CASE STUDY: STRADA XR

Powering Next-Gen Virtual Production with NVIDIA RTX PRO 6000

STRADA XR

ARC COMPUTE

NVIDIA

Powering Next-Gen Virtual Production with NVIDIA RTX PRO 6000

STRADA XR

OVERVIEW

Strada XR needed a way to dramatically increase the resolution, realism, and responsiveness of their LED volume. Their existing GPU stack could only support 4K environments and lacked the performance needed for real-time scene changes, a growing expectation in high-end productions.

Arc Compute deployed a GPU server powered by NVIDIA RTX PRO 6000 GPUs, enabling StradaXR to more than double its rendering resolution and introduce actual real-time manipulation of backgrounds and lighting directly on set.

COMPANY BACKGROUND

Strada XR is a Toronto-based virtual production studio specializing in high-end LED-volume filmmaking. Their curved LED stage allows directors to shoot with photorealistic environments rendered in real time, replacing traditional green screens with cinematic-quality digital worlds. Strada XR supports film, TV, commercial production, and VFX teams seeking maximum realism and on-set flexibility.

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THE CHALLENGE

Prior Infrastructure Bottlenecks

- **4K resolution limit** restricted realism and visual detail

- **Lengthy rendering cycles** delayed scene updates and iterations

- **Lack of real-time on-set adjustments** prevented immediate changes to environments, lighting, or textures

- **Higher production costs** resulted from reshoots and additional stage rental time

- **Increased AI demands** exceeded the capabilities of their previous hardware

The need to stay competitive drove Strada XR to adopt a modern GPU platform for high-resolution real-time rendering and rapid scene turnaround.

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THE SOLUTION

Engineered for Mission-Critical Performance

Arc Compute delivered a purpose-built GPU server powered by NVIDIA RTX PRO 6000 GPUs, each with 96GB of memory, advanced ray tracing, and next-gen tensor performance.

Real-Time LED Volume Rendering
- 8K environment playback
- Real-time environmental changes
- Interactive lighting for actors
- Immediate creative iteration for directors and cinematographers

High-Throughput Rendering (Render Farm Mode)
- Overnight rendering of full scenes
- Faster delivery of updated environments
- Ability to handle urgent client revisions in hours, not days

This dual-purpose architecture maximizes utilization and minimizes cost by allowing the same GPU infrastructure to power both real-time production and offline rendering.

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IMPACT & RESULTS

Resolution Increased from 4K → 8K	Strada XR can now deliver highly detailed, realistic environments that meet the expectations of top-tier productions.
Rendering Time Reduced by 50%	Scenes that previously required a whole day can now be rendered in half the time, or even in real time, depending on complexity.
Real-Time Scene Changes On Set	Directors can now adjust lighting, textures, and environments live during shooting. This was impossible with their older GPUs.
Major Production Cost Savings	Faster rendering and real-time adjustments reduce the need for: • Additional shoot days • Reshoots • Extra stage rental time These efficiencies make Strada XR more affordable and competitive without compromising quality.
Ready for the Next Era of AI-Driven Production	The RTX PRO 6000's large memory and AI processing capabilities prepare Strada XR for: • Text-to-3D environment creation • AI-assisted asset generation • Real-time AI character interactions • Accelerated scene development pipelines

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WHY STRADA XR CHOSE ARC COMPUTE

- **Expertise in GPU infrastructure** for digital production

- **Consultative approach** to sizing and configuring the system

- **Fast deployment** and integration

- **Future-proof solution** supporting both rendering and AI workloads

- **A competitive advantage** through higher quality and faster delivery

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"Arc Compute helped transform our volume. Upgrading to the RTX PRO 6000 doubled our resolution, cut render times in half, and finally gave us real-time on-set control. Our clients noticed the improvements immediately."

Ivan Reel, Managing Director, Strada XR

ARC COMPUTE

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About Arc Compute

Arc Compute designs, procures, and deploys state-of-the-art GPU infrastructure for AI, VFX, and real-time rendering workflows. Backed by strategic partnerships, deep technical expertise, and a hands-on deployment model, we deliver turnkey systems that maximize performance and reduce total cost of ownership. Whether accelerating AI workloads, powering advanced digital production, or replacing expensive cloud compute, Arc Compute gives organizations the hardware foundation they need to stay ahead.

Want to accelerate your workflows and reduce infrastructure costs? Reach out at sales@arccompute.io to start your journey.