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CUSTOMER OVERVIEW

Headquartered in Vermont, Burton Snowboards has led the snowboard industry for 26 years and remains solely dedicated to creating the best snowboarding equipment on the planet.

CHALLENGE

Before the Center for Computational Research at the University at Buffalo, State University of New York, could augment its existing 800-node cluster with 512 additional nodes, the center had to remove and remarket 2,300 used high-performance servers in preparation for the upgrade

SOLUTION

Dell Precision™ 670 workstations and M70 mobile workstations with Intel® Xeon® processors and NVIDIA® Quadro® FX 1400 graphics cards; SolidWorks® 3-D CAD software running on the Microsoft® Windows® XP operating system; Dell UltraSharp™ flat panel monitors

BENEFIT

The enhanced performance and reliability of the Dell hardware platform combined with the most widely used 3-D software system have allowed Burton to improve time to market for its industry-leading component and board designs

A Cool Play

With an engineering department powered by Dell Precision workstations and SolidWorks 3-D CAD software, Burton Snowboards is flying high

Snowboarding is more than just a cool way to spend a weekend. With over five million participants a year in the United States alone, snowboarding has evolved from a curiosity in the late 1970s into one of the fastest-growing sports—and industries—in America.¹ Burton Snowboards, a leading designer and manufacturer of snowboarding equipment, has been part of this revolution since day one. Founded in 1977, the company made its mark early on by designing and manufacturing one of the first commercially available snowboards. Since then, Burton has introduced countless innovations in snowboarding technology, including lightweight boards made of specialized materials, state-of-the-art bindings and boots, and even cutting-edge fashion sportswear.

Designing advanced snowboarding equipment is no ride down a bunny slope. Boards, boots, and bindings are complicated pieces of equipment that require precision design and assembly—which is why the engineers at Burton largely rely on 3-D computer-aided design (CAD) software to create new products and communicate design information accurately. “Our engineers design many of the components of a snowboard on SolidWorks 3-D CAD stations,” says Eric Johnson, systems support analyst at Burton. “If you look at other companies in the snowboarding industry, none of them has a more technically advanced design team than we do.”

SolidWorks 3-D CAD software is industry-standard mechanical design software that offers unmatched 2-D and 3-D design capabilities on the Microsoft® Windows® operating system. Other SolidWorks products work together using the same design data so that each change is updated





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— **Eric Johnson**, Systems Support Analyst,
Burton Snowboards

automatically across all applications. “We looked at other CAD packages out there,” says Greg Dean, the research engineering and development manager at Burton, “but we chose SolidWorks for its ease of use and outstanding performance.

Burton Snowboards looks to Dell to avoid crash landings

To fully capitalize on the capabilities of SolidWorks software in order to design better products, Burton needed a hardware platform that could offer both excellent performance and high reliability. “Our engineers are designing in SolidWorks at their workstations most of the day,” says Johnson. “If their machines are down, they can’t work, so it is critical that we keep our design systems up and running all the time.”

A few years ago, Johnson became dissatisfied with the quality and support that Burton was receiving from its hardware vendor. Certain components were prone to failure, and the vendor was slow to respond. “Our old hardware vendor went through a merger, and the quality of its support really dropped off,” says Johnson. “We decided it was time to look for a new vendor.”

Johnson evaluated a variety of hardware vendors and was impressed with Dell’s reputation for performance, quality, and outstanding service. “Dell offered us excellent quality at a much better value than other vendors, plus outstanding support,” says Johnson. “Dell Precision workstations are also fully certified to run SolidWorks 3-D CAD software, so we know they will perform well now and in the future.”

Dell Precision workstations help engineers build better boards

For the engineers working in-house, Johnson chose Dell Precision 670 workstations with Intel Xeon processors running Microsoft® Windows® XP. Engineers run SolidWorks 3-D CAD software on the Dell workstations to design the bindings and other key components for the company’s snowboards. “The Dell Precision workstations have the muscle to model complex 3-D designs,” says Johnson. “Plus, they are incredibly reliable. I don’t think we’ve had a single workstation come back to our help center for any type of warranty work at all.”

