

# Virtual Appliance Installation for Detector 2.0 Deployments

**Installation Guide** 

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# Purpose of this Guide

This guide is intended for users of Network Detective **Software Appliance** consisting of the **Detector**<sup>™</sup>.

When installing the Detector, the RapidFire Tools' Virtual Appliance is the "base "appliance that must be installed within Microsoft Hyper-V environment to operate one or more of the Software Appliances.

This guide will step you through the Virtual Appliance installation process

Additional guides are available for the **Detector Appliance** and its use within Detector SDS. This guide is designed to be used in conjunction with other supplementary guides.

# System Requirements

The following is a list of computer and software system requirements that are necessary to INSTALL the **Virtual Appliance**:

# Hyper-V installation System Requirements

- 1) Microsoft Hyper-V Enabled Server or Workstation Requirements
  - a) Microsoft Hyper-V enabled Windows Server 2012 or higher server operating system

OR

b) Microsoft Hyper-V enabled Windows 8.1 Pro or higher workstation operating system

Note: Hyper-V Management Tools must be included when installing Hyper-V using the Windows Programs and Features option, or via the PowerShell on a Hyper-V Server Core installation.

- 2) Recommended Virtual Memory Availability Requirement 2 GB of free and available Virtual Memory in the Hyper-V environment\*
- 3) Recommended Disk Space Requirement 10 GB of free disk space
- 4) Recommended Processor for Dedicated and Non-Dedicated Systems Hyper-V Installations
  - a) Dedicated Microsoft Hyper-V System to run the Virtual Appliance Recommendation: Intel I5 or faster processor for dedicated deployments
  - b) Non-Dedicated Microsoft Hyper-V System used to run other guest instances and run the Virtual Appliance

**Recommendation:** Intel Xeon class server processors capable for hosts running multiple instances

\* Note: These memory requirements are over and above the host machine's current memory requirements for Windows, Hyper-V, and any other application memory requirements that must be met by the host machine.

5) Access to the Internet.

# VMware installation System Requirements

#### VMware System Requirements

The following is a list of system requirements that are necessary to INSTALL the **Virtual Appliance** on VMware:

VMware Version:ESXi 5.5 or higherVirtual Machine Memory:2 GB availableVirtual Disk Size:10 GB

Additional requirements include: PowerCLI 6.3 and access to the Internet.

In order to be able to use the **Virtual Appliance**, the appliance must be licensed from RapidFire Tools for installation and use.

# Virtual Appliance Operational System Requirements

The following is a list of system requirements that are necessary to OPERATE the **Virtual Appliance** on Hyper-V or VMware:

**Operational System Requirements:** 

- 6 GB Available RAM
- 20 GB Hard Drive Space

# Network Detective Virtual Appliance Installation Procedure for Hyper-V

To perform the installation of the **Virtual Appliance**, please follow the instructions below.

#### Step 1 – Download and Run the Virtual Appliance Installer

Visit the RapidFire Tools software download website to download and run the **Network Detective Virtual Appliance Installer** file. The **Installer** file is named **NetworkDetectiveApplianceSetup.exe**.

The **Installer** file is a self-extracting ZIP file that is used to initiate the installation of the **Virtual Appliance** on your computer.

After downloading the Installer, right click on NetworkDetectiveApplianceSetup.exe and Run as Administrator.



Use the **Unzip** option to unzip the files into a folder location of your choice and start the installation program.

#### **Installation Process Execution Requirements**

In order to install the **Virtual Appliance** on a specific Hyper-V enabled system, the user operating the **Installer** will need to have Administrator privileges and access rights in order to complete the installation process successfully

#### Step 2 – Select Target

Select the Microsoft Hyper-V option to install on a Hyper-V enabled system.



#### Step 3 - Verification that Installation Requirements are met

During this step of the installation process, the **Virtual Appliance installer** program checks to see that certain technical requirements have been met by the system that will host the **Virtual Appliance**. These system requirements include the:

- Hyper-V enablement status
- minimum memory requirements necessary for installation
- amount of available disk space

If a particular **Installation Requirement** is not met during the **Virtual Appliance** installation process, the missing requirement's error status will be displayed by the **Installer**.

🔍 Network Detective Virtual Applianc	e Installer		-		×
✓Install Target	Checking Minimu	m Inst	allation Requirements for Hyper-V		
✓ Requirements (Hyper-V)	Internet Access:	✓	Requires access to the internet.		
Network Detective Credentials	Hardware Platform: Hyper-V Enabled:	√ √	Requires installation on physical hardware. Requires Hyper-V Platform feature installed and enabled.		
Appliance ID	Hyper-V PS Module: Execution Policy:	1	Requires Hyper-V Module for Windows Powershell feature installed. Requires Powershell allow execution policy of Unrestricted.		
Download VMs	Memory:	1	Requires a minimum of 2 GB of allocable RAM for Virtual Machines.		
Install Folder	Disk:	~	Requires a minimum of 10 GB disk space.		
Virtual Switches	Recheck Requireme	nts			
Network Settings	CPU Requirements We recommend the h	<b>s</b> lost syste	m have an i5 or faster processor for dedicated deployments and Xeon s	erver <mark>c</mark> las	s
Verify Settings	processors or better to	or nosts r	unning multiple guest instances.		
Install					
			< Back Next >	Cance	-

In the case that the **Virtual Appliance Installer** program has not detected enough disk space to meet the minimum installation requirements, the **Installer** program notifies the user this issue by placing a red **X** next to the disk space requirement. The **Installer** will present an option that can enable the **"override"** of the disk space prerequisite requirement.

