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Tips and Tricks on Building Agentless Antivirus Scanners for VMware View Virtual Desktops

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Agenda

- I. Design Decisions – Current AV or Agentless
- II. How to Configure the Parent VM
- III. vShield Manager
- IV. Trend Micro Deep Security Manager
- V. Trend Micro - Deploy Filter Driver and Appliance
- VI. Trend Micro – Protect VMs
- VII. Build McAfee MOVE
- VIII. Trend Deep Security Tips
- IX. McAfee MOVE Agentless Tips

I. Design Decisions – Current AV or Agentless

»Goal:

Minimize I/O

Design – current AV or Agentless?

- » **ProjectVRC.com Whitepaper**
- » **MCAFEE VIRUSSCAN ENTERPRISE 8.8.0**
 - » **Scan within the VM.**
 - » **I/O overhead at 50%**
- » **MCAFEE MOVE MULTIPLATFORM 2.0**
 - » **Offloading AV scanning to a separate VM.**
 - » **I/O overhead at 16%**

Design – current AV or Agentless? Continued.

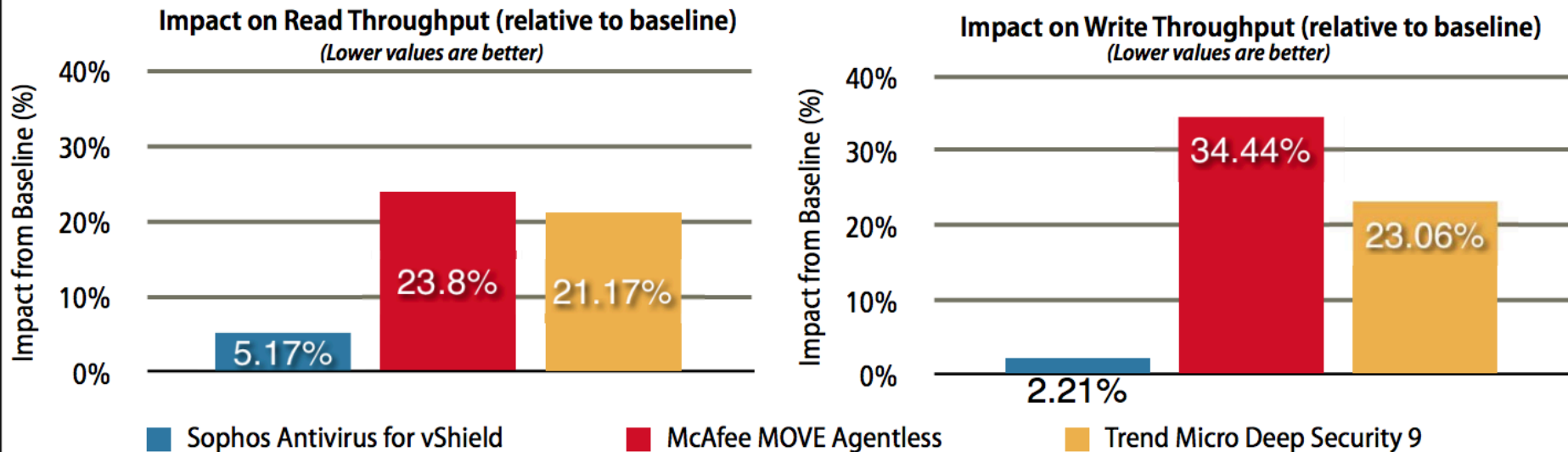
- » MCAFEE MOVE AGENTLESS 2.5
- » Scanning offloaded to VM, very light VMware agent inside
- » IO overhead at most 10%. -- all write, no read at all.
- » **Conclusion: Using Agentless makes sense.**

Sophos wins in 1 report, but Sophos ordered report

VMware ESXi 5.5 vShield-Enabled Server Workload Performance

Windows Server 2008 R2 CIFS File Server Performance

as reported by Load DynamiX Test Development Environment 3.2



Note: A nested 72.4GB file set was used for read transactions. Client load emulated by Load DynamiX TDE 3.2, requesting approximately 9:1 read/write transactions. Tests run for a period of 1 hour. Lower impact from baseline is better. Baseline read throughput 43.77MB/s, write throughput, 4.9MB/s.

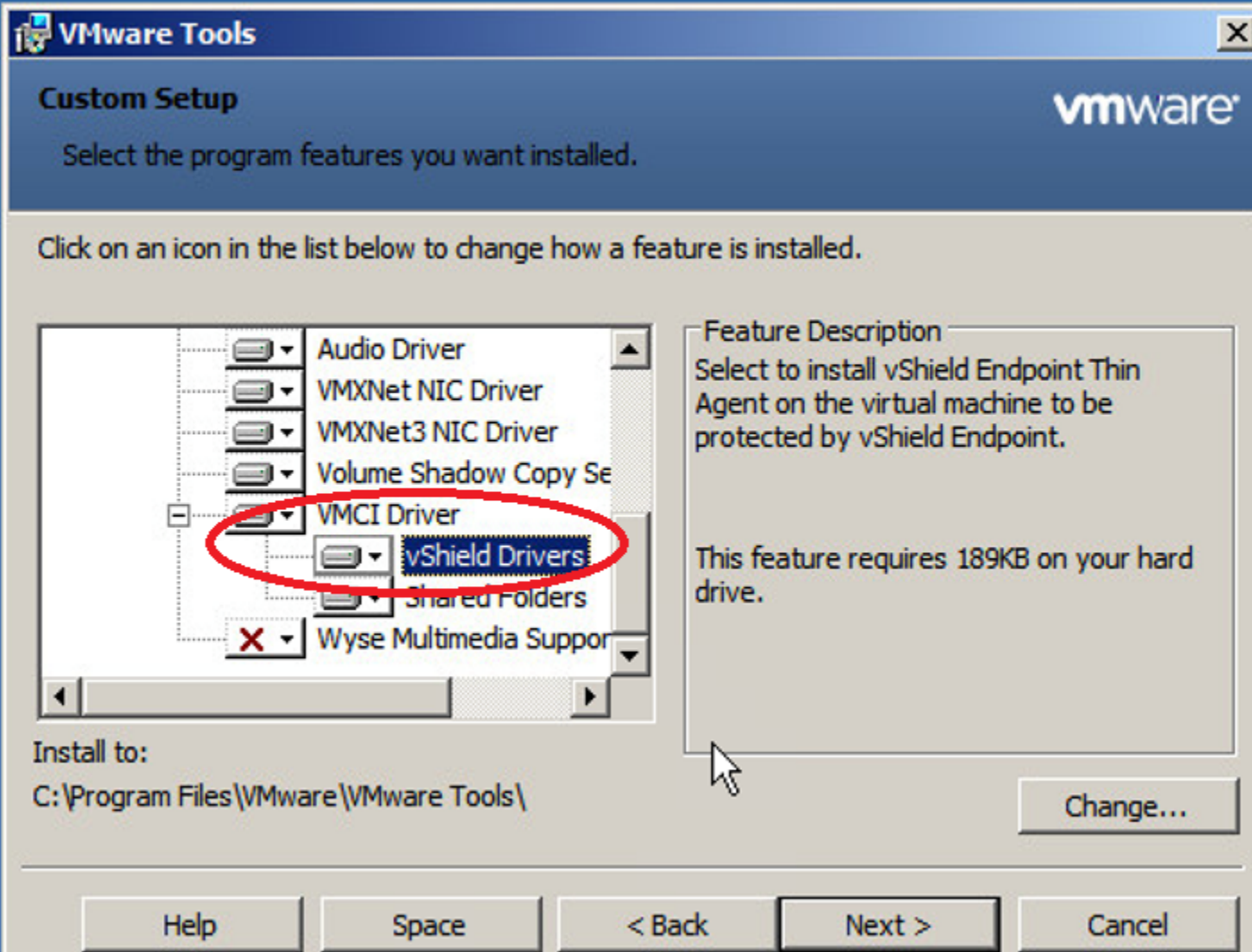
Source: Tolly, February 2014

Figure 1

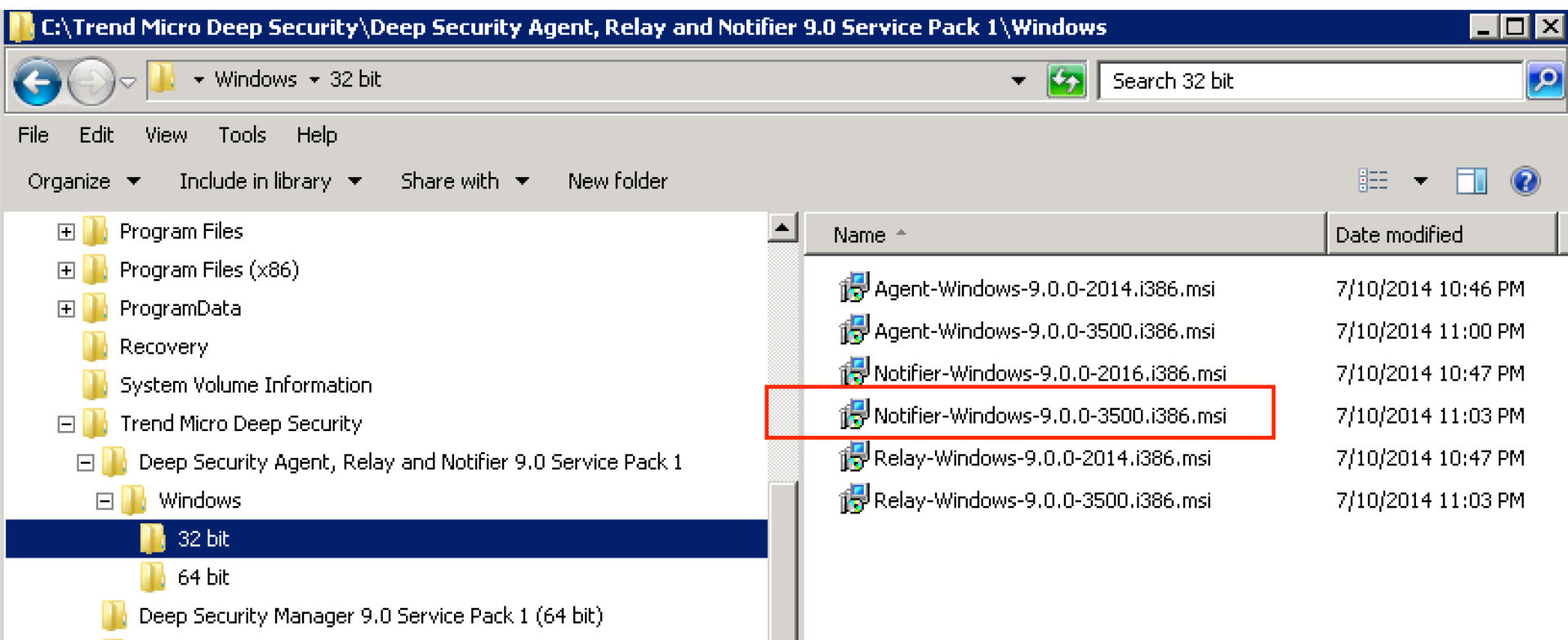
II. Trend – How to Configure the Parent VM

»Goal: Make
it easier

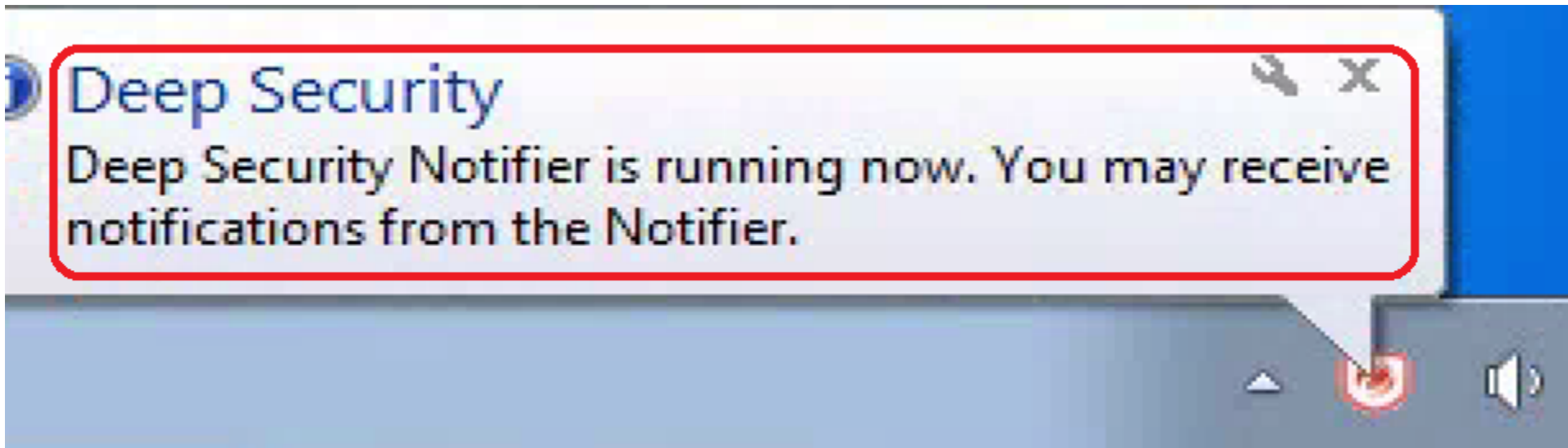
**VMCI –
what VM
uses to
talk
outside
the
bubble**



Download Notifier installation file from the Trend Website and run install. Choose all defaults.



