CAF Aligned Azure Landing Zone

Accelerate your adoption of Azure Services through the Version 1 Azure Landing Zone

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Azure Landing Zone Approach

Our Microsoft Cloud Adoption Framework aligned methodology brings design and implementation best practices to Azure Landing Zone deployment

Collaborative Approach to Design

- Bring experience from similar deployments with other customers
- Design workshops to understand exact requirements
- Low-Level Design(LLD) document produced prior to deployment
- Customer review cycle to ensure solution appropriately addresses requirements
- Agreed LLD taken forward to deployment phase

Best Practice Implementation

- Landing Zone deployed from existing Accelerator IP using DevOps tooling and methodology
- Code retained within customer organisation for future maintenance and management
- Solution aligns with NCSC Cloud Security Principals
- Cloud Adoption Framework Design Areas addressed by solution

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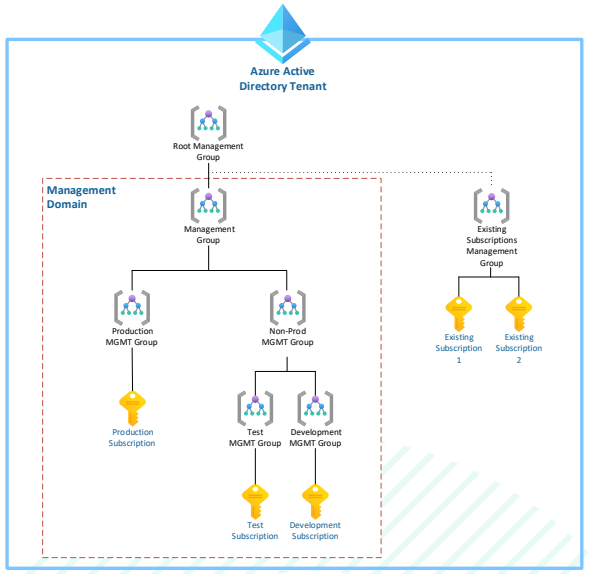
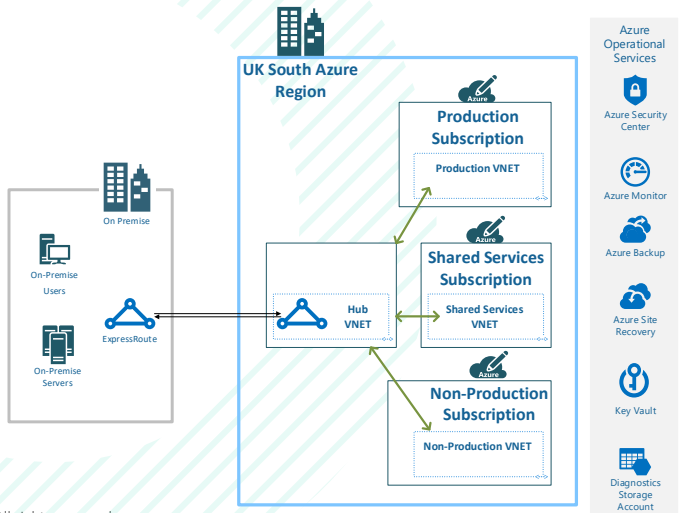
What is a Landing Zone and how can it accelerate your ability to use Azure?





Version 1 Azure Landing Zone

- A tried and tested code first approach to building and maintaining security, governance, networking and identity in Azure.
- An extensible accelerator the gives you best practice secure by design foundational Azure components from which to start your journey in Azure or level up your existing deployments
- Terraform based – an industry standard widely adopted and mature open-source Infrastructure as Code (IaC) software tool.
- Automation at its core – support for automated deployment and management of the Landing Zone using Azure DevOps

Accelerate your Azure journey

- A Landing Zone provides you with the foundations to enable workload migrations and development of new applications leveraging Azure services
- Gives you management, governance and security of your Azure subscriptions out of the box
- Foundational services (Networking, Identity, Governance, Policy) in a best practice configuration out of the box
- Enables you to leverage DevOps practices and processes in managing your Azure infrastructure in the Landing Zone and beyond

