I'm part of Azure Spring Clean 2025

Tips and tricks to automate resource governance with Azure Bicep

Elkhan Yusubov

Elkhan Yusubov

Speaker | Author | Architect

Founder of #CloudMarathoner

@ElYusubov

Elkhan is a Director of Cloud & Infrastructure, and an Architect Manager, a Microsoft Azure MVP and MCT with experience in cloud solutions, enterprise healthcare systems and data, and API standards (HL7 FHIR, EDI X12).

He is an active Microsoft Tech Community Contributor, Cloud Lunch and Learn Co-organizer, Learn Expert and MCT Community Lead, and as well as a LinkedIn instructor with interests in Architecture, DevOps & Security.

He is a frequent speaker at tech meetups and has volunteered for Give Camps, Microsoft Community Days, Code camps, Azure Data Fest, SQL Saturdays, Global Azure and Microsoft community events, like this one.

And please, checkout his blog posts at Cloud Marathoner site below.

https://theCloudMarathoner.com

T-Rex Solutions

▶ IT Engineering Services

Agile Transformation
Cloud Adoption & Infrastructure Optimization
Cybersecurity
Data Engineering & Analytics

▶ Customer Experience

Technology Adoption
Release Management
Communications Management
Change Management

▶ Health IT

EHR Strategy & Management
HIPAA Compliance
Healthcare System Integration & Testing
Patient Experience Enhancement

Defense Health Agency
ICE
Intel Community
USAF
US TRANSCOM
Defense Information Systems Agency
General Services Administration
Education
Treasury
United States® Census Bureau

Company Info

- **Established:** 1999
- **Legal Structure:** LLC
- **Headquarters:** Bethesda, MD
- **SDVOSB Joint Ventures**
- **CMMI-DEV & SVC Level 3 v2.0**
- **ISO 9001; ISO27001; ISO20000**

Prime Vehicles/BPAs:

- GSA MAS HACS SIN
- GSA MAS Cloud SIN
- GSA MAS IT Svcs SIN
- COBRA OTA
- CIO-SP3 Small Business
- 8(a) STARS III via MPJV
- GSA MAS HACS SB & Cloud SIN SB via MPJV

Silver Microsoft Partner

Silver Datacenter
Silver Data Analytics
Silver Data Platform
Silver App Dev
Silver App Integration

aws Select Consulting Partner

CMMI SVC /3
CMMI DEV /3

T-REX cares

T-Rex has donated **over $3.5M** in support of underserved youth, veterans, and local organizations.

