**Vnet Integration**

[**https://docs.microsoft.com/en-us/azure/app-service/overview-vnet-integration**](https://docs.microsoft.com/en-us/azure/app-service/overview-vnet-integration)

**Postgres**

[**https://docs.microsoft.com/en-us/azure/postgresql/overview**](https://docs.microsoft.com/en-us/azure/postgresql/overview)

**App Service**

[**https://docs.microsoft.com/en-us/azure/app-service/overview**](https://docs.microsoft.com/en-us/azure/app-service/overview)

[**https://docs.microsoft.com/en-us/azure/app-service/environment/intro**](https://docs.microsoft.com/en-us/azure/app-service/environment/intro)

**App Service Plan**

[**https://docs.microsoft.com/en-us/azure/app-service/overview-hosting-plans**](https://docs.microsoft.com/en-us/azure/app-service/overview-hosting-plans)

**Key Vault**

[**https://docs.microsoft.com/en-us/azure/key-vault/general/overview**](https://docs.microsoft.com/en-us/azure/key-vault/general/overview)

[**https://docs.microsoft.com/en-us/azure/key-vault/general/basic-concepts**](https://docs.microsoft.com/en-us/azure/key-vault/general/basic-concepts)

**Private Traffic**

[**https://docs.microsoft.com/en-us/azure/architecture/example-scenario/private-web-app/private-web-app**](https://docs.microsoft.com/en-us/azure/architecture/example-scenario/private-web-app/private-web-app)

**DNS**

[**https://docs.microsoft.com/en-us/azure/app-service/web-sites-integrate-with-vnet#azure-dns-private-zones**](https://docs.microsoft.com/en-us/azure/app-service/web-sites-integrate-with-vnet#azure-dns-private-zones)

Graphical user interface, application

Description automatically generated

* VNET - [registry](https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/resources/virtual_network)
  + <name>-wa-vnet (eg – ciaran-wa-vnet) -
  + Subnets
    - webapp-subnet
      * 10.0.1.0/24
      * Subnet delegation to Microsoft.Web/serverFarms to allow vnet integration to the webapp
    - db-subnet
      * 10.0.2.0/24
      * Private link endpoint enabled to bring the PostgreSQL PaaS service into to the vnet using a private IP
    - kv-subnet
      * 10.0.3.0/24
      * Private link endpoint enabled to bring the Key Vault PaaS service into to the vnet using a private IP (We may not create an endpoint for KV yet but this allow for the possibility, so we we have the subnet in place)
* App Service Plan - [registry](https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/data-sources/service_plan)
  + <name>-asp
  + Linux
  + Reserved
  + Size S1
* App Service (Web App) - [registry](https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/resources/linux_web_app)
  + <name>-wa
  + Vnet integration to the webapp-subnet
  + Leave the configuration for now until the rest of the environment has been built
* Key Vault - [registry](https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/resources/key_vault)
  + <name>-kv
  + Soft delete enabled for 7 days
  + Purge protection set to false
  + Sku set to standard
  + Random password – 16 chars
  + Secret for postgres server using the random password
* PostgreSQL
  + Server – [registry](https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/resources/postgresql_server)
    - <name>-psql
    - Size GP\_Gen5\_2
    - Postgres version 11
    - 8GB
    - Backup retention 30 days
    - Geo-redundant backup disabled
    - Auto grow enabled
    - SSL enforcement enabled
  + Database - [registry](https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/resources/postgresql_database)
    - Charset - UTF8
    - Collation - English\_United States.1252
* Private DNS – [registry](https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/resources/private_dns_zone)
  + DNS Zone
    - Name - "privatelink.postgres.database.azure.com"
  + DNS Network Link
    - DNS Zone & VNET
* Private Endpoint - [registry](https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/resources/private_endpoint)
  + <name>-psql-pe
  + Db-subnet
  + Private service connection to postgres server
  + Private dns zone group
    - Name - "privatelink-postgres-database-azure-com"