

**REDACTED**

# vSphere Data Protector (VDP)

Tony Foster @wonder\_nerd  
Systems Engineer  
vExpert 2012, VCP 4/5  
Eagle Software, Inc. Salina KS



# Legal Mumbo Jumbo VDP Statements

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- The material contained herein is based on Beta interactions with this product.
  - Functionality, operations, views, screen captures, and all other features & functions described or contained herein may differ in the GA release of the software.
- The views and opinions expressed herein are those of the presenter & do not constitute or reflect the views of VMware, Inc., it's partners, or associated entities, or the presenters employer.

# What is VDP



- VDP is a fast powerful backup tool for VM's
- Constructed using EMC's Avamar backup solution.
- Provides deduplication across all VDP backups.
- Fully integrated with the vSphere Web Interface
- End user file level recovery capabilities
- Its included with vSphere 5.1 Essentials Plus licensing & above

# What VDP is not



- VMware Data Recovery (VDR) rebranded.
- A way to backup to tape.
- Incompatible with your existing backup solution.
- Complicated
- Agent based.

# What do we need for VDP?

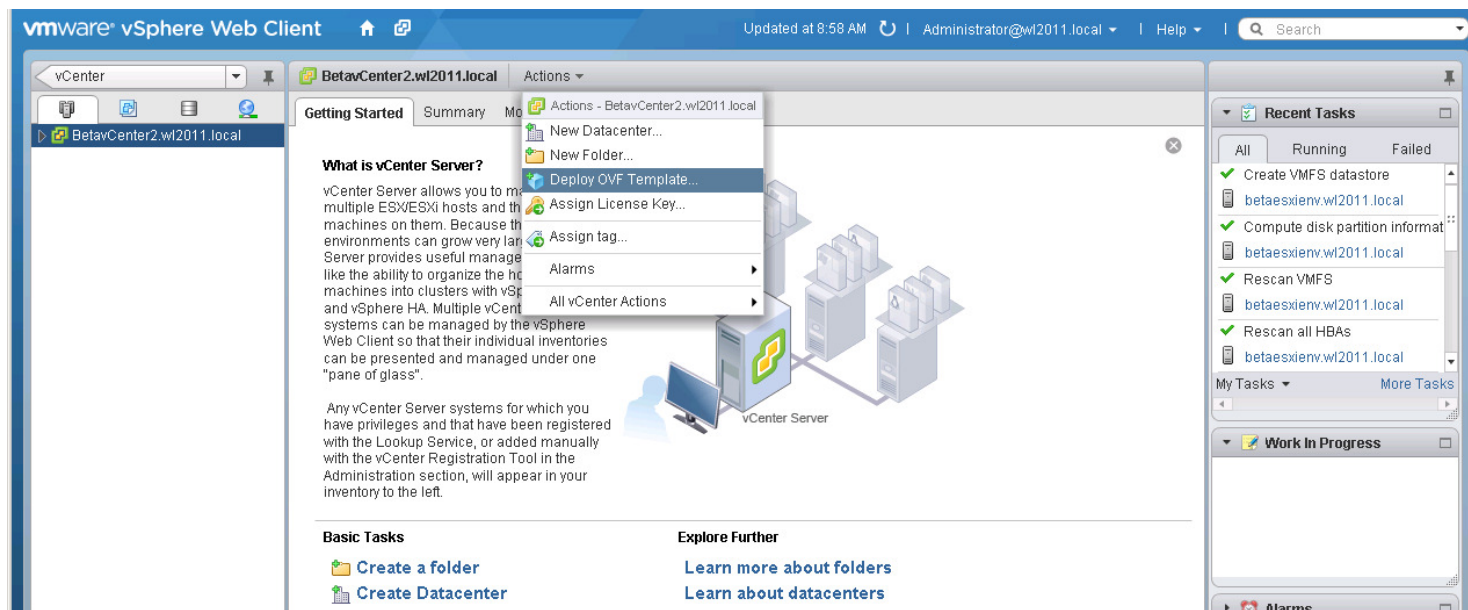


- VMware vCenter Server 5.1
- VMware ESX/ESXi 4.0, 4.0i, 4.1i, 5.0i, 5.1
- The VDP Appliance
  - Review the VDP documentation to determine the correct size and quantity of VDP appliances you need.
- Best Practice: Is to use storage not associated with the VM's you are going to protect.

# Setting up VDP

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- We'll navigate to our vCenter and under the Actions drop down Deploy the VDP OVF

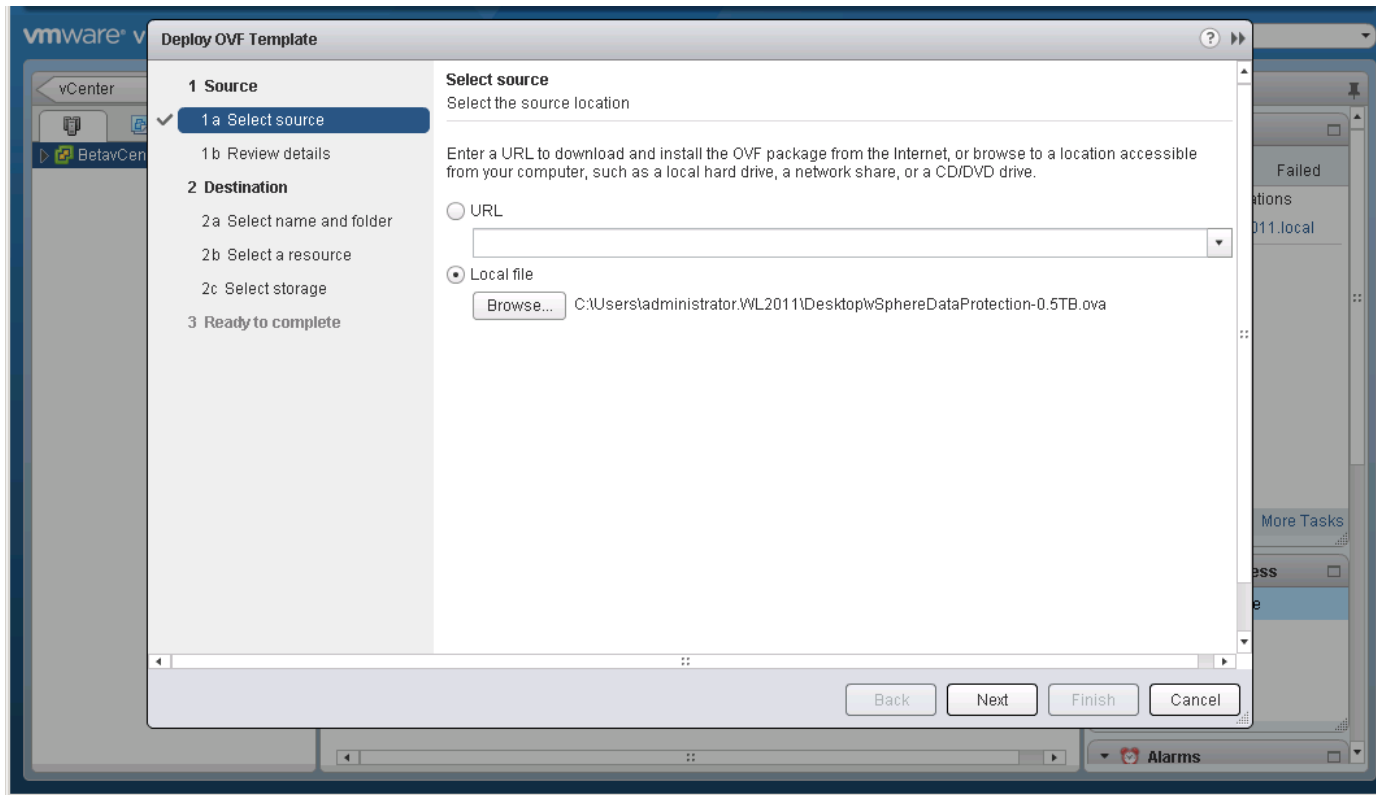


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# Setting up VDP

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- We select the OVF for the VDP appliance.

