leostream®

WHITE PAPER

Simplifying Secure Access to High-Performance Workloads in Microsoft Azure with Leostream

INTRODUCTION

As organizations modernize their infrastructure and move more high-performance workloads into the cloud, IT teams need a secure, efficient way to manage user access to desktops and applications in Microsoft Azure. Leostream's new Microsoft Marketplace solution meets this need by simplifying deployment of the Leostream Connection Broker and Gateway directly within Azure.

This streamlined approach removes the complexity of traditional VDI stacks and legacy tools like Omnissa Horizon or Citrix. It provides administrators with a centralized platform to manage hybrid and cloud-hosted environments, enforce access policies, and deliver seamless performance for users running HPC, design, or engineering applications.

With Leostream, enterprises can deploy secure, policy-based connections to GPU-backed Azure resources, automate power management, and maintain full visibility over sessions—all while reducing infrastructure costs and administrative overhead.

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Why Host an Application?

As the public cloud matures into a viable computing platform for desktops and hosted resources, and enterprise adoption rates continue to rise, IT professionals are turning to cloud-hosted applications as a means to provide tools for collaboration and remote access. Additionally, cloud hosting provides a platform for legacy or EOL applications that are still in active use.

Benefits of cloud-hosted applications include

• Anywhere access from most devices with connectivity – including repurposed hardware
• Scalability to meet variable demand
• Support for multiple sessions of the application

Why Host Applications in Microsoft Azure?

Azure GPU optimized VM sizes, including the NC and NV families, are powered by NVIDIA GPUs and are designed for compute and graphics-intensive workloads.

Azure NC-based instances are ideal for high-performance compute workloads, such as simulation or 3-D rendering. InfiniBand provides nearly bare-metal performance even when scaling out across hundreds of machines.

On the flip side, Azure NV-based instances are specifically designed for graphics-intensive applications, and some sizes in the series include NVIDIA GRID capabilities. These instances are able to run hardware-accelerated workstation applications for graphics-intense applications. These instances support applications that use both DirectX and OpenGL.

### Built for the Modern Azure Environment

Azure delivers scalable performance. Leostream makes it accessible. Together, they enable IT teams to deploy GPU-backed desktops, HPC clusters, and digital workstations that users can reach securely, from anywhere.

What is the Leostream Gateway?

The Leostream Gateway is a stand-alone appliance that provides two key features:

- Channels traffic between an Azure instance in a locked down network, such as a VPC within Azure, and the users' client device
- Provides an HTML5 client that can connect users to an Azure instance application from any device with connectivity

The Leostream Gateway allows you to keep your resources off the internet until the appropriate user needs to connect, and then allows access to the resource only through a random port.
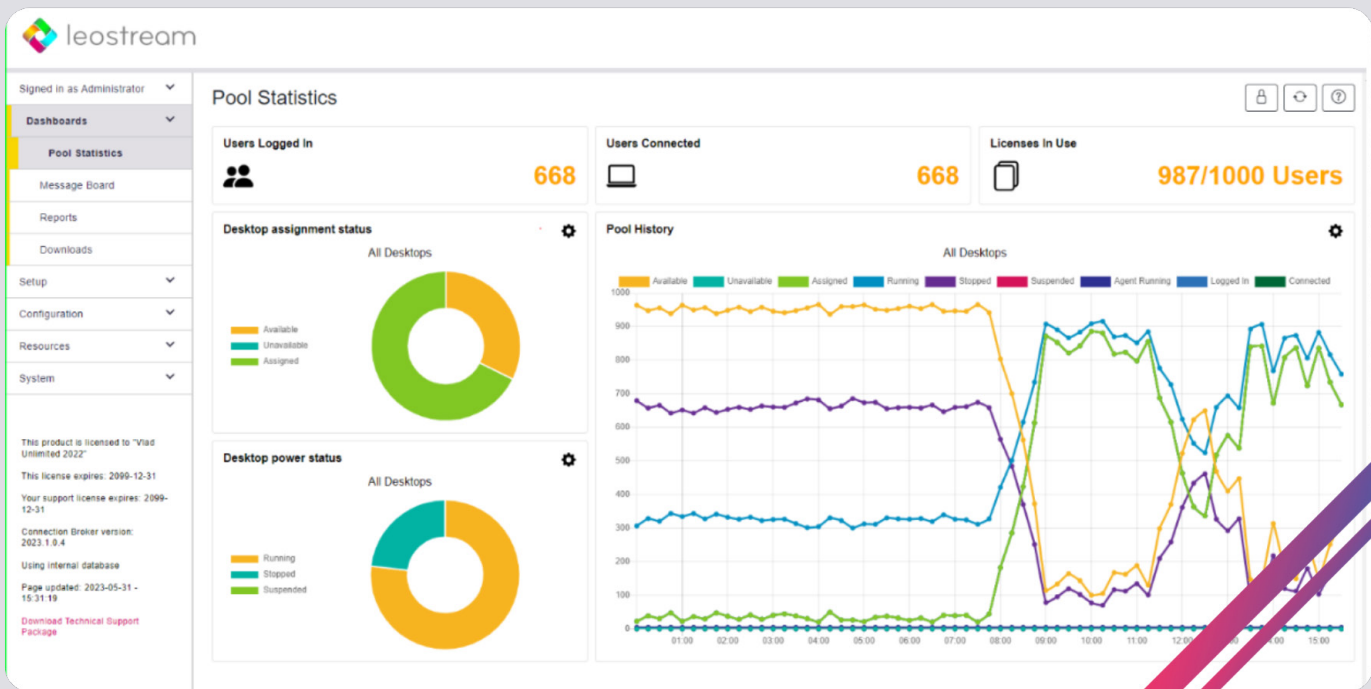
How the Leostream Platform Delivers Secure, High-Performance Access in Microsoft Azure

