

SFM In Azure (Nested Virtualization)

This document describes how to deploy a custom template that automates the entire deployment of the Sophos Firewall Manager (SFM) on a hyper-v VM in Azure. The template was created by the IaaS team (iaas@sophos.com) and hosted on the IaaS team's github account - <https://github.com/iaasteamtemplates/XgOnAzureHAPoC>

23 May 2018 Upgraded firmware image to SFMv17 GA

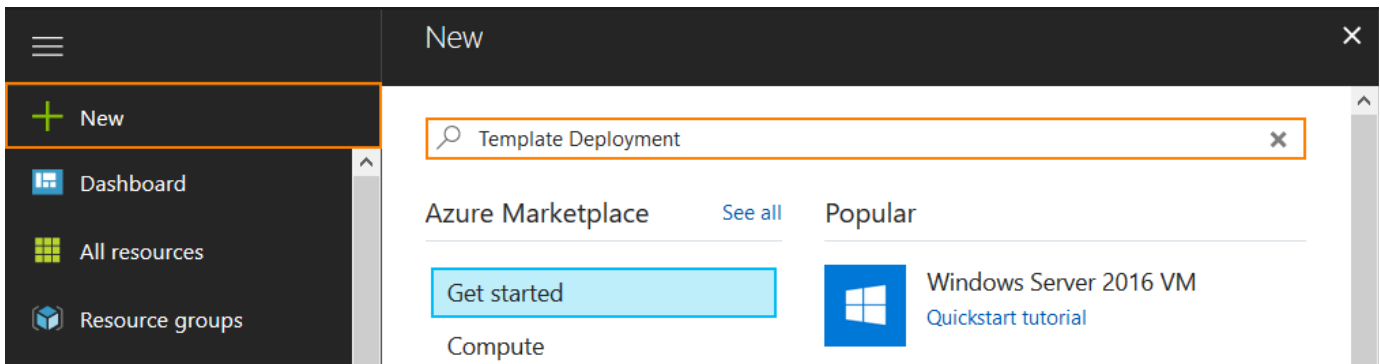
10 Aug 2018 Extended the option to include deployment into an existing vNet

Pre-Requisite

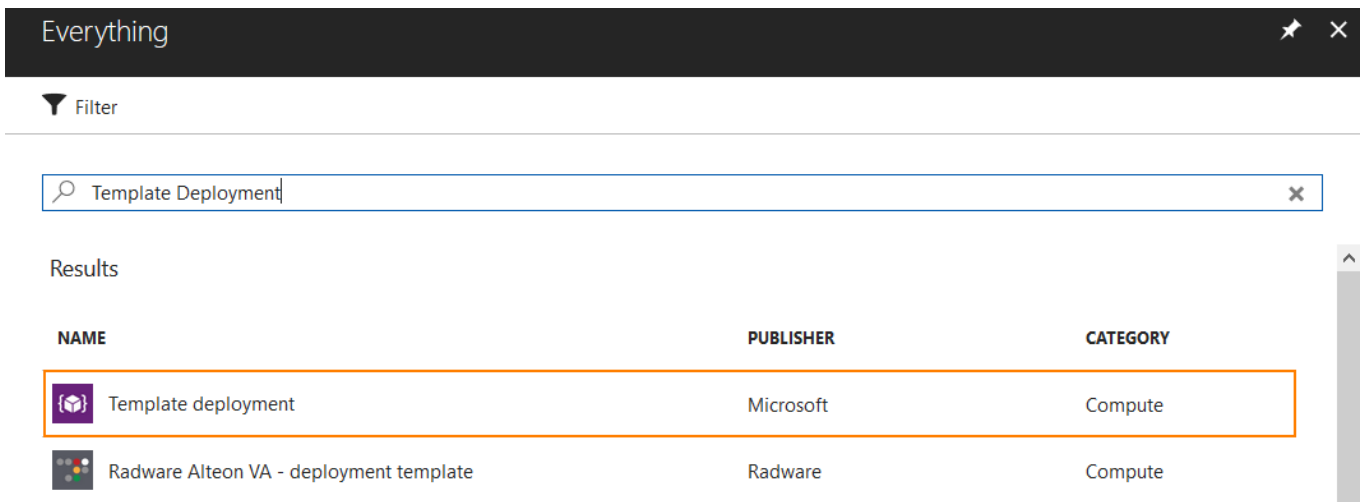
1. Obtain a SFM license from Sophos
 - <https://secure2.sophos.com/en-us/products/next-gen-firewall/free-trial/sfm.aspx>
2. Download the "SFM on Azure" ARM template
 - <https://raw.githubusercontent.com/iaasteamtemplates/XgOnAzureHAPoC/master/sfmazure.json>