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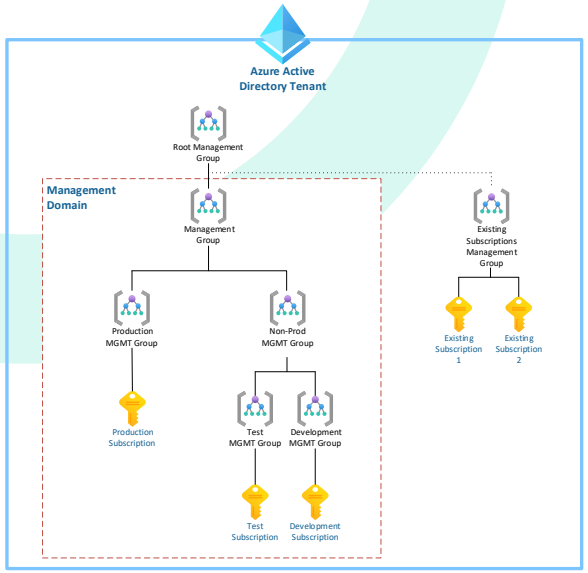
Azure Landing Zone Guardrails

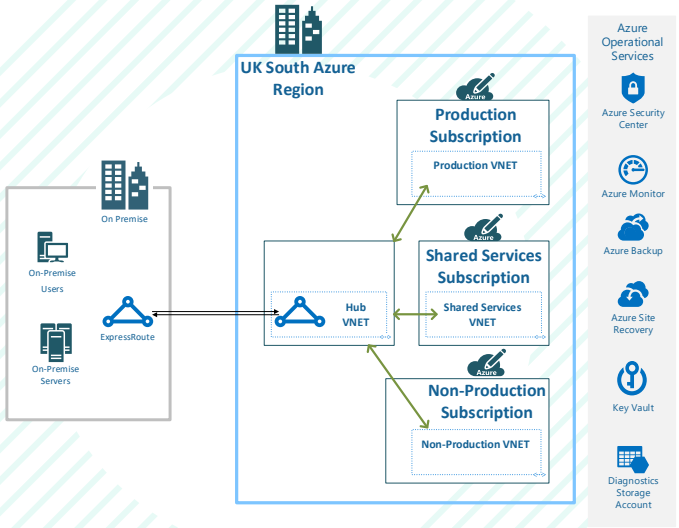
Tenancy Structure
- Management Groups
- Subscriptions

Identity
- AzureAD
- RBAC
- Groups and Policy

Networking
- Hub and Spoke
- Standard VNet design
- Firewall
- NSGs

Backup / DR
- Backup Center
- Multi-Region
- Recovery Vaults





Governance/Compliance
- Azure Policy
- CIS Benchmark
- Naming Conventions
- Tagging Policy

Security
- Defender for Cloud
- Secrets Management
- Encryption
- Secure Remote Access

