

Flexing your EUC muscles with Bicep.



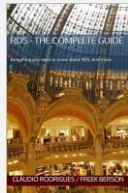
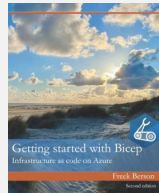
Freek Berson

Principal Product Manager 

Microsoft MVP 

Published Author

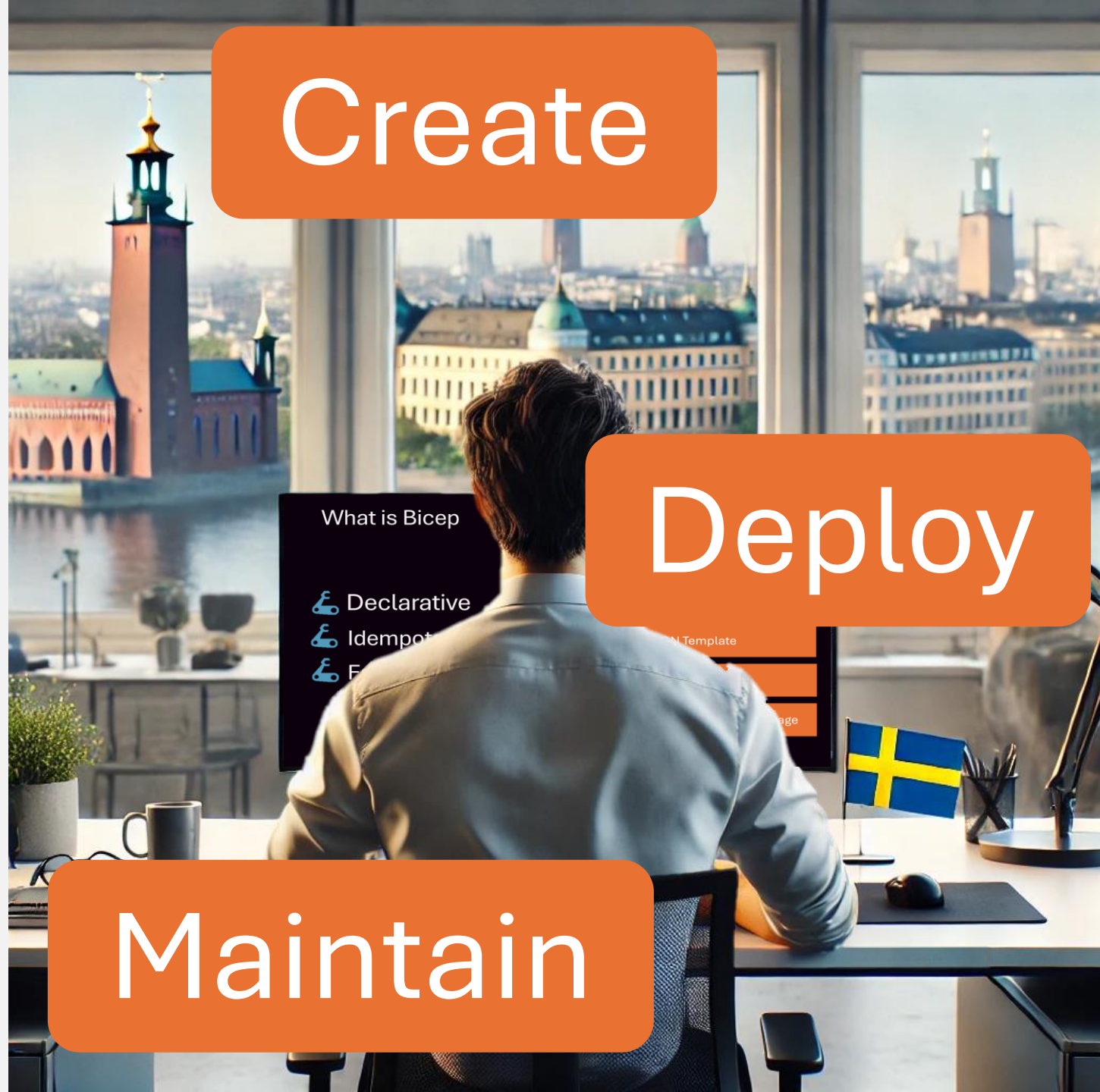
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Create

