TECH FEST 2021

Empowering your WVD deployments with Project Bicep, experiences from the field!

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TECH FEST 2021

Thank you to our partners

AMD

ezeep by ThinPrint

IGEL

NetApp

sepago

nerdio

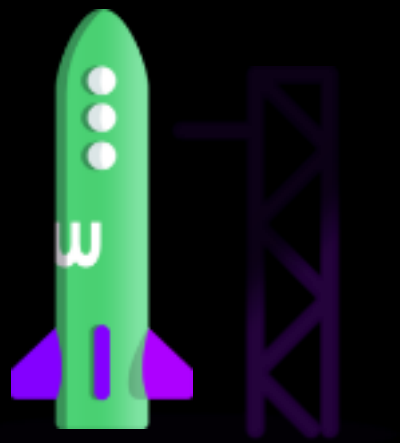
2017, Orlando FL

What is the main driver behind automation in Azure?

\+

Having fast, and consistent yet customizable deployments that are reproducible in any Azure Subscription.

Agenda



Quick intro into ARM, JSON & AIB

Project ‘Bicep’ architecture

Full WVD deployment demo!

Step 3. Azure DevOps

Your subscription—your control

Desktops and remote apps

- Full Desktop
- RemoteApp
- Windows 10 Enterprise multi-session
- Windows 10 Enterprise
- Windows Server 2012 R2 and newer
- Windows 7 Enterprise Full Desktop

Management and policies

- Image, app, and profile management
- User density, VM sizing, and scaling policies
- User management and identity
- Networking policies

