

Jump Start your automation skills for WVD

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NORDIC

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“We’ve seen two years’ worth of digital transformation in two months”

Update #2 on Microsoft cloud services continuity

Posted on March 28, 2020



Microsoft Azure

Since last week's update, the global health pandemic continues to impact every organization—large or small—their employees, and the customers they serve. Everyone is working tirelessly to support all our customers, especially critical health and safety organizations across the globe, with the cloud services needed to sustain their operations during this unprecedented time. Equally, we are hard at work providing services to support hundreds of millions of people who rely on Microsoft to stay connected and to work and play remotely.

As Satya Nadella [shared](#), *"It's times like this that remind us that each of us has something to contribute and the importance of coming together as a community"*. In these times of great societal disruption, we are steadfast in our commitment to help everyone get through this.

For this week's update, we want to share common questions we're hearing from customers and partners along with insights to address these important inquiries. If you have any immediate needs, please refer to the following resources.

[Azure Service Health](#) – for tracking any issues impacting customer workloads and understanding Azure Service Health

[Microsoft 365 Service health and continuity](#) – for tracking and understanding M365 Service health

[Xbox Live](#) – for tracking game and service status

What have you observed over the last week?

In response to health authorities emphasizing the importance of social distancing, we've seen usage increases in services that support these scenarios—including Microsoft Teams, Windows Virtual Desktop, and Power BI.

- We have seen a 775 percent increase of our cloud services in regions that have enforced social distancing or shelter in place orders.
- We have seen a 775 percent increase in Teams' calling and meeting monthly users in a one month period where social distancing or shelter in place orders have been enforced.
- We have seen a very significant spike in Teams usage, and now have more than 44 million daily users. Those users generated over 900 million meeting and calling minutes on Teams daily in a single week. [You can read more about Teams data here.](#)

- Windows Virtual Desktop usage has grown more than 3x.

- Government use of public Power BI to share COVID-19 dashboards with citizens has surged by 42 percent in a week.

"Windows Virtual Desktop usage has grown more than 3x!"

Windows Virtual Desktop



Provide a full-desktop, authenticated experience for users at every level



Reduce the costs and time spent managing on-premises infrastructure



Simplify management, provisioning, and access to corporate data and apps



Deploy and scale in minutes



Architecture

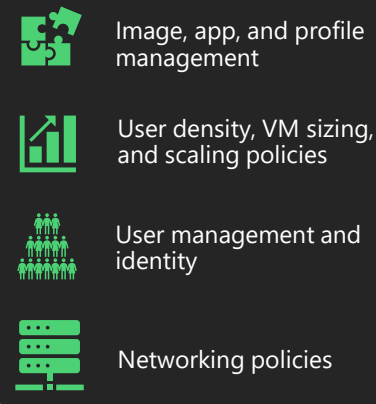
- Provides virtualization infrastructure as a managed service
- Utilizes Azure Active Directory identity management service
- Deploy and manage VMs in Azure subscription
- Manage using existing tools like System Center Configuration Manager
- Simply connect to on-premises resources – (VPN – ExpressRoute)

