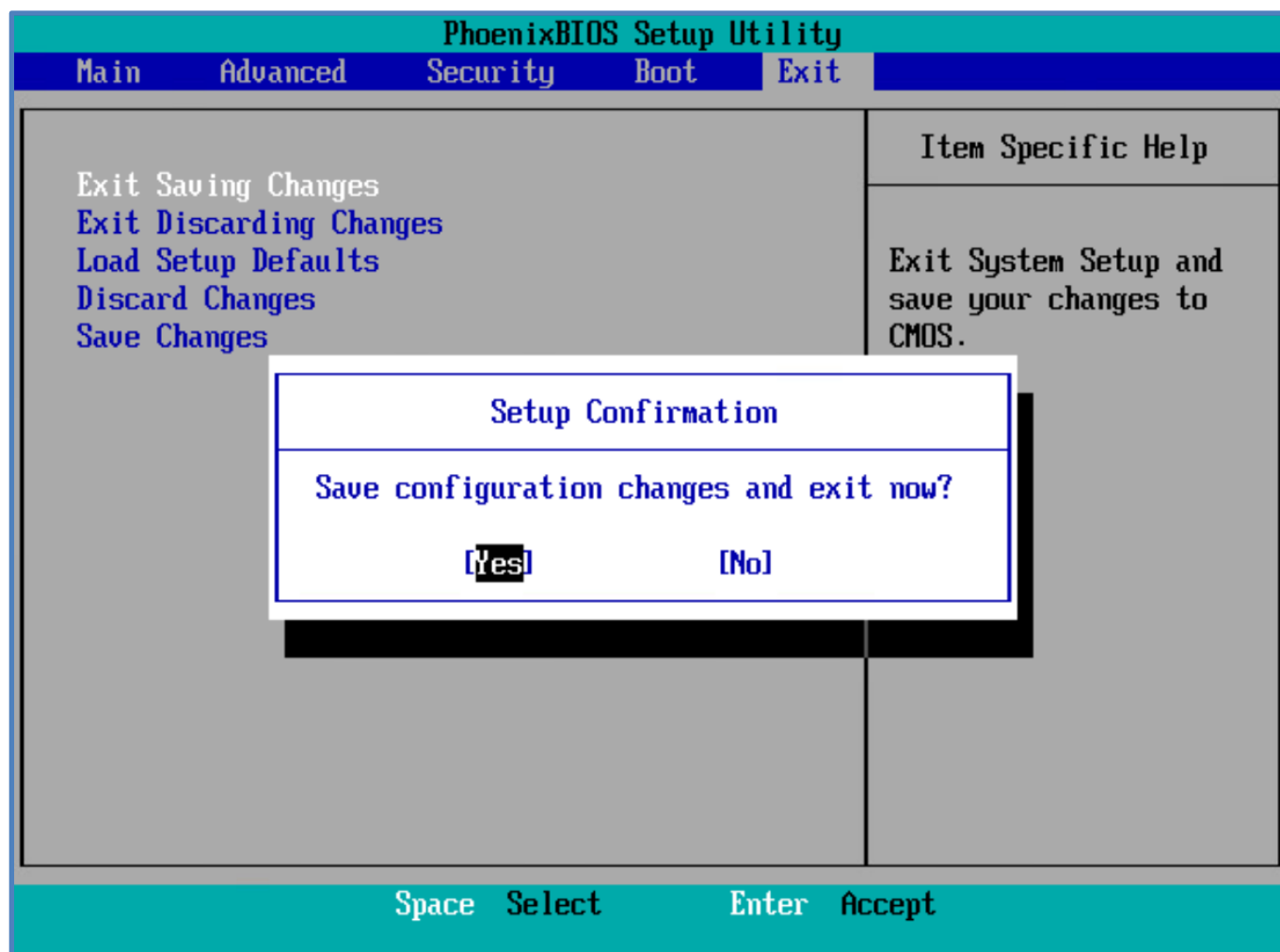
Power on the VM Guest

Guest will power up into the BIOS menu

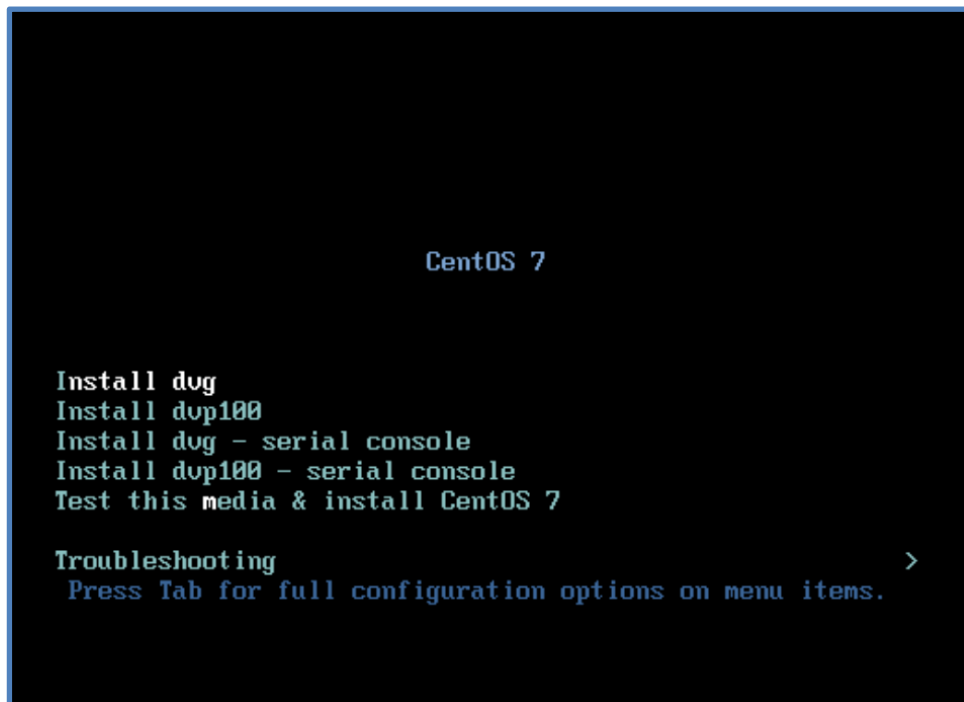
Go to Boot Tab and move the Hard Drive below the CD-ROM Drive by following the instructions on the “Item Specific Help” menu on the right side of the page



Go to the Exit tab, select 'Exit Saving Changes', then Select 'Yes' and press 'Enter' to "Save configuration changes and exit now".



After the Guest reboots, using the cursor keys, select 'Install DVG'



Note: This takes several minutes like the OS install and will power down the VM Guest once the install is complete.

Once VM Guest is powered off, change the CD/DVD drive to Client Device

Edit Settings | VideoFlow DVG

Virtual Hardware | VM Options

ADD NEW DEVICE

> CPU	4		
> Memory	8		GB
> Hard disk 1	32		GB
> SCSI controller 0	VMware Paravirtual		
> Network adapter 1	VM Network		<input checked="" type="checkbox"/> Connect...
> Network adapter 2	VM Network		<input checked="" type="checkbox"/> Connect...
> Network adapter 3	VM Network		<input checked="" type="checkbox"/> Connect...
> Network adapter 4	VM Network		<input checked="" type="checkbox"/> Connect...
> Network adapter 5	VM Network		<input checked="" type="checkbox"/> Connect...