Once installed, the Notifier displays a bubble upon first login. Some admins don't like any popups in their Parent VM. You can opt not to install Notifier then.



III. vShield Manager

»Goal: Follow
the Antivirus
Manufacturer
manual

Source

Select the source location.

Source

OVF Template Details

Name and Location

☒ Host / Cluster

Resource Pool

Disk Format

Ready to Complete

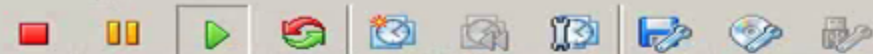
Deploy from a file or URL

\\VCNS 5.5.2.1\VMware-vShield-Manager-5.5.2-1912200.ova ▼

Browse...

Enter a URL to download and install the OVF package from the Internet, or specify a location accessible from your computer, such as a local hard drive, a network share, or a CD/DVD drive.

File View VM



```
[ 48.213575] EXT3-fs (sda1): mounted filesystem with writeback data mode
[ 48.224644] kjournald starting. Commit interval 5 seconds
[ 48.225995] EXT3-fs (sda3): using internal journal
[ 48.226395] EXT3-fs (sda3): mounted filesystem with writeback data mode
[ 48.246284] kjournald starting. Commit interval 5 seconds
[ 48.246969] EXT3-fs (sda1): using internal journal
[ 48.247354] EXT3-fs (sda1): mounted filesystem with writeback data mode
[ 48.249783] kjournald starting. Commit interval 5 seconds
[ 48.250468] EXT3-fs (sda3): using internal journal
[ 48.250852] EXT3-fs (sda3): mounted filesystem with writeback data mode
/etc/rc.d/init.d/rc: End /etc/rc.d/rc3.d/S98local start

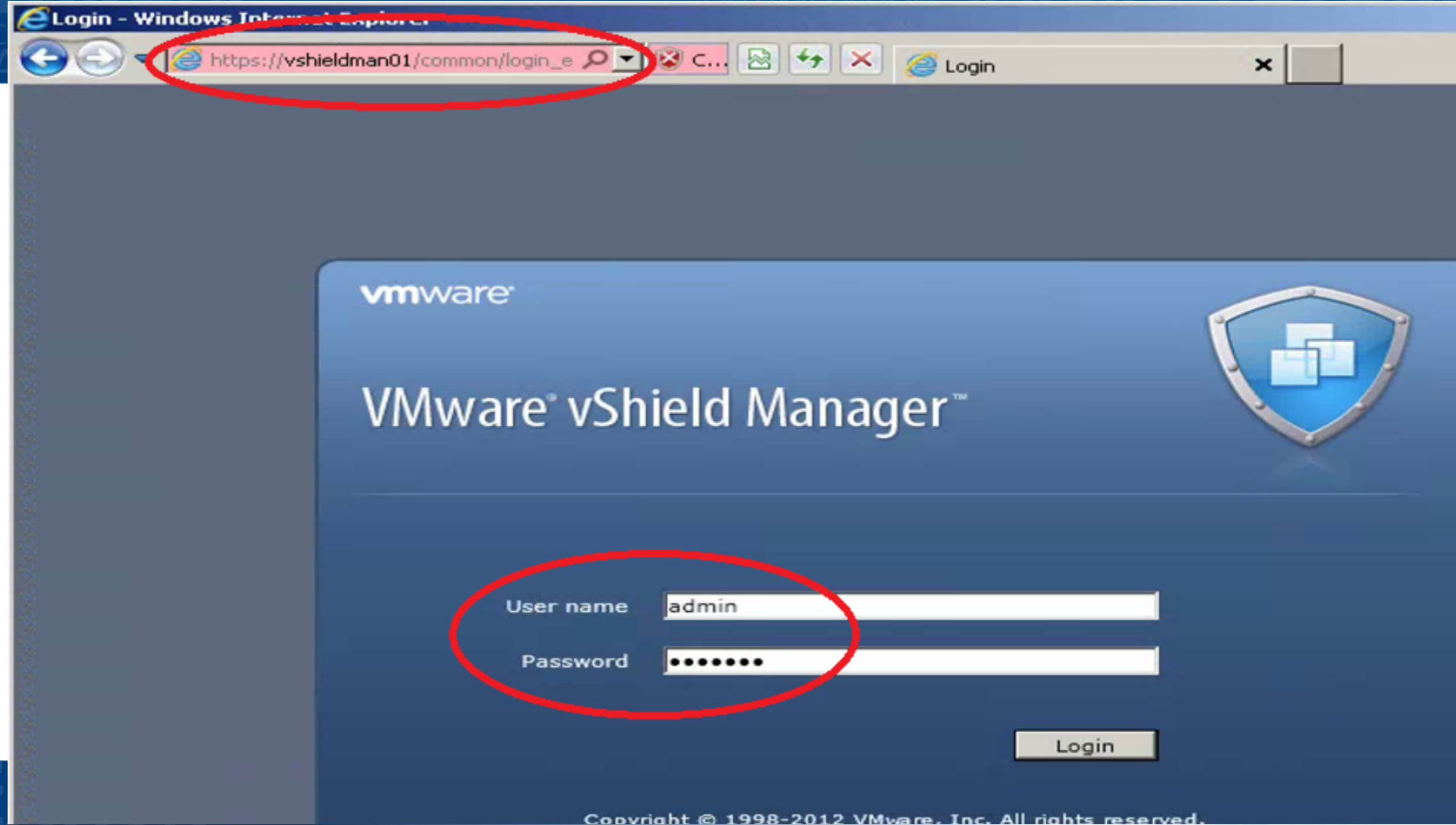
[ 48.578588] e1000: Mgmt NIC Link is Up 1000 Mbps Full Duplex, Flow Control: N
one

manager login: admin
Password:
manager> enable
Password:
manager# setup

Use CTRL-D to abort configuration dialog at any prompt.
Default settings are in square brackets '['].

IP Address (A.B.C.D):
```

To release cursor, press CTRL + ALT



vCenter Server

Connecting to a vCenter server enables vShield Manager to display the VMware Infrastructure inventory. HTTPS port (443) needs to be open for communication between vShield Manager, ESX and VC. For a full list of

vCenter Server Information

Specify the hostname or the IP address of the vCenter server and provide the administrator credentials to connect.

vShield Manager will be registered as an extension to the vCenter server.

Changing the vCenter address may result in unpredictable behavior. Please update only if you change IP of your current vCenter Server.

vCenter Server: *

Administrator Username: *

Password: *

☒ Assign vShield 'Enterprise Administrator' role to this user

☐ Modify plug-in script download location (May be required for NAT environments)

vShield Manager IP: Port:

OK

Cancel

Scheduled Backups

On

Backup Frequency

Weekly

Day of week

Sunday

Hour of day

0

Minute

0

Exclude System Event Logs

☐

Exclude Audit Logs

☐Host
Name/IP
AddressUser
Name

Password

Backup
DirectoryFilename
PrefixPass
PhraseTransfer
Protocol

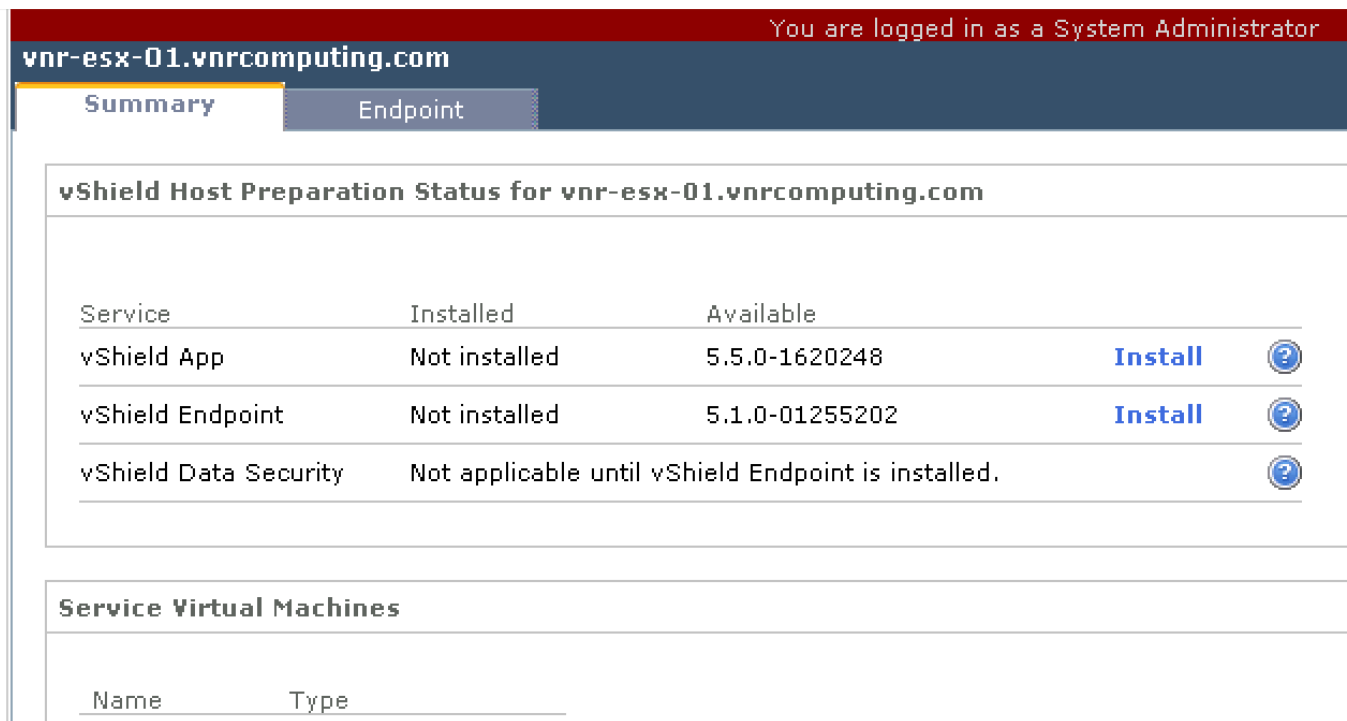
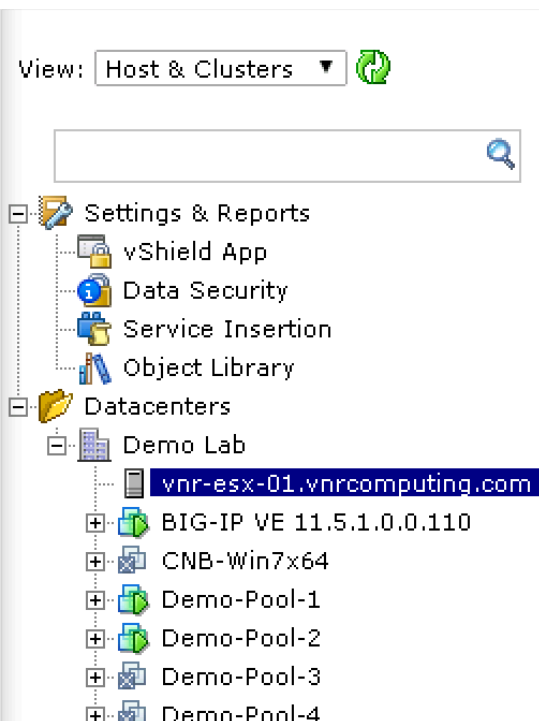
FTP