Operations
- Azure Monitor
- Centralised Logging
- App Insights

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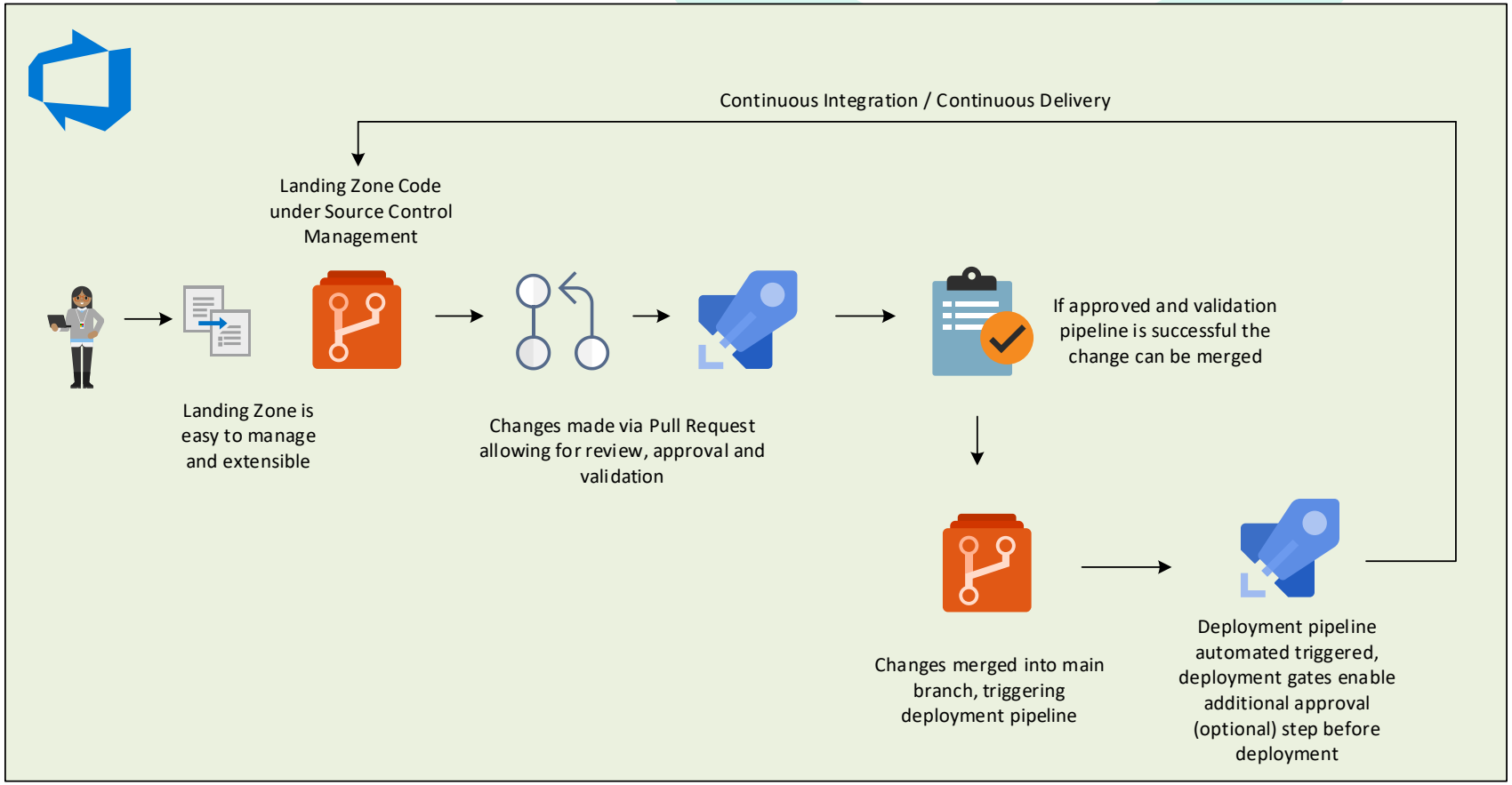
Automation and DevOps at its Core

- Our Landing Zone supports automated deployment with Continuous Integration and Continuous Deployment pipelines
- All code changes are under Source Control Management providing a clear audit trail of any changes to the code base
- Deployment governance is provided at multiple levels through branch policies, requiring approvals and through deployment gates
- Role based access control within the Azure DevOps project ensure access can be controlled
- Enhancements, changes or new resources can be deployed within minutes, while still be subject to your governance



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The Azure AI Services & Supporting Services

The Version 1 Azure DevOps team built new terraform modules to support the deployment of AI services.

Category	Services Deployed
Identity and Permissions	Azure AD Groups, RBAC
Management	Management Groups
Networking	Virtual Networks, Subnets, Azure Firewall, Network Security Groups, Route Tables, Private DNS Zones
Security	Key Vault, Azure Defender for Cloud
AI Services	Open AI, Form Recogniser, Custom Vision, Text Analytics, Cognitive Search, Azure Machine Learning Workspace
Compute	Webapps, Function Apps, Logic Apps, Container Instances, Application Insights, App Configuration, App Service Plan, Container Registry
Data Analytics	Azure Synapse, Azure Data Factory, Azure Databricks
Database	PostgreSQL, Cosmos DB, Cosmos DB for MongoDB
Storage	Storage Accounts, Azure File Shares, Storage Containers, Azure Data Lake Storage Gen2

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What is a Landing Zone and how can it accelerate your ability to use Azure?