> Network adapter 6	VM Network		<input checked="" type="checkbox"/> Connect...
> CD/DVD drive 1 *	Client Device		<input type="checkbox"/> Connect...
> Video card	Specify custom settings		
VMCI device			
SATA controller 0	AHCI		
> Other	Additional Hardware		

CANCEL
OK

Then Edit the VM Settings Again

Select VM Options | Boot Options | Force BIOS Setup and Check 'During the next boot, force entry into the BIOS setup screen' then click OK

Edit Settings | VideoFlow DVG

Virtual Hardware

VM Options

> General Options	VM Name: VideoFlow DVG
VMware Remote Console Options	<input type="checkbox"/>
>	Lock the guest operating system when the last remote user disconnects
> Encryption	Expand for encryption settings
> Power management	Expand for power management settings
> VMware Tools	Expand for VMware Tools settings
▼ Boot Options	
Firmware	BIOS (recommended) ▼
Boot Delay	When powering on or resetting, delay boot order by 0 milliseconds
Force BIOS setup	<input checked="" type="checkbox"/> During the next boot, force entry into the BIOS setup screen
Failed Boot Recovery	<input type="checkbox"/> If the VM fails to find boot device, automatically retry after 10 seconds
> Advanced	Expand for advanced settings
> Fibre Channel NPIV	Expand for Fibre Channel NPIV settings

