Solving **Healthcare** Data Challenges

Rising Volumes of Medical Data

Medical data comes in various formats including clinical notes, diagnostic tests, genome sequencing, and medical images. The massive growth in imaging volumes and file sizes has placed an immense burden on storage requirements. It's no surprise that healthcare IT teams are constantly challenged to balance capacity planning and storage costs.

Rising Cost of Downtime

According to Ponemon Institute[1] , the average cost of a data center outage in 2016 was $740,357, up 38% from 2010. But while business continuity is always important, it's crucial for healthcare organizations. Here, CIOs are under intense scrutiny because of the sensitive nature of data, while at the same time, their organizations are under pressure to reduce the financial impact of downtime. Loss of data availability and downtime can occur in several ways, from accidental file deletion, hardware failure, ransomware, to natural disasters. Hospitals are especially vulnerable to ransomware attacks and they are the number one target for cybercriminals. Last year, globally more than 100 million patient records were breached, as reported by IBM[2]. As attacks continue to rise, liability ransomware insurance increases (per medical record). It's becoming even more crucial for healthcare IT to implement robust measures for data protection.

StorageCraft Scale-out Storage and Data Protection

StorageCraft eliminates hospitals' runaway storage costs and reduces data management complexity. Our OneBlox™ product family is a unique scale-out, object-based NAS storage appliance. It can be utilized as primary data storage, archiving (e.g., medical image repository), and a target for backups.

Business Benefits

- Scale Storage Dynamically
- Optimize Storage Capacity
- Reduce TCO
- Protect Data
- Recover Rapidly
- Recover Flexibly – P2P, P2V, V2P, V2V

Customer Testimonial (StorageCraft OneBlox)

"To be honest with you, I did [consider paying the ransom]. On the first day, absolutely. I really could not afford to be without those files."

– Jason Rolla, CTO, Christopher Rural Health

To ensure business continuity, our ShadowProtect SPX® solution offers healthcare organizations comprehensive backup and recovery protection. In the case of a site-wide failure, our Cloud Services enable IT teams to back up data in secure offsite data centers for total failover in the cloud, making recovery of the entire infrastructure simple, quick and seamless.

Scale-out Storage on the Go

Unlike other storage solutions with limited scalability, OneBlox offers a limitless pool of scalable capacity.

- **Expand storage seamlessly**: Healthcare IT teams can expand storage dynamically and scale granularly, one drive at a time, or by adding multiple OneBlox appliances, all without any configuration changes to the application.

- **Minimize storage requirements:** OneBlox keeps an organization's storage footprint in check with powerful data reduction technologies, such as inline deduplication and compression. Using efficient variable-length block level deduplication, OneBlox delivers impressive data reduction rates of up to 20:1.

- **Reduce storage costs:** OneBlox eliminates costs caused by over-provisioning. With high data reduction ratios, it reduces the costs of expanding hardware and operational expenses, lowering the cost per TB even further. OneBlox allows IT teams to purchase enterprise class drives at retail pricing, driving down costs even more without the vendor markups.

Ensure High Availability and Continuous Data Protection

The critical nature of medical data demands a fast recovery with up-to-date patient records. This necessitates protecting, backing up, and recovering mission-critical information rapidly.

- **Backup everything and recover instantly:** StorageCraft ShadowProtect SPX can backup entire systems. With ShadowProtect SPX, healthcare IT teams can recover medical files and folders in seconds or entire systems in minutes. In the event of a system failure, such as a crashed server, IT teams have the flexibility to recover rapidly to any type of server or as a VM in any hypervisor. OneBlox can be used as a backup target by ShadowProtect SPX. Similarly, for remote back up, IT teams can do a one-click failover to StorageCraft Cloud Services and restore data in minutes.

- **Safeguard medical data:** OneBlox takes continuous and immutable snapshots automatically every 10 seconds for the first hour, then on an hourly, daily, weekly, and monthly basis. Should a ransomware attack occur, encrypting the data and corrupting the primary file system, these snapshots are completely unaffected, immune from any modification or deletion. As an added line of defense, IT teams can also retrieve data from ShadowProtect SPX backup images.

Simplify Data Storage and Recovery Management

Healthcare IT teams, scrambling to keep up with the rapid data growth, inevitably create too many storage islands. Resulting in management complexity, operational inefficiencies, and increased total cost of ownership (TCO). Furthermore, implementing the various policies set by federal regulations like Health Insurance Portability and Accountability Act (HIPAA) can be quite complex; as this requires organizations to manage policies for image retention, backup, and disaster recovery.

- **Eliminate complexity:** IT teams can add scale-out capacity to the OneBlox storage infrastructure without disruption to file and application services. To help organizations comply easily with retention policies, ShadowProtect SPX provides flexible policy-based administration for backup and retention.

- **Control globally:** IT teams can manage OneBlox from any browser with StorageCraft OneSystem, our powerful and intuitive cloud-based management service. ShadowProtect SPX can also be centrally managed and monitored with a single console.

OneBlox Features

- All-flash or HDD-based (from retail)
- Encryption-at-rest with AES 256 (HIPAA requirements)
- Inline deduplication, compression, flexible replication
- RTOs in minutes, granular RPOs every 10 seconds

ShadowProtect SPX Features

- Comprehensive backup – the OS, applications, settings, and data
- Reliable & Instant recovery – files in seconds, systems in minutes
- Cross-platform operability – HW or virtual environments including VMware and Hyper-V
- Recover to dissimilar HW or virtual environments

Cloud Services Features

- One-click failover to StorageCraft Cloud Services
- High availability - 99.999% uptime
- Self-service, one-stop portal