

High-Performance Block Storage

Unlimited Capacity, a Small Footprint and Built-in Data Protection

Time for Another Storage Refresh? Isn't this Getting Old?

One of the biggest challenges for enterprise IT is what to do with all the data that applications and business users depend on. The demand for capacity is relentless, with many organizations ingesting multiple Terabytes of data daily. Performance is critical—when data is needed, it has to be available in real time or close to it. Many organizations have legacy storage nearing its end of life—it takes up a huge footprint, it's hard to manage and its limitations are degrading the business. They'd love to replace this maxed-out array with something better, but how?

So Much Overhead and Waste—But What's the Alternative?

Other options are incredibly inefficient because of a disconnect (pun intended) between the cloud and the enterprise data center. While public clouds provide almost unlimited resources, latency gets in the way. It simply takes too long for data to travel from a remote cloud back to your location for a user waiting for it. Since data usage is unpredictable, businesses have no choice but to keep massive amounts on hand on very expensive gear regardless of what small portion is needed urgently. It's a model that's increasingly unsustainable as data volumes skyrocket.

Lose the Infrastructure, Keep the High Performance, Scale to the Cloud

Now there's a better way. ClearSky delivers data where it is needed, quickly and easily, without the complexity and high costs that organizations face today. A unique, patented architecture overcomes the latency barrier so you can leverage the unlimited capacity of the cloud rather than building out a massive infrastructure. The impact is game-changing for data-driven enterprises: flash performance in a small onsite footprint that extends seamlessly into the cloud and is infinitely scalable.

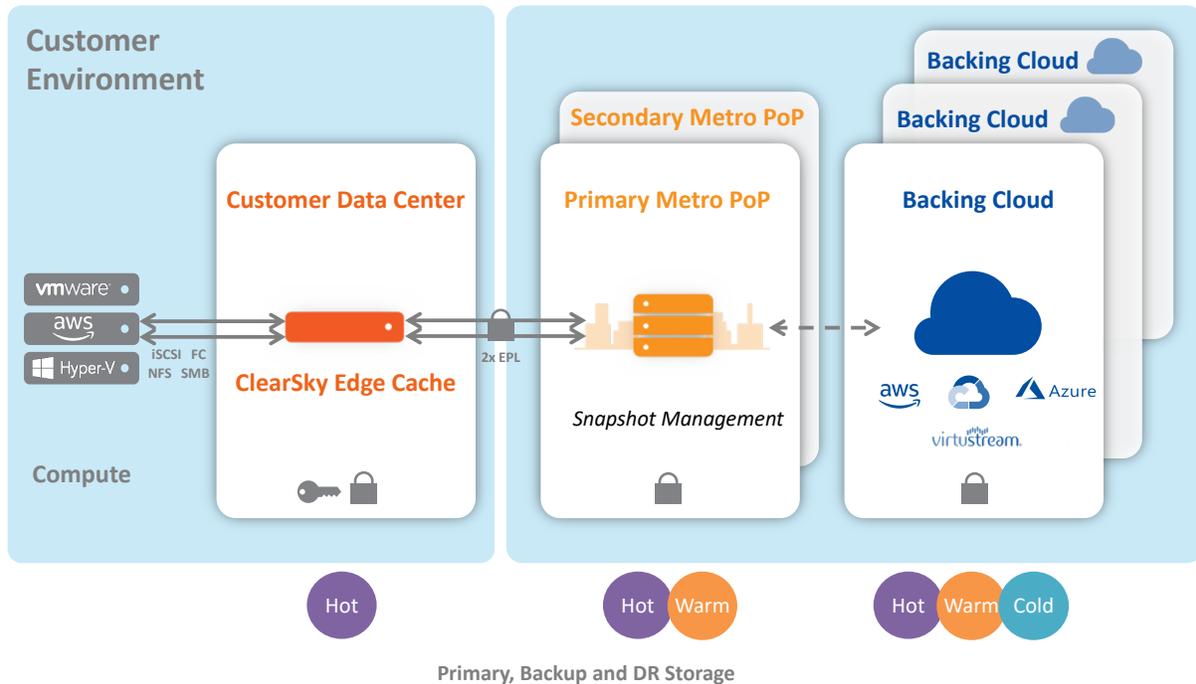
The ClearSky architecture provides other advantages including built-in protection, agility for data center migration and the ability to recover rapidly from a ransomware attack. All this is delivered as a fully-managed service, freeing you from the time-consuming burden of babysitting complex storage systems. It's the new model for enterprise storage, with capabilities that legacy architectures (i.e. everything else) cannot match, at a fraction of the cost.