Step 2. Azure Image Builder

Step 1. WVD deployment

Managed by Microsoft

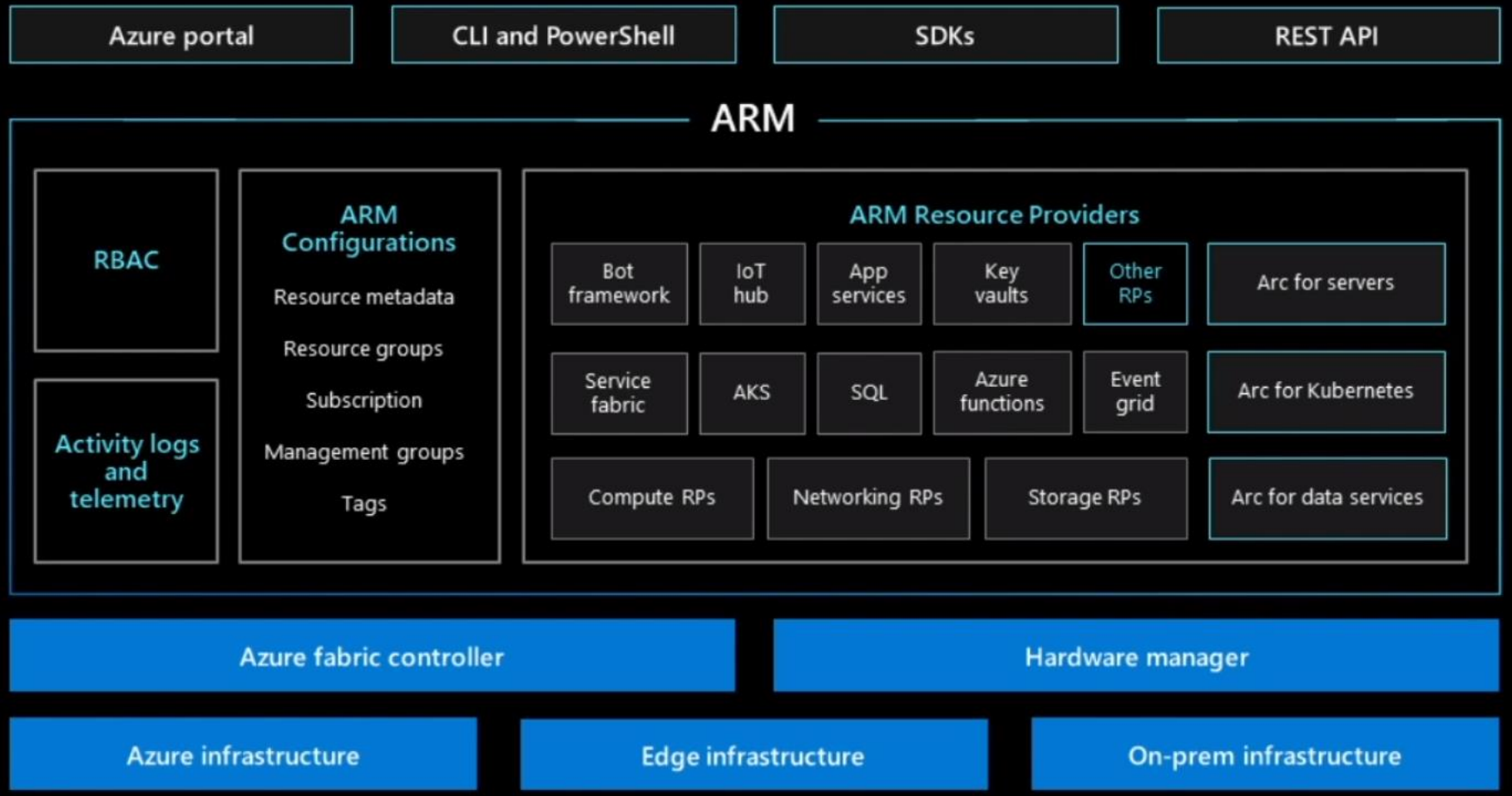
Windows Virtual Desktop Service

- Clients
- Diagnostics
- Gateway
- Management
- Broker
- Load balancing

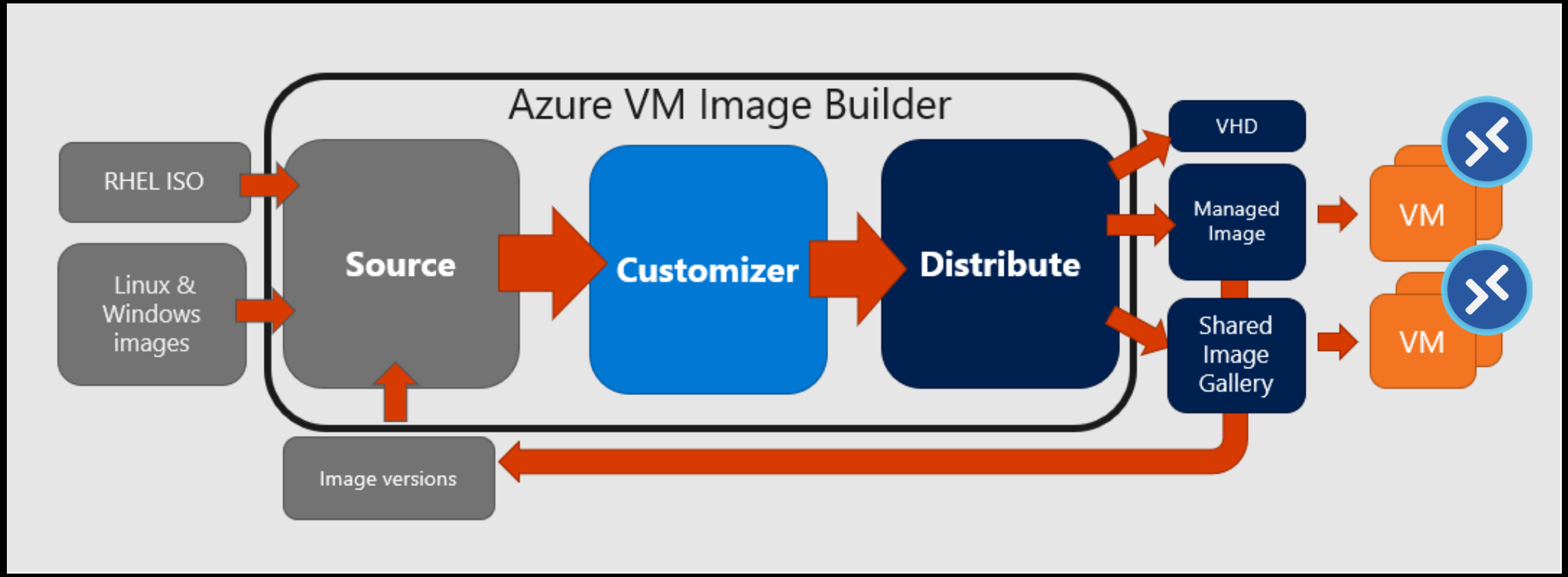
Infrastructure

- Compute
- Storage
- Networking

