



Deploying the Barracuda CloudGen WAF Virtual Machine Scale Sets (VMSS) - PAYG Instance in Microsoft Azure

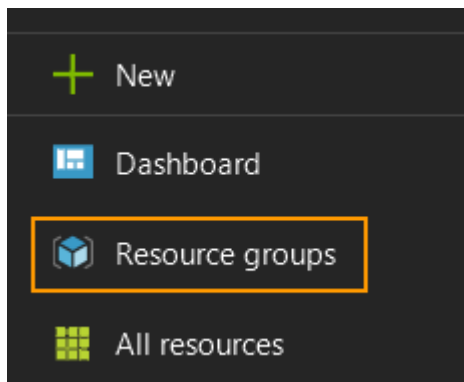
Before proceeding with deploying the Barracuda CloudGen WAF VMSS, do the following:

- [Step 1. Create a Resource Group](#)
- [Step 2. Create a Storage Account](#)

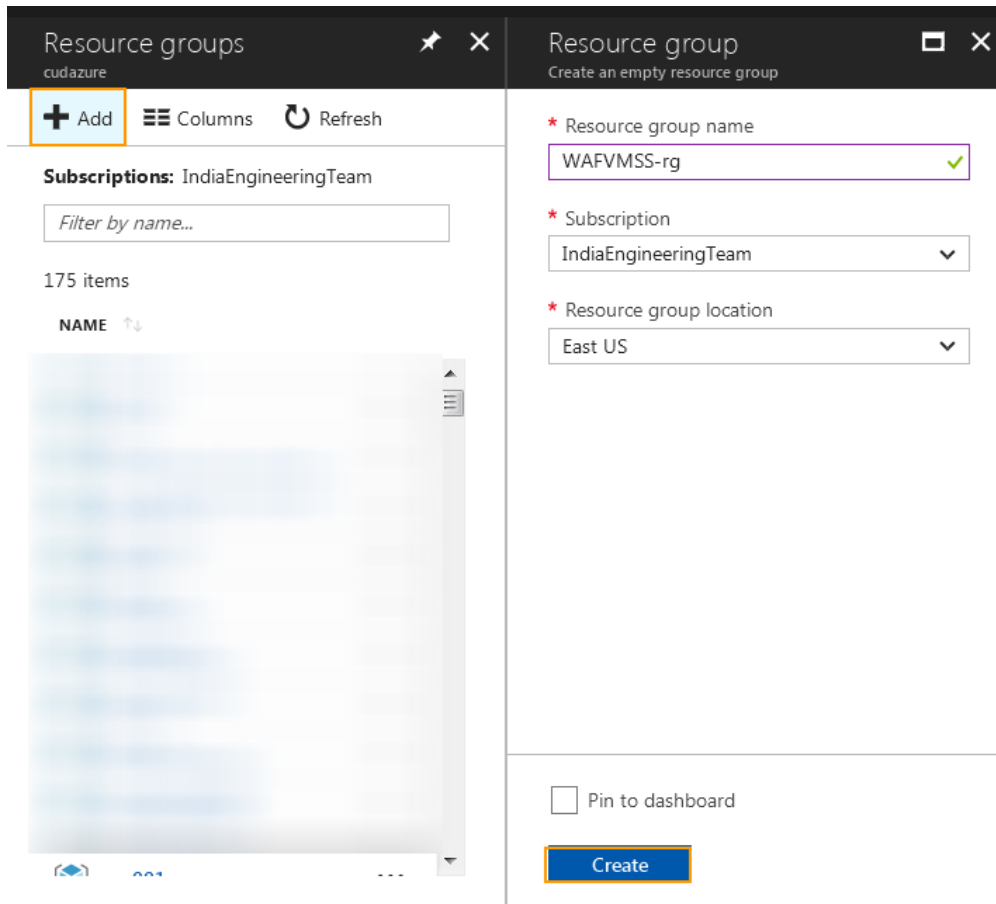
Step 1. Create a Resource Group

To create a resource group, perform the following steps:

