



# Appgate SDP<sup>®</sup> VM for Azure Step-by-Step Setup Guide

Type: Technical guide

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Applies to: v6.3 and newer

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## Welcome & Overview

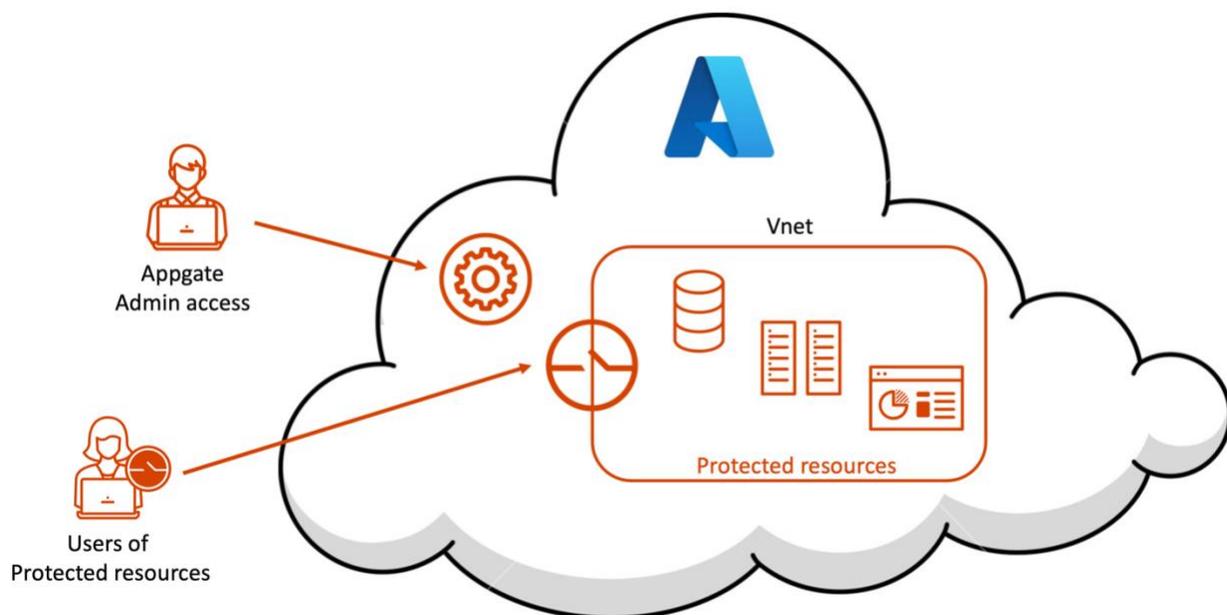
Enterprises continue to embrace Microsoft Azure but securing access to these cloud-based workloads can be a challenge. Appgate SDP is purpose-built for the Azure environment and draws on user context to dynamically create a secure, encrypted network 'segment of one' that's tailored for each user session. It dramatically simplifies the challenge of managing user access to Cloud resources while eliminating IP-based over-entitlement. Appgate SDP provides a means for security teams to efficiently and effectively control user access to Azure resources.

Appgate SDP is a distributed network access control system that creates a unique access profile for each user/device combination. This patented Appgate SDP Policy engine dynamically checks each user/device and along with their context provisions access to an exact set of desired instances.

Certain types of Policies can include information which instructs the Gateways to use real-time information from the cloud provider to automatically adapt access rules as conditions change in the cloud infrastructure. Every new instance that is added or removed will now automatically be identified and added or removed from the access rules, without the need to change the Policies. It becomes an automation-driven network access process that can be very easy to audit because of the much-simplified Policy configuration.

Let's take a look at how we need to configure both Azure and Appgate SDP to be able to use this capability to adapt in real-time to changing conditions in Azure.

All user traffic is tunnelled from their device (via a virtual network adapter, similar to a VPN client), and passed through Appgate SDP gateways to the protected resources. Client traffic to the Appgate SDP gateway is encrypted, so these resources can be securely accessed regardless of location. And the set of protected resources is dynamically adjusted, automatically responding to changes in the Azure environment.



This step-by-step guide will take you through the steps necessary to deploy a VM as part of your Appgate SDP Collective – which will then be there to better protect your Azure resources.

## Getting Started

In Azure there plenty of defaults which make it relatively painless to quickly spin up instances. This means two things, firstly Appgate SDP is an important component for locking down and managing user access; and secondly it is very easy to get Appgate SDP up and running in the first instance, you will only need a Subscription to Azure and everything else is created on the fly. This document assumes that you're familiar with Azure, and have some experience creating VMs, and setting up the networking features within Azure. If not, or if you need a refresher, please take a look readily available online resources, such as the Azure networking documentation here: <https://docs.microsoft.com/en-us/azure/networking/fundamentals/networking-overview>

Azure has mostly automated the set up and will (optionally) choose to use default network components for our Appgate SDP instance(s).

All VMs in the same Virtual network (VNet) can access each other, this will allow an Appgate SDP Gateway to easily forward all the users traffic to any of the protected resources. But since VNets are logically isolated from each other, an Appgate SDP Gateway would be required for each VNet (unless VNet-to-VNet links exist).

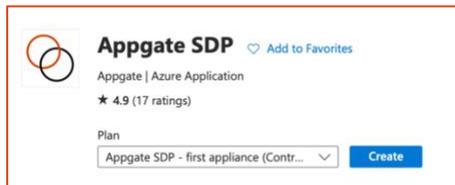
The chosen VNet must be accessible from the internet – as a minimum port 443 should be allowed. A public IP is typically required for most Appgate SDP appliances.