Deployment Process


1. Log into the Azure Portal
2. Select "New" from the left pane Type "Template Deployment" into search window Press "Enter"



3. In the "Everything" blade, select "Template deployment"









4. In the "Template deployment" blade, click on "Create"

 **Template deployment**
Microsoft

Applications running in Microsoft Azure usually rely on a combination of resources, like databases, servers, and web apps. Azure Resource Manager templates enable you to deploy and manage these resources as a group, using a JSON description of the resources and their deployment settings.

Edit your template with IntelliSense and deploy it to a new or existing resource group.




PUBLISHER	Microsoft
LOGICAPPSUPPORTED	none
USEFUL LINKS	Documentation


Create

5. In the "Custom deployment" blade, select "Build your own template in the editor"


Custom deployment
Deploy from a custom template


Learn about template deployment


 [Read the docs](#)


 [Build your own template in the editor](#)

Common templates

 [Create a Linux virtual machine](#)

 [Create a Windows virtual machine](#)

 [Create a web app](#)

 [Create a SQL database](#)

6. In the "Edit template" window, click on "Load file"

Edit template

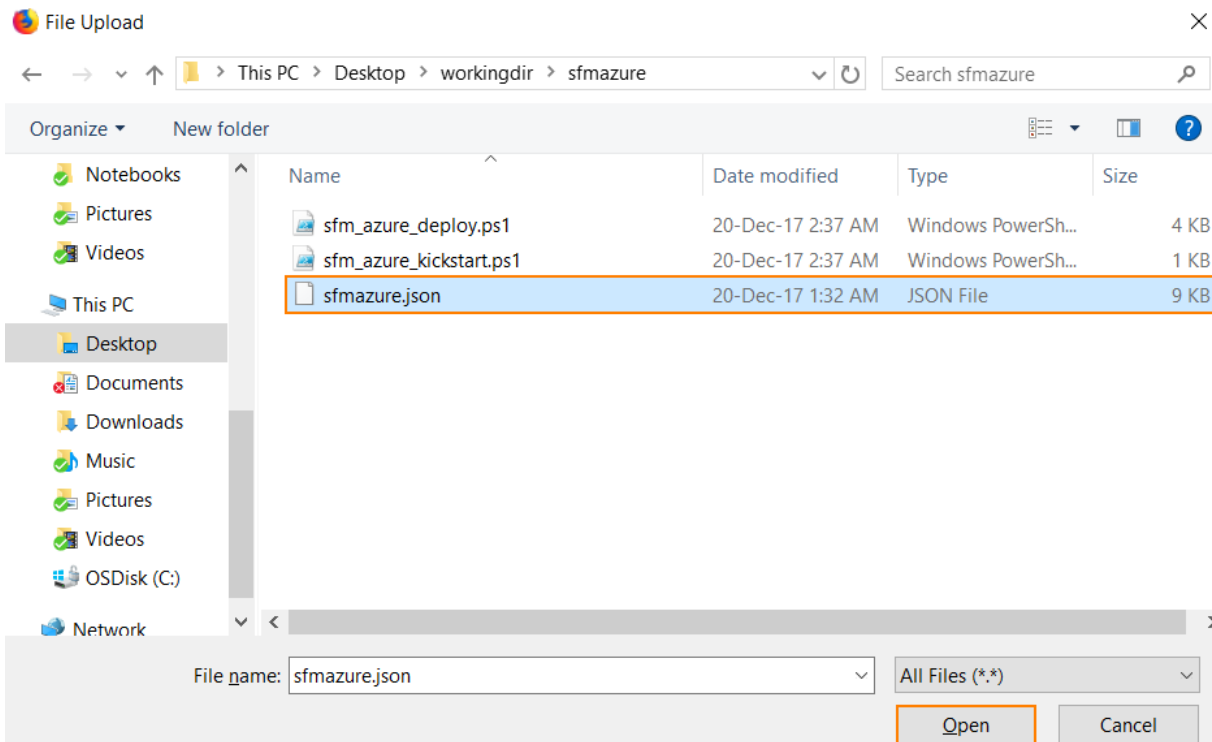
Edit your Azure Resource Manager template