The override can be performed by the user's selection of the override option presented as the "<u>I already have the Virtual Hard Drives downloaded on this machine</u>" link as displayed below.

Install Target	Checking Minimu	m Inst	allation Requirements for Hyper-V
Requirements (Hyper-V)	Internet Access:	1	Requires access to the internet.
Network Detective Credentials	Hardware Platform:	~	Requires installation on physical hardware.
notion botton of oddinialo	Hyper-V Enabled:	~	Requires Hyper-V Platform feature installed and enabled.
Appliance ID	Hyper-V PS Module:	~	Requires Hyper-V Module for Windows Powershell feature installed.
Developed VMA	Memory:	1	Requires a minimum of 2 GB of allocable RAM for Virtual Machines
Download vivis	Disk:	×	Requires a minimum of 10 GB disk space.
Install Folder			
Virtual Switches	Recheck Requirement	nts	
Network Settings	CPU Requirements We recommend the h	<b>s</b> ost syste	em have an i5 or faster processor for dedicated deployments and Xeon server class
Verify Settings	processors or better fo	or hosts r	unning multiple guest instances.
Install			

Alternatively, if the user operating the **Installer** frees up some of the disk space on the machine's hard disk, then the user can select the "<u>Recheck Requirements</u>" link to "recheck" the available hard disk space in an attempt to continue the installation process.

When the user selects the "<u>I already have the Virtual Hard Drives Downloaded on this</u> <u>Machine</u>" link option, the user will activate the override of the disk space requirement. The **Override** status will be indicated in the **Installer** program's user interface as seen below.

Install Target	Checking Minimu	m Instal	lation Requirements for Hyper-V
Requirements (Hyper-V)	Internet Access:	1	Requires access to the internet.
	Hardware Platform:	1	Requires installation on physical hardware.
Network Detective Credentials	Hyper-V Enabled:	1	Requires Hyper-V Platform feature installed and enabled.
Appliance ID	Hyper-V PS Module:	~	Requires Hyper-V Module for Windows Powershell feature installed.
Appliance ib	Execution Policy:	1	Requires Powershell allow execution policy of Unrestricted.
Download VMs	Memory:	1	Requires a minimum of 2 GB of allocable RAM for Virtual Machines.
Install Folder	Disk:	Override	Requires a minimum of 10 GB disk space I already have the Virtual Hard Drive downloaded on this machine.
Virtual Switches	Recheck Requireme	<u>nts</u>	
Network Settings	CPU Requirements We recommend the h	<b>s</b> ost system	have an i5 or faster processor for dedicated deployments and Xeon server class
Verify Settings	processors or better fo	or hosts run	ning multiple guest instances.
Install			
	1		

Once the system has been configured to meet the disk space requirement, or the disk space requirement has been overridden the user may select the **Next** button to continue the installation process to perform the next step, to **Enter Credentials**.

#### Step 4 – Enter the Network Detective Account Credentials

In order to proceed to the next step in the installation process, two items are required:

- 1) a valid Network Detective account
- 2) at least one valid Virtual Appliance ID assigned to your Network Detective account

To continue, enter the **Network Detective** account login **credentials** and select the **Next** button. The installation program will validate the account login credentials.

😪 Network Detective Virtual Appliance I	nstaller		_		×
✔ Install Target	Network I	Detective Credentials			
✔ Requirements (Hyper-V)	Log into your	Network Detective account to retrieve a list of available Appliance IDs.			
Network Detective Credentials	Usemame:	user@MyCo.com	]		
Appliance ID	Password:	•••••			
Download VMs					
Install Folder					
Virtual Switches					
Network Settings					
Verify Settings					
Install					
		< Back	Next >	Cancel	

If the account login credentials are verified to be correct, the user may continue to the next step that will enable the selection of an **Appliance ID** to be assigned to the **Virtual Appliance** being installed.

If the account login credentials are incorrect, the user will receive the "**Invalid login and password**" warning message as displayed below.

😪 Network Detective Virtual Appliance I	nstaller		_		×
✔ Install Target	Network	Detective Credentials			
✓ Requirements (Hyper-V)	Log into you	r Network Detective account to retrieve a list of available Appliance IDs.			
Network Detective Credentials	Usemame:	user@MyCo.com	]		
Appliance ID	Password:	Invalid login and password	]		
Download VMs					
Install Folder					
Virtual Switches					
Network Settings	]				
Verify Settings	]				
Install	1				
	1				
		< Back	Next >	Cancel	

#### **Virtual Appliance ID Requirements**

If during the login process, the user receives the "No available Appliance IDs are associated with this account." message, the user should contact the Technical Support Team at RapidFire Tools to verify that at least one valid Virtual Appliance ID has been assigned to the user's Network Detective account.

#### Step 5 – Select Appliance ID Screen

After the **Network Detective** login **credentials** have been authenticated, you must assign an available **Appliance ID** that has been allocated to the user's **Network Detective** account to the **Virtual Appliance** that is being installed.

The **Appliance ID Window** will display all of **the Appliance ID**s assigned to the user's account.

To the right of each **Appliance ID** value is a list of the Software Appliances (i.e. **Detector**, **Reporter**, and/or **Inspector**) that are provisioned to operate with each **Appliance ID**.