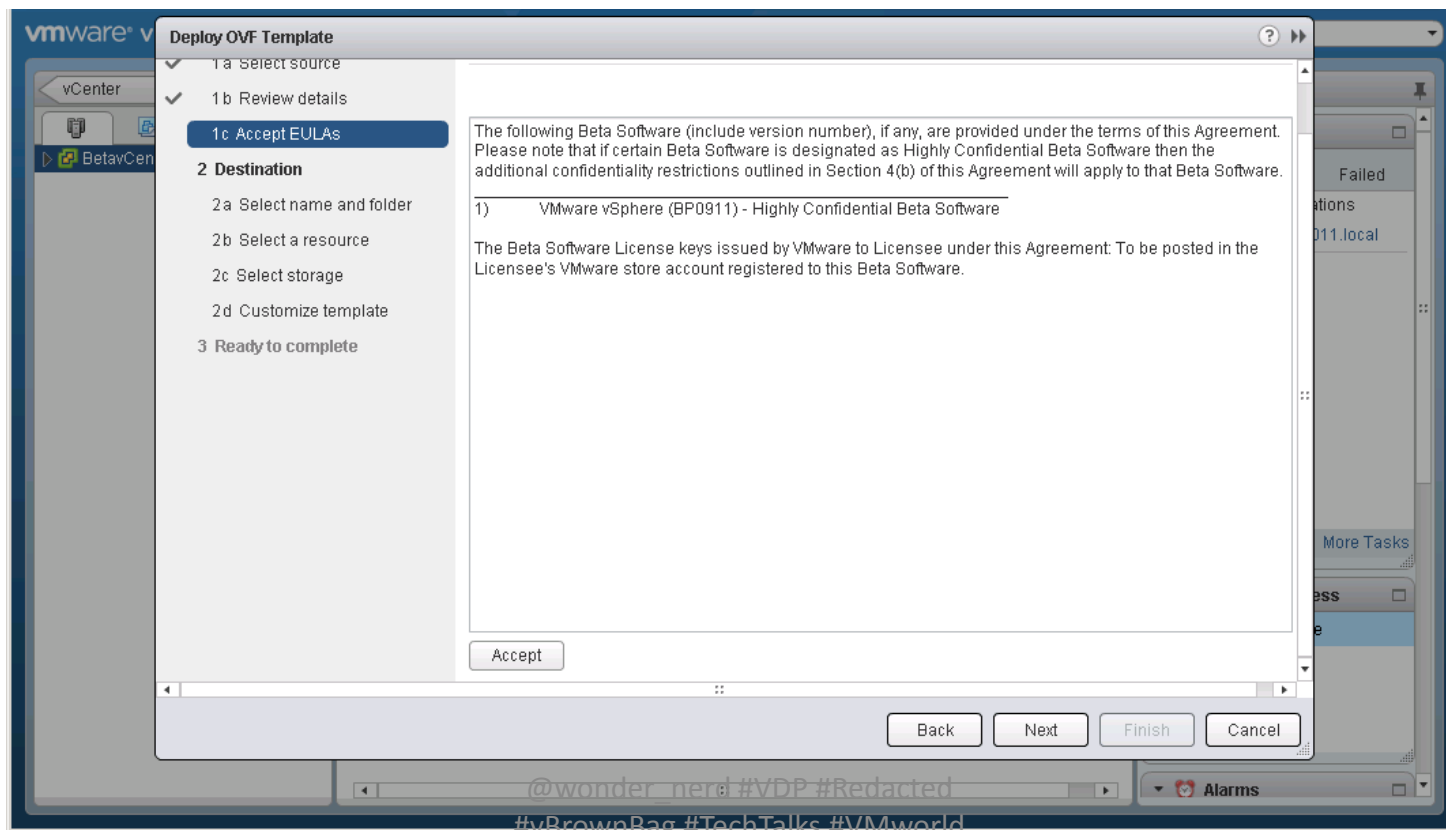


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# Setting up VDP

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- Review the EULA (this will look differently in the GA release).

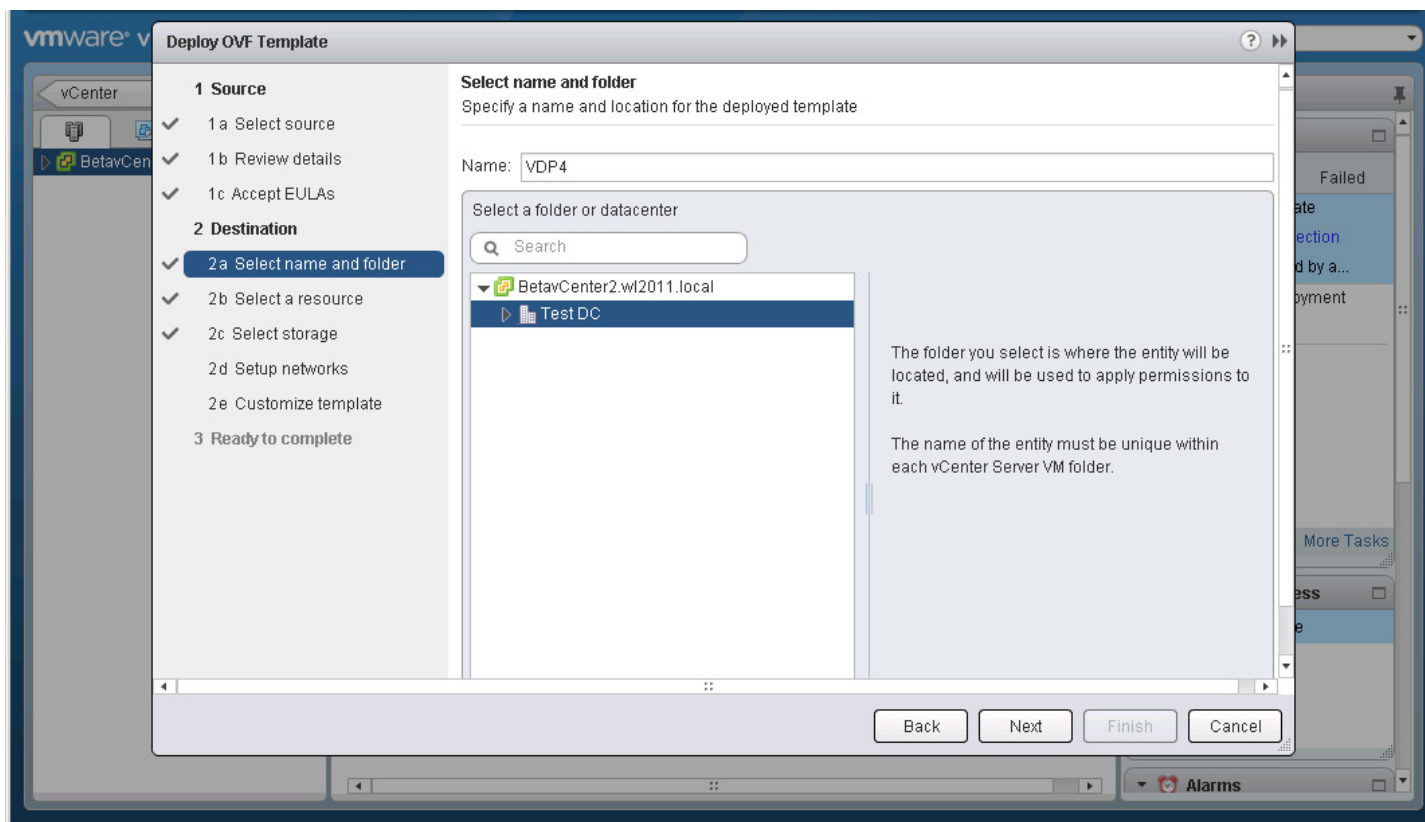




# Setting up VDP

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- Select the location to deploy the appliance.