1. Log into the [Microsoft Azure Portal](#).
2. Click **Resource groups** in the left panel.



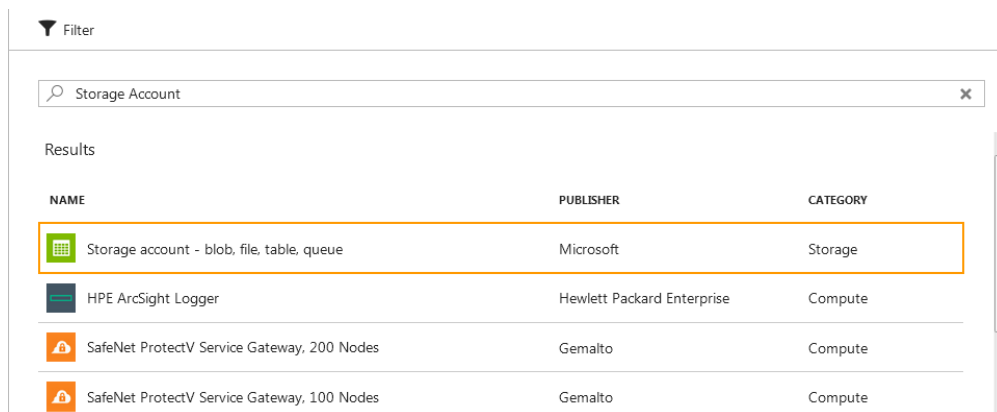
3. In the **Resource groups** page, click **Add** and specify values for the following:
 1. **Resource group name:** Enter a name for the resource group.
 2. **Subscription:** Select the subscription in which you want to create the resource group.
 3. **Resource group location:** Select a location for the resource group.
 4. Click **Create**.



Step 2. Create a Storage Account

Perform the following steps to create a storage account:

1. Log into the [Microsoft Azure Portal](#).
2. Click **New** in the left panel, and type *Storage Account* in the **Search** field.
3. In the search results, select **Microsoft Storage account**.



4. In the **Storage account - blob, file, table, queue** page, click **Create**.



Storage account - blob, file, table, queue
✦ □ ✕

Microsoft

Microsoft Azure provides scalable, durable cloud storage, backup, and recovery solutions for any data, big or small. It works with the infrastructure you already have to cost-effectively enhance your existing applications and business continuity strategy, and provide the storage required by your cloud applications, including unstructured text or binary data such as video, audio, and images.

PUBLISHER	Microsoft
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Create

5. In the **Create storage account** page:

1. **Name:** Enter a name for the storage account.
2. **Deployment model:** Ensure the deployment model is set to **Resource Manager**.
3. **Account kind:** Select the type of storage account that needs to be created. **Default:** General purpose
4. **Performance:** Select the performance tier as required.
5. **Replication:** Select the replication option for the storage account.
6. **Secure transfer required:** Select **Enabled** if you want to transfer the data into or out of storage account. Default: Disabled.
7. **Subscription:** Select the subscription in which you want to create the storage account. **Note:** Ensure that the subscription for the storage account and the resource group is same.
8. **Resource group:** Select the resource group created in **Step 1. Create a Resource Group**.
9. **Location:** Select the location for the storage account. **Note:** Ensure that the location for the storage account and the resource group is same.
10. Click **Create**.



The cost of your storage account depends on the usage and the options you choose below.
[Learn more](#)

* Name ⓘ
sgvmss1 ✓
.core.windows.net

Deployment model ⓘ
Resource manager Classic

Account kind ⓘ
General purpose ▼

Performance ⓘ
Standard Premium

Replication ⓘ
Read-access geo-redundant storage (RA-... ▼

* Secure transfer required ⓘ
Disabled Enabled

Pin to dashboard

[Create](#) [Automation options](#)