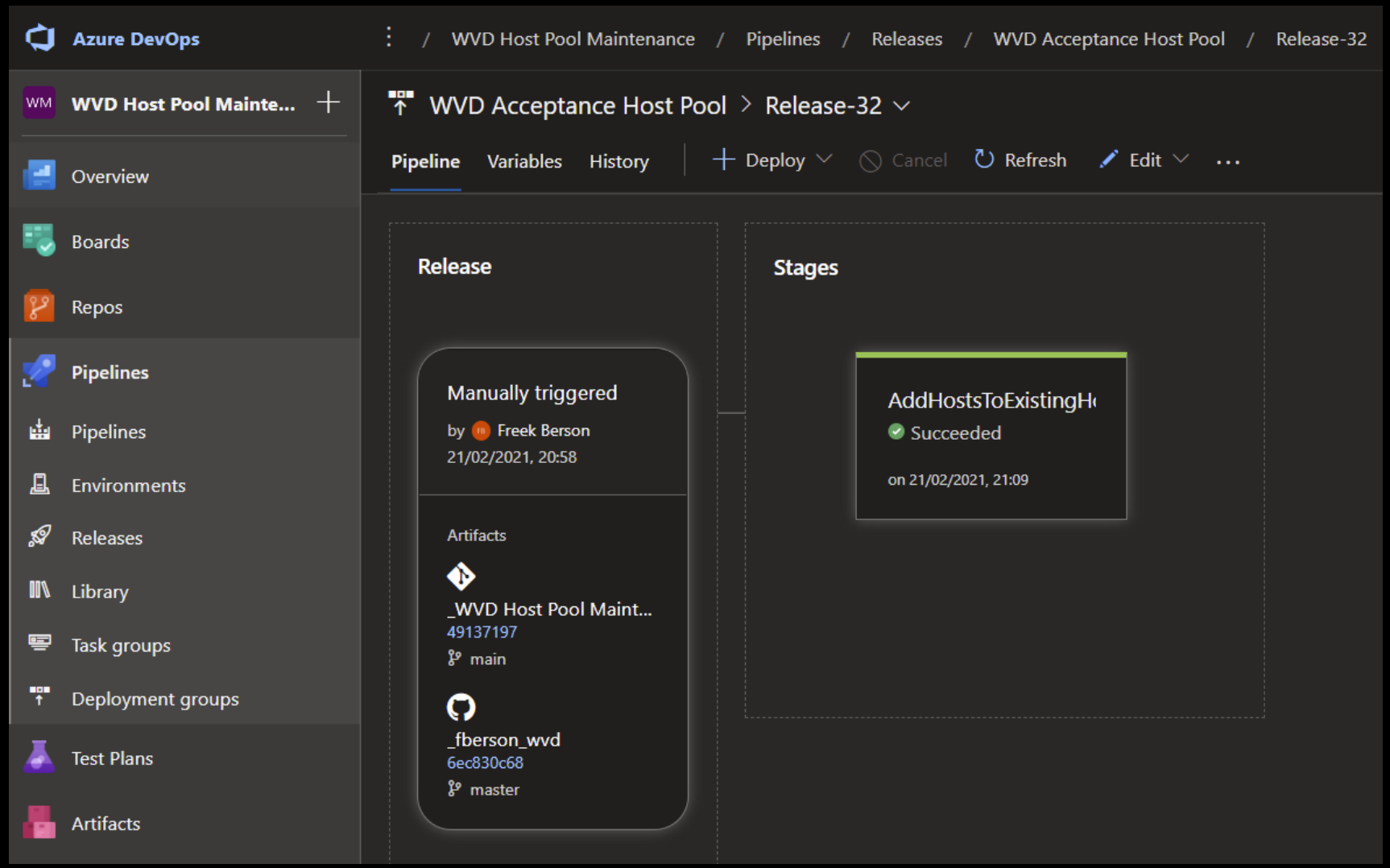
Azure Resource Manager



Azure Image Builder Preview



Azure DevOps



Infrastructure as code

Language Azure Resource Manager accepts JavaScript Object Notation (JSON) templates that comply with a JSON schema. JSON is an industry standard, human readable language.

