

Broadcast With CONFIDENCE.

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: <u>image@video-flow.com</u> FTP Password: nhtfvf75ym9p84b

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

FTP & explicit FTPS port: 21

FIP & explicit FIPS 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



3 TARGET VM GUEST PREPARATION STEPS

Create a New Virtual Machine

1 Select a creation type 2 Select a name and folder	Select a creation type How would you like to create a virtual machine?		
 3 Select a compute resource 4 Select storage 5 Select compatibility 6 Select a guest OS 7 Customize hardware 8 Ready to complete 	Create a new virtual machine Deploy from template Clone an existing virtual machine Clone virtual machine to template Clone template to template Convert template to virtual machine	This option guides you through creating will be able to customize processors, m connections, and storage. You will need system after creation.	g a new virtual machine. Yo emory, network I to install a guest operating

Select the Appropriate Folder

New Virtual Machine				×
 1 Select a creation type 2 Select a name and folder 	Select a name and folder Specify a unique name and target	t location		
3 Select a compute resource 4 Select storage	Virtual machine name:	VideoFlow DVG		
5 Select compatibility 6 Select a guest OS	Select a location for the virtual ma	achine.		
2 Customize hardware 8 Ready to complete	 ✓ ⑦ ◇ □ Clients > □ Servers > □ Temp Servers > □ Virtual Appliances > □ -Templates 			
			CANCEL	BACK



Select the Cluster or Host on which the Guest Will Reside

2 Select a name and folder Select the dest	nation compute resource for			
		this operation		
3 Select a compute resource				
4 Select storage 🗸 🗈				
5 Select compatibility				
6 Select a guest OS				
7 Customize hardware				
8 Ready to complete				
Compatibility				
Compatib	ity checks succeeded.			

Select the Datastore

Select a creation type 2 Select a name and folder	Select storage Select the storage for the configuration and disk files								
3 Select a compute resource	Encrypt this virtual machine (Requires Key Management Server)								
5 Select compatibility	VM St	orage Policy	Datastore Default 🗸 🗸 🗸 🗸)		
5 Select a guest OS	Disable Storage DRS for this virtual machine								
7 Customize hardware 8 Ready to complete		Name T	Storage T Compatibility	Capacity T	Provisioned T	Free T	Туре	T Cluste	r T
	•	🗎 DS-SAS-10K-278		278.75 GB	332.83 GB	109.19 GB	VMFS 6		
	0	DS-SAS-10K-836		836.5 GB	2.11 TB	126.65 GB	VMFS 6		
	0	DS-SAS-15K-146		128.5 GB	157.75 GB	51.91 GB	VMFS 6		
	0	🗎 DS-SATA-7K-931		931.25 GB	34.37 GB	896.88 GB	VMFS 6		
	\circ	DS-SATA-SSD-2		238.25 GB	620.34 GB	145.03 GB	VMFS 6		
						_			5 iten
	Compa	atibility							
	~ c	compatibility checks succe	eded.						



Select the Default Compatibility

1 Select a creation type 2 Select a name and folder	Select compatibility Select compatibility for this virtual machine depending on the hosts in your environment
 3 Select a compute resource 4 Select storage 5 Select compatibility 6 Select a guest OS 7 Customize hardware 8 Ready to complete 	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 v i This virtual machine uses hardware version 14, which is compatible with ESXI 6.7 and later. Some virtual machine hardware features ar unavailable with this option.
	CANCEL BACK N

Select the Guest OS

Guest OS Family: Linux Guest OS Version: CentOS 7 (64-bit)

 1 Select a creation type 2 Select a name and folder 	Select a guest OS Choose the guest OS that will be installed on the virtual machine						
3 Select a compute resource4 Select storage	Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.						
 5 Select compatibility 6 Select a guest OS 7 Customics bardware 	Guest OS Family: Linux Guest OS Version: CentOS 7 (64-bit)						
8 Ready to complete							
	Compatibility: ESXi 6.7 and later (VM version 1						



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 	Customize hardware Configure the virtual machine hardware Virtual Hardware VM Options							
 6 Select a guest OS 	ADD NEW DEVICE ~							
7 Customize hardware	> CPU *	<u>4 v</u>	١					
8 Ready to complete	> Memory *	8 v GB v						
	> New Hard disk *	32 GB ~						
	> New SCSI controller *	VMware Paravirtual						
	> New Network *	VM Network 🗸	Connect					
	> New Network *	VM Network 🗸	Connect					
	> New Network *	VM Network 🗸	Connect					
	> New Network *	VM Network 🗸	Connect					
	> New Network *	VM Network V	Connect					
	> New Network *	VM Network V	Connect					
	> New CD/DVD Drive *	Datastore ISO File v	Connect					
	> Video card *	Specify custom settings $ \smallsetminus $						
		CANCEL	BACK					



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.