Deploying the Barracuda CloudGen WAF VMSS

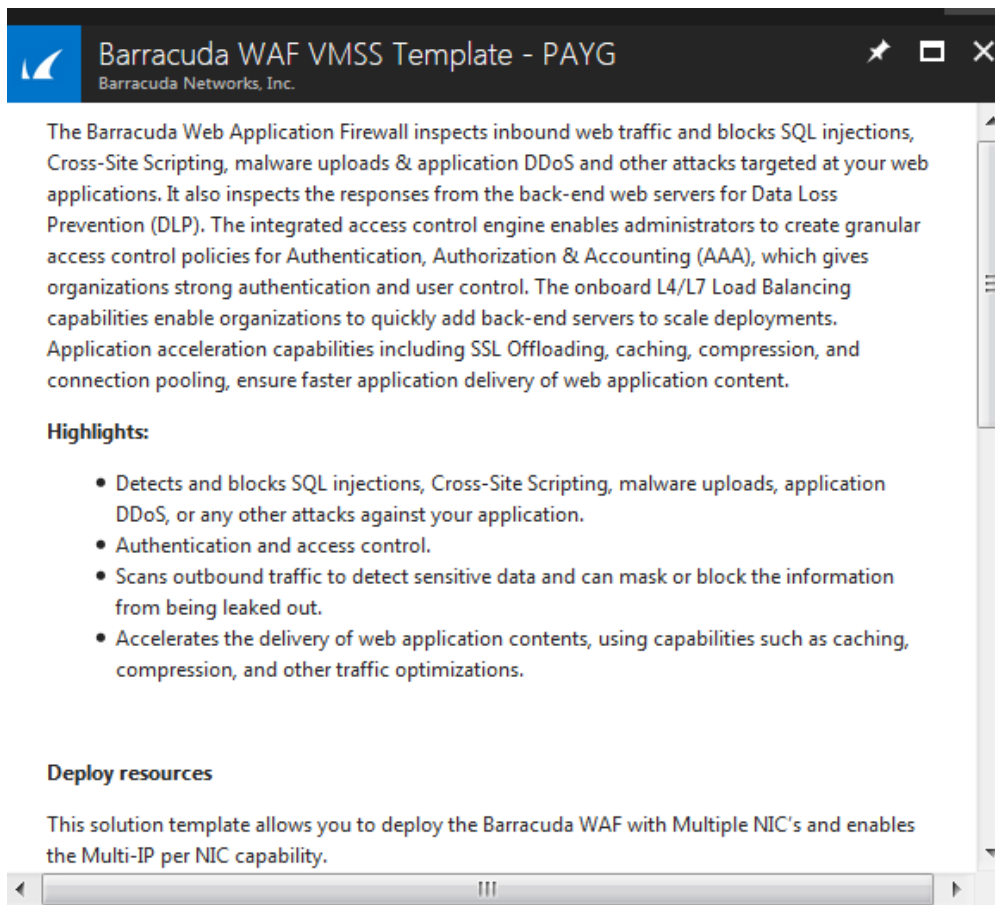
Perform the following steps to deploy the Barracuda WAF VMSS instance:

1. Log into the [Microsoft Azure Portal](#).
2. Click **Marketplace** at the bottom of the screen.
3. In the **Everything** page, type *Barracuda WAF VMSS Template* in the **Search** text field.
4. In the search results, select **Barracuda WAF VMSS Template - PAYG**.