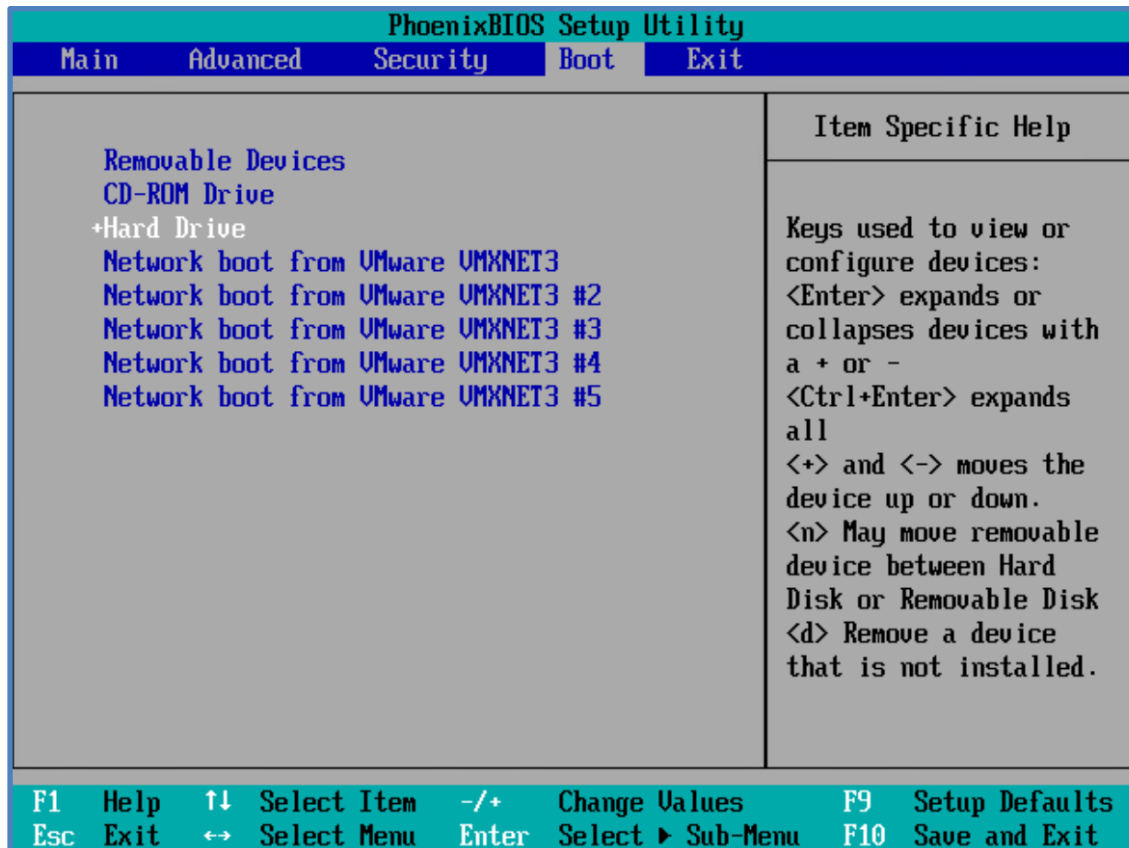
CANCEL

OK

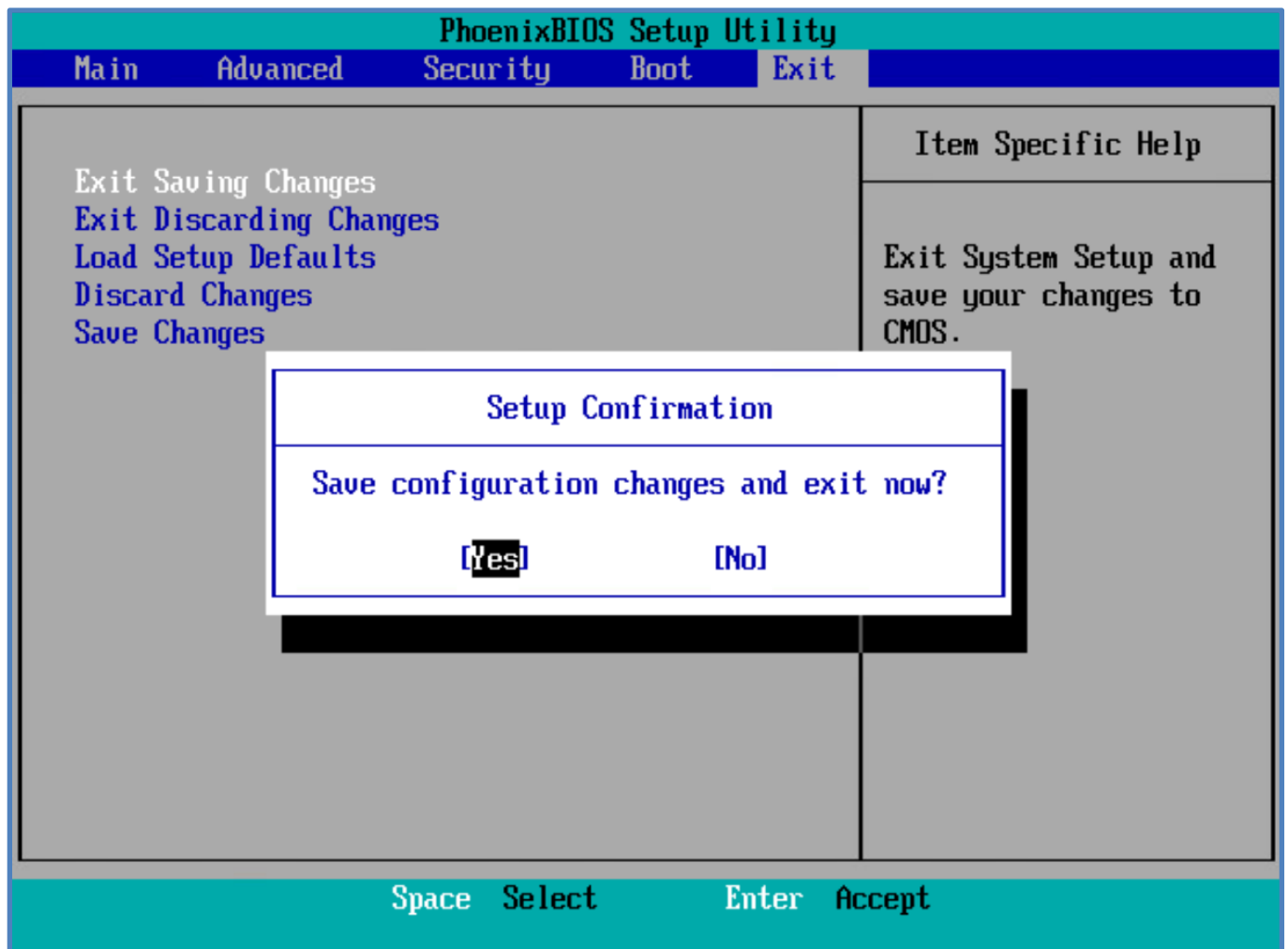
Power on the VM Guest

Guest will power up into the BIOS menu

Go to Boot Tab and move the CD-ROM back below the Hard Drive by following the instructions on the “Item Specific Help” menu on the right side of the page



Go to the Exit tab, select 'Exit Saving Changes', then Select 'Yes' and press 'Enter' to "Save configuration changes and exit now".



Power on the VM Guest

The unit will start with factory defaults such that the Management port is configured to 192.168.100.209/24 or 10.0.0.200 depending on the installer build configuration.

Login into the Linux shell using the VMWare Guest Console as follows:

user: root

password: videoflow

And modify the management IP using the 'ifconfig' command or 'ip link' command.

