

Work hard, Play hard : Powerful Desktops in Azure



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SECOND VIRTUAL EVENT
NOVEMBER 13 2020

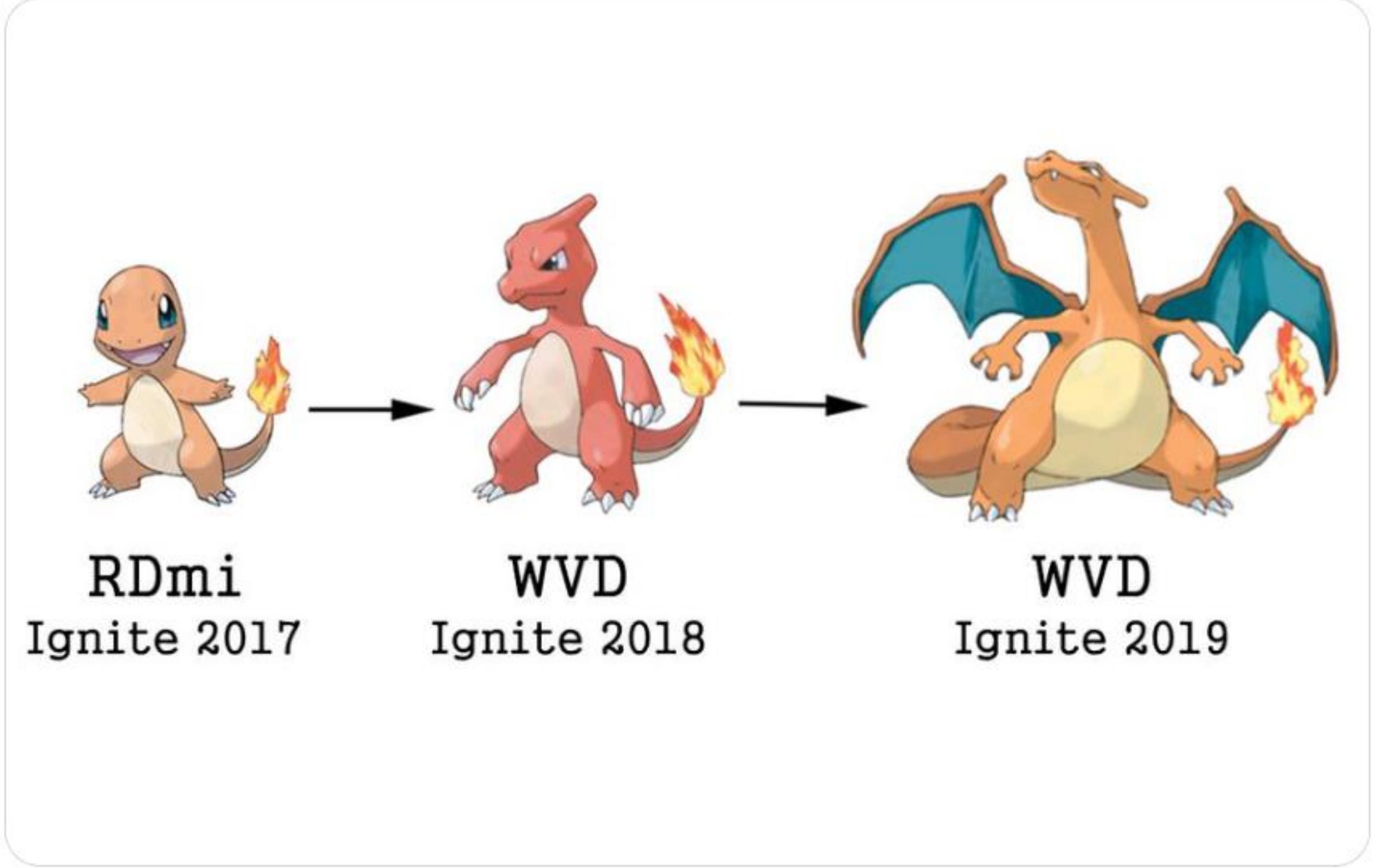
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WVD

 **Freek Berson**
@fberson

Evolution of #WVD in one simple diagram! But if you want all details: [linkedin.com/pulse/windows-...](https://www.linkedin.com/pulse/windows-virtual-desktop-announcements-news-from-ignite-freek-berson/)



The diagram illustrates the growth of WVD over three years. It features three stages of the evolution of Charmander into Charizard, separated by arrows. Below each stage, the text 'RDmi' or 'WVD' is followed by the year 'Ignite 2017', 'Ignite 2018', or 'Ignite 2019' respectively.

Year	Event	Charmander Evolution Stage
2017	RDmi Ignite 2017	Charmander (Initial Form)
2018	WVD Ignite 2018	Charmeleon (Intermediate Form)
2019	WVD Ignite 2019	Charizard (Advanced Form)

6:34 PM · Nov 6, 2019 from Florida, USA · Twitter for iPhone

<https://www.linkedin.com/pulse/windows-virtual-desktop-announcements-news-from-ignite-freek-berson/>



"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 in Italy, 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!”

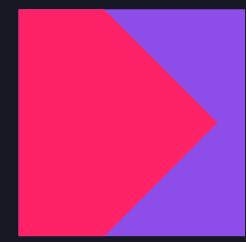
Windows Virtual Desktop



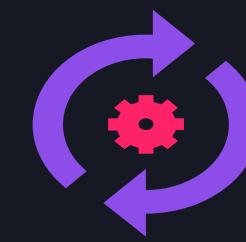
Provide a full-desktop, authenticated experience for users at every level



