

Configuring the Azure DNS for OpenShift IPI

This document will walk through how to configure a subdomain in Azure as a prerequisite to deploying an OpenShift Installer Provisioned Infrastructure (IPI) cluster. This is not necessary for an Azure RedHat OpenShift (ARO) cluster.

1. Buy or have an existing domain

There are a few suppliers which provide domain registration services including GoDaddy (godaddy.com). Whichever one is chosen needs to be able to delegate DNS lookup to Azure.

2. Decide on a subdomain of the existing domain for OpenShift clusters

Create a subdomain of the one registered in the prior step. This will be used for all clusters created in the Azure subscription. For example, if the domain in the prior step were mydomain.com, then a subdomain could be my-azure.mydomain.com. Clusters created under this subdomain would then have the format:

```
https://api.<cluster-name>.my-azure.mydomain.com:6443/
```

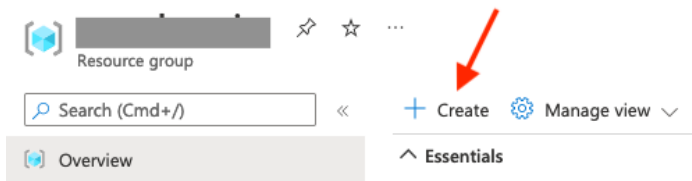
3. Create a new resource group in the Azure subscription

This resource group will be used to store the domain registrations under the subdomain. It is separate to the resource group created for the OpenShift clusters or virtual network (VNet).

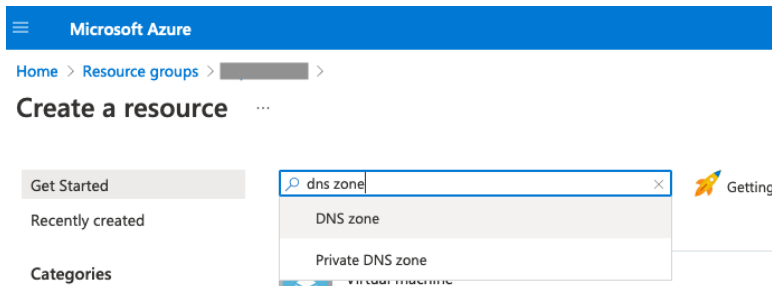
The screenshot shows the Microsoft Azure portal interface for creating a new resource group. The top navigation bar is blue with the 'Microsoft Azure' logo. Below it, the breadcrumb 'Home > Resource groups >' is visible. The main heading is 'Create a resource group'. Underneath, there are tabs for 'Basics', 'Tags', and 'Review + create', with 'Basics' being the active tab. A descriptive paragraph explains that a resource group is a container for related resources. The 'Project details' section contains two dropdown menus: 'Subscription' (with a grey bar) and 'Resource group' (with the text 'my-domain-registration' and a green checkmark). The 'Resource details' section contains a 'Region' dropdown menu with '(US) East US' selected.

4. Create a DNS zone in the resource group using the subdomain and existing domain

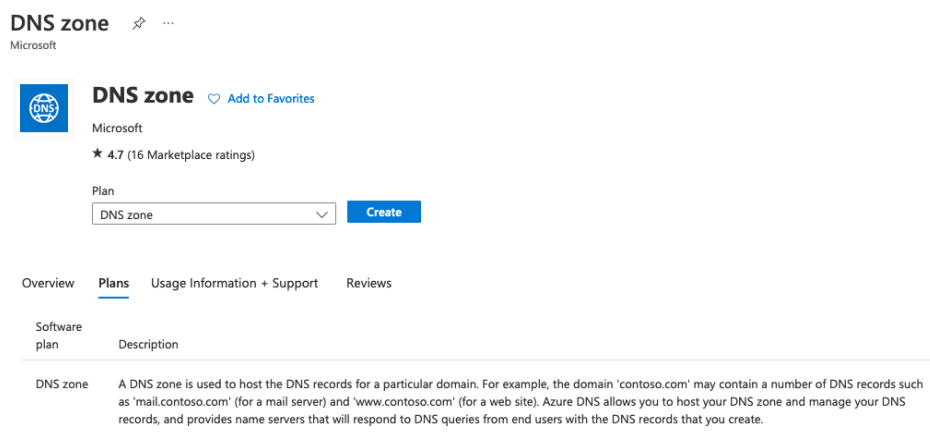
From within the newly created domain resource group select “create” at the top left.



Search for DNS Zone



Then choose DNS zone as the plan.



Complete the DNS zone details, review and create.

Create DNS zone ...

Basics Tags Review + create

A DNS zone is used to host the DNS records for a particular domain. For example, the domain 'contoso.com' may contain a number of DNS records such as 'mail.contoso.com' (for a mail server) and 'www.contoso.com' (for a web site). Azure DNS allows you to host your DNS zone and manage your DNS records, and provides name servers that will respond to DNS queries from end users with the DNS records that you create. [Learn more.](#)

Project details

Subscription *

Resource group *

[Create new](#)

Instance details

☐ This zone is a child of an existing zone already hosted in Azure DNS ⓘ

Name *

my-azure.mydomain.com ✓

Resource group location ⓘ

East US

This is the resource group for the domain created in the earlier step.

This is the subdomain and existing domain created in the earlier step.

This will create a new name service (NS) and Start of Authority (SOA) record for the subdomain. Note the name server details as these will be required to delegate access from your domain name service.

Name	Type	TTL	Value	Alias resource type	Alias target
@	NS	172800	ns1-33.azure-dns.com. ns2-33.azure-dns.net. ns3-33.azure-dns.org. ns4-33.azure-dns.info.		
@	SOA	3600	Email: azuredns-hostma... Host: ns1-33.azure-dns... Refresh: 3600 Retry: 300 Expire: 2419200 Minimum TTL: 300 Serial number: 1		

5. Delegate access to Azure for your domain provider

The next step needs to be done from your domain provider and the process will vary depending upon the provider. For example, in GoDaddy, select "DNS" next to the domain name or "Manage DNS" in the domain details page, then "Add" a NS details for each of the Azure domain servers specified in the prior step so that you end up with the entries for azure-dns.com., azure-dns.net. , azure-dns.org. and azure-dns.info. similar to the following:

<input type="checkbox"/>	NS	ocp.azure	ns2-33.azure-dns.net.	172800 seconds
<input type="checkbox"/>	NS	ocp.azure	ns3-33.azure-dns.org.	172800 seconds
<input type="checkbox"/>	NS	ocp.azure	ns4-33.azure-dns.info.	172800 seconds

Congratulations! The DNS Zone is now ready to be used with an OpenShift Installer Provisioned Infrastructure installation. During the installation, be sure to include the

resource group created for the DNS Zone as the domain resource group and the DNS subdomain as the base domain. For example, if the resource group created were “my-domain-resource” and the subdomain “my-azure.mydomain.com”, then the variables input to the installation in the terraform.tfvars file would be:

```
## Resource group name containing the base domain  
resource_group_name="my-domain-resource"  
  
## Base domain name (e.g. myclusters.mydomain.com)  
base_domain_name="my-azure.mydomain.com"
```