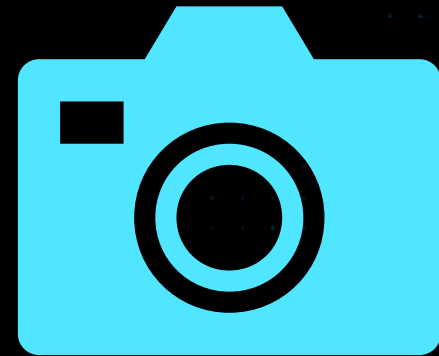
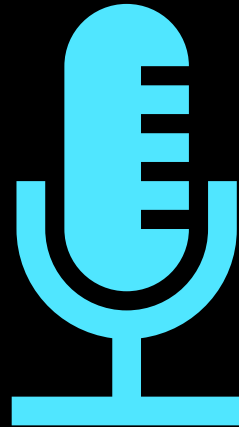
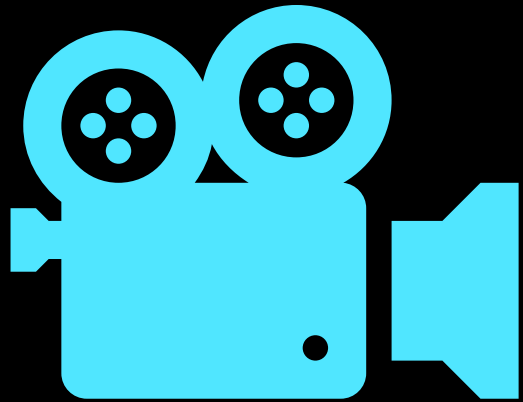




Enterprise Scale Landing Zones

17th November 2021 - Community Call





This meeting is being recorded



Agenda



- Welcome
- What's New?
- Bicep & AzOps Update
- Questions from the community -
<https://github.com/Azure/Enterprise-Scale/issues/803>
- Contributing
- Q & A



Before we get started...



At any point, if you have a question please put it
in the chat!

(we have the entire team here to help 😊)

Also we may stop and discuss your
question/point at that time, we want this to be
an open discussion with all of you 😊



Azure Enterprise Scale Landing Zones Survey

Thank you for your interest in Landing Zones in Azure.

* 1. Your **Work** Email Address:

* 2. Company Name:

* 3. What is your job role?

- Cloud Architect
- DevOps Engineer
- Cloud Engineer
- Systems Engineer
- Manager / Lead
- Partner (Managed Service Provider/SI)
- Developer
- Microsoft Cloud Solutions Architect (Microsoft Employee)
- Other (please specify)

* 4. What Enterprise Scale **Landing Zone (ESLZ)** implementation did your organization use?

- I deployed the Landing Zone via the **Azure Portal**
- I deployed the **Terraform** based Landing Zone
- I deployed the Landing Zone via the provided **PowerShell+ARM Templates** ([link](#))
- None
- Other (please specify in detail)