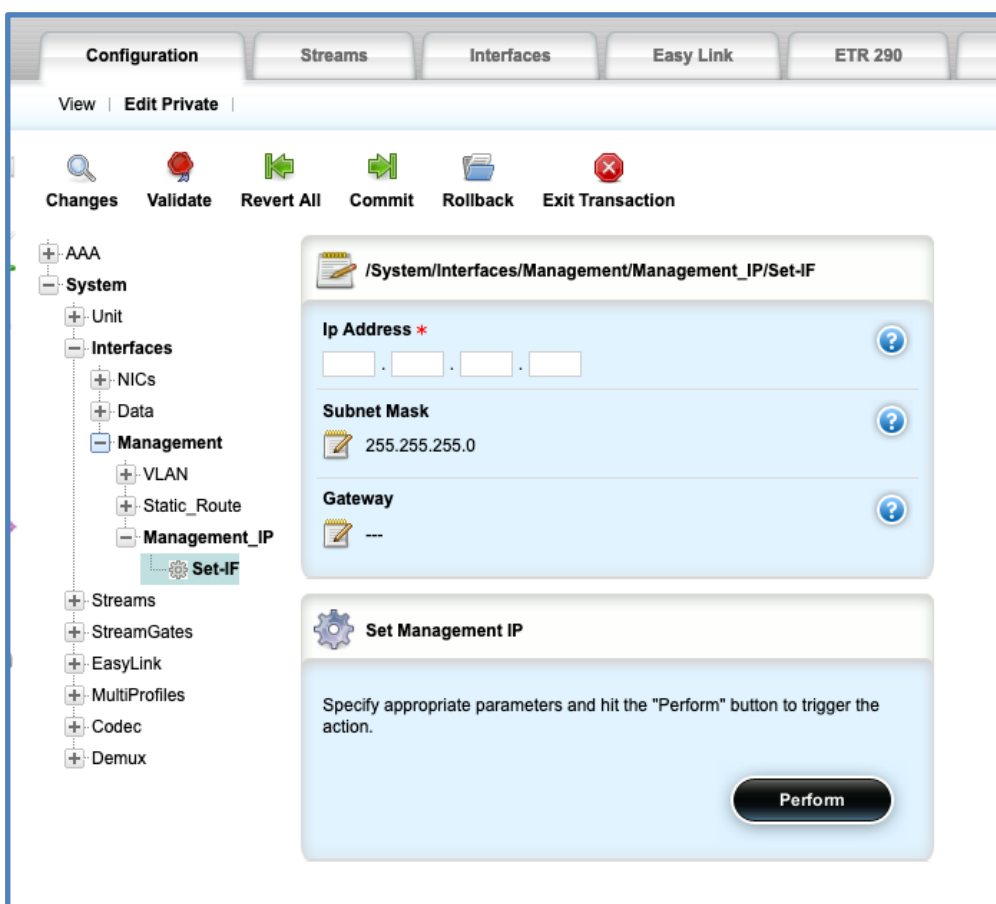
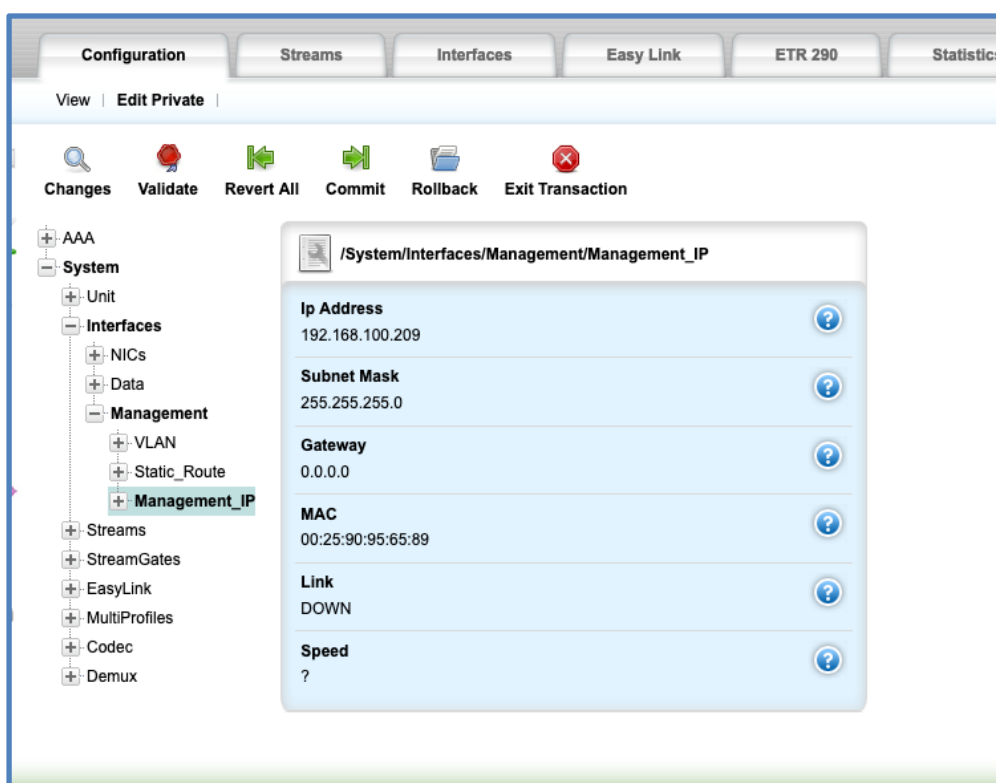
For example: If the management port is on eth5 and you wish to set the IP to 192.168.100.158/24 then Issue the command:

```
ifconfig eth5 192.168.100.158/24.
```