😫 Network Detective Virtual Appliance	e Installer	_		×
✓ Install Target	Appliance ID			
✔ Requirements (Hyper-V)	Select the Appliance ID you wish to associate with the Virtual Appliance. Ensure that the selected appliance is properly provisioned for the desired features.			
✓Network Detective Credentials	Available Appliance IDs			
✓ Appliance ID	NDA1-24 (Detector) NDA1-31 (Detector) NDA1-36 (Detector)			
Download VMs	NDA1-37 (Detector) NDA1-38 (Detector) NDA1-45 (Reporter)			
Install Folder	NDA1-47 (Detector) NDA1-52 (Detector) NDA1-54 (Detector)			
Virtual Switches	NDA1-59 (Detector) NDA1-79 (Detector) NDA1-83 (Detector)			
Network Settings	NDA1-96 (Reporter)			
Verify Settings				
Install				
	Enable automatic updates for the Virtual Appliance.			
	< Back Ne	ext >	Cance	

Select the Appliance ID that is to be assigned to the Virtual Appliance that is being installed.

#### Record the Appliance ID for the Virtual Appliance Installation

Upon selection of the **Appliance ID**, the **Appliance ID** should be recorded so that the user knows which **Appliance ID** has been associated with the **Virtual Appliance's** installation.

After selecting and recording the **Appliance ID** to be assigned to the **Virtual Appliance** installation, select the **Next** button to proceed to the next step of downloading the Virtual Machines that are required to complete the **Virtual Appliance's** installation.

#### Step 6 – Initiate the Download VM Process

In this step of the **Virtual Appliance's** installation process, the window below will be displayed to indicate that the VM image required to install the **Virtual Appliance** have not been downloaded at this point of the installation process.

🗟 Network Detective Virtual Appliance	Installer		<u></u>		×
✔ Install Target	Download VMs				_
✓ Requirements (Hyper-V)	Select the folder to download the VM images. If you hav images, select the folder where they reside. Press Next	ve previously downloaded the to begin the download (if nee	ded).		
✓Network Detective Credentials	Download Folder: C:\Users\admin\Downloads\ND	DAN	В	rowse	
✔ Appliance ID					
🗸 Download VMs	Install Package Status: The install image doe image.	es not exist. Clicking Nex	t will download	the late:	st.
Install Folder					
Virtual Switches					
Network Settings					
Verify Settings					
Install					
					_
		< Back	Next >	Cance	:

To proceed with downloading the required VM, the user must select the folder that is to be used to store the VM that are about to be downloaded.

Then select the **Next** button to initiate the download process. A window will be displayed to present the progress of the VM download process.

#### Step 7 – View VM Download Progress and Install Package Status

During the VM image download process, the Install Package Status bar will display the progress of the VM download.

🔍 Network Detective Virtual Applianc	e Installer	- 🗆 X
🗸 Install Target	Download VMs	
✓ Requirements (Hyper-V)	Select the folder to download the VM images. If you have previously downloaded images, select the folder where they reside. Press Next to begin the download (if r	the needed).
✓ Network Detective Credentials	Download Folder: C:\Users\admin\Downloads\NDA\	Browse
✔ Appliance ID	N/C	
🗸 Download VMs	install Package Status: 284879373 of 1589437443 bytes transfer	ed (17.9% complete).
Install Folder		
Virtual Switches		
Network Settings		
Verify Settings		
Install		
	< Back	Next > Cancel

Once the VM have been downloaded, or when the user selects a folder where the VM bundle has already been downloaded, the **Install Package Status** in the **Download VM** window will be updated to indicate that the VM have been "downloaded" as displayed below.

🗟 Network Detective Virtual Applianc	e Installer			×
✔ Install Target	Download VMs			
✓ Requirements (Hyper-V)	Select the folder to download the VM images. If you have previously downloaded the images, select the folder where they reside. Press Next to begin the download (if needed).			
✓Network Detective Credentials	Download Folder: C:\Users\admin\Downloads\NDA\	Br	owse	
✔ Appliance ID				
🗸 Download VMs	Install Package Status: Downloaded			
Install Folder				
Virtual Switches				
Network Settings				
Verify Settings				
Install				
	< Back Ne:	d >	Cance	1

Once the VMs have been downloaded or available for installation, proceed with **Virtual Appliance** installation process by selecting the **Next** button.

The next window displayed enables the user to select the folder to be used for the **Virtual Appliance's** installation

#### Step 8 – Select Folder to Install Virtual Appliance

The Virtual Appliance VM must now be installed on the Hyper-V system.

The **Install Folder** window enables the user to select the folder to be used to store the **Virtual Appliance's** program files.

The default installation folder presented to the user during this installation process is the system's Hyper-V location folder.

Select the Install Folder to be used for the Virtual Appliance's installation.

😪 Network Detective Virtual Appliance	e Installer	1993		X
✔Install Target	Install Folder			282
✓Requirements (Hyper-V)	Select the folder to install the Virtual Machines. This is the folder the virtual hard drives (.vhdx) will reside.			
✓ Network Detective Credentials	Install Folder: C:\ProgramData\Microsoft\Windows\Hyper-V	Bn	owse	
✔ Appliance ID				
✔ Download VMs				
✓ Install Folder				
Virtual Switches				
Network Settings				
Verify Settings				
Install				
	· · · · · · · · · · · · · · · · · · ·			
	< Back N	ext >	Cance	1

Select the **Next** button to continue the installation process and configure the required Virtual Switches.

#### Step 9 – Configure Required Virtual Switches

The configuration and creation of the necessary Virtual Switches to enable the operation of the Virtual Appliance is vital to a successful Virtual Appliance installation and the appliance's operation.

The **Virtual Appliance** requires **External Virtual Switch** to be configured within the Hyper-V instance used to operate the **Virtual Appliance**.

