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# netgate pfSense Plus Firewall/VPN/Router for Microsoft Azure User Manual

**Security Gateway Manual**
**Microsoft Azure**

The pfSense® Plus Firewall/VPN/Router for Microsoft Azure is a stateful firewall, VPN, and security appliance. It is suitable for use as a VPN endpoint both for site-to-site VPN tunnels and as a remote access VPN server for mobile devices. Native firewall functionality is available as are many additional features such as bandwidth shaping, intrusion detection, proxying, and more via packages. pfSense Plus for Azure is available in the Azure Marketplace.

**Contents**

## GETTING STARTED

**1.1Launching an Instance with a single NIC**
An instance ofNetgate® pfSense® Plus for Azure that is created with a single NIC can be used as a VPN endpoint to allow access to an Azure Virtual Network (VNet). The single NIC pfSense
Plus virtual machine (VM) only creates a WAN interface, but still provides public and private IP within Azure.
In the Azure Management Portal, launch a new instance of the Netgate pfSense® Plus Firewall/VPN/Router appliance.

1. From the Azure portal Dashboard, click on Marketplace.

2. Search for and select the Netgate Appliance for Azure.
3. Set the name of the instance as well as username, password, resource group, and region.

   The username entered will be created as a valid pfSense Plus account upon boot and will be able to log into the web GUI. Additionally, the admin user will also have its password set to the value that's entered.

   **Warning:** The username typically used to administer pfSense Plus is admin, but admin is a reserved name that is not allowed to be set by the Azure provisioning wizard. Also for cloud security, it is considered best practice to limit access for the root user, so the root is locked by default.
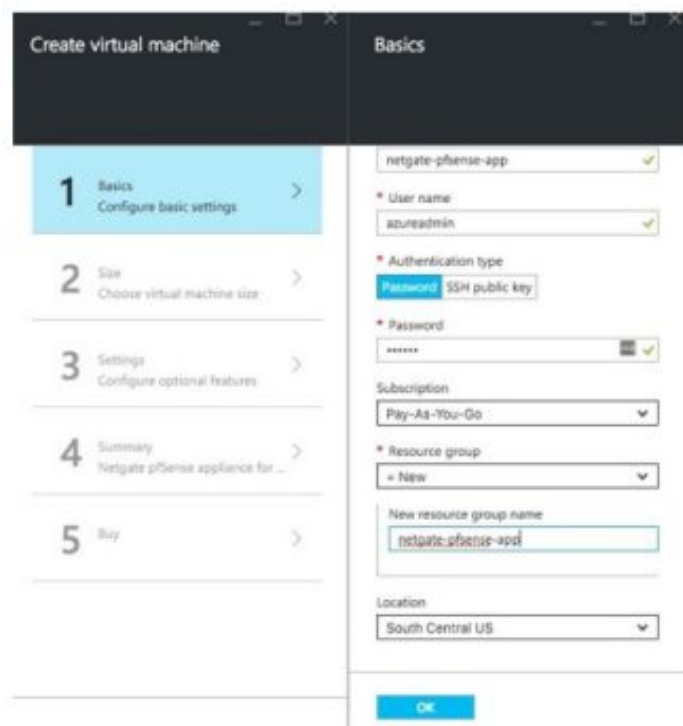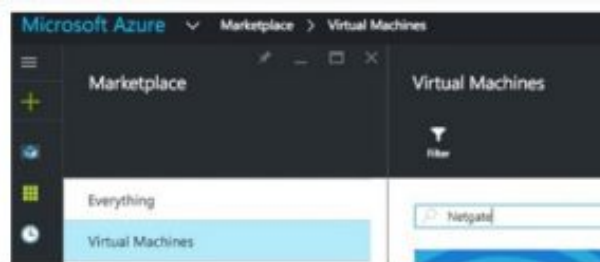




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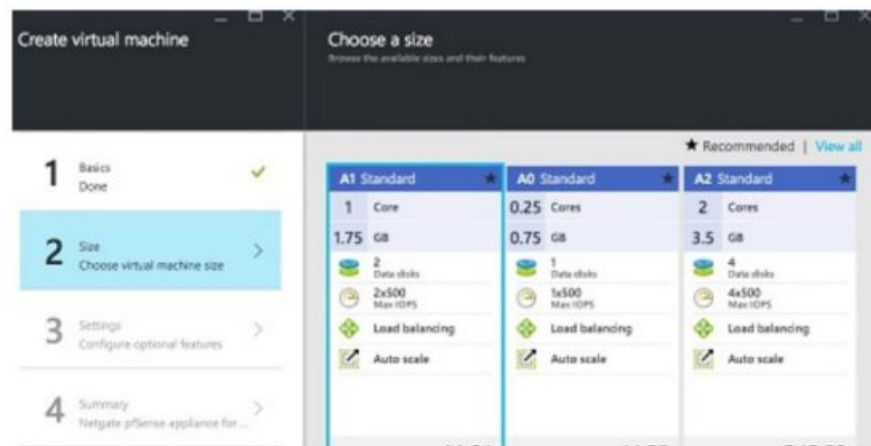
5. Choose the disc type, and network settings (virtual network, subnet, public IP address, network security group).