Your subscription—your control

Desktops and remote apps

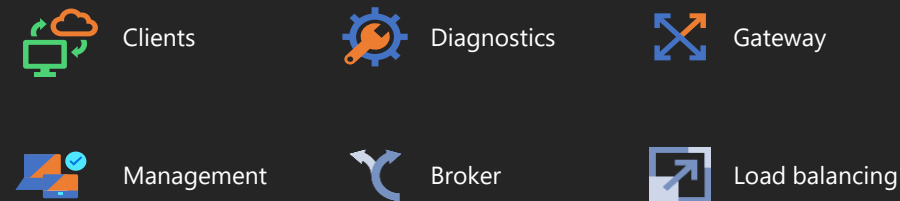


Management and policies



Managed by Microsoft

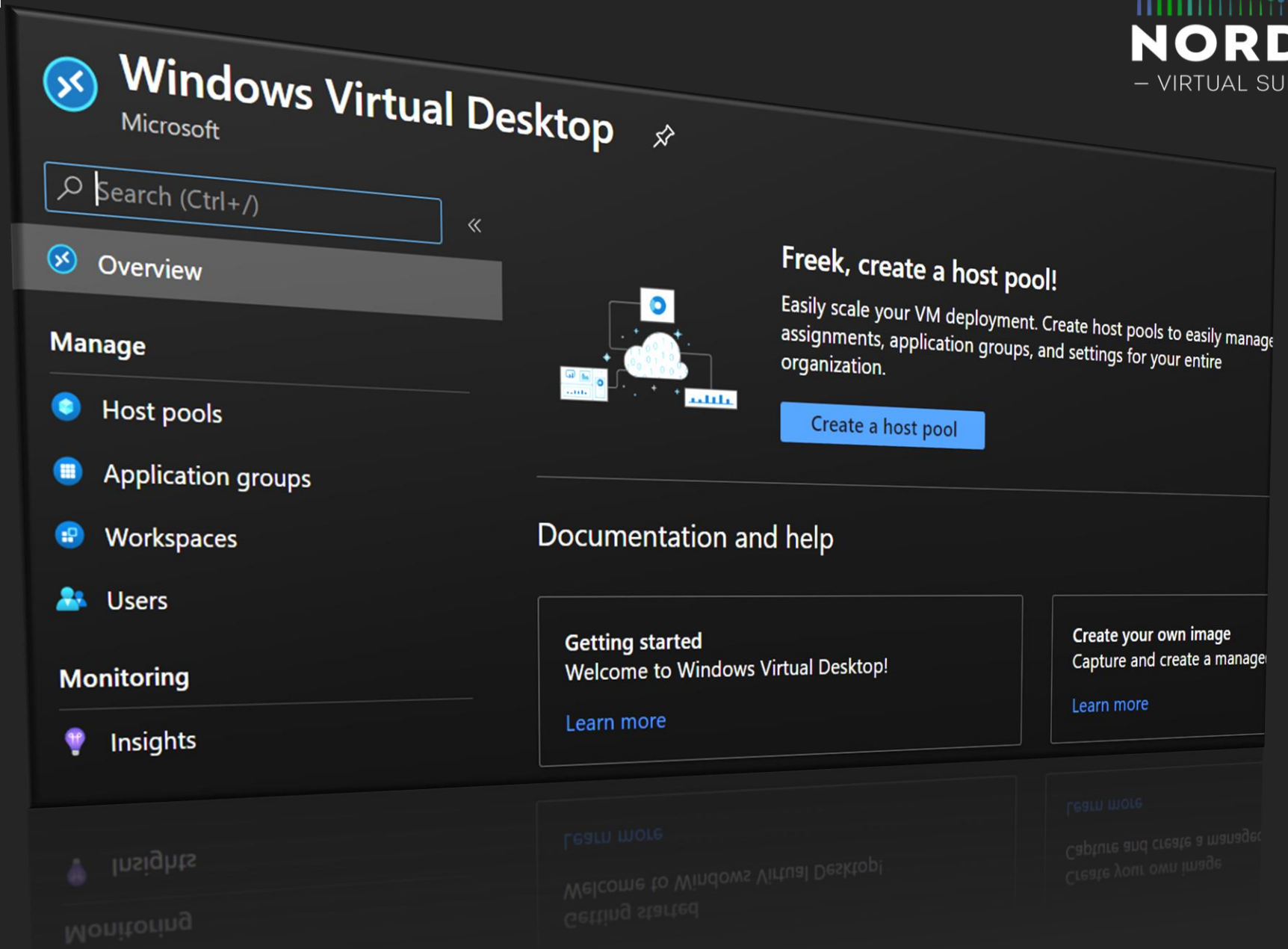
Windows Virtual Desktop Service



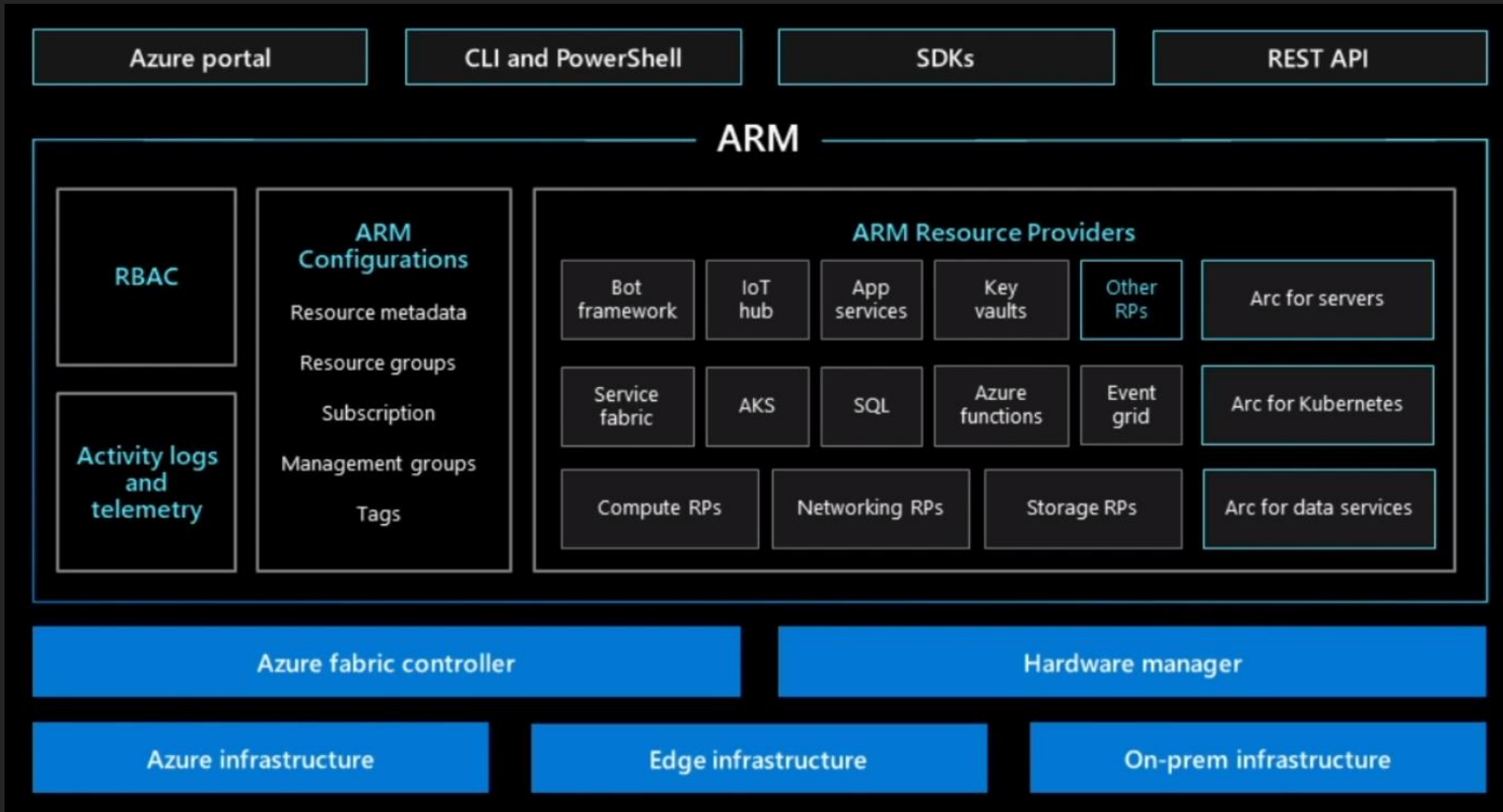
Infrastructure



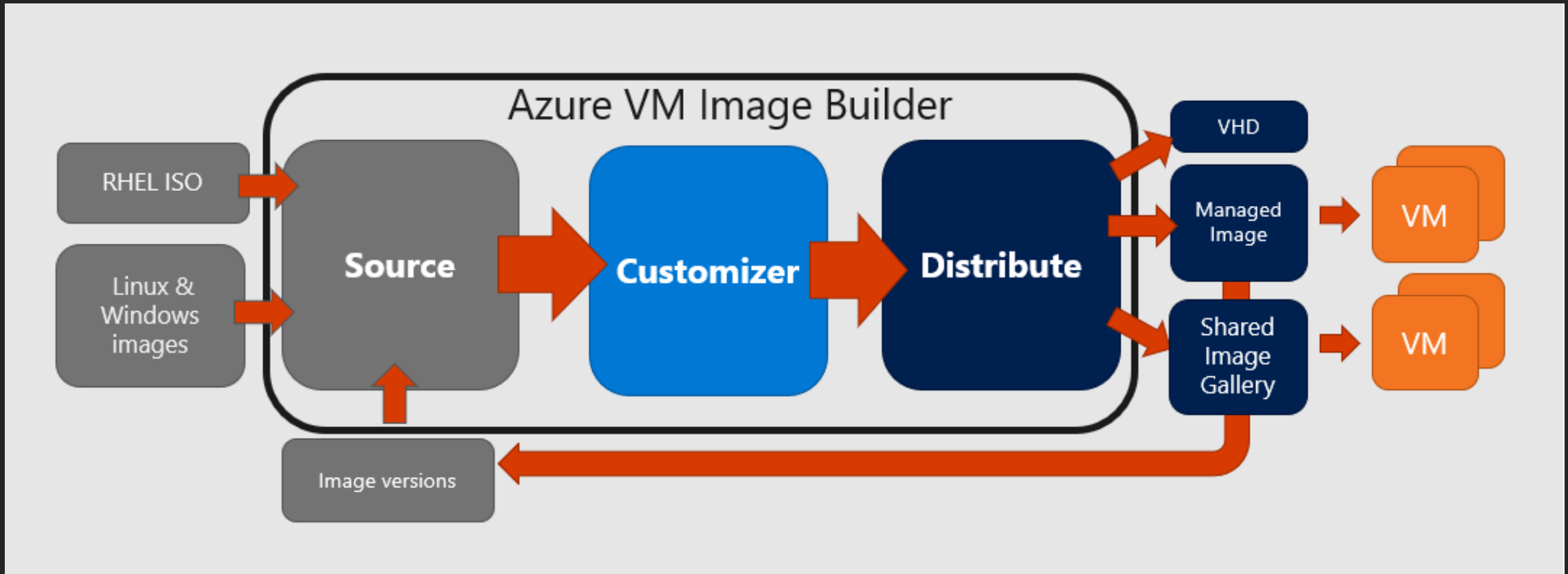
