
NerdioCon
2025
PALM SPRINGS

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We'll Prove It

The hard facts for measuring AVD management efficiency

Agenda

What is SysAdmin Experience Scoring?

Administrative Tasks Under Test

Measuring AVD and NME Console Efficiency

Comparison and Findings

Conclusion and Next Steps

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What is **SysAdmin Experience (SAX) Scoring?**

EUC

"Admin Experience"

Hard Metrics

DEX

"User Experience"

Soft Metrics

Sync player

Primary User Endpoint

User Experience

Remoting Protocol

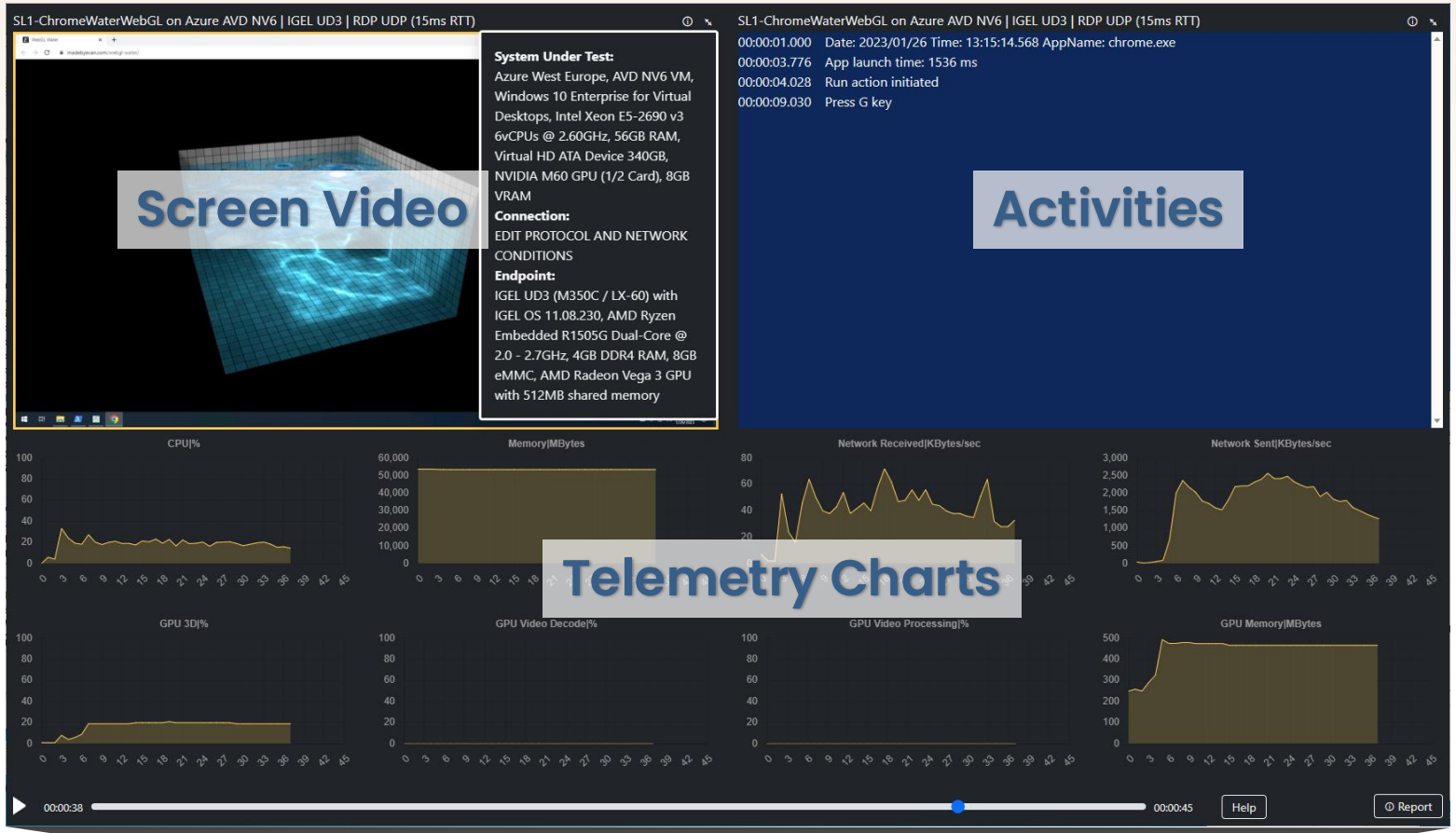
Telemetry Data
User Activities

System Under Test

Title

Specs Button

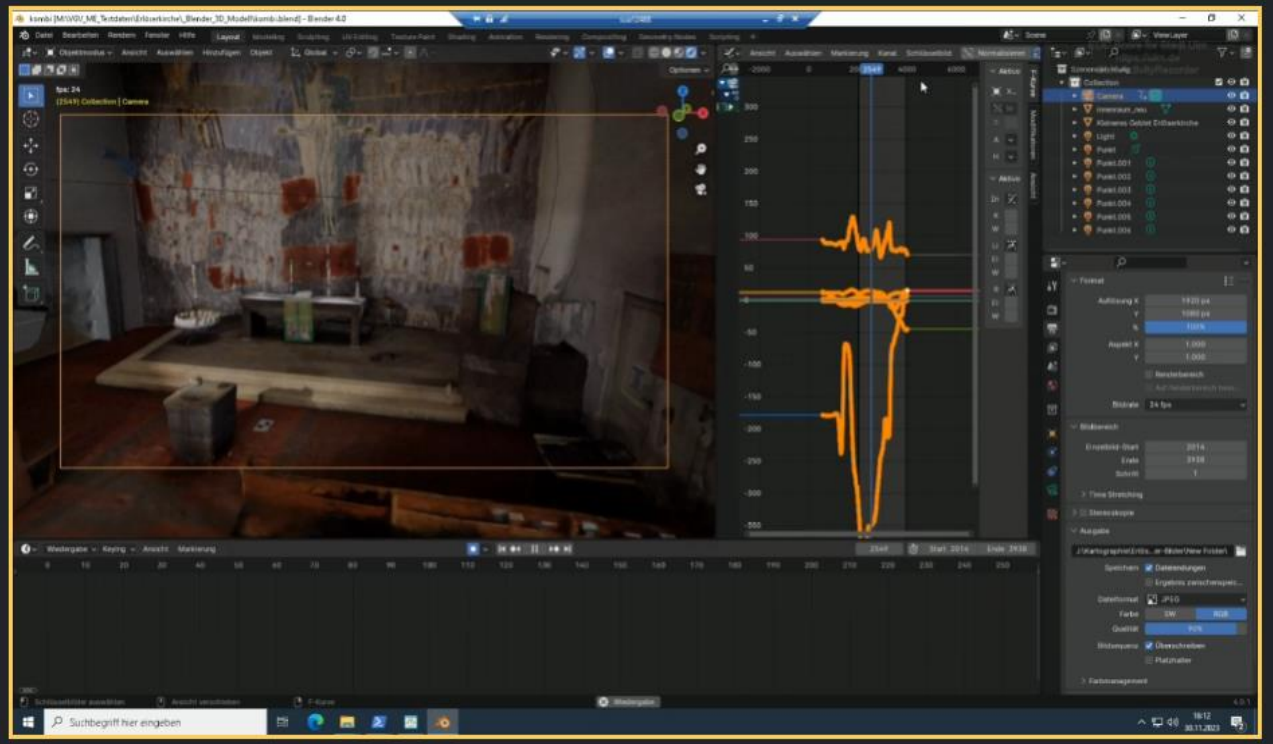
Maximize Button



Timeline and Video Controls

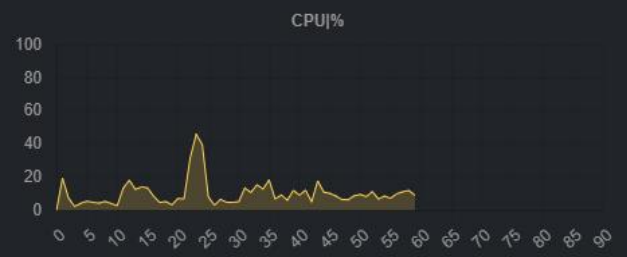
Report Button

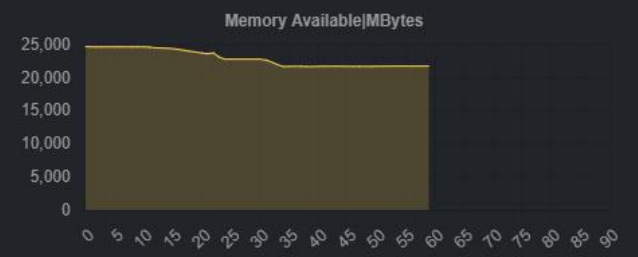
SLX-Blender on Remote Desktop Session | Win10 | RTX 4000 | RDP 2Mbps 50ms 0.5%