#### **External Virtual Switch Selection**

During the Virtual Switch selection and configuration process, the user can either:

- Use an existing external Virtual Switch
- Create a new Virtual Switch on an existing network interface

#### Using an Existing External Virtual Switch

If the user wants to assign an available External Virtual Switch for use with the Virtual Appliance, the user would select the "Use an existing external Virtual Switch" option.

Retwork Detective Virtual Appliance	e Installer	_	
✔Install Target	Virtual Switches		
✔ Requirements (Hyper-V)	External Virtual Switch		
✓ Network Detective Credentials	The External Virtual Switch is used and the Internet. Please select wh	by the Virtual Appliance to communicate with the corporate netwo ch Network Adapter the External Virtual Switch should use.	rk
✓ Appliance ID	Use an existing external Virtual	Switch	
✓ Download VMs	External Virtual Switches:	NDA-External-VS [Realtek PCIe GBE Family Controller]	~
Install Folder	Create a new Virtual Switch on	an existing network interface	
	* Only network interfaces t	hat are not currently configured in an existing Virtual Switch will be	a shown.
Virtual Switches	ivetwork interface:	Intel(R) Dual Band Wireless-AC 3165	~
Network Settings	Virtual Switch Name:	NDA-External-VS	
Verify Settings			
Install			
		< Back Next >	Cancel

Selecting this option will enable the user to select from a list of the External Virtual Switches that are available on the Hyper-V system.

The user should then select the required External Virtual Switch and select the **Next** button to continue to the next step in the installation process, the **Network Settings** step.

Retwork Detective Virtual Appliance	e Installer		<u> 1997</u>		×
✓Install Target	Virtual Switches				
✔ Requirements (Hyper-V)	External Virtual Switch				
✓ Network Detective Credentials	The External Virtual Switch is used and the Internet. Please select wh	I by the Virtual Appliance to communicate with the corpora nich Network Adapter the External Virtual Switch should u	ste netwo se.	rk	
✓ Appliance ID	O Use an existing external Virtua	I Switch			
✓ Download VMs	External Virtual Switches:	- no available external virtual switches -			4
✓Install Folder	Create a new Virtual Switch or * Only network interfaces	n an existing network interface that are not currently configured in an existing Virtual Swit	ch will be	shown.	
✓ Virtual Switches	Network Interface:	Intel(R) Ethemet Connection I217-LM			~
Network Settings	Virtual Switch Name:	NDA-External-VS			
Verify Settings	1				
Install					
		a			
		< Back Next	< 1	Cance	4

#### Creating and Selecting a new External Virtual Switch

If the system being used is a new Hyper-V system and no External Virtual Switches are set-up and available, or the user desires to create an External Virtual Switch for use by the **Virtual Appliance**, then the user would perform the following steps:

- 1. Select the Create a new Virtual Switch on an existing Network Interface option.
- Next, the user would select the Network Interface Card (NIC) that is connected to the network that will be used to operate the Appliance on during the set-up of an External Virtual Switch.

Note: Do not use a Wireless NIC as the Network Interface for the External Virtual Switch.

3. The user would type in the name of **External Virtual Switch** to be created and used into the **Virtual Switch Name** field.

Retwork Detective Virtual Appliance	e Installer	5 <u></u>		×
✔Install Target	Virtual Switches			
✓ Requirements (Hyper-V)	External Virtual Switch			
✓ Network Detective Credentials	The External Virtual Switch is used and the Internet. Please select wh	I by the Virtual Appliance to communicate with the corporate net nich Network Adapter the External Virtual Switch should use.	twork	
✓ Appliance ID	O Use an existing external Virtua	l Switch		
✓ Download VMs	External Virtual Switches:	- no available external virtual switches -	~	
🖌 Install Folder	Create a new Virtual Switch or * Only network interfaces	an existing network interface that are not currently configured in an existing Virtual Switch will	be shown.	
✓ Virtual Switches	Network Interface:	Intel(R) Ethemet Connection I217-LM	Ŷ	
Network Settings	Virtual Switch Name:	NDA-External-VS		
Verify Settings	1			
Install				
				_
		< Back Next >	Cancel	

The user then should select the **Next** button to continue to the next step in the installation process, the define **Network Settings** step.

#### Step 10 – Define Network Settings

In this step, the Appliance can either use an IP Address assigned by DHCP or a static IP address defined by you.

#### Network Settings using DHCP

To set up the Appliance to obtain an IP address and DNS server information automatically, select the **"Obtain and IP address and DNS servers automatically (DHCP)**" option.

😪 Network Detective Virtual Appliance	e Installer				_		×
✓Install Target	Network Settings						
✓ Requirements (Hyper-V)	Obtain an IP address and [	DNS servers automatically (D	HCP)				
✓ Network Detective Credentials	Use the following network	setting (Static)					
✓ Appliance ID	IP Address: Subnet Mask:	255.255.255.0 - /24 (Class	; C) ∨				
✔ Download VMs	Default Gateway:						
✔ Install Folder	Preferred DNS Server: Alternate DNS Server:		optional)				
✔ Virtual Switches							
Network Settings							
Verify Settings							
Install							
				< Back	Next >	Cance	4

The user should then select the **Next** button to continue to the next step in the installation process, the **Verify Settings** step.

#### **Network Settings using a Static IP Address**

To define a static IP address for use by the Appliance, select the **"Use the following network settings (Static)"** option.

Next, define the **IP Address**, **Subnet Mask**, **Default Gateway**, **Preferred DNS Server**, and the **Alternate DNS Server**. The **Alternate DNS Server** setting is optional.

