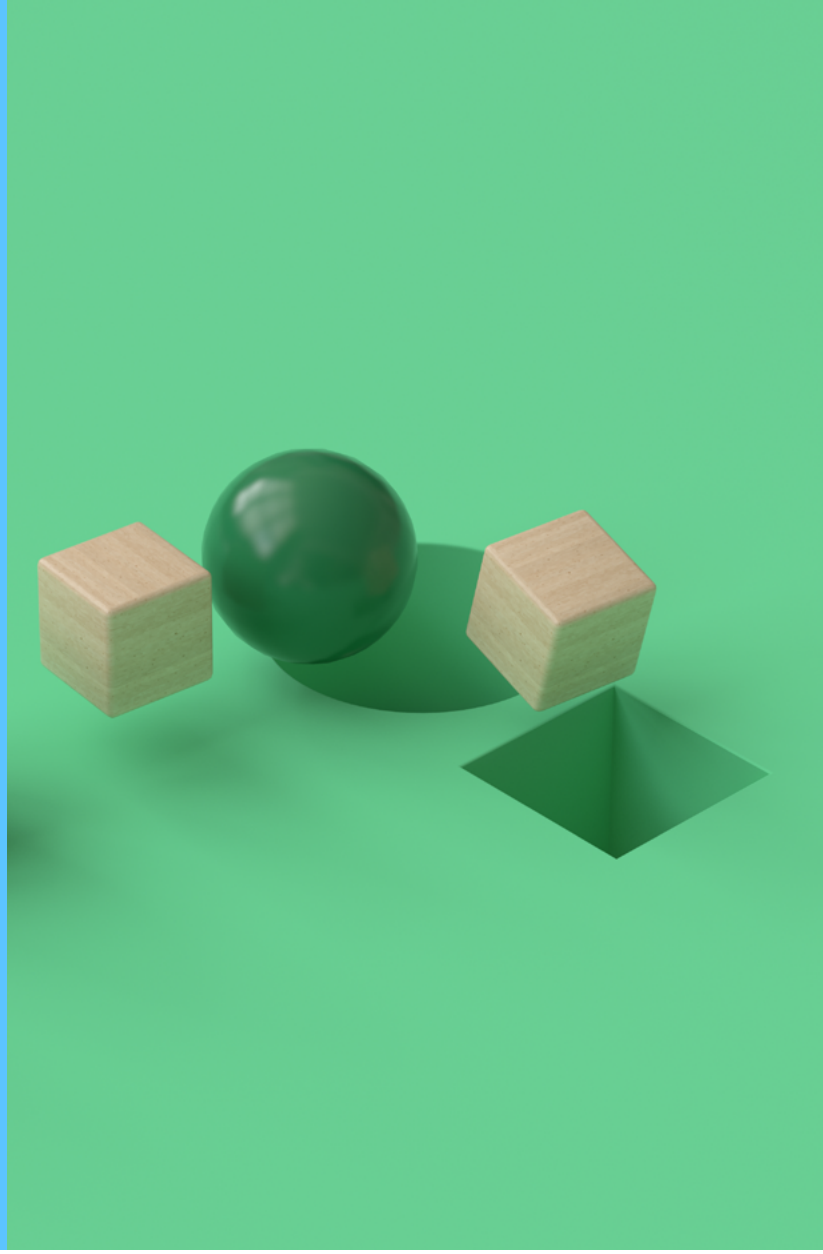
SOLUTION BRIEF

NetApp Virtual Desktop Service for Google Cloud

Simplify and automate virtual desktop deployment, orchestration, and scaling.



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The end-user computing shift

Businesses today realize that yesterday's workforce solutions are at a critical point of evolution. The current reality for the enterprise is a distributed remote workforce that requires globally virtualized resources. "There's pretty much uniform consensus now that the pandemic has permanently shifted the way we work," says Nicholas Bloom, economics professor, Stanford University. Twitter, Facebook, and Microsoft have all announced that remote work will be a permanent option for most of their employees.[1]

With this shift, the technologies supporting the workforce must shift, too; a key example is virtual desktop infrastructure (VDI) technology. VDI has historically been considered a second-tier, fallback option for employees with lower-level task-based workloads, for temporary access, or as a support paradigm for mobile employees. But due to workforce globalization, technology advancements, and today's business continuity needs, VDI is evolving to a tier 1, enterprise-class workload that requires infrastructure on par with workloads such as SAP and Oracle. With its greater operational flexibility, increased security profile, and faster time to productivity when compared with traditional desktop approaches, it's a workload well worth the investment.

The virtual desktop challenge

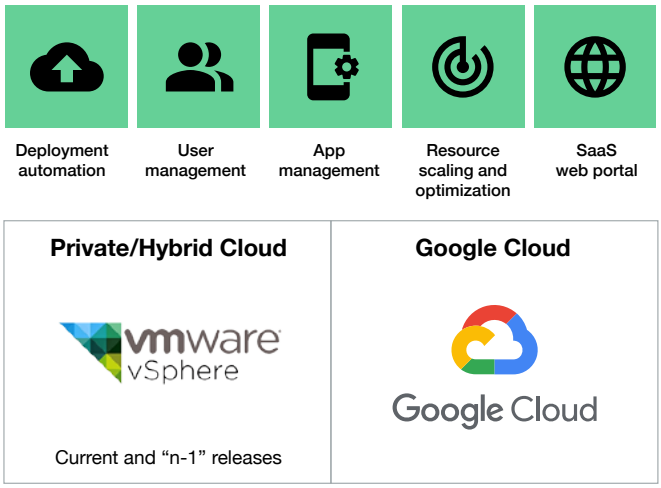
As VDI evolves, however, businesses and IT teams are finding that providing VDI services on a global scale can be difficult at best. Provisioning, deployment, and orchestration can be time consuming and complicated, especially in hybrid multicloud environments. And then there's the complexity of regional requirements and disparate consoles addressing different environments. Research from industry analyst firm ESG found that as a result of this complexity, 93% of either current or planned VDI users needed third-party services to deploy and optimize their VDI environments.[2]

As VDI evolves beyond the brick-and-mortar data center, these challenges unfold in layers:

- The new reality of a ubiquitous virtual remote workforce
- The proliferation of devices that enable employees to have anytime, anywhere, always-on access
- The complexities of procurement, deployment, management, and security across environments
- The overwhelming lack of IT resources or skill sets to address all these environments

Today's workforce needs speed, agility, and flexibility. Delivering the secure, scalable, and adaptable infrastructure to support them is no small feat.