4. Empty.json

```
1  {
2    "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
3    "contentVersion": "1.0.0.0",
     Select or create a parameter file to enable full validation...
4    "parameters": {},
5    "functions": [],
6    "variables": {},
7    "resources": [],
8    "outputs": {}
9  }
```

Tooling Although it is possible to create a template for a complete application in simple text editor, there is sophisticated tooling available that provides you with a better authoring experience for Azure Resource Manager templates.

JSON / ARM challenges

```
262     "apiVersion": "[variables('apiVersion')]",
263     "type": "Microsoft.Compute/virtualMachines",
264     "name": "[concat(variables('azureVMName'),'-', copyindex(parameters('sequenceStartNumberWVDHost')))]",
265     "comments": "This resources creates Virtual Machines that wil host the RDSH role",
266     "tags": {
267       "displayName": "WVD Session Host Virtual Machines"
268     },
269     "location": "[resourceGroup().location]",
270     "copy": {
271       "name": "[concat(variables('azureVMName'),'vm-loop')]",
272       "count": "[parameters('numberOfInstancesWVD')]"
273     },
274     "dependsOn": [
275       "[concat('Microsoft.Network/networkInterfaces/', variables('azureVMName'),'-', copyindex(parameters('sequenceStartNumberWVDHost')), variables('networkAdapterNamePostFix'))]",
276       "[concat('Microsoft.Compute/availabilitySets/',parameters('existingAvailabilitySetName'))]"
277     ],
278     "properties": {
279       "LicenseType": "Windows_Client",
280       "hardwareProfile": {
281         "vmSize": "[parameters('virtualMachineSizeWVD')]"
282       },
283       "availabilitySet": {
284         "id": "[resourceId('Microsoft.Compute/availabilitySets', parameters('existingavailabilitySetName'))]"
285       },
286       "osProfile": {
287         "computerName": "[concat(parameters('hostNamePrefixWVD'),'-', copyindex(parameters('sequenceStartNumberWVDHost')))]",
288         "adminUsername": "[concat(parameters('hostNamePrefixWVD'),'-', copyindex(parameters('sequenceStartNumberWVDHost')),'-adm')]",
289         "adminPassword": "[parameters('localAdminPassword')]",
290         "windowsConfiguration": {
291           "timeZone": "[variables('vmTimeZone')]"
292         }
293       },
294       "storageProfile": {
295         "osDisk": {
296           "name": "[concat(variables('azureVMName'),'-', copyindex(parameters('sequenceStartNumberWVDHost')),'-',variables('virtualmachineosdisk').diskName)]",
297           "managedDisk": {
298             "storageAccountType": "[variables('storage').type]"
299           },
300           "osType": "windows",
301           "caching": "[variables('virtualmachineosdisk').cacheOption]",
302           "createOption": "[variables('virtualmachineosdisk').createOption]"
303         },
304         "imageReference": {
```

What is Microsoft Project ‘Bicep’?

"..Bicep is a Domain Specific Language (DSL) for deploying Azure resources declaratively. It aims to drastically simplify the authoring experience with a cleaner syntax and better support for modularity and code re-use. Bicep is a transparent abstraction over ARM and ARM templates."

Project ‘Bicep’