Deploy

Maintain






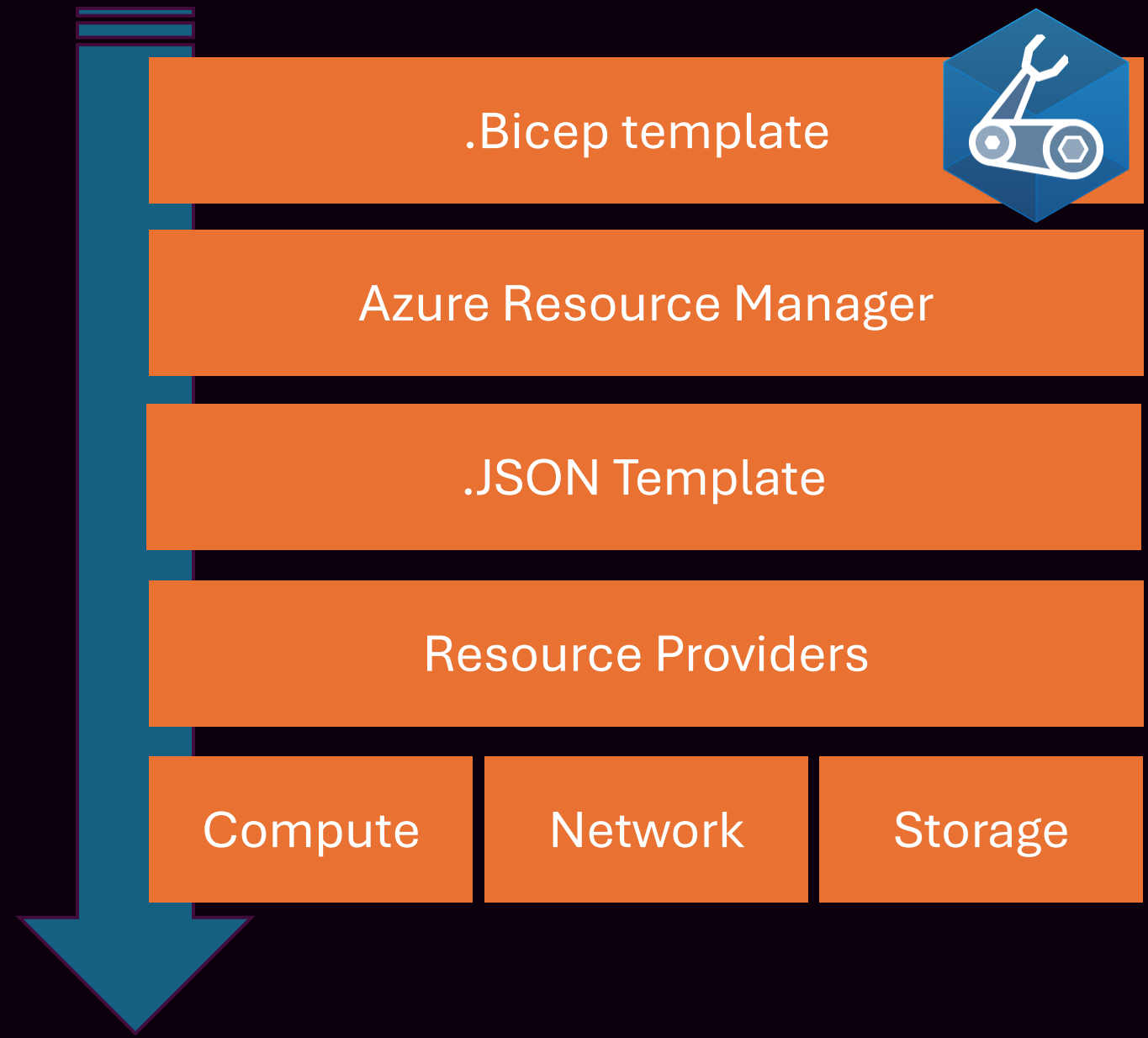
The background of the slide is a stylized, monochromatic orange-toned image of a city skyline, likely New York City, featuring prominent skyscrapers like the Empire State Building. Overlaid on this image is a complex network of thin, vertical and horizontal lines, along with various geometric shapes like squares and hexagons, suggesting a digital or data-driven environment. The overall aesthetic is futuristic and tech-oriented.