VDI must now be able to span multiple environments, from on-premises systems to different clouds in different regions. It must provide seamless access to high-performance resources and massive datastores. It must take security to new levels—far beyond traditional devices. And it must support this dynamic global workforce without a commensurate burden of cost and support resources. That's VDI at enterprise scale.



NetApp Virtual Desktop Service: A global control plane for VDI

NetApp® Virtual Desktop Service (VDS) for Google Cloud is a global control plane for virtual desktop management. It's software as a service (SaaS) that functions as an extension of the cloud. With NetApp VDS running on Google Cloud, businesses anywhere in the world can deploy a validated solution to address today's growing need for a long-term, permanent remote workforce.

With NetApp VDS, you can automatically provision, deploy, and manage virtual desktops in any cloud. VDS also supports private, on-premises virtual desktop environments. It extends cloud capabilities by providing a single pane of glass for managing desktops through all lifecycle phases. And it's flexible, employing open REST APIs that are interoperable with your private, public, or hybrid cloud deployment strategy and your users' chosen endpoint devices.

NetApp VDS supports Windows Remote Desktop Services (RDS) for virtual desktops on all major public clouds, and in on-premises environments that use VMware vSphere as the hypervisor. Now businesses can reduce the complexity of VDI provisioning, deployment, and management across the global landscape, regardless of platform.

Because VDI is necessary for maintaining business continuity, enterprise-class management for this expanding workload is critical to the success of deployments, and to the business. The global control plane of NetApp VDS uses automation and machine logic to maintain scale, stability, and security for your virtual workspaces. It also integrates with a wide range of other cloud-based products, including:

- **NetApp Cloud Volumes** for secure, scalable storage to optimize your virtual desktop performance and availability. Cloud Volumes protects against the negative effects of boot storms, login storms, and resource contention.
- **NetApp Cloud Insights** for complete visibility into your infrastructure and application usage. With Cloud Insights, you can foresee issues before they affect your users.

Simplify virtual desktop deployment

The speed at which your business can accelerate time to productivity is critical. NetApp VDS was designed to simplify the provisioning and deployment of virtualized desktops. What differentiates VDS is its ability to serve as a unified global control plane spanning your entire virtual desktop footprint—users, clouds, and business locations.

Because of its simplified UI and open REST APIs, your IT teams can now unify virtual desktop provisioning while providing streamlined, policy-based access to data and application resources. You'll save significant operational time and costs, because you don't have to manually configure individual workspaces across office locations, clouds, and hardware.

Automated virtual desktop management

NetApp VDS empowers your IT teams to streamline and automate the ongoing management of virtual desktops. For example, you can use policy-based management of software updates for users and applications, no matter where they're located. This approach mitigates risk of application errors, server downtime, and security inconsistencies. You can also automate and orchestrate user identity refreshes, optimized authentication routines, migration of data files, storage assignments, and unique access configurations for individuals or departments. Automated management further extends to self-service user support and resource provisioning, freeing your virtual desktop team for more critical functions.

Scale and optimize virtual desktop capacity

With NetApp VDS, your business can scale and optimize desktop infrastructure to control costs without sacrificing performance. You can program resources to "dial up" or "dial down" based on your usage patterns. VDS also performs dynamic resource scaling and load balancing for workspaces—for example, increasing processing power for graphics-intensive applications, handling sudden surges in virtual desktop users, or dealing with reduced work throughputs during holiday seasons. The LiveScaling feature continuously optimizes cloud compute resources that are in use, so you don't have to pay for what you don't use.

It's easy to provision VDS with the streamlined administrative interface of NetApp Cloud Volumes on Google Cloud. NetApp Cloud Volumes provides the underlying infrastructure to remove the resource contention normally associated with larger VDI environments, while including backup, NetApp Snapshot™, and compliance capabilities. When combined with NetApp Global File Cache, your workspaces can take advantage of geographic-level scaling, so virtual desktop resources remain close to regional user populations but still use centralized, consolidated storage.

Swizznet uses NetApp VDS on Google Cloud
With NetApp VDS, accounting software provider Swizznet has been able to slash its cloud spending by 50% and reduce management requirements for its hybrid multicloud environment. Swizznet offers industry-standard solutions such as Sage ERP, QuickBooks, and ADP to clients around North America. The company surpasses the competition because it can provision clients immediately, without disruption—ensuring stress-free access to critical accounting applications, anywhere and at any time. It's NetApp VDS that Swizznet uses behind the IT curtain to enable great customer experiences, application performance, and reliability.

Read the case study.

1 BBC News, "Microsoft makes remote work option permanent," October 9, 2020. https://www.bbc.com/news/business-54482245

2 The Enterprise Strategy Group, Inc. (ESG), "Are Desktops Doomed? Trends in Digital Workspaces, VDI and DaaS," May 2020.

About NetApp
In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. www.netapp.com

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