Network Detective Virtual Appliance	e Installer						×
🗸 Install Target	Network Settings						
✓ Requirements (Hyper-V)	Obtain an IP address and I	DNS servers automatically	(DHCP)				
✓ Network Detective Credentials	Use the following network	setting (Static)					
✔ Appliance ID	IP Address:	192.168.1.101					
✔ Download VMs	Subnet Mask:	255.255.255.0 - /24 (Cla	ass C) 🗸 🗸				
()	Default Gateway:	192.168.1.1					
V Install Folder	Preferred DNS Server:	192.168.1.10					
✓ Virtual Switches	Alternate DNS Server:	192.168.1.11	(optional)				
Network Settings							
Verify Settings							
Install							
				< Back	Next >	Cano	;el

After defining the network settings, select the **Next** button to continue to the next step in the installation process, the **Verify Settings** step.

#### Step 11 – Verify Settings Prior to Installation

Prior to be completion of the installation process, the **Installer** will present the **Verify Settings** window.

This step in the installation process provides the user with the opportunity to check, and if necessary, modify the **Appliance ID, Install Folder**, the **Virtual Switches** configuration, and the **Virtual Hard Drive** locations.

Network Detective Virtual Appliance	e Installer	<u></u>		×
✓Install Target	Verify Settings			88
✓ Requirements (Hyper-V)	Configuration			
✓ Network Detective Credentials	Appliance ID: NDA1-69 (Detector)  Install Ender: C:\ProgramData\Microsoft\Windows\Humer\V			
	Virtual Machine			
Appliance ID	Hard Drive: C:\ProgramData\Microsoft\Windows\Hyper-V\NDA1-69 .vhdx			
✔ Download VMs	Switch: NDA-External-VS [Intel(R) Ethemet Connection 12 -LM]			
✔ Install Folder	Network Settings			
<ul> <li>✓ Virtual Switches</li> </ul>	IP Address: (use DHCP)			
✔ Network Settings				
✓ Verify Settings				
Install				
	< Back In	stall >	Cance	ł

After verifying the settings are correct, select the **Install** button.

This action will start the Virtual Appliance's installation on the Hyper-V based system.

#### Step 12 – Monitor Installation Progress Status

During this final step in the installation process, the **Installer** program's window presents the installation tasks and their statuses as the **Installer** program installs and configures the **Virtual Appliance**.

Requirements (Hyper-V)	Installing	a the Network Detective appliance. This process typically	takes between 10-20 minutes
	Applian	ce ID: NDA1-69 (Detector)	
<ul> <li>Network Detective Credentials</li> </ul>		Task	Notes
Appliance ID	<ul><li>✓</li></ul>	Extract Virtual Machine	Completed
	36	Create External Virtual Switch	Creating external virtual switch
✓ Download VMs		Create Virtual Machine	
	-	Configure Network Settings	
✓ Install Folder		Obtain IP Address	
Are 10 11		Check VM Configuration Status	
Virtual Switches		Configure Virtual Appliance Settings	
✓ Network Settings		Appliance Services Running	
	-	Update Virtual Appliance to Latest Version (via Internet)	
✔ Verify Settings	1940		View Install Log
Install			
			Deals Deals Court

In the case that any installation **Task** fails to complete, the user will be presented with a description of the issue within the **Notes** column of this window.

When a **Task** during the installation process fails to complete, the **Virtual Appliance** installation process is terminated. A "<u>Retry Install Now</u>" link will appear to enable the user to attempt to retry the installation.

When the installation process is successfully completed, the **Installer** will notify the user that the **Virtual Appliance** installation process is complete as displayed below.

Install Target	Install					
✔ Requirements (Hyper-V)	Installing	g the Network Detective appliance. This process typically	takes between 10-20 minutes.			
Network Detective Credentials	Applian	ce ID: NDA1-69 (Detector)	Notes			
1		Extract Virtual Machine	Completed			
Appliance ID	_ <b>√</b>	Create External Virtual Switch	Completed			
Download VMs	1	Create Virtual Machine	Operational			
	- 1	Configure Network Settings	DHCP enabled			
Install Folder	$\checkmark$	Obtain IP Address				
	1	Check VM Configuration Status	Ready to be configured.			
✓ Virtual Switches	$\checkmark$	Configure Virtual Appliance Settings	Completed			
Network Settings	$\checkmark$	Appliance Services Running	Running			
* Network Settings	- 1	Update Virtual Appliance to Latest Version (via Internet)	Completed			
✔ Verify Settings			View Install Lo			
√ Install		Installation Complete	×			
		Congratulations! The Network Detective Appliance installed and is ready for use.	ce has been			

### Note Concerning Virtual Appliance Installation and Loss of Remote Access to the Hyper-V Based System when a New External Virtual Switch is created during Installation of the Virtual Appliance

During the user's Remote Access to the Hyper-V system used to perform the **Virtual Appliance** installation, the user may experience a temporary loss of Remote Access connectivity.

In cases, where the user that is remotely accessing the Hyper-V system in order to perform the installation of the **Virtual Appliance**, and the user creates a new External Virtual Switch for the **Virtual Appliance's** use, the established remote access network connection will be momentarily terminated by the Hyper-V system.

The remote access software used to access the system should issue one or more retries to reestablish the remote access connection to the Hyper-V system to enable the user to complete the **Virtual Appliance** installation process. Step 13 – Verify that the Virtual Machine Set up to Operate the Virtual Appliance Meets the Specified Operational Requirements

The following is a list of system requirements that are necessary to OPERATE the **Virtual Appliance** on Hyper-V.