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



Full Desktop



RemoteApp



Windows 10 Enterprise
multi-session



Windows 10 Enterprise



Windows Server
2012 R2 and newer



Windows 7 Enterprise
Full Desktop

Management and policies



Image, app, and profile
management



User density, VM sizing,
and scaling policies



User management and
identity



Networking policies

Managed by Microsoft

Windows Virtual Desktop Service



Clients



Diagnostics



Gateway



Management



Broker



Load balancing

Infrastructure



Compute

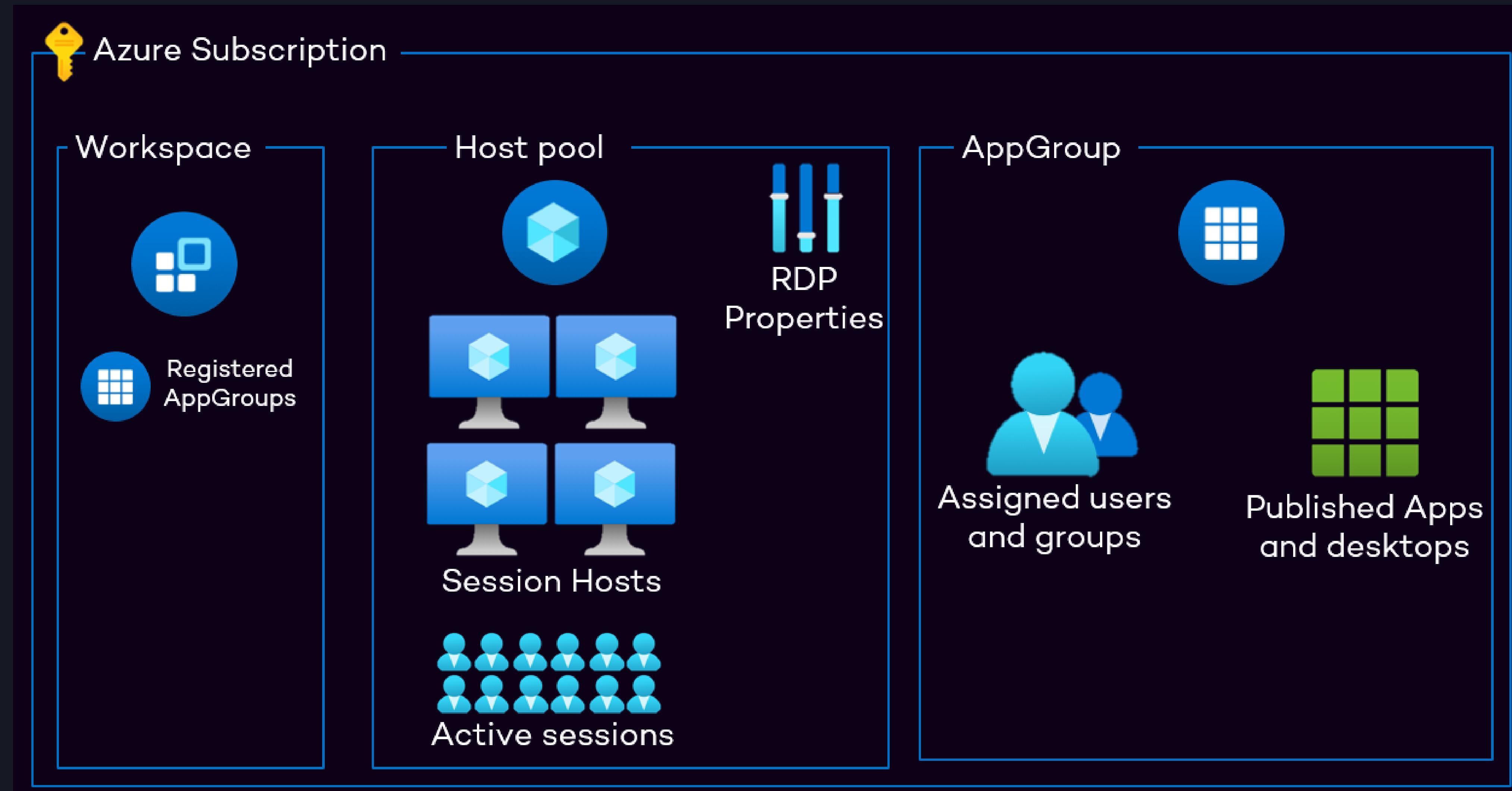


Storage



Networking

WVD Objects

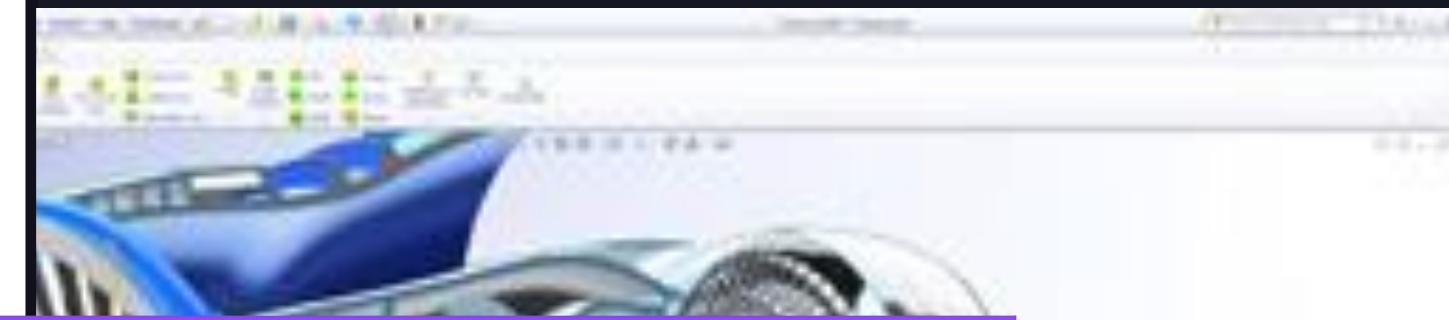
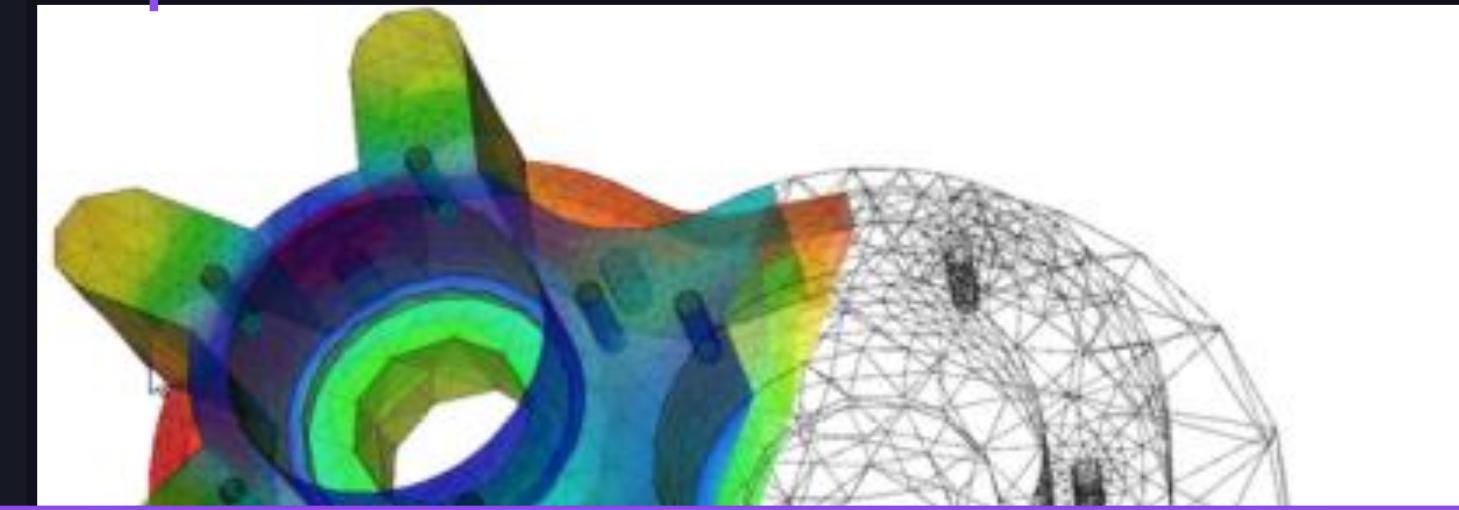
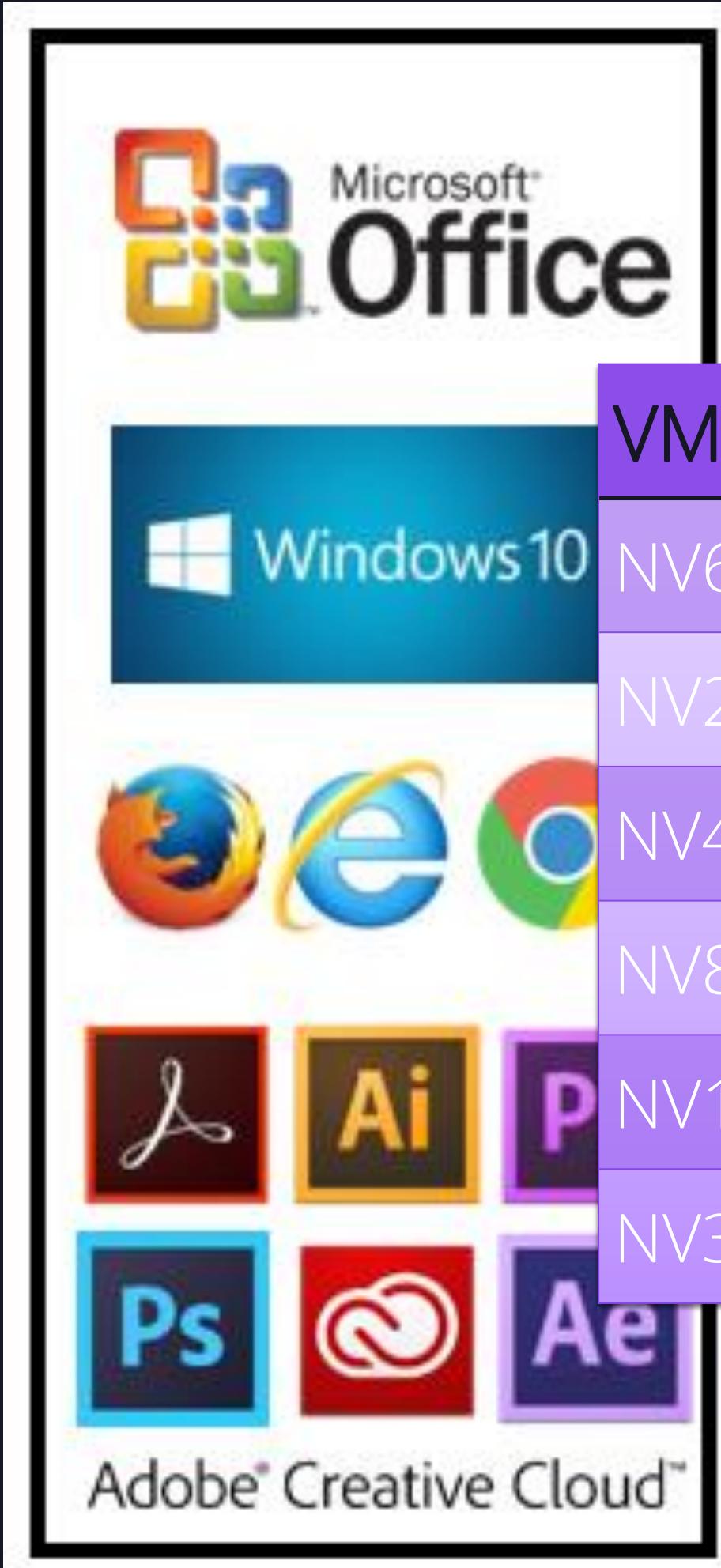


DEMO #1:

WVD overview

aka.ms/wvd

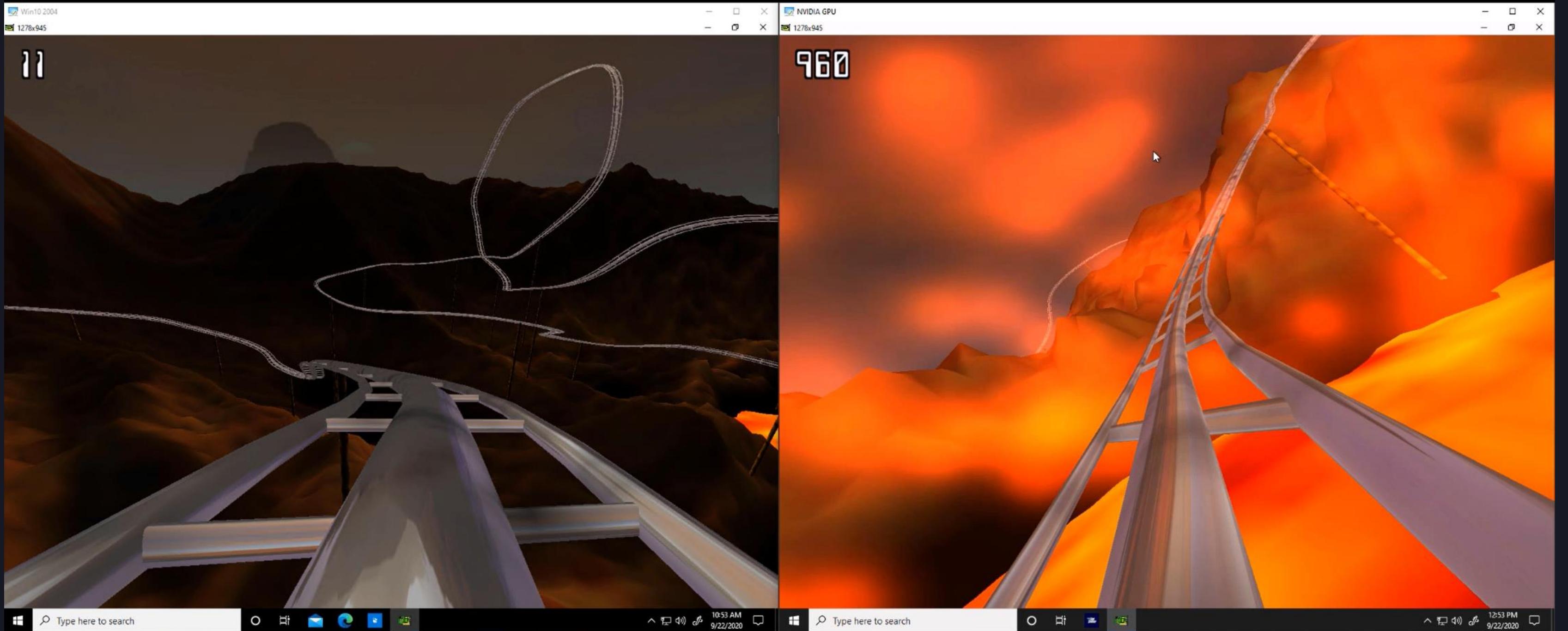
Powerful Desktops & GPU

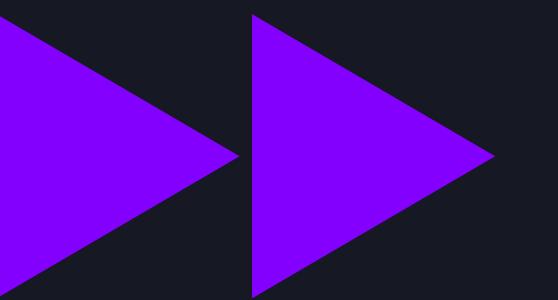


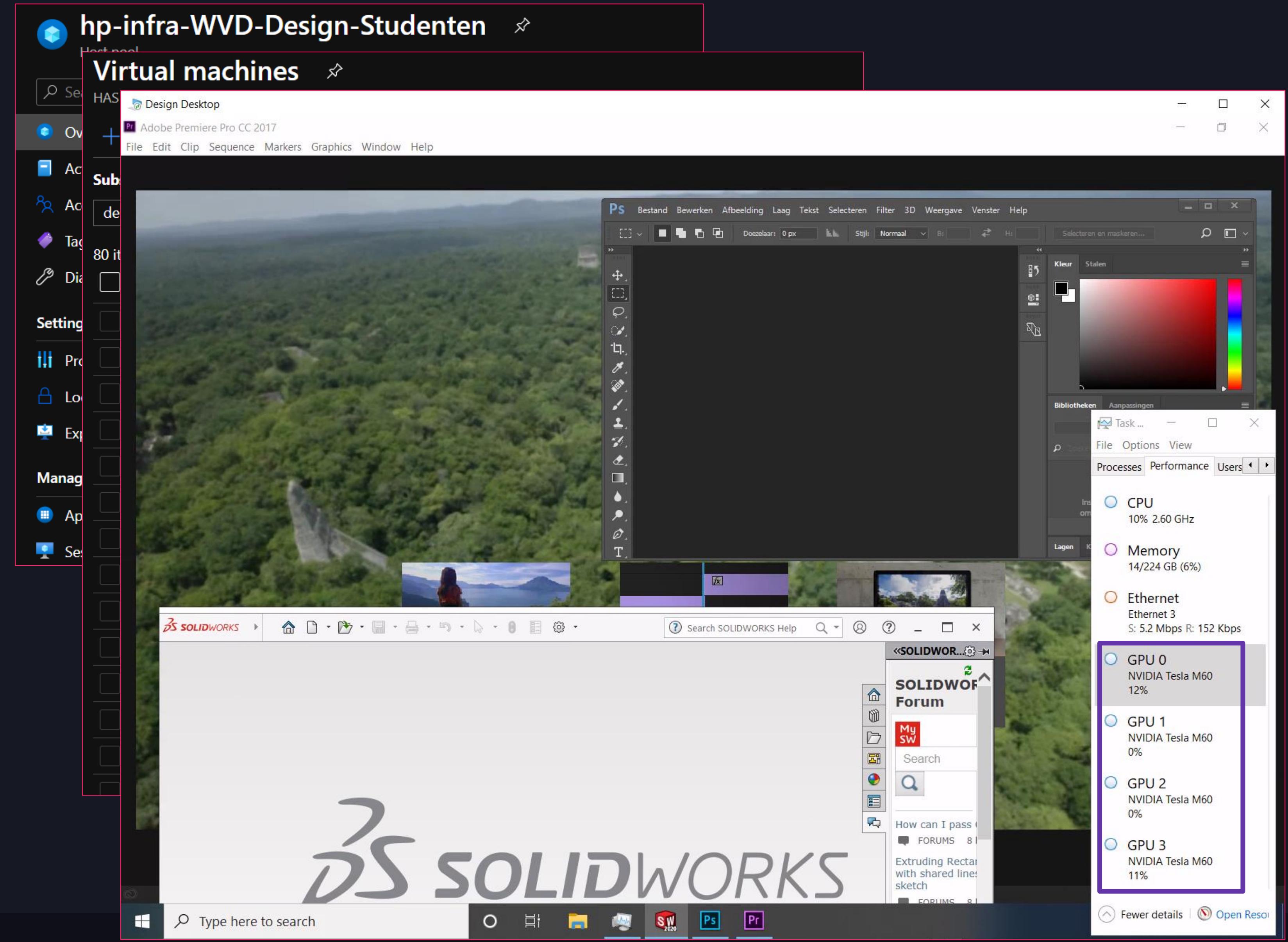
VM Type	vCPUs	RAM	GPU
Windows 10	NV6	6 (Intel)	56 GB 1 x NVIDIA M60
	NV24	24 (Intel)	56 GB 4 x NVIDIA M60
Firefox, Internet Explorer, Chrome	NV4as_v4	4 (AMD)	14 GB 1/8 AMD MI25
	NV8as_v4	8 (AMD)	28 GB ¼ AMD MI25
Illustrator, Photoshop, Premiere Pro, After Effects	NV16as_v4	16 (AMD)	56 GB ½ AMD MI25
Adobe Creative Cloud	NV32as_v4	32 (AMD)	112 GB 1 AMD MI25

DEMO #2:

GPU
vs.
no GPU

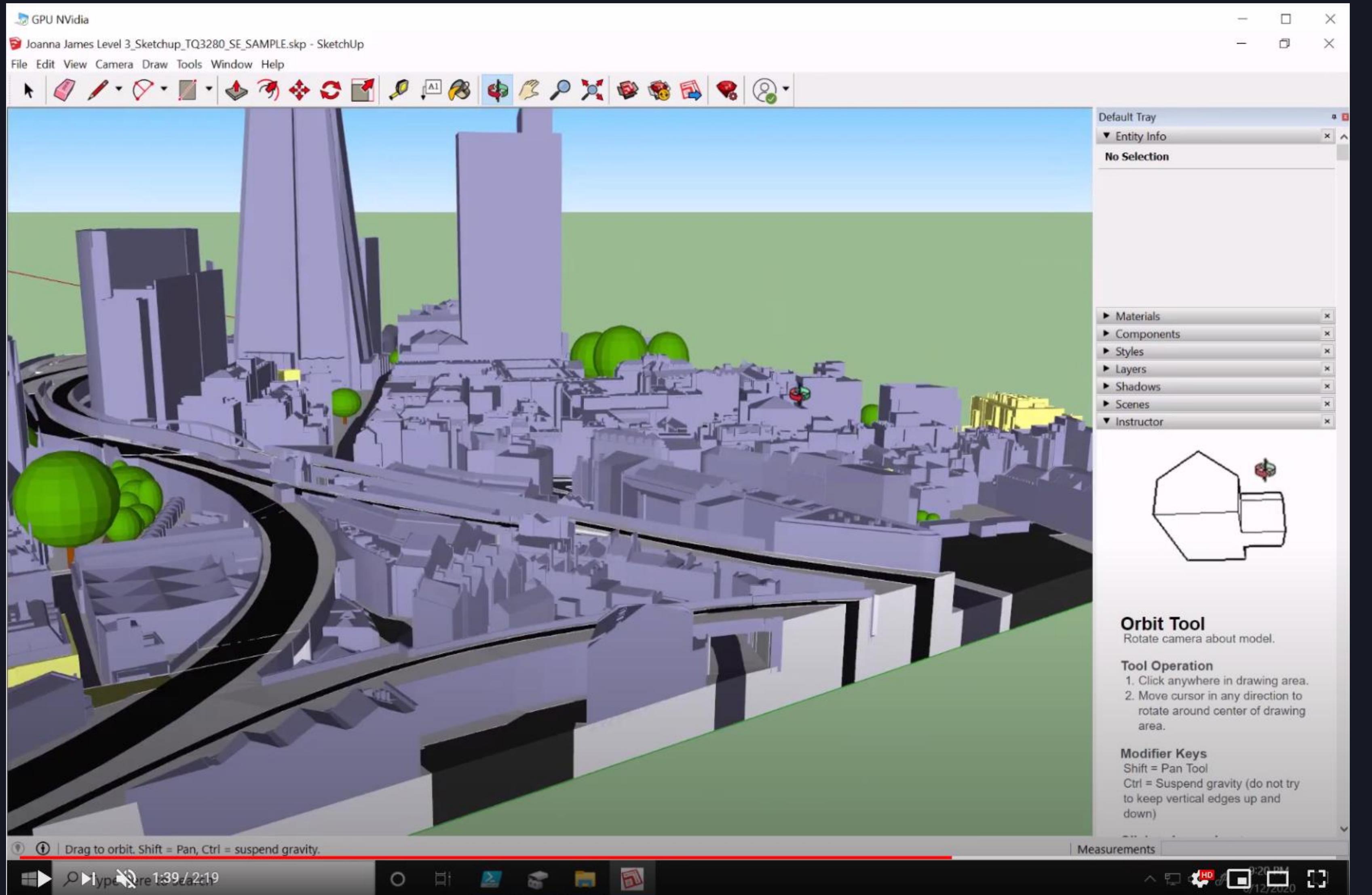






Provide students with
secure access to a
Graphical Design
Desktop without
requiring an
expensive flat client.

COVID-19 proof
remote classroom!



DEMO #3:

Bringing Google Sketchup to a GPU empowered WVD Desktop in seconds!

docs.microsoft.com/en-us/azure/virtual-desktop/app-attach

Installing and configuring

1. Install

NVIDIA GRID drivers

Microsoft redistributes NVIDIA GRID driver installers for NV and NVv3-series VMs used as virtual workstations or for virtual applications. Install only these GRID drivers on Azure NV-series VMs, only on the operating systems listed in the following table. These drivers include licensing for GRID Virtual GPU Software in Azure. You do not need to set up a NVIDIA vGPU software license server.

For Windows Server 2019, Windows Server 2016, and Windows 10(up to build 2004):

- [GRID 11 \(452.39\) \(.exe\)](#)
- [GRID 11.0 \(451.48\) \(.exe\)](#)

For Windows Server 2012 R2:

- [GRID 11.0 \(451.48\) \(.exe\)](#)
- [GRID 10.1 \(442.66\) \(.exe\)](#)

Extension schema

The following JSON shows the schema for the extension.

```
JSON
{
  "name": "<myExtensionName>",
  "type": "extensions",
  "apiVersion": "2015-06-15",
  "location": "<location>",
  "dependsOn": [
    "[concat('Microsoft.Compute/virtualMachines/', <myVM>)]"
  ],
  "properties": {
    "publisher": "Microsoft.HpcCompute",
    "type": "NvidiaGpuDriverWindows",
    "typeHandlerVersion": "1.3",
    "autoUpgradeMinorVersion": true,
    "settings": {}
  }
}
```

2. Configure

COMP - Configure GPU Settings

Scope Details Settings Delegation

COMP - Configure GPU Settings
Data collected on: 11/9/2020 1:27:39 PM

General

Details

Links

Security Filtering

Delegation

Computer Configuration (Enabled)

