



Flexing your muscles with Parallels RAS and Bicep.

Who is this Freek? 😊

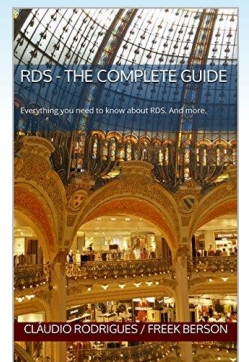
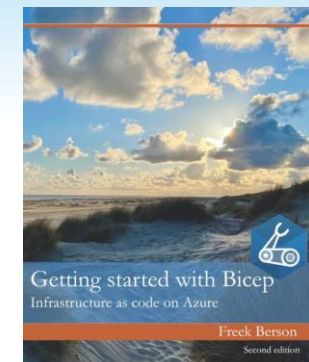
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Principal Product Manager

@fberson

Microsoft MVP (AVD & Azure)

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Grab a Stroopwafel while we
watch ARM do an automated
RDS deployment in Azure IaaS.

Freek Berson

End User Computing enthusiast

Microsoft MVP - RDS

 @fberson



ARM Cloud Managed Services



TeamRGE
Provisioning, Cloud, Systems



Apps & Desktops for the Hybrid Workforce

Freedom of choice: On-Device | On-premises | Cloud

Any Device, Anywhere, Any Cloud

 Apps & Desktops

 Web & SaaS apps

From **Device** with
Parallels Desktop



Optimized for
performance

From **On-prem** with
Parallels RAS



Optimized for **flexibility
and control**

From **hybrid** with
Parallels RAS + AVD



Optimized for **hybrid
& cost** management

From **Cloud**, with
Parallels DaaS



Optimized for **fast
delivery & experience**

From **On-prem** with
Parallels Secure
Workspace



Optimized for **secure
network access**

From **Cloud** with
Parallels Browser
Isolation



Optimized for **secure
browsing**

The only Microsoft Authorized
solution to run Windows on
Apple M series

Recognized as a "Major" player in the IDC Marketscape 2023-24
Recognized as a "Visionary" player in Gartner MQ 2024






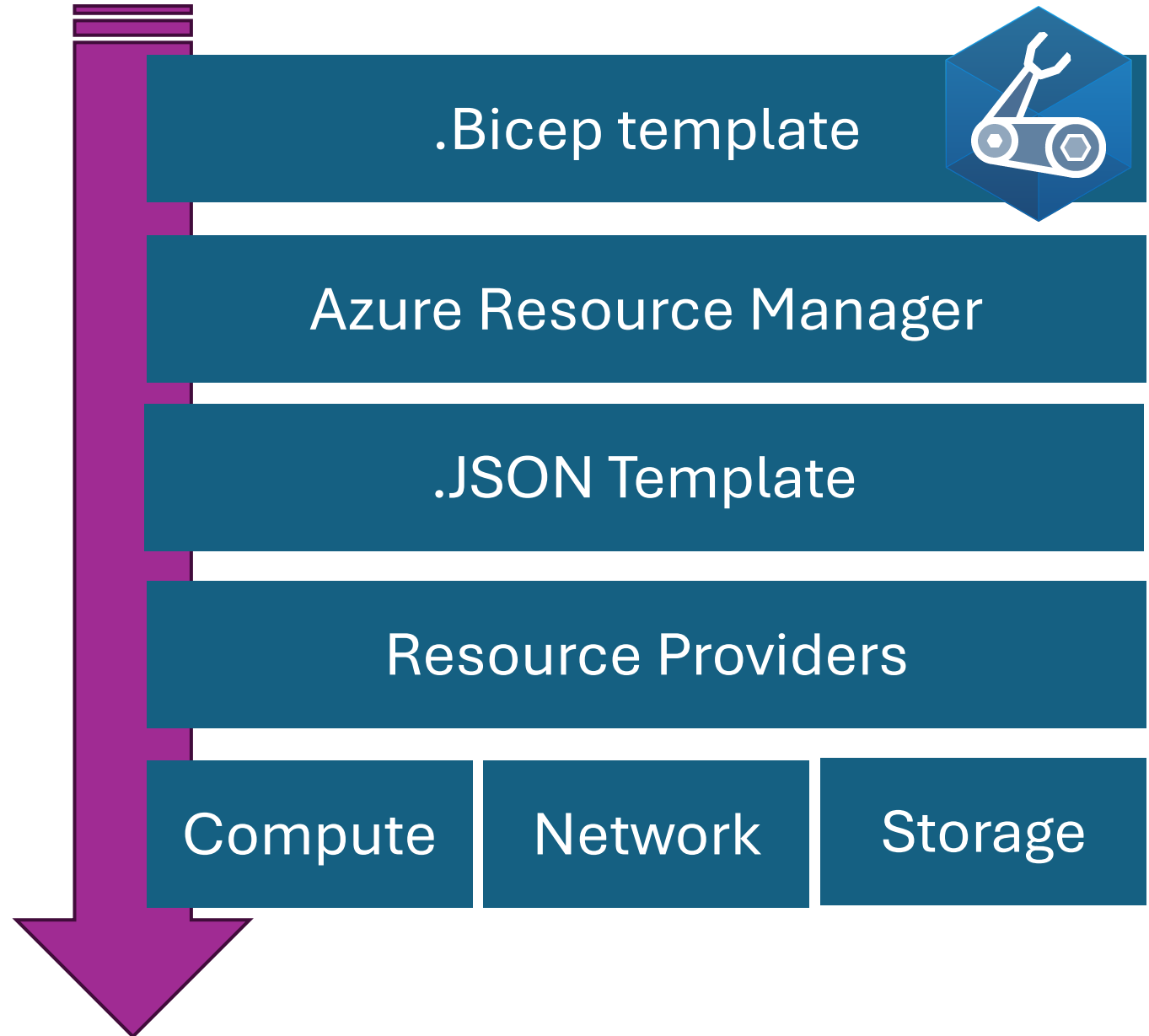
The background of the slide is a dark, blue-toned image of a city skyline, likely Chicago, with several prominent skyscrapers. Overlaid on this image are numerous vertical and horizontal lines, some of which are white and others light blue, creating a grid-like pattern. There