

Revolutionizing flight training worldwide with VR.

Loft Dynamics accelerates the delivery of cutting-edge virtual reality (VR) flight simulation training devices (FSTD) with Lenovo.

As global demand for its FAA- and EASA-qualified VR flight simulation training devices increased, Loft Dynamics aimed to standardize on a single enterprise-grade hardware vendor with worldwide support.

By integrating high-performance Lenovo servers and workstations into its VR flight simulation training devices, Loft Dynamics can deliver new products to customers faster than ever.

The solution delivers:

- Faster development and delivery
- Long-term reliability
- Outstanding AI-driven performance for VR

By streamlining deployment and global support, Loft Dynamics continues to transform the global flight training market.

20x

more cost-effective than traditional simulators.

Faster

hardware procurement streamlines production.

Increased

reliability and faster access to support.

- 10x more compact than traditional simulators
- Standardized solutions
- Rapid global support



“Lenovo and ALL-IT helped us to optimize and scale our business efficiently.”

Raphael Thoma

Vice President Information Technology,
Loft Dynamics



The challenge

Scaling next-generation aviation training globally.

As demand for its VR-based helicopter flight simulation training devices expanded internationally, Loft Dynamics sought a strategic hardware partner capable of supporting consistent performance, serviceability, and scalability across global training centers.

Facing growth challenges.

- Increasing deployment volumes required greater hardware standardization.
- Lifecycle consistency across distributed installations.
- Reliable access to replacement components worldwide.
- Scalable global support infrastructure.

Moving to the next level.

- Accelerate deployment to support rising global demand.
- Standardize infrastructure to ensure consistent performance at scale.

The solution

Partnering to scale up VR and AI innovation.

To support its proprietary AI- and VR-driven simulation platform, Loft Dynamics integrated GPU-enabled Lenovo workstations and enterprise-grade Lenovo servers into its products.

Optimizing production, delivery, and support.

- Preconfigured Lenovo solutions help to optimize costs for building new VR flight simulation training devices.
- Global support services enabled smooth, cost-efficient component replacements and reliable operations.
- Helpful guidance and deep expertise by Lenovo partner ALL-IT helped to fine-tune the solution.

Scalable, best-in-class AI performance.

- Modern GPU options from Lenovo provide the performance foundation for Loft Dynamics' AI-driven pose and finger tracking—enabling ultra-realistic VR experiences.
- Scalable architecture and containerized software allow easy parallelization of workloads across GPUs to maximize performance and framerates for AI-powered VR displays in 4K resolution.

Lenovo hardware and services

Hardware

- Lenovo ThinkStation P7 Tower Workstation
- Lenovo ThinkSystem SR250 V3 Server

Services

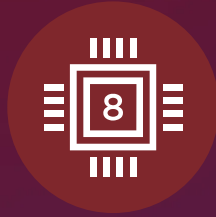
- Custom BIOS Service
- Lenovo Premier Support Plus
- Lenovo Partner ALL-IT

“

Standardizing our infrastructure with a single enterprise partner streamlined our global deployments and allowed us to focus on advancing the realism and scalability of our VR training systems.”

Raphael Thoma

Vice President Information Technology, Loft Dynamics



2x 4K

AI-powered high-res
VR display



2

qualifications from
leading aviation
authorities EASA
and the FAA.



1st

to offer a VR-based type
rating for Airbus
Helicopters.

“

Working with Lenovo and ALL-IT is great, because they really care about delivering an outstanding solution. They challenge and guide us to ensure we continue delivering the highest-performance solution for our customers. Lenovo solutions are built to perform, allowing us to enhance the AI-capabilities of our VR training system and add new features for pilots.”

Raphael Thoma

Vice President Information Technology, Loft Dynamics

The outcome

Reaching new heights together.

With Lenovo and ALL-IT, Loft Dynamics streamlined its global deployment processes—enabling faster expansion into new aircraft programs and international markets. Today, Loft Dynamics can focus on enhancing its VR flight simulation training devices and developing a completely new offering: AI-driven VR training solutions for fixed-wing aircraft. The enhanced AI and graphics performance further elevates training realism, supporting more immersive and effective pilot preparation.

The impact is clear:

- **Faster delivery** of VR flight simulation training devices with standardized solutions from Lenovo.
- **More reliable long-term planning** thanks to close OEM partnership.
- **Improved AI and graphics performance** enables more realistic high-resolution VR experience.

As a result of working with a single vendor and partner ALL-IT for its distributed VR flight simulation training devices and its centralized data center infrastructure, Loft Dynamics benefits from easier management and improved collaboration.

Each VR flight simulation training device connects to Loft Dynamics' data center for operations and utilization-based services, making server reliability and performance critical to the customer experience. The integrated training solution also offers a bespoke online platform with additional learning opportunities for pilots including the new LoftHOME experience delivered via Apple Vision Pro.

To ensure maximum uptime, peak performance, and productivity, Loft Dynamics selected Lenovo Premier Support Plus for 24/7/365 expert, accredited Lenovo support including accidental damage protection and next business day onsite service. The partnership enables Loft Dynamics to focus on advancing VR-based aviation training while relying on scalable, enterprise-grade infrastructure built to perform globally.



Lenovo and ALL-IT.

Transforming aviation training with AI-powered VR experiences.

With Lenovo and ALL-IT, Loft Dynamics can take advantage of powerful systems, reliable support, and deep expertise.

The Lenovo solution includes:

- **Comprehensive knowledge** from ALL-IT as a Lenovo ISG Platinum and Lenovo IDG Gold Partner.
- **Fully customizable** Lenovo ThinkStation P7 Tower Workstations with NVIDIA Quadro RTX 6000 Ada and NVIDIA RTX 4500 Ada Generation GPUs, delivering maximum uptime with Premier Support Plus.
- **Tailored BIOS settings** before the systems leave Lenovo manufacturing to streamline deployment and save time.
- **Efficient backend solution** based on Lenovo ThinkSystem SR645 V3 Rack Server, Lenovo ThinkSystem DE4000H Hybrid Storage Array, and Lenovo TS4300 Tape Library.

Using Lenovo solutions and ALL-IT guidance, Loft Dynamics can follow best practices for its containerized application and system architecture, and leverage advanced GPU performance.

20x

Loft Dynamics' VR flight simulation training devices are 20x more cost-effective than traditional full flight simulators.

10x smaller

Loft Dynamics' VR flight simulation training devices are 10x smaller than traditional full flight simulators.

Lenovo



Want to know more?

Get in touch with Jürgen Stumpp (jstumpp@lenovo.com) to set up a chat.