

## Glasgow Science Centre

a major visitor attraction, uses FlashArray™//M10 from Pure Storage to deliver better customer experience. With Pure Storage, the Centre has improved the speed of its core business operations, achieved a data reduction of 3.4 to 1, and enhanced management and maintenance of its technology infrastructure.



### BUSINESS TRANSFORMATION

Moving its core business workloads from legacy storage to the Pure Storage all-flash solution has dramatically increased data processing speed across the organisation, improving all aspects of its operations. The benefits of this transformation translate to a smoother experience for the Centre's ever-growing visitors.

### GEO

Scotland, UK

### INDUSTRY

Exhibition/visitor attraction

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Craig Rooney,  
AudioVisual and Technology Manager

### COPING WITH THE DATA DEMANDS OF RECORD VISITOR NUMBERS

Glasgow Science Centre is one of Scotland’s most popular visitor attractions. An independent Scottish educational charity, it presents concepts of science and technology in unique and inspiring ways.

Established in 2001 as part of the government’s Millennium Project, the Centre features three floors of innovative exhibits, including a state of the art digital planetarium and IMAX cinema on site. It attracts more than 300,000 visitors each year, including 70,000 school children, and has been awarded five-star visitor status by Visit Scotland, the country’s national tourism authority.

Experiencing large visitor numbers — especially during peak holiday periods — brings a host of challenges for the Centre’s staff and technology infrastructure. Data processing has a direct effect on various aspects of the visitor experience. Glasgow Science Centre uses Pure Storage for fast, seamless operations across its business.

Craig Rooney is the Centre’s AudioVisual and Technology Manager. He has worked with the Centre for more than 10 years, and has close insight into how technology helps the Centre to deliver its experience.

“We’ve had consecutive years of record visitor numbers from families and day visitors to our interactive Science Mall,” said Craig. “We do a huge amount of in-reach education work with school visits to the Centre and with our outreach team taking science to schools across Scotland. On top of that we have a hugely popular state of the art digital planetarium and a busy corporate events side to the business, and so technology is an integral part in bringing our vision, mission statement and customer promise to the public.”

With over 200 employees split across various departments, there is an interrelation in the operational and technological aspects of what the Centre offers to visitors. Alongside the Exhibition Design Team, Craig is responsible for helping select and design the technology used in the various exhibits to bring a unique visitor experience.

This experience can, however, be significantly impacted by technological issues. “What we were seeing previously was longer waiting times on entrance due to the processing times involved,” said Craig. “Where you have large groups of school kids or families eager to get into the Centre, these queues can be a frustrating experience for everyone involved, including staff.”

**COMPANY:**

Glasgow Science Centre  
[www.glasgowsciencecentre.org](http://www.glasgowsciencecentre.org)

**USE CASE:**

- Database – Microsoft® SQL Server
- Virtual servers
- Core business applications

**CHALLENGES:**

- High visitor numbers posed challenges during peak times and holidays.
- Record-number visitors caused data processing problems in ticketing and finance servers.

**IT TRANSFORMATION:**

- The Centre achieved a data reduction of 3.4 to 1.
- All storage is managed on 3 rack units, using only 670w of power.

“Using Pure Storage has made everything so much simpler. Data storage is a job we no longer need to fuss about and have confidence in knowing it can support our business as visitor numbers continue to grow.”

Craig Rooney,  
*AudioVisual and Technology Manager*

**CONSOLIDATING KEY WORKLOADS ON FLASH**

Craig began using Pure Storage in July 2016. The Centre installed a FlashArray//M10 with 2.51TB of provisioned data. It was installed to complement the existing HP LeftHand appliance, a spinning disk-based solution that was causing speed and capacity issues in its datacentre.

The Pure Storage array is now trusted with running core business applications, including the front-of-house ticketing system, office management systems, shared storage and catering, retail, and events software, and Sharepoint.

“There’s direct correlation between storage and the visitor experience. High latency on the storage side impacts everything from ticketing to the interactive experience on the exhibit floors. It’s really crucial for us that our storage systems are fast, responsive and reliable,” Craig added.

“Speed is a key benefit in what Pure Storage has delivered for us. Waiting times are an on-going issue for busy visitor attractions. We’ve had situations in the past where people have been waiting for a couple of minutes more than they should — this might not seem long, but if you’re a teacher trying to contain a group of 20 excited students or a family with 3 kids these small changes have a huge impact,” explained Craig.

“On a busy day we can have up to 2000 people in the Centre, especially in the morning and early afternoon periods. Our systems need to be fast to process those numbers in a short period of time.”

Capito, the Centre’s sales partner, recommended Pure Storage as a solution to the speed issues Craig’s team were experiencing, and made the initial introduction. The Centre was refreshing its entire network with Cisco Meraki, so the timing for the shift to all-flash proved timely. In addition to projections on speed and data reduction, Craig was also encouraged to switch to Pure Storage due to the Pure Evergreen™ Storage model upgrade paths and the associated long-term savings.

After commencing discussions in March 2016, the installation was completed mid-Summer of that year.

**GREATLY SIMPLIFIED STORAGE MANAGEMENT**

“Flash has had a massive effect. We were suffering with delays, so flash has made processing so much smoother. We were seeing huge improvements on data transfers from the first day. Now we’re seeing huge performance improvements on our SQL applications — that’s the area we were having the biggest issue with as it was slowing down ticket processing and we were having daily technical problems with specific SQL-based applications.”

Since transferring over to Pure Storage, the issues have reduced almost to zero and a data reduction of 3.4 to 1, which Craig expects to reduce further over time. The Centre is also now managing all storage across three rack units, using only 670w of power in all.

“The Pure Storage array has reduced our storage management requirements, even more so as there’s no need for patching or controlling volumes. We’re now transferring all 20+ of our virtual servers over to Pure Storage and will keep the HP only as backup storage. We’re essentially moving the whole business onto Pure Storage,” Craig said.

“Using Pure Storage has made everything so much simpler,” Craig concluded. “Data storage is a job we no longer need to fuss about and have confidence in knowing it can support our business as visitor numbers continue to grow.”