



May 31 – June 2, Oslo Spektrum  
10th anniversary

Petter Arnesen

The jungle of Azure Virtual Desktop scenarios/setups

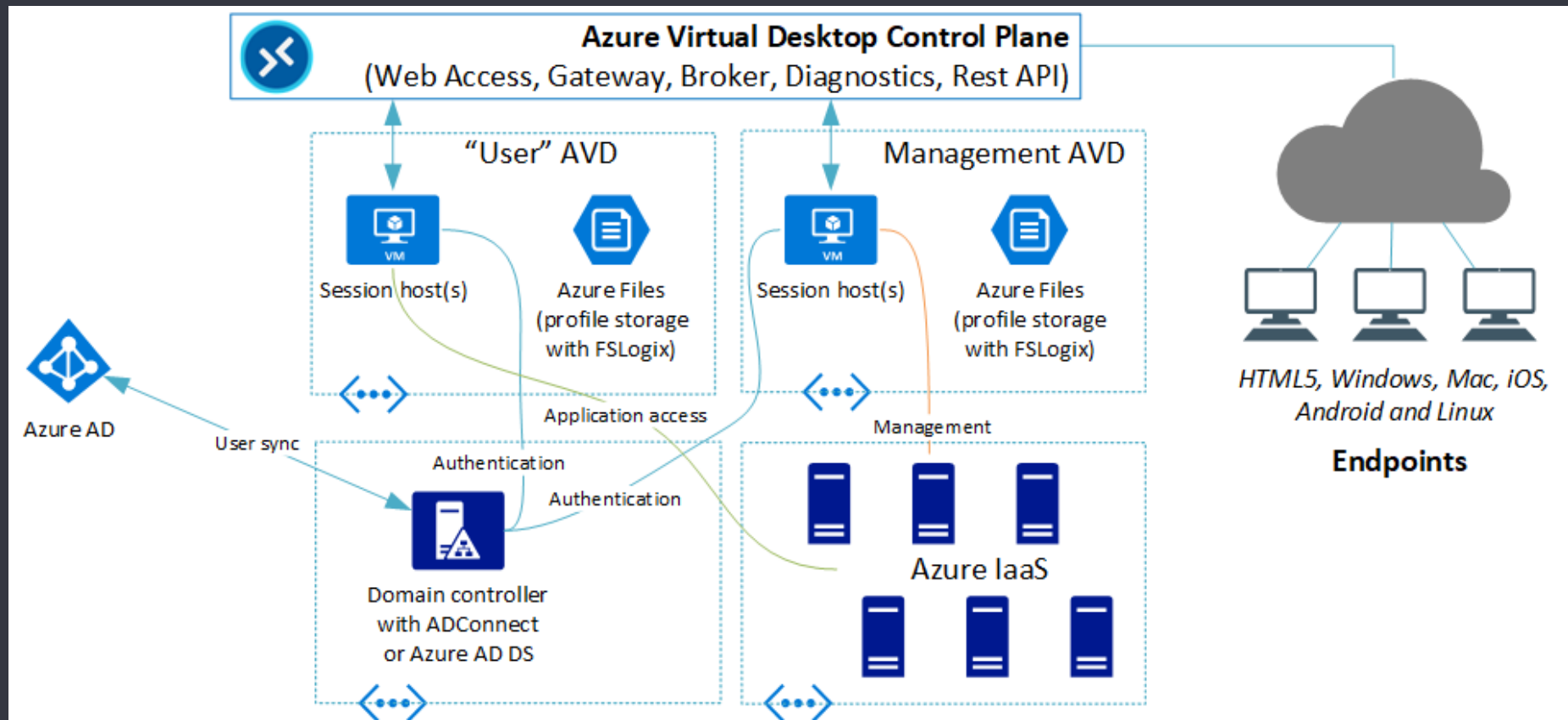
# Petter Arnesen

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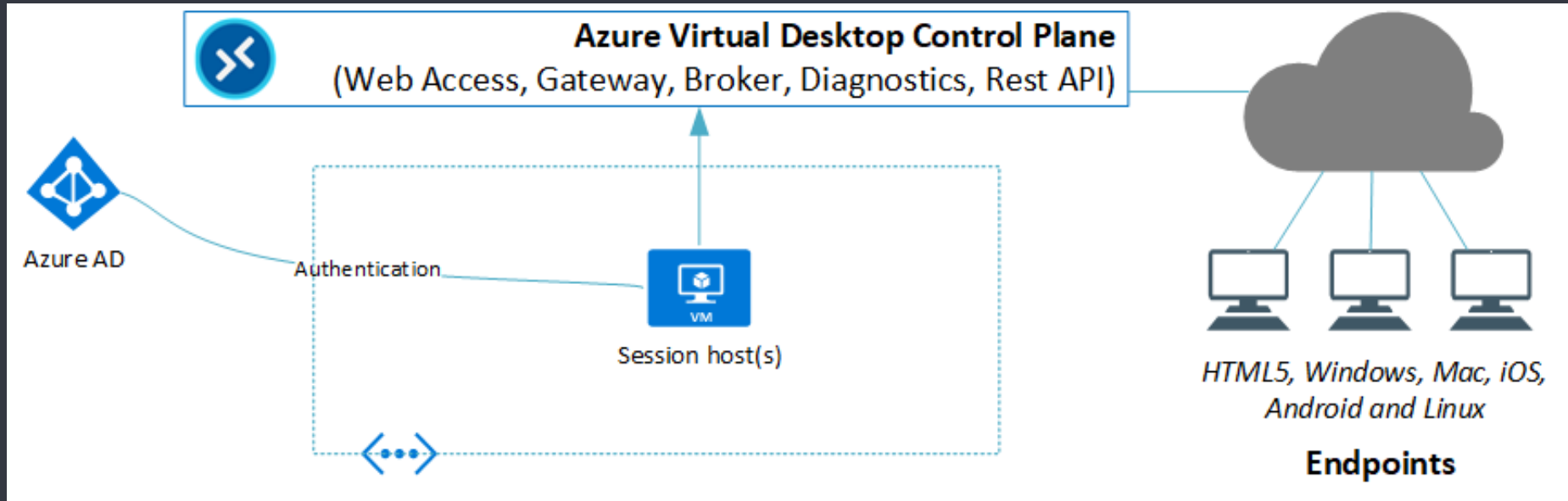
# Azure Virtual Desktop

The jungle of scenarios/setup

# Azure Virtual Desktop



# Azure Virtual Desktop



# Azure Virtual Desktop

- Simple desktop in the cloud (AAD joined)
- Simple desktop in the cloud (AD or AAD DS joined)
- Lift-n-shift starting point
- Work efficiently from cheap hardware
- Offload certain applications/workloads
- Management of Azure IaaS
- Traditional RDS
- Locked down environments
- FSLogix
- CAF
- Single sign-on
- Shortpath
- Multimedia redirection
- Azure Stack HCI
- Start vm on connect
- Scaling plans
- Gaming?
- (imaging)
- (Nerdio)

# Simple desktop in the cloud



# Simple desktop in the cloud

- Either AAD joined session hosts or AD/AAD DS joined
- Quite similar to Windows 365
- Easy setup