View Backups

Save Settings

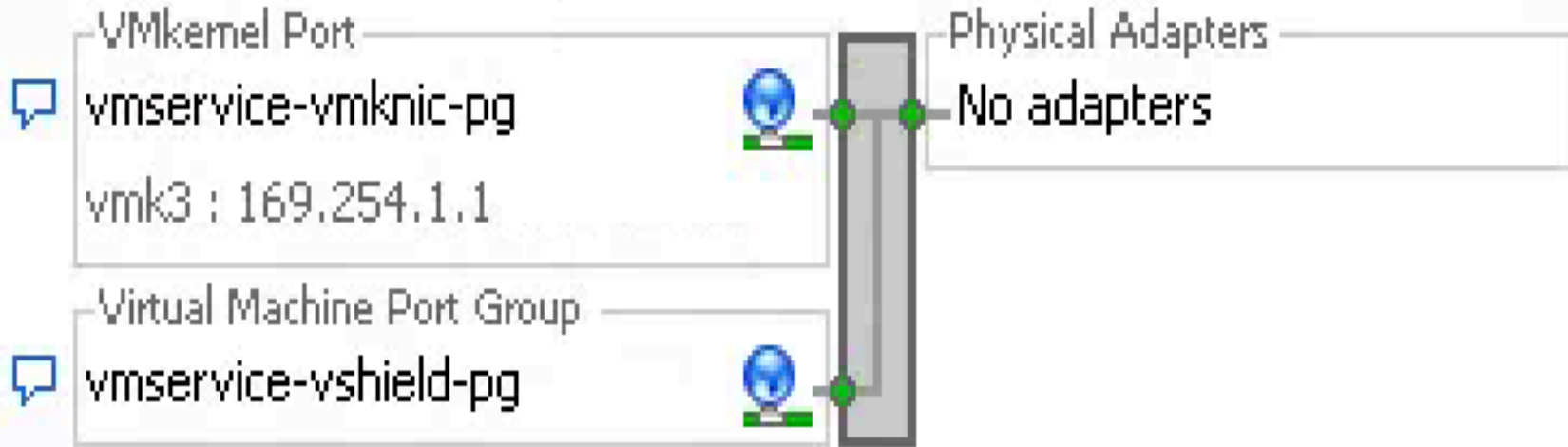
Backup

Select host, then look for vShield tab to the right.
Click the Install button next to vShield Endpoint.



Standard Switch: vmservice-vswitch

[Remove...](#) [Properties...](#)



On the Networking configuration tab for the host, look for a new Standard Switch. Do NOT delete it.

IV. Trend Micro Deep Security Manager

»Goal: Install
management

Create a VM for Trend Micro Deep Security Manager with 8GB of RAM, 1 socket and 4 cores.

trendman01 - Virtual Machine Properties

Hardware | Options | Resources | Profiles | vServices | Virtual Machine Version: vmx-09

☐ Show All Devices Add... Remove

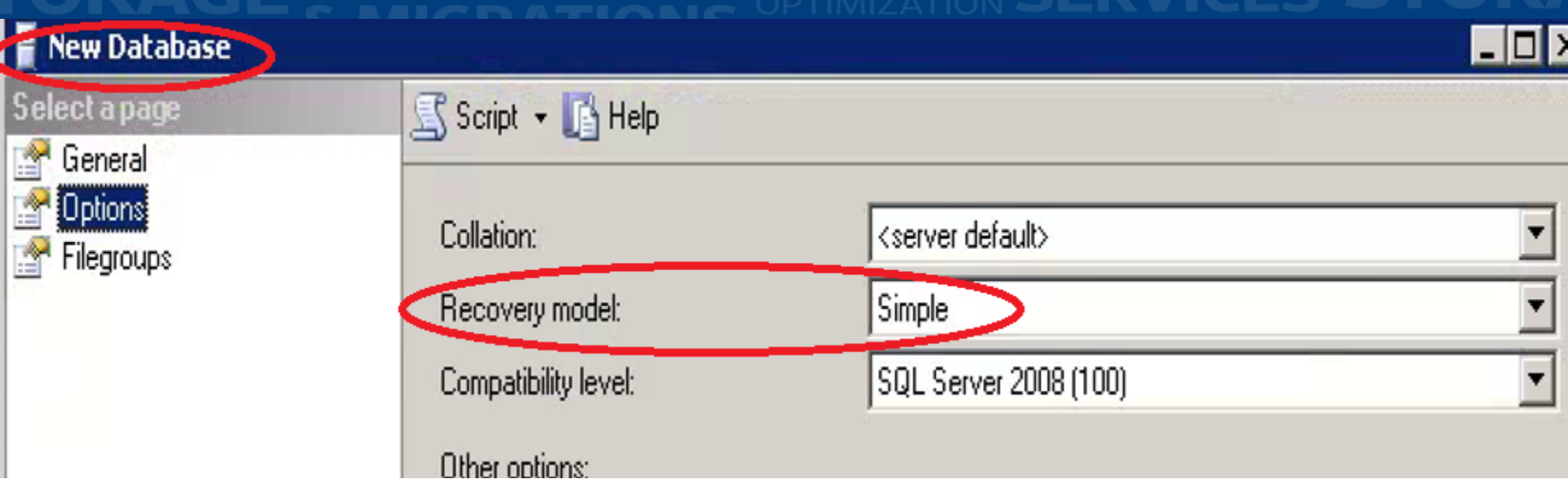
Hardware	Summary
Memory (edited)	8192 MB
CPUs (edited)	4
Video card	Video card
VMCI device	Unrestricted
SCSI controller 0	Paravirtual

Number of virtual sockets: 1

Number of cores per socket: 4

Total number of cores: 4

Changing the number of virtual CPUs after the guest OS is installed might make your virtual machine unstable.



In SQL Server Management Studio, create a new database, and make sure to specify Recovery model as Simple – no need for up to date logs here.

Setup - Trend Micro Deep Security Manager 9.0.5370

Database
Please select the database Trend Micro Deep Security Manager will use.

Database Type
☒ Microsoft SQL Server ☐ Oracle ☐ Embedded (Trial and demonstration)

Configuration Parameters

Hostname:

Database Name:

Transport: ☒ TCP ☐ Named Pipes

Username:

Password:

Advanced

< Back Next > Cancel

Specify SQL database name. Use SA account or the one given by your SQL Admins.

Setup - Trend Micro Deep Security Manager 9.0.5370

License

Enable the Protection Modules by entering one or more Activation Codes.

☐ Single Activation Code for multiple Protection Modules

All Protection Modules [] - [] - [] - [] - [] - [] - []

☒ Separate Activation Codes for each Protection Module

Anti-Malware and Web Reputation [XX] - [XXX] - [XXX] - [XX] - [XXXXX] - [XXXXX] - [XXXX]

Firewall and Intrusion Prevention [] - [] - [] - [] - [] - [] - []

Integrity Monitoring [] - [] - [] - [] - [] - [] - []

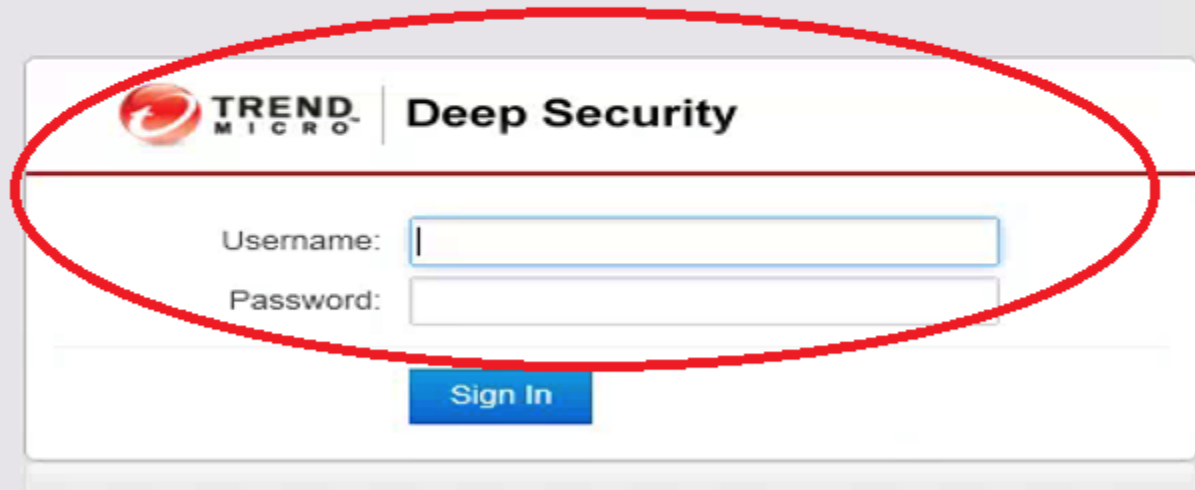
Log Inspection [] - [] - [] - [] - [] - [] - []

☐ Continue without activation

< Back | Next > | Cancel

For Antivirus, you only need to enter “Anti-Malware and Web Reputation” Activation Codes. No need to buy others.

Go to URL of the <https://TrendManagerFQDN:4119> to manage

A screenshot of the Trend Micro Deep Security login page. The page features the Trend Micro logo and the text 'Deep Security'. Below this, there are two input fields: 'Username:' and 'Password:'. A blue 'Sign In' button is located at the bottom of the form. The entire login area is circled in red.

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System Settings



Scheduled Tasks



Event-Based Tasks



Manager Nodes



Licenses



User Management



Users



Roles



Contacts



System Information



Updates

System Settings

Contexts

SIEM

SNMP

Ranking

System Events

Security

Updates

Smart Feedback

SMTP

Sto

View Proxy Servers...