Policies

Administrative Templates

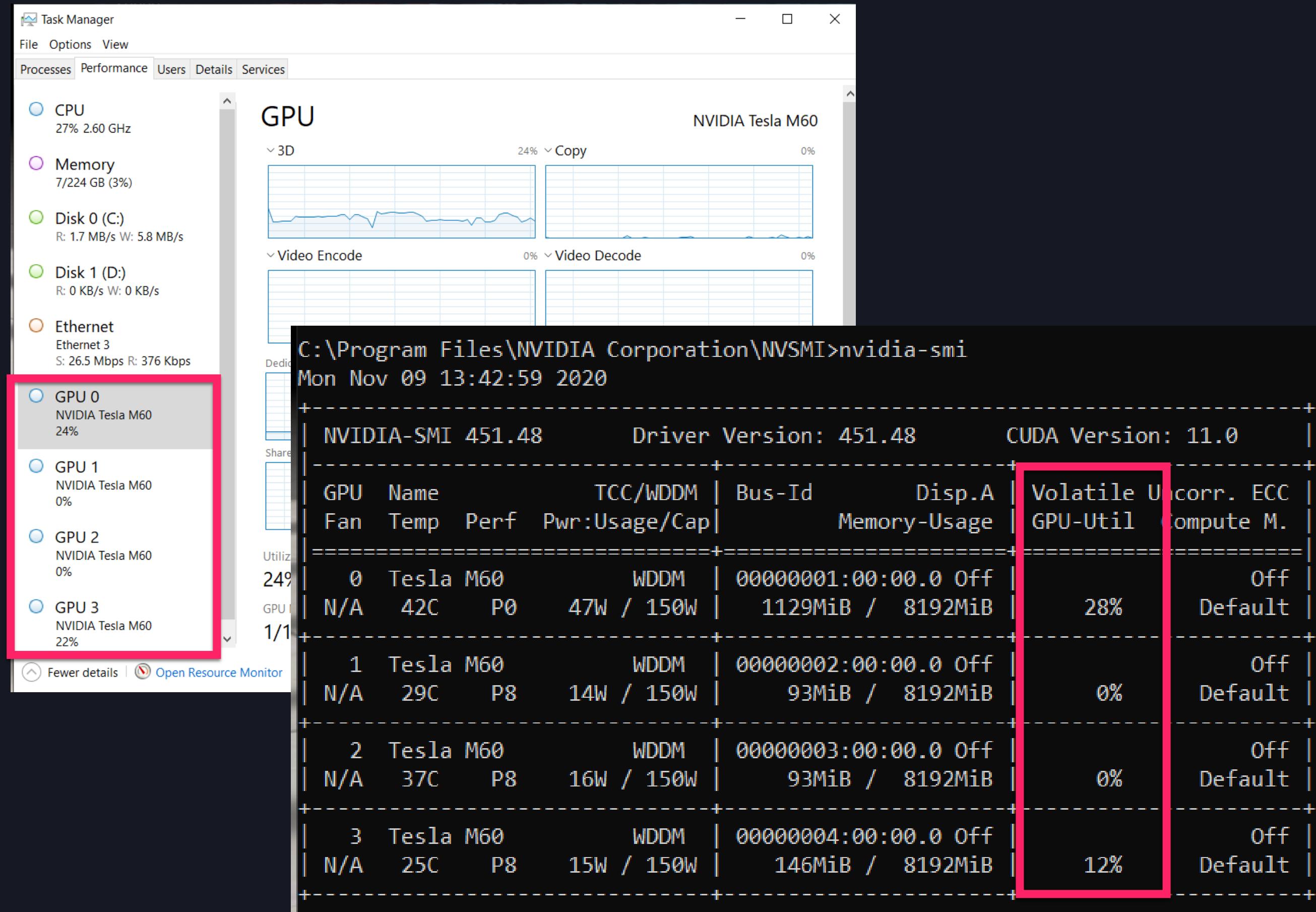
Policy definitions (ADMX files) retrieved from the central store.

Windows Components/ Remote Desktop Services/ Remote Desktop Session Host/ Remote Session Environment

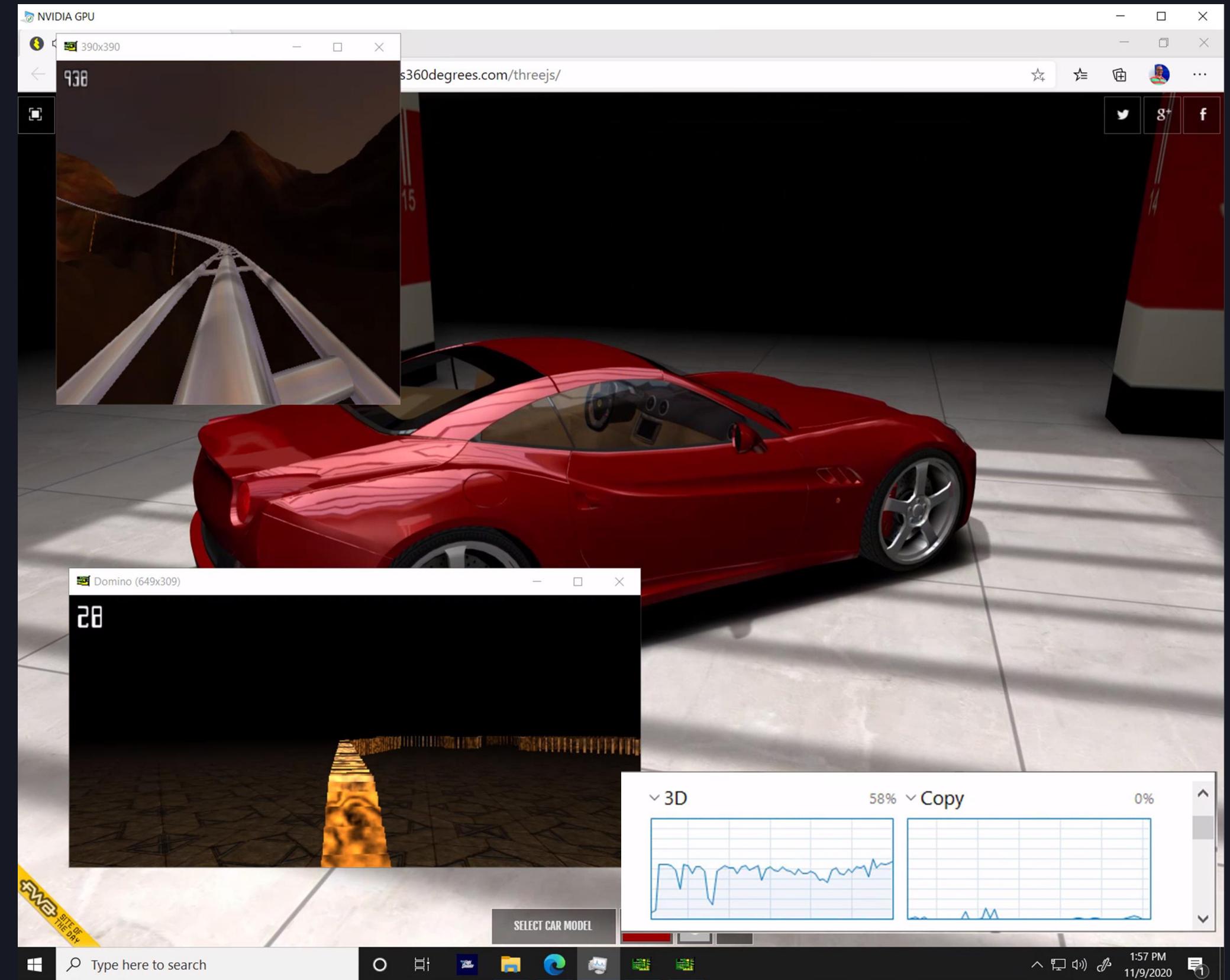
Policy	Setting
Configure H.264/ AVC hardware encoding for Remote Desktop Connections	Enabled
Prioritize H.264/ AVC 444 graphics mode for Remote Desktop Connections	Enabled
Use hardware graphics adapters for all Remote Desktop Services sessions	Enabled