Deployment



Azure Resource Manager



Azure Image Builder



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

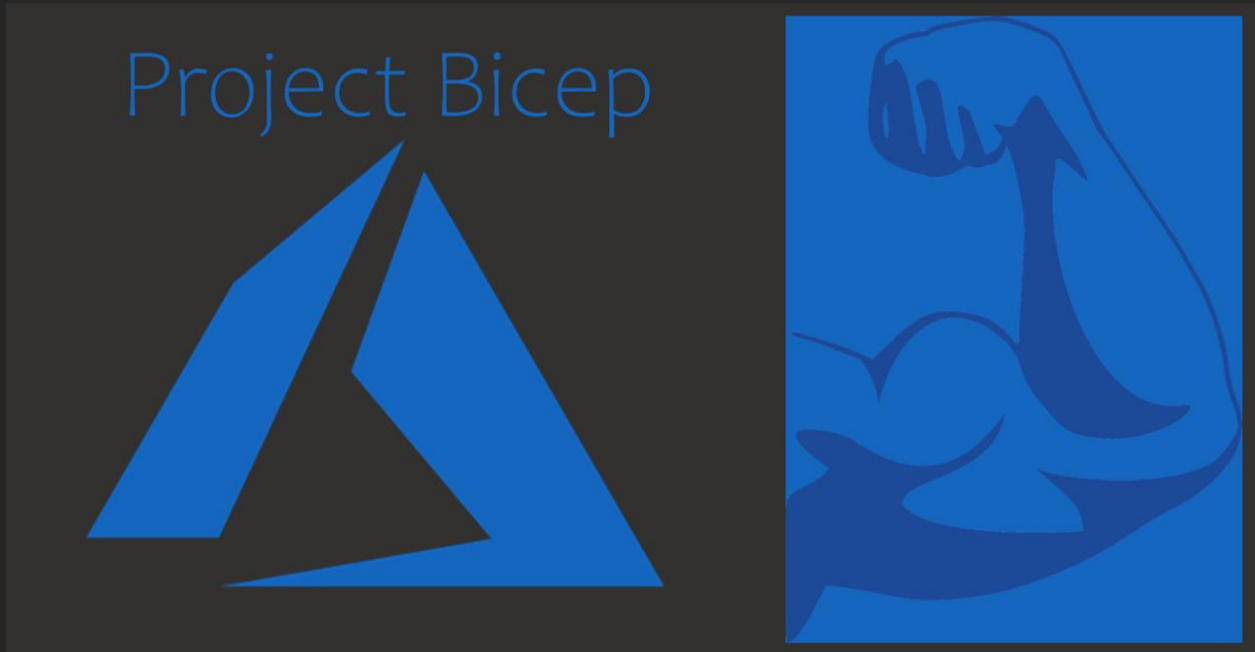
```
1  {
2    "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
3    "contentVersion": "1.0.0.0",
4    "parameters": {},
5    "functions": [],
6    "variables": {},
7    "resources": [],
8    "outputs": {}
9  }
```

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 challenges

```
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('networkAda
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": {
305       "id": "[variables('imageResourceId')]"
306     }
307   }
308 }
```