+ Add resource ↑ Quickstart template **↑ Load file** ↓ Download

Parameters (0)
 Variables (0)
 Resources (0)

```
1 {  
2   "$schema": "https://schema.m  
3   "contentVersion": "1.0.0.0",  
4   "parameters": {},  
5   "resources": []  
6 }
```

7. Browse to and select the template file that you downloaded earlier and click **"Open"**



8. In the **"Edit Template"** blade, click **"Save"**

Edit template

Edit your Azure Resource Manager template

+ Add resource
↑ Quickstart template
↶ Load file
⬇ Download

Parameters (7)
 Variables (10)
 Resources (5)
 [variables('virtualMachineName')] ...
 [parameters('virtualNetworkName')] ...
 [variables('networkInterfaceName')] ...
 [variables('publicIpAddressName')] ...
 [variables('networkSecurityGroup')] ...

```

1 {
2   "$schema": "http://schema.management.azure.
3   "contentVersion": "1.0.0.0",
4   "parameters": {
5     "virtualMachineSize": {
6       "type": "string",
7       "defaultValue": "Standard_D2s_v3",
8       "allowedValues": [
9         "Standard_D2s_v3",
10        "Standard_D4s_v3"
11      ]
12    },
13    "adminUsername": {
14      "type": "string"

```

Save
Discard

9. In the "Custom deployment" blade, configure the following:

- **Subscription:** Select the subscription that you'll like to use for the deployment
- **Resource group:** Select "Create new" or "Use existing"
 - If you selected "create new", insert the name for the resource group
- **Location:** If you selected "create new" for the "resource group", insert the location for the resource group and all resources that will be deployed into it
- **Virtual Machine Size:** Select either Standard_D2s_v3 (2vCPU, 8GB RAM) or Standard_D4s_v3 (4vCPU, 16GB RAM)
- **Admin Password:** Enter the password for the host vm
- **vNet and Subnet New or Existing:** Select "New" to create a new vNet; Select "Existing" to deploy into an existing subnet
- **Virtual Network Resource Group:** Enter the resource group name of the virtual network (new or existing)
- **Virtual Network Name:** Enter a name for the virtual network that the vm will be deployed into (new or existing)
- **Virtual Network Address Prefix:** Enter the CIDR prefix that you will like to use for the virtual network (new or existing)
- **Subnet Name:** Enter a name for the subnet that the vm will be deployed into. If you selected an existing vNet" earlier, you must use an existing subnet also. **A new subnet will only be created when if a new vNet is selected**

- **Subnet Prefix:** Enter the CIDR prefix that you will like to use for the subnet (must be within the range configured for the virtual network. This applies to both new or existing vNets)

Custom deployment
Deploy from a custom template

* Subscription

Azure Pass

* Resource group

☒ Create new ☐ Use existing

do-sfm-rg

* Location

West Europe

SETTINGS

Virtual Machine Name ⓘ

sfm-azure-01

Virtual Machine Size

Standard_D2s_v3

* Admin Password

.....