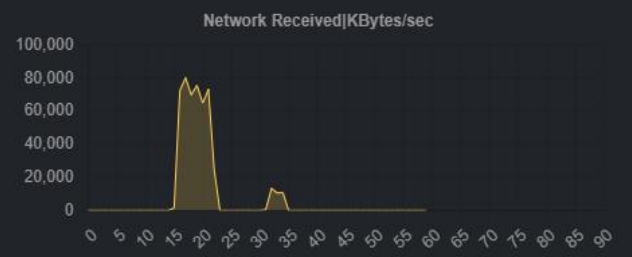


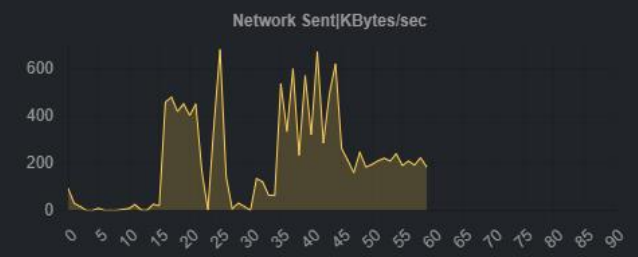
SLX-Blender on Remote Desktop Session | Win10 | RTX 4000 | RDP 2Mbps 50ms 0.5%

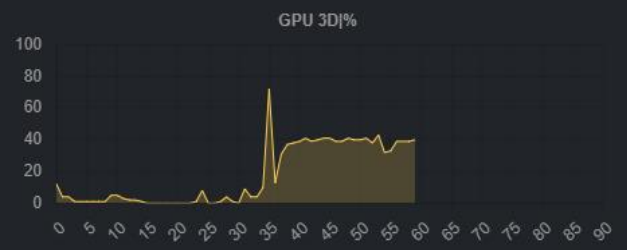
```
00:00:00.000  Date: 2023/11/30 | Time: 16:11:59.113 | AppName:
00:00:00.000  Simload: SLX-ActivityRecorder | Computername: SUA12488 | Username: sub05078
00:00:00.000  Number of Monitors: 1 | Default Monitor: 1 (0 | 0 | 1920 | 1080)
00:00:00.000  Pre-Simload countdown screen was visible for 1 sec
00:00:00.000  Delay between Simload start time and activity log start time: 1.144 sec
00:00:01.139  Initialize settings
00:00:01.141  Run action initiated
00:00:09.984  LEFT MOUSE button pressed at position [1202] [310]
00:00:10.217  LEFT MOUSE button pressed at position [1202] [310]
00:00:29.768  LEFT MOUSE button pressed at position [1044] [54]
00:00:29.878  LEFT MOUSE button pressed at position [1044] [54]
00:00:35.684  SPACEBAR pressed
```

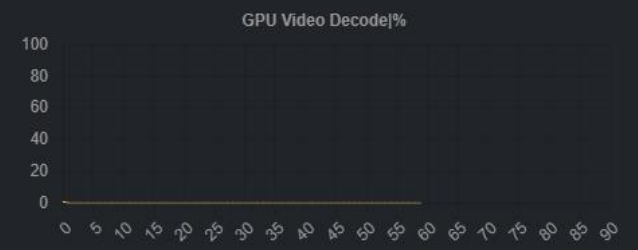


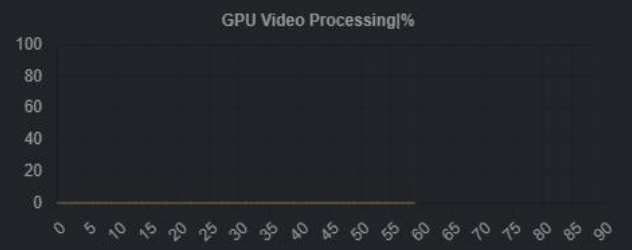


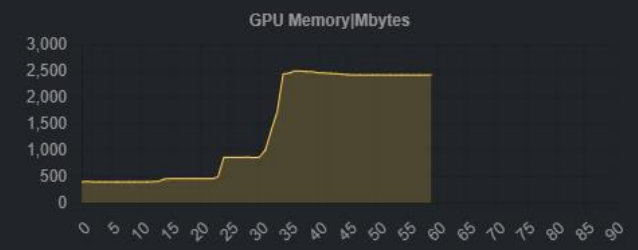












00:00:59 00:01:29 Help Report

How can we measure SysAdmin experience?