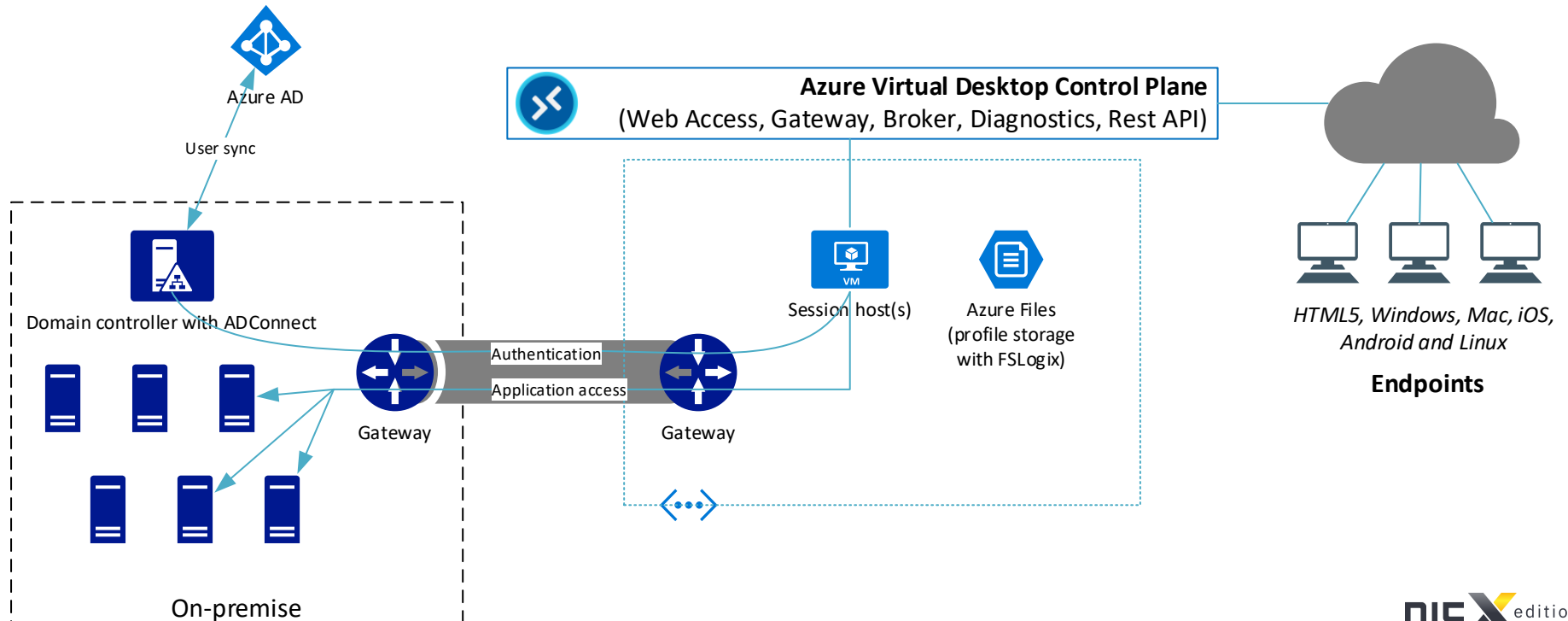
Demo

# Lifting and shifting

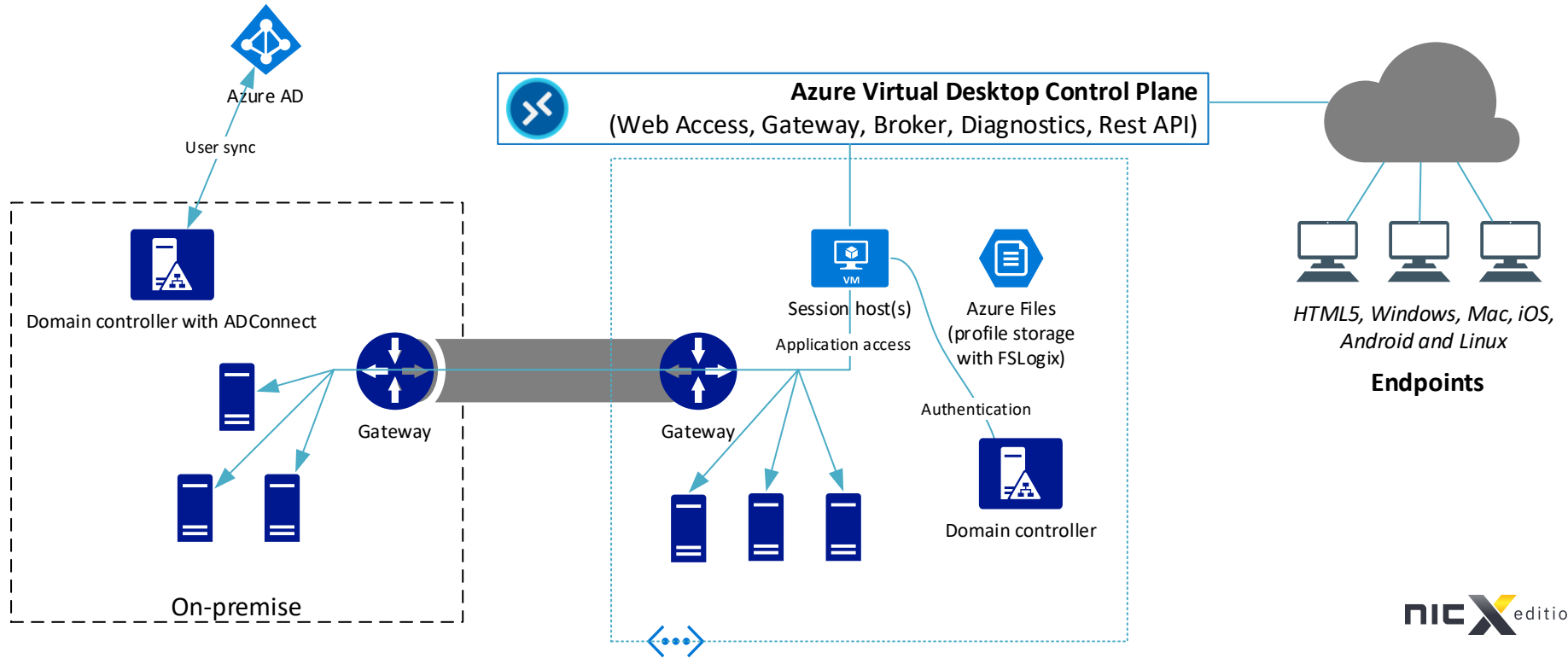
# Lifting and shifting

- AVD as first step in lift-n-shift to Azure
- Establish connection
- Move users to AVD
- Move apps and infra to Azure
- Kill on-prem (or keep it)

