



The right tools to help save the world

Draper boosts innovation, cuts costs by 30 percent and increases IT staff productivity by 75 percent with an end-to-end solution from Dell Technologies

DRAPER

Research and Development

United States

Business needs

Draper works with government and commercial organizations to create solutions for problems many people don't even know exist. To innovate, employees require fast, reliable access to extremely disparate technologies. And, yet, IT staff must minimize complexity wherever possible so they can efficiently meet increasing requirements today and tomorrow.

Solutions at a glance

- [Dell EMC ECS, Isilon and Unity storage](#)
- [Dell EMC ProDeploy and ProSupport services](#)
- [Dell EMC VxRail hyper-converged architecture](#)
- [Dell Latitude, OptiPlex and Precision client devices](#)
- [Dell UltraSharp monitors](#)
- [VMware data center virtualization products](#)

Business results

- Increases workforce efficiency and innovation
- Reduces risk by completing backups twice as fast
- Cuts storage footprint by 92% while boosting capacity and scale
- Dramatically simplifies maintenance and support

Boosts IT staff productivity by

75%



Lowers capital costs for new storage by

30%



Many organizations have sizable IT footprints with technologies from numerous vendors. This diversity often slows efficiency because it's difficult to maintain quick performance, rapid provisioning and current backups given all the different file systems, management tools and support agreements.

As one of the world's leading R&D organizations, Draper was struggling with all these challenges. That's because it had built an extremely complex infrastructure to meet the requirements of its engineers and researchers who work on projects with goals that range from protecting countries to improving cancer treatments to shaping new industries. Mike Cronos, CIO of Draper, says, "Draper is one of the handful of places where you can have an admiral, a person in a white lab coat, a rocket scientist and a grad student from MIT all go into a room and solve a really tough problem." For example, Draper:

- Developed the strategic guidance system for fleet ballistic missiles for the U.S Navy.
- Creates cell-based therapy models that eliminate the need for human or animal testing.
- Uses rapid-diagnostic technologies to improve patient outcomes with precision medicine.
- Works with NASA to build guidance navigation for spacecrafts.
- Develops technologies such as a "Take Me Home" button that propels astronauts back to their ship if they become disoriented.

Solving these kinds of problems requires on-demand access to many types of digital tools and information. And every day, staff need new virtual environments as well as access to historical files that could be from any project dating back decades. Because the complexity of its existing storage, servers and client devices was slowing down workloads and creating risk, Draper engaged Dell Technologies for an industry-leading solution

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Mike Cronos
Chief Information Officer, Draper

that supports the immediate and long-term requirements of its specialized workforce. Vanessa Bryan, director of client services at Draper, says, "We didn't need to go to multiple vendors. We had a team come in from Dell Technologies and design a cohesive enterprise solution." Draper took advantage of Dell EMC ProDeploy services to accelerate implementation and work with one point of contact for managing all its new Dell, Dell EMC and VMware products and services.

Cuts physical storage footprint by 92% and capital costs by 30%

One of the first projects Draper tackled with ProDeploy was replacing its disparate storage with a Dell EMC Unity hybrid storage solution. In addition to accommodating Draper's complex file management environment, it supports VMware virtual environments as well as the virtual desktops used by some staff. Sam Carone, storage engineer at Draper, says, "We chose Dell EMC Unity because it's like a Swiss Army knife in one platform. File and block are in the same pool, yet we can keep environments separate as needed. And we get native data-at-rest encryption."

In addition, the new Unity solution is much denser than earlier storage technologies. As a result, Draper was able to replace 12 arrays with one Unity rack. "We've seen great cost savings, a huge increase in performance, and a decrease in staff hours with Unity," says Carone. "The platform is also much easier to manage, monitor and scale."

Reduces risk by halving daily backup timeframes

To ensure it can back up any amount of data each day and still give employees quick access to any project information, even if it was from the 20th century, Draper implemented a Dell EMC Enterprise Cloud Services (ECS) appliance. The hybrid cloud is based on a hyper-converged architecture of Dell EMC VxRail E, P, and V Series nodes and an Isilon storage array. From the management console, staff can also seamlessly expand the solution using more hardware or public cloud services. "We get the best of public and private cloud with ECS," says Greg Haley, associate director of infrastructure and operations at Draper. "It's easy to set up, and we can scale it forever to support any kind of file. We lowered our capital storage costs by 30 percent with ECS, and we complete daily backups in just six hours instead of 12 or more."

Employees get the client devices they need

Draper matched client devices with its various employee types. For example, it assigned high-performance Dell Precision mobile and fixed workstations to engineers; Dell Latitude laptops to mobile executives; and right-sized Dell OptiPlex devices to desk-centric workers. In addition, depending on their visualization requirements, staff use different models of Dell UltraSharp monitors. “We are in the Cambridge, Kendall Square area, so there’s a lot of competition for resources,” says Cronen. “Being able to recruit the right workforce means providing employees with cutting-edge resources. With Dell, we can get people the right client device on day one, hour two.”

Cuts physical storage footprint by 92% and capital costs by 30%

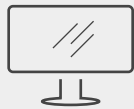
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Making ideas reality—in less time

By engaging Dell Technologies for an end-to-end solution, Draper’s engineers, researchers and business staff are enjoying faster application response times, and they have on-demand access to the tools, environments and data they require. “Without a good IT foundation, we’re not going to push boundaries,” says Cronen. “With Dell Technologies, we get the IT we need to grow our business and support our internal customers, so they can not only overcome their daily challenges but also break the mold and truly innovate.”

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Vanessa Bryan
Director of Client Services, Draper



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