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).
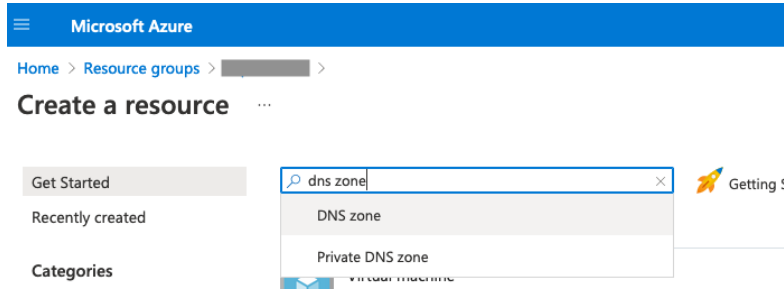

4. **Create a DNS zone in the resource group using the subdomain and existing domain**
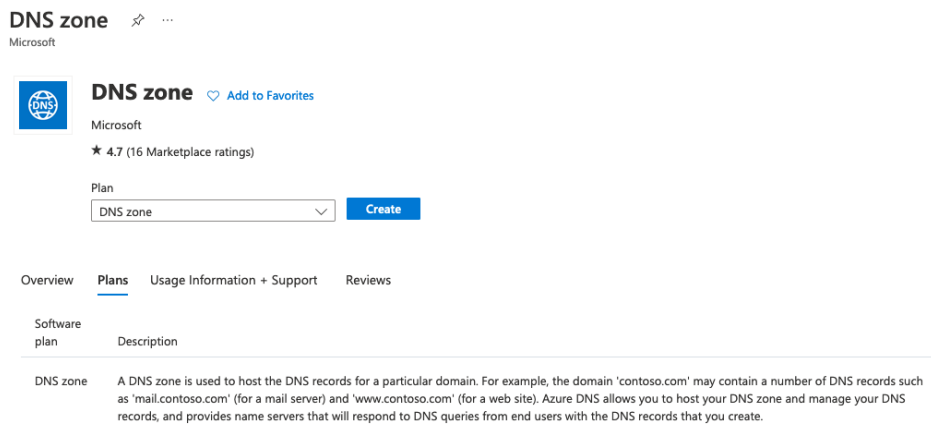
   From within the newly created domain resource group select "create" at the top left.
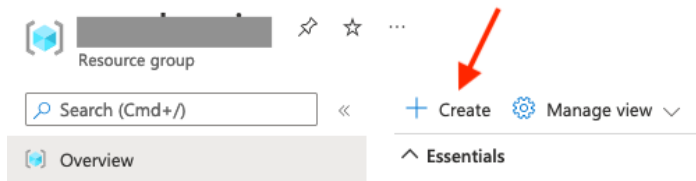
Search for DNS Zone

Then choose DNS zone as the plan.

Complete the DNS zone details, review and create.

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.

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:

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"
```