Infrastructure as Code

The practice of managing & provisioning computing infrastructure through declarative configuration files.

What is Bicep

-  Declarative
-  Idempotent
-  Fast



1. Create

Optimize the coding experience with the Bicep VSCode Extension

2. Deploy

Take advantage of the Bicep Deployment Pane

3. Maintain

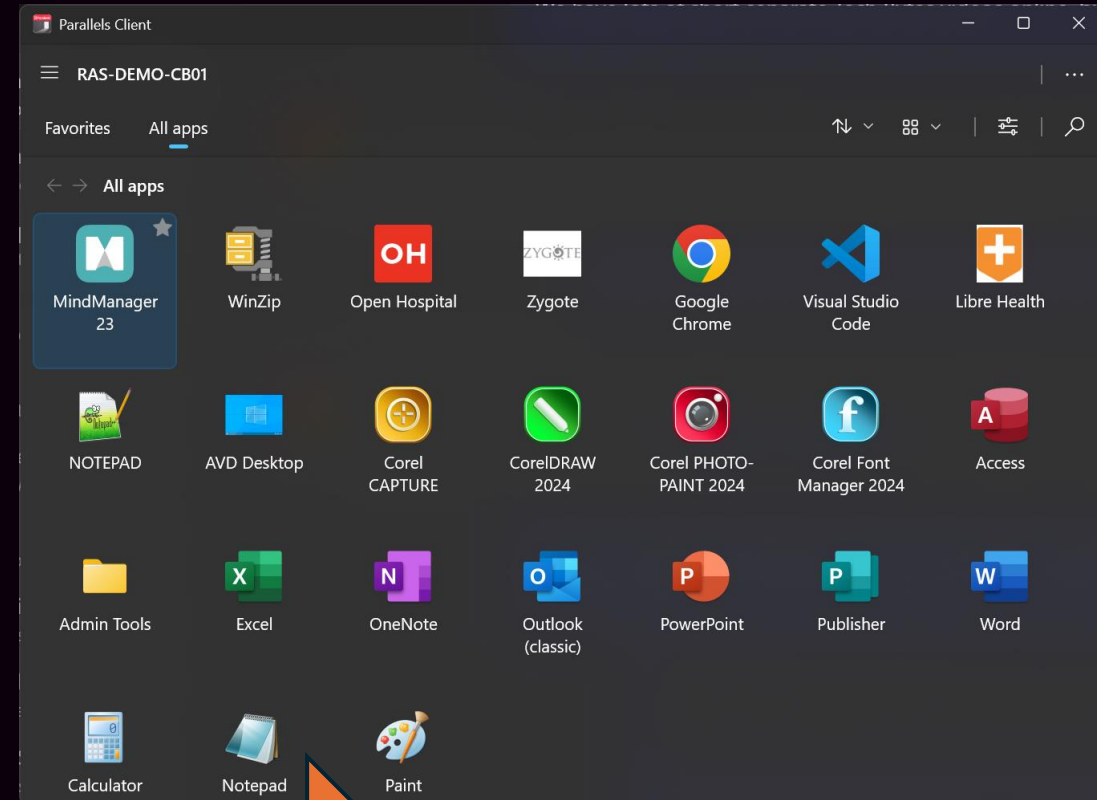
Embracing Deployment Stacks

4. EUC Use case

Deploy Parallels RAS in Azure

Demo: Parallels RAS in Azure in 12 minutes

```
mainTemplate.bicep
Transaction > mainTemplate.bicep > subnetNameCB
191 resource connectionBrokerVM 'Microsoft.Compute/virtualMachines@2023-07-01' = [
210 ]
211
212 resource connectionBrokerVM 'Microsoft.Compute/virtualMachines@2023-07-01' = [
213   for i in range(1, numberOfCBs): {
214     name: '${prefixCBName}-${padLeft(i, 2, '0')}'
215     location: location
216     properties: {
217       osProfile: {
218         computerName: '${prefixCBName}-${padLeft(i, 2, '0')}'
219         adminUsername: localAdminUser
220         adminPassword: localAdminPassword
221         windowsConfiguration: {
222           enableAutomaticUpdates: false
223           patchSettings: {
224             patchMode: 'Manual'
225           }
226         }
227       }
228       hardwareProfile: {
229         vmSize: vmSkuCB
230       }
231       storageProfile: {
232         imageReference: {
233           publisher: 'MicrosoftWindowsServer'
234           offer: 'WindowsServer'
235           sku: vmOSCB
236           version: 'latest'
237         }
238         osDisk: {
239           createOption: 'FromImage'
240         }
241       }
242       networkProfile: {
243         networkInterfaces: [
244           {
245             properties: {
246               primary: true
247             }
248             id: ConnectionBrokerNic[i - 1].id
249           }
250         ]
251       }
252     }
253   }
254 ]
255
256 resource connectionBrokerDJ 'Microsoft.Compute/virtualMachines/extensions@2023-09-01' = [