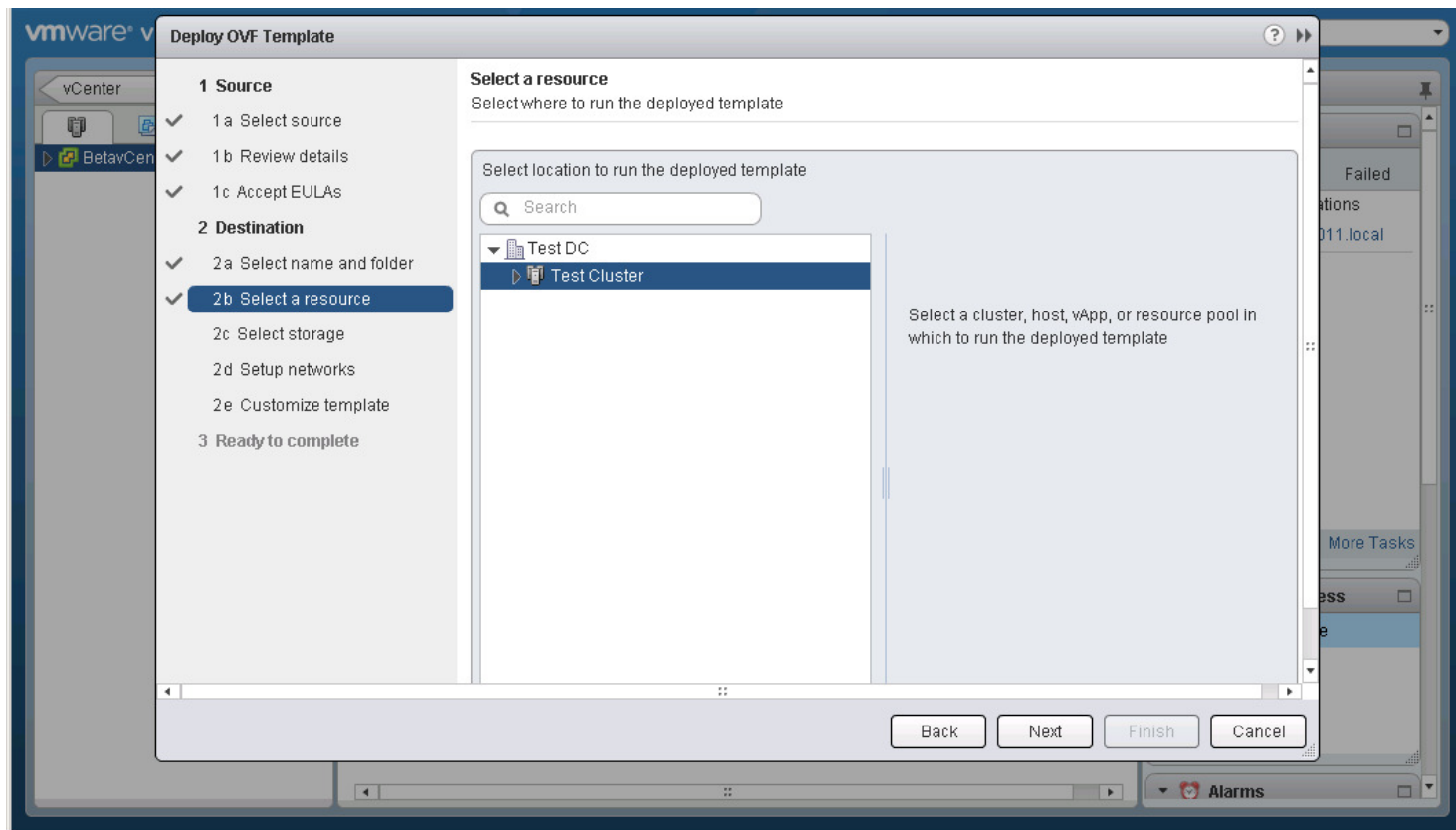


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# Setting up VDP

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- Select the appropriate resources

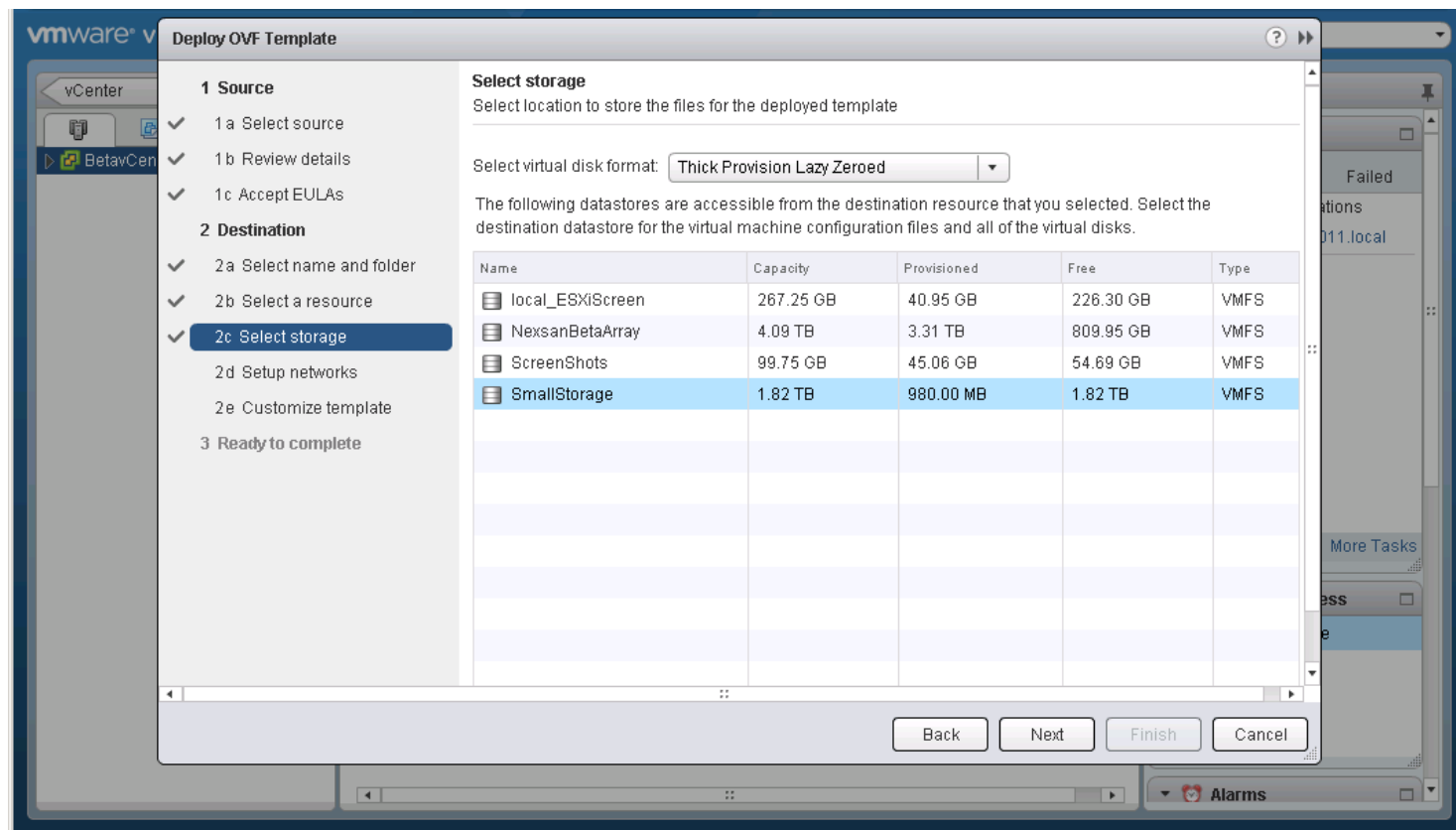


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# Setting up VDP

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- Select the storage to house the Appliance.

