**Build Azure Landing Zone**

**using ARM Template**

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**­­Documents Control**

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# Introduction

The Cloud Adoption Framework (CAF) by Microsoft provides a structured approach to migrating, building, and managing applications in the cloud. One of the critical components of this framework is the Azure landing zone, which serves as a foundation for your cloud infrastructure. Azure ARM template simplifies the process of creating and managing these landing zones. This guide will walk you through the steps to build your Azure landing zone using ARM template.

# Prerequisites

Before we begin, ensure you have the following prerequisites in place:

* An active Azure subscription
* VS Code setup
* Azure CLI or AZ PowerShell installed and configured

# Setting Up Your Environment

Below is a high-level outline for creating a basic Azure Landing Zone using an ARM template. This template will deploy a foundational set of resources including:

* Virtual Network Gateway – A Virtual Network Gateway.
* Local Network Gateway – A Local Network Gateway
* Resource Groups – To organize resources in Azure.

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| JSON |
| {  "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",  "contentVersion": "1.0.0.0",  "parameters": {  "virtualNetworkName": {  "type": "string",  "metadata": {  "description": "Name of the existing Virtual Network"  }  },  "subnetName": {  "type": "string",  "metadata": {  "description": "Name of the Gateway Subnet in the Virtual Network"  }  },  "gatewayName": {  "type": "string",  "metadata": {  "description": "Name of the Virtual Network Gateway"  }  },  "gatewaySku": {  "type": "string",  "allowedValues": [  "Basic",  "VpnGw1",  "VpnGw2",  "VpnGw3",  "VpnGw4",  "VpnGw5"  ],  "defaultValue": "VpnGw1",  "metadata": {  "description": "SKU of the Virtual Network Gateway"  }  },  "vpnType": {  "type": "string",  "allowedValues": [  "PolicyBased",  "RouteBased"  ],  "defaultValue": "RouteBased",  "metadata": {  "description": "VPN type of the Virtual Network Gateway"  }  },  "location": {  "type": "string",  "metadata": {  "description": "Location of the resources"  }  }  },  "resources": [  {  "type": "Microsoft.Network/virtualNetworkGateways",  "apiVersion": "2023-02-01",  "name": "[parameters('gatewayName')]",  "location": "[parameters('location')]",  "properties": {  "ipConfigurations": [  {  "name": "vnetGatewayConfig",  "properties": {  "privateIPAllocationMethod": "Dynamic",  "subnet": {  "id": "[resourceId('Microsoft.Network/virtualNetworks/subnets', parameters('virtualNetworkName'), parameters('subnetName'))]"  },  "publicIPAddress": {  "id": "[resourceId('Microsoft.Network/publicIPAddresses', concat(parameters('gatewayName'), '-pip'))]"  }  }  }  ],  "gatewayType": "Vpn",  "vpnType": "[parameters('vpnType')]",  "enableBgp": false,  "activeActive": false,  "sku": {  "name": "[parameters('gatewaySku')]",  "tier": "[parameters('gatewaySku')]"  }  },  "dependsOn": [  "[resourceId('Microsoft.Network/publicIPAddresses', concat(parameters('gatewayName'), '-pip'))]"  ]  },  {  "type": "Microsoft.Network/publicIPAddresses",  "apiVersion": "2023-02-01",  "name": "[concat(parameters('gatewayName'), '-pip')]",  "location": "[parameters('location')]",  "sku": {  "name": "Standard"  },  "properties": {  "publicIPAllocationMethod": "Dynamic"  }  }  ]  } |

## Explanation of the ARM Template:

* **VirtualNetworkName**: The name of the existing Virtual Network.
* **subnetName**: Name of the Gateway Subnet within the Virtual Network (GatewaySubnet must exist in the Virtual Network).
* **gatewayName**: Name of the Virtual Network Gateway.
* **gatewaySku**: Specifies the SKU of the gateway (e.g., VpnGw1, VpnGw2).
* **vpnType**: Specifies the VPN type (RouteBased or PolicyBased).
* **location**: Azure region for the deployment.

## Steps to Deploy

1. **Prepare the Template**: Save the ARM template above in a JSON file, for example, *vnet-gateway.json*.
2. **Deploy the Template**: You can deploy the template using either the Azure Portal, Azure CLI, or PowerShell.

**Using Azure CLI**:

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| Bash |
| *az deployment group create \*  *--resource-group <resource-group-name> \*  *--template-file vnet-gateway.json \*  *--parameters virtualNetworkName=<vnet-name> subnetName=GatewaySubnet gatewayName=<gateway-name> location=<region>* |

**Using Portal**:

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| Template |
| *Azure Portal: Upload the template in the "Deploy a custom template" section.* |

**About Cobweb**

Cobweb is one of Europe’s largest cloud solutions providers. Founded in 1996, the company draws on in-depth expertise and decades of experience in what is now known as cloud, empowering organisations of all sizes to grow into flexible, agile businesses through the deployment of best-of-breed cloud technologies.

A member of the Cloud Industry Forum and a Microsoft Gold Certified Partner, Cobweb was the first provider in Europe to deliver Microsoft cloud services through the Microsoft Cloud Solution Provider programme. The company prides itself on innovation and liberating its customers and partners through technology. This is backed up by UK support and advice 24 hours a day, 365 days per year. Based in London and Dubai, with an operations centre on the south coast, Cobweb is a British company with a global outlook.

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