



Easy Deployment of Airlock Gateway from Azure Marketplace

Version 1.0.0 | 04/06/2020

Table of contents

1.	Revision History	3
2.	License Agreement	4
3.	Introduction	5
4.	Options	6
5.	Azure Portal	7
6.	Azure CLI	12

1. Revision History

Version	Date	Author	Description
1.0.0	03.06.2020	Urs Zurbuchen	Initial version

2. License Agreement

License Agreement

The software described in this document is released under a license agreement and may be used only in accordance with the terms of the agreement.

3. Introduction

Airlock WAF and Airlock API are directly available in Azure's marketplace which makes deployment of new instances very easy. This document describes the relevant options and necessary steps.

Both products, Airlock WAF and Airlock API, are security appliances based on the Airlock Gateway which provides the run-time environment. The configured license determines the available functionality.

As the Airlock Gateway is the correct name of the deployed component, the rest of the document we will use this term.

4. Options

Azure supports two completely different processes how new components can be deployed:

1. Azure Portal

Using the Azure Portal, customers simply fill in a few fields, launch the deployment and, a few minutes, later have a new instance of the Airlock Gateway.

This option is very well suited for ad-hoc deployments for quick and easy tests.

The first part of the document will describe this option.

2. Azure CLI

For frequent and automated Airlock Gateway deployments, e.g. in scale-out scenarios, we highly recommend to make use of the Azure CLI.

Please refer to the second part to learn how to use it to deploy an Airlock Gateway.

5. Azure Portal

5.1 Create a virtual machine

When you click "Create" on the Airlock Gateway product page on Azure Marketplace, you are presented the following form:

Most of the fields you will need to fill in according to your and your organisations own requirements. Please refer to the relevant Azure documentation if you have questions.

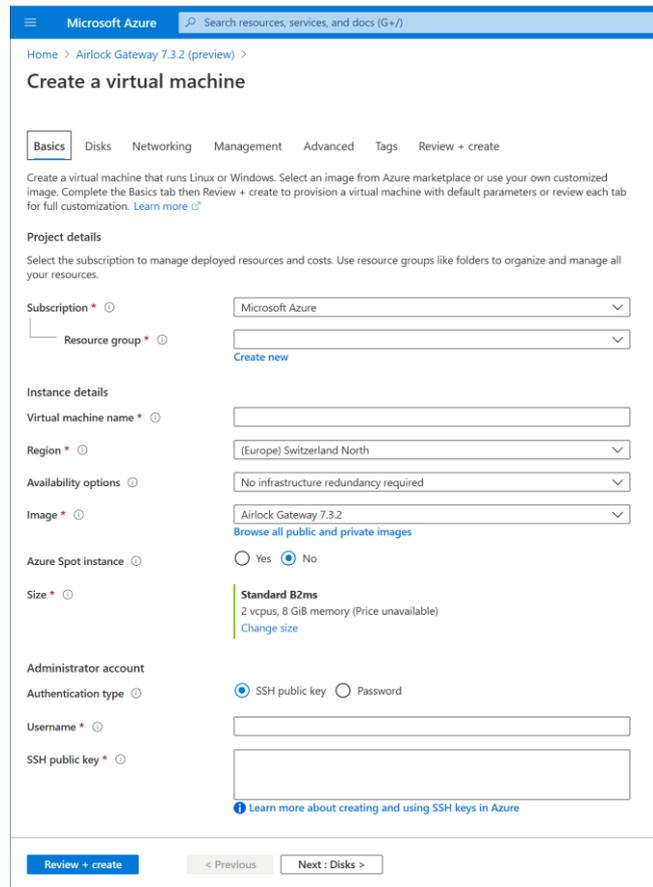
With regards to the VM sizing, please understand that the Azure feature "Accelerated networking" does not work with all sizes. You may want to refer to <https://docs.microsoft.com/en-us/azure/virtual-network/create-vm-accelerated-networking-cli> to understand the feature and get a list of supported VM instances.