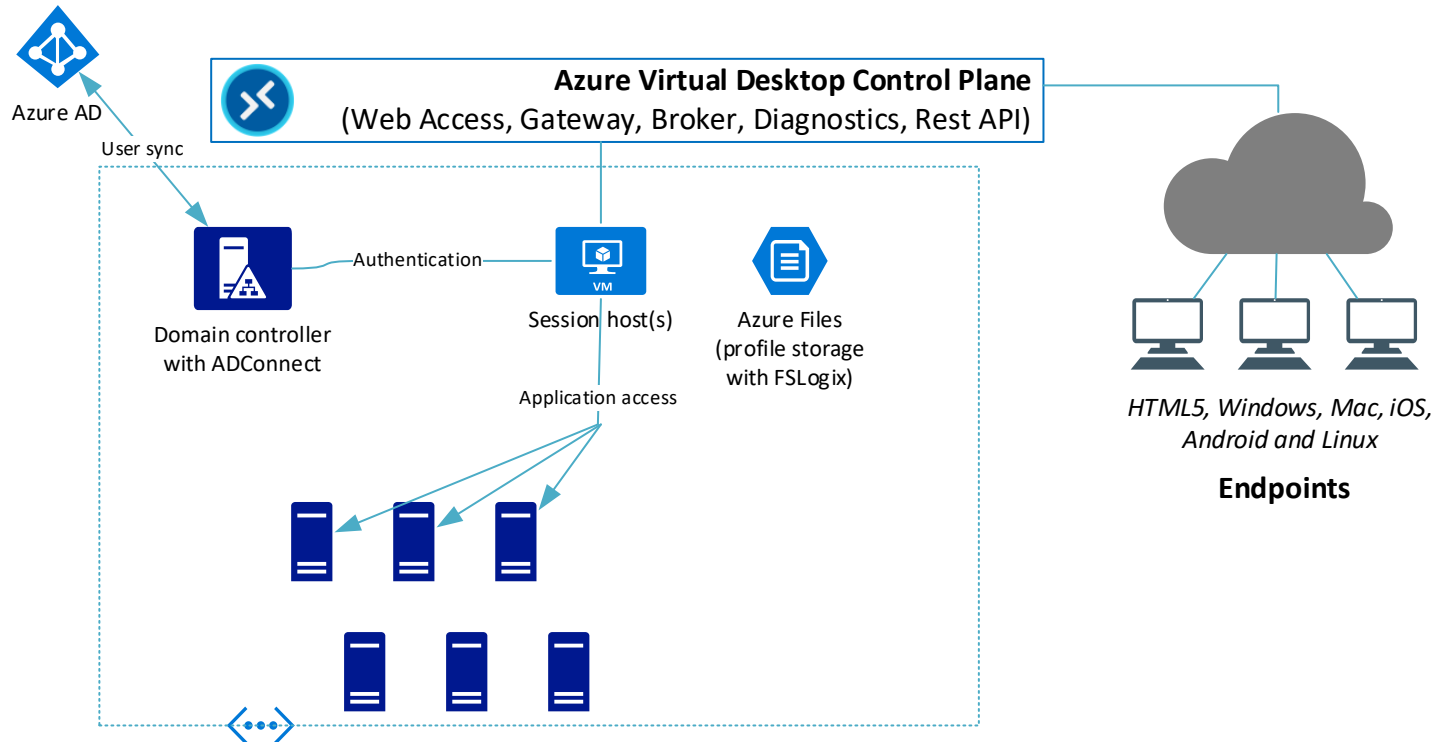
# Lifting and shifting



# Lifting and shifting



# Lifting and shifting



Offload certain applications/workloads



# Offload certain applications/workloads

- Run heavy tasks
  - AND continue to work
- Use RemoteApp
- E.g. renders, compiles++