CentOS 7

Install dug Install dup100 Install dug - serial console Install dup100 - 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

General Options	VM Name: VideoFlow DVG
VMware Remote Console Options	Lock the guest operating system when the last remote user disconnect
Encryption	Expand for encryption settings
Power management	Expand for power management settings
VMware Tools	Expand for VMware Tools settings
⁷ Boot Options	
Firmware	BIOS (recommended) ~
Boot Delay	When powering on or resetting, delay boot order by milliseconds
Force BIOS setup	\blacksquare During the next boot, force entry into the BIOS setup screen
Failed Boot Recovery	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



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

			Phoe	nixBIOS	Setup	Utility	
Ma	ain A	dvanced	Secur	ity	Boot	Exit	
	Removab CD-ROM	le Devices Drive					Item Specific Help
	+Hard Dr Network Network Network Network	ive boot from boot from boot from boot from	UMware UMware UMware UMware	UMXNET3 UMXNET3 UMXNET3 UMXNET3	} } #2 } #3 } #4 } #5		Keys used to view or configure devices: <enter> expands or collapses devices with a + or - <ctrl+enter> expands all <+> and <-> moves the device up or down. <n> May move removable device between Hard Disk or Removable Disk <d> Remove a device that is not installed.</d></n></ctrl+enter></enter>
F1 Fee	Help Frit	1↓ Select	Item	-/+ Enter	Change Select	Values ▶ Sub-Ma	F9 Setup Defaults

VideoFlow

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

		PhoenixBI	OS Setup l	ltility	
Main Adv	anced	Security	Boot	Exit	
Exit Saving Exit Discard Load Setup D Discard Chan Save Changes	Changes ing Chang efaults ges	(es			Item Specific Help Exit System Setup and save your changes to CMOS.
	Save c	Setup (configuration [<mark>Yes</mark>]	Confirmati n changes [N	ion and exi lo]	t now?
	S	Space Selec	t I	Inter A	ccept



After the Guest reboots, using the curser 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.



		ADD NEW DEVIC
> CPU	4 ~	(
> Memory	8 ~	GB V
> Hard disk 1	32 GB ~	
> SCSI controller 0	VMware Paravirtual	
> Network adapter 1	VM Network 🗸	Connect
> Network adapter 2	VM Network 🗸	Connect
> Network adapter 3	VM Network 🗸	Connect
> Network adapter 4	VM Network 🗸	Connect
> Network adapter 5	VM Network 🗸	Connect
> Network adapter 6	VM Network 🗸	Connect
> CD/DVD drive 1 *	Client Device 🗸	Connect
> Video card	Specify custom settings 🗸	
VMCI device		
	ALICI	

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



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	Lock the guest operating system when the last remote user disconnect	s
> 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	During the next boot, force entry into the BIOS setup screen	
Failed Boot Recovery	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	



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

			Phoer	nixBIOS	Setup	Utility	
Ma	uin A	dvanced	Securi	ity	Boot	Exit	
	Removab CD-ROM +Hard Dr Network Network	le Devices Drive ive boot from	VMware VMware	UMXNET3	BOOL	LXIL	Item Specific Help Keys used to view or configure devices: <enter> expands or</enter>
	Network Network Network	: boot from : boot from : boot from	UMware UMware UMware	UMXNET3 UMXNET3 UMXNET3	} #3 } #4 } #5		collapses devices with a + or - <ctrl+enter> expands all <+> and <-> moves the device up or down. <n> May move removable device between Hard Disk or Removable Disk <d> Remove a device that is not installed.</d></n></ctrl+enter>
F1	Heln	tl Select	Itom	-/+	Change	عميرا دال	F9 Setun Defaulte
Fer	Fxit	↔ Select	Menu	Fnter	Select	: varaes : ⊾ Sub-Me	FIA Save and Frit

VideoFlow

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

	Phoe	nixBIOS Setu	ıp Utility	
Main Adv	anced Secur	ity Boot	Exit	
Exit Saving Exit Discard Load Setup D Discard Chan Save Changes	Changes ing Changes efaults ges			Item Specific Help Exit System Setup and save your changes to CMOS.
	Save configu []	etup Confirm ration chanç S <mark>I</mark>	nation jes and exi [No]	t now?
	Space	Select	Enter A	ccept



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 10.0.200 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:



Configuration	Streams	Interfaces	Easy Link	ETR 290
View Edit Private				
🔍 🎐 候 Changes Validate Revert	All Commit	Rollback Exit Tra	Insaction	
- System	🥏 /System	n/Interfaces/Managem	ent/Management_IP/Se	et-IF
 ➡ Unit ➡ Interfaces ➡ NICs 	lp Address *			•
Data Management	Subnet Mask	.255.0		•
Static_Route Management_IP Set-IF	Gateway			0
StreamS	Set Mar	nagement IP		
MultiProfiles Codec Demux	Specify appro action.	priate parameters and I	hit the "Perform" button	to trigger the
_				Perform



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

		• 🔇	🕑 dvg
	Configuration Streams Interfaces Easy Link ETR 290 Statistics Alarms License	Tools	Logout 😣
	License update>> Dongle License server		
	License file Floating key file		
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4. Click on License file

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	Configuration	Streams	Interfaces	Easy Link	ETR 290	Statistics	Alarms	License	Tools	Logout 🔕
	License update>> Do	ongle License serve	r							
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- 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"

	Configuration	Streams	Interfaces	Easy Link	ETR 290	Statistics	Alarms	License	Tools	Logout 🔕
	License update>> De	ongle License serve	r							
	License file Floating key file									
	Select floating key file : Choose File No file chosen Upload									
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4										

- 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.