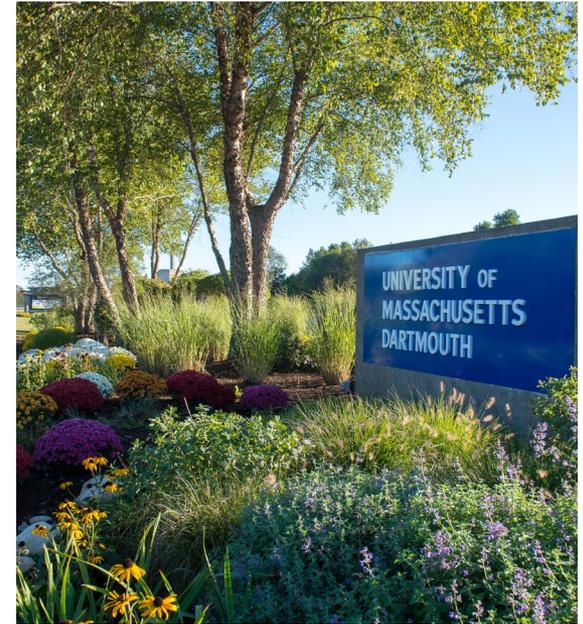




Windows Virtual Desktop

Implementation at UMass Dartmouth

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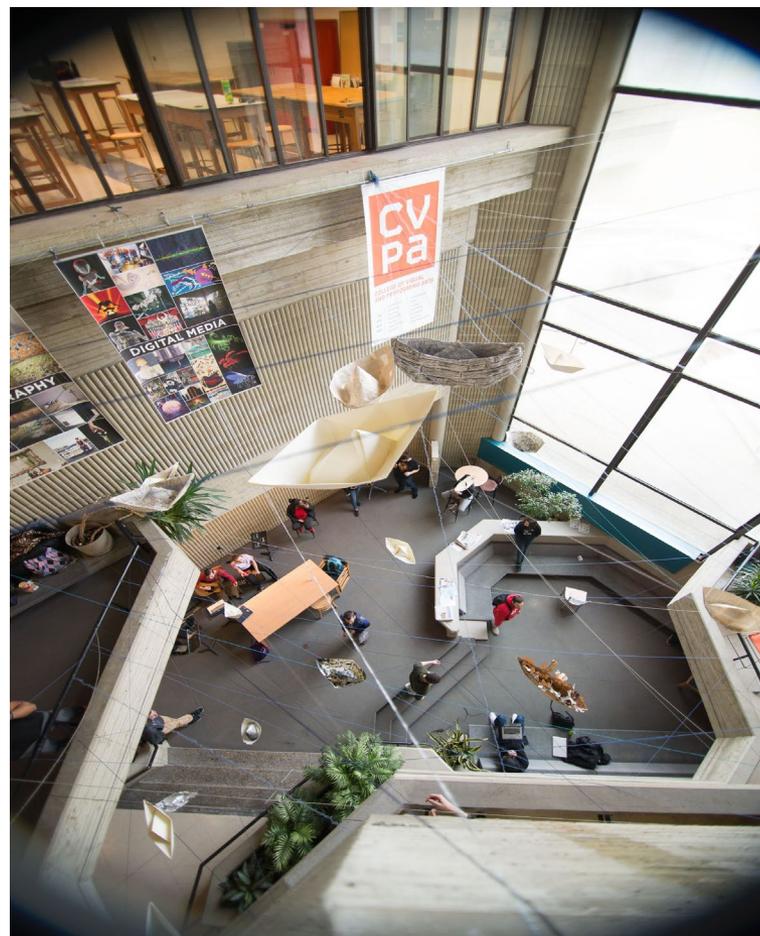
WVD Implementation Team





College of Visual and Performing Arts

- Windows lab in CVPA with 40 computers
- GPU intensive software
- Reduced upgrade cost by over \$50,000
- WVD provisioned for 100 seats, total 140 seats available to the students
- Allows CVPA students access university software using BYOD
- Accessible from Macs
- Launch specific application and/or full desktop





Why Windows Virtual Desktop?