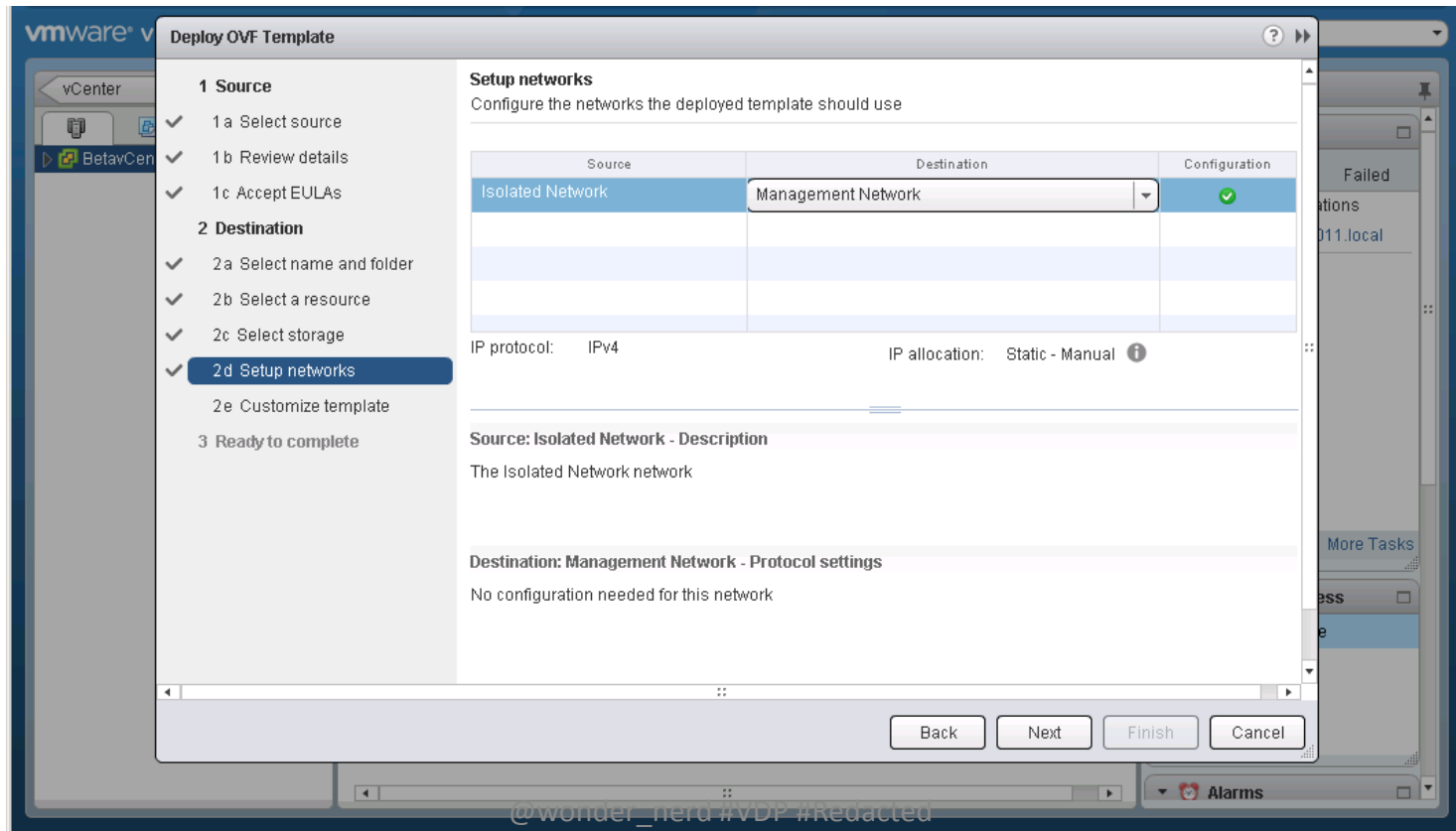


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# Setting up VDP

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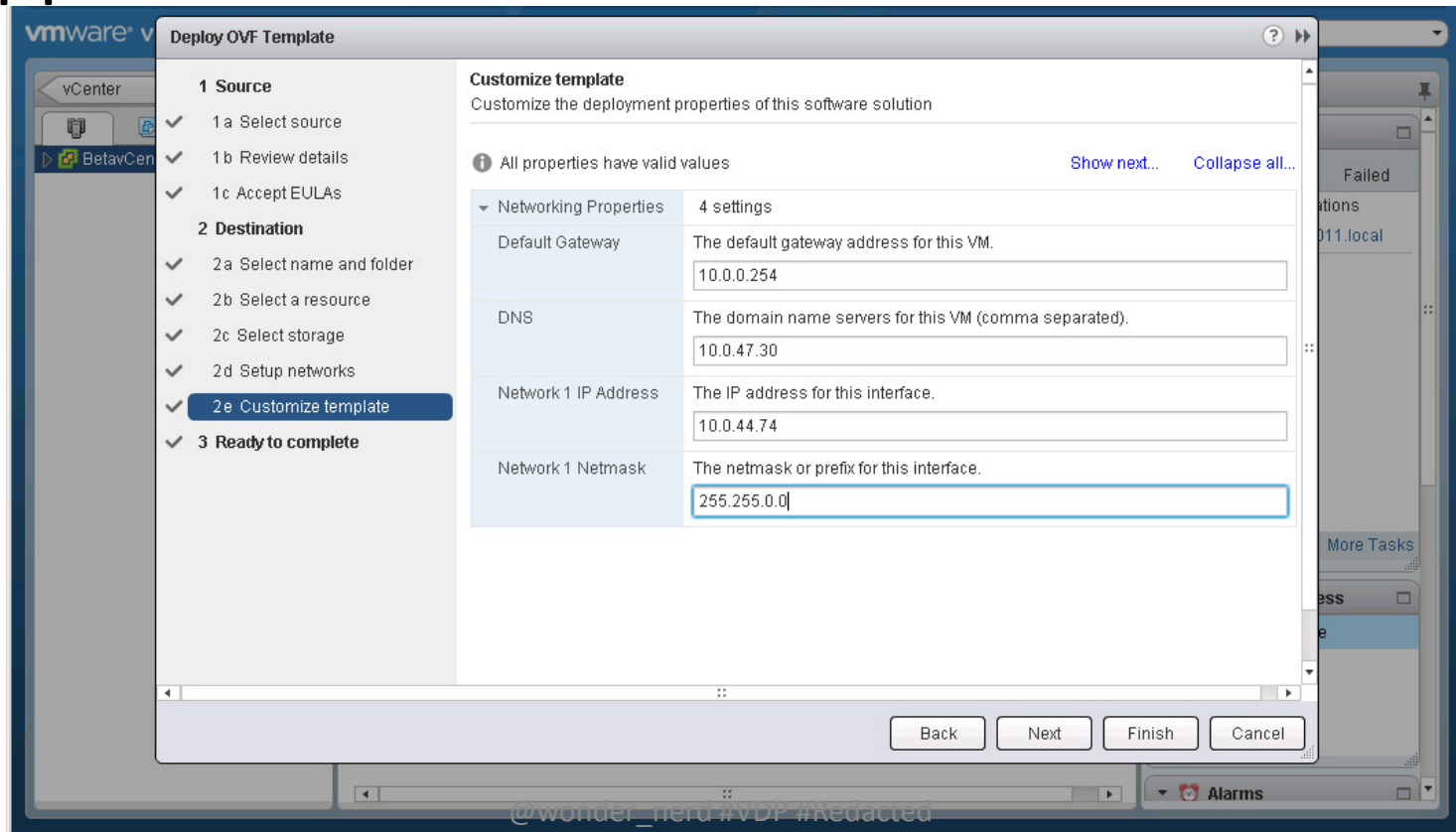
- Connect the appliance to the appropriate network.



# Setting up VDP

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- Enter basic setup information for the appliance.

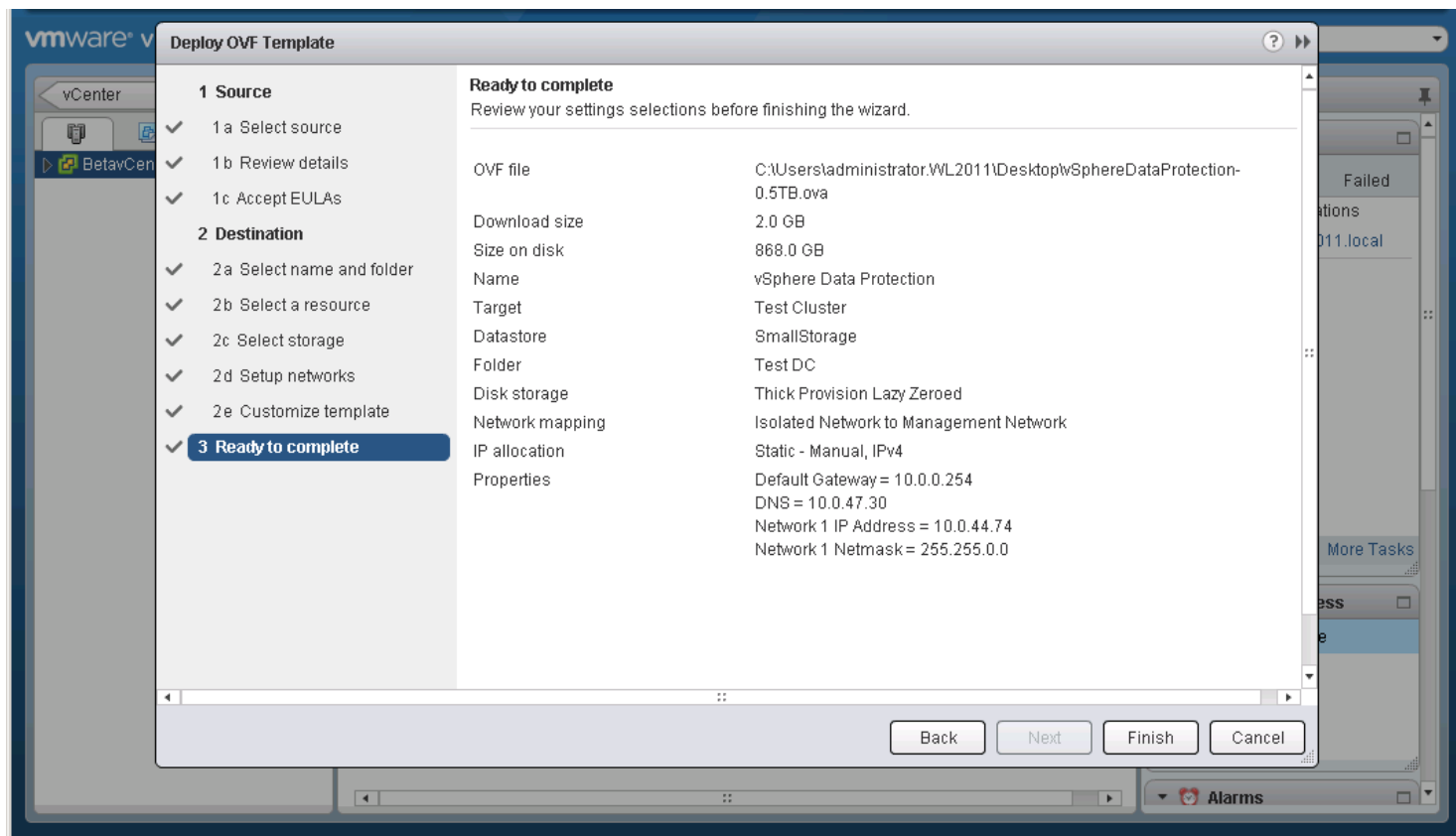


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# Setting up VDP

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- Confirm the settings.