5. In the **Barracuda WAF VMSS Template - PAYG** page:

1. Read the product overview.
2. Click **Create**.



Select a deployment model ⓘ

Resource Manager

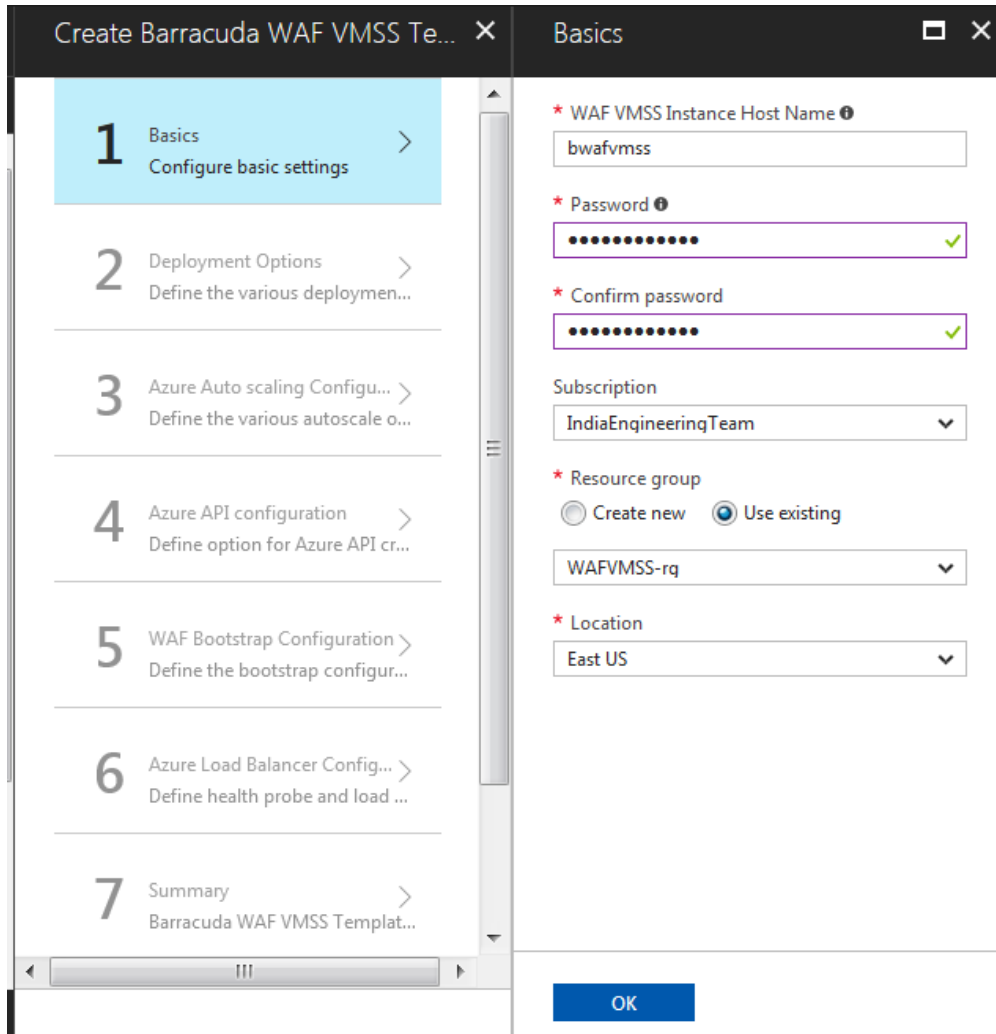
Create

6. In the **Create Barracuda WAF VMSS Template - PAYG > 1 Basics** page:

1. **WAF VMSS Instance Host Name:** Enter a name for the Barracuda CloudGen WAF VMSS.
2. **Password:** Enter a password for authentication. This will be your password to access the Barracuda CloudGen WAF web interface.
3. **Confirm Password:** Re-enter the password for confirmation.
4. **Subscription:** Select the subscription from the drop-down list.
5. **Resource group:** Create a new resource group or select a resource group that is empty from the existing **Resource group** list.
6. **Location:** Select a location for the Barracuda CloudGen WAF VMSS.



7. Click **OK**.



7. In the **Create Barracuda WAF VMSS Template - PAYG > 2 Deployment Options** page:

1. **WAF Instance Size:** Select a size for the instance.
2. **Storage Account:** Create a new storage account or select a storage account from the existing **Storage account** list.

The storage account should be in the same region where the Barracuda CloudGen WAF VMSS instance needs to be deployed.

3. **Virtual network:** Create a new virtual network, or select a virtual network from the existing **Virtual network** list in which you want to deploy the Barracuda CloudGen WAF VMSS.
4. **Subnets:** Review the subnet configuration and modify if required.
5. **New Public IP address name:** Enter a name for the public IP address associated with the Barracuda CloudGen WAF VMSS.
6. **Domain name for accessing the WAF:** Enter the domain for the Barracuda CloudGen WAF VMSS.
7. **Boot diagnostics:** When **Enabled**, the boot up debug logs gets saved in the specified storage account.
8. Click **OK**.



Create Barracuda WAF VMSS Te... ✕

- 1 Basics ✓
Done
- 2 Deployment Options >
Define the various deploymen...
- 3 Azure Auto scaling Configu... >
Define the various autoscale o...
- 4 Azure API configuration >
Define option for Azure API cr...
- 5 WAF Bootstrap Configuration >
Define the bootstrap configur...
- 6 Azure Load Balancer Config... >
Define health probe and load ...
- 7 Summary >
Barracuda WAF VMSS Templat...

Deployment Options ✕

- * WAF Instance Size ⓘ >
1x Standard D2
- * Storage Account that will be used ... ⓘ >
(new) vidyasa1
- * Virtual network to be created for t... ⓘ >
(new) wafVnet
- * Subnets to be used in this deploy... ⓘ >
Review subnet configuration
- * New Public IP address name ⓘ >
(new) wafpip
- * Domain name for accessing the WAF ⓘ >
 ✓
eastus.cloudapp.azure.com

Boot diagnostics ⓘ

8. In the **Create Barracuda WAF VMSS Template - PAYG > 3 Azure Auto Scaling Configuration** page:

1. Instance Count

1. **Initial Instances:** Enter the number of instances to be deployed initially to serve the traffic. **Default:** 2
2. **Maximum Instances:** Enter the maximum number of instances to be scaled up to handle the traffic when required. **Default:** 5
3. **Minimum Instances:** Enter the minimum number of instances to be scaled down when the traffic less. **Default:** 2

- Ensure that the **Minimum Instances** are lesser than or same as the **Initial Instances**.