Engineering Team Survey

<https://aka.ms/es/survey>

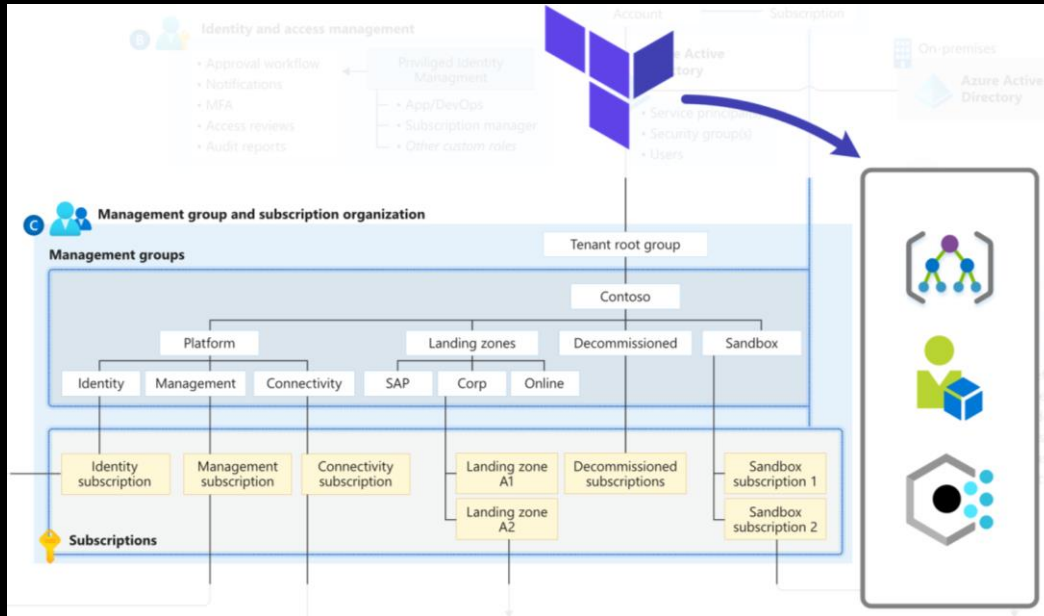
Share with everyone



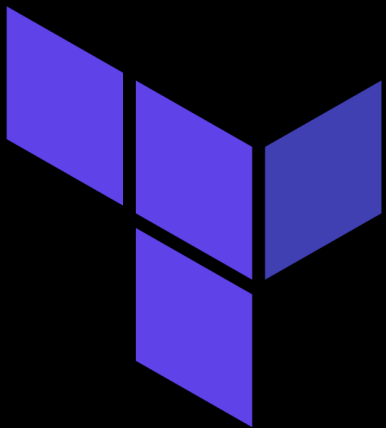
Terraform Modules

CAF-Enterprise-Scale

CAF-Enterprise-Scale



- **Now GA – V1.0.0**
- Official module authored and maintained by the Enterprise Scale team
- Delivers the components included in Enterprise Scale
- Native Terraform and can be run anywhere Terraform can be
- Parity with other Enterprise Scale implementation options and features – VWAN coming soon
- Simple to use, fully customisable if desired
- Useable in any operational approach
- HashiCorp Learn Module Available: <https://aka.ms/terraform-eslz/hashicorp-learn>
- Documentation has had a lot of focus and enhancements – checkout the [wiki](#)
- Working closely with the CAF-Terraform-LandingZones team to provide better messaging around how the modules can work together



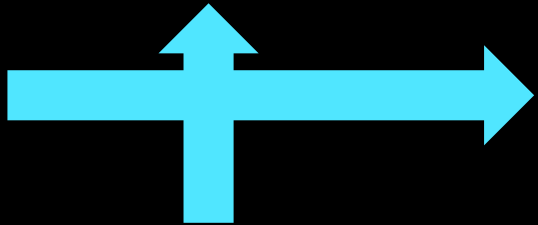


Updated & New FAQ pages

[Enterprise-scale FAQ - Cloud Adoption Framework | Microsoft Docs – Architecture](#)



[FAQ · Azure/Enterprise-Scale Wiki \(github.com\) – Implementation](#)



[Dev/Test/Prod Approach Guidance](#)



Enterprise-scale FAQ

10/21/2021 • 9 minutes to read • +2

This article answers frequently asked questions about enterprise-scale architecture.

For FAQs about implementing enterprise-scale architecture, see [Enterprise-scale implementation FAQ](#).

What is the Azure landing zone accelerator?

The Azure landing zone accelerator is an Azure portal-based deployment experience. It deploys an opinionated implementation based on the [Azure landing zone conceptual architecture](#).

What is the Azure landing zone conceptual architecture?

The Azure landing zone conceptual architecture represents lessons learned and feedback from customers who have implemented a landing zone. This conceptual architecture can help your organization implement a landing zone.

Is this page helpful?