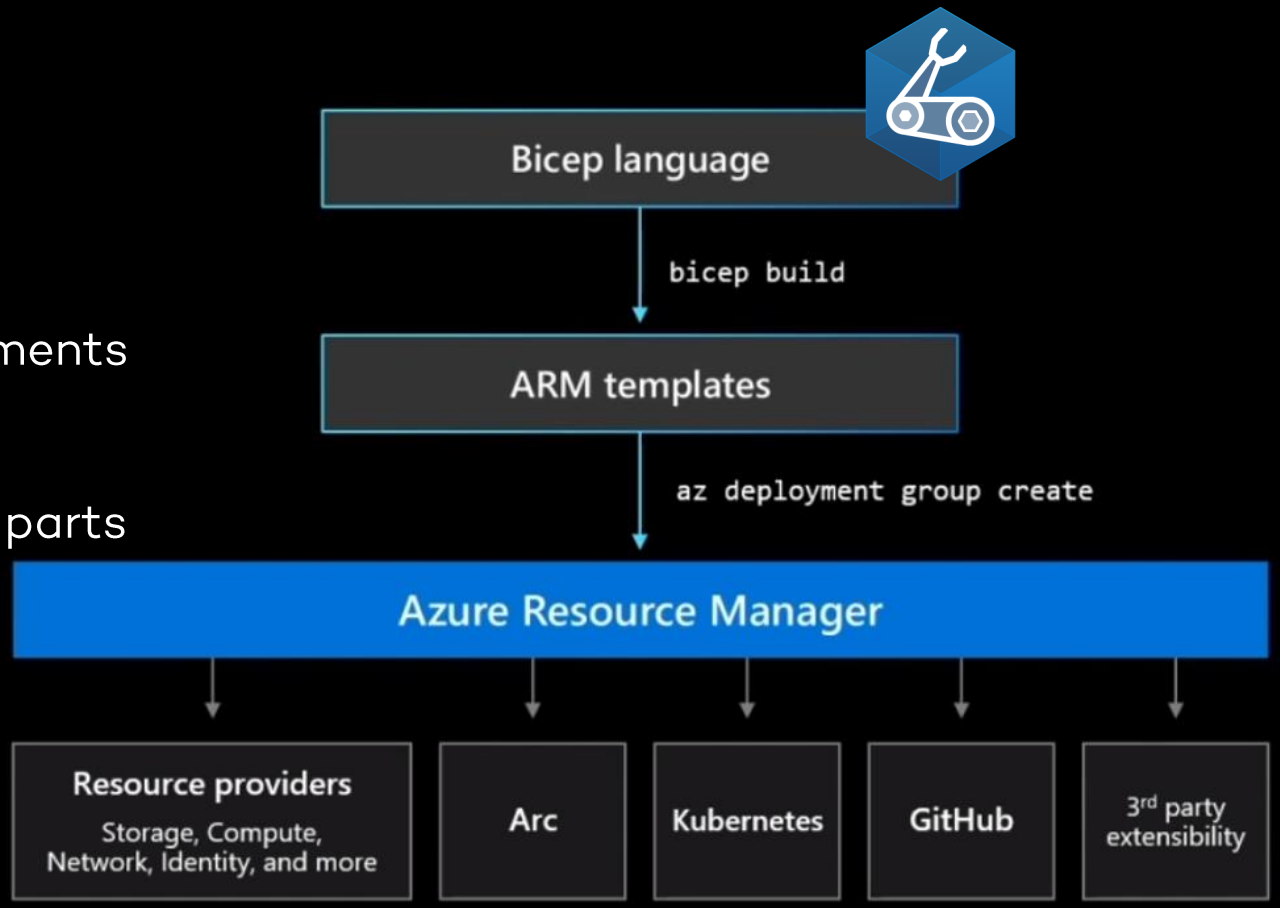
Simple declarative language to provision infrastructure to Azure.

