Simulator business sails course for global expansion

Denmark-based simulator company drives growth of around 15 per cent a year with flexible solutions

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Michael Brinch, Business Unit Manager, Simulation, Training and Ports, FORCE Technology

Business need

FORCE Technology looked for an IT provider that could help drive growth for its simulator business worldwide. It wanted energy-efficient solutions and localised support.

Solution

The company began installing Dell™ Precision™ workstations at the heart of its simulators, with Dell PowerEdge™ servers and Dell PowerVault™ storage. It also chose Dell ProSupport™.

Benefits

- Business drives around 15 per cent growth a year
- Clients cut costs with energy-efficient computers
- Company delivers streamlined designs with rackable solutions
- Business lowers costs with flexible services
- Organisation provides responsive support worldwide

Solution areas

- End User Computing
- Networking
- Storage Solutions
- Support Services

Seaborne trade has increased dramatically in response to rapid growth in developing countries worldwide. But the number of maritime accidents and losses at sea has declined at an equally impressive rate due to a number of factors – not least the training that crews receive before operating their vessels.

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FORCE Technology, based in Denmark, plays a key role in this process, manufacturing simulators for training personnel in how to pilot ships.

Trainees using the simulators practice piloting multiple vessels from small tugboats to Navy warships. The systems can deliver a 360-degree view from a virtual bridge and recreate varying sea and weather conditions, so trainees gain experience of working in different environments. FORCE Technology, headquartered in Brøndby, Denmark, builds simulators to order, and also operates a training centre north of Copenhagen. Workstations and servers are at the heart of its products, with software delivering the images and enabling the simulations to take place. The technology is crucial, and FORCE Technology takes no chances with the IT infrastructures that support the simulation software. Michael Brinch, Business Unit Manager, Simulation, Training and Ports at FORCE Technology, says: "Power, performance and reliability are all vital. There are only a few players in our market, but competition is intense and we need to deliver great service and a quality product."

The company looked to work with an IT provider that could help expand its operation worldwide, offering both energy-efficient solutions and localised support. "We've experienced major growth in Asia and have extended our global presence," says Brinch. But although customer locations have changed, some things remain the same. "Customers want to know they'll receive support quickly if there's an issue. Plus, everyone still looks for energy efficiency to reduce the costs of their systems and deliver greener IT," says Brinch.

Technology in practice

Services

Dell Support Services
– Dell ProSupport™ with Next Business Day Onsite Service

Hardware

Dell™ PowerEdge™ R410 servers with Intel® Xeon® processors 5620 series

Dell Precision™ R5400 workstations with Intel® Xeon® processors 5440 series

Dell PowerVault™ NX3000 networked attached storage

Software

Windows Server® 2008 R2

Windows® 7

Simulator designer finds right combination of power and performance

FORCE Technology assessed workstation and server technology from leading IT providers in the search for the right systems for its products. The company quickly chose to work with Dell, which it believed offered the best combination of global support and system performance. "When we looked into the Dell proposition, it became clear that we were dealing with a global business with a solid reputation around the world," says Brinch. FORCE Technology liked the fact that Dell support was backed by a global team of skilled technicians that could offer customers local support in 180 countries.

Business drives global development with comprehensive support

FORCE Technology relies on Dell to support its global development. The organisation has turned to the IT provider for multiple projects and now orders hundreds of workstations and dozens of servers for its simulators every year. "I think we must have purchased around 350 Dell workstations over 18 months," says Brinch. Dell solutions now support FORCE Technology in some of its most high-profile engagements. For example, the company developed a 360-degree view tugboat simulator for a shipping authority, Maritime Safety Queensland, in Australia, based on a Dell solution. It's also begun the development of a new training centre in Singapore.

FORCE Technology produces smart designs with rackable solutions

The firm creates streamlined solutions that provide the processing power for high-quality simulations without taking up a lot of space. For the shipping authority in Queensland, FORCE Technology looked to house the simulator in a relatively small area. "The last thing we wanted was for workstations to take up room on the floor or on tables," says Brinch. "It was important that personnel had just the screens and the instruments for piloting their virtual vessels in front of them." As a result, FORCE Technology built the simulator using rackable

Dell™ Precision™ R5400 workstations with Intel® Xeon® processors, running Windows® 7 and FORCE Technology's own simulator software SimFlex4. The machines sit in a nearby datacentre and support simulators via the local area network. Brinch says: "The Dell Precision R5400 workstations work well because they have small form factors and take up a relatively small amount of space even when you have more than 150 of them in your simulator infrastructure. They provide us with workstation performance, but without the workstation."

To help ensure reliable performance, the simulator also includes eight Dell PowerEdge™ R410 servers with Intel® Xeon® processors, running the Windows Server® 2008 R2 operating system. The servers – which are designed for intense processing – support some of the simulator's larger applications. In addition to the servers, the simulator infrastructure also includes a Dell PowerVault™ NX3000 networked attached storage solution to protect data and share it efficiently. The advantage of the Dell PowerVault solution is that it identifies duplicate copies of data and enables rapid access to information. "We're designing some of the most reliable simulators in the world with the support of Dell technology," says Brinch.

Customers save thousands of pounds due to energy efficiency

FORCE Technology customers, not least Maritime Safety Queensland, save significant resources over the lifecycles of their simulators as a result of their Dell technology. The Queensland simulator, which is being used to train around 200 pilots and tugboat masters, will deliver power savings and help the authority both reduce expenditure and deliver green IT. The company believes its new training centre in Singapore – which will be based on a similar infrastructure – will be just as efficient. "Our simulators regularly consist of hundreds of workstations, so energy consumption is a central issue.

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DELL

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Power consumption is reduced with processor performance

The energy efficiency of the workstations and servers at Maritime Safety Queensland is down to the design of the machines and their Intel® Xeon® processing technology. Dell uses energy-efficient components and designs its solutions to maximise airflow for cooling. Plus, the Intel® technology regulates power consumption in line with processing requirements – helping minimise energy use. Brinch says: "The combination of Dell systems and Intel® Xeon® processors delivers an engaging IT solution. They help customers achieve their goals of reliability and lower energy consumption."

Business expands around 15 per cent a year with custom-built simulators

FORCE Technology continues to expand globally with the support of its Dell technology. The firm regularly has to change the configurations of its Dell Precision workstations to meet customers' requirements. But, thanks to the close working relationship with Dell, FORCE Technology receives the fast and efficient service it requires. "We value the flexibility of Dell technology because it enables us to meet customer needs cost effectively. Components such as processors, memory and hard drives can be changed easily. Dell is playing an important role in boosting our annual growth," says Brinch.

Firm plans greater efficiencies with flexible services

The company is also looking to take greater advantage of Dell's flexibility by deploying images at the factory as part of the Dell Hardware Customisation service. Using this service, Dell would install the FORCE Technology software as the workstations are being built, helping the company reduce costs and increase the speed of delivery. Brinch says: "We work with Dell because it offers the kinds of services that companies in competitive industries need. We're interested in anything that could give us an edge over other organisations in the market."

FORCE Technology offers responsive support worldwide

The company can offer customers around the world a responsive, local service for its simulator solutions using Dell ProSupport. For a high level of service, FORCE Technology uses Dell ProSupport™ with Next Business Day Onsite Service so any issues are resolved quickly and parts are replaced in a timely manner. "We provide customers with spare workstations to ensure maximum reliability in case of an issue. However, Dell ProSupport with Next Business Day Onsite Service gives us and our customers peace of mind that whatever happens we can minimise interruptions to their simulators," says Brinch.

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