TOP WORK PLACES 2023-2024 The Washington Post

Top Cloud Vendor 2017-2019 GovWin

#1 Bloomberg Government Government Cloud Support Services PROVIDER 2016-21

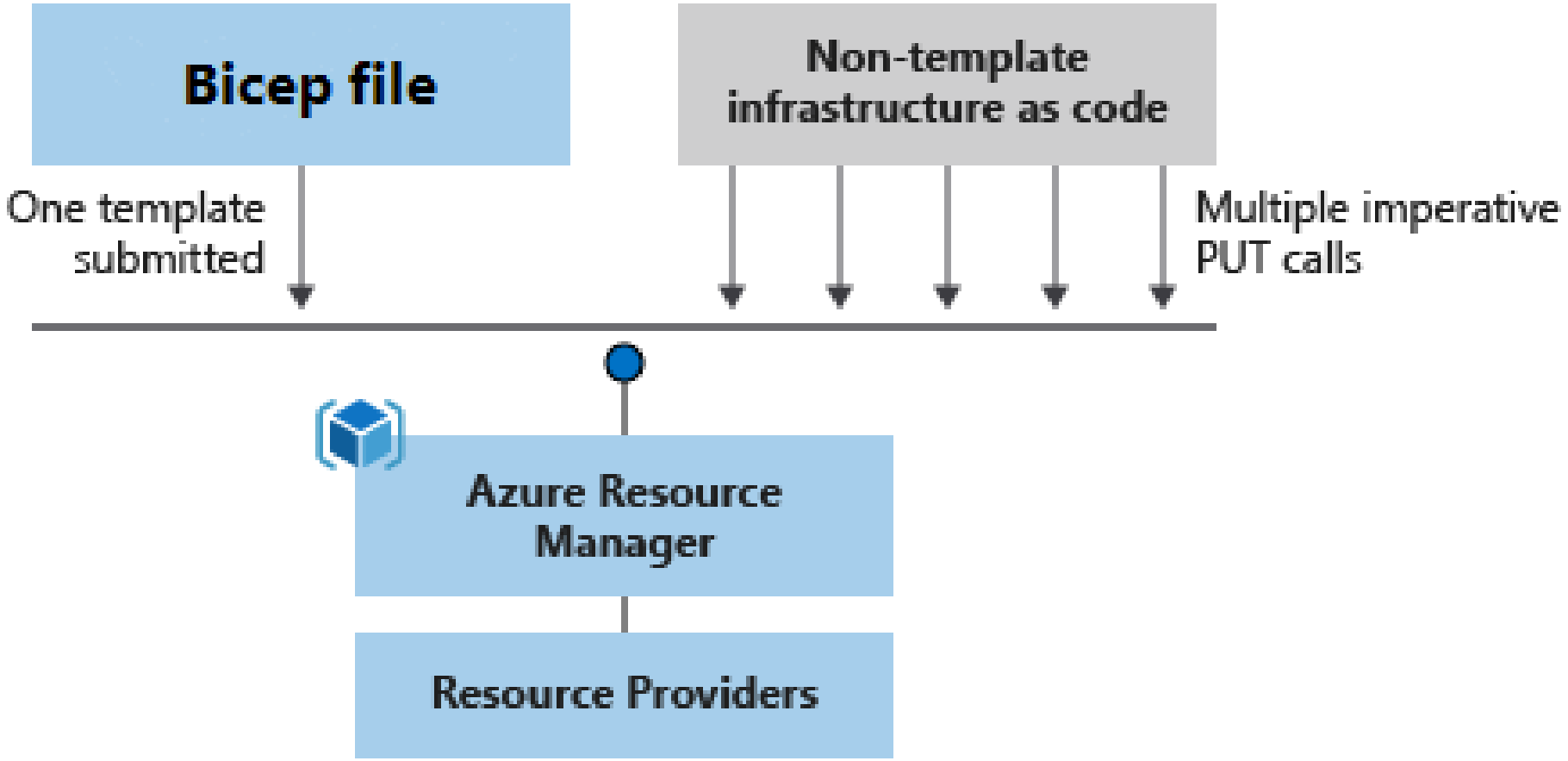
What we will cover

- Express intro to Azure Bicep & Policy
- Built in Azure Policies
- Policy lifecycle management
- Best Practices
- Demos

What is Azure Bicep?

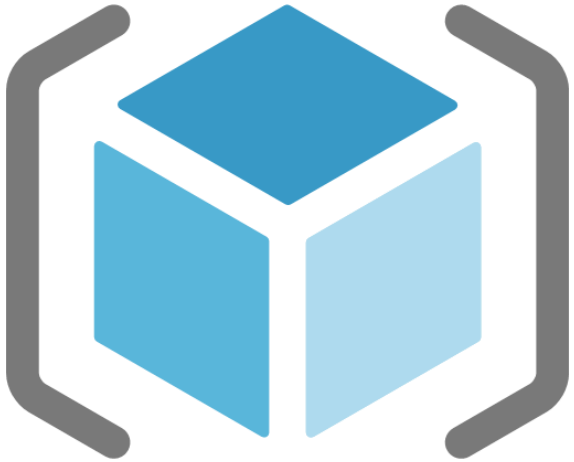
- Domain Specific Language (DSL)
- Authoring and managing Azure resources
- Transparent abstraction over ARM
- IaC for Microsoft Azure

Relationship between Bicep and ARM



Azure Bicep Benefits

- Easy to understand and maintain
- Day Zero support
- Transparent abstraction
- Awesome tooling in VS Code
- Clean code syntax
- Code re-use and modularity
- Deep integration with Azure
- Preflight validation
- No state management
- Production support



How to start with Azure Bicep?