# Demo

# Management of Azure IaaS

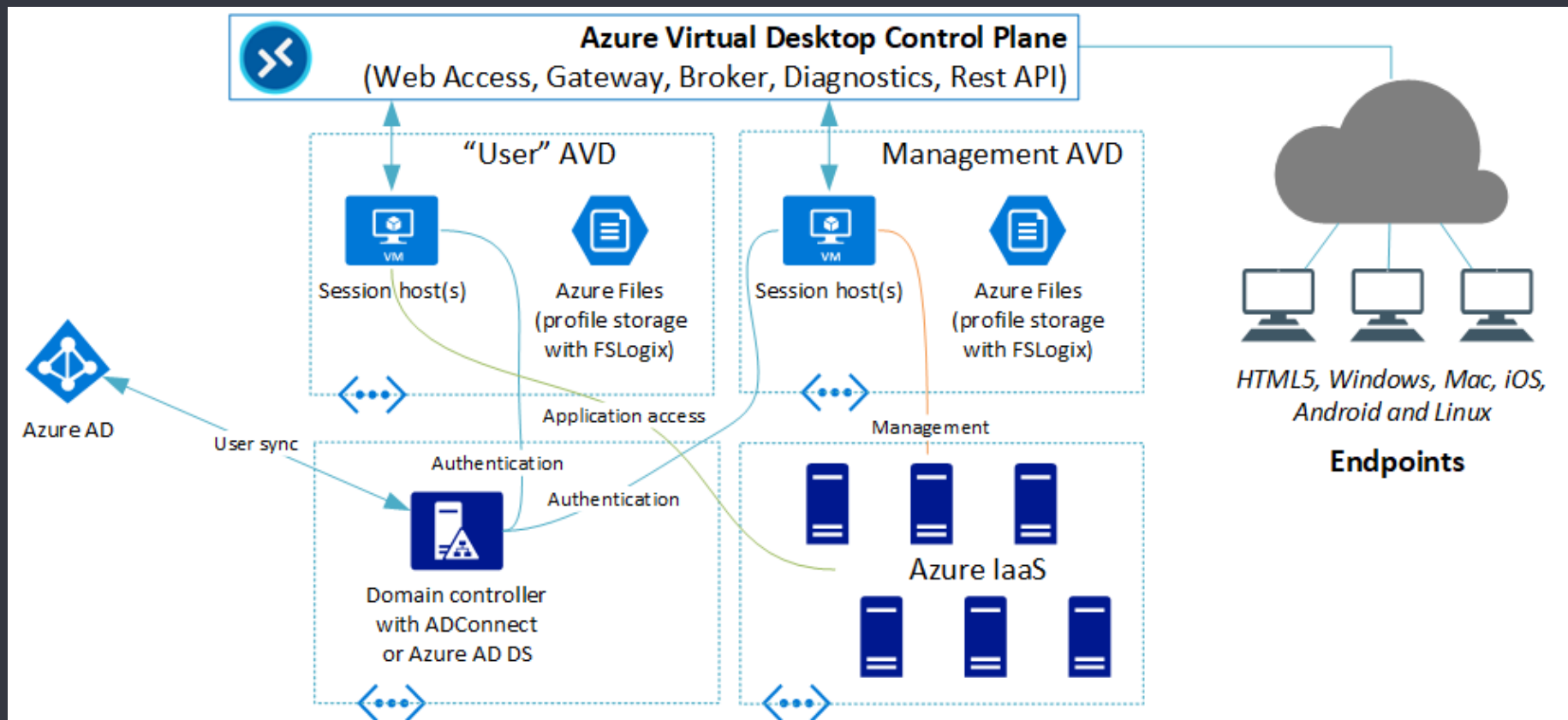
# Management of Azure IaaS

- Exposed jumphosts are no-go
- AVD can function as jumphosts
  - Unexposed to internet
- Side by side “regular” AVD
- What about Bastion?

# Management of Azure IaaS

- What about Bastion?
  - Zero maintenance
  - (Probably) lower cost
  - No support for UDR
  - Via native client is a bit cumbersome

# Management of Azure IaaS



# Locked down environments

# Locked down environments

- Block local drives, printers, cameras etc.
- Shorter session time limits
- Block screen captures
- Isolated session hosts



# Demo

# FSLogix

# FSLogix

- Recommended profile storage
- No additional cost
- Requires software on session hosts
- Faster than UPD
- More reliable than RUP
- More compatible than ESR

# FSLogix

- Profiles stored on Azure Files, Azure NetApp Files or fileshare
- Stored as VHD/VHDX
- Attaches at login
- Supports multiple logons
- Requires Kerberos to work