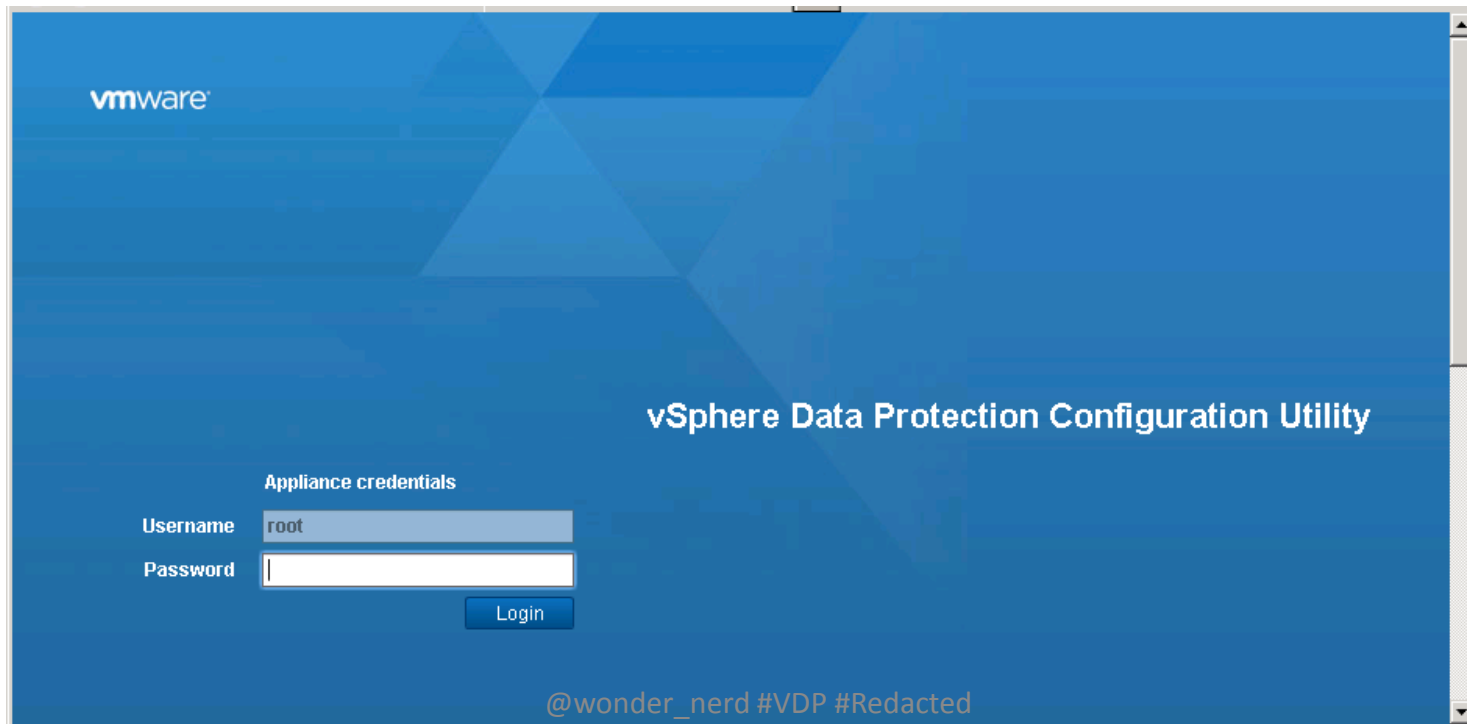


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# Setting up VDP

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- Open a browser to the name of the appliance at port 8543. (<https://<appliance>:8543/vdp-configure/>)



The screenshot shows the VMware vSphere Data Protection Configuration Utility login interface. The background is blue with a geometric pattern. The VMware logo is in the top left. The title "vSphere Data Protection Configuration Utility" is centered. Below the title, there is a section for "Appliance credentials" with a "Username" field containing "root" and a "Password" field. A "Login" button is positioned below the password field. At the bottom right, there is a social media-style footer with the text "@wonder\_nerd #VDP #Redacted".

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# Setting up VDP



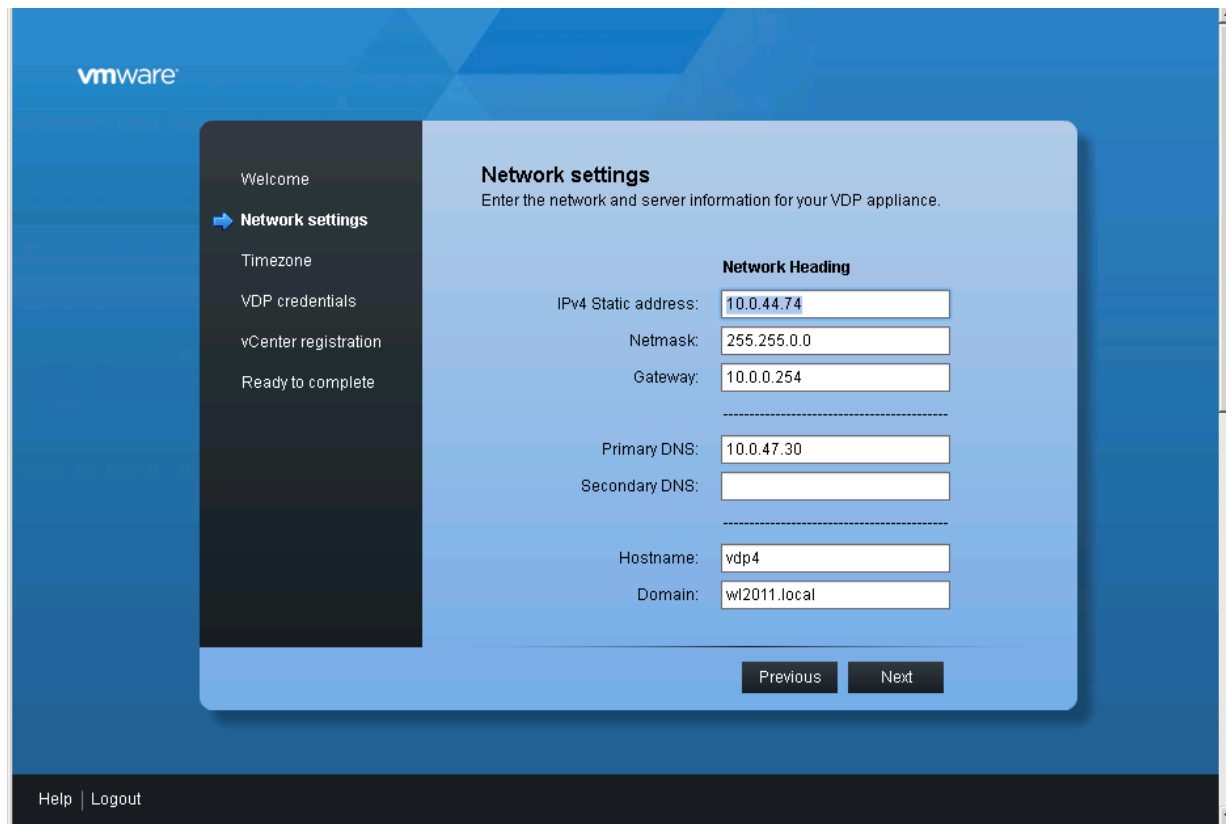
- Login to the appliance with:
  - User: root
  - Password: changeme



# Setting up VDP

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- Review the network settings.