AWESOME Azure Bicep 💪

awesome | Markdown Link Checker passing

A curated list of AWESOME blogs, videos, tips-and-tricks, codes, tools, and scripts. Hand-picked tips and tricks to help you learn Azure Bicep and get you ready to start deploying Azure resources to your favorite environment(s).

> Community contributions are very welcome! Check out the contribution guide and submit a **Pull Request** with your adds/removes/changes to the content!

Table Of Contents

- AWESOME Azure Bicep 💪
  - Table Of Contents
  - Official
    - Microsoft Learn
    - Docs
    - Videos
    - Announcements and Articles
    - Repositories
  - Community
    - Videos

243 stars
9 watching
75 forks

Releases 5

v4.1.0 Latest
on Aug 17

+ 4 releases

Packages

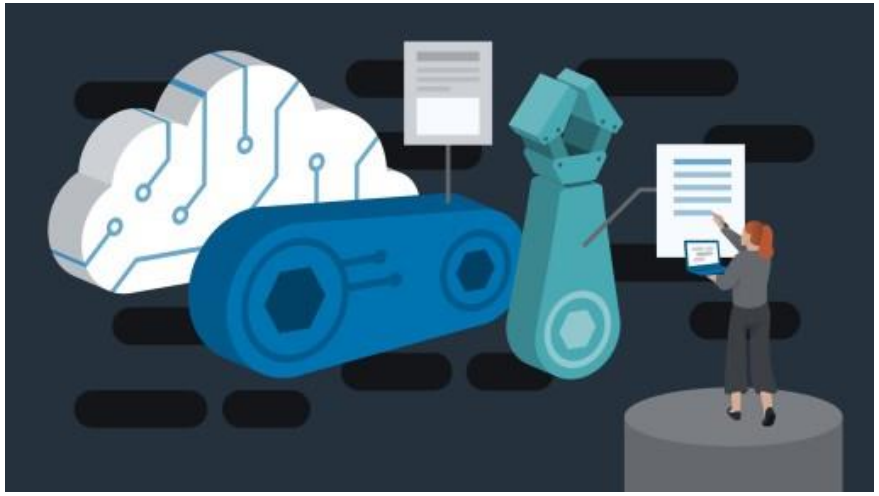
No packages published
Publish your first package

Contributors 12

What is Azure Policy?

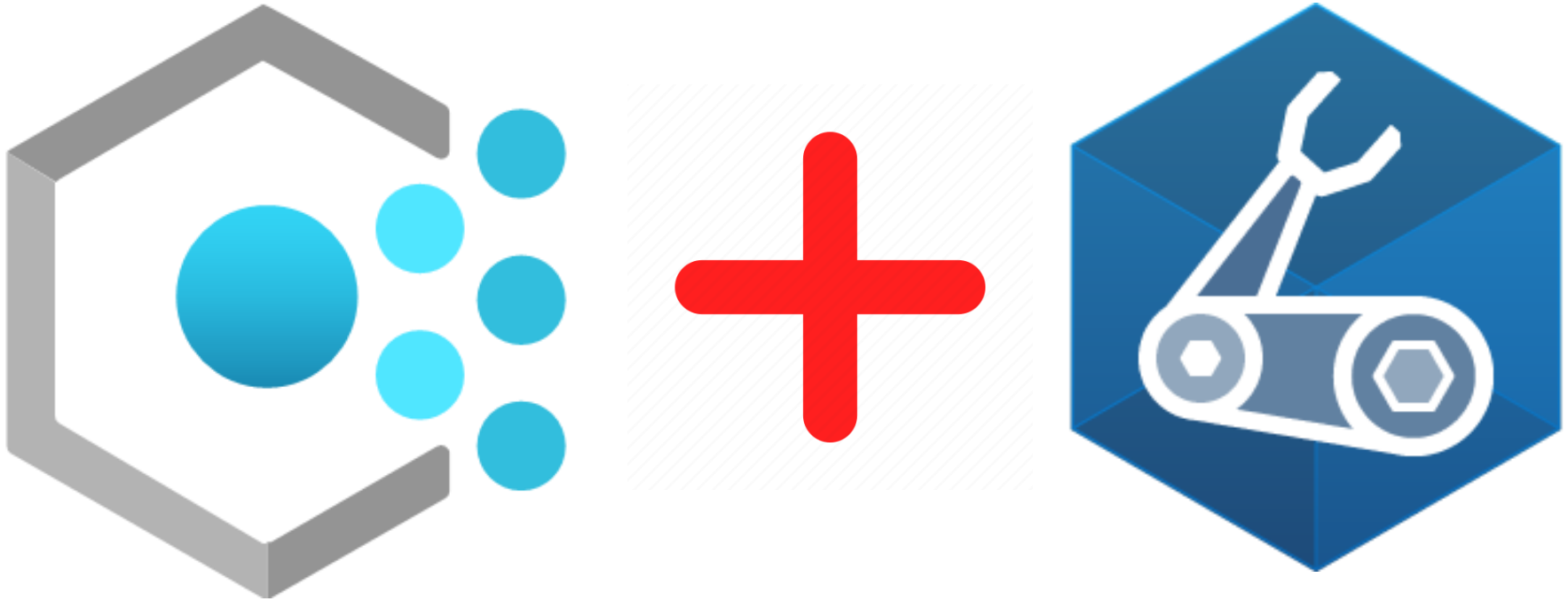
- Domain Specific Language (DSL)
- Authoring and managing Azure resources
- Transparent abstraction over ARM
- IaC for Microsoft Azure