257   for i in range(1, numberOfCBs): {
258     parent: connectionBrokerVM[i - 1]
259     name: 'joindomain'
260     location: location
261     properties: {
262       publisher: 'Microsoft.Compute'
263       type: 'JoinDomainExtension'
264       typeHandlerVersion: '1.3'
265       autoUpgradeMinorVersion: true
266       settings: {
267         name: domainName
268         ouPath: ouPath
269         user: user
270         rest: rest
271         opti: opti
272       }
273       protect: protect
274       Pass: Pass
275     }
276   }
277 ]
278
279
280 resource connectionBrokerPrimaryRAS 'Microsoft.Compute/virtualMachines/extensions@2023-07-01' = [
281   for i in range(1, 1): {
```



Full Parallels RAS Deployment in ~12 minutes

Azure Marketplace Transactional Offer



Deployment package ZIP file

mainTemplate.json
ARM template

createUiDefinition.json
Deployment UI definition

Basics VM Credentials Connection Broker settings Secure Gateway settings **Provider settings** Manage

Configure the provider details to pre-create an Azure or Azure Virtual Desktop (AVD) provider in Parallels RAS. This is optional and can also be configured later in the Parallels RAS Console.

Select a Parallels RAS provider to create *

- ☒ Azure Virtual Desktop (AVD)
- ☐ Azure (IaaS)
- ☐ Do not create a provider

Provider name *

Provider app registration name *

Host pool virtual network *

- ☐ Use the same virtual network settings as the Connection Broker
- ☒ Specify virtual network settings

Virtual network

Subnet *

10.10.10.0 - 10.10.10.255 (256 addresses)

Parallels Remote Application Server

Parallels®

Azure Marketplace License

Registering Azure Marketplace license...

Password:

☒ Remember credentials

Edit connections... Connect Cancel

Farm - ras-cb-1

Site - ras-cb-1

- RD Session Hosts
- VDI
- Remote PCs
- Providers
- Secure Gateways
- Connection Brokers
- Enrollment Servers
- HALB
- Themes
- Certificates
- Settings

