Remote visualization solution

More reliable and secure access to graphics-intensive applications anytime, anywhere

Empower users with more secure access to processing and graphics-intensive applications from remote locations.

Lenovo and Red Hat — stronger together

From device, to datacenter, to cloud, Lenovo and Red Hat have been delivering integrated hardware and software solutions to customers around the globe for years.

Our global teams are committed to delivering innovative open source solutions. We are working together to change the economics of the datacenter with complementary offerings. Our partnership brings you an end-to-end remote visualization solution built on technologies that have been tested and validated together, coupled with award-winning support.

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The power of high-performance visualization

Compute-intensive graphical applications make it possible to visualize data in many new and exciting ways. The following examples show how different industries can run these powerful applications from anywhere with confidence.

▶ Oil and gas companies access geologic datasets to locate exploration opportunities

▶ Manufacturers and engineers visualize systems, products, and buildings in 3D

▶ Financial services entities visualize trading patterns to spot new opportunities

▶ Medical professionals examine high-resolution scans to make accurate diagnoses

▶ Entertainment creators collaboratively generate complex CGI animation files

Advances in graphic processing unit (GPU) technology, virtualization software, and remote protocols have helped prepare for high-performance remote visualization to move from the gaming world into business, industry, and healthcare. Remote visualization transmits complex 2D and 3D images from central data center servers and workstations across standard computer networks to remote users.

Those remote users interact with the host system and its applications as if they were using a local graphics workstation. There is no need for high-priced servers at every remote work site, which offers tremendous advantages in cost and security to support a geographically dispersed workforce. Graphics have premium resolution, clarity, and color fidelity even on mobile devices.
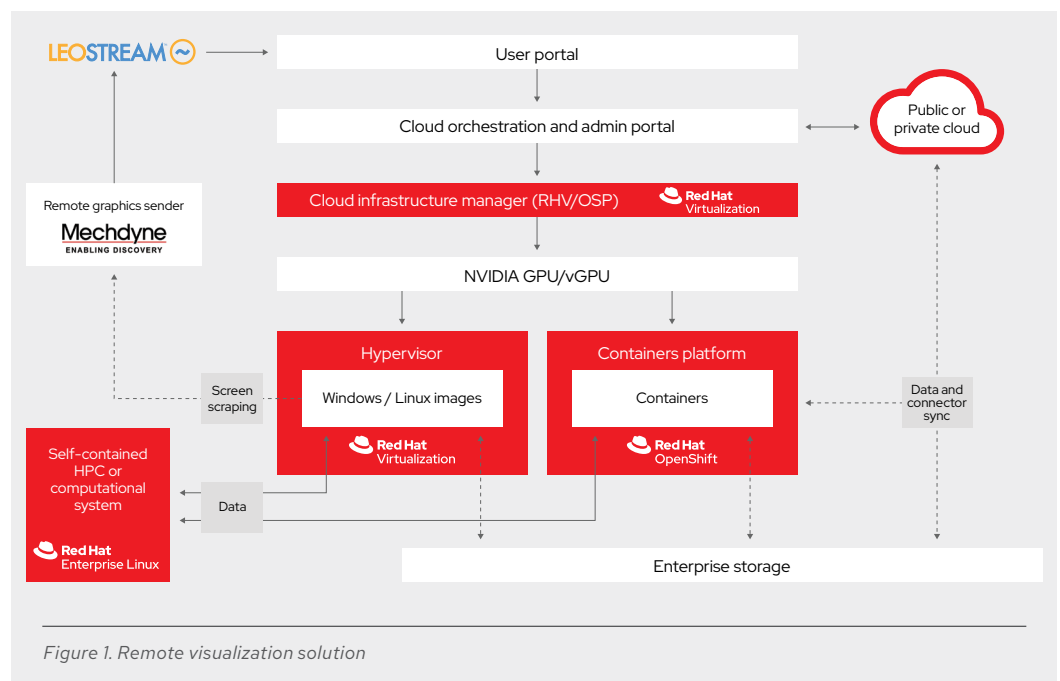
An alliance of leading technology partners

Working with select technology partners, Red Hat and Lenovo offer the latest in server and infrastructure technologies to deliver a complete, virtualized, container-based solution for remote visualization. This pre-engineered, turnkey solution provides remote access to advanced graphics software for collaboration with the following technologies:

▶ *Lenovo servers, storage, and networking hardware* create the physical infrastructure to support the solution from a more secure, central data center.

▶ *Lenovo ThinkStation endpoints* are the "thin" laptops and desktops that give remote users access to the centralized graphical applications and data anytime, anywhere.

▶ *Red Hat® Enterprise Linux®* provides the stable, flexible, open operating system foundation — the operating system chosen by 90% of Fortune Global 500 companies.

▶ *Red Hat Virtualization* delivers an open, software-defined platform to virtualize multiple Linux and Microsoft Windows instances on a single physical machine in separate, secure virtual machines.

▶ Optional Red Hat components support containers, cloud deployment, automation, infrastructure management, and more to streamline and modernize a trusted IT environment.

- *NVIDIA virtual GPU technology* accelerates graphics and compute to make virtualized workspaces accessible to creative and technical professionals working from home offices or anywhere.

- *Mechdyne TGX software* delivers intensive remote graphics to power users, such as engineers, designers, and creatives, at high resolution with a like-local experience.

- *Leostream software* serves as an intermediary between users and resources to manage on-demand access from any location.

Red Hat and Lenovo bring these components together in a validated solution with 24x7 support.

Figure 1. Remote visualization solution

Real-time collaboration with higher productivity, security, and reliability

- **Drive productivity** by enabling flexible remote access to graphics-intensive models and data for teams to collaborate wherever and whenever they need to.

- **Grant users easy, well-orchestrated access** to large data sets that typical remote desktop software cannot manage.

- **Deliver a premium user experience** with accelerated graphics and video at up to Ultra HD (4K) resolution without the jitter and lag of the past.

- **Reduce costs** by providing more secure, shared access to compute-intensive applications without requiring a high-performance workstation for each user.

▶ **Innovate faster without vendor lock-in** with open source technology that supports agile application integration on a hybrid cloud infrastructure.

▶ **Improve security** and continuity by keeping critical data and applications safe in the datacenter and transmitting only encrypted pixel streams.

▶ **Use resources more efficiently** by managing workloads in virtual desktop environments that can scale up or down as needed.

▶ **Optimize the IT environment** with better load balancing, monitoring, control, and more security for hundreds of applications and thousands of clients.

▶ **Retain valuable talent** – scientists, engineers, and creatives – by offering them the ability to work from their preferred locations.

Learn more

Contact your Lenovo or Red Hat representative to schedule a discovery session, or visit redhat.com/en/partners/lenovo.

About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.