Intuitive
Easy to read and to author

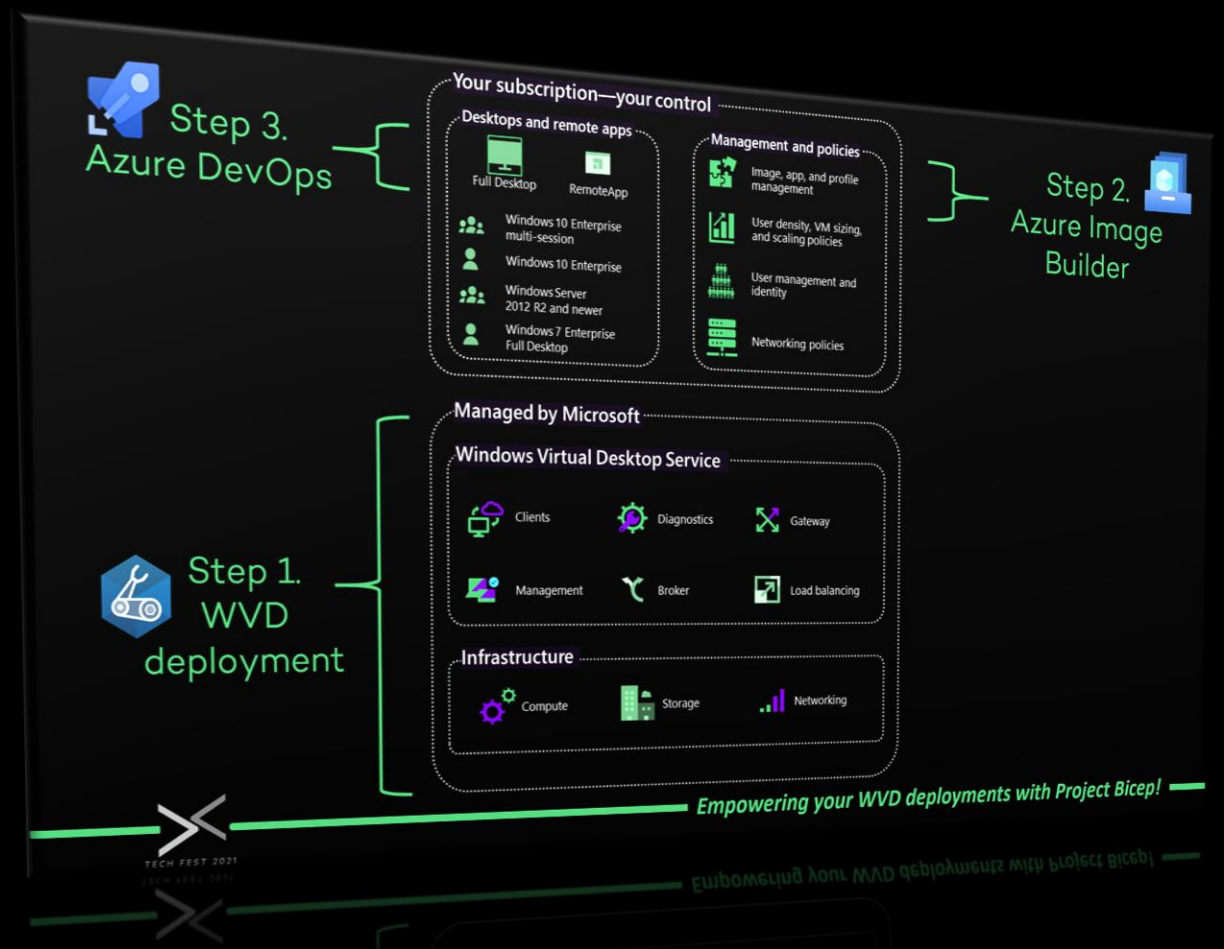
Transpiles to ARM Templates
Leverage ARM template knowledge and investments