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

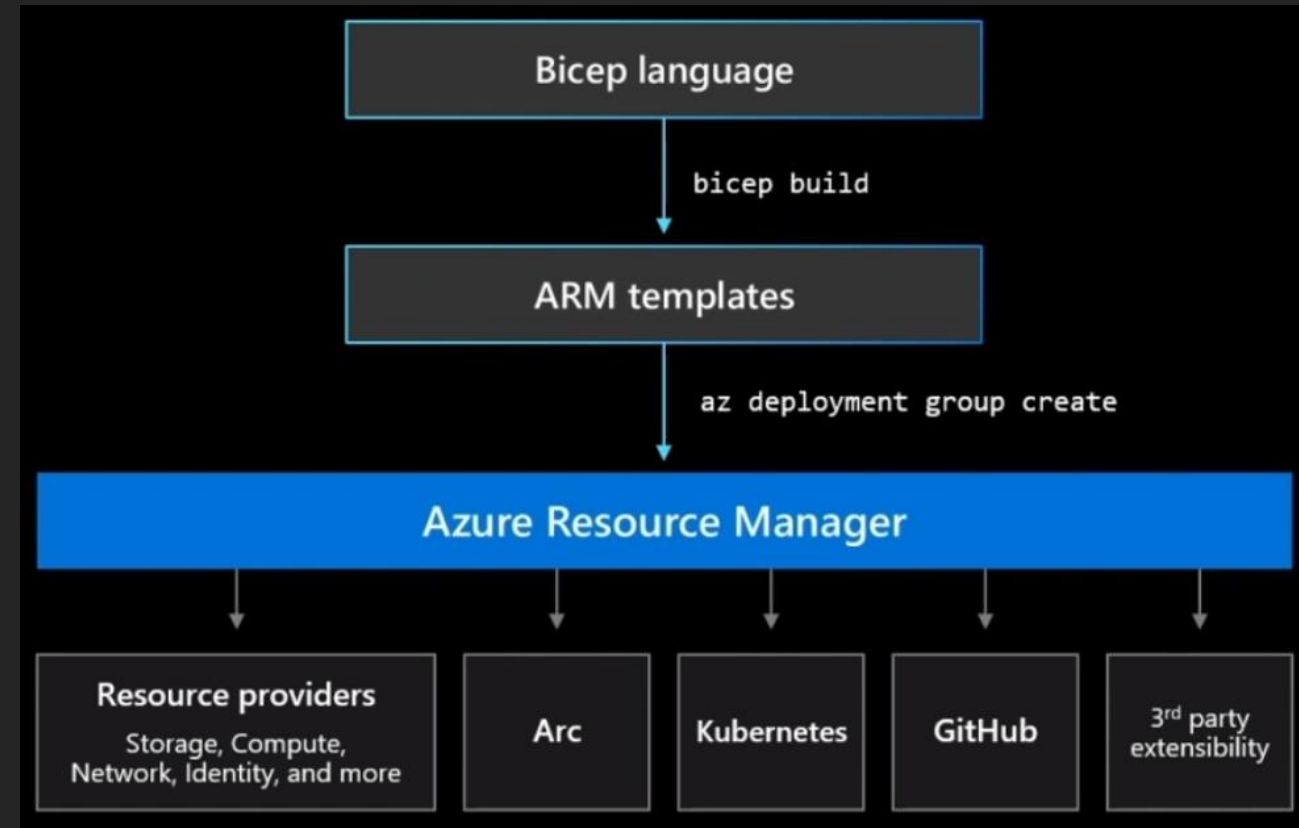
Leverage ARM template knowledge and investments

Modular

Abstract common blocks of code into reusable parts

Open Source

Transparency and community



Installing


1. Install the Bicep CLI (required)

```
# Create the install folder
$installPath = "$env:USERPROFILE\.bicep"
$installDir = New-Item -ItemType Directory -Path $installPath -Force
$installDir.Attributes += 'Hidden'
# Fetch the latest Bicep CLI binary
(New-Object Net.WebClient).DownloadFile("https://github.com/Azure/bicep/releases/latest/download/bicep-win-x64.exe", "$installPath\bicep.exe")
# Add bicep to your PATH
$currentPath = (Get-Item -path "HKCU:\Environment" ).GetValue('Path', '', 'DoNotExpandEnvironmentNames')
if (-not $currentPath.Contains("%USERPROFILE%.bicep")) { setx PATH ($currentPath + ";%USERPROFILE%.bicep") }
if (-not $env:path.Contains($installPath)) { $env:path += ";$installPath" }
# Verify you can now access the 'bicep' command.
bicep --help
# Done!
```