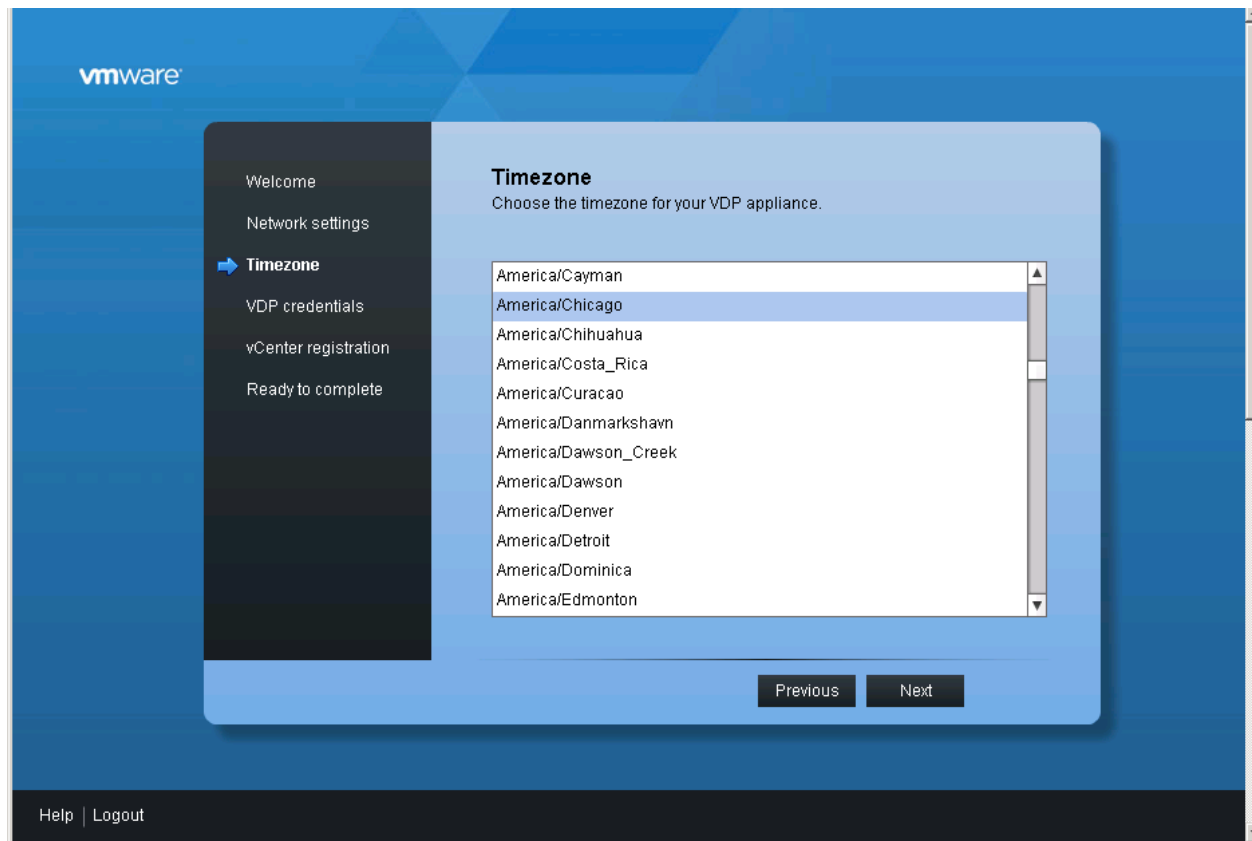
The screenshot shows the VMware VDP Network settings configuration page. The page has a blue header with the VMware logo. A dark sidebar on the left contains a navigation menu with the following items: Welcome, Network settings (highlighted with a blue arrow), Timezone, VDP credentials, vCenter registration, and Ready to complete. The main content area is titled "Network settings" and includes the instruction "Enter the network and server information for your VDP appliance." Below this, there is a "Network Heading" section with several input fields: IPv4 Static address (10.0.44.74), Netmask (255.255.0.0), Gateway (10.0.0.254), Primary DNS (10.0.47.30), Secondary DNS (empty), Hostname (vdp4), and Domain (wl2011.local). At the bottom of the form are "Previous" and "Next" buttons. The footer of the page contains "Help | Logout".

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# Setting up VDP

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- Set the time zone for the appliance.



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# Setting up VDP

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- Create a VDP password to replace changeme

vmware

Welcome  
Network settings  
Timezone  
→ VDP credentials  
vCenter registration  
Ready to complete

**VDP credentials**  
Enter a password for the VDP appliance.

Passwords must have:

- ✓ Nine characters
- ✓ One upper case letter
- ✓ One lower case letter
- ✓ One number
- ✓ NO special characters

Password:

Verify password:  ✓

Previous Next

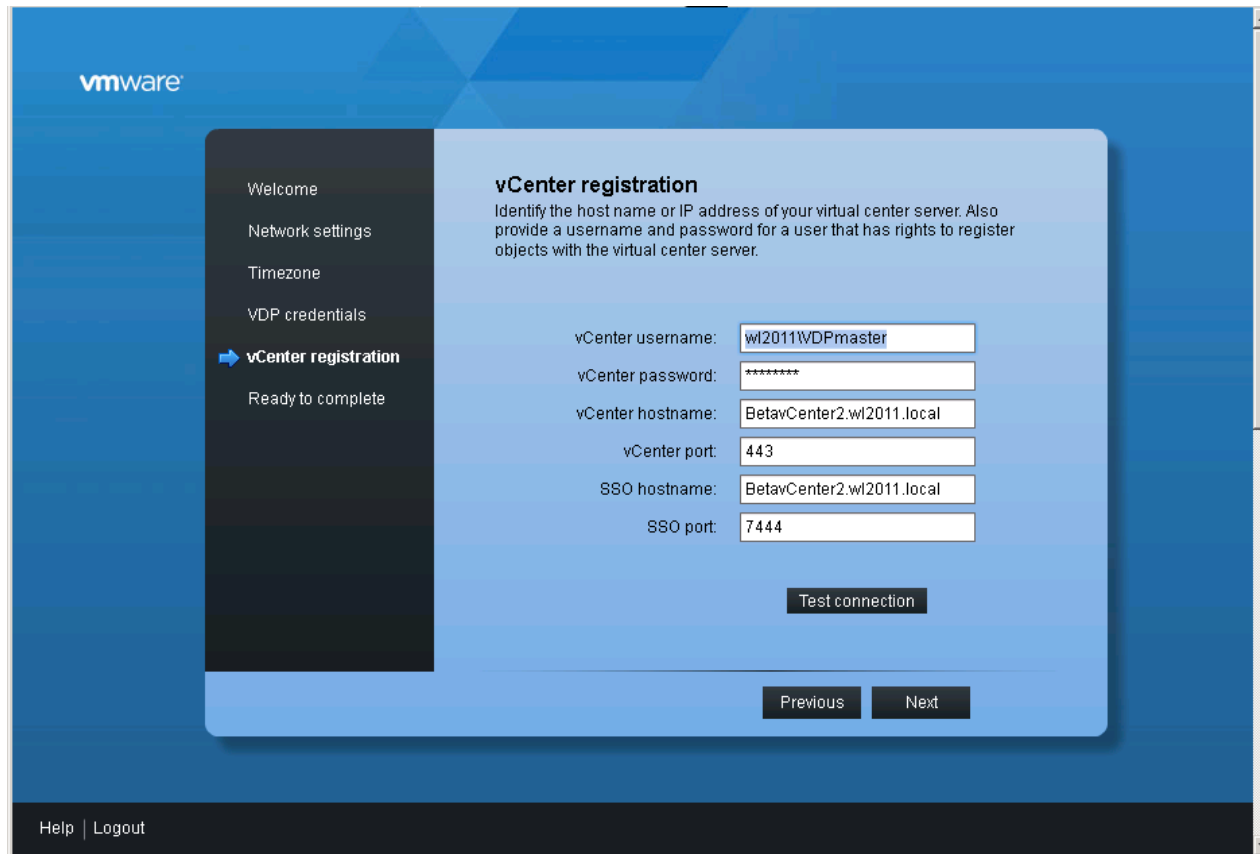
Help | Logout

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# Setting up VDP

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- Enter credentials for the vCenter.



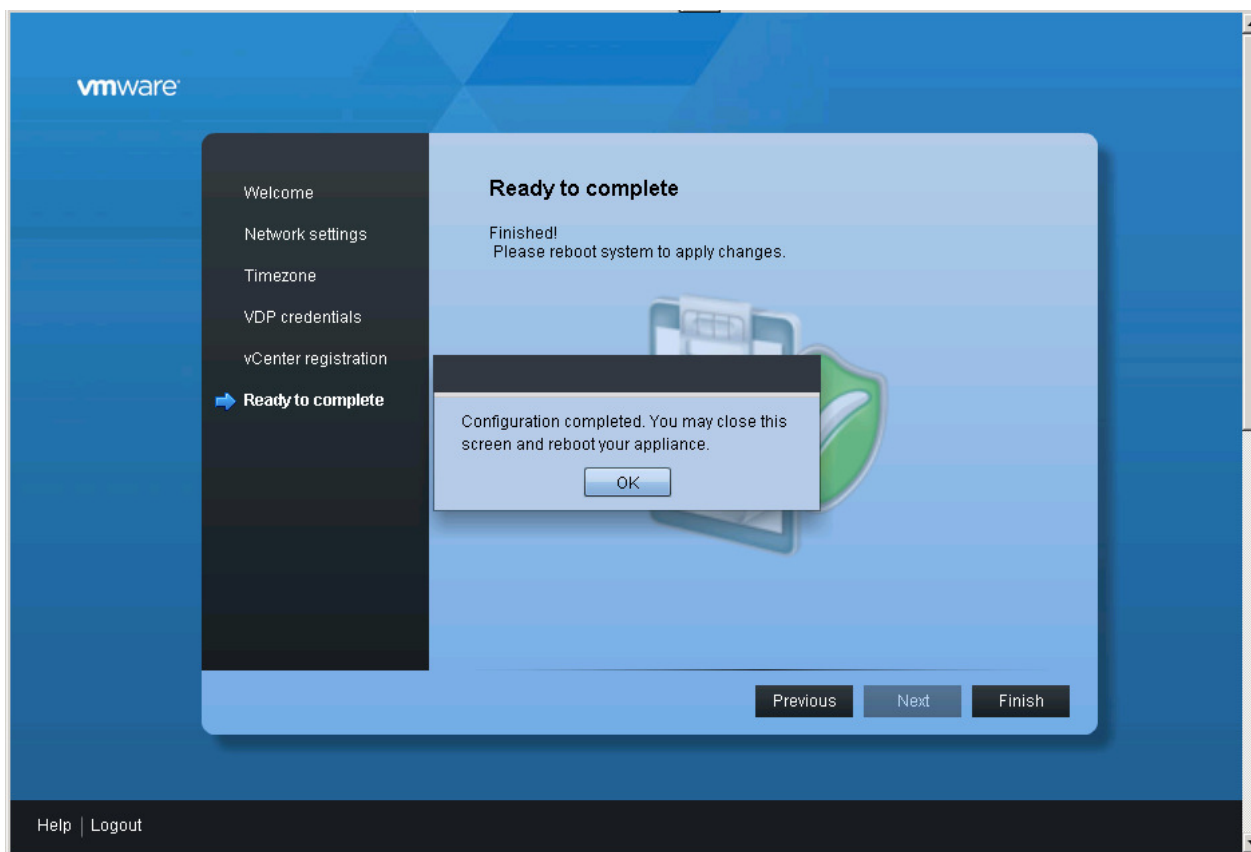
The screenshot shows the VMware vCenter registration wizard. The left sidebar contains a navigation menu with the following items: Welcome, Network settings, Timezone, VDP credentials, **vCenter registration** (highlighted with a blue arrow), and Ready to complete. The main content area is titled 'vCenter registration' and includes the following text: 'Identify the host name or IP address of your virtual center server. Also provide a username and password for a user that has rights to register objects with the virtual center server.' Below this text are six input fields: 'vCenter username' (containing 'wl2011VDPmaster'), 'vCenter password' (containing '\*\*\*\*\*'), 'vCenter hostname' (containing 'BetavCenter2.wl2011.local'), 'vCenter port' (containing '443'), 'SSO hostname' (containing 'BetavCenter2.wl2011.local'), and 'SSO port' (containing '7444'). A 'Test connection' button is located below the input fields. At the bottom of the wizard are 'Previous' and 'Next' buttons. The VMware logo is in the top left corner, and 'Help | Logout' is in the bottom left corner.