Note: the screen might be showing the VideoFlow logo with the configured IP address, try to type the command anyway.

To stop the VideoFlow logo being promoted – issue the command: 'pkill -9 test.sh' and press 'enter'

Once you can access the Web GUI of the unit, be sure to reset the Management IP to the desired IP address, subnet, and gateway using the application control dialogs so that the Management IP settings survive through reboot:



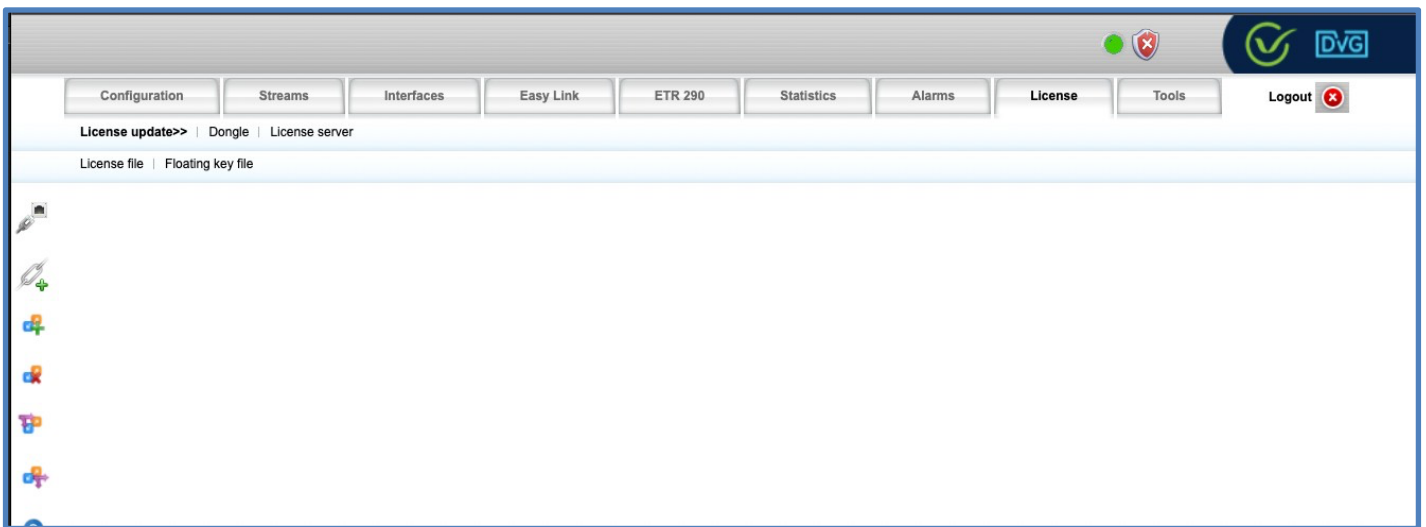
5 LICENSE SETUP

The license will be send in a Zip file that contain 2 major files

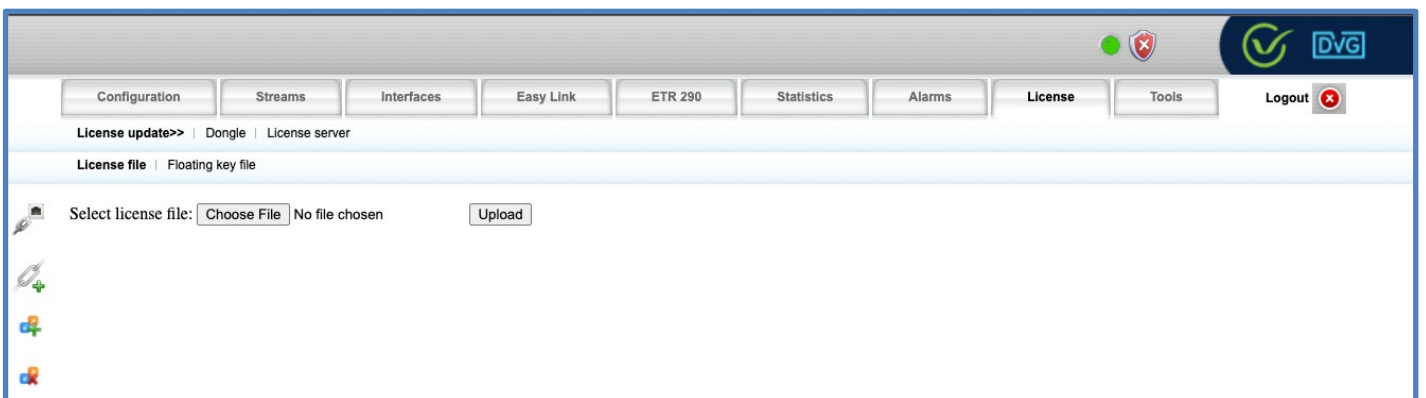
1. Key file
2. License file

To enable the license on the machine please follow the instructions below

1. Extract the Zip files
2. Log-in to your DVG using your credentials
3. Go to “License” on the top of the screen

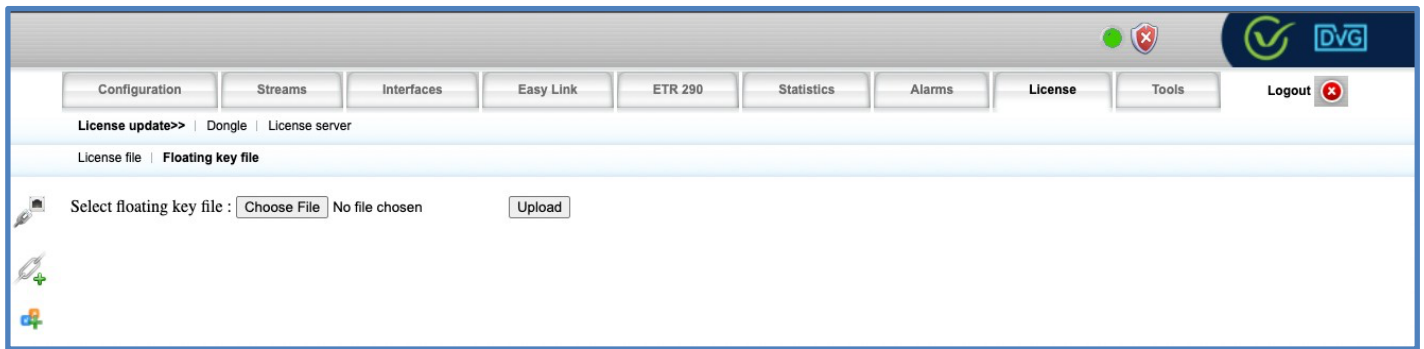


4. Click on License file



5. Click on “Choose File” and navigate to your extracted license folder
6. Choose file “Data.lic” and click Upload
7. A message will pop up and let you know your license file has been successfully uploaded.
8. Confirm to activate the license if prompted.

9. Click on “Floating key file”



10. Click on “Choose File” and navigate to your extract license folder
11. Choose file “XXXXX.key” file and Click Upload.
12. A message will pop up and let you know your license file has been successfully uploaded
13. Confirm to activate the key file if prompted.

Note: Make Sure To Upload The Correct License File And Key File To The Correct Machine And Avoid Using Any Floating License On More Than One Machine

VideoFlow VM is now ready for configuration via the regular Quick Start Guide and Operational Manuals.

If VideoFlow support is assisting you in your configuration and commissioning, please notify your support engineer that the VM is ready to go and provide remote access methodology and credentials to the VideoFlow support engineer to complete configuration.