Demo

CAF

# Cloud Adoption Framework

- What:
  - Guidance
  - Recommendations
  - Best practices
  - Documentation

# Cloud Adoption Framework

- By:
  - Microsoft employees
  - Partners
  - Customers
  - MVPs



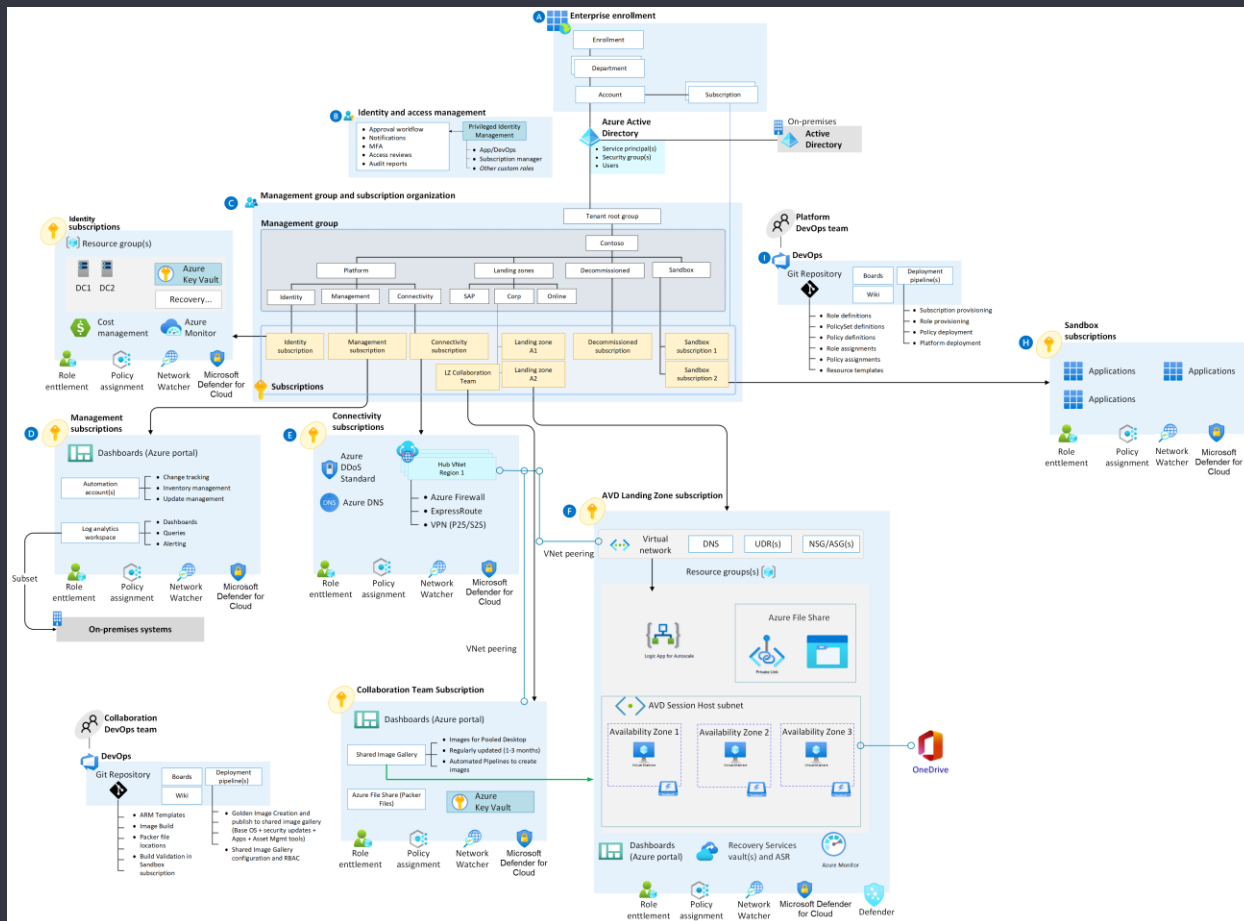
# Cloud Adoption Framework

- Why:
  - Don't repeat other's mistakes
  - Don't reinvent the wheel
  - Remember the things that seem unimportant

