



MEDICAL

# MIGRATING OFF TAPE BACKUP

“With Infrascale Disaster Recovery, I can quickly recover lost, deleted, or even corrupted files in minutes vs. days and not have to rely on physical media. The time saving has been immeasurable.”

*Martin Mitev, Senior Systems Administrator*



## CENCAL PROFILE

CenCal Health is a publicly-funded healthcare program designed for the low-income residents of Santa Barbara and San Luis Obispo counties. Founded in 1983, CenCal Health is the oldest Medicaid-only managed care program of its kind in the country. With offices in Santa Barbara and San Luis Obispo and serving almost 200,000 members, CenCal is a growing and vibrant organization that is constantly evolving its programs and services to improve access to care for its membership.

## CHALLENGES

- Quickly recover lost or deleted files in minutes, not days
- Protect their data and applications against potential ransomware attacks
- Centralize disparate data sources and platforms into one online target
- Scale their capacity on-the-fly as their data grows

## BACKGROUND IN TAPE

One of the biggest challenges for healthcare organizations is the sensitivity of patient data, as they must adhere to the stringent HIPAA privacy and security requirements. Yet 88% of all ransomware attacks occur in healthcare organizations.<sup>1</sup> Prior to working with Infrascale, CenCal was leveraging multiple tape backup applications to protect their Windows, HP-UX and Linux environments. At first, this solution seemed cost-effective due to the low costs of the tapes themselves. But, the cost-effectiveness was lost when factoring in the human costs such as ‘running a backup’ and the time it takes to shuttle tapes offsite for remote data protection and disaster recovery. The recovery time leveraging a tape backup system would take several days, at best. Windows SQL database backups were initially backed up to disk, later backed up by another application to get the data to tape, and then moved to off-site storage -- adding further complication and cost of ownership to the solution.

## SOLUTION

CenCal Health now has a HIPAA compliant solution that lets them protect their data and enables them to recover files or full running systems in minutes. This has translated into big time savings, reduced operation overhead, and peace of mind.

## DATA PROTECTION REQUIREMENTS

CenCal Health needed a modernized backup solution that would centralize all their data into one solution. In light of ever-looming ransomware attacks, the ability to have fast failover was also a critical consideration. CenCal needed the Windows solution to protect all the key applications running in a mixed (physical and virtual) environment including MS Exchange and SQL databases. They also required the data to be encrypted, both in transit and at rest, for HIPAA compliance. Another key requirement, given their history with tape backups, was the ability to meet more stringent RTO that was measured in minutes, not days.

## RESULTS

- Eliminated dependence on tape backup
- Fast recovery of files and applications (measured in minutes vs. days)
- HIPAA compliance
- Full system migration to failover functionality



One of the great features of the Infrascale solution is the ability to expand the capacity of my appliance on the fly with no disruption to our business, applications or the data protection process.”

**Martin Mitev,**  
Senior Systems Administrator, CenCal

## CenCal Solution

The CenCal solution utilized Infrascale to combine a direct-to-cloud backup service and an onsite disaster-recovery appliance. This protects them from data loss and minimizes downtime caused by server outages, ransomware, or site wide disasters. Infrascale utilizes a 256-bit AES encryption of the data before transfer over a secured 256-bit SSL, as required by HIPAA. With this solution, any disrupted device or devices can be spun up as a new virtual machine or to cloud, in the case that a local recovery point is not available. According to Martin Mitev, CenCals Sr. Systems Administrator: “One of the great features of the Infrascale solution is the ability to expand the capacity of my appliance on-the-fly with no disruption to our business, applications or the data protection process.”

The table below recaps some of the key considerations of moving from tape to DRaaS as their data protection methodology.

FEATURE	TAPE BACKUP	DRaaS
Method	Tape Backup (D2T)	DRaaS (D2D2C)
Full Site RTO	3+ Days	<1 hour
Full System Recovery Time	1+ Days	Minutes
Granular Restores	4+ Hours	Minutes
Restore Reliability	Failure rates approaching 50%	> 0%
Test Recovery Time	Days	Minutes
Protection Type	Data-loss	Downtime & Data-loss
Optimized	Servers, Files, Baremetal	Servers & workstations - Files, Applications, Baremetal, Live-BMR
Discovery	Days	Minutes
Deduplication	Not Included	Included
Onsite Storage	Manually managed tape library	Infrascale Appliance
Offsite Storage	Manual	Automatic
Offsite Growth	Offsite facility	Infrascale’s Cloud
Scalable Growth	Heavier on-prem investment	More Cloud
Enhanced Security	Enterprise-grade, cumbersome	Enterprise-grade, automatic
Deployment	Cumbersome (human intensive)	Easy
Cross Platform Support	Licensing required	Included
Retention Management	Manual	Automatic
Recovery Requirements	Suitably Sized and Configured Hardware	None (to cloud)
Capital Expense	Tape, Tape Drives, Software	None

## RESULTS

“I have been able to spin up a virtual machine on my Infrascale appliance and have been able to recover files from that server in under ten minutes. I can also recover an entire virtual machine back to my environment in under an hour. I like the user interface, the flexibility of the appliance and the completeness of the solution. The Infrascale product just works. It’s the ideal solution.”

*Martin Mitev, Senior Systems Administrator, CenCal.*

<sup>1</sup> 88 percent of ransomware attacks occurred in healthcare organizations according to Solutionary’s Security Engineering Research Team Quarterly Threat Report for Q2 2016