   To manage the Netgate pfSense ® Plus appliance, you should ensure that the security group contains rules to allow ports 22 (SSH) and 443 (HTTPS) to access the command line and Web **GUI.** If you plan to allow other traffic, add additional endpoints.

   For IPsec, allow **UDP** port 500 **(IKE)** and **UDP** port 4500 **(NAT-T).**

   For **OpenVPN,** allow **UDP** port 1194.

   Click on Network security group and make additions as needed.

6. Confirm your selections on the Summary page and click OK.

7. Note the price on the purchase page and click Purchase.

8. Once the VM launches and the Azure portal shows that it has come up, you can access the web interface. Use the password you set during the provisioning process and the admin user. You should now be able to access the appliance.

**1.2Launching an Instance with Multiple Network Interfaces.**

An instance ofNetgate® pfSense® Plus for Azure that has multiple NICs that are to be used as a firewall or gateway cannot be provisioned in the Azure portal websites. In order to provision an instance with multiple network interfaces, you must use PowerShell, the Azure CLI, or an ARM template to perform the tasks required. These procedures are documented in Microsoft's azure documentation. Some links that illustrate this process:

- Deploy with PowerShell under the classic deployment model
- Deploy with PowerShell under the Resource Manager deployment model
- Deploy with Azure CLI under the Resource Manager deployment model
- Deploy with templates under the Resource Manager deployment model
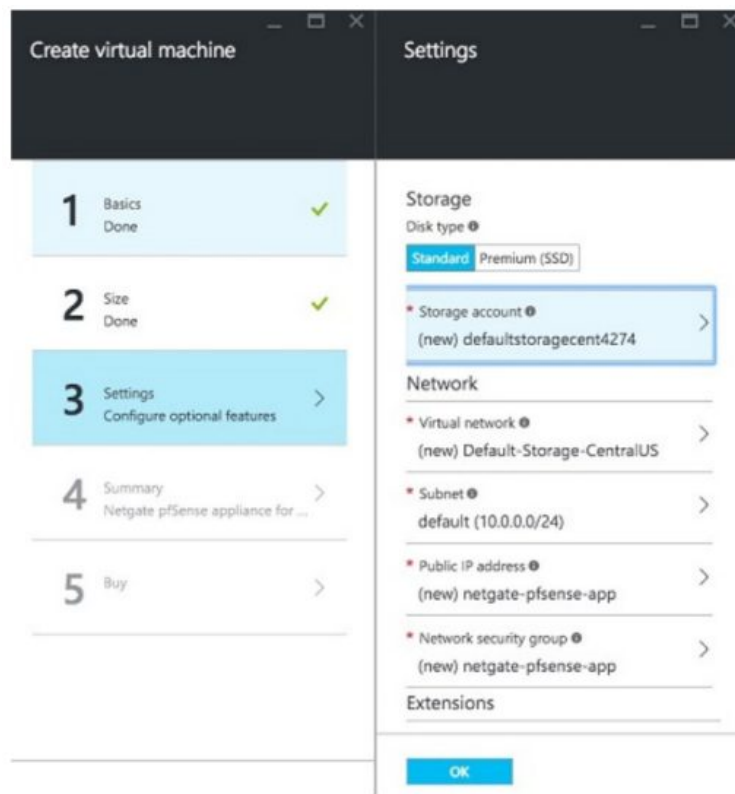
## 1.3 Support for the Azure Boot Diagnostics Extension.

The Azure Boot Diagnostics extension may not function properly with the Netgate® pfSense ® Plus software for the Azure appliance.

Problems were reported with this functionality during certification testing of the appliance. Subsequent testing indicated that it appeared to work under some circumstances. You are free to attempt to enable boot diagnostics, but it is not officially supported.

As such, please do not initiate support calls or tickets if you find that the Boot Diagnostics extension is not functioning properly with your Netgate pfSense ®

Plus for Azure VM. This is a known limitation and no remedy is available from

Azure's customer support team or Netgate's.

## 2.1 Regional Market Availability

The tables below represent the current availability by regional market. If the desired regional market is not listed, refer to the Microsoft Regions availability or submit a support ticket directly to Microsoft Azure.