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- Reboot the Appliance.



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# Setting up VDP



- And now we wait ~ 30 minutes while it sets up.
- That's it. We are ready to use VDP

# VDP Caveats

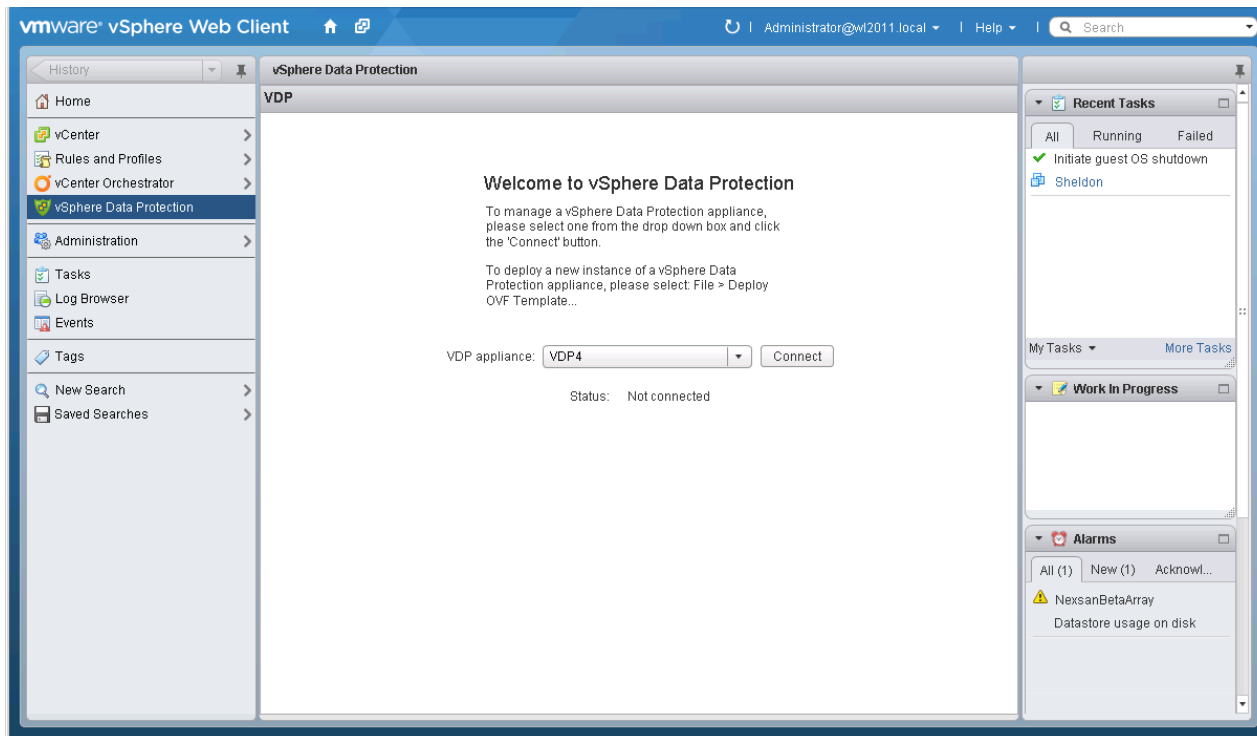


- DNS resolution must be working correctly.
- The appliances password must be 9 characters long.
- Best Practice: Storage should be different from where your production VM's are stored.

# Backups with VDP

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- We'll connect to our VDP appliance in the vSphere Web Client.



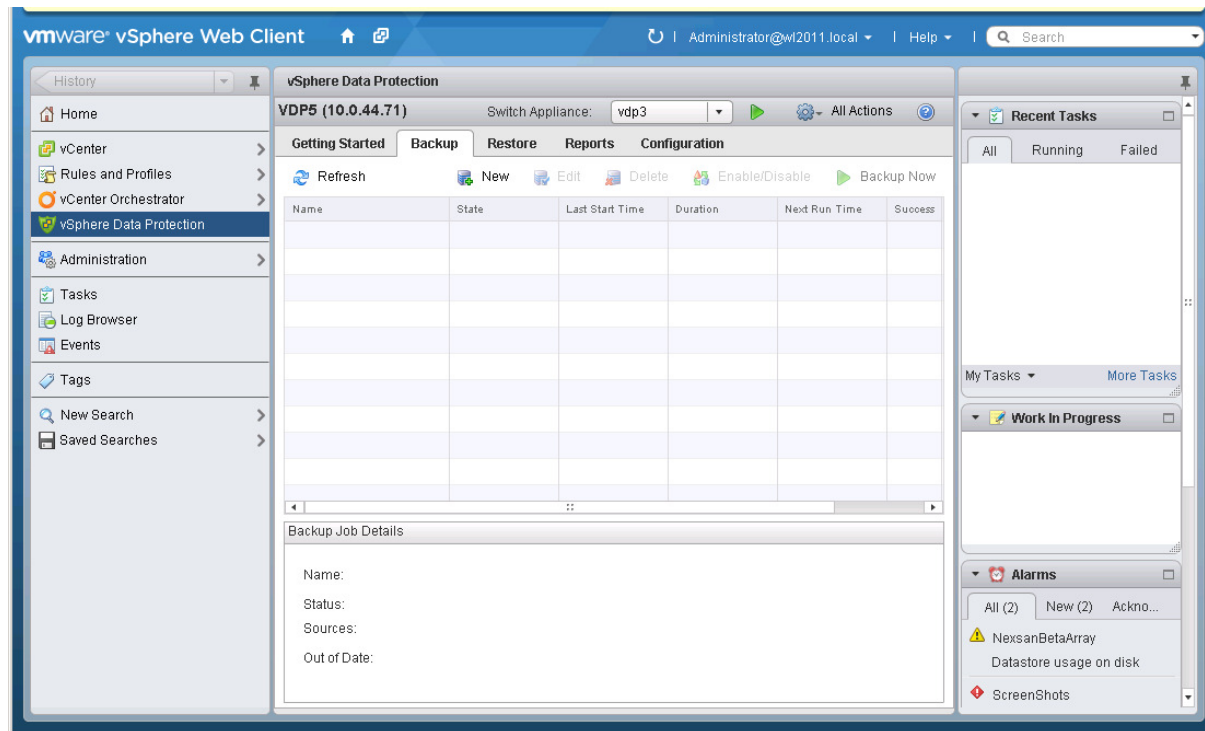
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# Backups with VDP

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- Click the New button to create a backup



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# Backups with VDP

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- We'll follow the bouncing ball to configure a backup.