- If the **Initial Instances** value is less than the **Minimum Instances**, the deployment of instances will fail.

4. **Overprovisioning:** When set to **Enable**, the VMSS spins up more number of virtual machines than what is required to handle the traffic.

2. Scale Up Thresholds

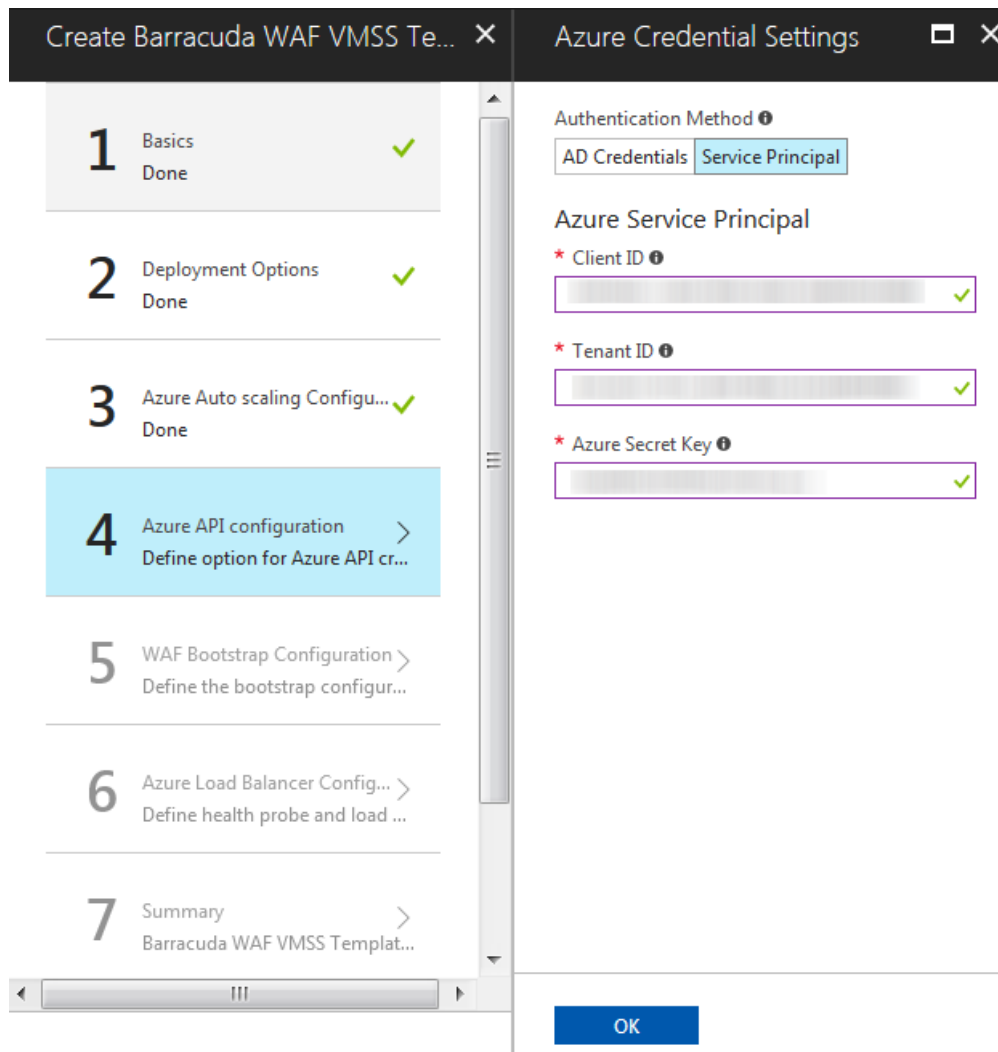
1. **CPU%:** Enter the scale up threshold for CPU utilization. **Default:** 85%
2. **Network In:** Enter the scale up threshold for NetworkIn throughput. **Default:** 9175040
3. **Network Out:** Enter the scale up threshold for NetworkOut throughput. **Default:** 9175040

3. Scale Down Thresholds



1. **CPU%**: Enter the scale down threshold for SPU utilization. **Default:** 60%
2. **Network In**: Enter the scale down threshold for NetworkIn throughput. **Default:** 5242880
3. **Network Out**: Enter the scale down threshold for NetworkOut throughput. **Default:** 5242880
4. **Notification Email ID(s) in CSV Format**: Enter the email address to which the auto scaling event notification emails needs to be sent.
5. Click **OK**.