Secure by default

- We supply tried and tested Terraform Modules for the Azure services deployed within the Landing Zone
- Our modules are aligned with security best practice to ensure the Landing Zone deployment of the Azure service is secure by default at the point of deployment
- NCSC Cloud Security Principles alignment included within the solution
- Our modules are easy to update and can be tailored to meet any security standards unique to your organisation
- Our modules offer an easily adoptable pattern that you can build upon

main.tf

Contents

```
resource "azurerm_storage_account" "stroage_account" {
  name                = var.sa_account_name
  resource_group_name = var.resource_group_name

  location                 = var.location
  account_tier             = var.account_tier
  account_replication_type = var.sa_replication_type
  min_tls_version           = "TLS1_2"
  allow_blob_public_access  = false

  network_rules {
    default_action             = "Deny"
  }

  blob_properties {
      delete_retention_policy {
          days = 7
      }
  }

  tags = {
    environment = var.tags
  }
}
```


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Landing Zone Engagement

Landing Zone Review

Either as a standalone engagement or as a precursor to a Landing Zone design and deployment, we can complete reviews of existing Azure Landing Zones for compliance against **Cloud Adoption Framework** and **Well Architected Framework** best practices.

Output is a presentation detailing findings with recommendations for next steps and/or remediation.

Design

So that customer requirements are fully captured and understood we host workshop(s) to ensure alignment. We will bring our **Landing Zone accelerator IP** to these workshops and follow up with a design document that will be presented for review.

Once reviewed by the customer, we will update the design to provide **a finalized and agreed design document** to carry forward to deployment.

Deployment

Existing accelerator IP is used to minimise deployment time and is deployed using DevOps tooling and methodology. Specific customer requirements captured in the design are factored into the code for deployment, with all code being retained within customer organisation for future maintenance and management.

Output is a **best practice aligned Azure Landing Zone** to host and run services.

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Azure Review

Understand how your Azure Platform aligns to Microsoft best practices.

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Azure Review

An Azure review ensures that customers implement and maintain a robust foundation for their Azure environment and applications. The Version 1 offering consists of the Azure Landing Zone Review and Well Architected Framework Review which combine Version 1 cloud experience, intellectual property and Microsoft best practices to deliver a report of actionable recommendations to ensure your Azure platform and workloads are aligned to industry standards.

Review approach & delivery

Azure Landing Zone Review

- Assessment of Azure platform, against a set of best practices
- Covers 9 foundational categories

Well Architected Framework Review

- Guiding principles used to assess the quality of a workload in Azure
- 5 pillars of architectural excellence

Report and Recommendations

- Summary Report
- Prioritised and Actionable Recommendations
- Detailed Spreadsheet

Adoption Roadmap

- A roadmap plan for Cloud improvements
- Strategic principles, technical considerations, and dependencies

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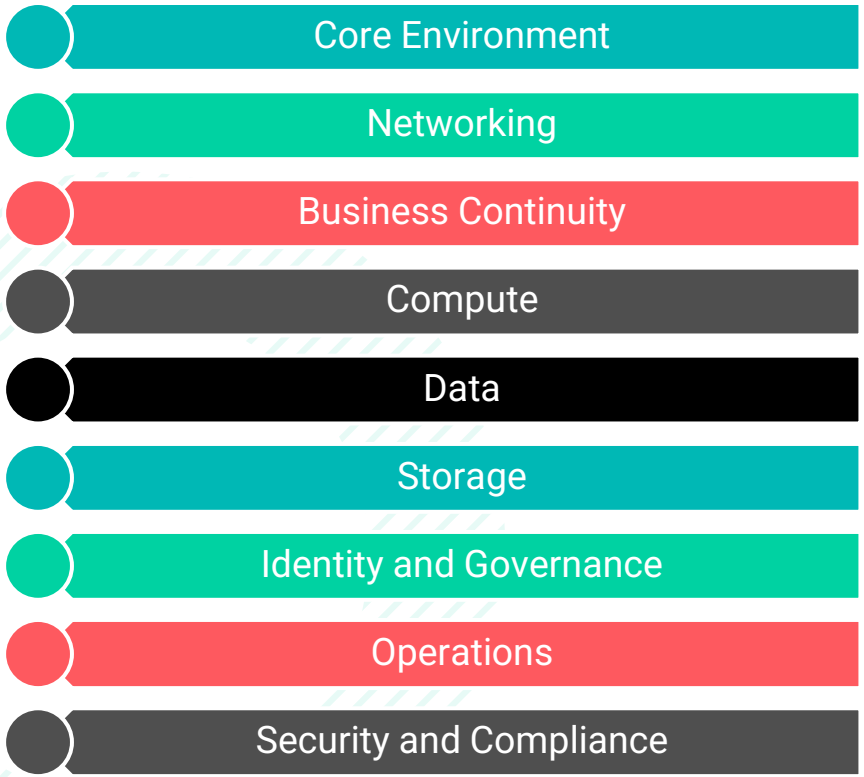
Azure Landing Zone Review

- The Azure Landing Zone Review evaluates **the Azure platform** and the environments current configurations, against a set of best practice recommendations shown in the diagram below.
- Full details of these recommendations will be found in the supporting Azure Landing Zone Review document.