1. Define common activities or tasks to manage virtual desktop performed by system administrators (= “Playbooks”)
2. While a system administrator performs a task, record the screen, trace user activities and collect telemetry data
3. Measure the time required to complete the task and count user interactions, such as mouse clicks or keyboard inputs
4. Visualized the results by combining and overlaying screen videos with administrative activity logs
5. Create side-by-side comparisons of different administrative consoles

Microsoft Azure | Search resources, services, and docs (G+/) | Copilot

Home >

Azure Virtual Desktop

Microsoft

Search

- Overview
- Quickstart
- Manage
  - Host pools
  - Application groups
  - Workspaces
  - App attach
  - Scaling plans
  - Users
  - Custom image templates
- Monitoring
  - Insights
  - Workbooks
- Licensing
  - Per-user access pricing

Aaron, create a host pool!

Easily scale your VM deployment. Create host pools to easily manage assignments, application groups, and settings for your entire organization.

Create a host pool

Help and learning

Product documentation
Learn about the capabilities of Azure Virtual Desktop

Create your image
Learn about creating custom images and using gallery images

Cost calculator
Plan and estimate the cost for your deployment

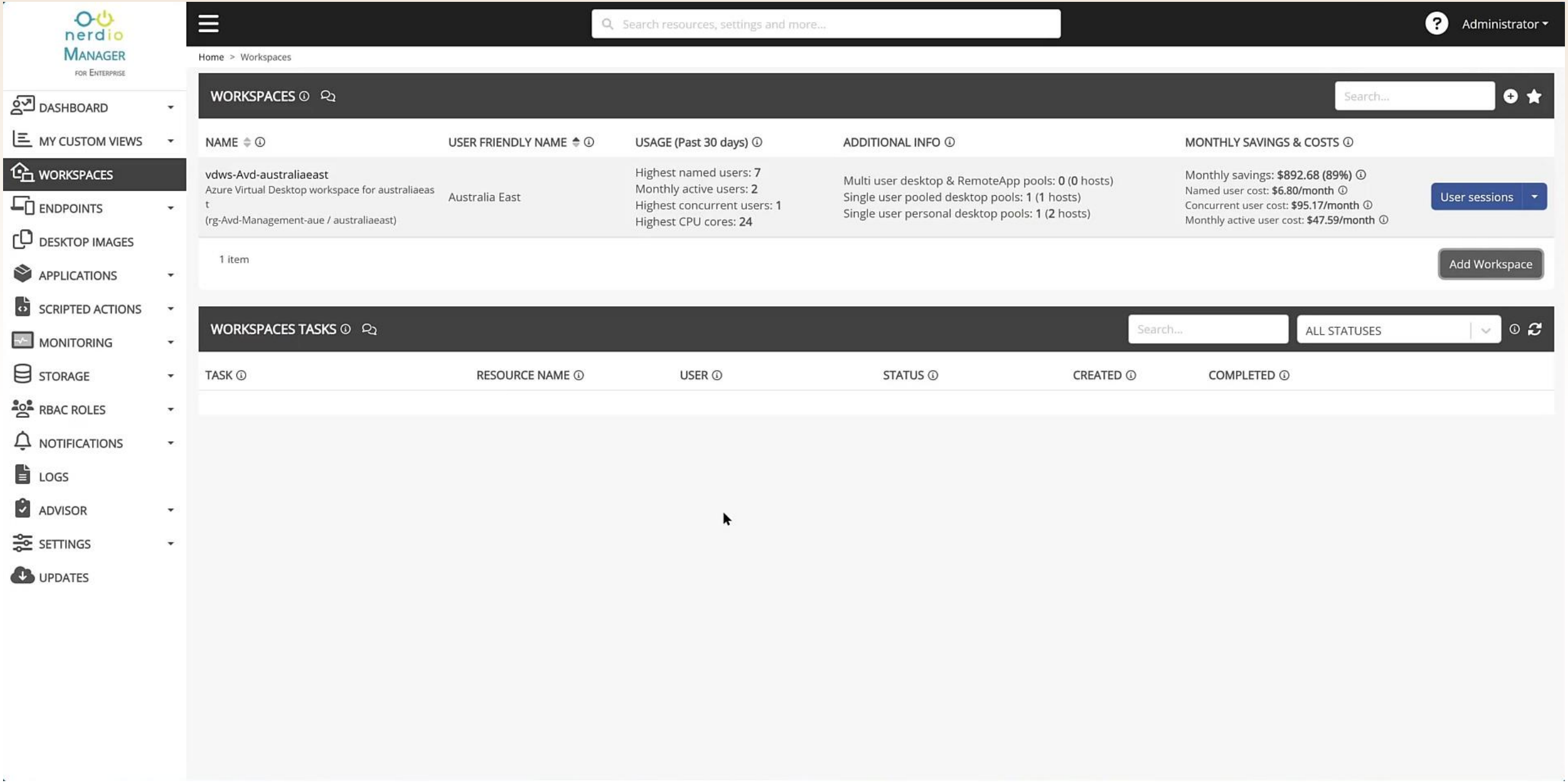
Profile containers
Learn how to use FSLogix profile containers for user profiles