As of this writing, select one of the D series to be able to profit from accelerated networking

For the administrator account, you need to fill in a username: You can choose any value accepted by Azure as no corresponding user will be created, e.g. airlock.

The SSH public key is one of the most important fields as you need to fill it in correctly to later get access to your new Airlock Gateway. Please specify a valid OpenSSH public key. Also, take note of the fact that ONLY RSA keys are supported (the public key begins with "ssh-rsa ").

Finally, click "Next".



5.2 Disks

On the disk tab, you can simply click "Next".

With the Azure Portal, the Airlock Gateway will feature 30GB of disk space which is ample for a test or small production system. For a larger system, we strongly recommend to deploy a central Elasticsearch cluster where all Airlock Gateways will forward their logs to.

Disk size is one of the areas where you get much more flexibility by using the Azure CLI as you can specify the exact requirements.

Microsoft Azure Search resources, services, and docs (G+)

Home > Airlock Gateway 7.3.2 (preview) >

Create a virtual machine

Basics **Disks** Networking Management Advanced Tags Review + create

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. [Learn more](#)

Disk options

OS disk type *

Encryption type *

Enable Ultra Disk compatibility Yes No
Ultra Disk compatibility is not available for this VM size and location.

Data disks

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

LUN	Name	Size (GiB)	Disk type	Host caching
Create and attach a new disk Attach an existing disk				

Advanced

[Review + create](#) [< Previous](#) [Next: Networking >](#)

5.3 Networking

On the networking tab, settings have already been prepared to allow access to http (80) and https (443) ports, for applications, and the Airlock Gateway ConfigCenter (port 8443, https). For the latter, you may want to restrict access to your own IP range or, even tighter, only through a VPN.

Accelerated networking can only be activated for supported VM instances. In such cases, it is selected by default.

Click "Next" to advance to the management tab, and "Next" again.

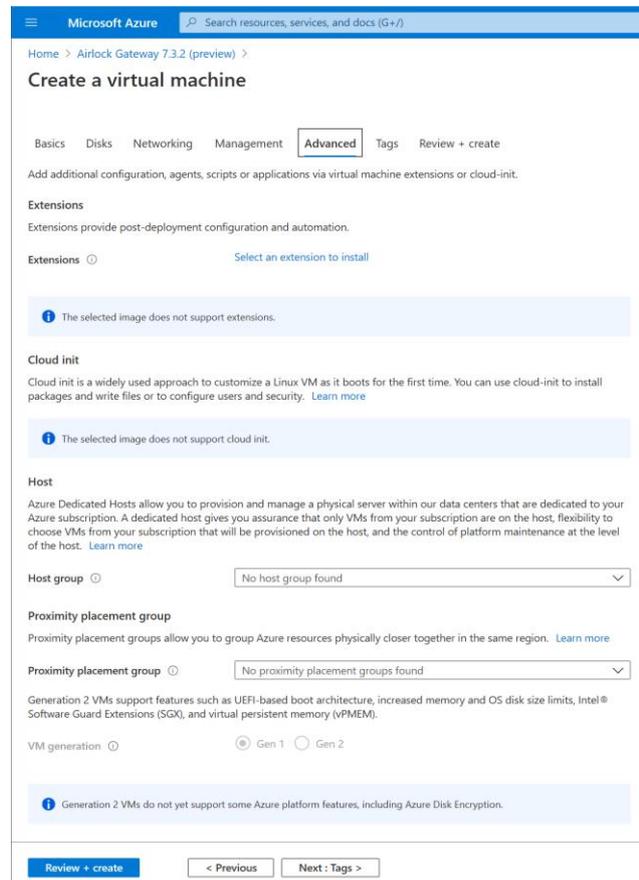
The screenshot shows the 'Create a virtual machine' page in the Microsoft Azure portal, specifically the 'Networking' tab. The page is titled 'Create a virtual machine' and has a breadcrumb trail: 'Home > Airlock Gateway 7.3.2 (preview) >'. Below the title, there are tabs for 'Basics', 'Disks', 'Networking' (which is active), 'Management', 'Advanced', 'Tags', and 'Review + create'. A descriptive text states: 'Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution. [Learn more](#)'. The 'Network interface' section includes a sub-header 'When creating a virtual machine, a network interface will be created for you.' and several configuration options: 'Virtual network *' (set to 'AirlockWAFTestvnet230'), 'Subnet *' (set to 'default (10.1.0.0/24)'), and 'Public IP' (set to '(new) mktplc2ip221'). The 'NIC network security group' section has radio buttons for 'None', 'Basic', and 'Advanced' (selected). A blue information box states: 'This VM image has preconfigured NSG rules'. The 'Configure network security group *' is set to '(new) mktplc2nsg380'. The 'Accelerated networking' section has radio buttons for 'On' and 'Off' (selected), with a note: 'The selected VM size does not support accelerated networking.' The 'Load balancing' section has a sub-header 'You can place this virtual machine in the backend pool of an existing Azure load balancing solution. [Learn more](#)' and a question 'Place this virtual machine behind an existing load balancing solution?' with radio buttons for 'Yes' and 'No' (selected). At the bottom, there are three buttons: 'Review + create' (highlighted in blue), '< Previous', and 'Next: Management >'.

