

**DENSO**

## CASE STUDY

### Denso Manufacturing

## Company Profile

DENSO established its first operations base in Europe in 1973 but it wasn't until 1990 that DENSO established DENSO Manufacturing UK in Telford. The plant was constructed at a greenfield location within easy reach of vehicle manufacturers such as Toyota, Honda, Rover, Jaguar and Land Rover.

Throughout the 1990s DMUK gradually expanded its product portfolio and as demand for their products grew DMUK as a facility was expanded bringing tens of millions of pounds of inward investment to Telford and Wrekin. This investment continues today.

Using state of the art technology in a just-in-time environment DMUK carries out a wide variety of manufacturing processes to produce plastic mouldings, aluminium pressings, heat exchangers, pipe and hose components. These supply in-house final assembly lines and kitting operations before delivery to internal warehousing and despatch areas.

DMUK is the largest UK based manufacturing facility for DENSO and is a Green Business Award Winner and a zero-landfill operation since 2006 and all domestic plants have obtained ISO 14001 certification.

## Business Situation

Everything that DENSO accomplishes is based on their philosophy: **“Contributing to a better world by creating value together with a vision for the future.”** This philosophy helps to make them a corporation that is trusted by people around the world.

The production of quality products and provision of quality services places a huge demand on the IT infrastructure within DENSO due to the number and complexity of the manufacturing processes that generate the plastic mouldings, aluminium pressings, heat exchangers and a number of other components. These products are produced to a strict timetable as one product component is linked to another. Once produced the products must then supply the in-house final assembly lines before delivery to internal warehousing and despatch areas, again to a strict timetable.

The issue DENSO faced was that they had an ongoing plan for growth through product development and acquisitions however the IT infrastructure was operating at the upper limit of its capacity and the very core of their production was at risk. There was a high risk of data being lost through computer outage which even for a short period of time could damage the DENSO brand. As the importance of protecting critical applications and IT infrastructure against downtime increases, so the limited capabilities of physical security infrastructures become apparent in particular the lack of flexibility, the very thing that DENSO needed.

## Solution

- Virtualization of servers
- Desktop and applications virtualization with VMware
- Reduce the number of management points
- Virtualization solution that scales seamlessly
- High availability of applications

## Benefits

- Robust IT infrastructure
- Reduced energy demands
- Highest level of availability for applications
- Automated disaster recovery
- Cost effective resource allocation
- End to end processes backed up simply
- Quick, easy data recovery

*“BDR has proved to be a natural partner for DENSO demonstrating creativity in finding the right solution.”*

## Technical Situation

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For DENSO a solution had to be found that would support the business strategy and objectives now and in the future and have minimal impact on the business overall during implementation. The challenge for BDR was to identify a solution that would address the IT challenges whilst utilizing the existing investment to deliver what was required. The weaknesses within the existing infrastructure put data at risk with complicated backup processes. The IT infrastructure also struggled to meet the demand for high availability of applications, and there was a danger that they couldn't recover quickly from server failures due to the unpredictability of the existing physical disaster recovery solutions.

## Solution

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BDR developed an excellent relationship with the IT Manager at DENSO which meant that crucial information was shared in an open and effective manner. This plus the extensive knowledge and expertise of the BDR team resulted in a solution being identified that would address a number of problems that had existed for years within DENSO.

Virtualization was the answer. The flexibility of VMware provided DENSO with a manageable system that reduced the number of management points whilst supporting ongoing growth with a solution that scales seamlessly. DENSO could now run business critical applications with confidence and respond faster to the business needs.

Virtualizing the server, desktop and applications with VMware eliminated planned downtime, ensured data protection and delivered high availability for the applications. In addition the IT infrastructure itself was protected. VMware provided the most reliable, cost effective and simple disaster protection for all virtualized applications.

In deploying the solution it was imperative that DENSO did not suffer any downtime. BDR achieved this, keeping all systems available throughout, 24/7.

## Benefits

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Benefits The transition to Virtualization has had a positive impact on DENSO with the threats of a weak IT infrastructure no longer an issue for the business.

The business overall has benefited from reduced energy demands through server consolidation and dynamic management of computer assets across a pool of servers and servers are powered down without affecting applications and production. The cost and unpredictability of physical disaster recovery solutions have been eliminated. Disaster recovery plans are now automated and can be tested without disruption.

Resources are delivered where they are needed with the highest level of availability for applications making it easier and more cost effective to manage and control now and in the future.

The valuable data encompassed in the end to end process from design through to the production of a component is backed up simply. Entire systems, including applications and data can be recovered quickly and easily without disruption to the business.

BDR has proved to be a natural partner for DENSO demonstrating creativity in finding the right solution, a quality DENSO encourages their own staff to develop. Creativity, experience, the ability to be consistent in delivery and the provision of first rate ongoing support are what make BDR a market leader and trustworthy partner.

## BDR services included:

- Design, sizing, implementation, support
- D2D2T Backup and retention solution
- Application tiering
- Application virtualization
- Physical to virtual (P2V) migration of systems OS and applications

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