Azure Landing Zone Architecture

Summary

This document provides a professional overview of the Azure landing zone architecture, designed for secure, scalable, and organized cloud environments. It is intended for architects, engineers, and stakeholders who need a clear reference for resource layout and network topology.

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How to Use This Document

Use this guide to quickly locate resource group, vNet, and subnet details for each Azure subscription. Tables are grouped for clarity. For design changes, update both this document and the Terraform configuration.

Architecture Summary

- Hub-and-spoke topology for secure, scalable networking
- Centralized connectivity and firewall management
- Segregated environments for production, non-production, shared services, and tenants

Resource Summary Table

Connectivity Subscription

Resource Groups:

- connectivityhub (centralus)
- connectivityhub-dr (eastus2)

connectivityhub (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-connectivityhub	10.50.0.0/16	public1	10.50.0.0/23
vnet-connectivityhub	10.50.0.0/16	public2	10.50.2.0/23
vnet-connectivityhub	10.50.0.0/16	firewall1	10.50.4.0/27
vnet-connectivityhub	10.50.0.0/16	firewall2	10.50.4.32/27

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-connectivityhub	10.50.0.0/16	private1	10.50.8.0/23
vnet-connectivityhub	10.50.0.0/16	private2	10.50.10.0/23

connectivityhub-dr (eastus2)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-connectivityhub-dr	10.70.0.0/20	public1	10.70.0.0/23
vnet-connectivityhub-dr	10.70.0.0/20	public2	10.70.2.0/23
vnet-connectivityhub-dr	10.70.0.0/20	firewall1	10.70.4.0/27
vnet-connectivityhub-dr	10.70.0.0/20	firewall2	10.70.4.32/27
vnet-connectivityhub-dr	10.70.0.0/20	private1	10.70.8.0/23
vnet-connectivityhub-dr	10.70.0.0/20	private2	10.70.10.0/23

Non-Prod Apps Subscription

Resource Groups:

- dev (centralus)
- sit (centralus)
- uat (centralus)
- performance (centralus)
- silver_eks (centralus)
- silver_eksgbd (centralus)
- gold_eks (centralus)
- gold_eksgbd (centralus)

dev (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-dev	10.60.0.0/21	subnet1	10.60.0.0/23
vnet-dev	10.60.0.0/21	subnet2	10.60.2.0/23
vnet-dev	10.60.0.0/21	subnet3	10.60.4.0/23

sit (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-sit	10.61.0.0/21	subnet1	10.61.0.0/23
vnet-sit	10.61.0.0/21	subnet2	10.61.2.0/23
vnet-sit	10.61.0.0/21	subnet3	10.61.4.0/23

uat (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-uat	10.62.0.0/21	subnet1	10.62.0.0/23
vnet-uat	10.62.0.0/21	subnet2	10.62.2.0/23
vnet-uat	10.62.0.0/21	subnet3	10.62.4.0/23

performance (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-performance	10.63.0.0/21	subnet1	10.63.0.0/23
vnet-performance	10.63.0.0/21	subnet2	10.63.2.0/23
vnet-performance	10.63.0.0/21	subnet3	10.63.4.0/23

silver_eks (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-silver-eks	10.10.0.0/16	routable1	10.10.0.0/23
vnet-silver-eks	10.10.0.0/16	routable2	10.10.2.0/23
vnet-silver-eks	10.10.0.0/16	nonroutable1	100.64.0.0/20
vnet-silver-eks	10.10.0.0/16	nonroutable2	100.64.16.0/20

silver_eksgbd (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-silver-eksgbd	10.10.4.0/16	routable1	10.10.4.0/23
vnet-silver-eksgbd	10.10.4.0/16	routable2	10.10.6.0/23
vnet-silver-eksgbd	10.10.4.0/16	nonroutable1	100.64.32.0/20
vnet-silver-eksgbd	10.10.4.0/16	nonroutable2	100.64.48.0/20

gold_eks (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-gold-eks	10.10.8.0/16	routable1	10.10.8.0/23
vnet-gold-eks	10.10.8.0/16	routable2	10.10.10.0/23
vnet-gold-eks	10.10.8.0/16	nonroutable1	100.64.64.0/20
vnet-gold-eks	10.10.8.0/16	nonroutable2	100.64.80.0/20

gold_eksgbd (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-gold-eksgbd	10.10.12.0/16	routable1	10.10.12.0/23
vnet-gold-eksgbd	10.10.12.0/16	routable2	10.10.14.0/23
vnet-gold-eksgbd	10.10.12.0/16	nonroutable1	100.64.96.0/20
vnet-gold-eksgbd	10.10.12.0/16	nonroutable2	100.64.112.0/20

Prod Apps Subscription

Resource Groups:

- prod (centralus)
- dr (eastus2)
- prd_eks (centralus)
- prd_eksgbd (centralus)
- dr_eks (eastus2)
- dr_eksgbd (eastus2)

prod (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-prod	10.80.0.0/21	subnet1	10.80.0.0/23
vnet-prod	10.80.0.0/21	subnet2	10.80.2.0/23
vnet-prod	10.80.0.0/21	subnet3	10.80.4.0/23

dr (eastus2)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-dr	10.81.0.0/21	subnet1	10.81.0.0/23
vnet-dr	10.81.0.0/21	subnet2	10.81.2.0/23
vnet-dr	10.81.0.0/21	subnet3	10.81.4.0/23

prd_eks (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-prd-eks	10.20.0.0/16	routable1	10.20.0.0/23
vnet-prd-eks	10.20.0.0/16	routable2	10.20.2.0/23
vnet-prd-eks	10.20.0.0/16	routable3	10.20.4.0/23
vnet-prd-eks	10.20.0.0/16	nonroutable1	100.65.0.0/20
vnet-prd-eks	10.20.0.0/16	nonroutable2	100.65.16.0/20

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-prd-eks	10.20.0.0/16	nonroutable3	100.65.32.0/20

prd_eksgbd (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-prd-eksgbd	10.20.4.0/16	routable1	10.20.4.0/23
vnet-prd-eksgbd	10.20.4.0/16	routable2	10.20.6.0/23
vnet-prd-eksgbd	10.20.4.0/16	routable3	10.20.8.0/23
vnet-prd-eksgbd	10.20.4.0/16	nonroutable1	100.65.32.0/20
vnet-prd-eksgbd	10.20.4.0/16	nonroutable2	100.65.48.0/20
vnet-prd-eksgbd	10.20.4.0/16	nonroutable3	100.65.64.0/20

dr_eks (eastus2)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-dr-eks	10.20.8.0/16	routable1	10.20.8.0/23
vnet-dr-eks	10.20.8.0/16	routable2	10.20.10.0/23
vnet-dr-eks	10.20.8.0/16	routable3	10.20.12.0/23
vnet-dr-eks	10.20.8.0/16	nonroutable1	100.65.64.0/20
vnet-dr-eks	10.20.8.0/16	nonroutable2	100.65.80.0/20
vnet-dr-eks	10.20.8.0/16	nonroutable3	100.65.96.0/20

dr_eksgbd (eastus2)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-dr-eksgbd	10.20.12.0/16	routable1	10.20.12.0/23
vnet-dr-eksgbd	10.20.12.0/16	routable2	10.20.14.0/23
vnet-dr-eksgbd	10.20.12.0/16	routable3	10.20.16.0/23
vnet-dr-eksgbd	10.20.12.0/16	nonroutable1	100.65.96.0/20
vnet-dr-eksgbd	10.20.12.0/16	nonroutable2	100.65.112.0/20
vnet-dr-eksgbd	10.20.12.0/16	nonroutable3	100.66.0.0/20

Shared Services Subscription

Resource Groups:

- tools (centralus)

- tools-dr (eastus2)

tools (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-tools	10.30.0.0/21	subnet1	10.30.0.0/23
vnet-tools	10.30.0.0/21	subnet2	10.30.2.0/23
vnet-tools	10.30.0.0/21	subnet3	10.30.4.0/23

tools-dr (eastus2)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-tools-dr	10.31.0.0/21	subnet1	10.31.0.0/23
vnet-tools-dr	10.31.0.0/21	subnet2	10.31.2.0/23
vnet-tools-dr	10.31.0.0/21	subnet3	10.31.4.0/23

Tenant Subscriptions

Resource Groups:

- tenant001 (centralus)
- tenant002 (centralus)

tenant001 (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-tenant001	10.40.0.0/24	subnet1	10.40.0.0/28
vnet-tenant001	10.40.0.0/24	subnet2	10.40.0.16/28

tenant002 (centralus)

vNet Name	vNet CIDR	Subnet Name	Subnet CIDR
vnet-tenant002	10.40.1.0/24	subnet1	10.40.1.0/28
vnet-tenant002	10.40.1.0/24	subnet2	10.40.1.16/28

Kubernetes/EKS Subscriptions

Policy Notes

> ⚠️ **Key Policies**
>
> - All routable subnets (`10.x.x.x`) are unique and non-overlapping across the landing zone.
> - Non-routable subnets (`100.x.x.x`) may overlap across resource groups.

- DR resource groups are deployed in `us-east2`; all others are in `us-central` unless otherwise specified.
- All public ingress/egress is routed through the connectivity subscription and firewall.
- No direct vNet peering between spokes; all cross-group traffic must traverse the hub.