Modular
Abstract common blocks of code into reusable parts

Open Source
Transparency and community



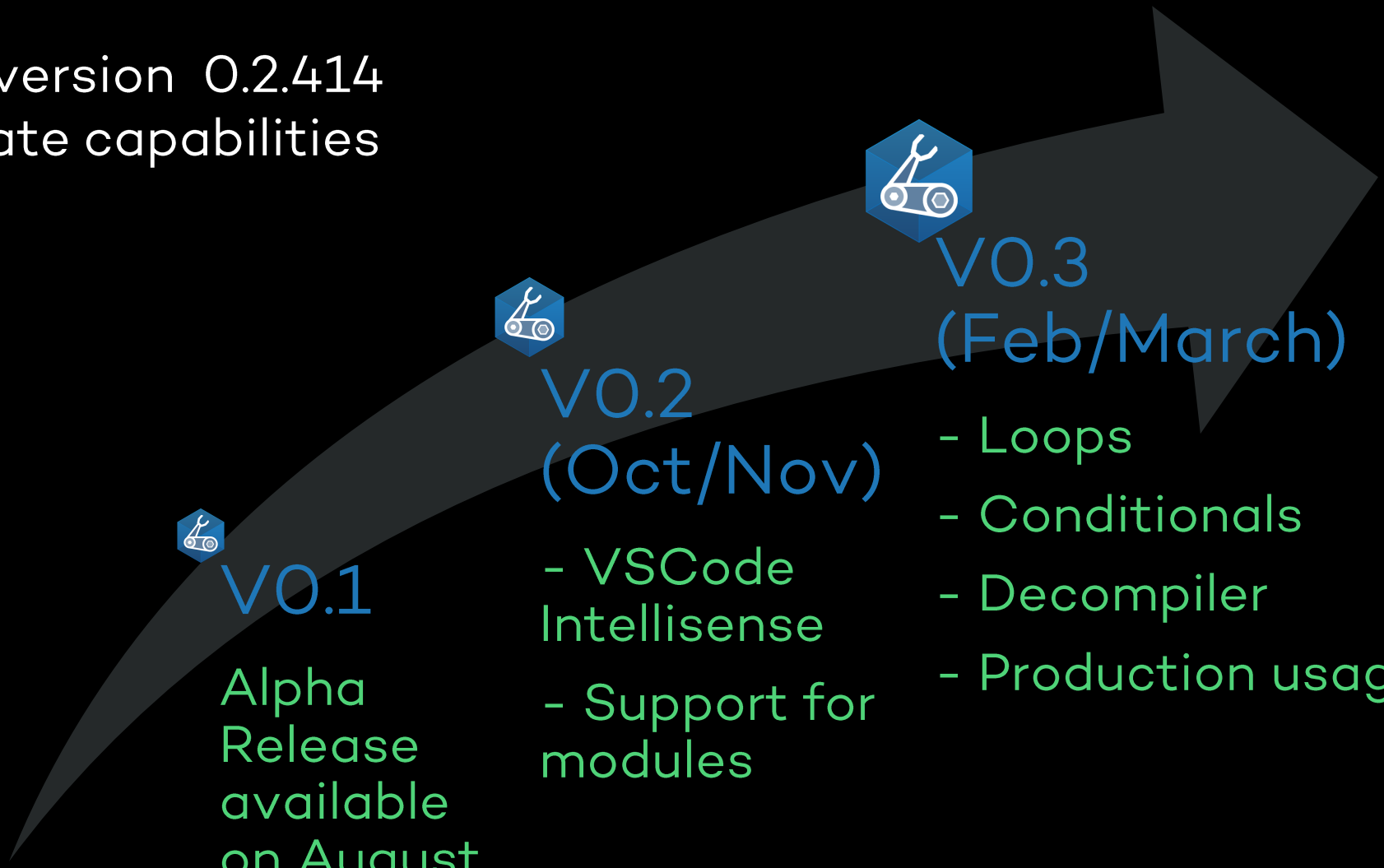
Demo



- Vnet with 2 Subnets
- Peering to ADDS vnet
- WVD Workspaces, hostpools and Appgroups
- WVD Template Host VM
- Azure File Services for Profile Management
- Azure Keyvault with secrets
- Azure Log analytics & diagnostics settings
- Full Azure Image Builder setup Preview
- Template Specs Preview