V Net New Or Existing ⓘ

new

Virtual Network Resource Group ⓘ

[resourceGroup().name]

Virtual Network Name ⓘ

sfm-vnet

* Virtual Network Address Prefix

10.150.1.0/24

Subnet Name ⓘ

sfm-subnet-1

* Subnet Prefix

10.150.1.0/24

10. Select the checkbox to agree to the terms and conditions Click on "**Purchase**"

TERMS AND CONDITIONS

[Azure Marketplace Terms](#) | [Azure Marketplace](#)

By clicking "Purchase," I (a) agree to the applicable legal terms associated with the offering; (b) authorize Microsoft to charge or bill my current payment method for the fees associated the offering(s), including applicable taxes, with the same billing frequency as my Azure subscription, until I discontinue use of the offering(s); and (c) agree that, if the deployment involves 3rd party offerings, Microsoft may share my contact information and other details of such deployment with the publisher of that offering.

☒ I agree to the terms and conditions stated above

☐ Pin to dashboard

Purchase

11. **The deployment takes about 10 minutes to complete. Even after the deployment has completed, allow another 10 minutes** (for the powershell scripts to complete the setup of SFM and the restarts needed)

12. Obtain the public IP for the VM by doing the following:

- In the Azure Portal, click on **"Virtual Machines"** in the left pane. Select **"sfm-azure-01"**

The screenshot shows the Azure Portal interface. On the left, the 'Virtual machines' option is selected in the navigation pane. The main area displays a list of virtual machines under the subscription 'Visual Studio Enterprise'. The list has columns for NAME, TYPE, and STATUS. Three items are listed: 'azure-lab-01' (Running), 'sfm-azure-01' (Running), and 'sophosXgAzureFw01' (Stopped (deallocated)). The 'sfm-azure-01' row is highlighted with an orange border.

NAME	TYPE	STATUS
azure-lab-01	Virtual machine	Running
sfm-azure-01	Virtual machine	Running
sophosXgAzureFw01	Virtual machine	Stopped (deallocated)

- In the "sfm-azure-01" blade, in the **"overview"** section, make note of the public IP

The screenshot shows the 'Overview' section of the 'sfm-azure-01' virtual machine blade. The left sidebar contains navigation options like Overview, Activity log, Access control (IAM), Tags, and Diagnose and solve problems. The main area displays various properties of the VM. The 'Public IP address' is highlighted with an orange box and shows the value '52.232.11.111'.

Property	Value
Resource group	sfm-az-rg
Status	Running
Location	West Europe
Subscription	Visual Studio Enterprise
Subscription ID	40e3c80d-1a2a-4e19-9445-ea5c4220c837
Computer name	sfm-azure-01
Operating system	Windows
Size	Standard D2s v3 (2 vcpus, 8 GB memory)
Public IP address	52.232.11.111
Virtual network/subnet	sfm-az-vnet/sfm-az-vnet-sub1
DNS name	Configure

13. Open a new browser tab and browse to "https://<public ip>" ("public IP" is the IP that you made a note of in step 12)

- Depending on the browser that you're using and its configuration, you may need to add a security exception

14. Login with a username of **"admin"** and a password of **"admin"**

15. Accept the Sophos EULA

16. In the **"Welcome To Your Sophos Device"** window, click on **"Basic Setup"**

Welcome

To Your Sophos Device

To get started activate your device below. Until you activate, you may only access and edit settings in "Basic Setup" .

Serial Number

Activate Device

Basic Setup

17. In the "Device Basic Set-Up" window, change the DNS setting from "127.0.0.1" to "8.8.8.8", then click on "Save Changes"

Device Basic Set-Up

WAN Settings (PortB)

IP Address

192.168.2.1

Subnet Mask

255.255.240.0

Default Gateway

192.168.1.254

DNS

8.8.8.8

Back

Save Changes

18. Activate your license on the appliance

19. Follow the instructions here to change the admin password

- <https://community.sophos.com/kb/en-us/123082>

20. Follow the instructions here to upgrade the firmware

- <https://community.sophos.com/kb/en-us/123091>