What's new
Learn about new features and capabilities released

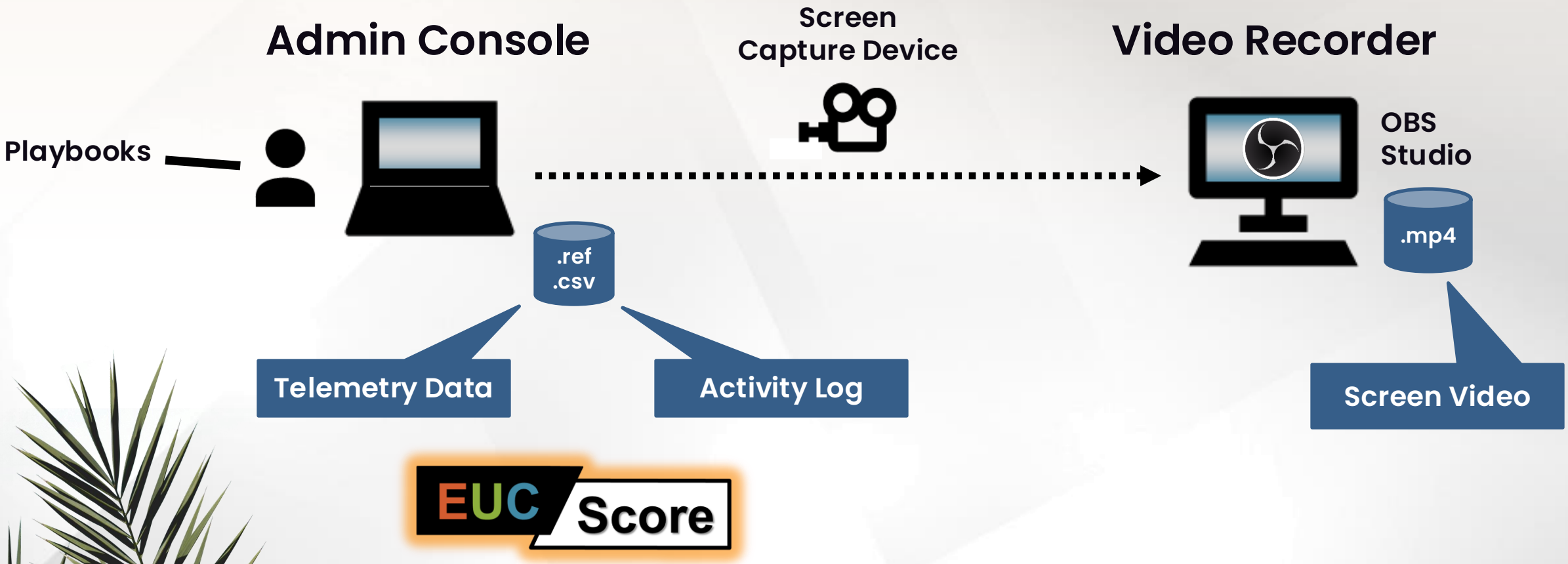
Community

Forums
Connect with a community of AVD users and experts

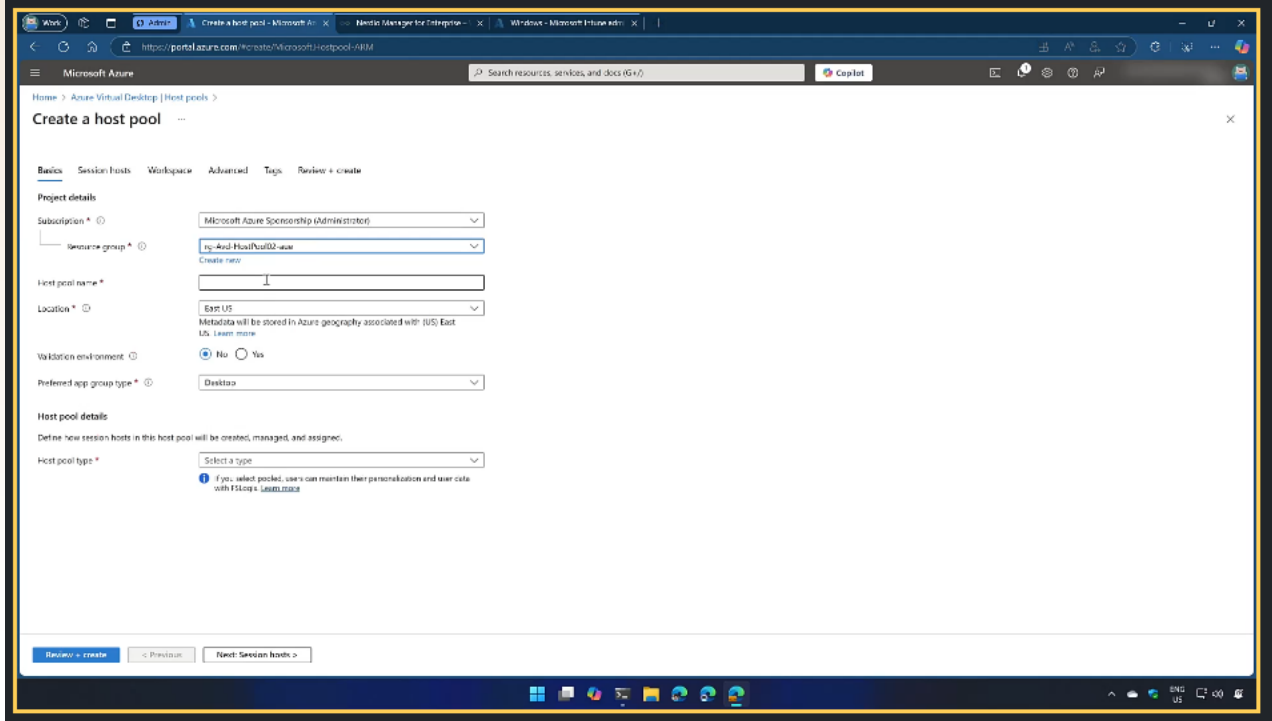
@AzureSupport
Quickly connect with our experts


nerdio MANAGER FOR ENTERPRISE
Search resources, settings and more...
Administrator
Home > Workspaces
DASHBOARD
MY CUSTOM VIEWS
WORKSPACES
ENDPOINTS
DESKTOP IMAGES
APPLICATIONS
SCRIPTED ACTIONS
MONITORING
STORAGE
RBAC ROLES
NOTIFICATIONS
LOGS
ADVISOR
SETTINGS
UPDATES
WORKSPACES
Search...
NAME
USER FRIENDLY NAME
USAGE (Past 30 days)
ADDITIONAL INFO
MONTHLY SAVINGS & COSTS
vdws-Avd-australiaeast
Azure Virtual Desktop workspace for australiaeast
(rg-Avd-Management-aue / australiaeast)
Australia East
Highest named users: 7
Monthly active users: 2
Highest concurrent users: 1
Highest CPU cores: 24
Multi user desktop & RemoteApp pools: 0 (0 hosts)
Single user pooled desktop pools: 1 (1 hosts)
Single user personal desktop pools: 1 (2 hosts)
Monthly savings: $892.68 (89%)
Named user cost: $6.80/month
Concurrent user cost: $95.17/month
Monthly active user cost: $47.59/month
User sessions
1 item
Add Workspace
WORKSPACES TASKS
Search...
ALL STATUSES
TASK
RESOURCE NAME
USER
STATUS
CREATED
COMPLETED