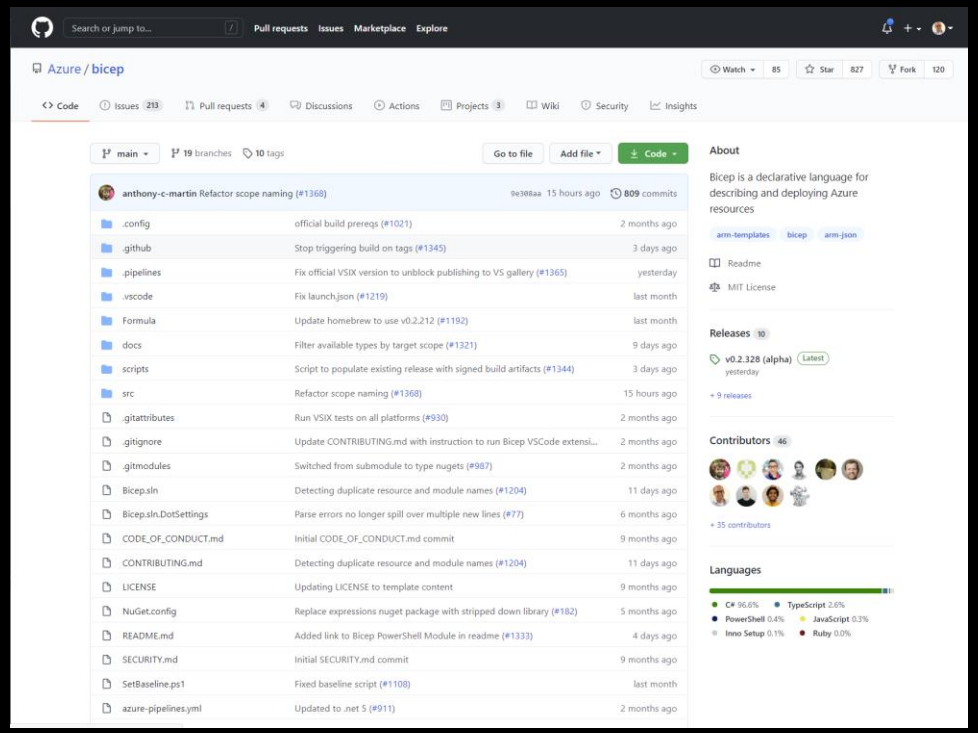
Road map

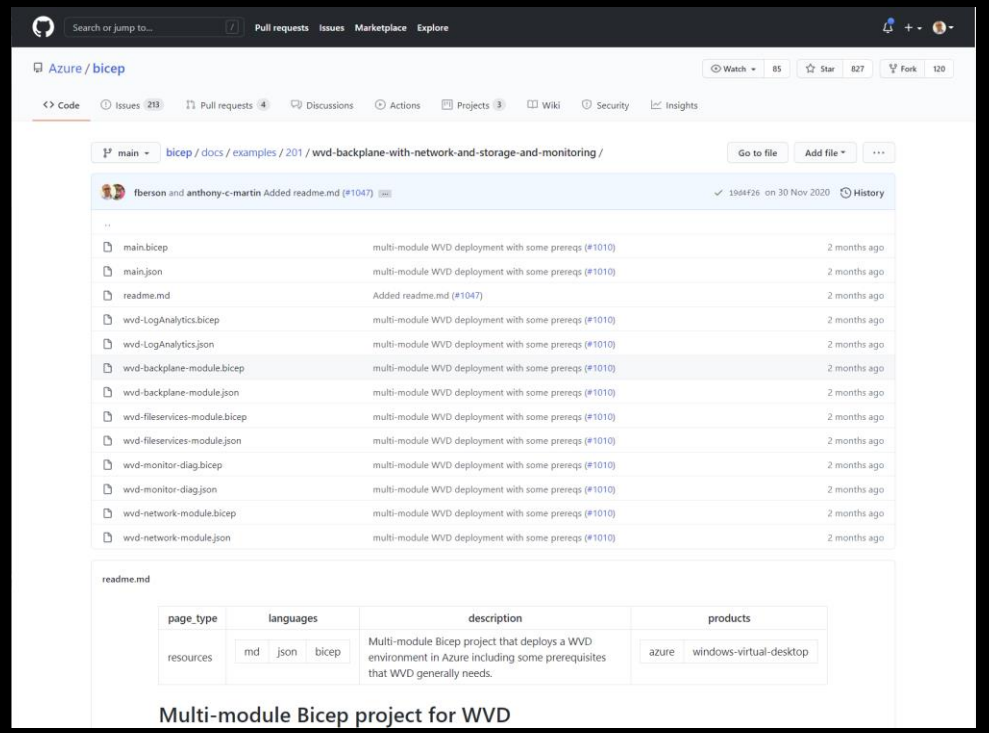
Current release: CLI version 0.2.414
~90% of ARM template capabilities implemented!

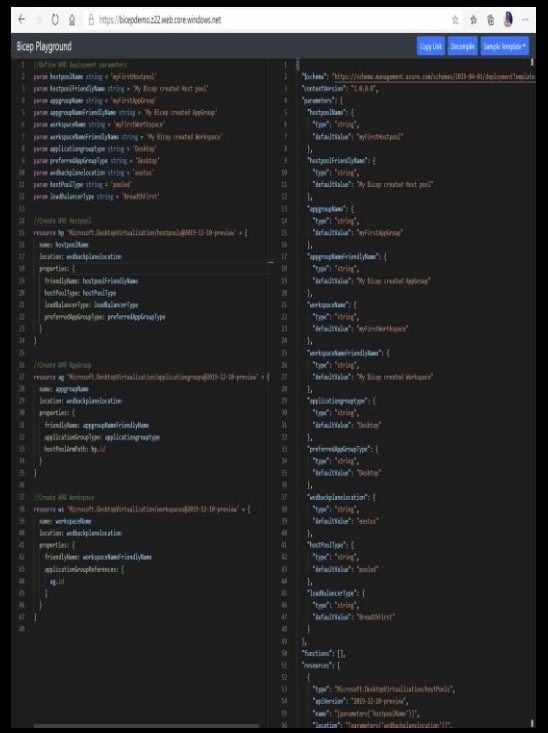


Call to action: aka.ms/bicep

Install guides, tutorials, example code & playgrounds!







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THANK YOU!

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Thank you for being part of WVD Tech Fest!
Please evaluate your session below: