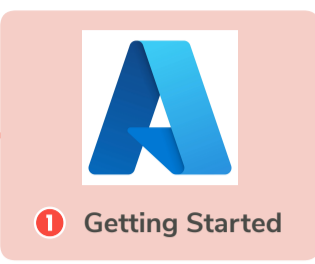


# Azure Virtual Desktop (Twitter - @askaresh)

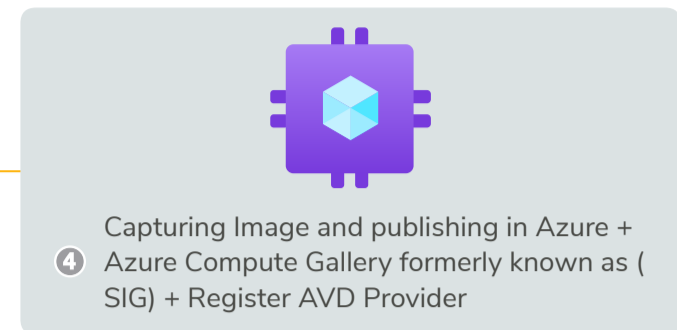


## 1 Getting Started

- 1 Create you account and increase the quotas for deployments
- 2 Create a Resource Group
  - Add role - Virtual Machine User Login - the AD group to allow AAD login to the Virtual Machine
- 3 Create Virtual Networks and Subnets
  - Mgmt. Net
  - DMZ Net
  - Desktop Net
- 4 Create Virtual Network Gateway or Express Route
  - Exchange IP routes between the networks
  - Route Network Traffic (Btw Azure/On-premise Subnets)
- 5 Create Local Network Gateway
  - How to connect back with on-premise
  - Used together along with virtual network gateway
  - Public IP of the on-premise is used
  - Address space is the local on-premise subnets
- 6 Create a Connection
  - Under virtual network gateway - Connections
  - Site to Site (IPSEC) + shared key
  - Production environment should have an ExpressRoute. Make sure you select the rightsized for the network throughput
- On-premise
  - Connect to VPN or else ExpressRoute
    - Depends on router/network config
  - You have Active Directory and File Shares already deployed

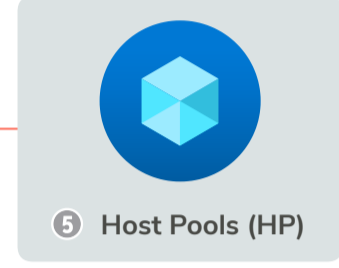
## 2 Deployment

- Create the backend servers
  - Domain Controllers
  - File Servers
    - Add additional Data Disk
- Virtual Network
  - Point to on-premise DNS for name resolution or else the default will point to Azure
- Join the DC/FS to the domain
- Synchronize AD with AAD
  - Add custom domain names (E.g. askaresh.com)
  - Password Hash Synchronization
  - New service account within AAD
  - Permission for Service account - Global Administrator
  - Azure AD Connect Software on AZ-DC
    - Login to AZ Portal with the Service account to validate the password or set the password
    - Check - continue without matching all UPN suffixes
    - Users are represented only once across all directories



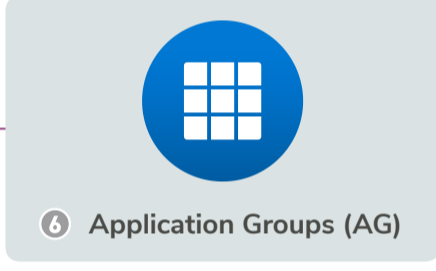
## 4 Capturing Image and publishing in Azure + Azure Compute Gallery formerly known as (SIG) + Register AVD Provider

- Under Virtual Machines Select the Image and click on Capture
  - Capture Image
    - Automatically deletes after creating
    - Repeat these steps on all master Image
- Create the ACG - put it under the Resource Group
- OS Type - Windows OS
- OS State - Generalized
- VM Generation - Gen 2
- Add new - VM image definitions
- Provide a Version + Select the Image (Previously Created) + Expiry Date + Multi-regions
- Subscription - Providers - Microsoft.DesktopVirtualization
- Register AVD Provider



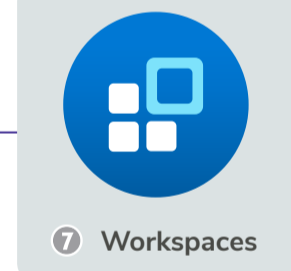
## 5 Host Pools (HP)

- Go to Azure Virtual Desktop
- Select the subscription and Resource Pool - Provide a HP Name
- Metadata Location - Unfortunately there is no Australia or Asia (while drafting this mind map)
- HP Type - Pooled + LB Alog - Breadth First + Max Sessions Limit - 50 (Size out these numbers properly in adv.)
- Name Prefix - The name that VM will get under HP
- Select the Availability Options - Dev purpose select no availability
- Image Type - Gallery - Select the Image we created earlier + select the size of the VM that will be deployed
- Number of VM's - XX + OS Disk - SSD
- Select the dedicated Desktop Network - Virtual Network
- Domain Join - Active Directory or now AAD
- Virtual Machine Local account details - Username/Password
- Create a New Workspace + Review and Create the HP
- Add the advanced RDP Properties to allow non AAD joined targetisaadjoined:1



## 6 Application Groups (AG)

- These are the application pools of Horizon for Published Applications
- Optional - Delete the AG created by the HP Wizard
- Select the subscription and Resource Pool - Provide a HP Name
- Application Group Type - Remote App (Published Application) and Desktop
- Give is a proper Name to identify the AG type
- This is Desktop no App Assignment is required
- Select the AAD or AD - User or Group that needs entitlements
- Review and Create



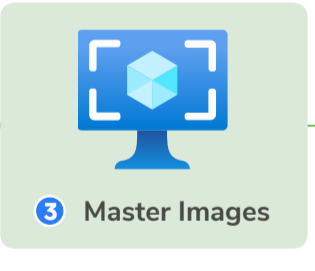
## 7 Workspaces

- Select the subscription and Resource Pool - Provide a Workspace Name - All the App Groups we tried here.
- Select the Application Group to be associated for this Workspace - We can select the one we created in the previous step
- Review and Create



## Windows Desktop Client

- Download the Windows Desktop Client of your choice - Depending upon your device
- Click Sign-in and enter your AAD/AD credentials
- All you Entitlements and Icons will be displayed
- Click on the desktop and you will be prompted for credentials enter them and you will have your virtual desktop or applications



## 3 Master Images

- Windows 10 Multi Session
  - Create the VM in Azure Portal - D2sm instance
  - Select the Image type properly - Windows 10 Multi session Gen2
  - Select these details properly during VM creation
    - Select the Premium SSD disk for OS Disk in production
    - No Data Disk + Select Proper Network + Tags
  - After the VM Golden Image creation login to the image using Azure Bastion
  - Install Windows Updates
  - Install FSLogix on the master image
  - Install Edge, Chrome, NP++, Putty and OneDrive Per machine install
  - Customize the Image with few optimizations mentioned on Microsoft Docu. You can also port them all into a GPO
  - Optional - Configuration
    - GPO - Restrict users accessing the temporary drive
    - GPO - Set limit for disconnect sessions
    - GPO - Set time limit for logoff remote app sessions
    - GPO - Set rules for remote control of RDS users sessions
    - Configure Windows Defender extension exclusions for FSLogix
    - Optional take a snapshot of the template before the Sysprep task
  - Generalize the image OOB + Generalize + Shutdown
  - Template is ready
- Windows 10 1909 Enterprise
  - Create the VM in Azure Portal - D2sm instance
  - Select the Image type properly - Windows 10 Multi session Gen2
  - Select these details properly during VM creation
    - Select the Premium SSD disk for OS Disk in production
    - No Data Disk + Select Proper Network + Tags
  - After the VM Golden Image creation login to the image using Azure Bastion
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  - Optional - Configuration
    - Configure Windows Defender extension exclusions for FSLogix
    - Optional take a snapshot of the template before the Sysprep task
  - Generalize the image OOB + Generalize + Shutdown
  - Template is ready
- Windows Server 2019 Datacenter
  - Create the VM in Azure Portal - D2sm instance
  - Select the Image type properly - Windows 10 Multi session Gen2
  - Select these details properly during VM creation
    - Select the Premium SSD disk for OS Disk in production
    - No Data Disk + Select Proper Network + Tags
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