Case Study //

Australian National University

The Australian National University (ANU) is a public university in Canberra, Australian Capital Territory. Located in the suburb of Acton, the main campus encompasses seven teaching and research colleges, in addition to several national institutes. With over 23,000 students, ANU is consistently ranked among the world's top universities. It is ranked 22nd in the world (first in Australia) in the 2016/17 QS World University Rankings

The ANU Integrated Extra Low Voltage System (IELVS) //

ANU is a dynamic and rapidly changing technologically advanced university campus. The new complex solution for the campus incorporates commercial, residential, retail and educational facilities across the entire campus.

The IELVS communicates with each ELV systems to collect, store and make available information to a range of users through various interfaces such as web-based graphics or smart mobile devices. This information is used for monitoring, displaying, archiving, reporting, trending and provides operator overrides to each ELV systems.

The IELVS also provides a Data Layer for other enterprise applications to access information from each ELV system in a consolidated and consistent format that supports both historical and real-time data. Individual workstations, graphical user interfaces and data storage provided by each ELV system is replaced by a single IELVS.

The IELVS provides a single interface for the University Facilities & Services users for monitoring, controlling and reporting. The IELVS makes available information on the performance of the campus overall and for each building. This is then used to optimise efficient operations and management of the ANU Campus facilities & services.

Key Objectives //

The following project objectives were set in place to ensure a number of goals relating to Operation, Energy Efficiency, Sustainability, Tenant Experience and Financial Optimisation were realised

- Provide a single web based user interface for all ELV services that is consistent and simple to use
- Provide a standardised method for accessing historical and real time data from any ELV system
- Minimise duplication of graphics, trending, reporting, scheduling, data storage, software, management functions, IT equipment and cabling
- Reduce the dependency on single source vendors and proprietary systems through the use of open protocols
- Provide an open architecture that can be easily modified or expanded in the future

The Challenge //

The project presented a number of key challenges:

- Integration to both new and old systems/hardware to make it an open platform system
- Meeting all stakeholders requirements to enable a smart management system for the whole university
- Working with the IT Team onsite to create a virtual world that is secure and meets the IT requirements, but also builds a reliable and fast access system across all platforms: (MAC, PC, Android)
- Work with all third-party contractors for each system to make an object database that has consistent naming, descriptions and point IDs

Project successes //

The IELVS project has provided an integrated solution for ANU delivering the following successes:

- Fast, reliable and usable system for technical and non-technical client
- Use of data analytics to enable fault finding and reporting to one centralised system with normalised data so all points appear in a common consistent database
- Consistent graphics package for all systems for ease of training and usability

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