Moffitt Cancer Center consolidates data protection in the cloud for better scalability and reduces backed-up data by 99 percent.

### Business needs
Advances in digital imaging have driven off-the-charts data growth at Moffitt Cancer Center. Its legacy backup systems were struggling to back up increased data volumes quickly and reliably.

### Solutions at a glance
- **Dell EMC Data Domain**
- **Dell EMC Data Domain Boost for Enterprise Applications**
- **Dell EMC Data Domain Cloud Tier**
- **Dell EMC ECS Object Storage**
- **Dell EMC Data Protection Software**

### Business results
- Consolidates protection of physical and virtual workloads
- Agility to support evolving cloud and data retention requirements
- Enables fast recovery of point-in-time VM-based snapshot

99% reduction in backed-up data

Reduces backup times from hours to minutes
At Moffitt Cancer Center, the nation’s third largest cancer center and a leader in cancer research, rapid advances in digital imaging and clinical research have accelerated the discovery of better cancer treatments. These advancements are driving unprecedented growth of Moffitt’s clinical and research data and virtual environment, making it challenging to execute fast, reliable backups.

To protect this vital data with utmost reliability and efficiency, Moffitt consolidated its legacy backup systems onto a Dell EMC Data Protection solution that can natively expand to the cloud. The organization depends on Dell EMC Data Protection Software and Dell EMC Data Domain Boost for Enterprise Applications to back up to Dell EMC Data Domain appliances. Moffitt also uses Dell EMC Data Domain Cloud Tier software to back up data with long-term retention requirements to Dell EMC ECS object storage in the cloud.

Moffitt’s highly secure infrastructure includes enterprise and clinical research application servers and databases, such as Oracle, Microsoft Exchange, Microsoft SQL Server and an extensive VMware infrastructure.

**Dynamically changing cloud strategy**

Handling Moffitt’s exponential data growth with ease is a major advantage of Data Domain Cloud Tier. John McFarland, Moffitt’s senior director of technology and business management, says, “We’ll need to add half a terabyte of storage next year because the rate of our research data growth is off the charts. With Dell EMC Data Domain Cloud Tier and ECS, we gain great agility and scalability to adapt to our changing business needs and protect this data reliably and efficiently.”

As Moffitt’s regulatory and legal data retention requirements evolve, Data Domain Cloud Tier will help the cancer center to further extend its cloud and virtualization strategy through streamlined access to public hyperscale providers, such as AWS and Azure.

**Data dedupe slashes storage**

Data deduplication also has contributed to substantial improvements, according to McFarland. “One of the greater benefits of the Dell EMC Data Protection solution is its dedupe capabilities. We back up 150 terabytes of data, which dedupes to 1.5 terabytes—a reduction of 99 percent. This decreases our backup storage requirements even as our data grows.”

> “With Dell EMC Data Domain Cloud Tier and ECS, we gain great agility and scalability to adapt to our changing business needs and protect this data reliably and efficiently.”

John McFarland
Senior Director of Technology and Business Management, Moffitt Cancer Center
McFarland continues, “With the VM image–based backups and Changed Block Tracking features in Data Protection Software, we’ve decreased our backup times from hours to minutes. We also can recover the entire system, instead of just files, while reducing operational complexity with a single-pass backup that allows for system recovery and granular file-level restores.”

The integration of Data Protection Software and Data Domain has helped decrease the recovery time objective (RTO) from hours or even days to just minutes. The solution also enables recovery of point-in-time, virtual machine–based snapshots to run directly from Data Domain, which dramatically reduces recovery time.

**Protecting the path toward a cure for cancer**

Data Domain Cloud Tier and Data Protection Software have simplified backup administration for IT. “Data Domain and Data Protection Software provide us with a single pane of glass to consolidate protection of our physical databases and virtual workloads,” McFarland says. “This saves our staff time and improves reliability.”

McFarland concludes, “Dell EMC’s top-notch support—along with Data Domain Cloud Tier, ECS and Data Protection Software—gives us confidence that our mission to prevent and cure cancer will continue even if a hurricane or data center outage occurs.”