2. Install the Bicep VS Code extension(optional)

```
# Fetch the latest Bicep VSCode extension
$vsixPath = "$env:TEMP\vscode-bicep.vsix"
(New-Object Net.WebClient).DownloadFile("https://github.com/Azure/bicep/releases/latest/download/vscode-bicep.vsix", $vsixPath)
# Install the extension
code --install-extension $vsixPath
# Clean up the file
Remove-Item $vsixPath
# Done!
```

Demo

wvdbackplaneacc | Overview





Deployment

Overview


Inputs

Outputs

Template

 Delete  Cancel  Redeploy  Refresh

✓ Your deployment is complete

 Deployment name: wvdbackplaneacc
Subscription: [Microsoft Azure](#)
Resource group: [BICEP-WVD-DEMO-A-BACKPLANE-RG](#)

Start time: 2/2/2021, 8:44:32 PM
Correlation ID: d5c8703a-70b4-418e-9e48-64483273ae1d

Deployment details (Download)

Resource	Type	Status	Operation details
✓ BICEP-A-WVD-HP-WS	Microsoft.DesktopVirt...	Created	Operation details
✓ BICEP-A-WVD-HP-AG-REMOTEAPP	Microsoft.DesktopVirt...	Created	Operation details
✓ BICEP-A-WVD-HP-AG	Microsoft.DesktopVirt...	Created	Operation details
✓ BICEP-A-WVD-HP-REMOTEAPP	Microsoft.DesktopVirt...	Created	Operation details
✓ BICEP-A-WVD-HP	Microsoft.DesktopVirt...	Created	Operation details