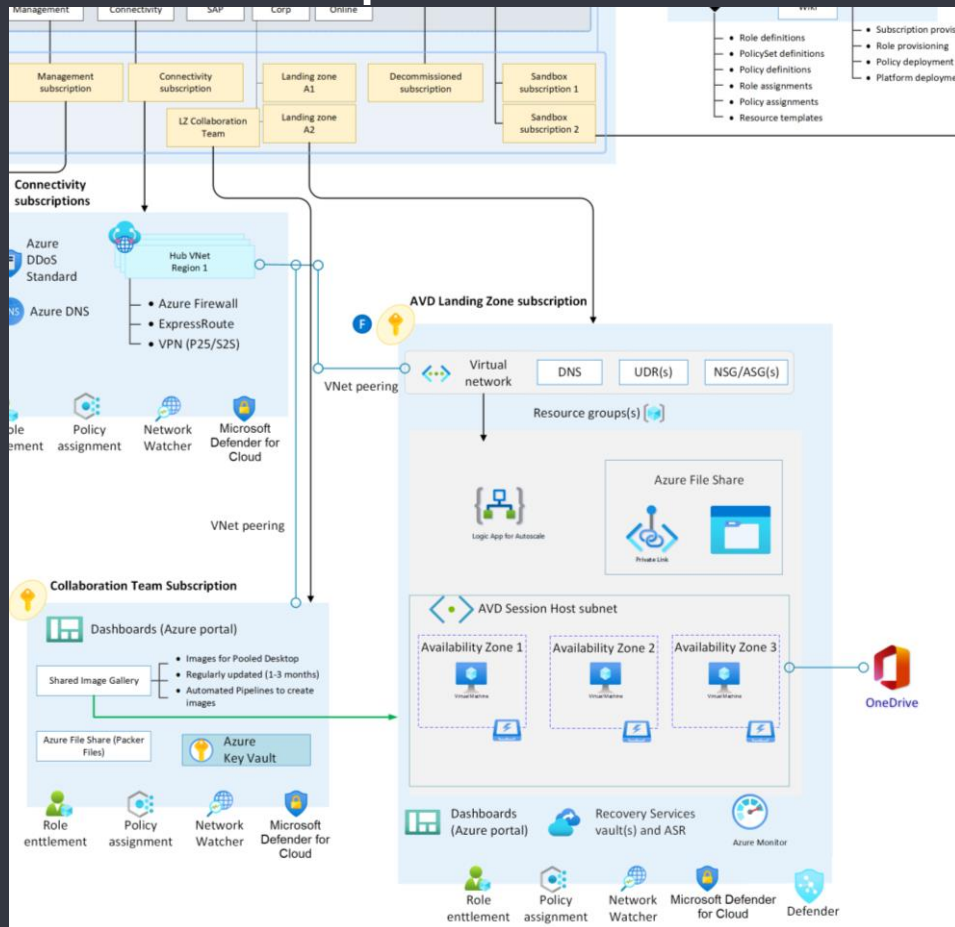
# Cloud Adoption Framework

- How does it relate to AVD?

# Cloud Adoption Framework



# Cloud Adoption Framework



# Singel sign-on

# Singel sign-on

- You sign into the service, then to the session host

# Singel sign-on

- You sign into the service, then to the session host
  - To the service: sso via AAD
  - To the session host: NTLM or Kerberos

# Singel sign-on

- You sign into the service, then to the session host
- Requires ADFS
  - Even then only supported on Windows and web
- Windows Hello can work
  - Documentation says No
  - Out of the box on AAD joined
  - Via ADFS on AD joined