Keep in mind that you will probably now route all traffic to the protected resources running in the protected sub-net through the Appgate SDP. The rules in the Network Security Group must be changed to allow external access to ONLY the Appgate SDP Gateway. Users will then be required to use the Appgate SDP Client for access.

There are 3 steps to getting your Appgate SDP system running.

1. Create one or more VM instances for the Appgate SDP system – this is probably very similar to the instances you have launched before.
2. Configure the Appgate SDP system using the admin UI to configure Policies, Entitlements and identity providers.
3. Install the Client and test it out!

The latter two are not covered in this guide as we recommend using the Azure application from the marketplace (not the VM) if you are new to Appgate. The guide for the application covers points 2 & 3.



So, let's get started – in a few minutes you'll have an appliance up and running.

## Create Virtual Machine Instance

In this Step, we're going to launch the VHD for the Appgate SDP appliance. The information that follows, details the launch process from within the Azure using the normal Azure console.

There is one thing you do need to have done first on your device. You will need to create and SSH key pair. You will need the public key during the set up.

Search for Appgate SDP in the Azure Marketplace then...

Select *Appgate SDP VM* and click <Create>.

### Create

The launch process within the Azure Console will take you through a number of screens. It is assumed that you are familiar with this process so only key points will be identified:

### Create a virtual machine

Basics   Disks   Networking   Management   Advanced   Tags   Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

#### Basics

- **Size** - We suggest a default of B2s. This is only suitable for set-up and small use cases. Production environments should be sized according to function, anticipated user load and network throughput requirements. For further information there is guidance about sizing of cloud appliances in the [Appgate SDP Admin Guide](#).
- **Availability options** - You should set this now as it can't be changed later
- **Image** – Select the Appgate version you require
- **Authentication type** - Select SSH public key. Do not try Password it is not supported!
  - **Username** – Enter cz
  - **SSH public key** – paste your SSH key
- **Inbound port rules** – for now allow 22 and add 443. For admin access we will need to add 8443 later.

#### Disks

- **OS disk type** – Fast disks are a good choice.
- **Data disks** - Large disks are not required. The 32GiB will normally suffice. For further information there is guidance about sizing in the [Appgate SDP Admin Guide](#).

#### Networking

If inbound was allowed in the Basics tab, then there is nothing more to set here.

#### Management

There is nothing to set here.

#### Monitoring

There is nothing to set here.

## Advanced

- **Custom data** - This is where you can paste the seed file to create the appliance. This will have been generated and downloaded from the Controller as a JSON file. Open the JSON file and copy/paste into the Custom data field. See <https://sdphelp.appgate.com/adminguide/new-appliance.html>

## Tags

- **Name** – You can add a tag or two here which might be useful later

## Review and create

If validation passes, then all is well. Click <Create> and wait a minute or two.

## Deployment

 **Your deployment is complete**

 Deployment name: CreateVm-cyxtera.appgatesdp-vm-v5\_4\_vm-20... Start time: 5/20/2021, 11:17:28 AM  
Subscription: [Microsoft Azure Enterprise](#) Correlation ID: fc6dfcef-a770-457e-b1f5-ac76f4cda13e  
Resource group: [qs-test](#)

∨ **Deployment details** [\(Download\)](#)

∧ **Next steps**

[Setup auto-shutdown](#) Recommended

[Monitor VM health, performance and network dependencies](#) Recommended

[Run a script inside the virtual machine](#) Recommended

[Go to resource](#) [Create another VM](#)

Once your deployment is complete then you can [Go to resource](#).

## First Controller

If this is the first Controller, then port 22 access should already be allowed but you will need to make an Inbound Security Rules for 8443.

Go to Network settings and click on [+ Create port rule](#) and add 8443. Note the Public IP address of the instance and use this in a terminal to SSH to the appliance where you need to do [sudo cz-setup](#) to make the appliance into a Controller.

## Additional appliance

If this is an addition to an existing Collective, then it should just register and appear under the Appliances list in the SDP admin UI.

| <input type="checkbox"/> Name ▲           | Status  | Functions | Site               | Version             | Sessions | CPU | Memory | Disk |   |
|---|---|-----------|--------------------|---------------------|----------|-----|--------|------|---|
| <input type="checkbox"/> azure - purple20 |  Warning | Gateway   | Azure North Europe | 6.3.0-36595-release | 6        | 2%  | 26%    | 12%  | ⋮ |
| <input type="checkbox"/> azure - purple21 |  Warning | Gateway   | Azure North Europe | 6.3.0-36595-release | 15       | 1%  | 26%    | 55%  | ⋮ |

A new appliance only needs outbound 443 open to register. If it does not register, then you may need to check the NSG firewall for the Controller and the new appliance to identify the issue.

NOTE: Depending on the function of the new appliance you may not require Inbound Security Rules for port 443.

## Resources

You'll find additional resources on the [Appgate website](#)

There is another [step-by-step guide](#) relating to the templated apps in the Azure marketplace.

There is a specific guide relating to [Using name resolvers in Azure](#)

The Appgate SDP product documentation is available here:

4. Admin Guide: <https://sdphelp.appgate.com/adminguide>
5. Client User Guide: <https://sdphelp.appgate.com/userguide>

Access to our support services (including further articles) is via the [customer portal](#)