SOAP Web Service API

- ☐ Enabled - Access the WSDL at: <https://trendman01.lab.private:4119/webservice/Manager?WSDL>
- ☒ Disabled

Status Monitoring API

- ☐ Enable status monitoring - General access URL at: <https://trendman01.lab.private:4119/rest/status/manager/ping>
- ☒ Disabled

Export

Exported file Character Encoding:

US-ASCII

Whois

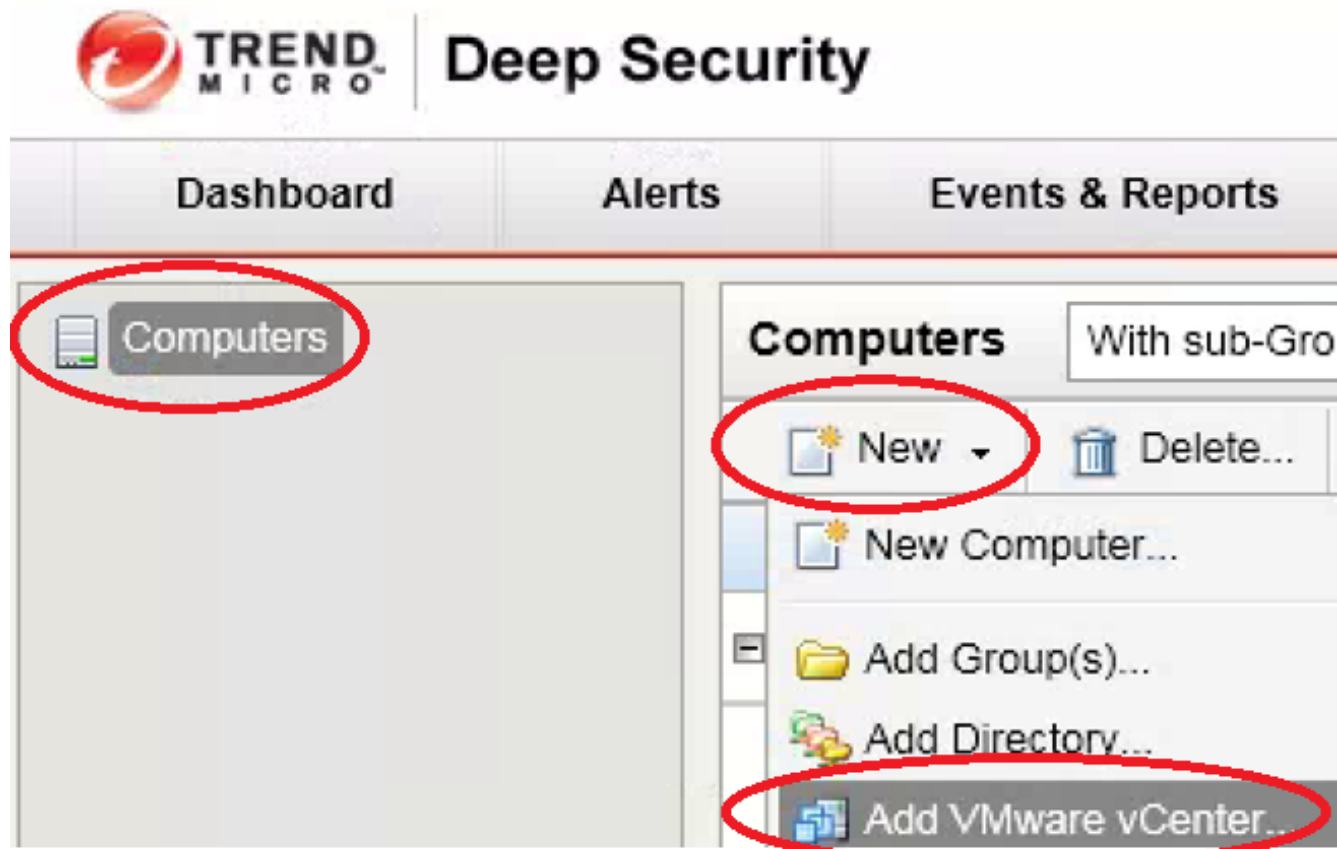
Whois URL - The full URL to a Whois lookup with the IP represented as [IP]:

Licenses

- ☒ Hide Unlicensed Modules For New Users

Scan Cache Configurations

Go to
Computers,
New, then
“Add
VMware
vCenter”

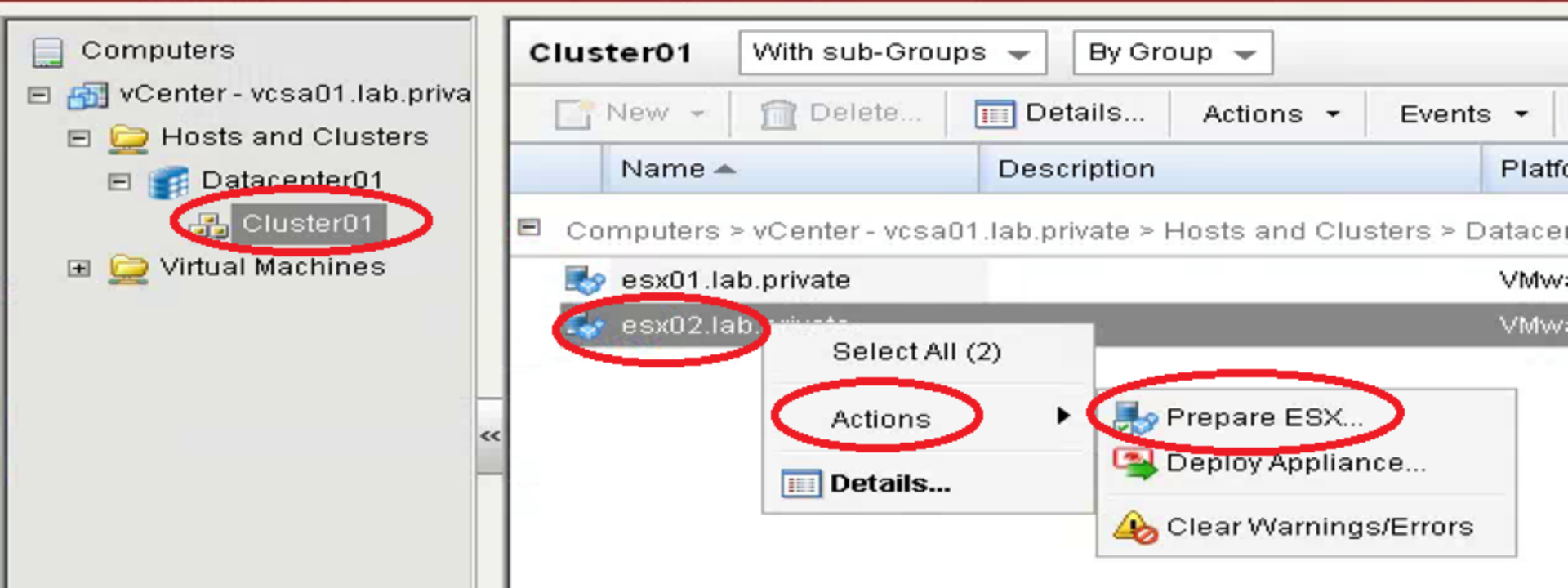


V. Trend Micro - Deploy Filter Driver and Appliance

»Goal: Install
mechanics

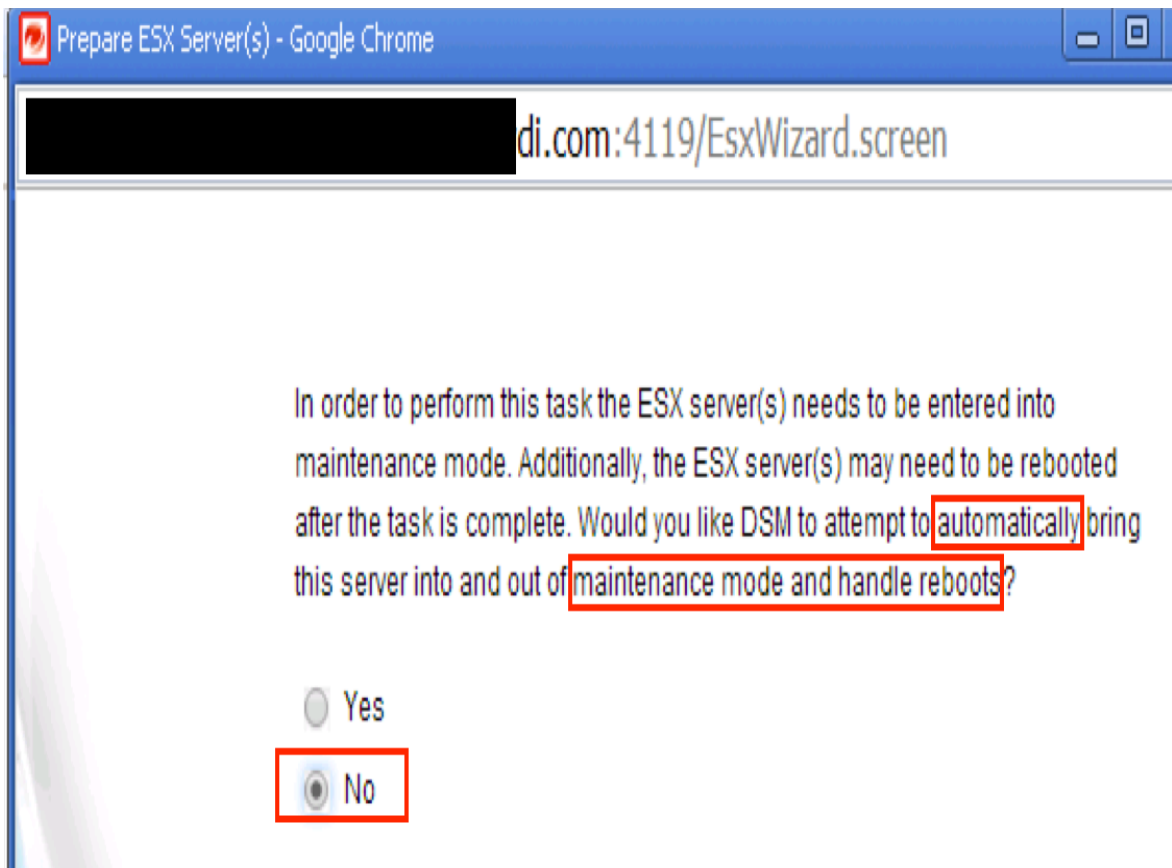
The screenshot displays the Trend Micro console interface. At the top, there is a navigation bar with tabs: Dashboard, Alerts, Events & Reports, Computers, Policies, and Administration. On the left side, a sidebar menu lists various system management options: System Settings, Scheduled Tasks, Event-Based Tasks, Manager Nodes, Licenses, User Management, Users, Roles, Contacts, System Information, and Updates. The 'Updates' option in the sidebar is circled in red. The main content area is titled 'Updates' and contains three tabs: Security Updates, Software Updates, and Relays. The 'Software Updates' tab is selected and circled in red. Below the tabs, there is a table header with columns: Package Name, Download Center Version, and Imported Version. The table is currently empty, with the text '(There are no items in the list)' displayed. At the bottom of the main content area, there are three buttons: 'Open Download Center...', 'View Imported Software...', and 'Import Software...'. The 'Import Software...' button is circled in red.

Add Trend modules you downloaded previously. Go to Updates, Software Updates and click “Import Software”

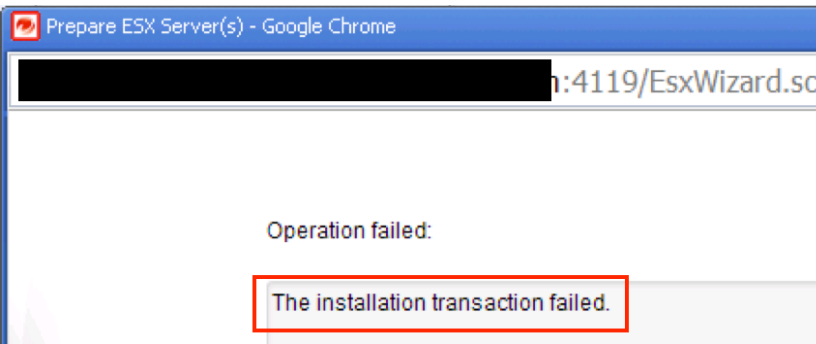


Select the Cluster in the tree, then select each ESX host, choose Actions, then “Prepare ESX...” to deploy the Filter Driver. You must do this on each host separately.

Vmotion VMs manually off the target ESX host, then manually put into Maintenance Mode. Choose No to let Trend deploy ONLY the Filter driver automatically. Then wait – it is slow. Monitor in vCenter.