Operational System Requirements:

- 6 GB Available RAM
- 20 GB Hard Drive Space

# Network Detective Virtual Appliance Installation Procedure for VMware

To perform the installation of the **Virtual Appliance**, please follow the instructions below.

#### Step 1 – Download and Run the Virtual Appliance Installer

Visit the RapidFire Tools software download website to download and run the **Network Detective Virtual Appliance Installer** file. The **Installer** file is named **NetworkDetectiveApplianceSetup.exe**.

The **Installer** file is a self-extracting ZIP file that is used to initiate the installation of the **Virtual Appliance** on your computer.

After downloading the Installer, right click on NetworkDetectiveApplianceSetup.exe and Run as Administrator.



Use the **Unzip** option to unzip the files into a folder location of your choice and start the installation program.

#### **Installation Process Execution Requirements**

In order to install the **Virtual Appliance** on a specific VMware enabled system, the user operating the **Installer** will need to have Administrator privileges and access rights in order to complete the installation process successfully

## Step 2 – Select Target

😪 Network Detective Virtual Applianc	e Installer - v2017.08.28.01	-		×
🗸 Install Target	Install Target			
Requirements (VMware)	Microsoft			
Network Detective Credentials	$\sim$ Hyper_//			
Appliance ID				
VMware Server				
VMware VM Settings				
VMware Network Settings	• the <b>vm</b> ware			
Download VMs				
Network Settings				
Verify Settings	Manual Configuration (Advanced)			
Install				
	< Back	Next >	Cance	I

Select the **VMware** option to install on a VMware enabled system.

#### Step 3 - Verification that Installation Requirements are met

During this step of the installation process, the **Virtual Appliance installer** program checks to see that certain technical requirements have been met by the system that will host the **Virtual Appliance**. These system requirements include the:

- VMware enablement status
- minimum memory requirements necessary for installation
- amount of available disk space

Network Detective Virtual Appliance	Installer - v2017.08.28.01		_		×
✓ Install Target	Checking Minimum I	nstallation Requirements for VMware			
✓ Requirements (VMware)	Internet Access: 🗸	Requires access to the internet.			
Network Detective Credentials	PowerCLI 6.3: 🖌	<ul> <li>Requires VMware vSphere PowerCLI 6.3 or higher installed.</li> </ul>			
Appliance ID	- <u>Recheck Requirements</u>				
VMware Server					
VMware VM Settings	]				
VMware Network Settings					
Download VMs					
Network Settings					
Verify Settings					
Install					
		< Back Nex	d >	Cancel	

If a particular **Installation Requirement** is not met during the **Virtual Appliance** installation process, the missing requirement's error status will be displayed by the **Installer**.

#### Step 4 – Enter the Network Detective Account Credentials

In order to proceed to the next step in the installation process, two items are required:

- 1) a valid Network Detective account
- 2) at least one valid Virtual Appliance ID assigned to your Network Detective account

To continue, enter the **Network Detective** account login **credentials** and select the **Next** button. The installation program will validate the account login credentials.

Stework Detective Virtual Appliance In	nstaller - v2017.(	08.28.01					_		×
✓ Install Target	Network	Detective	Credentia	ls					
✓ Requirements (VMware)	Log into your	r Network Det	ective account	to retrieve a lis	t of available /	Appliance IDs.			
Network Detective Credentials	Usemame:	senior-tech(	@youmtcompar	iy.com					
Appliance ID	Password:		1						
VMware Server									
VMware VM Settings									
VMware Network Settings									
Download VMs									
Network Settings									
Verify Settings									
Install									
						< Back	Next >	Cance	ł

If the account login credentials are verified to be correct, the user may continue to the next step that will enable the selection of an **Appliance ID** to be assigned to the **Virtual Appliance** being installed.

If the account login credentials are incorrect, the user will receive the "**Invalid login and password**" warning message as displayed below.

#### Virtual Appliance ID Requirements

If during the login process, the user receives the "No available Appliance IDs are associated with this account." message, the user should contact the Technical Support Team at RapidFire Tools to verify that at least one valid Virtual Appliance ID has been assigned to the user's Network Detective account.

After entering your Network Detective account **credentials**, select the **Next** button to proceed with the installation.

#### Step 5 – Select Appliance ID Screen

After the **Network Detective** login **credentials** have been authenticated, you must assign an available **Appliance ID** that has been allocated to the user's **Network Detective** account to the **Virtual Appliance** that is being installed.

The **Appliance ID Window** will display all of **the Appliance ID**s assigned to the user's account.

To the right of each **Appliance ID** value is a list of the Software Appliances (i.e. **Detector**, **Reporter**, and/or **Inspector**) that are provisioned to operate with each **Appliance ID**.

😪 Network Detective Virtual Applianc	e Installer - v2017.08.28.01	_		×
✓ Install Target	Appliance ID			
✔ Requirements (VMware)	Select the Appliance ID you wish to associate with the Virtual Appliance. Ensure that the selected appliance is properly provisioned for the desired features.			
✓Network Detective Credentials	Available Appliance IDs			
✓ Appliance ID	NDA1-         (Detector)           NDA1-         (Detector)           NDA1-         (Reporter)			
VMware Server				
VMware VM Settings				
VMware Network Settings				
Download VMs				
Network Settings				
Verify Settings				
Install	Enable automatic updates for the Virtual Appliance.			
	< Back	Next >	Cance	I

Select the **Appliance ID** that is to be assigned to the **Virtual Appliance** that is being installed.

