Peace of mind for Armagh Observatory and Planetarium

Armagh Observatory and Planetarium (AOP) is UK’s oldest observatory and the largest planetarium on the island of Ireland.

The challenge

"Everyone loves space," remarks Ciaran Magee, ICT manager at Armagh Observatory and Planetarium (AOP) (armagh.space). He should know – he works for the UK’s oldest observatory and the largest planetarium on the island of Ireland. As such, it inspires new generations about the vastness of the Universe, from coachloads of schoolchildren who travel from all over Ireland to have their imaginations stimulated in the Planetarium to the postgraduate students from Queens, Belfast and Trinity, Dublin who work on their PhDs alongside AOP’s staff astronomers.

As one of the most popular STEM tourist attractions in Northern Ireland, as well as a respected research centre carrying out internationally cutting-edge work in several key areas of astrophysics, AOP needs its network and cybersecurity to be top notch.

When Ciaran joined in 2018 he knew his immediate task was to "make Armagh the ‘place for space’ – make it safer, more secure, more reliable with better uptime". His first step? To partner with Jisc and join the Janet network.

The solution

"We haven’t looked back since," he says. "We’ve got the network installed and it’s been rock solid. It’s now the least interesting part of what we do with Jisc. It’s a given. It’s just there. It works all the time. Now we draw on the cyber protection, the managed SIEM, the support team, the alerting team, the engineers available for me to use at different times and we’ve done the penetration testing repeatedly as well. We have used so many other services from Jisc, and all from the initial contract of, ‘give us excellent internet connection’.”

Those other services include eduroam, which allows AOP’s astronomers to move between national and local institutions and enjoy seamless access to wifi, and the protection offered by Jisc teams monitoring AOP’s systems for cyber security anomalies and denial of service attacks.
The benefits

The service and support came into its own when the pandemic struck, as Ciaran recalls.

“The day we had to close down, there was zero loss of productivity. We all just went home and started working again, because all the systems were already in place. We couldn’t have done that without Jisc. It would have been a real struggle to have catered to all the traffic coming into Armagh with the previous internet connection and systems that we had. Jisc helped us deploy the technology to provide the VPN solution, the single sign on service, the remote access with eduroam and migration of servers from onsite to offsite. Jisc has some fantastic engineers I’ve worked with over the last year and a half, two years. I’m very, very comfortable saying that we wouldn’t be in the Covid-proof, cyber-protected position that we’re in now without the help of Jisc.”

The power of the Janet network, and its links to other European and worldwide national research and education networks (NRENs) through the GÉANT data network, has also allowed AOP’s director to continue his research using datasets from a telescope in Australia. Unable to travel there to collect the data, or to have it posted to him on a USB stick while the Australian postal service was shut down, it became feasible for the first time to transfer the four terabytes of data from Australia to Armagh across the dedicated data network. This is going to have lasting impact on how AOP’s researchers collect data beyond the pandemic, with all the associated time, cost and carbon benefits of cutting down on long-haul flights.

For Ciaran – and his managers on AOP’s board – it all adds up to peace of mind.

“At AOP I’m a one-man band. My backup, if I get hit by a bus, or even go on holiday, is the Jisc service desk,” he explains. “It’s in the contract – we allow Jisc, as an organisation, to act on our behalf to protect us. It gives our board phenomenal reassurance that there is the fallback of Jisc in the case of X, Y, or Z happening to myself, which is great. It also works the other way around: I can lean on the Jisc team when I need help with X, Y, or Z project. And I do regularly.”

Find out more about the work of Armagh Observatory and Planetarium at armagh.space