Yes No

In this article

- [What is the Azure landing zone accelerator?](#)
- [What is the Azure landing zone conceptual architecture?](#)
- [What does a landing zone map to in Azure in the context of enterprise-scale architecture?](#)
- [What does policy-driven governance mean, and how does it work?](#)
- [Should we use Azure Policy to deploy workloads?](#)

FAQ

github-actions edited this page 12 days ago · 1 revision

In this Section

- [How long does enterprise-scale architecture take to deploy?](#)
- [Why are there custom policy definitions as part of enterprise-scale architecture?](#)
- [Where can I see the policy definitions used by enterprise-scale landing zones reference implementation?](#)
- [Why does enterprise-scale architecture require permission at tenant root '/' scope?](#)
- [The Azure landing zone accelerator portal-based deployment doesn't display all subscriptions in the drop-down lists?](#)
- [Can we use and customize the ARM templates for enterprise-scale architecture and check them into our repository and deploy it from there?](#)
- [What if we can't deploy by using the Azure landing zone accelerator portal-based experience, but can deploy via infrastructure-as-code?](#)
- [If we already deployed enterprise-scale architecture without using infrastructure-as-code, do we have to delete everything and start again to use infrastructure-as-code?](#)

Enterprise-scale FAQ

This article answers frequently asked questions relating to Enterprise-scale.

Some FAQ questions that relate more to the architecture are based over in the CAF docs here: [Enterprise-scale architecture FAQ](#)

How long does enterprise-scale architecture take to deploy?

Deployment time depends on the options you select during the implementation experience. It varies from around five minutes to 40 minutes, depending on the options selected.