#### Record the Appliance ID for the Virtual Appliance Installation

Upon selection of the **Appliance ID**, the **Appliance ID** should be recorded so that the user knows which **Appliance ID** has been associated with the **Virtual Appliance's** installation.

After selecting and recording the **Appliance ID** to be assigned to the **Virtual Appliance** installation, select the **Next** button to proceed to the next step of downloading the Virtual Machines that are required to complete the **Virtual Appliance's** installation.

#### Step 6 – Set VMware Server Credentials

In the VMware Server window, enter the VMware Server account IP Address/Name and login credentials used to access your VMware Server that will be used to operate the Virtual Appliance.

This should be the same information used in the VMware vSphere Client program used in your environment to access the **VMware Server**.

😪 Network Detective Virtual Appliance I	nstaller - v2017.08.28.01			_		×
✔ Install Target	VMware Serve	r				
✓ Requirements (VMware)	Please enter the setti the same information	ng to connect to the remote VMware Server. This should be entered in the VMware vSphere Client program.				
✓ Network Detective Credentials	IP address / Name:					
✔ Appliance ID	User name:	root				
VMware Server	Password:	•••••				
VMware VM Settings						
VMware Network Settings						
Download VMs						
Network Settings						
Verify Settings						
Install						
		< Back	Nex	t>	Cancel	

#### Step 7 – Set VMware Server Settings

Select and enter in the VMware Server's **Datastore** and **Resource Pool** settings information in the fields presented in the VMware VM Settings window.

😫 Network Detective Virtual Appliance	Installer - v2017.08	.28.01	_		×
✔ Install Target	VMware V	M Settings			
✓ Requirements (VMware)	Datastore:	datastore 1		~	
✓ Network Detective Credentials	Resource:	(DataCenter)     (V/IHost)			
✔ Appliance ID	]				
✔ VMware Server	]				
VMware VM Settings	]				
VMware Network Settings	]				
Download VMs					
Network Settings					
Verify Settings					
Install					
		< Back Nex	t >	Cancel	

#### Step 8 – Set VMware Server Settings

Select the **External Port Group** that will be used by the **Virtual Appliance** to communicate with your network.

Note: If there are no existing switches or **External Port Groups** available, then use vSphere to create one, and select the <u>Refresh</u> link in the VMware Network Settings window to make the **External Port Group** you created available for selection.

😪 Network Detective Virtual Appliance I	nstaller - v2017.08.28.01		_		×
✓Install Target	VMware Network Se	ttings			
✓ Requirements (VMware)	External Port Group				
✓ Network Detective Credentials	The External Virtual Swit Please select which Net	ch is used by the Virtual Appliance to communicate with the corporat work Adapter the External Virtual Switch should use.	e network	c and the l	nternet.
✓ Appliance ID	If there are no exisiting s update the dropdown list	witches or port groups, please use the vSphere client to create one. t.	Jse the F	Refresh but	ton to
✓VMware Server	External Port Groups:	VM Network	~	<u>Refresh</u>	
✔ VMware VM Settings					
VMware Network Settings					
Download VMs					
Network Settings					
Verify Settings					
Install					
		< Back N	ext >	Cano	cel

#### Step 9 – Initiate the Download VM Process

In this step of the **Virtual Appliance's** installation process, the window below will be displayed to indicate that the VM required to install the **Virtual Appliance** have not been downloaded at this point of the installation process.

😪 Network Detective Virtual Appliance I	staller - v2017.08.28.01		_		×
✔ Install Target	Download VMs				
✓ Requirements (VMware)	Select the folder to download the VM images. If you have previously downloade images, select the folder where they reside. Press Next to begin the download	d the (if needed).			
✓ Network Detective Credentials	Download Folder: C:\Users\ \AppData\Local\Temp\	F	Browse		
✔ Appliance ID					
✔ VMware Server	Install Package Status: The install image does not exist. Clicking image.	j Next will downloa	d the la	itest	
✔ VMware VM Settings					
✓ VMware Network Settings					
✓ Download VMs					
Network Settings					
Verify Settings					
Install					
		Back Next >		Cancel	

To proceed with downloading the required VM, the user must select the folder that is to be used to store the VM that are about to be downloaded.

Then select the **Next** button to initiate the download process. A window will be displayed to present the progress of the VM download process.

#### Step 10 – View VM Download Progress and Install Package Status

During the VM download process, the Install Package Status bar will display the progress of the VM download.

😪 Network Detective Virtual Appliance I	nstaller - v2017.08.28.01					_		×
✔ Install Target	Download VMs							
✓Requirements (VMware)	Select the folder to do images, select the fold	wnload the VM der where they re	images. If yo eside. Press	u have previously d Next to begin the d	ownloaded the ownload (if needed).			
✓ Network Detective Credentials	Download Folder:	C:\Users\		AppData\Local\	Temp\	Browse		
✔ Appliance ID								
✔ VMware Server	Install Package St	atus:	2848/93/	'3 of 158943/443 b	ytes transfered (17.9% co	mplete).		
✓ VMware VM Settings								
✓ VMware Network Settings								
✓ Download VMs								
Network Settings								
Verify Settings								
Install								
					< Back	Next >	Cance	I

Once the VM have been downloaded, or when the user selects a folder where the VM bundle has already been downloaded, the **Install Package Status** in the **Download VM** window will be updated to indicate that the VM have been "downloaded" as displayed below.