Azure Bicep courses on LinkedIn

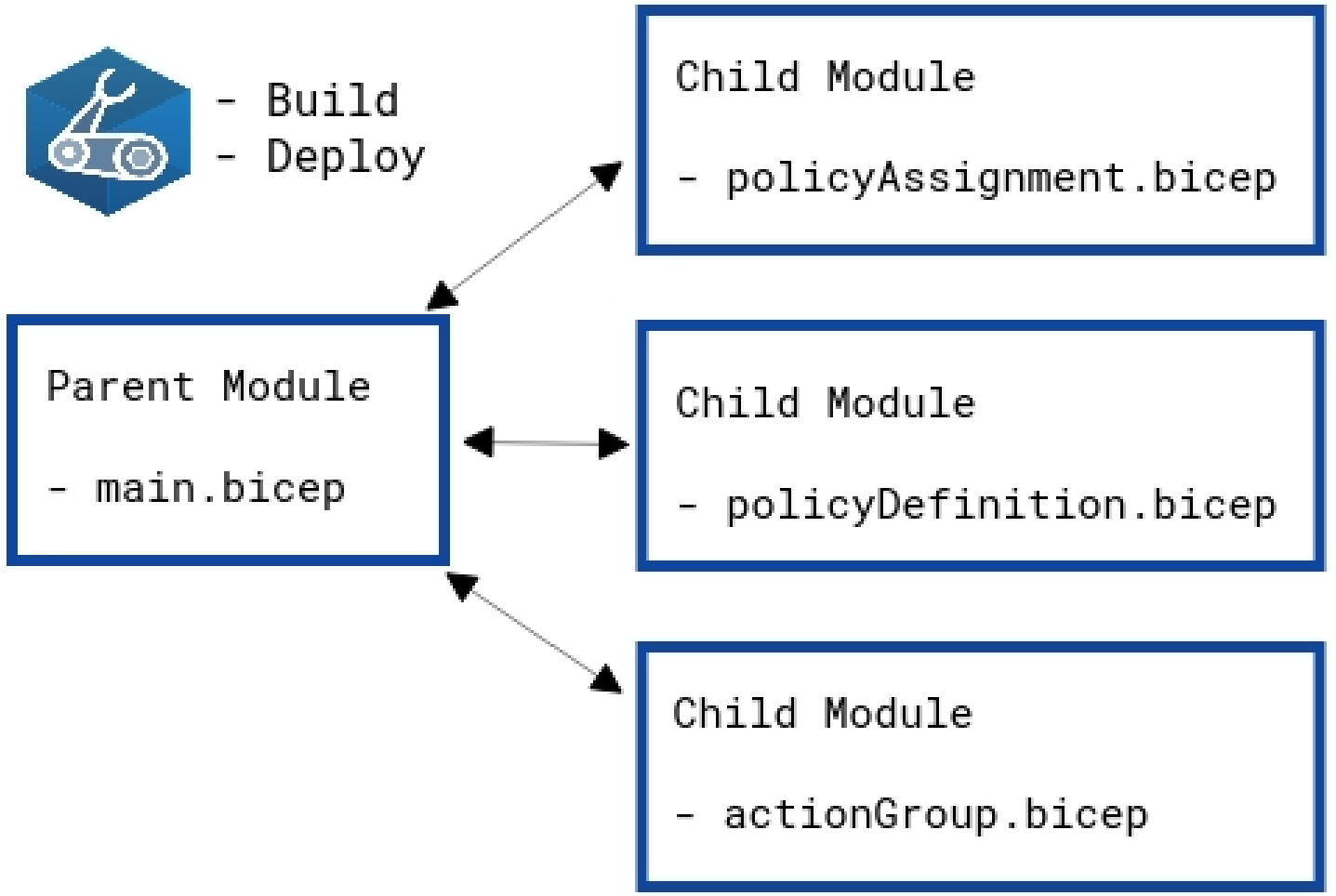


https://theCloudMarathoner.com

Azure Policy with Bicep

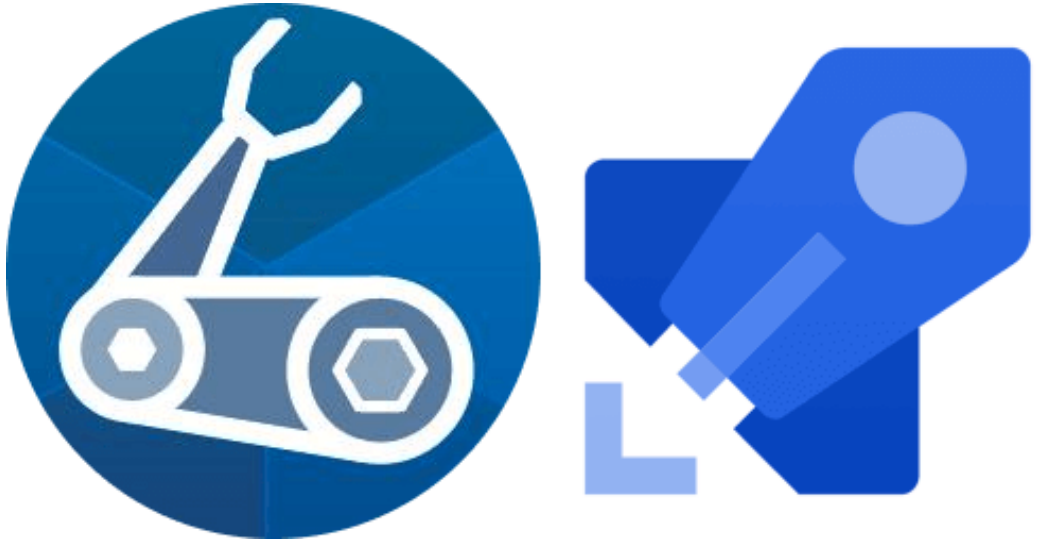


Azure Policy + Bicep



Azure Bicep Tips + Demo

- Modularize your infrastructure code
- Bicep Public & Private Registry
- Bicep Visualizer
- Code snippets
- Auto generated parameters



What we covered

- Express intro to Azure Bicep & Policy
- Built in Azure Policies
- Policy lifecycle management
- Best Practices
- Demos

What is next?

Learn Bicep – GitHub

Azure Bicep First Look 📽

Building IaC with 💪 Part 1 📽

Bicep Project - GitHub

AWESOME 💪 - GitHub

Thank you !

https://www.azurespringclean.com

Elkhan Yusubov
Speaker | Author | Cloud Architect
Founder at #cloudmarathoner

https://theCloudMarathoner.com 🌥️🏃🏃