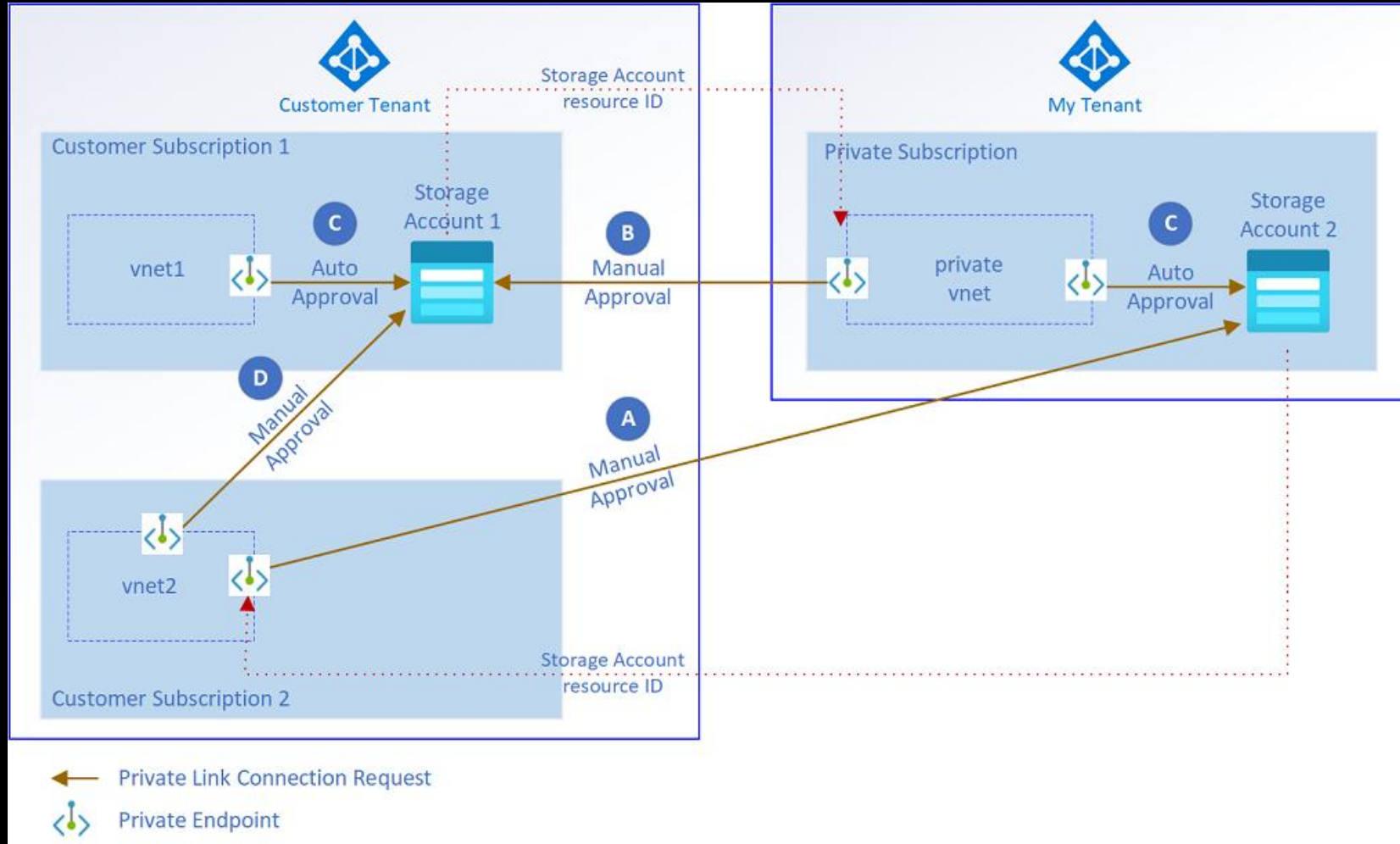
ESLZ RI update



- Added support for Fairfax and Mooncake
 - Full coverage for Fairfax, including Portal deployment experience
 - Mooncake is "DIY" only for now
- Full parity is work-in-progress, subject to built-in policy availability and services capabilities compared to public Azure
 - Dedicated policy initiative for Private DNS Zones and Public Endpoint
- Continuous validation in partnership with CSAs during their customer engagements in Mooncake and Fairfax



Limiting cross-tenant private endpoint connections



[Limit cross-tenant private endpoint connections in Azure - Cloud Adoption Framework | Microsoft Docs](#)



Don't Forget the "What's New?" page

<https://aka.ms/ES/WhatsNew>



Updates

Here's what's changed in Enterprise Scale:

November 2021

Docs

- *No updates, yet.*

Tooling

- *No updates, yet.*

Policy

- Replaced `Deploy-Default-Udr` policy with `Deploy-Custom-Route-Table` that allows deploying custom route tables with an arbitrary set of UDRs (including a 0/0 default route if needed)
- Updated `Deploy-Budget` policy, to v1.1.0, adding new parameter of `budgetName` that defaults to: `budget-set-by-policy` - closing issue [#842](#)
 - Including Fairfax
 - Also Mooncake (Azure China) even though not in use yet

Other

- *No updates, yet.*

October 2021

Docs

- Updates to [User Guide](#) to include instructions for deploying each of the reference implementations.
- Updated Deploying Enterprise Scale wiki page with updated workflow steps. (<https://github.com/Azure/Enterprise-Scale/pull/827>)
- Updated [implementation FAQ](#) and moved to the Wiki
- Added [architecture FAQ](#) to the CAF docs

Tooling

- Terraform Enterprise Scale Module reaches GA (V1.0.0) - [see release notes](#)
- ESLZ reference implementation updated with [built-in \(11\) policies for Azure Security Center](#), enforcing (DeployIfNotExists) Azure Security Center with Standard Tier for Azure Defender for the following services:
 - Kubernetes
 - App Services

We Want You!

<https://aka.ms/EnterpriseScale>



To contribute to ESLZ

- Create issues, bugs and feature requests
- Tell us where we can improve existing guidance or provide new guidance

Create an issue/feature request:

Update docs/wiki:

The screenshot shows the GitHub repository page for Azure/Enterprise-Scale. The main content area displays the 'Enterprise-Scale Landing Zones User Guide' with a navigation menu on the left. The navigation menu includes sections like 'What's New?', 'What is Enterprise-Scale?', 'How Enterprise-Scale Works', 'Deploying Enterprise-Scale', and 'Create subscriptions / landing zones using AzOps'. A 'Wiki content' sidebar on the right lists various pages under the 'Wiki' tab.