Site Designer

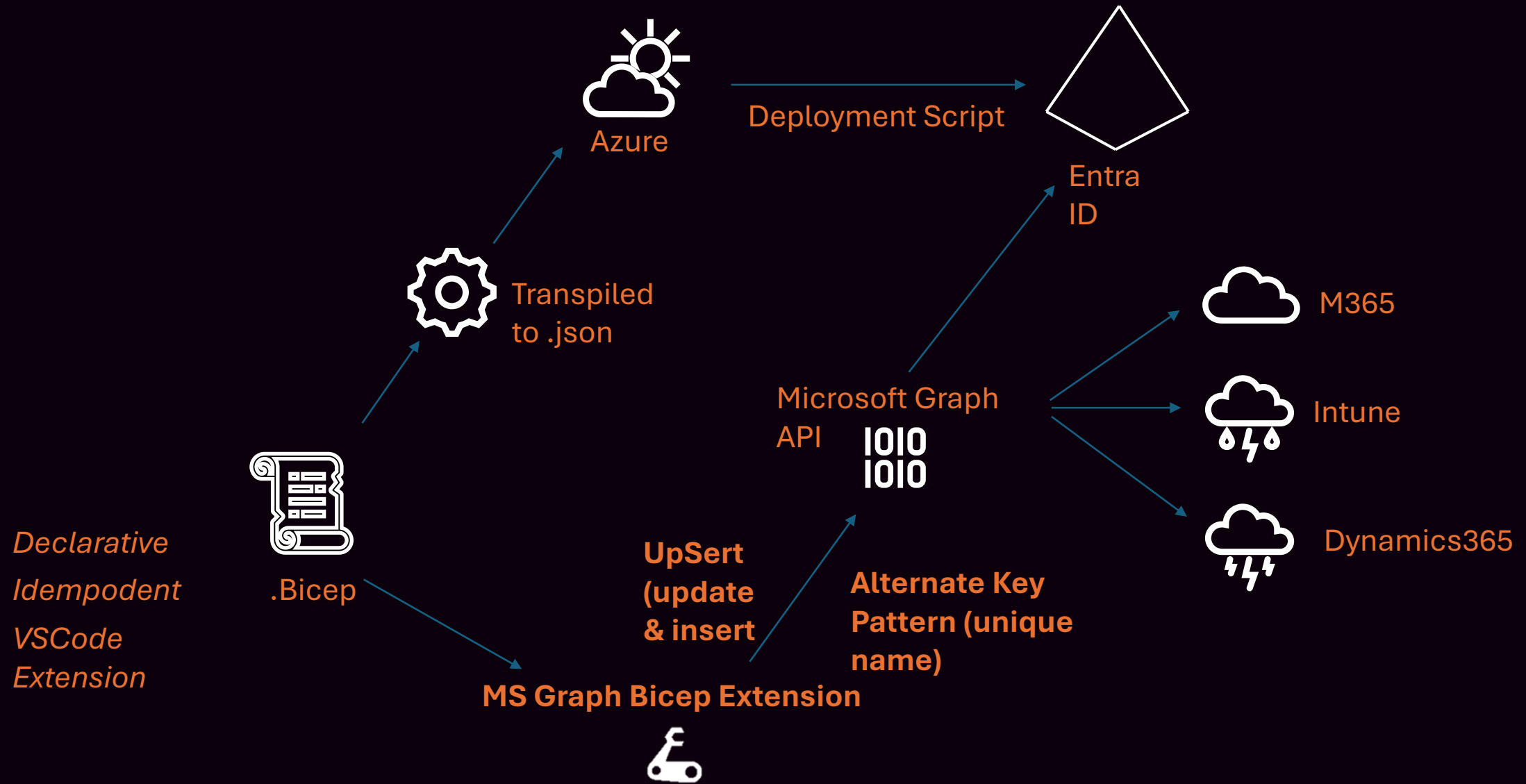
Name	Priority	Status
Providers		
AVD-Provider		OK
Secure Gateways		
ras-sg-1.prasmpdemo.com		OK
ras-sg-2.prasmpdemo.com		OK
Connection Brokers		
ras-cb-1.prasmpdemo.com	Primary	OK
ras-cb-2.prasmpdemo.com	Secondary	OK

Purchase and deploy Parallels RAS in any Azure Subscription and any region!

4. Advanced topics

Graph API

Graph API & Bicep



Graph API & Bicep

In v1.0, only these services are supported:

- Applications
- App role assignments
- Federated identity credentials
- Groups
- OAuth2 permission grants (delegated permission grants)
- Service principals

Members of groups are implemented as non-destructive

Owners of groups are limited to 100

**!! Update to owners & members requires breaking change update
(released via dynamic types)**

Sensitive GA ETA is end of this year or early next year



Limitation

Thank you and call to Action!

Bicep MS Docs:
[Aka.ms/bicep](https://aka.ms/bicep)

Bicep Monthly Community call ★ → *Next community call: Dec 5th*
surveymonkey.com/r/ARMnews

Bicep GitHub location
github.com/Azure/bicep

Bicep Learning path
docs.microsoft.com/en-us/azure/azure-resource-manager/bicep/learn-bicep

Azure automated deployment ★
github.com/Parallels/RAS-PowerShell/tree/master/RAS-Azure-Marketplace



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Microsoft MVP (AVD & Azure)
Published Author

Parallels
Enabled by
Alludo™

