

Bulletproof Ransomware Protection

RPO/RTO near Zero with Storage-as-a-Service at the Network Edge

Ransomware Attacks Can Be Devastating and Are Almost Inevitable

Ransomware comes in many forms but there's a basic theme: cybercriminals have breached your network, encrypted your files, and blocked access until the ransom is paid. The impact can be devastating—lost revenue, lost time, damage to your brand, not to mention potential ransomware payment. High-profile attacks on hospitals, public agencies, and businesses of all types and sizes are reminders that no organization is immune.

Cybercriminals are constantly probing for vulnerabilities, finding ways to circumvent employee education and the best efforts of IT staff. You need to assume that a ransomware attack will occur at some point and be ready to mitigate it. Unfortunately, the tools available have not been equal to the threat—until now.

The spread of vulnerabilities in your network



Traditional Storage Solutions Can't Meet the Challenge (You've Been Warned)

When organizations are hit by ransomware and can't access their files, they look to their backups—copying massive amounts of data from tape, disk or a public cloud back to their production environment. They've likely never had a

ransomware attack so they don't know what they're getting into. But they soon realize that recovery takes much too long, recovery points are too far apart, and there's too much uncertainty when you have a business to run. The alternative is to pay the ransom, cross your fingers, and try to decrypt your data so you can get back to work. Meanwhile, your business has ground to a halt.

Recover Your Data On-Demand—the ClearSky Breakthrough

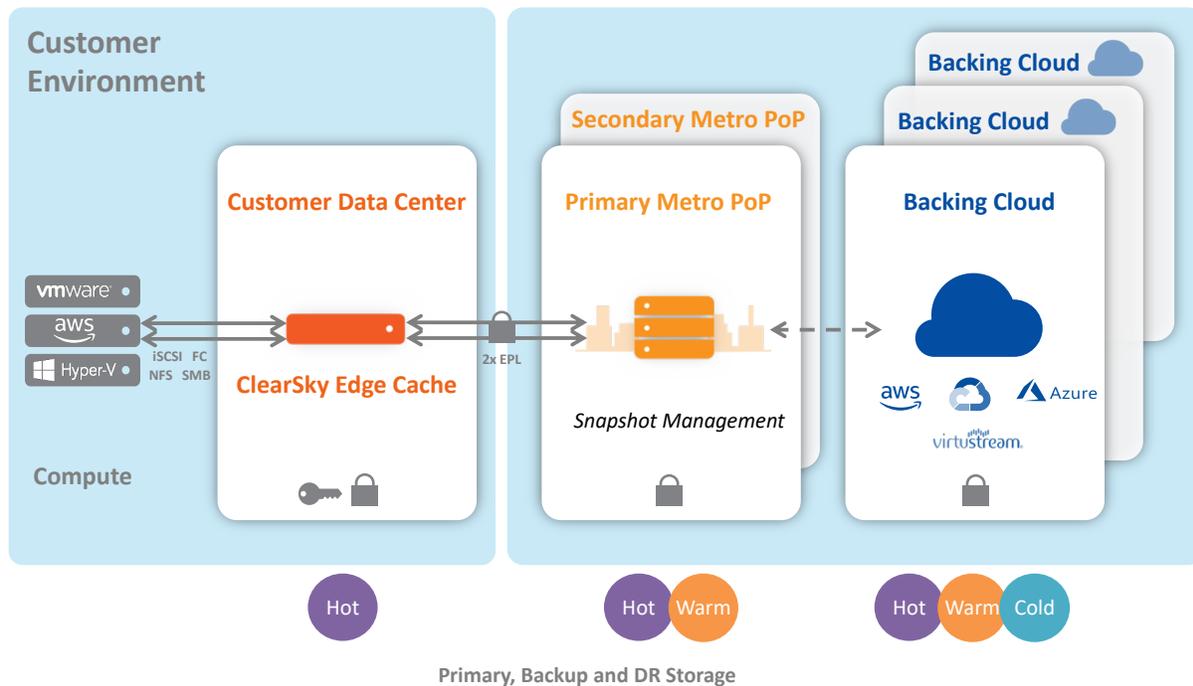
ClearSky's unique edge-based storage network combines the flash performance of local arrays with the unlimited scalability and accessibility of the cloud. These same capabilities ensure you immediately resume operations after a ransomware attack rather than be crippled by it. Now you can access a full copy of your data set from just before the attack in a few minutes or less, with no ransomware payment and no tarnished brand.

And unlike typical remediation offerings that you have to pay for and manage, the cost with ClearSky is exactly zero. Ransomware protection is embedded in the ClearSky architecture, providing a single, self-protecting storage solution at a fraction of the cost of traditional storage.

High-speed, simplified data recovery on demand:

- » Near-instant RPO/RTO after a ransomware attack or disaster
- » Restore files, avoid ransom payments
- » Prevent the loss of systems, data and productivity
- » Ensure business continuity with storage-as-a-service, leveraging the network edge
- » Effective protection at no cost—it's built into the ClearSky architecture
- » Reduce storage costs by over 50%

ClearSky Service Architecture



Near-instant data recovery with offsite, read-only protection: Snapshots are cached in the Metro PoP, close to your data center but isolated from it. Additional copies are in the Backing Cloud.

ClearSky's architecture includes numerous innovations that dramatically improve the way organizations access, store and manage their data. These elements also provide data protection and recovery capabilities not possible with traditional solutions. Let's examine how the process works.

As Files Change, Each Version Is Saved...

