



## Aviation firm ensures smooth recovery with virtualized continuity solution

Global provider of passenger ramp and cargo-handling services implements effective disaster recovery solution. The virtual environment is around 60 per cent cheaper than purchasing physical servers



"The solution we devised with Dell has an active-active configuration and we're using our datacentres continually."

*Stuart Brook, Vice President,  
IT Communications and Operations, Menzies Aviation*

### Customer profile



<b>Company</b>	Menzies Aviation
<b>Industry</b>	Aviation
<b>Country</b>	United Kingdom
<b>Employees</b>	16,000 globally
<b>Website</b>	<a href="http://www.menziesaviation.com">www.menziesaviation.com</a>

### Business need

Menzies Aviation wanted to protect its airline customers from operational disruption and raise efficiency by boosting the security and versatility of its IT infrastructure.

### Solution

The firm deployed virtualized servers replicated across two datacentres at separate locations, with Dell ProSupport™ and Dell Online Self-Dispatch for additional peace of mind.

### Benefits

- Business continuity assured with mirrored, virtualized solution
- Around 97 per cent virtualization of operational systems for four-times faster deployment
- Virtual solution approximately 60 per cent cheaper than purchasing physical servers
- Disaster recovery theory turned into reality through switch-overs between datacentres
- Employee experience and customer impressions enhanced
- Investment protected with Dell ProSupport

### Solution areas

- Disaster Recovery
- Virtualization

**Menzies Aviation** has provided passenger, ramp and cargo-handling services to customers since 1995. Organic growth, acquisitions and the strategic development of niche markets have helped Menzies grow rapidly. Today, it operates at 117 stations in 27 countries worldwide, serving around 500 airlines, handling 1.7 million tons of cargo and supporting more than 700,000 passenger flights a year.

Consistency, innovation and reliability are some of Menzies' key strengths. And lack of availability of IT systems would pose a risk of flight delays and inconvenience to airline customers. For example, if the Menzies passenger information system failed, the boarding process for multiple flights could be suspended, potentially causing stress for passengers and negative publicity for the carrier.

Technology that runs 24/7 is pivotal to smooth service, helping ensure that Menzies remains the market leader in terms of safety, security and reliability. Craig Smyth, President and Managing Director at Menzies Aviation, says: "Innovative IT solutions help us maintain our position as the world's best ground handler. Our customers feel reassured that our innovation allows us to provide consistent, cost-effective service."

Each Menzies employee relies on IT in some way to perform their everyday tasks. Justin Apps, Global Lead Systems Architect, Menzies Aviation, explains: "The centralised IT infrastructure that we built in our UK datacentres supports our global operations and must achieve 99.999 per cent system availability."

#### **Easy-to-manage IT helps contain server sprawl**

Fast growth at Menzies meant rapid server expansion. The IT team succeeded at meeting the immediate business needs, but server numbers gradually became unmanageable. Menzies needed to move away from a silo-based environment – where each server or groups of servers focused on a single application – towards a more agile platform that would reduce server

numbers and resource overheads, and meet the organisation's long-term strategies. Stephen Koller, Executive Vice President of IT, Menzies Aviation, says: "We considered **virtualization** as a way to consolidate the environment and put an end to server sprawl. In addition, we wanted to improve flexibility with fast, cost-effective server deployment, while keeping downtime to a minimum. We also needed to implement an effective disaster recovery solution."

#### **Proof of concept turns disaster recovery theory into reality**

Business continuity was another crucial consideration for the team. Menzies wanted more than the redundant configuration provided by the existing server estate. It needed a second line of defence against downtime and the certainty of fast recovery in the event of a disaster.

"We have a strong relationship with the Dell account team that has been built up over 10 years. It understands our business and provides reliable technology solutions and support, with a good price-performance ratio."

*Justin Apps, Global Lead Systems Architect, Menzies Aviation*

#### **Technology at work**

##### **Services**

Dell Consulting Services

Dell Support Services

- Dell ProSupport™ with Mission Critical
- Dell Online Self-Dispatch

##### **Hardware**

Dell™ PowerEdge™ R710 servers with Intel® Xeon® processors 5600 series

##### **Software**

VMware® vSphere™ 4

- VMware vMotion™

Quest Software vReplicator

Menzies turned to long-term technology partner Dell for advice. "I wanted to use virtualization to build an environment with two active datacentres that would give us the flexibility and security we needed," says Apps. "I asked our Dell account team to work with us to put theory into practice." The resulting proof of concept (POC) took place over two weeks at the Dell Solutions Centre in Limerick, Ireland. "It was a first for all of us. Working with the [Dell Consulting team](#) to prove that our vision could succeed was the key to the whole project – without the POC in Limerick we would never have received financial approval from the Menzies Aviation board to proceed," says Apps.

