INDUSTRY
• Air Travel

CHALLENGE
• Supports 14,000+ employees

SOLUTION
• Converged infrastructure featuring two Vblock® Systems 340 with VNX5600, 250 virtual servers, and 2.5 petabytes of storage capacity.
• Deployed two EMC Isilon NL series clusters for production and disaster recovery.

RESULTS
• New infrastructure up and running within 60 days of design
• Guaranteed high availability on key applications
• Fully managed platforms for better data recovery
• Laying the foundations for future business innovation

MELBOURNE AIRPORT
Australia’s only major 24/7 airport lays foundation for future growth with converged infrastructure

OVERVIEW
As Australia’s second busiest passenger airport and only major airport that operates around the clock with a single terminal precinct, Melbourne Airport makes a significant contribution to the Victorian economy and tourism industry. It directly supports more than 14,000 jobs, a number that will almost double by 2033. Every international flight contributes $240,000 in visitor spending to the state’s economy.

With annual passenger numbers expected to hit 64 million by 2033, the airport needed to strengthen its infrastructure and set the stage for ongoing innovation. In August 2015, its new Terminal 4 became the first terminal in the Asia-Pacific region to open with a completely self-service model from check-in kiosks to automated bag drop facilities.
KEY POINTS

• Melbourne Airport is a key contributor to the Victorian economy.
• It is in the midst of sustained international growth.
• The airport aims to deliver innovative service to airlines and customers.

BUSINESS CHALLENGES

Melbourne Airport’s growth highlighted a need to consolidate and strengthen its IT infrastructure. Paul Bunker, Executive, Business Systems & ICT, says meeting growing business demand was a key driver for change. With a complex network of disparate vendors and computing platforms that proved difficult to manage, he was looking to consolidate its various systems and simplify IT processes.

“The system manages storage and capacity itself, which allows my team to focus on more strategic activities. We’re delivering better value, and turning on features we haven’t been able to in the past.”

— Paul Bunker, Executive, Business Systems & ICT, Melbourne Airport

“We were looking at how we could simplify that environment, get better value for money and create capacity for the future,” Bunker says. As a 24/7 business, Melbourne Airport also struggled with guaranteeing high availability on all applications. With passenger numbers increasing every year, existing infrastructure was coming under increased pressure.

Historically the IT team at Melbourne Airport had been reactive and focused heavily on maintenance. As business expectations matured, Bunker wanted to enable IT to take on a more strategic role and drive greater business value through new technology platforms, initiatives and changes. This meant finding ways to reduce the number of hours spent managing day-to-day operations and fixing issues behind the scenes.

• There was a need to consolidate and strengthen existing infrastructure.
• As a 24/7 business, the airport needed to guarantee high availability.
• Reducing time spent supporting day-to-day operations was also important.

LAYING A FOUNDATION FOR FUTURE GROWTH

Melbourne Airport implemented two VCE Vblock® System 340 with a VNX5600 converged infrastructure solution featuring 250 virtual servers and 2.5 petabytes of storage capacity. Once the design was agreed, VCE, EMC Converged Platforms Division, was able to build a customised platform within 60 days. Most importantly, detailed planning and effective project management meant there was no interruption to the wider business.

Applications currently running on these systems include the carpark, baggage claim, CCTV, and the entire airport management system as well as the airport’s flight displays.
"As a 24/7 business, you can't interrupt things while you put new technology in place. You have to be able to switch seamlessly from one to the other," Bunker says. "Putting a lot of time and effort into the planning phase is crucial. I can’t emphasise that enough."

Once the Vblock® System was built and delivered, it was up and running within hours. The new converged infrastructure has allowed Melbourne Airport to replace three separate vendors, with compute and storage now managed as one coherent platform. For Bunker, the most important aspect has been the simplification of IT operations, allowing for greater maturity as the business continues to grow.

The airport now has guaranteed high availability on key applications like baggage handling and check-in. This was crucial in the development of Terminal 4 as a fully automated, self-service terminal.

Melbourne Airport deployed two EMC Isilon NL series clusters for production and disaster recovery at two sites. EMC’s Isilon platform via a VCE technology extension has improved the management of CCTV data, providing 3 petabytes of storage across the airport’s 1700 CCTV cameras. Keeping this footage secure and available is critically important for security issues as they arise so Isilon’s data protection capabilities are valued highly. The platform is easier to manage, as the aggregated storage pool allows IT to allocate disk space without the complexities of a standard SAN configuration.

Historical issues with data recovery have also been resolved. VCE provided a fully managed platform that was replicated to its disaster recovery site. If any incidents occur at the production data centre, the IT team can immediately initiate recovery.

- A standardised platform was built and implemented in 60 days.
- The new infrastructure replaced a number of separate vendors.
- The airport now has guaranteed high availability on key applications.

A TRUSTED PARTNERSHIP

Melbourne Airport’s IT team enjoyed a collaborative working relationship with EMC and its integration partner Ethan Group. This was one of the main objectives during the tender process. The airport was not only looking for the highest quality technical solution, Bunker says, but also a partner that would provide ongoing support after the implementation was complete.

EMC delivered innovative technology but also aligned with the core business requirements of Melbourne Airport to deliver fast results. Historically, a project like Terminal 4 would have required significant amounts of new infrastructure. With Vblock Systems and Isilon the airport had the ability to scale out and take on additional workloads quickly at minimum cost. This has allowed IT to successfully shift its focus to driving innovation and enabling new features.
ONGOING INNOVATION

“This new infrastructure allows us to address some issues that have previously passed us by,” Bunker says. “It will be the foundation for whatever the business decides to proceed with in terms of adopting new technologies over the next few years.”

Melbourne Airport currently has 31 active technology projects underway, covering everything from small upgrades to automating access control. Bunker sees plenty of opportunity to continue strengthening its EMC relationship as the business delves into new technologies like biometrics for security and analytics to improve customer experience.

Bunker and his team are looking into new features such as alerts and notifications that will keep passengers better informed about changes and variations that may affect their plans. They’re also exploring ways to transform the operation of key airport environments like the car park. For example, now that it has implemented license plate recognition, the airport is looking to deliver a more automated experience. It’s important for the airport to continue to gather business intelligence in order to better understand its operating environment, developing valuable solutions for customers and stakeholders. The sky’s the limit for future innovation now that Melbourne Airport has built its technology foundations on converged infrastructure.