



NVIDIA EGX Platform for Game Development

Reference Architecture

Document History

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EXECUTIVE SUMMARY

This document provides insight and best practices when using the NVIDIA EGX Platform to host powerful NVIDIA RTX Virtual Workstations for game development. Recommendations are based on customer deployments and collaborative internal testing.

NVIDIA EGX Platform

The NVIDIA EGX Platform is an end-to-end platform that delivers accelerated computing in enterprise data centers to run today's modern applications, powering multiple workloads ranging from AI and edge inference to data analytics and visualization. A flexible reference design delivered by global OEM partners, the EGX platform combines NVIDIA RTX and NVIDIA Data Center GPUs with NVIDIA vGPU software and high-performance networking for a single infrastructure that can be used to power multiple workloads.

The EGX Platform for game development brings game developers the world's most advanced and efficient GPU-accelerated end-to-end rendering solution. With content production undergoing massive growth as data complexity and game quality demands increase, game designers and artists strive to produce more interactive, visually rich content. The EGX Platform delivers the GPU performance they need all while centralizing GPU resources and content for enhanced IT manageability.

NVIDIA RTX GPUs

The [NVIDIA RTX A6000](#) and the [NVIDIA A40](#) GPUs, built on the NVIDIA Ampere™ architecture, bring the second generation of RTX technology to millions with enhanced ray traced rendering, graphics, AI, and compute workloads to a new level. With 48 GB of GPU memory, hardware-accelerated ray tracing, and AI acceleration, game developers can build immersive game assets and experiences better than ever before.

NVIDIA RTX Virtual Workstation

The [NVIDIA RTX Virtual Workstation](#) (formerly NVIDIA Quadro vDWS) delivers the most powerful virtual workstations from the data center to any device, anywhere. It not only gives designers and artists fantastic performance wherever they are, but also lets IT virtualize both user applications and a native workstation user experience to several users. IT managers can also flexibly scale their hardware resources dependent on user needs, all while centralizing precious assets and data in a more secure environment to reduce the threat of data loss or leakage.

Solution Configuration

Table 1.1 outlines our recommendations for system configurations for various game development workloads (Light, Medium, Heavy). NVIDIA recommends that customers leverage the [NVIDIA Certified Servers Catalog](#) to find systems from your preferred OEM which have completed both the rigorous NVIDIA NVQual verification along with the [NVIDIA-Certified Systems](#) validation process.

Table 1.1 Solution Components

	Light Workloads	Medium Workloads	Heavy Workloads
Graphics	1x NVIDIA A40 / RTX A6000	2x NVIDIA A40 / RTX A6000	4-8x NVIDIA A40 / RTX A6000
Configuration	2x Intel Xeon Gold 6248R 24 Cores / 3.0GHz		
Networking	Mellanox ConnectX-6 Dx		
Software	<ul style="list-style-type: none"> • Windows 10 64-bit • VMware vSphere 7.0 Update 2 or Later • NVIDIA RTX Virtual Workstation vGPU Software 12 or Later • VMware Horizon 8 Client or Later <p style="text-align: center;"><u>OR</u></p> <ul style="list-style-type: none"> • Teradici PCoIP Client 21.01 or Later 		

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