All data written into the ClearSky service at the Edge Cache (see figure) is segmented into new, unique data blocks. This is in contrast to many storage systems that overwrite files continually as data changes. ClearSky automatically catalogs all data at the block level and keeps track of all file versions. At specified intervals, ClearSky software running in the background condenses and assembles the new blocks of data as a snapshot for that point in time.

Snapshots at the Network Edge...

Snapshots are cached in a metro point-of-presence (POP) within 120 miles of your data center, and all data is always

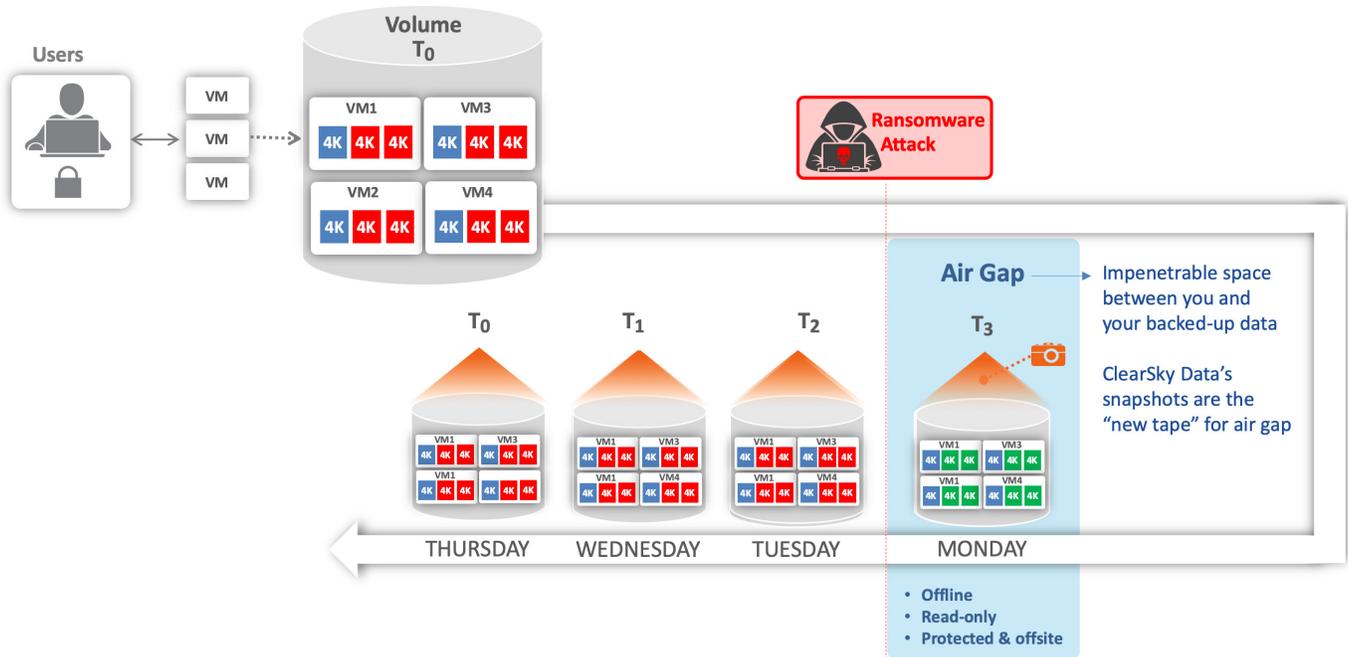
available in the Backing Cloud. The proximity of the PoP to customer applications, along with dedicated high-speed metro Ethernet connections, ensures near local performance when accessing data. Unlike traditional storage, there's no time-consuming copying of data from backup hardware or a remote cloud. With ClearSky, you simply expose a snapshot in the PoP to get access immediately.

If Attacked, Restore Operations Instantly!

Out of the blue, a ransomware attack encrypts your files. While all new data blocks are infected, earlier versions of your files from before the attack are untouched. Using ClearSky, you can get back in business with a few clicks.

To restore operations, take the corrupt volume offline using the ClearSky management dashboard, select the last snapshot with good data before the attack, and click Restore. All volumes protected with the snapshot will be accessible within five minutes. If you inadvertently expose a snapshot from the wrong point in time with infected files, no problem—delete it and access an earlier one. ClearSky simplifies recovery so you can get your business back online at the right point in time with minimal overhead.

Air Gap for Data Protection



ClearSky Cloud Storage-as-a-Service at the Edge: The Air Gap for Your Data Recovery

Snapshots and backups can be infected by malware when they're stored on the same hardware as infected files. An air gap provides an impenetrable space between the user environment and your backed up data – electromechanically, electronically, and most important, physically. With ClearSky, your snapshots are close to your data center but isolated from it—offsite, offline, and read-only.

Fully Integrated with VMware

CMI (ClearSky Management Integration) is a ClearSky capability that lets you take snapshots of ClearSky volumes presented to VMware for use as datastores. This ability to schedule recovery points on the datastore level protects all VMs and associated data on each datastore. In the event of a ransomware attack, the Admin user can power down affected VMs, unmount the infected datastore, expose the last known good recovery point prior to the infection, and power up the VMs within minutes.

Cost-effective, Multi-Cloud Storage Solution

Fast data recovery after malware attacks is built into the ClearSky architecture that combines primary storage, offsite protection and disaster recovery as a single service, at about one third the cost of traditional storage. ClearSky's many innovations are redefining enterprise storage, combining high performance, unlimited scalability, exceptional resilience, and accessibility anywhere. There's nothing extra to buy or manage, just one streamlined, multi-purpose solution for enterprise storage, managed from a single pane of glass and with 24x7x365 support.

**When Ransomware Hits,
ClearSky Has Your Back.**

Find out more at www.clearskydata.com