The Leostream Gateway and Leostream Connection Broker work together to create a complete, secure access layer for desktops and applications hosted in Microsoft Azure.

When deployed through the Microsoft Marketplace, the Leostream Platform connects users to Windows or Linux virtual machines, GPU-backed workstations, or high-performance compute nodes running in Azure.

- The Leostream Connection Broker centrally manages authentication, authorization, and policy-based session assignment. It integrates with Entra ID, Active Directory, on-prem AD or other identity providers to ensure that users connect only to the systems they're approved to access.
- The Leostream Gateway provides a secure, VPN-less connection path for users connecting through a browser or native client. It supports modern display protocols—including Mechdyne TGX, PCoIP, and RDP—to deliver smooth, high-performance user experiences even for GPU-intensive workloads.
- Together, they provide a zero-trust access framework, enabling IT to monitor, control, and audit all remote desktop sessions across hybrid and cloud-hosted environments.

This architecture gives organizations complete control over access to Azure-hosted desktops and HPC resources, while maintaining the flexibility and scalability of the cloud.

Leostream on Microsoft Azure: Simplifying Secure Access for HPC Workloads

VIEW

Leostream on the Microsoft Marketplace

Once deployed, the platform integrates with Entra ID and other identity providers to manage and secure user access to virtual machines, GPU instances, and HPC resources.

Key capabilities include:

- Automated provisioning and power management for Azure compute
- Role-based access and policy enforcement for hybrid teams
- Support for high-performance display protocols including Mechdyne TGX
- Centralized session monitoring and auditing

This streamlined deployment provides a complete control plane for HPC and digital workstations hosted in Azure, reducing complexity while ensuring performance and security. IT teams gain centralized visibility into all sessions, policies, and resource usage across their Azure environment—without relying on custom scripts or multiple management tools.

By deploying Leostream directly from the Microsoft Marketplace, organizations can accelerate time-to-value, eliminating lengthy setup processes and configuration steps. Once running, administrators can define policies that automatically assign users to desktops, provision GPU-backed instances on demand, and power down idle systems to control cost.

Whether supporting engineers running simulations, researchers training AI models, or creative teams editing high-resolution media, Leostream gives IT the consistency, scalability, and governance they need. The result is a modern, policy-driven environment that combines Azure's performance and flexibility with the security and control of the Leostream Platform.

Deploy Through the Microsoft Marketplace

Leostream's Microsoft Marketplace offering simplifies setup by allowing IT teams to deploy the Connection Broker and Gateway directly within their Azure subscription. Once installed, administrators can begin managing access policies, provisioning compute resources, and monitoring user sessions in minutes

Next Steps

To learn how Leostream simplifies secure access to HPC and digital workstations in Azure, visit the Microsoft Marketplace or contact our team for a demo. Leostream's validated solution helps IT teams build scalable, policy-based environments for research, design, and engineering workloads in the cloud.