For engineers who work on the road, Johnson chose Dell Precision M70 mobile workstations with Intel Xeon processors. “A lot of the engineers in

our bindings group travel overseas to work directly with the manufacturer,” says Johnson. “The Dell mobile workstations offer the horsepower and graphics capabilities our engineers need, so they can work on SolidWorks and continue to be productive while they are on the road.”

SolidWorks also offers SolidWorks PDMWorks® product data management software to enable engineers and product managers to coordinate projects and work efficiently, even when team members are traveling or working remotely. Teams in different locations can access SolidWorks data and collaborate easily without having to worry about version control issues. By eliminating errors that can affect production and the long waits for downloading large files, PDMWorks lets engineers on the road work with SolidWorks and other applications as if they were in the home office.

NVIDIA graphics cards support the needs of board designers

Because the quality and performance of SolidWorks can depend on the choice of graphics hardware, Johnson chose the NVIDIA Quadro FX 1400 graphics card—one of the cards certified by SolidWorks. Graphics cards and systems that are certified by SolidWorks have been held to a high performance standard to help users avoid problems with adapters and drivers.

“The NVIDIA graphics cards help make it possible for our engineers to build and model complex assemblies in real time,” says Johnson. “We like the advanced features that NVIDIA puts on that card, such as the ability to customize settings for specific software applications. Plus, the NVIDIA cards are certified by SolidWorks, which means they don’t have the stability problems we’ve seen with other graphics cards.”

Dell flat panel displays provide a sharper image

Johnson also chose Dell UltraSharp 17-inch 1704FP Flat Panel monitors. “The clarity of the UltraSharp monitors is just great,” says Johnson. “Right out of the box, without having to do any manual adjustments, there is no blurriness or haziness. And the refresh rates are more than fast enough to keep up with our graphics cards.”

SolidWorks 3-D CAD software takes full advantage of the visualization technologies that Dell workstations support. Shader Model 3.0 is exploited via SolidWorks RealView technology. SolidWorks also offers multimonitor support and support for accelerated 3-D and stereo graphics.

“With Dell Precision workstations and SolidWorks 3-D CAD software, we can get new products out the door and on the slopes faster than ever.”

— **Eric Johnson**, Systems Support Analyst,
Burton Snowboards



Dell Support keeps everyone working

In order to keep its workstations up and running, Burton Snowboards chose Dell Gold Technical Support. “Dell Support is excellent and highly responsive,” says Johnson. “When we call Dell for support, it seems like they are immediately on-site with the parts in hand, ready to go. The repair is usually completed within 30 minutes or less.² Also, a couple of folks on our team were trained by Dell Services to be Dell Certified Experts, so we can order and stock warranty parts ahead of time. That helps make our repair turnaround time even faster.”

New products reach the slopes faster than ever

With its lightning-fast performance and advanced stability and reliability, SolidWorks running on Dell Precision workstations gives Burton engineers a solid platform for innovation. “We’ve had pretty much zero downtime with these machines,” says Johnson. “So our engineers can always be productive, building their 3-D models and getting their designs to the manufacturers on time. With Dell Precision workstations and SolidWorks 3-D CAD software, we can get new products out the door and on the slopes faster than ever.”

Johnson is especially pleased with the overall value of Dell systems. “Every component in each workstation—from the processor to the graphics

HOW IT WORKS

HARDWARE

- Dell™ Precision™ 670 workstations with Intel® Xeon® processors and NVIDIA Quadro® FX 1400 graphics cards
- Dell Precision M70 mobile workstations with Intel Xeon processors and NVIDIA Quadro FX 1400 graphics cards
- Dell UltraSharp™ 17-inch 1704FP Flat Panel monitors

SERVICES

- Microsoft® Windows® XP operating system
- SolidWorks® 3-D CAD software

SERVICES

- Dell Gold Technical Support

card to the disk drive—is top-notch,” says Johnson. “With Dell Precision, we get incredible performance at an incredible value. I am so glad we made the switch to Dell.”



Microsoft®



¹National Sporting Goods Association, 2002.

²Results not typical.

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