Installing and configuring

3. Confirm



4. Test



Auto scaling

Size * ⓘ

Standard_D2s_v3 - 2 vcpus, 8 GiB memory (€115.73/month)

Select size

Size * ⓘ

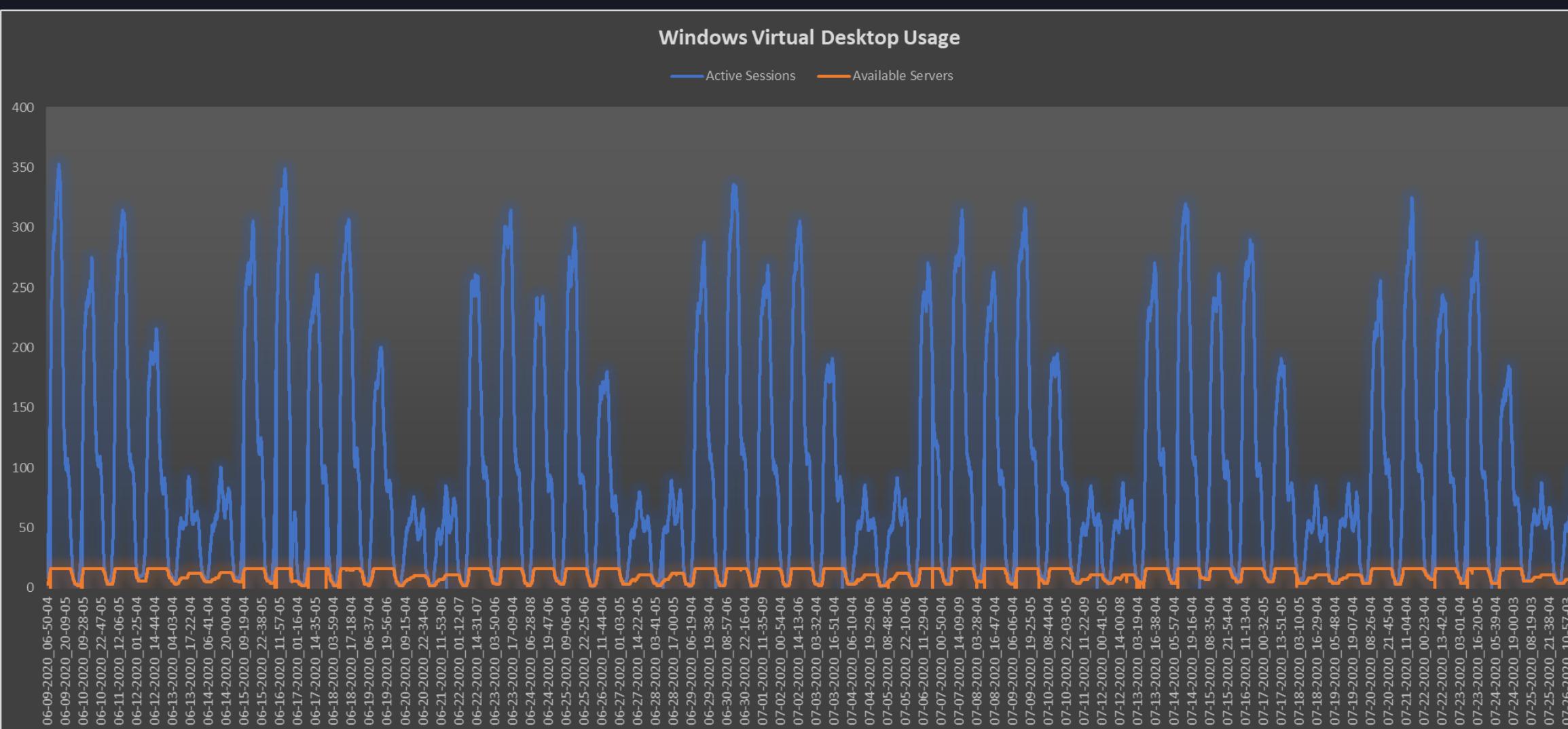
Standard_D4s_v3 - 4 vcpus, 16 GiB memory (€231.47/month)

Select size

Size * ⓘ

Standard_NV6 - 6 vcpus, 56 GiB memory (€886.48/month)

Select size



1 EUR = 1.1795 USD

<input type="checkbox"/> Name ↑↓	Type ↑↓	Location ↑↓
<input type="checkbox"/> AzureAutomationTutorial (WVD-AUTOMATION-SCALING/Azur... Runbook	Runbook	West Europe
<input type="checkbox"/> AzureAutomationTutorialPython2 (WVD-AUTOMATION-SCALI... Runbook	Runbook	West Europe
<input type="checkbox"/> AzureAutomationTutorialScript (WVD-AUTOMATION-SCALI... Runbook	Runbook	West Europe
<input type="checkbox"/> {NINJA-WE-P-RG-WVD-FB-GPU-HOSTPOOL_Autoscale_Schedul... Logic app	Logic app	West Europe
<input type="checkbox"/> WVD-AUTOMATION-SCALING Automation Account	Automation Account	West Europe
<input type="checkbox"/> WVDAutoScaleRunbookARMBased (WVD-AUTOMATION-SCALI... Runbook	Runbook	West Europe