😪 Network Detective Virtual Appliance I	nstaller - v2017.08.28.01	-		×
✔ Install Target	Download VMs			
Requirements (VMware)	Select the folder to download the VM images. If you have previously downloaded the images, select the folder where they reside. Press Next to begin the download (if needed).			
✓ Network Detective Credentials	Download Folder: C:\Users\ \AppData\Local\Temp\	Browse		
✔ Appliance ID				
✔ VMware Server	Install Package Status: Downloaded			
✔ VMware VM Settings				
✔ VMware Network Settings				
🗸 Download VMs				
Network Settings				
Verify Settings				
Install				
	< Back Ne	ext >	Cance	

Once the VM have been downloaded or available for installation, proceed with **Virtual Appliance** installation process by selecting the **Next** button.

The next window displayed enables the user to select the folder to be used for the **Virtual Appliance's** installation

#### Step 12 – Define Network Settings

In this step of the **Virtual Appliance's** installation process, the window below will be displayed to enable you to assign the Network Settings for the installation.

Network Detective Virtual Appliance I	Installer - v2017.08.28.01			_		×
✔Install Target	Network Settings					
✓ Requirements (VMware)	Obtain an IP address and I	DNS servers automatically (DHCP)				
✓ Network Detective Credentials	Use the following network	setting (Static)				
✔ Appliance ID	IP Address: Subnet Mask:	255.255.255.0 - /24 (Class C) 🗸	•			
✔ VMware Server	Default Gateway:					
✔ VMware VM Settings	- Preferred DNS Server: Alternate DNS Server:	(optional)	)			
✔ VMware Network Settings	1					
✔ Download VMs	1					
Network Settings	]					
Verify Settings	]					
Install	]					
			< Back	Next >	Cancel	

Once you have defined the **Network Settings** for the **Virtual Appliance**, proceed with **Virtual Appliance** installation process by selecting the **Next** button.

#### Step 12 – Verify Settings Prior to Installation

Prior to be completion of the installation process, the **Installer** will present the **Verify Settings** window.

This step in the installation process provides the user with the opportunity to check, and if necessary, modify the **Appliance ID** section, **VMware Server Settings**, **VMware VM Settings**, and the **VMware Network Settings** configuration.

Network Detective Virtual Appliance I	nstaller - v2017.08.28.01	-		×
✔ Install Target	Verify Settings			
✓ Requirements (VMware)	Network Detective Configuration			
✓ Network Detective Credentials	VMware Settings			
✓ Appliance ID	Datastore:     (123.727 free out of 231)       Resource:     (VMHost)			
✓ VMware Server	Network: VM Network			
✓ VMware VM Settings	Network Settings IP Address: (use DHCP)			
✓VMware Network Settings				
✔ Download VMs				
✓ Network Settings				
✓ Verify Settings				
Install				
	< Back Insta	all >	Cancel	

After verifying the settings are correct, select the **Install** button.

This action will start the Virtual Appliance's installation on the VMware based system.

#### Step 13 – Monitor Installation Progress Status

During this final step in the installation process, the **Installer** program's window presents the installation tasks and their statuses as the **Installer** program installs and configures the **Virtual Appliance**.

😫 Network Detective Virtual Appliance	nstaller - v2017.08.28.01	– 🗆 X
✔ Install Target	Install	
✓ Requirements (VMware)	Installing the Network Detective appliance. This process typically takes between 10-	20 minutes.
✓ Network Detective Credentials	Appliance ID: NDA1-25 (Detector)	
✓ Appliance ID	Create Virtual Machine 190% Extracted	
6	Configure Network Settings	
VMware Server	Check VM Configuration Status	
✔ VMware VM Settings	Configure Virtual Appliance Settings	
✓VMware Network Settings	Appliance Services Running	
✔ Download VMs		View Install Log
✓Network Settings		
✔ Verify Settings		
Install		
	< Back	Finish Cancel

In the case that any installation **Task** fails to complete, the user will be presented with a description of the issue within the **Notes** column of this window.

When a **Task** during the installation process fails to complete, the **Virtual Appliance** installation process is terminated. A "<u>Retry Install Now</u>" link will appear to enable the user to attempt to retry the installation.

When the installation process is successfully completed, the **Installer** will notify the user that the **Virtual Appliance** installation process is complete as displayed below.

Appliance ID: NDA1-25 (Detector) Task Extract Virtual Machine	typically takes between 10-20 minutes. Notes
Appliance ID: NUA1-25 Detector) Task ✓ Extract Virtual Machine	Notes
✓ Extract Virtual Machine	
	Completed
<ul> <li>Create External Virtual Switch</li> </ul>	Completed
✓ Create Virtual Machine	Operational
✓ Configure Network Settings	DHCP enabled
✓ Obtain IP Address	
✓ Check VM Configuration Status	Ready to be configured.
✓ Configure Virtual Appliance Settings	Completed
✓ Appliance Services Running	Running
Vupdate Virtual Appliance to Latest Version (via	Internet) Completed
	View Install Log
Installation Complete	×
Congratulations! The Network Detective A installed and is ready for use.	Appliance has been
	✓       Configure Network Settings         ✓       Obtain IP Address         ✓       Check VM Configuration Status         ✓       Configure Virtual Appliance Settings         ✓       Appliance Services Running         ✓       Update Virtual Appliance to Latest Version (via         Installation Complete       Congratulations! The Network Detective Aristalled and is ready for use.         Close       Close

Step 14 – Verify that the Virtual Machine Set up to Operate the Virtual Appliance Meets the Specified Operational Requirements

The following is a list of system requirements that are necessary to OPERATE the **Virtual Appliance** on VMware:

**Operational System Requirements:** 

- 6 GB Available RAM
- 20 GB Hard Drive Space