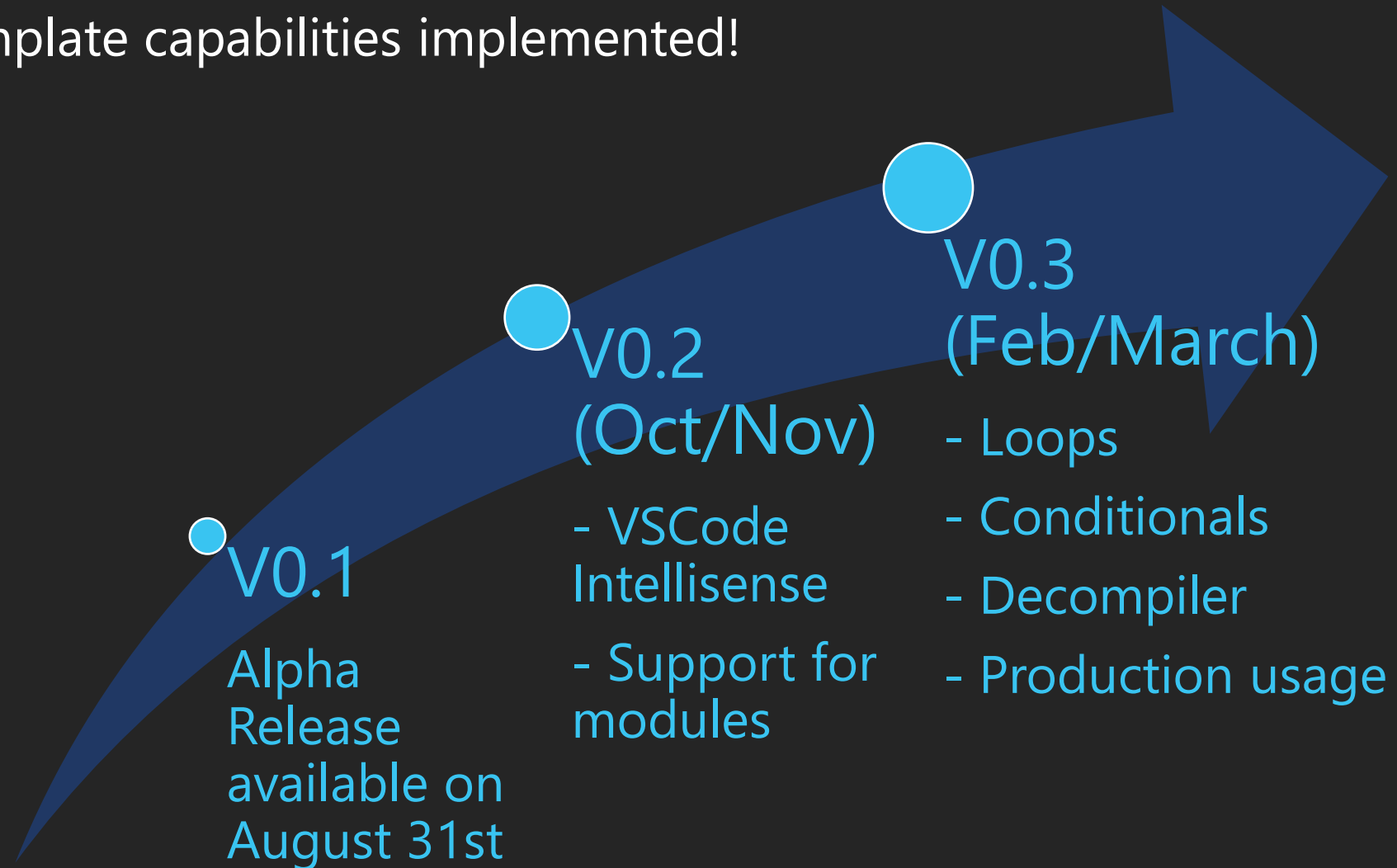
Next steps

Go to resource group

Bicep Road map

Current release: CLI version 0.2.328

~90% of ARM template capabilities implemented!



Road map Windows Virtual Desktop

What to expect in the next 6+ months

- Service Fundamentals — Service Administration — OS & App Management — End User Experience —>

- ✓ PaaS control plane deployments for reduced latency in: KO, CAN, SWI, UAE geos

- Commercial cloud service metadata stored in US, EU and other geographies

- ✓ External compliance certifications; FedRamp-High, SOC/SOC2, high trust

- ✓ Sovereign cloud deployments in US Government, US Sec, China

- Reliability at scale; e.g. reduced DB fail-over time, DB query optimizations, rollout agents with customer control
- PrivateLink service endpoints for customer vnet

- Enhanced VM scaling services
- Start a VM on Connect with Portal integration
- Enhanced Azure Monitor for WVD (Basic is in PP)
- Migration PS cmdlets from WVD non-ARM to ARM management
- Support for large number of AppGroups per Azure AD tenant

- ✓ Microsoft Endpoint Manager support for hybrid Azure AD joined Win10 Enterprise and multi-session VMs

- MSIX app attach with Portal integration
- Defender ATP support for Win10 multi-session (PP)
- FSLogix enhanced Cloud Cache, logging and API's
- SSO for AD joined VMs w/ADFS
- Smartcard logon for AD joined VMs (KDCProxy/ADFS)

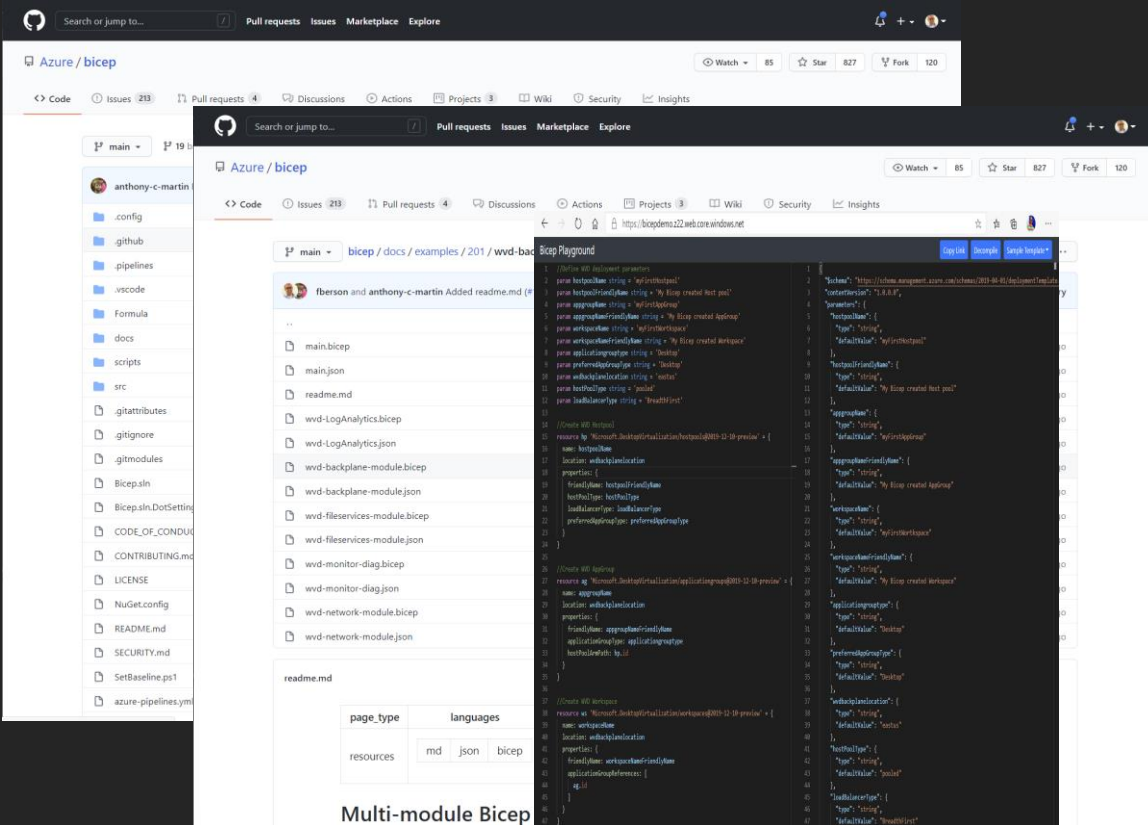
- Peer-to-peer UDP connectivity (RDP Shortpath) over Managed network
- Screen capture protection
- <more coming>