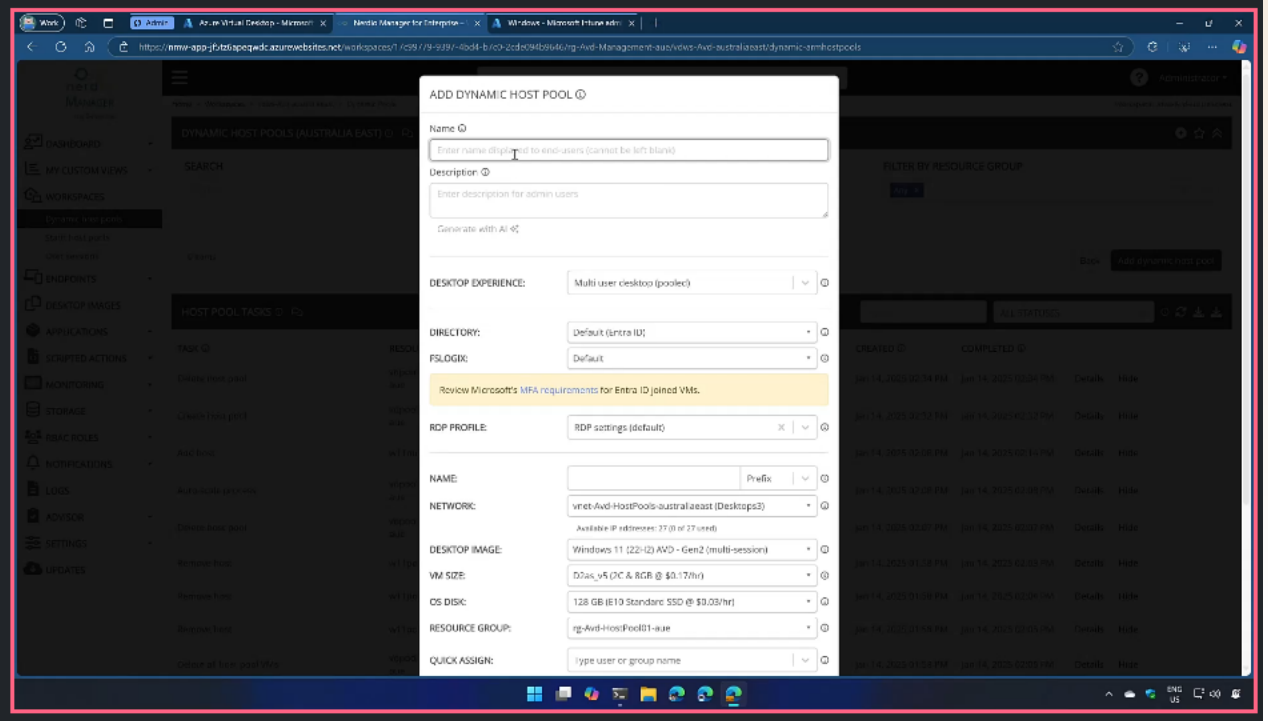
SysAdmin experience (SAX) test lab



AVD Console: Create a pooled multi-session host pool and deploy session hosts



NME Console: Create a pooled multi-session host pool and deploy session hosts



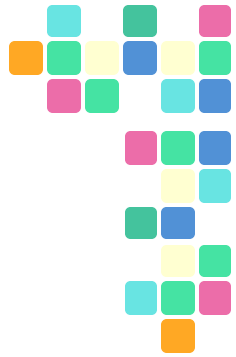

```
00:00:00.000 Test Scenario: New Pooled Host Pool with Multiple Hosts on AVD Console
00:00:00.000 Date: 2025/01/14 | Time: 17:04:38.838 | AppName:
00:00:00.000 Simload: SLX-ActivityRecorder | Computername: HYPERHOST | Username: Aaron
00:00:00.000 Number of Monitors: 1 | Default Monitor: 1 (0 0 1920 1080)
00:00:00.000 Pre-Simload countdown screen was visible for 1 sec
00:00:00.000 Delay between Simload start time and activity log start time: 1.565 sec
00:00:01.089 Delay between Simload start time and core telemetry start time: 0.503 sec
00:00:01.094 Initialize settings
00:00:01.105 Run action initiated
00:00:01.160 Mouse click 1 on the "Host pools" item in the Azure Virtual Desktop resource menu
00:00:02.040 The "Host pools" working pane becomes visible
00:00:03.200 Mouse click 2 on the "Create" item in the command bar to start the wizard
00:00:03.510 The first page ("Basics") of the "Create a host pool" wizard becomes visible
00:00:05.270 Mouse click 3 to open the "Resource group" dropdown menu
00:00:06.350 Mouse click 4 to select the "rg-Avd_HostPool02-aue" resource group
```

```
00:00:00.000 Test Scenario: New Pooled Host Pool with Multiple Hosts on NME Console
00:00:00.000 Date: 2025/01/14 | Time: 14:41:17.274 | AppName:
00:00:00.000 Simload: SLX-ActivityRecorder | Computername: HYPERHOST | Username: Aaron
00:00:00.000 Number of Monitors: 1 | Default Monitor: 1 (0 0 1920 1080)
00:00:00.000 Pre-Simload countdown screen was visible for 1 sec
00:00:00.000 Delay between Simload start time and activity log start time: 1.571 sec
00:00:01.106 Delay between Simload start time and core telemetry start time: 0.494 sec
00:00:01.109 Initialize settings
00:00:01.116 Run action initiated
00:00:03.020 Mouse click 1 on the "vdws-Avd-australiaeast" link in the Nerdio Manager for Enterprise Workspaces page
00:00:03.120 The "Dynamic Host Pools" working pane becomes visible
00:00:04.400 Mouse click 2 on the "Add dynamic host pool" button
00:00:05.060 The "Add Dynamic Host Pool" dialog becomes visible
00:00:06.390 Mouse click 3 to set focus on the "Name" text input field
00:00:07.210 Keyboard input 1 to press shortcut CTRL-V to paste the image name
```

00:00:07 00:07:51 Help Report

Administrative Tasks Under Test

Tasks in focus



1. Create a custom image template including customizations and tags
2. Select an existing pooled host pool and add multiple session hosts
3. Select an existing pooled host pool and remove multiple session hosts in Azure, Intune, and Entra ID
4. Create a new pooled host pool and configure auto-scale to dynamically add new multi-session hosts
5. Reimage session hosts in a host pool
6. Select an existing host pool with multiple session hosts and initiate a change of the VM type for all session hosts
7. Delete a custom image template and recreate it with updated settings

More tasks...