The screenshot shows a multi-step configuration wizard for creating a new backup job. The steps are:

- 1 Virtual Machines
- 2 Schedule
- 3 Retention Policy
- 4 Name
- 5 Ready to Complete

The current screen displays the summary of the backup job settings:

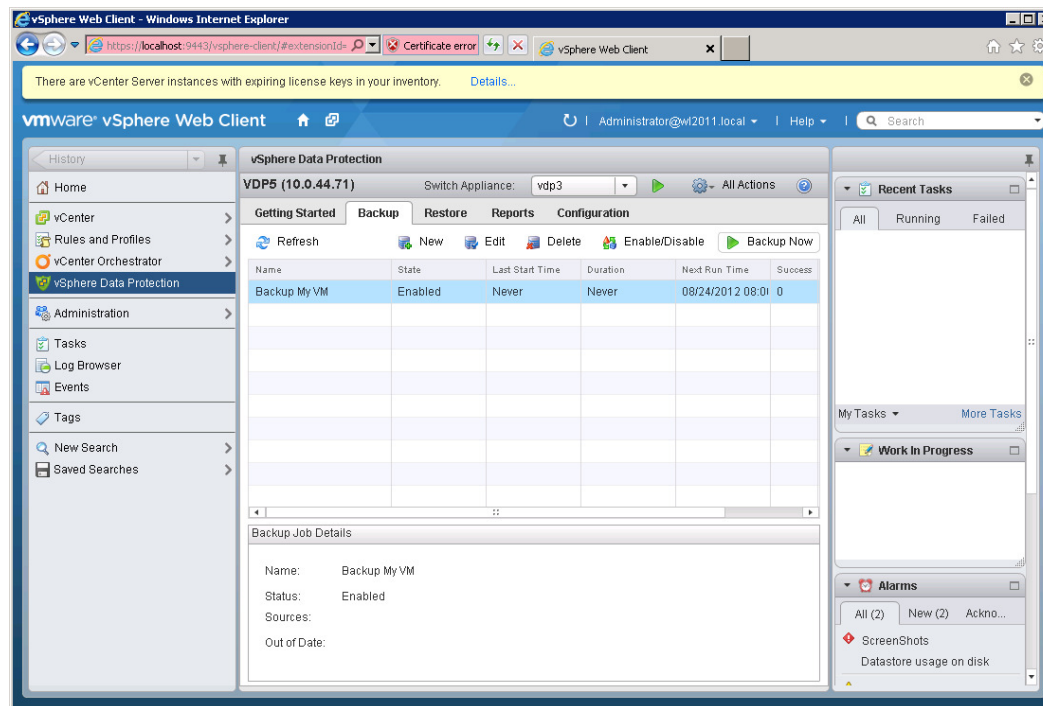
- Name:** Backup My VM
- Selected Items:** BetavCenter, Sheldon
- Backup schedule:** Daily
- Retention Policy:** for 60 day(s)

A warning message states: "This operation can take several minutes." At the bottom right, there are four buttons: Back, Next, Finish, and Cancel.

# Backups with VDP

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- To start a backup we'll click the Backup Now button



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# Scheduling VDP Backups



- Note: Backups occur at the end of the maintenance window or when run administratively with the Backup Now button.

# Whole VM Restores VDP



- To restore a whole VM we can simply go to the Restore tab. Expand the VM we wish to recover and then click the Restore button.

The screenshot shows the vSphere Data Protection (VDP) interface. The title bar reads "vSphere Data Protection" and "VDP 4.3.4 2-29 (10.25.62.232)". The "Switch Appliance" dropdown is set to "VDP 4.3.4 2...". The "Restore" tab is selected, and the "Vista" VM is expanded. The table below shows the backup history for the selected VM.

Name	Last Known Path
▶ <input type="checkbox"/> Ubuntu	/Datacenters/IDD/10.25.62.212/Ubuntu
▶ <input type="checkbox"/> Vista2	/Datacenters/IDD/10.25.62.212/Vista2
▼ <input checked="" type="checkbox"/> Vista	/Datacenters/IDD/10.25.62.212/Vista
<input checked="" type="checkbox"/> 03/01/2012 01:51 PM (latest)	
<input type="checkbox"/> 02/29/2012 08:06 PM	
<input type="checkbox"/> 02/29/2012 04:31 PM	
▶ <input type="checkbox"/> VMware vCenter Server Appliance 5.1 - 2-8	/Datacenters/IDD/10.25.62.212/VMware vCenter Server Appliance 5.1 - 2-8

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# File Level Restores with VDP



- We launch the File Level Recovery (FLR) by opening a web browser and pointing it to our VDP appliance.
  - We can then select the backup we wish to restore from and the file we wish to restore.
- Note that the File Level Restore is performed from the VM where the backup was taken.

# Reports from VDP



- VDP reports can be seen through the vSphere Web Client.

The screenshot shows the vSphere Data Protection (VDP) interface. At the top, it displays the appliance name "vm-vccli-0468-IP234-Buzz30-2-16 (10.6.245.234)" and a "Switch Appliance" dropdown menu. Below this are tabs for "Getting Started", "Backup", "Restore", "Reports", and "Configuration". The "Reports" tab is active, showing a "Refresh" button and a status summary. The summary includes: Appliance Status: Normal, Used Capacity: 0.00%, Integrity Check Status: Normal, Recent Successful Backups: 0, and Recent Failed Backups: 0. There are links for "Event Console" and "Task Console". Below the summary is a table with columns for VM Name, Power State, and Backup Status. The table lists four VMs: Win7\_SCSI\_x64\_Ver8\_esxi16 (poweredOff, Never), vm-vccli-0464-IP230-Buzz18 (poweredOn, Never), vm-vccli-0467-IP233-Buzz18 (poweredOn, Never), and 2GB\_WinXP\_esxi16-1 (poweredOff, Never). At the bottom, there is a "Details" section with "VM Information" and "Last Backup Job" sub-sections.

VM Name	Power State	Backup Status
Win7_SCSI_x64_Ver8_esxi16	poweredOff	Never
vm-vccli-0464-IP230-Buzz18	poweredOn	Never
vm-vccli-0467-IP233-Buzz18	poweredOn	Never
2GB_WinXP_esxi16-1	poweredOff	Never

**VM Information**  
Name: Win7\_SCSI\_x64\_Ver8\_esxi16  
Guest OS:  
Host: qa-esxi-16.asl.lab.emc.com  
Ip Address:

**Last Backup Job**  
Status:  
Date: Never  
Backup Job:

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# Reports from VDP



- VDP also has the ability to email reports daily with the status of backup jobs.

From: Tony Foster Sent: Sun 4/15/2012 5:01 AM  
To: Tony Foster  
Cc:  
Subject: vSphere Data Protection Summary Report for vSphere Data Protection 1TB

vSphere Data Protection 1TB - (10.0.44.70)

---

Report Date: April 15, 2012 - 05:00  
Last Report Date: April 13, 2012 - 05:00

Appliance Status: Normal  
Byte Capacity: 997.89 GiB  
Bytes Free: 997.89 GiB  
Used Capacity: 0.39%  
Bytes Protected: 0 GiB  
Bytes Deduped: 0 GiB  
Integrity Check Status: Normal  
Recent Successful Backups: 0  
Recent Failed Backups: 2

Backup Jobs Summary

---

Backup Job: Dirty Test  
Backup Sources: BetavCenter3  
Last Start Time: April 13, 2012 - 20:00  
Next Run Time: April 15, 2012 - 20:00  
Last Successful Backups: @wonder\_nerd #VDP #Redacted  
Last Failed Backups: 1 #vBrownBag #TechTalks #VMworld



# Protecting VDP

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- Checkpointing allows for protection of the Appliance its self.

The screenshot shows the VMware vSphere Data Protection (VDP) interface. At the top, there are tabs for Status, Configuration, Rollback, and Upgrade. Below the tabs, a text box explains that the vSphere Data Protection system provides a mechanism to roll back the repository of backups on the appliance to a known and valid state. Below this text is a table with three columns: Checkpoint tag, Date, and Valid. The table contains two rows of data. Below the table, there is a list of services and their status: Rollback core services (Complete), Restore management services (Running), Confirm VDP status (Pending), and Start ancillary services (Pending).

Checkpoint tag	Date	Valid
cp.20120817202256	08/17/2012 03:22 PM	false
cp.20120817211831	08/17/2012 04:18 PM	true

Rollback core services ✔ Complete  
Restore management services 🔄 Running  
Confirm VDP status ⏸ Pending  
Start ancillary services ⏸ Pending

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# My Take on VDP



- Great solution that provides enterprise level protection.
- Fast & Efficient
- Reduces IT staff load by allowing users File Level Restore capabilities.
- Simple to use.
- And the best part is its free!!!

# Reference Material

## VDP



- Chad's World Episode 7 -  
<http://www.emc.com/community/chads-world/>
- vSphere Data Protection Administration Guide  
– <http://www.vmware.com/> \*

\*Documentation links will be added at GA

# Quick Questions about VDP

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- Contact Information:
  - Company Website: [www.totalbackups.com](http://www.totalbackups.com)
  - Personal Website: [www.wondernerd.net](http://www.wondernerd.net)
  - [@wonder\\_nerd](https://twitter.com/wonder_nerd) on Twitter
  - Email: [Tony.Foster@wondernerd.net](mailto:Tony.Foster@wondernerd.net)

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