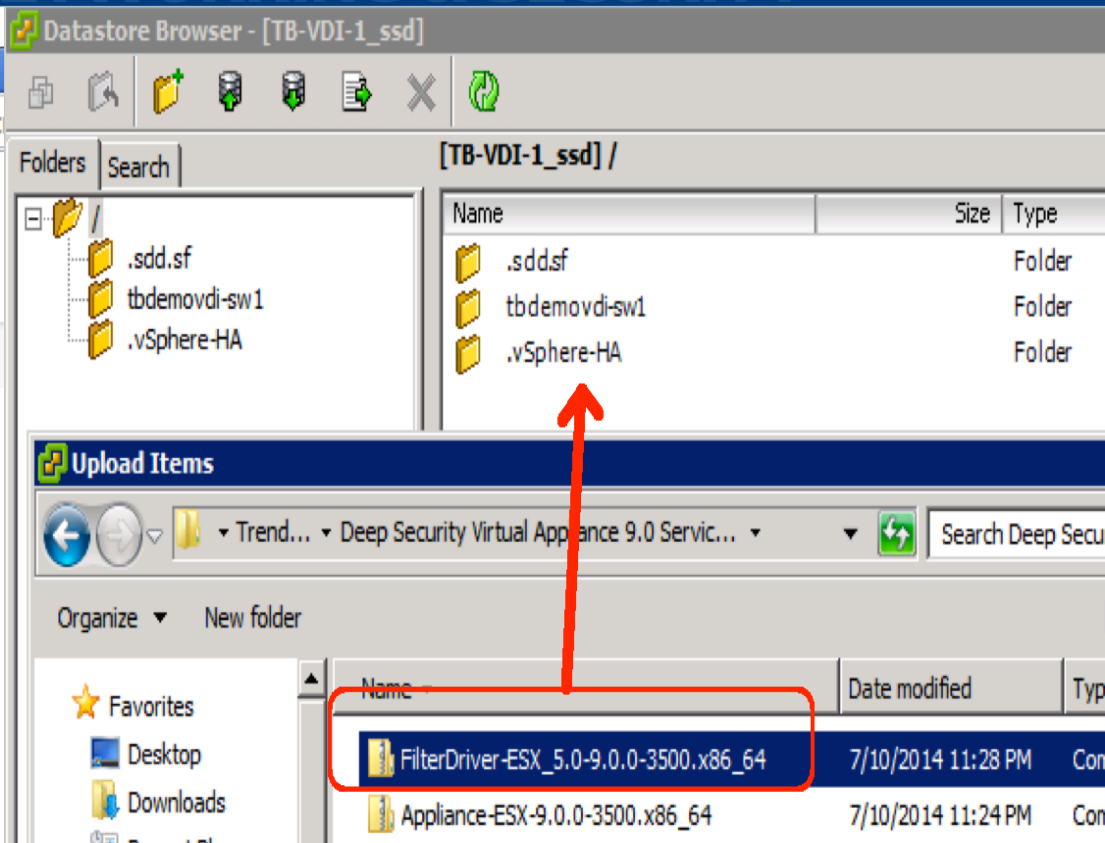


If "Installation transaction" error w vSphere 5.5



Copy Filter driver to ESXi local drive, follow VMware KB article 2077265 at the link below:

<http://ow.ly/zBgS3>



Error remediation, page 2

Put host into Maintenance Mode, add **vmervice-trend-pg** portgroup to **vmervice-vswitch**, install Filter driver manually, reboot server.

ViewCluster

tbdemovdiesx1.cdidemovdi.com (maintenance mode)

```
/vmfs/volumes/5312b337-68a22d2c-da7d-001018a7c7b8 # cd /vmfs/volumes
```

```
/vmfs/volumes # cd TB-VDI-1_ssd
```

```
/vmfs/volumes/5312b337-68a22d2c-da7d-001018a7c7b8 # ls -l
```

```
total 1032
```

```
-rw----- 1 root root 227804 Jul 25 02:02 FilterDriver-ESX_5.0-9.0.0-3500.x86_64.zip
```

```
drwxr-xr-x 1 root root 560 Jul 2 16:27 tbdemovdi-sw1
```

```
/vmfs/volumes/5312b337-68a22d2c-da7d-001018a7c7b8 # esxcli software vib install -d /vmfs/volumes/5312b337-68a22d2c-da7d-001018a7c7b8/FilterDriver-ESX_5.0-9.0.0-3500.x86_64.zip
```

Installation Result

Message: The update completed successfully, but the system needs to be rebooted for the changes to be effective.

Reboot Required: true

VIBs Installed: Trend_bootbank_dvfilter-dsa_9.0.0-3500

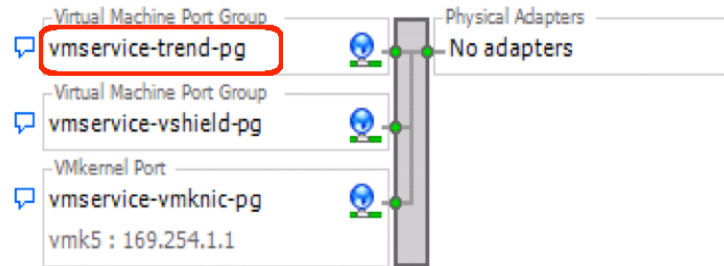
VIBs Removed:

VIBs Skipped:

```
/vmfs/volumes/5312b337-68a22d2c-da7d-001018a7c7b8 #
```

Standard Switch: **vmervice-vswitch**

[Remove...](#) [Properties...](#)



vmervice-vswitch Properties

Ports | Network Adapters

Configuration	Summary
vSwitch	8 Ports
vmervice-trend-pg	Virtual Machine Port Gr
vmervice-vshield-pg	Virtual Machine Port Gr
vmervice-vmknic-pg	vMotion and IP Storage

Port Group Properties

Network Label:

VLAN ID:

Effective Policies

Security

Provide the following network configuration information:

Appliance Hostname:

▲ TCP/IPv4 Address

☐ Enable DHCP

IP Address:

Netmask:

Default Gateway:

Primary DNS:

Secondary DNS:

▼ TCP/IPv6 Address

< Back

Next >

Cancel

Provide FQDN and Static IP address.



Cluster Features

vSphere DRS

DRS Groups Manager

Rules

Virtual Machine Options

Power Management

Host Options









VMware EVC

Swapfile Location

☒ Enable individual virtual machine automation levels.

Set individual automation level options for virtual machines in the cluster.

Virtual Machine or Automation Level contains: ▼

Virtual Machine	Automation Level
 sql01a	Default (Manual)
 vshieldman01	Default (Manual)
 vcsa01	Default (Manual)
 viewpar01w7x86	Default (Manual)
 vdesktop-20	Default (Manual)
 DSVA02	Disabled
 viewcon01a	Default (Manual)
 trendman01	Default (Manual)

Ensure appliance is Disabled from DRS automatic VMotion

VI. Trend Micro – Protect VMs

»Goal:
Protection

Activate all VMs on the host for protection. You can also activate them later through the Trend Manager interface.

Activate Host Virtual Machines:

Protect existing Host Virtual Machines on the ESX server (esx02.lab.private) by activating them.

☒ Activate selected host virtual machines

☒ Select All

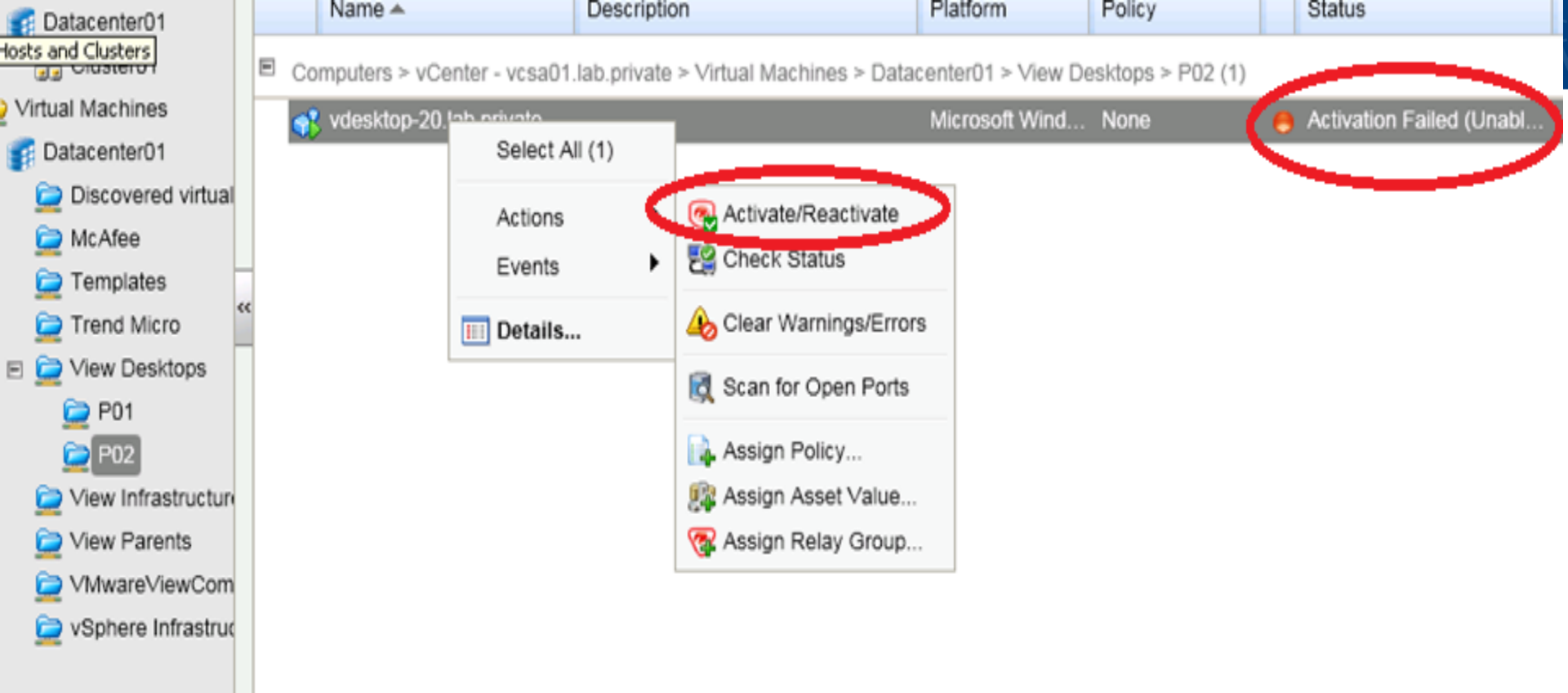
☒  viewpar01w7x86

☐ No thanks, I will activate them later.

< Back

Finish

Cancel



If activation fails, you can reactivate the VM manually



Cluster01

- esx01.lab.private
- esx02.lab.private**
- DSVA02
- sql01a
- trendman01
- vcsa01
- vdesktop-20
- viewcon01a
- viewpar01w7x86 (li
- vshieldman01

Machines Performance Configuration Tasks & Events Alarms Permissions Maps Storage Views Hardware Status **vShield** Refresh