- Add a Scaling Plan
- Add Session Hosts to a Personal Host Pool
- Assign Host Pool
- Create a Premium File Share
- Create a Workspace
- New Personal Single Host Pool
- Schedule Image
- Set Scaling in a Pooled Host Pool

Challenges

- How do scrolling, searching and clipboard usage contribute to the measurement of user interaction?
- Is a task finished when all configuration entries have been made or only when all resources are available?
- How can one adequately take into account the administrator's experience when using a console?
- How should the use of templates and scripts be included in time measurement?

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Measuring AVD and NME Console Efficiency

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Individual Test Videos

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Comparison and Findings

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Side-by-Side Comparisons

Findings

TASK / SCENARIO	AVD CONSOLE	NME CONSOLE
Add a Custom Image	3:23 (132 | 3)	1:31 (30 | 4)
Add Session Hosts to a Pooled Host Pool	2:38 (66 | 5)	0:52 (10 | 2)
Delete Session Hosts in a Pooled Multi-Session Host Pool	1:32 (36 | 1)	0:28 (7 | 1)
New Pooled Multi-Session Host Pool	7:51 (111 | 7)	2:55 (43 | 4)
Reimage Session Hosts in a Host Pool	4:50 (|)	0:44 (|)
Resize Session Hosts	1:34 (22 | 0)	1:43 (8 | 2)
Update Custom Image	5:09 (146 | 3)	0:37 (|)

Conclusion and Next Steps

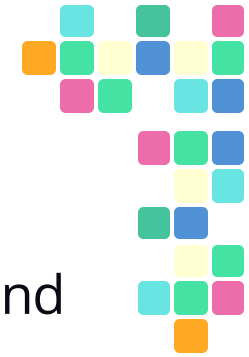
Risk reduction

- Simplified administration = fewer inputs = reduced human error
- Safety rails = consistent environment

Final Remarks and Questions

1. Different administrators may require different times to complete a task – experience matters
2. Did we select the right tasks?
3. How can we take scripts, policies and templates into consideration?
4. How do we deal with the fact that administrators work less efficiently in an unfamiliar console
5. Can we compare our results to fully automated administrative processes – and how common is automation?
6. What are the correct names of the different user interface elements?

Conclusion



1. The SysAdmin Experience (SAX) benchmarking method is in its early infancy and still requires some refinements
2. The SAX benchmarking results show a clear indication that AVD management from the Nerdio Manager for Enterprise console is more efficient (take the results with a grain of salt)
3. The VDI-specific layout and the integration of templates and scripts give the Nerdio Manager for Enterprise console an advantage over the more generic Azure portal

Call to action

If you want to learn more about EUC Score, send me an email

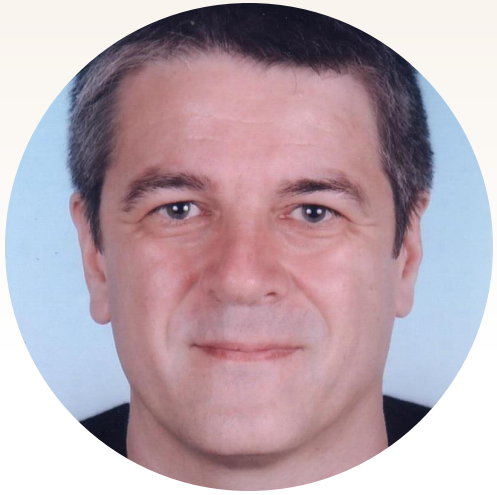
info@eucscore.com

NOTE: The EUC Score toolset is freely available for community benchmarking tests if the results are made available to the public free of charge

EUC SCORE LINKS

- Home Page: https://eucscore.com
- Freeware Download: https://eucscore.com/freeware
- Community Test Results: https://eucscore.com/results
- Toolset Documentation: https://docs.eucscore.com
- Test Methodology: https://eucscore.com/methodology.html
- Simload Gallery: https://eucscore.com/gallery.html
- Terminology (Glossary): https://eucscore.com/terminology.html
- Lab Equipment: https://eucscore.com/equipment.html

Contact Us



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