✓ Blue highlights indicate items already released since Ignite 2020

Call to actions:

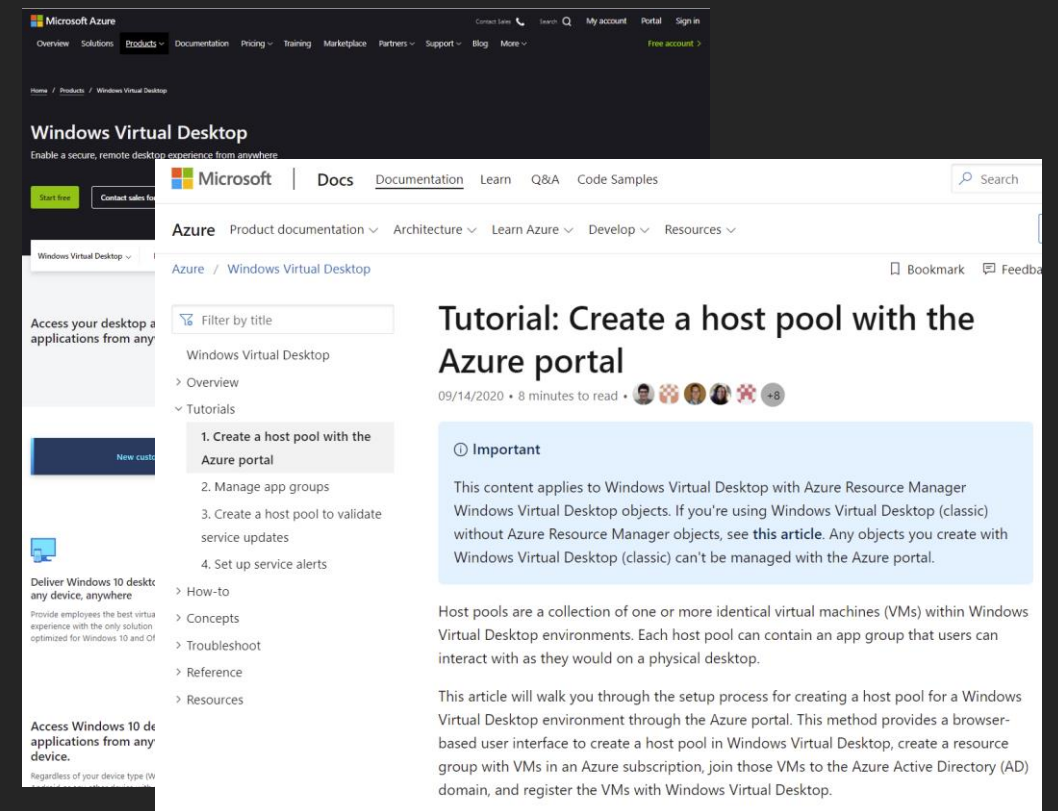
aka.ms/bicep

Install guides, tutorials, example code & playgrounds!



aka.ms/wvd

Docs pages with all WVD info



#NVSummit2021

Thank you!

Feedback:



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