are also various small, glowing digital icons and symbols scattered across the image, giving it a high-tech, data-driven appearance.

Infrastructure as Code

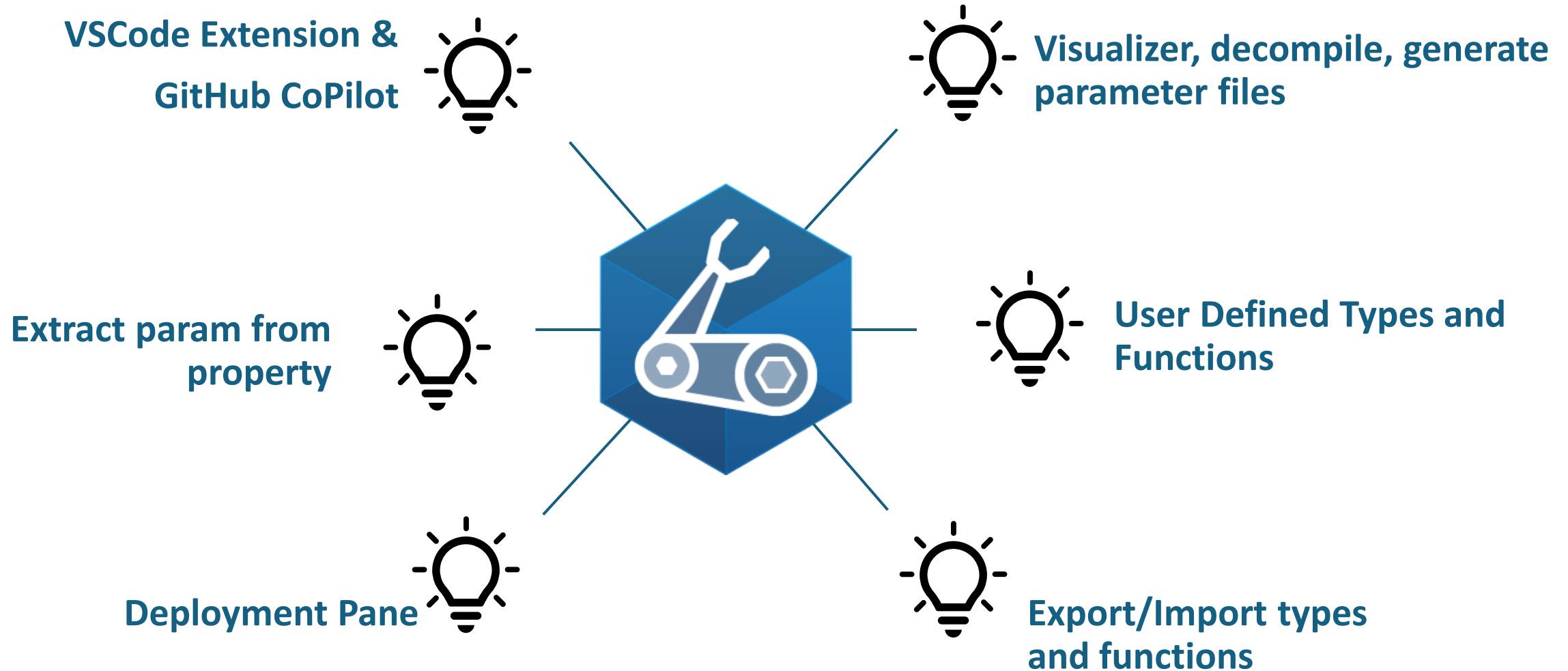
The practice of managing & provisioning computing infrastructure through declarative configuration files.

What is Bicep

-  Declarative
-  Idempotent
-  Fast



Optimize your authoring experience



Reusability with modules



Local Modules

- Ideal for fast local development
- Optionally share modules outside

Azure Container Registry

- Easily Share modules within your organization
- Requires management of ACR resource

Azure Verified Modules

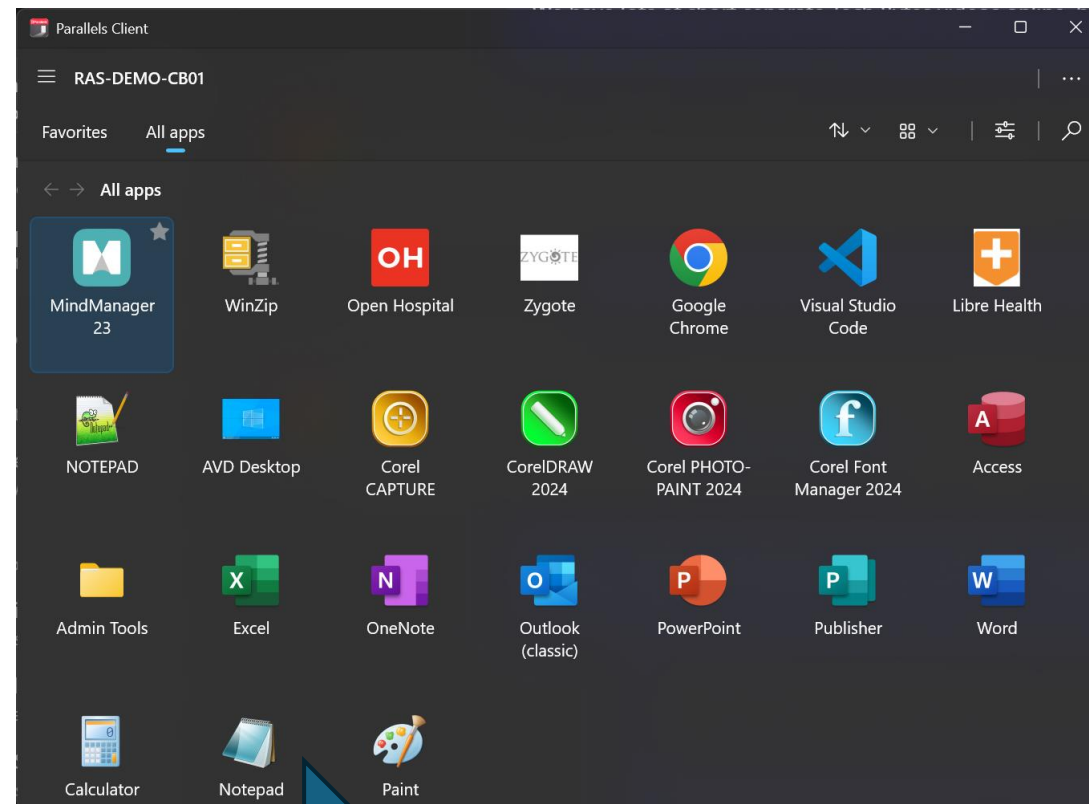
- Modules (resource & pattern) supported by Microsoft
- Well-Architected Framework & Secure
- Potentially not 100% fit of what you need

Demo: Parallels RAS in Azure in 10 minutes

```
mainTemplate.bicep
resource connectionBrokerVM 'Microsoft.Compute/virtualMachines@2023-07-01' = [
  for i in range(1, numberOfCBs): {
    name: '${prefixCBName}-${padLeft(i, 2, '0')}'
    location: location
    properties: {
      osProfile: {
        computerName: '${prefixCBName}-${padLeft(i, 2, '0')}'
        adminUsername: localAdminUser
        adminPassword: localAdminPassword
        windowsConfiguration: {
          enableAutomaticUpdates: false
          patchSettings: {
            patchMode: 'Manual'
          }
        }
      }
      hardwareProfile: {
        vmSize: vmSkuCB
      }
      storageProfile: {
        imageReference: {
          publisher: 'MicrosoftWindowsServer'
          offer: 'WindowsServer'
          sku: vmOSCB
          version: 'latest'
        }
        osDisk: {
          createOption: 'FromImage'
        }
      }
      networkProfile: {
        networkInterfaces: [
          {
            properties: {
              primary: true
            }
            id: ConnectionBrokerNic[i - 1].id
          }
        ]
      }
    }
  }
]

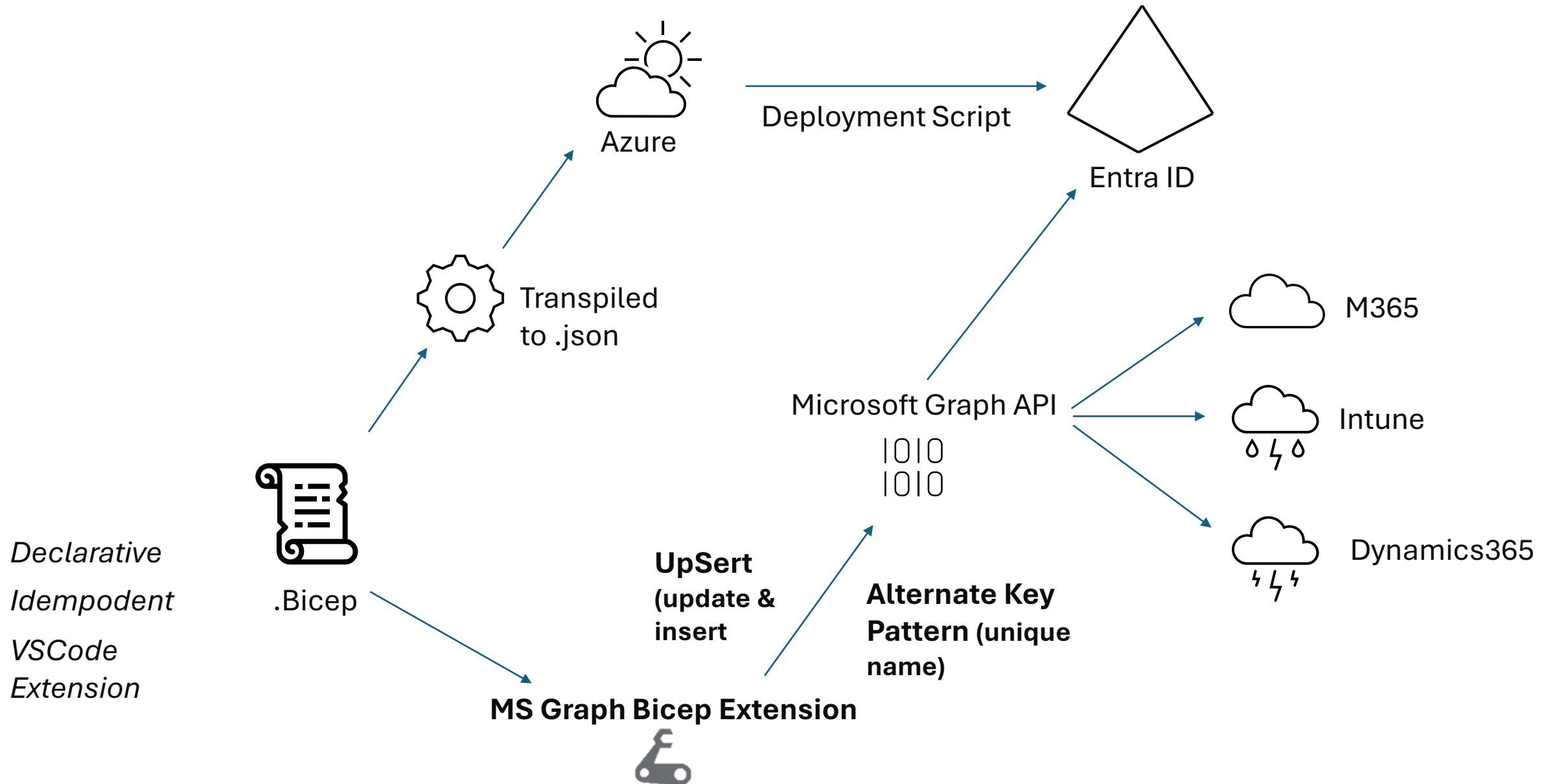
resource connectionBrokerDJ 'Microsoft.Compute/virtualMachines/extensions@2023-09-01' = [
  for i in range(1, numberOfCBs): {
    parent: connectionBrokerVM[i - 1]
    name: 'joindomain'
    location: location
    properties: {
      publisher: 'Microsoft.Compute'
      type: 'JoinDomainExtension'
      typeHandlerVersion: '1.3'
      autoUpgradeMinorVersion: true
      settings: {
        name: domainName
        ouPath: ouPath
        user: {
          rest: {
            opti: {
              protec: {
                Pass: {

```



Full Parallels RAS Deployment in ~10 minutes

Advanced: Entra ID Resources using Bicep?



Advanced: Entra ID Resources using 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

BONUS: Azure Marketplace Transactional Offer

✓ Parallels benefit - Visibility & GTM support

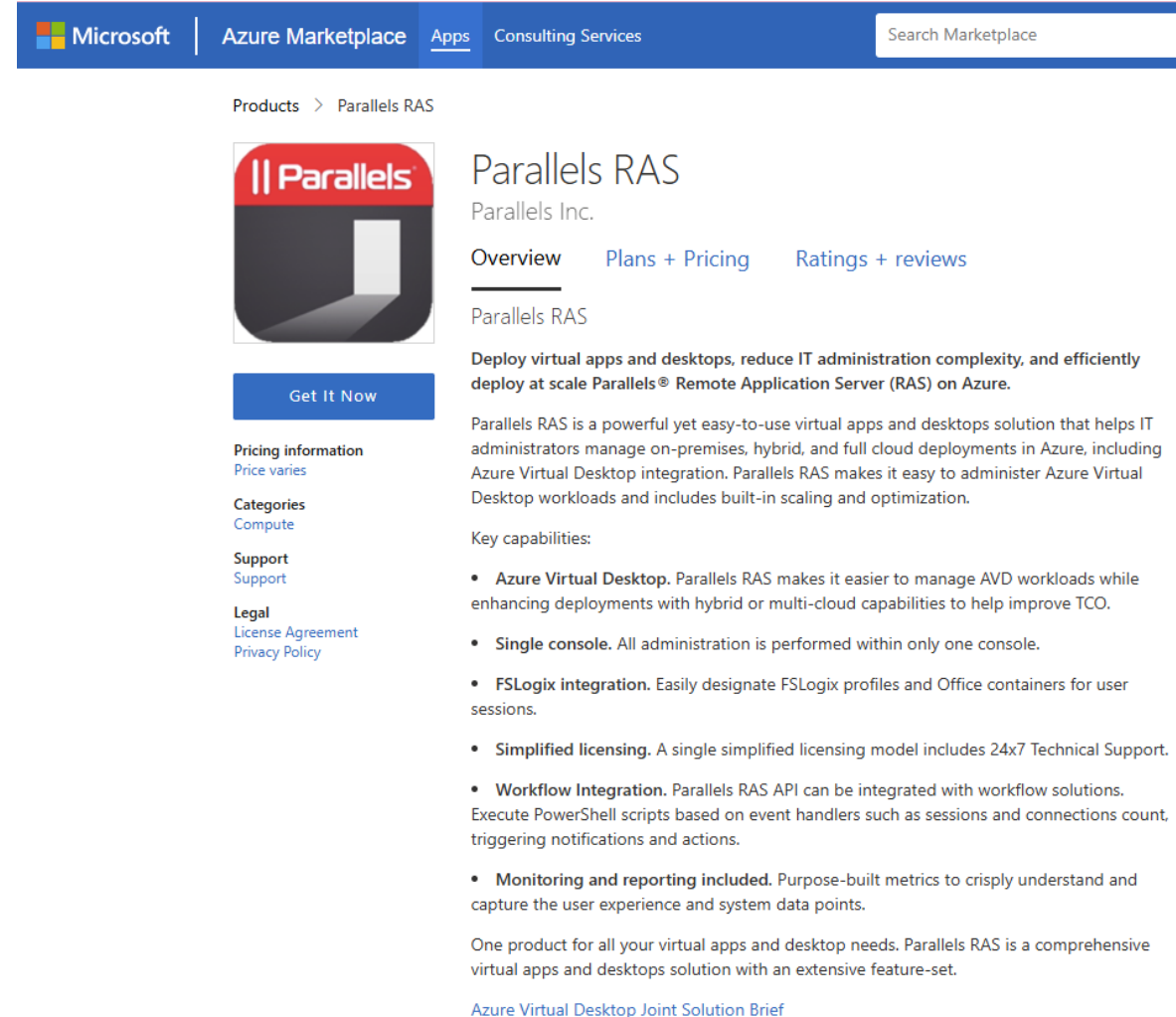
Parallels RAS solution listed together with Microsoft solutions, connecting businesses, organizations, and government agencies around the world.

✓ Partner benefit – private offers & simplified sell

Create personalized offers with custom payouts and sell directly to Microsoft customers with simplified selling through the marketplace.

✓ Customer benefits – MACC & easy deployment

Customer can now RAS licenses using their Microsoft Azure Consumption Commitment (MACC), a contractual commitment that they may have made to Microsoft Azure spend, and marketplace allows for full automated deployment



The screenshot shows the Azure Marketplace interface for the Parallels RAS product. The top navigation bar includes the Microsoft logo, 'Azure Marketplace', 'Apps', and 'Consulting Services', along with a search bar. The breadcrumb trail indicates 'Products > Parallels RAS'. The product card for Parallels RAS by Parallels Inc. is displayed, featuring the product icon, a 'Get It Now' button, and links for pricing, categories, support, and legal information. The product description highlights its capabilities for deploying virtual apps and desktops at scale. A list of key capabilities is provided, including Azure Virtual Desktop integration, single console administration, FSLogix integration, simplified licensing, workflow integration, and monitoring and reporting. A link to the 'Azure Virtual Desktop Joint Solution Brief' is also present.

Microsoft | Azure Marketplace | Apps | Consulting Services | Search Marketplace

Products > Parallels RAS

Parallels RAS
Parallels Inc.

[Overview](#) [Plans + Pricing](#) [Ratings + reviews](#)

Parallels RAS

Deploy virtual apps and desktops, reduce IT administration complexity, and efficiently deploy at scale Parallels® Remote Application Server (RAS) on Azure.

Parallels RAS is a powerful yet easy-to-use virtual apps and desktops solution that helps IT administrators manage on-premises, hybrid, and full cloud deployments in Azure, including Azure Virtual Desktop integration. Parallels RAS makes it easy to administer Azure Virtual Desktop workloads and includes built-in scaling and optimization.

Key capabilities:

- **Azure Virtual Desktop.** Parallels RAS makes it easier to manage AVD workloads while enhancing deployments with hybrid or multi-cloud capabilities to help improve TCO.
- **Single console.** All administration is performed within only one console.
- **FSLogix integration.** Easily designate FSLogix profiles and Office containers for user sessions.
- **Simplified licensing.** A single simplified licensing model includes 24x7 Technical Support.
- **Workflow Integration.** Parallels RAS API can be integrated with workflow solutions. Execute PowerShell scripts based on event handlers such as sessions and connections count, triggering notifications and actions.
- **Monitoring and reporting included.** Purpose-built metrics to crisply understand and capture the user experience and system data points.

One product for all your virtual apps and desktop needs. Parallels RAS is a comprehensive virtual apps and desktops solution with an extensive feature-set.

[Azure Virtual Desktop Joint Solution Brief](#)

Pricing information
Price varies

Categories
Compute

Support
Support

Legal
License Agreement
Privacy Policy



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

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!

Parallels RAS various Azure Marketplace Offers

The screenshot displays the Azure Marketplace interface. The top navigation bar includes the Microsoft logo, 'Azure Marketplace', 'Apps', 'Consulting Services', a search bar, and links for 'Sell' and 'Blog'. Below the navigation bar, there are filters for 'Trials', 'Operating System', 'Publisher', 'Pricing Model', and 'Product Type', all set to 'All'. A 'Reset filters' link is also present. The main content area is titled 'Browse apps' and lists various categories on the left: 'Get Started', 'AI + Machine Learning', 'Analytics', 'Blockchain', 'Compute', 'Containers', 'Databases', 'Developer Tools', 'DevOps', 'Identity', 'Integration', 'Internet of Things', 'IT & Management Tools', 'Media', 'Microsoft Entra ID', 'Migration', 'Mixed Reality', 'Monitoring & Diagnostics', 'Networking', 'Security', 'Storage', and 'Web'. The main results area shows 'All results' and a grid of app offers. A red box highlights the first four offers: 'Parallels RAS', 'Parallels RAS - Trial or BYOL', 'Parallels RAS Licenses', and 'Parallels Remote Application Server (RAS)'. The fifth offer, 'Parallels Desktop', is partially visible. Below the highlighted offers, two more offers are visible: 'Parallels Secure Workspace' and 'Parallels Secure Workspace All-in-One'.

App Name	Publisher	Description	Rating	Price	Availability	Action
Parallels RAS	By Parallels Inc.	Deploy virtual apps and desktops anywhere, reduce IT complexity, and efficiently deploy at scale.	★★★★★ (1)	Plans start at Free		Get it now
Parallels RAS - Trial or BYOL	By Parallels Inc.	Deploy virtual apps and desktops anywhere, reduce IT complexity, and efficiently deploy at scale.		Price varies		Get it now
Parallels RAS Licenses	By Parallels Inc.	Parallels RAS Licenses			Available in selected countries/regions only	Not available
Parallels Remote Application Server (RAS)	By Parallels Inc.	All-in-one VDI solution that enables access to applications, desktops, and data from any device	★★★★★ (50)	Bring your own license		Get it now
Parallels Desktop	By Alludo	SSO/SAML authentication for employees to use Parallels Desktop. Enable your employees to sign in and activa...				Get it now
Parallels Secure Workspace	By Awingu	Secure remote access. Simple, non-intrusive and cost-efficient. Zero Trust enabled.		Bring your own license		Get it now
Parallels Secure Workspace All-in-One	By Awingu	Secure remote access. Simple, non-intrusive and cost-efficient. Zero Trust enabled.	★★★★★ (1)	Price varies		Get it now



THANK YOU!

Azure automated deployment:

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



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