9. In the **Create Barracuda WAF VMSS Template - PAYG > 4 Azure API Configuration** page:
10. **Authentication Method**: Select the authentication method to authenticate to Azure Active Directory (AAD).
 1. **Azure AD Credentials**
 1. **Azure User ID**: Enter the user name to authenticate to the AAD.
 2. **Azure User Password**: Enter the password associated with user.
 3. **Confirm Password**: Re-enter the password to confirm.
 2. **Azure Service Principal**
 1. **Client ID**: Enter the ID of the application in AAD.
 2. **Tenant ID**: Enter the ID of the Active Directory tenant.
 3. **Azure Secret Key**: Enter the secret key generated.
3. Click **OK**.



12. In the **Create Barracuda WAF VMSS Template - PAYG > 5 WAF Bootstrap Settings** page.
1. **Cluster Shared Secret:** Enter a password to be used by the Barracuda CloudGen WAF instances in the VMSS group.
 2. **Confirm Shared Secret:** Re-type the shared secret password.
 3. **Bootstrap Method:** Select the method (**NONE**, **BASIC** or **BACKUP**) for bootstrapping.
 4. **Basic Bootstrap Configuration**
 1. **WAF Service Name:** Enter a name for the service that needs to be created on the Barracuda CloudGen WAF instances.
 2. **WAF Service Port:** Enter the port number on which the service is listening to.
 3. **Backend Servers (IP:PORT):** Enter the IP address of the server followed by the port that needs to be protected by the Barracuda CloudGen WAF. Use comma (,) as a separator to specify multiple server IP addresses.
 5. **Backup Bootstrap Configuration**
 1. **Azure Storage Account Name:** Enter the name of the storage account.
 2. **Azure Storage Account Key:** Enter the key of the storage account.
 3. **Azure Storage Blob Name:** Enter the name of the blob configured in the storage account.
 4. **Barracuda WAF Backup File Name:** Enter the name of the backup file that you want to use for bootstrapping the instances.
 6. **OMS Workspace Details**
 1. **OMS Workspace ID:** Enter the workspace ID of the OMS server (if any).
 2. **OMS Workspace Primary Key:** Enter the primary key of the OMS server.
 7. Click **OK**.



2 Deployment Options ✓
Done

3 Azure Auto scaling Configu... ✓
Done

4 Azure API configuration ✓
Done

5 WAF Bootstrap Configuration >
Define the bootstrap configur...

6 Azure Load Balancer Configu... ✓
Done

7 Summary >
Barracuda WAF VMSS Templat...

8 Buy >

WAF Bootstrap Settings
✕

* Cluster Shared Secret ⓘ

* Confirm Shared Secret

Bootstrap Method ⓘ

Backup Bootstrap Configuration

* Azure Storage Account Name ⓘ
 ✓

* Azure Storage Account Key ⓘ
 ✓

* Azure Storage Blob Name ⓘ
 ✓

* Barracuda WAF Backup File Name ⓘ
 ✓

OMS workspace Details

OMS workspace ID ⓘ

13. In the **Create Barracuda WAF VMSS Template - PAYG > 6 Azure Load Balancer Configuration** page:

1. **Health Probe Settings**

1. **Protocol:** Select **TCP** or **HTTP**. It is recommended to use the **TCP** protocol.
2. **Port:** Enter the port to be used when probing the instance.
3. **Interval:** Enter the interval time to probe the instance.
4. **Unhealthy threshold:** Enter how many attempts can fail before the backend instance is marked as unhealthy.

2. **Load Balancer Rule Settings**

1. **Port:** Enter the port on which the load balancer is listening.
2. **Backend Port:** Enter the port on which the Barracuda CloudGen WAF is listening.
3. **Session Persistence:** Select the persistence type.

3. Click **OK**.



14. In the **Create Barracuda WAF VMSS Template - PAYG > 7 Summary** page, verify the values you entered and click **OK**.

15. In the **Create Barracuda WAF VMSS Template - PAYG > 8 Buy** page, read the **Terms of use** |



privacy policy and click **Create**.

Create Barracuda WAF VMSS Te... x Create

- 2 Deployment Options Done ✓
- 3 Azure Auto scaling Config... Done ✓
- 4 Azure API configuration Done ✓
- 5 WAF Bootstrap Configuration Done ✓
- 6 Azure Load Balancer Config... Done ✓
- 7 Summary Barracuda WAF VMSS Templat... ✓
- 8 Buy >

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