- » Flash performance
- » Built-in protection
- » Enterprise grade security
- » Guaranteed high availability
- » Simplified management
- » Significantly lower TCO
- » Fast and easy to deploy

“ClearSky's service gives us the best of both worlds: the resiliency, infinite capacity and redundancy of the cloud, and the very low latency of the edge. The service is simple to manage, performance is excellent, and we now have fast access to the data we need on-demand. Best of all, our data is automatically protected, so we don't have to spend hours every day babysitting backups.”

Vice President of IT, Nuance Communications

ClearSky Does Block Storage Better: High Performance, Unlimited Scale, Built-in Protection



The new model for enterprise storage: The ClearSky architecture caches data where it best meets usage demands. All data is always available in the Backing Cloud.

ClearSky provides a block storage solution that optimizes the way organizations store, access and protect large amounts of data. Here are the main elements:

Solving the Latency Barrier

ClearSky's architecture solves the latency problem that has kept the cloud out of reach for most primary storage, by transparently caching data where it best meets the needs of enterprise workloads:

- » Hot data is cached in a ClearSky Edge Cache device in your data center, connecting as a storage area network (SAN) endpoint in a shared storage environment.
- » Warm data is cached in a metro Point of Presence (PoP) within 120 miles of your data center. This is an innovation unique to ClearSky, providing a bridge between your facility and public clouds.
- » ALL data, including the vast majority that is cold or archival data, is stored in the Backing Cloud.

Behind the scenes, ClearSky's patented Smart Tiered Caching™ technology continually categorizes data and places it in the optimum layer based on evolving usage requirements. Since the Edge Cache is the only device installed onsite, provisioning is greatly simplified, typically requiring a few hours rather than days or weeks.

Writing and Reading Data

ClearSky's unique approach for writing and reading data leverages the architecture to maximize performance. All data is considered hot when it is written, so a copy is placed in the Edge Cache while the same data is written through to the PoP and multiple locations in the Backing Cloud.

The PoP generates metadata about each block, which ClearSky algorithms reference to track the block and allocate it to the optimum layer. The PoP also maintains a journal of write activity, with mirrored copies for resilience. Software running in the background periodically condenses the contents and sends a snapshot to the warm cache and Backing Cloud, allowing data to be recovered at any point in time if needed.

Built-in, Automatic Data Protection

ClearSky's unified architecture eliminates the need for separate backup and disaster recovery operations, and all the associated infrastructure, overhead and costs. (It also eliminates the need for separate archival storage.) Each cache layer is a superset of the previous layer, so even if a layer is lost, data is always available in the next layer. Regardless of where a failure may occur, you always have access to all of your data in the cloud.

This inherent data protection has other benefits, including the ability to recover within seconds from a ransomware attack by accessing the last good snapshot. Another benefit is agility—to easily access all your data anywhere, for example to migrate to a more compact data center.

Delivered as a Fully-Managed Service

Clearsky's comprehensive solution for enterprise storage is delivered as a fully-managed service at about half the cost of traditional storage. There's nothing to buy and no complex, separate systems to maintain—just plug into ClearSky to access all your data when you need it, anywhere you need it.

Using ClearSky's Storage Manager web dashboard, you can create storage volumes, set snapshot intervals, scale your capacity clicks, view usage metrics and perform similar operations with a few clicks. Rather than struggling with underlying infrastructure, you can focus on what really matters: complete visibility and control over all of your data.

**Access data when you need it, save money
and make your life easier—it's enterprise
storage as it should be.**

Find out more at www.clearskydata.com