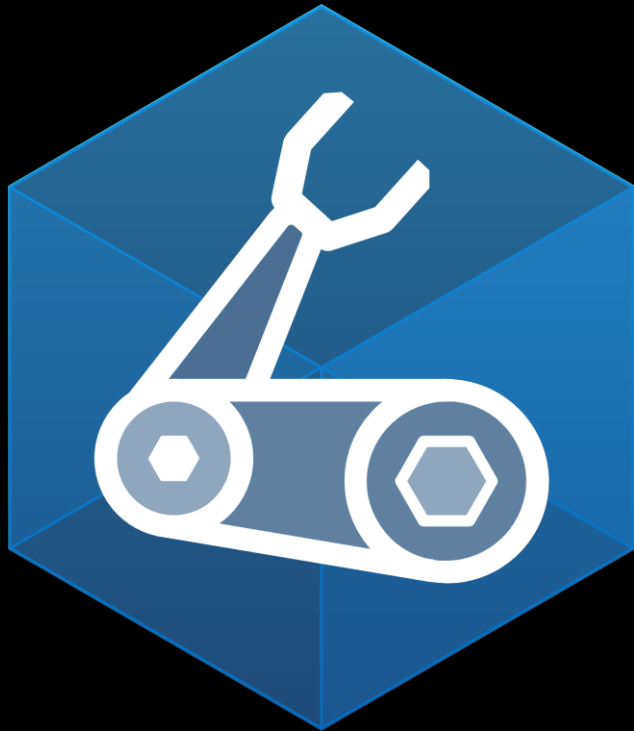
The screenshot shows the GitHub repository page for Azure/Enterprise-Scale, displaying the file browser view. The repository is on the 'main' branch. A table lists files and their commit history:

File	Commit	Time
.github	Update CODEOWNERS (#732)	15 days ago
docs	add EA docs update (#749)	14 hours ago
eslzArm	Update README.md (#741)	5 days ago
examples	Update link based on Page Link Bug Report 404 #739 (#744)	5 days ago
workloads	Network related details around routing and firewall for ARO in a priv...	18 days ago
.gitattributes	Initial Commit	15 months ago
.gitconfig	Initial Commit	15 months ago
.gitignore	Reference (#538)	4 months ago
CODE_OF_CONDUCT.md	Initial Commit	15 months ago
LICENSE	Initial Commit	15 months ago
README.md	new RI update (#584)	last month
SECURITY.md	Initial Commit	15 months ago
SUPPORT.md	Update support.md to include Trey Research (#615)	2 months ago

The 'README.md' file is selected, showing the title 'Enterprise-Scale - Reference Implementation'. The right sidebar shows repository statistics, including 74 unwatched items, 777 stars, and 478 forks. It also features a 'Contributors' section with 54 contributors and a 'Languages' section showing Bicep at 100.0%.



ALZ Bicep Update



- Coming soon! – *Aiming for November Public Preview*
- Using the latest Bicep features available in v0.4+
- Module Registries will come soon – GA timelines & v0.5
- Will initially deliver a Hub & Spoke topology (a.k.a. Adventure Works)
- Will look to add others soon after
- Is modular/staged/layered from the start
- Instructions on how to sequence and deploy are provided
 - Will also provide orchestration templates to sequence for you like the “Deploy To Azure” button experience today; but in a Bicep fashion
 - *More on this in next slide*
- Some Policy elements, likely to stay in JSON for reusability
 - Will document as to why and how to use etc.

