Yamaha Motor creates industry-leading products by providing its engineers with high-performance computers that foster creativity. High-powered workstations drive innovation.

Business needs
Yamaha Motor wanted to ensure their engineers had workstations that delivered the power and performance required to deliver cutting-edge designs and looked for a solution vendor whose machines could meet different workflow requirements.

Solutions at a glance
- Client Solutions
- Enterprise Support

Business results
- Helps engineers create industry-leading designs
- Supports multiple use cases across Yamaha Motor
- 10% more cost-effective than competing solutions
- 8.6% space saving compared to other vendor solutions
- Increased performance with responsive support

8.6% space saving
10% more cost-effective
Yamaha Motor knows the importance of product design. The business, which was founded in Japan in 1955, has become a leader in the production of motorcycles, boats, snowmobiles, all-terrain vehicles and much more through a commitment to eye-catching designs, high performance and reliability of its products.

The company has a computer-aided design (CAD) division where design engineers develop new products. The needs of designers vary. While some require more high-performing tower workstations, other groups need workstation technology that is highly mobile. The designers’ work is crucial, so a dedicated IT team takes care of their IT requirements. Tomoyuki Ooue, senior manager of the CAD/Product Data Management (PDM) Group, Digital Engineering and Technology Planning Section at the Technology Center at Yamaha Motor says, “The Digital Engineering Division was set up within the existing Technology Center to enhance the planning, development and operation of engineering systems that support our design engineers.”

Colleague Yukinori Toyama, supervisor of CAD/PDM Group, Digital Engineering Division, Technology Planning Section, Technology Center at Yamaha Motor says, “The CAD/PDM Group, together with our information subsidiary, Yamaha Motor Solutions, looks after the development, maintenance and operation of our own 2D/3D CAD software “ESPRi-II,” which is used regularly by our design engineers.”

Working to a 12-month refresh cycle

The Digital Engineering Division at Yamaha Motor is responsible for more than 3,000 workstations. Some 2,500 of the machines are at the company’s headquarters and around 500 need replacing every year. Hiroaki Kobayashi at the Engineering Solutions Operations of Yamaha Motor Solutions, says, “We select various products suitable for running our CAD software, and suggest them as “standard machines” for our design engineers. Design engineers select the actual models.”

Customization support built in

The CAD software used by designers is customized to the specific requirements of Yamaha Motor. As such, the company looks for workstations with a high degree of performance. Toyama says, “To ensure the requirements of our CAD software are met, we carefully evaluate and verify workstations from various vendors.”

Kobayashi adds, “As a result of the evaluations, we have been selecting Dell Precision workstations as the standard machine for Yamaha Motor since 2001. They meet the operating requirements of our proprietary CAD software.”

Delivering the product designs of the future

Design engineers at Yamaha Motor are developing new products on Dell Precision workstations that will help the company maintain a leading position in its industry. Of the hundreds of Dell Precision workstations purchased each year, many are the space-saving Dell Precision Tower 3000 Series (3620) workstations.

“We have been selecting Dell Precision workstations as the standard machine for Yamaha Motor since 2001.”

Hiroaki Kobayashi, Engineering Solutions Operations, Yamaha Motor Solutions
10% more cost-effective, 8.6% more compact

For Yamaha Motor, the compact size of the Dell Precision workstation and its cost-effectiveness are key. The company estimates the Dell Precision 3620 Mini Tower workstations are 10 percent more cost-effective than competing workstations while taking up 8.6 percent less floor space. Toyama says, “Our design engineers work with two large display units on their desks so we need the compact size of the Dell Precision 3620 Mini Tower to provide us with plenty of desk space. In addition, Dell Precision workstations have an excellent physical design, making them easy to handle and simple to install.”

Responsive assistance at all times

The company also chooses Dell Precision workstations because of the support it has received from Dell over the years. Ooue says, “Inevitably, there are issues that we sometimes have to resolve but we have always been satisfied with Dells sales and support. If it’s a software issue, we resolve it internally, but if we feel it’s a hardware issue, we turn to ProSupport. Whenever we turn to ProSupport, we come away highly satisfied. Response times are quick and the help is always professional.”

Future collaboration

Stakeholders know that Dell EMC will provide support when Yamaha Motor upgrades the operating system supporting its design engineers. At present, engineers are using Windows 7, and the company plans to move to Windows 10 in the near future. For a time, not all workstation software will run on the same operating system so the Digital Engineering Division may need some help reconfiguring the Dell Precision workstations. Ooue says, “We know we’ll receive the support we need from ProSupport and we look forward to their cooperation for evaluating and verifying such cases.”

Looking ahead, design engineers at Yamaha Motor will need to overcome new challenges in line with environmental changes and the requirements of customers. However, with the Dell Precision workstations, the engineers are well placed to create market-leading products of the future.

Supports multiple business requirements

Yamaha Motor can meet the needs of its engineers whatever their work requirements through the Dell Precision range of products. For example, the company regularly orders Dell Precision Tower 7000 Series workstations and the Dell Precision 7000 Series mobile workstations. Kobayashi says, “We purchased the Dell Precision Tower workstations for engineers whose analysis and image-processing software require high-capacity processing. Plus, for those engineers or even managers who have to carry their data around for conferences and make presentations, we buy Dell Precision mobile workstations.”

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