- Reduced desktop management and infrastructure
- Efficient upkeep
- Allows staff to focus on other projects
- Convenient for students to access any time of day
- Weather





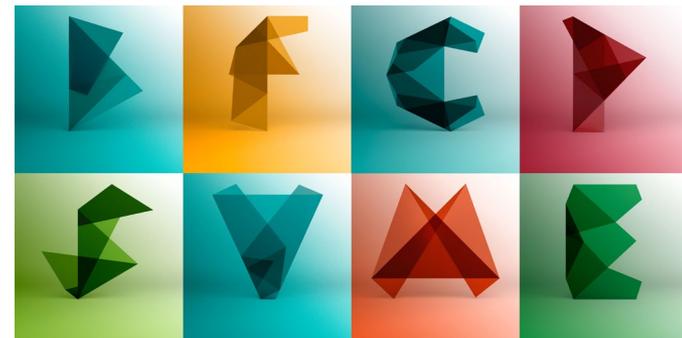


CVPA Programs



Game & Animation Design Lab

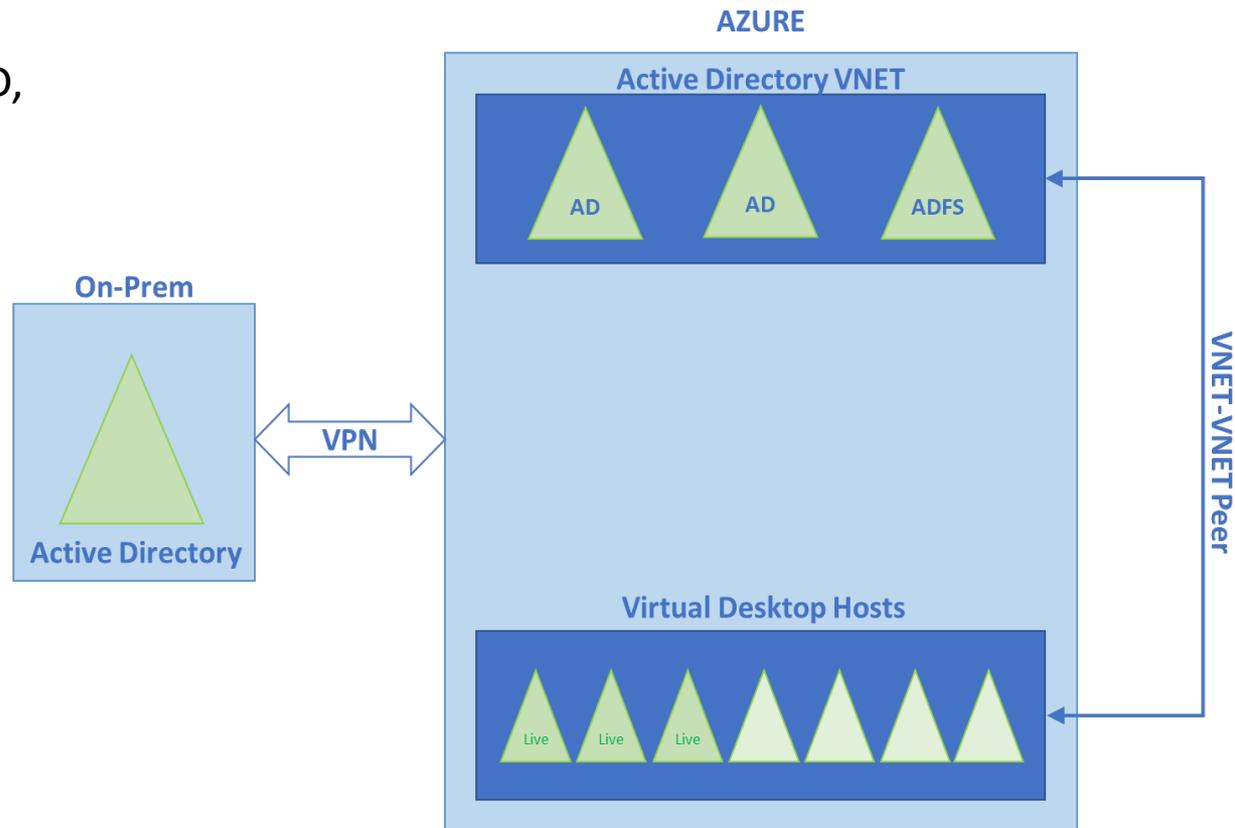
- Graphic Design
- Interior Design
- Game Design
 - Unity
 - Zbrush
 - Maya
 - Mudbox





Implementation

- Provisioned with 12 vCPUS, 112GiB Memory, 680 GiB SSD, 2 GPUs, 16GiB GPU Memory
- Seven servers
- Scaling
- Scripting
 - Turn on/off VMs
 - Add/Remove Users
- Managing groups