<https://docs.microsoft.com/en-us/azure/virtual-desktop/set-up-scaling-script>

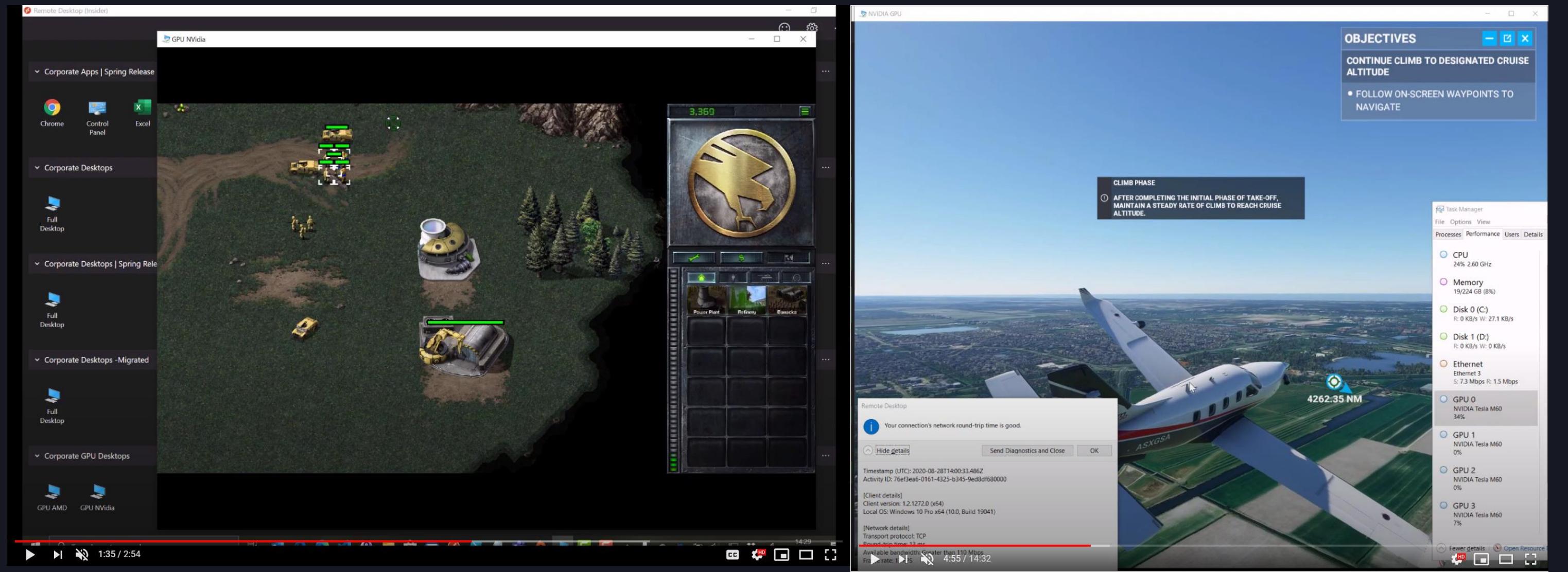
1992



2020



DEMO #4: Play hard with WVD!



[master](#) [wvd / Add-WVDHostToHostpoolSpring.ps1](#)

fberson Token ExpirationTime ...

1 contributor

Add-WVDHostToHostpoolSpring.ps1

This script adds an WVD Session Host to an existing WVD Host pool.

- Download the WVD agent
- Download the WVD Boot Loader
- Install the WVD Agent, using the provided hostpool
- Install the WVD Boot Loader
-
-

[fberson New Upload](#) ...

1 contributor

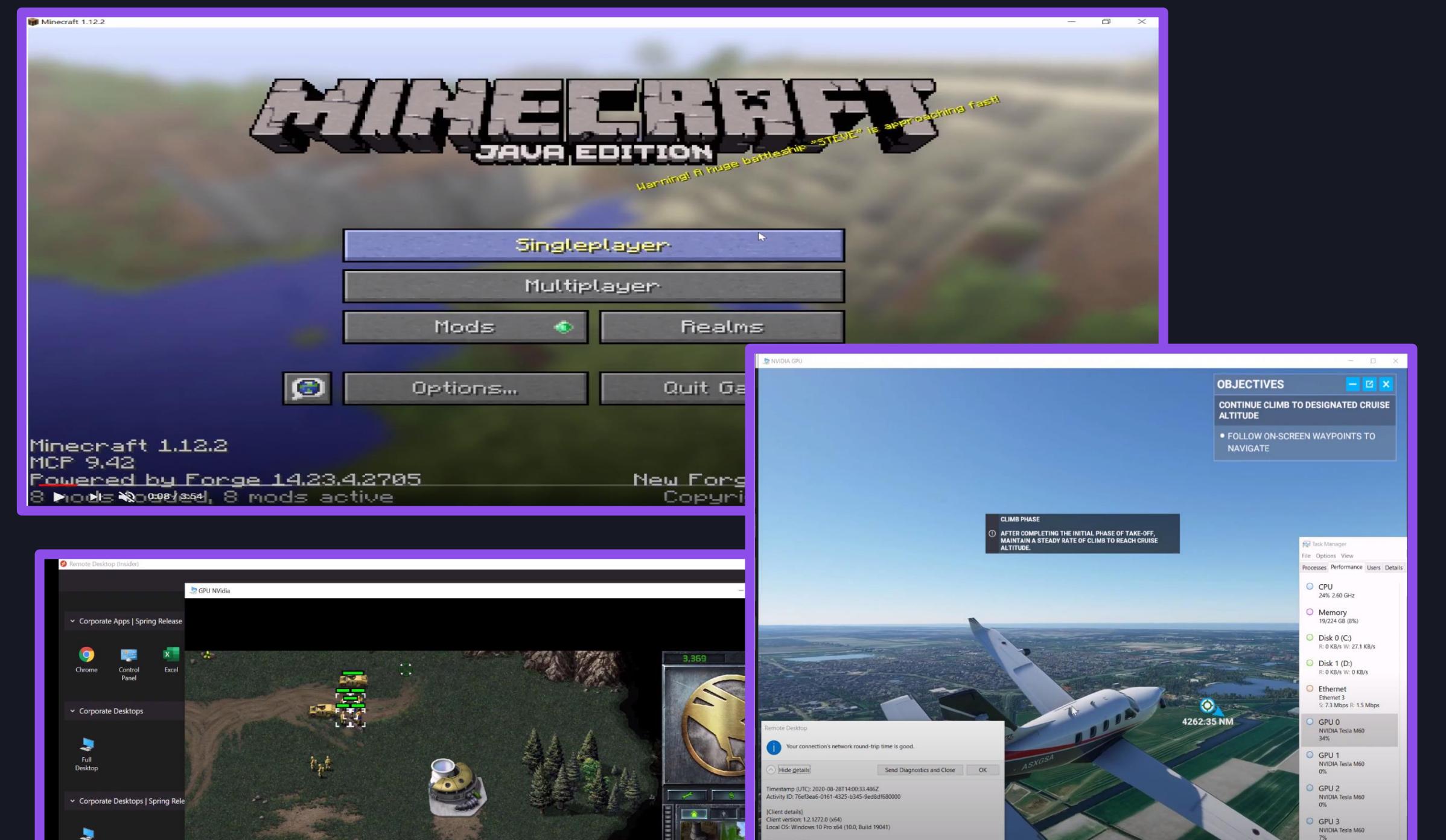
Create-WVD-Backplane.bicep

This Azure .bicep file (based on 0.1.1 Alpha Preview release of Project Bicep) generates the ARM Template (JSON) to create:

- A WVD Workspace
- A WVD Host pool
- A WVD App Group And connect the AppGroup with the Host pool



<https://github.com/fberson/wvd>



<https://www.youtube.com/channel/UCdwV5ypyqE01nyeQqAfr5Wg>

THANK YOU!

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Feedback:





CLOUD 8

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