



# Rapid analysis of tumors advances cancer treatment

Personalis scales to massive genomic analysis workload and helps next-gen cancer therapies reach patients faster



Healthcare

United States

## Business needs

Personalis, Inc., is a leader in advanced genomics for precision oncology, helping advance the development of cancer therapies. With rapid business growth, Personalis needed to find a way to keep up with storage demands that were increasing at 100 terabytes weekly.

## Solutions at a glance

- [Dell EMC Isilon All-Flash storage](#)
- [Dell EMC PowerEdge servers](#)

## Business results

- Completed genome sequencing workloads in 72 hours versus one week
- Decreased IT burden with automated storage tiering
- Improved storage visibility and growth forecasting
- Contributed to timely development of cancer therapies

Reduced storage footprint by

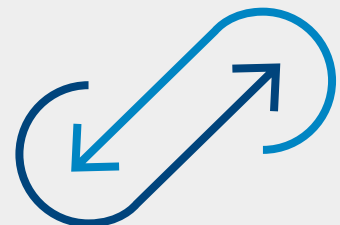
90%



Scaled storage capacity

7x

in only six months and without any downtime



A cancer diagnosis once came with a low chance of survival and treatment regimens with serious potential side effects. A new generation of personalized cancer drugs is helping change that as cancer patients enjoy longer and healthier lives.

One innovative leader involved in the advancement of personalized cancer immunotherapy is Personalis, Inc. Biopharmaceutical firms use Personalis' advanced genomics solutions and expertise to enable development of safer, more effective precision cancer therapeutics.

As the company's business grew rapidly, its IT team needed to devise a means of managing data growing at a rate of 100 terabytes per week. The company's prior multi-vendor infrastructure suffered performance slowdowns and was time-consuming to scale.

To gain control over growth, Personalis consolidated its infrastructure on Dell EMC Isilon All-Flash storage and Dell PowerEdge servers.

## Speedier delivery of life-saving therapies

Moving workloads to Dell EMC Isilon All-Flash storage reduced processing times by nearly 60 percent. Doug Zeman, IT manager, Personalis, says, "With Isilon storage, we've slashed processing genomic workloads from one week to 72 hours."

## Tidal wave of storage growth under control

In six months, the company's storage capacity grew sevenfold. Personalis projects storage growth will continue at a rapid clip. "Because we're at the forefront of immunology, we've seen extreme business expansion and storage growth," explains Zeman. "Only Dell EMC Isilon All-Flash storage can handle such massive scalability. We now have the capacity to process several thousand tissue samples each quarter, with room to spare for further growth."

To scale, IT adds an Isilon node and the environment automatically absorbs increases in compute, storage and network bandwidth capacity without downtime.

## Improved storage efficiency reduces costs

With detailed reporting, Dell EMC Isilon storage provides improved storage visibility. This helps IT in forecasting storage expenditures more accurately, thus avoiding unnecessary purchases.

Reducing the storage footprint by nearly 90 percent contributed to cost savings related to power, cooling and floor space. Previously, Personalis stored 800 terabytes of storage on four racks compared to storing 1 petabyte of Isilon storage on half of one rack.

*"With Isilon storage, we've slashed processing genome workloads from one week to 72 hours."*

**Doug Zeman**  
IT Manager, Personalis

## Automated tiering saves time

IT likes how little time it takes to manage Dell EMC Isilon storage, which frees team members to spend more time working on other projects. For example, IT uses Dell EMC Isilon SmartPools to define automated policies that direct data to the optimal tier, such as SATA, flash or archive.

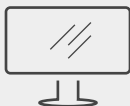
Zeman states, “One of our biggest bottlenecks was data moving across silos of storage from different vendors. Now, SmartPools automatically moves data across Isilon tiers according to performance needs without interrupting our production workflows. Everything runs faster, and it takes less time to manage.”

*“We’ve gotten great support from Dell every step of the way. They’ve become part of our IT team, which we value because we’re on call 24x7.”*

**Doug Zeman**  
IT Manager, Personalis

## Team partnership yields benefits

Zeman appreciates the high quality of support from Dell EMC. “We’ve gotten great support from Dell every step of the way,” he says. “They’ve become part of our IT team, which we value because we’re on call 24x7.”



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