5.4 Create a virtual machine

On the advanced tab, it will say that the Airlock Gateway image does not support Cloud Init. In fact, this is a long standing bug in the Azure Portal which Microsoft has not fixed yet¹. Also, when deploying using the Azure CLI, Cloid Init works as intended.

This, unfortunately, means that you will have to create the Airlock Gateway administrator by using ssh to connect and issue a command (see section 5.5).

At this point, you have the choice of specifying relevant tags or directly go to Create + Review. On the latter simply click "Create" for the deployment to finish.



Microsoft Azure Search resources, services, and docs (G+)

Home > Airlock Gateway 7.3.2 (preview) >

Create a virtual machine

Basics Disks Networking Management **Advanced** Tags Review + create

Add additional configuration, agents, scripts or applications via virtual machine extensions or cloud-init.

Extensions
Extensions provide post-deployment configuration and automation.

Extensions ⓘ Select an extension to install

i The selected image does not support extensions.

Cloud init
Cloud init is a widely used approach to customize a Linux VM as it boots for the first time. You can use cloud-init to install packages and write files or to configure users and security. [Learn more](#)

i The selected image does not support cloud init.

Host
Azure Dedicated Hosts allow you to provision and manage a physical server within our data centers that are dedicated to your Azure subscription. A dedicated host gives you assurance that only VMs from your subscription are on the host, flexibility to choose VMs from your subscription that will be provisioned on the host, and the control of platform maintenance at the level of the host. [Learn more](#)

Host group ⓘ No host group found

Proximity placement group
Proximity placement groups allow you to group Azure resources physically closer together in the same region. [Learn more](#)

Proximity placement group ⓘ No proximity placement groups found

Generation 2 VMs support features such as UEFI-based boot architecture, increased memory and OS disk size limits, Intel® Software Guard Extensions (SGX), and virtual persistent memory (vPMEM).

VM generation ⓘ Gen 1 Gen 2

i Generation 2 VMs do not yet support some Azure platform features, including Azure Disk Encryption.

[Review + create](#) [< Previous](#) [Next: Tags >](#)

¹ <https://github.com/MicrosoftDocs/azure-docs/issues/30997>

5.5 Create Airlock Gateway administrative account

With your Airlock Gateway VM running, there is one more step to finish the installation:

Use ssh to connect to it and create the admin account for the Config Center.

```
$ ssh -i ~/.ssh/id_rsa.pub root@<domain-name-or-ip-address>  
  
# airlock-user-manager-tool --set --user admin --password <password>  
--role airlock-administrator
```

Table 1: Create ConfigCenter admin account

6. Azure CLI

To be completed