Scaling

Peak Hours

- 3 VMs online 24/7
- Empty VMs stay online

Off Peak Hours

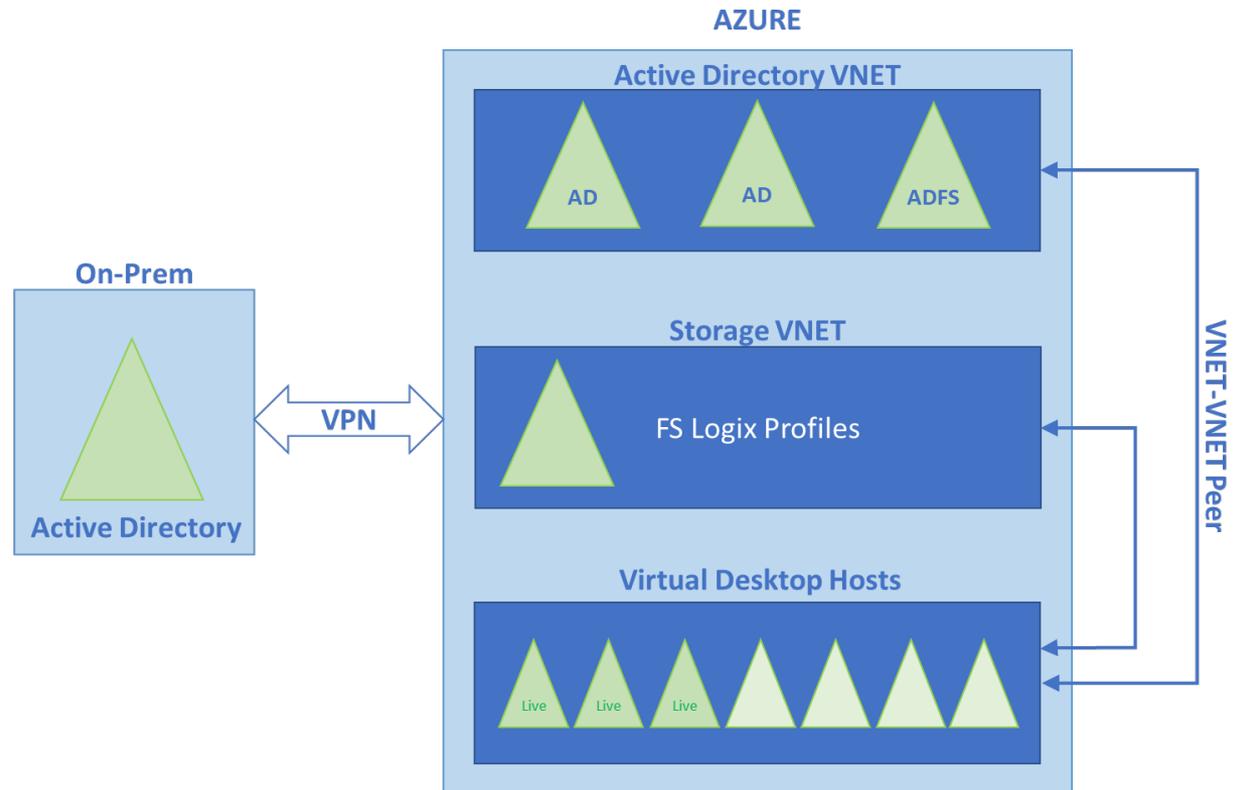
- VMs run at minimum Level
- Non-Active VMs are shutdown

Breadth First

- VMs are at 80%
- Move to VMs at <25%
- If none available, create new VM

FS Logix

- FS Logix implementation for login
 - Known Login Issues
 - Prompt twice
- FS Logix for profile management
 - Hosts profiles
 - Native integration of OneDrive sync
- Group policy updates





Stress Test



- Provisioned 50 users
- GPU ran out of regular cycles
- VM became unresponsive
- Fixes
- End results



Changing Cultures

Disconnect v/s logoff from Windows
Virtual Desktop

Cloud
Storage

- Apprehensive users
- Data subject to internet access
- Uploading large project files

Local
Storage

- Data under your control
- Data subject to wear and tear of the host
- Ease of access





Feature Comparison

Features	Physical Lab Desktop	Microsoft Virtual Desktop
Access	Only when Lab/Building is open	Anywhere, Anytime
Network connection	Only for first time login	Always required
Storage	USB, Network Shares, and Cloud	Network Shares and Cloud only
Rendering	Works well	Web Client: Smoother Visuals RDP: Pixelation while moving windows
Hot Keys	Available	Web Client: Not Available RDP: Available
RD Client		Windows only



Future Plans



- Test WVD with thin clients
- Test with peripherals including graphics tablets
- Scale out to other departments
- Provide dedicated virtual workstation for faculty research
- Breadth first v/s Depth First Configuration for Finals



Any Questions?
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