General Endpoint

Endpoint Status

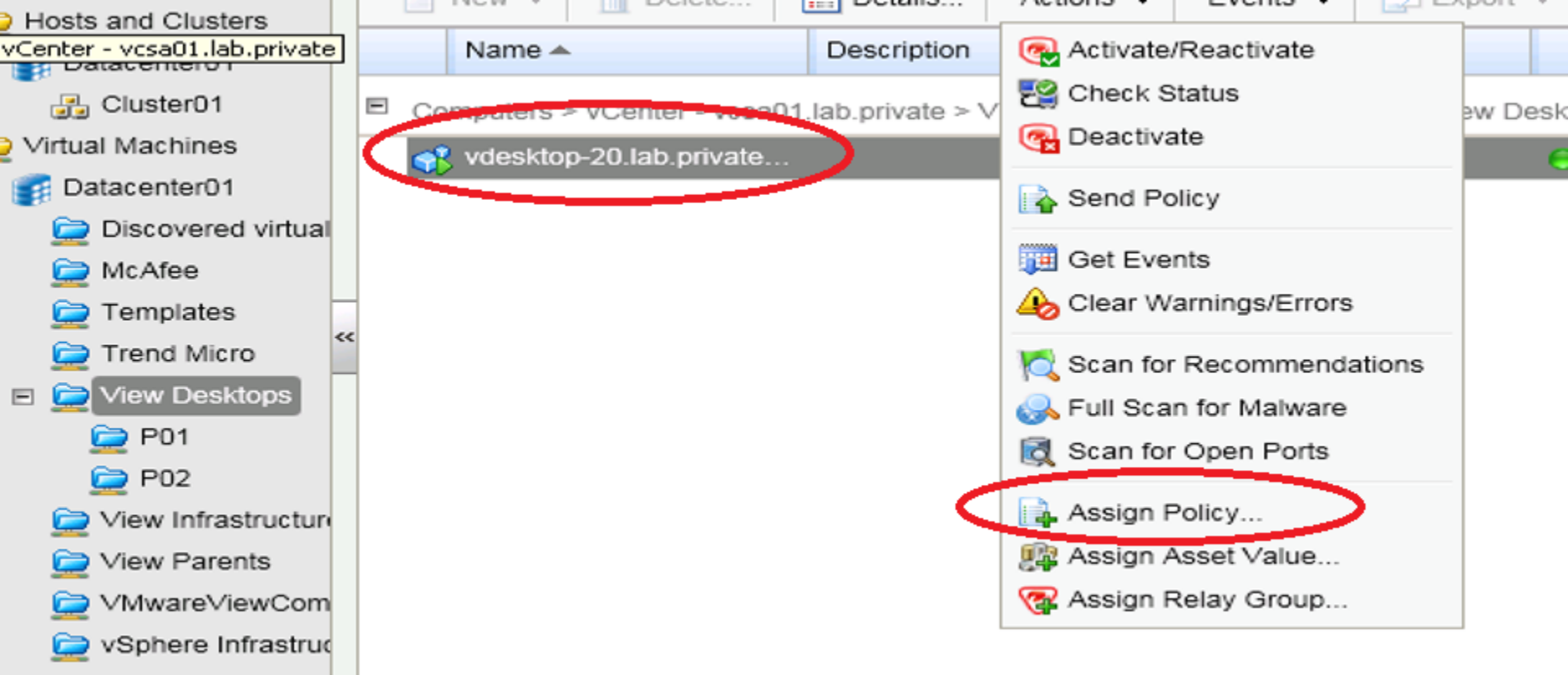
 Critical(0)	Host Events:	0	 Normal(3)	Host Events:	1
	Secured VM Events:	0		Secured VM Events:	1
	vShield VM Events:	0		vShield VM Events:	1

Events Log

All Errors

Type	Source	Description	Status	Trigger Time
host	esx02.lab.private	ESX module enabled. Supporting ...	info	8/1/2013 11:27:24 AM
sym	DSVA02	vShield Endpoint solution, Deep ...	info	8/1/2013 12:01:13 PM
vm	vdesktop-20	Thin agent enabled.	info	8/1/2013 12:01:13 PM

After activation is successful, go to ESX vShield tab & look for the name of the VM with the status of “Thin agent enabled”



Next, right click on VM in Trend Manager and Assign Policy.
Choose Base>Windows>Windows Anti-Malware Protection

Computer: vdesktop-20.lab.private (vdesktop-20)

Overview

- Anti-Malware
- Web Reputation
- Firewall
- Intrusion Prevention
- Integrity Monitoring
- Log Inspection
- Interfaces
- Settings
- Updates
- Overrides

General

Actions

Events

General

Hostname: vdesktop-20.lab.private

Display Name: vdesktop-20

Description:

Platform: Microsoft Windows 7 (32 bit)

Group: Virtual Machines ▶ Datacenter01 ▶ View Desktops ▶ P02

Policy: Base Policy ▶ Windows ▶ Windows Anti-Malware Protection

Edit

Asset Importance: None

Edit


Download Security Updates From: Default Relay Group

Edit

Status

Appliance

Status:  Managed (Online)


Anti-Malware:  Real Time

Web Reputation:  On


Firewall:  Not Licensed


Intrusion Prevention:  Not Licensed

Integrity Monitoring:  Not Licensed

Log Inspection:  Not Licensed

Online: Yes

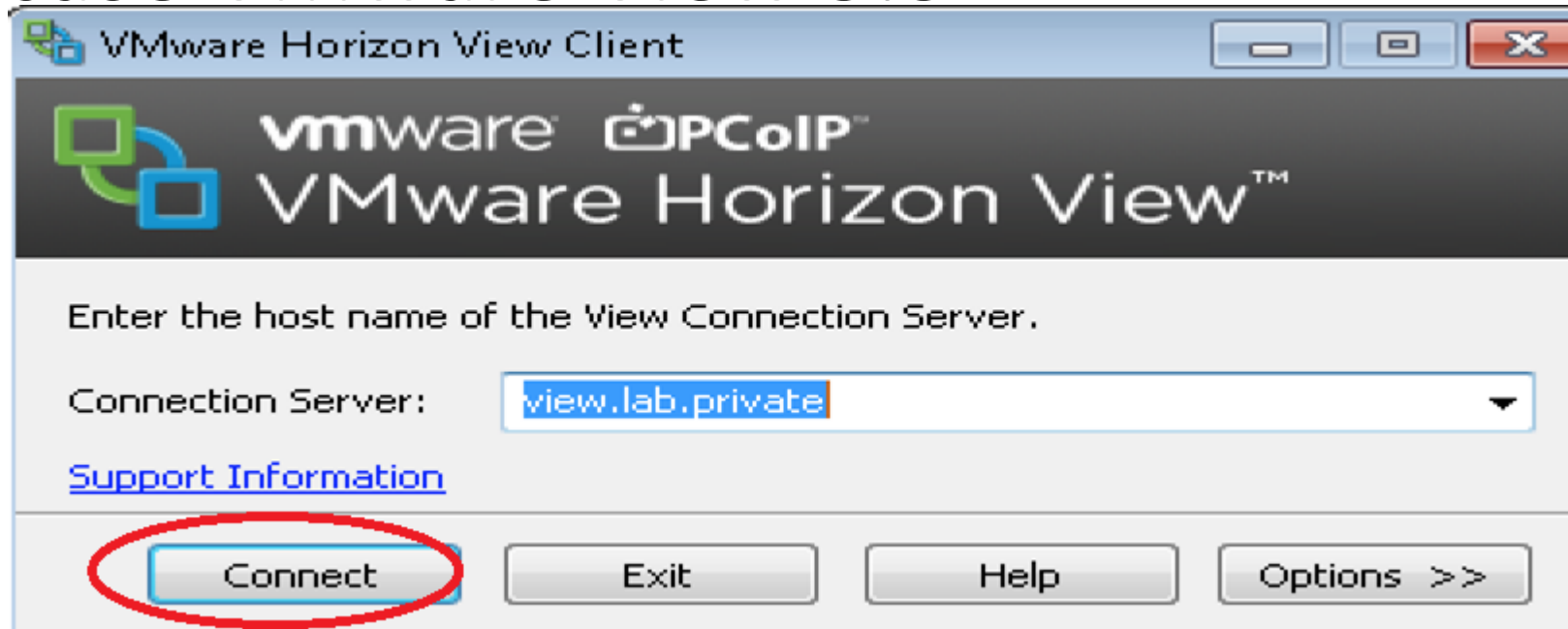
ESX:  esx02.lab.private

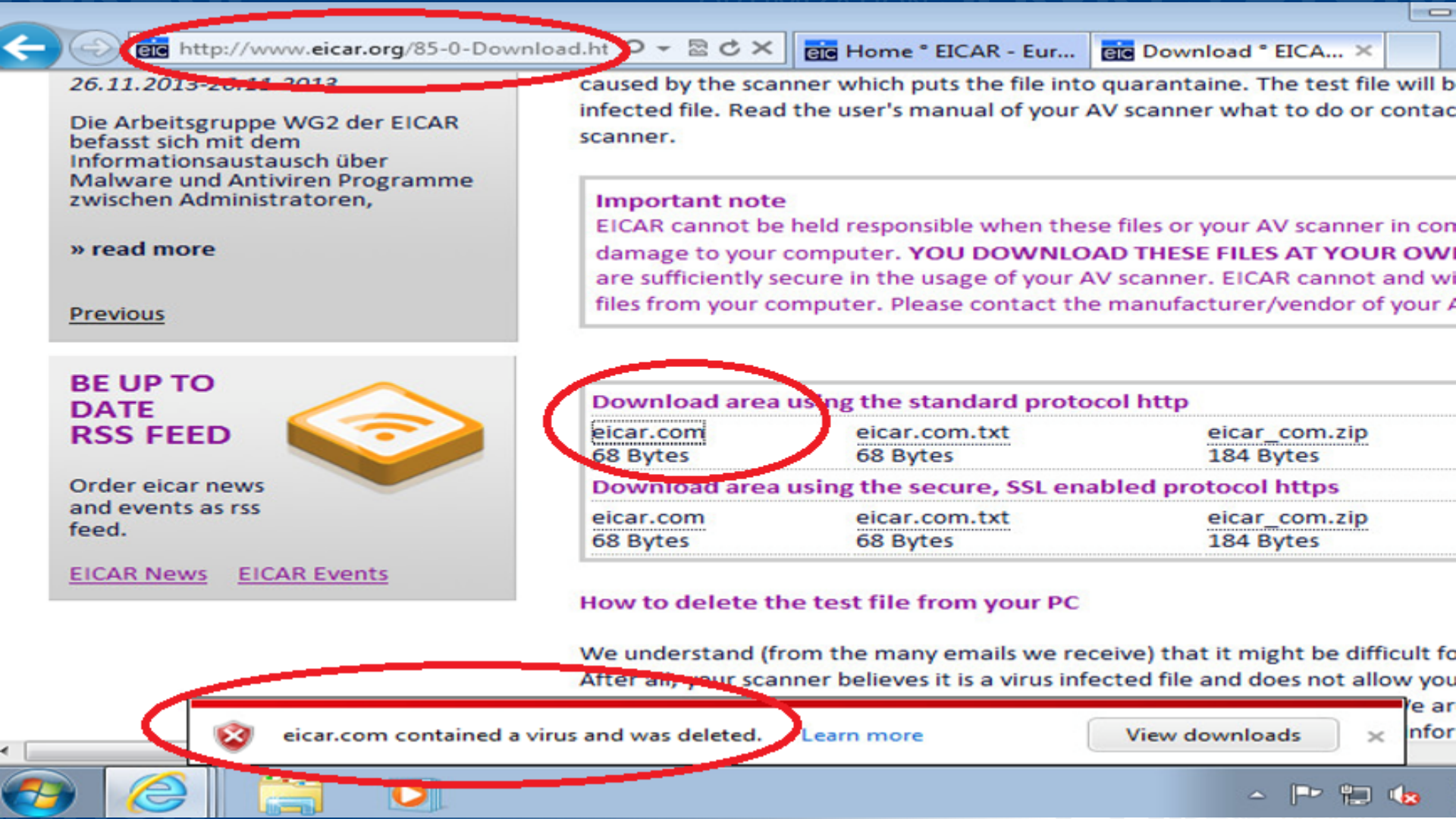
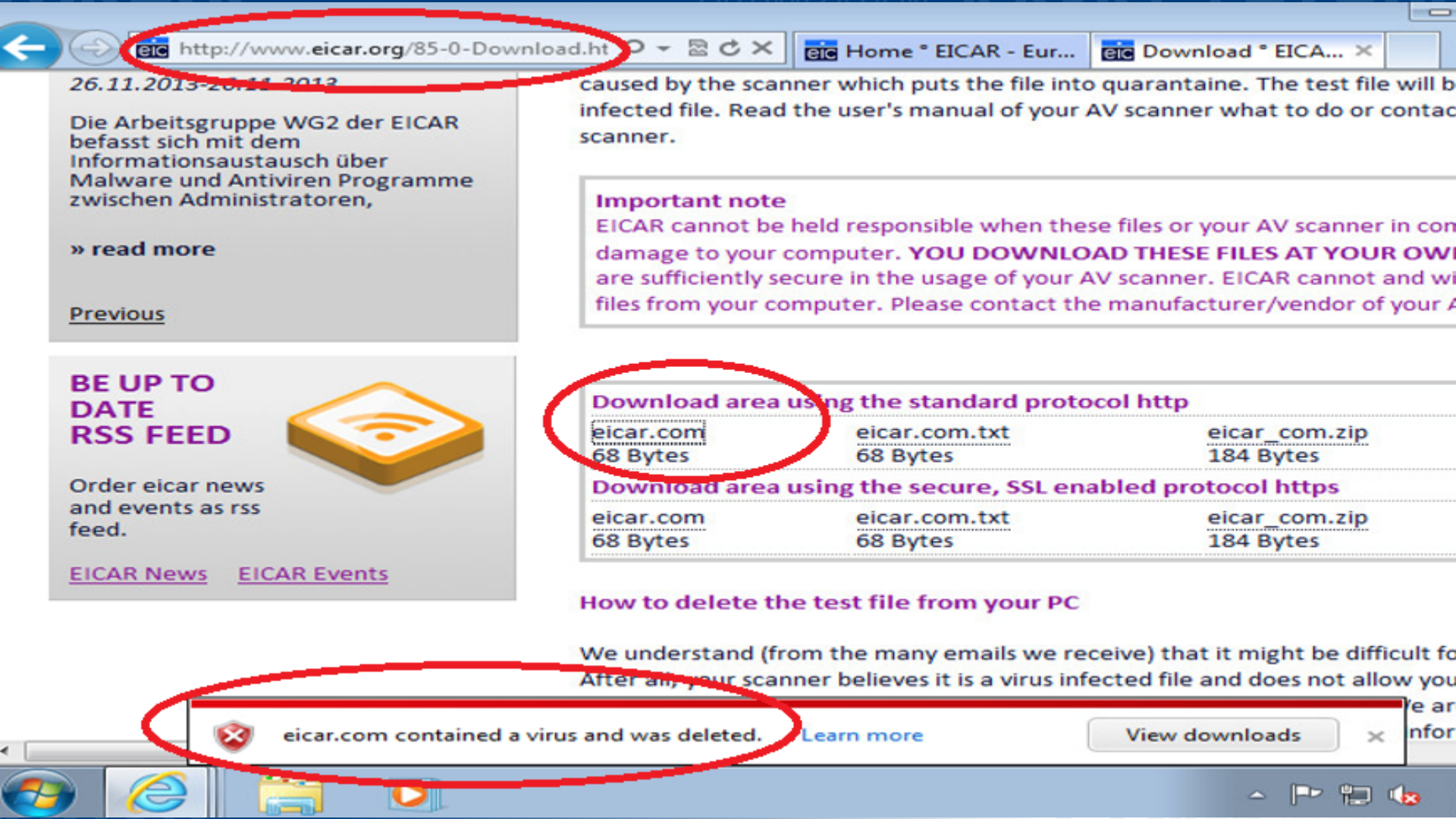
Appliance:  dsva01.lab.private (DSVA02)