ALZ Bicep Modules High Level



Modules

Orchestration Templates

Management Groups

Subscription Placement

Custom Policy Definitions

Policy Assignments

Logging & Automation

Hub Network - Traditional

Hub Network - VWAN

Custom Role Definitions

RBAC Role Assignments

Hub &
Spoke
(Adventure
Works)

VWAN
(Contoso)

No Hybrid
Connectivity
(Wingtip)

Public Preview
Goal

OR
OR



Users can choose an
orchestration
template

GA Goal

Simplest Path



ALZ Bicep Modules High Level



Modules

Flexibility Option 1

Management Groups

Subscription Placement

Custom Policy Definitions

Policy Assignments

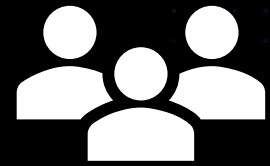
Logging & Automation

Hub Network - Traditional

Hub Network - VWAN

Custom Role Definitions

RBAC Role Assignments



Or users can choose to use individual modules (with sequencing guidance)



ALZ Bicep Modules High Level



Modules

Management Groups

Subscription Placement

Custom Policy Definitions

Policy Assignments

Logging & Automation

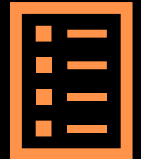
Hub Network - Traditional

Hub Network - VWAN

Custom Role Definitions

RBAC Role Assignments

Flexibility Option 2



OR

AND

Or users can choose to build their own orchestration module/s using individual modules (with sequencing guidance)



ALZ Bicep Modules High Level



Modules

Management Groups

Subscription Placement

Custom Policy Definitions

Policy Assignments

Logging & Automation

Hub Network - Traditional

Hub Network - VWAN

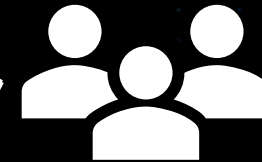
Custom Role Definitions

RBAC Role Assignments

Flexibility Option 3



OR



Or users can choose to build their own orchestration module/s using individual modules (with sequencing guidance)





AzOps Updates



AzOps – Recent Updates



- Wiki refresh
- AzOps Generator – Metadata enhancements
- Resource Deletion for autogenerated templates
 - Microsoft.Authorization/RoleAssignments
 - Microsoft.Authorization/PolicyAssignments
- Bug fixes and general improvements to the code base 😊



AzOps – Future Updates

- Enhanced test framework to simplify contributions
- Github Actions OIDC support
- Enhancements to autogenerated templates
- ...





Demo





What does “evergreen” mean to you?

Let us know in the feedback survey – Question 2

<https://aka.ms/ESLZCommunitySurvey>



Questions From The Community



- <https://github.com/Azure/Enterprise-Scale/issues/803>
- When to use deploy if not exists for deploying resources. When to deploy resources the regular way? - <https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/ready/enterprise-scale/faq#should-we-use-azure-policy-to-deploy-workloads>
- policies.json is 15,000+ lines in size. How to manage this best? – We are still looking to split this up and do, do this in the Bicep implementation. Could you provide a suggestion on how you would like it to look and why?
- We require elevation for many of our deployment types (Azure and Windows Server Active Directory operations, certificate access, principal management). Currently we don't see a clear way to apply elevation into bicep modules. What is your guidance? - ARM/Bicep is mainly focussed on the control/management plane for resources and not the data plane. Suggest opening an issue on the Bicep repo for further guidance and discussion: <https://github.com/Azure/bicep>
- There seems a cut between the landing zone and the use case side. Is there anything to be expected on the use case side? – Assuming you are referring to the split between platform and application workload landing zones, this is by design as the ESLZ is Application-centric and archetype-neutral (design principle). AzOps is designed to handle the platform side, although it can be used for application/service deployment in a centralised operational model. Empowering application/service teams to have autonomy to deploy themselves is the preferred approach and intention within ESLZ.
- What is your opinion on AzOps? – Let's discuss this further





Q & A



Azure Enterprise Scale Landing Zones Survey

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Engineering Team Survey

<https://aka.ms/es/survey>

Share with everyone





Thank You!

<https://aka.ms/ESLZCommunitySurvey>



Stay up-to-date:

<https://aka.ms/es/whatsnew>