How NVIDIA and Dell EMC are Quantifying the User Experience

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What we do

• VDI Solution Testing and Validation

• Collateral
  – Reference Architectures
  – Design Guides
  – Validation Guides

https://community.emc.com/docs/DOC-69231
What we currently measure

- Host CPU Utilization
- Host Memory Utilization
- Host Network throughput
- Host I/O Latency
- User login times
- Application launch times

**Parameter Pass/fail thresholds**
- Physical host CPU utilization 85%
- Physical host memory utilization 85%
- Network throughput 85%
- Storage I/O latency 20 ms
What we would like to measure

• Is the individual desktop user experience good?
  – How do we quantify this?

• End user latency at the end point

• End user frames per second
CPU Utilization during test run

![CPU Utilization Chart](chart.png)
NVIDIA nVector toolset – Host CPU Utilization
NVIDIA nVector toolset – Rendered FPS
NVIDIA nVector toolset – Client Latency

Client Latency

- 4K
- 4K + GPU
- 1080p
- 1080p + GPU

ms
End to end solution (GPUs)
End to end solution (No GPUs)

Display Protocol