VII. Connect View Desktop

»Goal: Test
catching
viruses

Connect to your Virtual Desktop, in this case VMware View 5.3





C:\Users\administrator.LAB\Desktop\eicar.com



Windows cannot find 'C:\Users\administrator.LAB\Desktop\eicar.com'. Make sure you typed the name correctly, and then try again.

OK





Malware Detected

Malware: Eicar_test_file
Infected File: eicar.com

[Click to see the details.](#)

If you click to see the details of the caught virus, you will see that it was Quarantined

 Deep Security Notification

 Anti-Malware Events

Date Time	Security Th...	Infected File	Scan Type	Result
8/1/2013 12:21:26 PM	Eicar_test_file	C:\Users\administrator.LAB\Docume..	Real Time	Quarantined
8/1/2013 12:20:58 PM	Eicar_test_file	C:\Users\administrator.LAB\Desktop...	Real Time	Quarantined

VIII. McAfee Mechanics

» Build McAfee MOVE

Initial install

McAfee ePolicy Orchestrator 5.1 - InstallShield Wizard

Welcome to the InstallShield Wizard for McAfee ePolicy Orchestrator

McAfee ePolicy Orchestrator Setup is preparing the
InstallShield Wizard which will guide you through the program
setup process. Please wait.

McAfee ePolicy Orchestrator 5.1



McAfee recommends that you install the software on a computer
with at least 8 GB of RAM.

OK

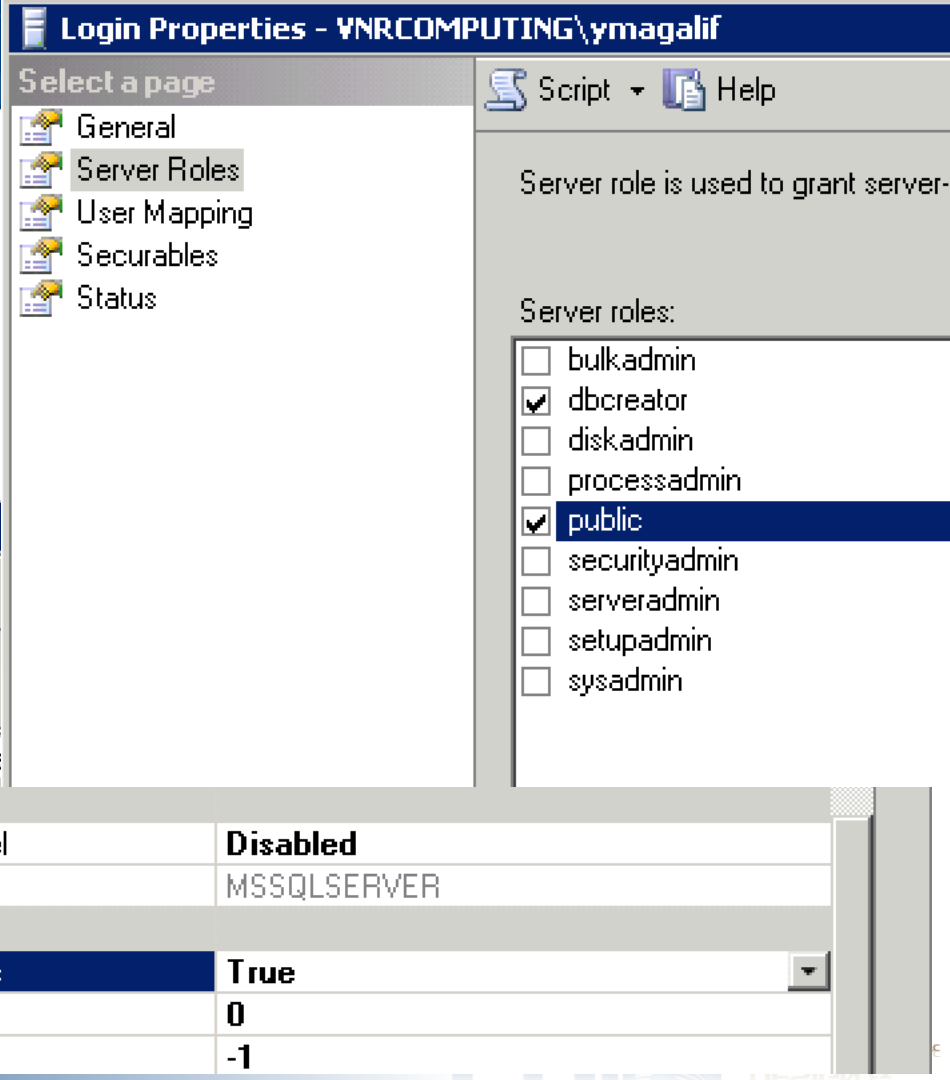
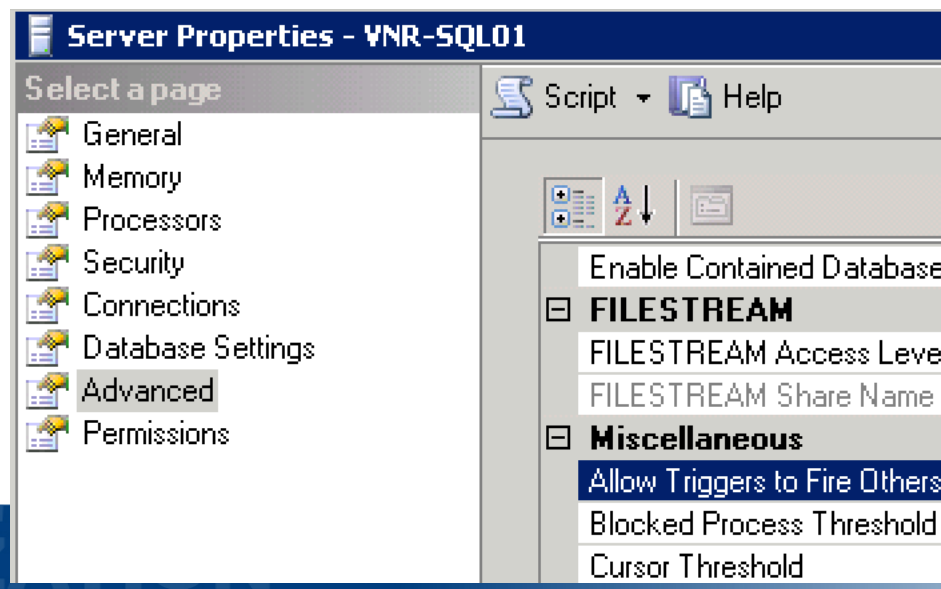
< Back

Next >

Cancel

SQL Tips

Older SQL servers need to have “Allow Triggers” value set to True. Newer SQL has this as default.



Database will be created

McAfee ePolicy Orchestrator 5.1 - InstallShield Wizard

Database Information

Enter the Database information needed below.

Database Server: VNR-SQL01.VNRCOMPUTING.COM

Database Name: ePO_VNR-EPO

Database Server credentials:

☒ Windows authentication

☐ SQL authentication

Domain: VNRCOMPUTING

Username: ymagalif

Password:


SQL server TCP port:


InstallShield


< Back Next > Cancel


Use Guided configuration for initial basic setup

Menu ▾

 Dashboards

 System Tree

 Queries & Reports

 Policy Catalog

Reporting

Dashboards


Guided Configuration ▾

Dashboard Actions ▾

Save

Discard

Guided Configuration



Guided Configuration

Welcome to the ePolicy Orchestrator Guided Configuration. This tool helps you through the steps you need to create a managed environment.

- Download and install software from McAfee.
- Select your systems.
- Configure your software policies.
- Create a product update task.
- Deploy software to your systems.

If you don't have time to complete all of the steps, you can revisit the Guided Configuration dashboard monitor at any time to continue or review your progress.

Begin

Deploy appliance yourself, manually



Deploy OVF Template

Source

Select the source location.

Source

OVF Template Details

Name and Location

Storage

Disk Format

Ready to Complete

Deploy from a file or URL

\\30_Agentless\MOVE-AV-AL_OVF_3.0.0\move-sva-3.0.0.ovf ▼

Browse...

Enter a URL to download and install the OVF package from the Internet, or specify a location accessible from your computer, such as a local hard drive, a network share, or a CD/DVD drive.