The two firms worked together in the largest of the solution centre's dedicated labs. They set up two datacentre environments using 20 racks of servers running [VMware® vSphere™ 4](#) server virtualization software. Next, they installed mission-critical applications, such as Hermes, the firm's cargo-handling application. Apps says: "There were up to 20 of us testing the failover between the two datacentres, making sure they worked without excessive disruption to end users."

#### **Business continuity is protected with mirrored, virtualized solution**

After the POC, Menzies and Dell deployed identical infrastructures at two UK Menzies locations. Each site contains:

- 17 [Dell™ PowerEdge™ R710 servers with Intel® Xeon® processors 5600 series](#) running VMware vSphere 4 at both sites
- Quest Software vReplicator for continuous replication between the sites and rapid recovery of virtual machines
- A storage area network to provide centralised capacity for all data

"Our virtualized environment is hosted on just 17 physical servers at each site, with 250 active virtual machines running between the two sites," says Apps. "We no longer need to procure

physical servers at the rate we used to – each server is better used now. Around 97 per cent of our mission-critical systems run on virtual servers."

Each site is without a single point of failure, with minimal downtime repairs and rapid migration of virtual machines between physical servers through VMware vMotion™. In addition, each site provides failover for the other. If one datacentre were to be destroyed by fire, for example, the team would be able to rely solely on the other datacentre by bringing each system online based on operational prioritisation.

Stuart Brook, Vice President, IT Communications and Operations, Menzies Aviation, says: "A few years ago, we came close to moving to our disaster recovery facility and it was a daunting prospect for everyone. We don't have that worry anymore, because the solution we devised with Dell has an active-active configuration and we're using our datacentres continually. We no longer view our datacentres as primary or secondary – they both run live operations around the clock."

#### **Employee experience and customer impressions are enhanced by resilient solution**

"I don't know any other company running two fully functioning datacentres in the way we are," says Apps. "Our business runs on virtualized mirrored machines. Without Dell and VMware running together and giving us support, the business wouldn't have this unique strength."

Menzies' mission-critical applications such as Hermes Cargo Handling, RSMS Ramp Handling and airline messaging are available to staff at all times. In an industry where customers are increasingly keen to see evidence of a business continuity strategy, the solution gives Menzies a competitive edge.

"Our systems manage the structured messages and security clearances behind aeroplane boarding processes," says Apps. "Downtime can delay



planes and prevent cargo from being loaded, with serious repercussions for businesses and passengers. Our customers expect high uptime, and those who have seen our datacentres have been impressed and reassured by both the resilient infrastructure that we have in place, and our business continuity strategy."

#### **Virtualization increases green efficiency**

The solution has also reduced energy costs. Apps says: "Each Dell PowerEdge R710 server uses just one to two amps. With VMware, we can run 30 virtual machines on each R710, and still use just two amps."

Menzies uses Intel-based servers for their reliability. "We only use Intel," says Apps. "This gives us the performance and stability we need for our VMware environment."

#### **Scalability supports fast growth with significantly shorter server deployment times**

The ability to react swiftly to operational and commercial needs is vital to the Menzies IT team, and has helped the company secure new contracts. "Even when the lead time for live systems was limited, we met the deadline thanks to our virtualized Dell servers and centralised storage," says Apps.

#### **Investment protected with Dell ProSupport**

Menzies chose [Dell ProSupport™](#) with Mission Critical, giving onsite response times of two hours for both datacentres. The modular structure of Dell ProSupport means that Menzies can select the components that meet its needs. Apps says: "We also completed Dell Online Self-Dispatch training. Now, we can bypass the initial Dell troubleshooting process because we present conclusions based on our own preliminary diagnostics. As a result, we reach resolutions faster. We usually get spare parts delivered within two hours."

Menzies values the support it has received from Dell. "We have a strong relationship with the Dell account team that has been built up over 10 years. It understands our business and provides reliable technology solutions and support, with a good price-performance ratio," says Apps.

"Our customers expect high uptime, and those who have seen our datacentres have been impressed and reassured by both the resilient infrastructure that we have in place, and our business continuity strategy."

*Justin Apps, Global Lead Systems Architect, Menzies Aviation*



View all case studies at: [Dell.com/casestudies](https://dell.com/casestudies)