# Shortpath

# Shortpath

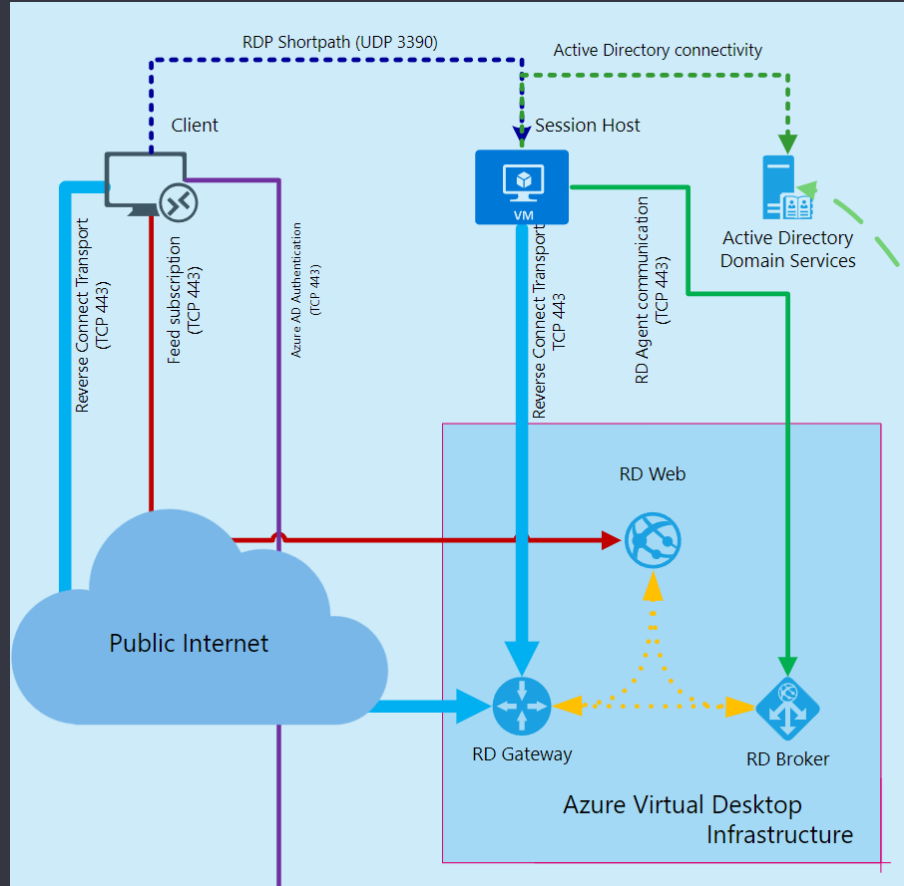
- Taking the shortest path between client and session host

## RDP Shortpath Network Connections

- ### RDP Shortpath Network Connections
- 
- The diagram illustrates the network connections for RDP Shortpath. It shows a Client, a Session Host (VM), and the Azure Virtual Desktop Infrastructure (AVD) components: RD Web, RD Gateway, and RD Broker. The connections are as follows:
- Client to Session Host:**
    - RDP Shortpath (UDP 3390) - Dashed blue line.
    - Active Directory connectivity - Dashed green line.
  - Client to Public Internet:**
    - Reverse Connect Transport (TCP 443) - Solid blue line.
    - Feed subscription (TCP 443) - Solid red line.
    - Azure AD Authentication (TCP 443) - Solid purple line.
  - Session Host to Public Internet:**
    - Reverse Connect Transport (TCP 443) - Solid blue line.
    - RD Agent communication (TCP 443) - Solid green line.
  - Public Internet to AVD Infrastructure:**
    - Reverse Connect Transport (TCP 443) - Solid blue line to RD Gateway.
    - Feed subscription (TCP 443) - Solid red line to RD Web.
    - Azure AD Authentication (TCP 443) - Solid purple line to RD Gateway.
  - AVD Infrastructure Internal Connections:**
    - RD Gateway to RD Web - Dotted yellow line.
    - RD Gateway to RD Broker - Dotted yellow line.
    - RD Web to RD Broker - Dotted yellow line.
  - AVD Infrastructure to Azure Active Directory:**
    - Azure AD Connect sync (TCP 443) - Dashed green line.
  - Legend:**
    - Reverse Connect Transport (TCP 443) - Solid blue line.
    - Feed subscription (TCP 443) - Solid red line.
    - Azure AD Authentication (TCP 443) - Solid purple line.
    - RD Agent communication (TCP 443) - Solid green line.
    - RDP Shortpath (UDP 3390) - Dashed blue line.
    - Internal service traffic - Dotted yellow line.
    - Azure AD Connect Sync (TCP 443) - Dashed green line.
    - Local Active Directory connectivity (various) - Dashed grey line.

# Shortpath

- Taking the shortest path between client and session host



# Shortpath

- Taking the shortest path between client and session host
- In addition to reverse connect
- UDP based
- Faster, more reliable
- Only for the Windows client
- Requires direct line of sight

# Demo

# Quick notes

# Azure Stack HCI

- In public preview
- It's AVD on-prem 🙌



# Imaging

- Do you need to?
  - Endpoint Manager
  - MSIX AppAttach

# Imaging

- Choose OS wisely
- Don't enroll image vm to AVD
  - This should be done after deployment
- New vm -> snapshot -> customize -> snapshot -> sysprep -> capture
- Publish in Shared Image Gallery

# Nerdio

- Management platform
- Cost optimization
- Self-service
- Imaging
- MSIX AppAttach image management
- ++
- Priced per user per month

Final demo



Slides and demos from the conference will be available at

**<https://github.com/nordicinfrastructureconference/2022>**

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