Better configure appliance manually – don't set OVF settings

```
[sudo] password for svaadmin:
Executing the SVA configuration utility.

Configure host name? yes/no [no]: yes
Enter NEW hostname [move-sva]: VNR-MSVA-01

Configure Network? yes/no [no]: yes
Network IP Address configuration. dhcp/static [static]: static
IP Address [10.1.235.102]: 10.1.235.52
Network Mask [255.255.255.0]: 255.255.255.0
Network [10.1.235.0]: 10.1.235.0
Broadcast Address [10.1.235.255]: 10.1.235.255
Gateway [10.1.235.1]: 10.1.235.1
Restarting the network interfaces. Please wait...

Configure DNS servers? yes/no [no]: yes
Nameserver 1 (Enter 'none' to delete) [10.1.235.20]: 10.1.235.20
Nameserver 2 (Enter 'none' to delete):
DNS domain (Enter 'none' to delete) [vnrcomputing.com]: vnrcomputing.com

Configuring a new password for svaadmin.
Enter NEW password:
Retype NEW password:
svaadmin password updated successfully.

Do you want to reset the password for the USE for Linux service account 'nails'?
yes/no [no]:

Would you like to register or un-register this Security Virtual Appliance with the vShield Manager? yes/no [no]: _
```

```
svaadmin@move-sva:~$ sudo dpkg-reconfigure tzdata
```



COMPUTER
DESIGN &
INTEGRATION LLC

Increase threads

```
root@VNR-MSVA-01:~# cat /opt/McAfee/move/etc/svaconfig.xml
<?xml version="1.0" encoding="UTF-8"?>
<SVA>
  <Configuration>
    <GTI>
      <sndrecvtimeout>4</sndrecvtimeout>
      <steptimeout>9</steptimeout>
    </GTI>
    <EPSEC>
      <workerthreads>256</workerthreads>
      <maxeventsum>16</maxeventsum>
      <interfacename>eth1</interfacename>
      <readfileblocksize>128</readfileblocksize>
    </EPSEC>
    <DEBUG>
      <musvc>0</musvc>
    </DEBUG>
  </Configuration>
</SVA>
root@VNR-MSVA-01:~#
```

<https://kc.mcafee.com/corporate/index?page=content&id=KB78947>

Install extensions, Including Data Center Connector 3

Install Extension

Select an extension (ZIP) file to install:

MOVE_AV_30_Agentless\MOVE-AV-AL_EXT_3.0.0.zip


Browse...


OK


Cancel


Create 2 policies and assign to objects

Menu ▾

 Dashboards

 System Tree

 Queries & Reports

 Policy Catalog

Systems Section

System Tree

New SystemsNew Subgroups

System Tree

▼ My Organization

- Kiosk
- Linked-Clones
- Persistent
- ▶ Lost&Found


SystemsAssigned PoliciesAssigned Client TasksGroup Details

Product: MOVE AV [Agentless] 3.0.0 ▾

Enforcement status: Enforcing

Category	Policy	Server
SVA	My Default	Local (VNR-EPO)
Scan	My Default	Local (VNR-EPO)

MESSAGE PROJECT MANAGEMENT

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Enable VM based scan, install Data Center Connector 3!

MOVE AV [Agentless] 3.0.0:MOVE AV Agentless > SVA > Test SVA Policy

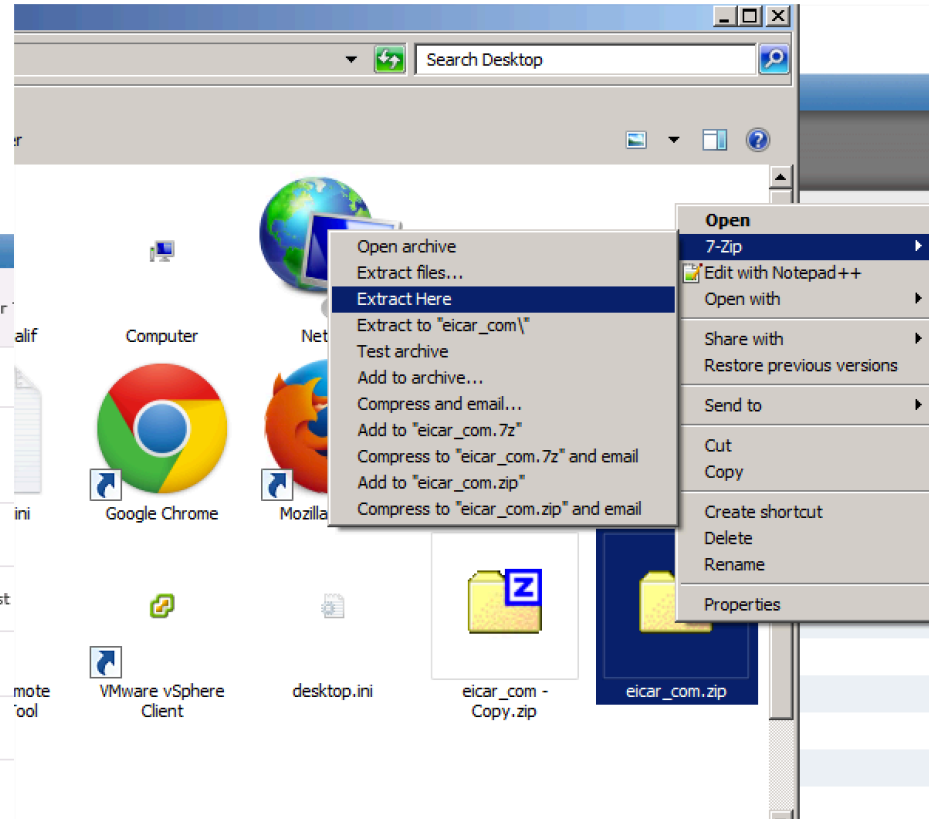
Authentication	Scan Settings	Quarantine settings
VM-based scan configuration:		<input type="checkbox"/> Enabled
SVA cache:		<input checked="" type="checkbox"/> Enabled
Maximum size of SVA cache:		<input type="text" value="1000000"/>
Cache scan result of file size up to (MB):		<input type="text" value="1"/>
Maximum concurrent On-Demand Scans per SVA:		<input type="text" value="2"/>
Maximum On-Demand Scan time (minutes):		<input type="text" value="150"/>
On-Demand Scan time interval (days):		<input type="text" value="7"/>
On-Demand Scan time window:		<input checked="" type="checkbox"/> Scan <input type="checkbox"/> Don't Scan

Wake up SVA and VM, then test with EICAR

Wake Up McAfee Agent

Click "OK" to send the wake-up call to the target systems. To see the status of the wake-up call, go to the Server

Target systems:	DemPool-2
Wake-up call type:	<input checked="" type="radio"/> Agent Wake-Up Call <input type="radio"/> SuperAgent Wake-Up Call
Randomization:	0 minutes
Options:	<input checked="" type="checkbox"/> Retrieve all properties even if they haven't changed since the last
Force policy update:	<input type="checkbox"/> Force complete policy and task update
Number of attempts:	1 (Enter 0 for continuous attempts.)
Retry interval:	30 second(s)
Abort after:	5 minute(s)



If successful, in 5-30 min will see messages in log

Reporting

Threat Event Log

Threat Event Log : Threat events received from managed systems

Preset: Last day ▼

Custom: None ▼

Quick find:

Apply

[Clear](#)

☐ Show selected rows

<input type="checkbox"/>	Event Generated Time ▼	Event ID	Event Description	Event Category	Threat Target IP
<input type="checkbox"/>	7/23/14 8:29:43 AM	34421	Malware detected and successfully deleted.	Malware detected	10.1.235.106
<input type="checkbox"/>	7/23/14 8:27:38 AM	34421	Malware detected and successfully deleted.	Malware detected	10.1.235.106
<input type="checkbox"/>	7/23/14 8:27:06 AM	34421	Malware detected and successfully deleted.	Malware detected	10.1.235.106

IV. Trend Deep Security Tips

- » Before installing vShield service on each ESX host, make sure the vCenter VM is NOT on that host. Install, then move vCenter back. Same w/Filter driver.
- » Do NOT assign a Security Profile to the Deep Security Manager VM itself (even though there IS one). Otherwise, you will get “Anti-Malware Driver Offline”
- » You CAN apply the DP Virtual Appliance Profile to each VA
- » Shut down Manager first, then SVAs. Start SVAs first, then manager.
- » vShield modifies the VMX file – be aware if you move VM to non-vShield environment.

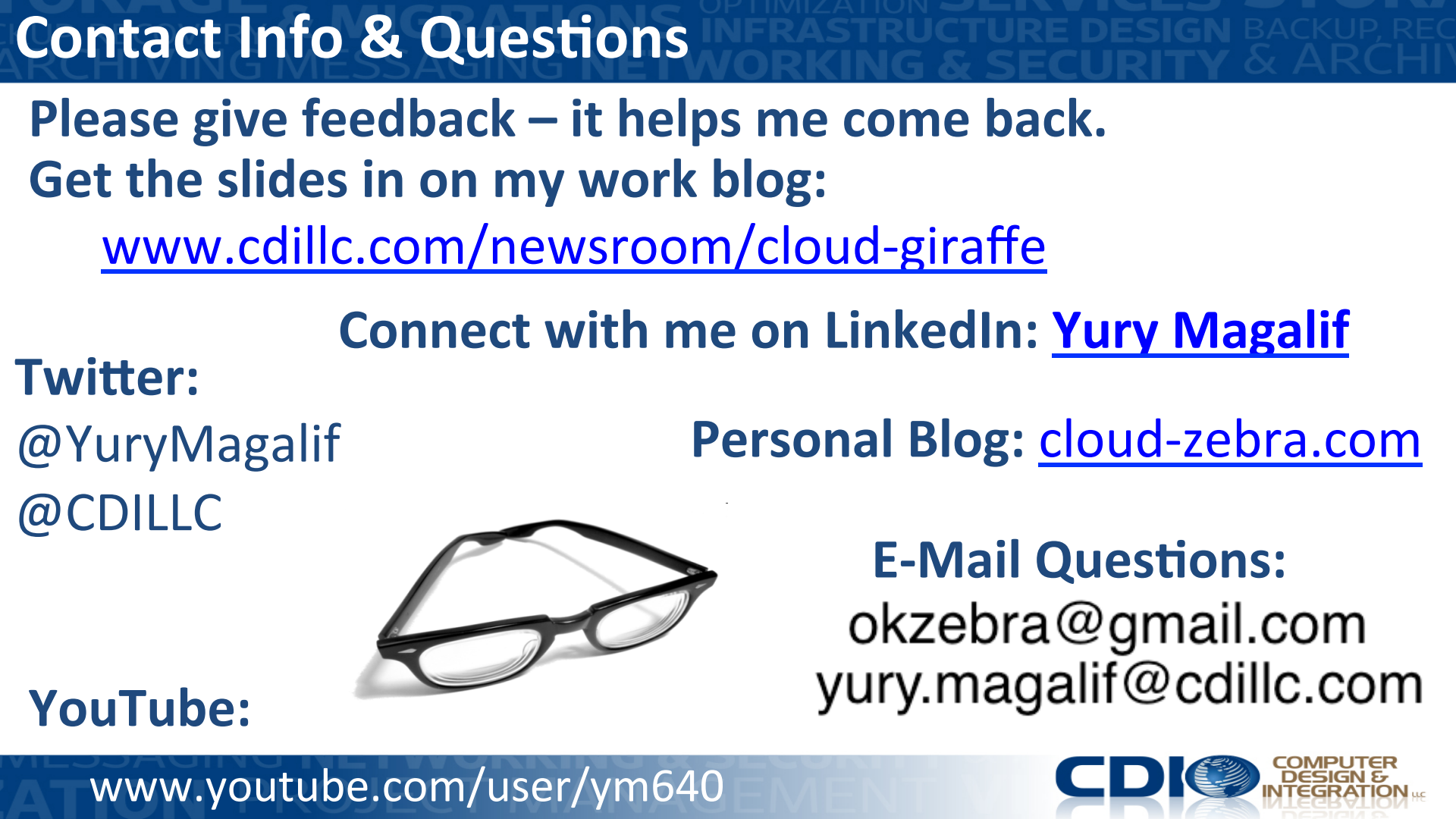


IX. McAfee MOVE Agentless Tips

- » No filter driver – no reboot of ESX is necessary to deploy!
- » To deploy the SVA to a hypervisor with a distributed switch (vDS), at least two ESX servers must be connected to the vDS
- » Manually disable VMotion on SVAs.
- » Only do Script based deployment for Clustered installs and installs with many ESXi servers.
- » From the ePolicy Orchestrator console, deploy a policy with a category of Scan – real time. SVA category (scheduled scan) is less important, but still necessary to configure.

Thank you!

» I would like to thank Chris Ruotolo, Will Chin, Jose Restrepo, Richard Agnew, Jeroen van de Kamp, Ryan Bijkerk, Ruben Spruijt & ProjectVRC for help with this presentation.



Contact Info & Questions

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