Review Process

Review Focus	Azure Platform – Landing Zone
Review Format	4x Workshops
Review Structure	118 best practice reviews across 9 categories
Key Stakeholders	Infrastructure team, Solution Architects

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Well Architected Framework Review

- The Azure Well Architected Framework is a set of guiding principles that can be used to improve the quality of a **workload**.
- The framework consists of five pillars of architectural excellence and the full report will be found in the supporting Azure Well Architected Framework Review

Reliability	The ability of a system to recover from failures and continue to function.
Security	Protecting applications and data from threats.
Performance Efficiency	The ability of a system to adapt to changes in load.
Operational Excellence	Operations processes that keep a system running in production.
Cost Optimisation	Managing costs to maximise the value delivered.

Review Process

Review Focus	Workload
Review Format	3x Workshops
Review Structure	700+ questions across 5 pillars
Key Stakeholders	Cloud Platform team, Solution Architects

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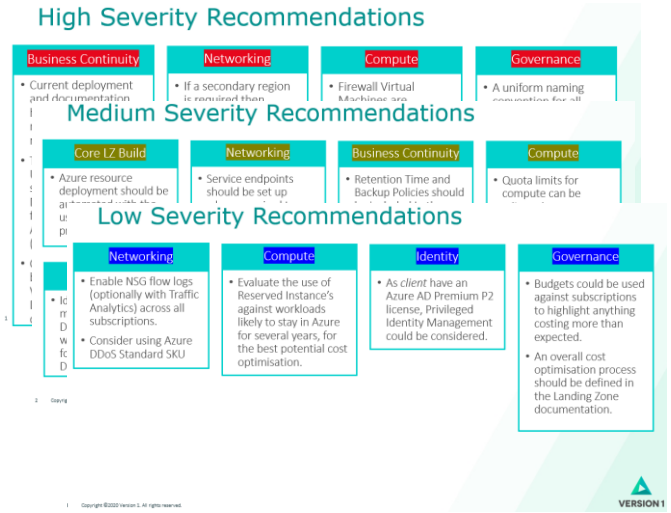
Deliverables

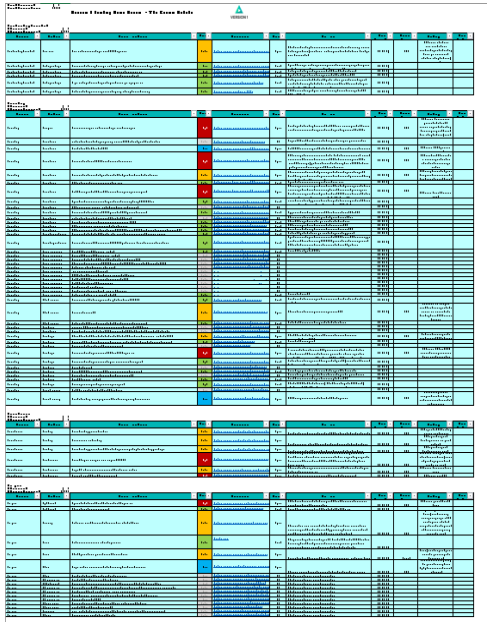
Summary report

Findings and recommendations categorised by severity



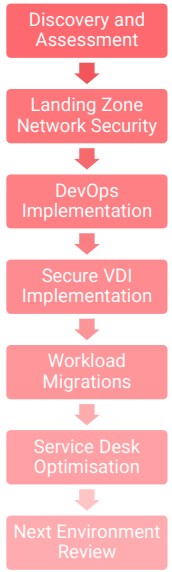
Detailed Spreadsheet

120+ assessed Azure best practices across the 5 pillars



Roadmap

Actionable plan based on severity and timelines



High severity recommendations are essential considerations, for the Azure infrastructure to align with the Cloud Adoption Framework.

Medium Severity recommendations are considerations that would strengthen the overall build for future deployment scenarios.

Low Severity recommendations are non-critical and extra items that can be considered to further strengthen the deployment.

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