

### Did You Know...

NEC played a leading role in the creation of the Earth Simulator, the world's fastest computer, capable of executing 40 trillion floating-point calculations per second.

NEC has been operating for over 100 years, since its creation in 1899, under its original name, as the Nippon Electric Company.

NEC Corporation employs over 140,000 people, in Offices and plants spanning the entire globe.

NEC is responsible for the installation & management of a major part of the Cannes film festival technical & media infrastructure.

### Why choose a Fault Tolerant Server ?

Because downtime is costly. The cost associated with server downtime, resulting from lost customer revenue, decreased employee productivity and potential loss of future business can be huge. Protecting your applications from server downtime is therefore essential.

Continuous availability you can afford. By combining 24x7 fault tolerant technology with industry standard hardware and software, NEC Express5800/ft series servers deliver business-critical levels of system availability without the high costs associated with traditional fault-tolerant server deployments. No more compromises. You can now extend the benefit of continuous server availability to all of your applications, so your business never stops.

#### Other NEC Case Studies include :

- **The Rijksmuseum**
- **The Earth Simulator Project**
- **Florida Police Department, USA**
- **Flinders University, Australia**



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## Your Business Never Stops

### Background

Total is the 4<sup>th</sup> largest international oil and gas chain. It covers processes ranging from upstream exploration and production to downstream trading and shipping, refining and marketing petroleum products and chemicals. 110,000 employees work in the company worldwide.

### Business Challenge

The goal of the project is to homogenize the European oil depots' operation and management through the implementation of a TAS (Terminal Automation System) developed by ABB. Such systems, which allow for a safer and more precise management, are critical for the oil depot operations.

The project had multiple challenges:

- **EUROPEAN COVERAGE**, the solution has to be implemented in 35 oil depots in Europe (France, Belgium, UK, Germany and Italy).
- **PRODUCTION ENVIRONMENT CONSTRAINTS** it must take into account server requirements:
  - Real time capabilities
  - High availability level
  - No IT personnel in each depot
- **COST IMPLEMENTATION**, including installation and deployment in each depot
- **COST-EFFECTIVE SOLUTION**



### Total Needed

- Maximum uptime to run critical applications
- A business that never stops
- Easy serviceability
- Uninterrupted performance

### Total Chose

Express5800/320Lb  
4U Rack-optimised 2x Xeon 2.4 GHz, up to 3 GB DDR, 3x HDD, Gigabit Ethernet, Windows Operating Systems.

### Implementation

NEC set up a dedicated project team to answer to Total's requirements. Its solution was based around a complete hardware and solution proposal:

- 35 Express5800 **320Lb Fault Tolerant** servers, were installed proving more cost effective and easier to implement than a more sophisticated Cluster solution:
  - Based on a standard Intel® architecture and Microsoft® Windows 2000 Advanced Server
  - High availability level (99,999%)
  - No requirement for IT personnel at the oil depot
  - Remote management with **ESMPRO-MWA**, for all alerts feedback to one central location
- **Customised support** including 24/7 phone assistance with dedicated phone lines

### CUSTOMER RESPONSE



"NEC is definitely one of our reliable vendors and has a well-known expertise in implementing Fault Tolerant rack solutions".



Express5800/320Lb Fault Tolerant Server



NEC's Express5800 Fault Tolerant solutions will satisfy even the most demanding IT needs.