**Table** 1: Microsoft Azure Available Regions

| Market | pfSense Plus |
|--------|--------------|
| Armenia | Available |
| Australia | * |
| Austria | Available |
| Belarus | Available |
| Belgium | Available |
| Brazil | Available |
| Canada | Available |
| Croatia | Available |
| Cyprus | Available |
| Czechia | Available |
| Denmark | Available |
| Estonia | Available |
| Finland | Available |
| France | Available |
| Germany | Available |
| Greece | Available |
| Hungary | Available |
| India | Available |
| Ireland | Available |
| Italy | Available |
| Korea | Available |
| Latvia | Available |
| Liechtenstein | Available |
| Lithuania | Available |
| Luxembourg | Available |
| Malta | Available |
| Monaco | Available |
| Netherlands | Available |
| New Zealand | Available |
| Norway | Available |

**Table 1** – continued from the previous page.

| Market | pfSense Plus |
|---|---|
| Poland | Available |
| Portugal | Available |
| Puerto Rico | Available |
| Romania | Available |
| Russia | Available |
| Saudi Arabia | Available |
| Serbia | Available |
| Slovakia | Available |
| Slovenia | Available |
| South Africa | Available |
| Spain | Available |
| Sweden | Available |
| Switzerland | Available |
| Taiwan | Available |
| Turkey | Available |
| United Arab Emirates | Available |
| United Kingdom | Available |
| United States | Available |

* Australia is a Microsoft Managed Country for sales through all customer purchase scenarios except the Enterprise Agreement customer purchase scenario.

## 2.2 Frequently Asked Questions

### 2.2.11. Should I set a password or use an SSH key during Azure user provisioning?

It is recommended to set a password. This will grant access to the WebGUI, whereas an SSH key will only allow you access to the SSH command prompt. Most configuration items in Netgate® pfSense ® Plus software are typically controlled via the WebGUI. If you accidentally use an SSH key instead, you can select the option to reset the admin password at the text menu that appears when you ssh to your instance. Then the WebGUI password will be reset to "pfsense". You should immediately update the admin password to a more secure value once you have successfully logged into the WebGUI.

### 2.2.22. Is a live update of the software supported?

Versions in the 2.2.x range should not attempt to have a firmware upgrade executed. In the future (pfSense 2.3 or later), this may be possible, but it is currently untested and unsupported. Since a real system console is not available, a definitive recovery process for failures during upgrades would be difficult to define. The currently recommended process for upgrades is to backup the pfSense ® Plus config from the existing instance and restore it on a new instance when an upgrade is available.

### 2.3Support Resources

#### 2.3.1Commercial Support

In order to keep prices low, the software is not bundled with a support subscription. For users who need commercial support, Netgate® Global Support can be purchased **athttps://www.netgate.com/support**.
2.3.2Community Support
Community support is available through the Newgate Forum.

### 2.4Additional Resources

#### 2.4.1Netgate Training

Netgate training offers training courses for increasing your knowledge of pfSense ® Plus products and services. Whether you need to maintain or improve the security skills of your staff or offer highly specialized support and improve your customer satisfaction; Netgate training has got you covered.
https://www.netgate.com/training

#### 2.4.2Resource Library

To learn more about how to use your Netgate appliance and for other helpful resources, make sure to browse our Resource Library.
**https://www.netgate.com/resources**

#### 2.4.3Professional Services

Support does not cover more complex tasks such as CARP configuration for redundancy on multiple firewalls or circuits, network design, and conversion from other firewalls to pfSense ® Plus software. These items are offered as professional services and can be purchased and scheduled accordingly.
**https://www.netgate.com/our-ervices/professional-services.html**

#### 2.4.4Community Options

If you elected not to get paid support plan, you can find help from the active and knowledgeable pfSense community on our forums.
**https://forum.netgate.com/**

## Documents / Resources

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|---|---|
| netgate<br>Security Gateway Manual<br>Microsoft Azure<br><br>© Copyright 2021 Rubicon Communications LLC<br><br>Mar 29, 2021 | **netgate pfSense Plus Firewall/VPN/Router for Microsoft Azure** [pdf] User Manual Microsoft Azure, Security Gateway, Microsoft Azure Security Gateway, pfSense Plus Firewall V PN Router for Microsoft Azure, pfSense Plus Firewall VPN Router |

## References

- **Create a Linux VM in Azure with multiple NICs - Azure Virtual Machines | Microsoft Docs**
- **Create and manage Windows VMs in Azure that use multiple NICs - Azure Virtual Machines |**

**Microsoft Docs**

-  **Azure Resource Manager template samples for virtual network | Microsoft Docs**
-  **Create a VM (Classic) with multiple NICs - Azure PowerShell | Microsoft Docs**
-  **Choose the Right Azure Region for You | Microsoft Azure**
-  **What is Azure Virtual Network? | Microsoft Learn**
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