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■ CASE STUDY

## University Develops Advanced Integrated Access Management System



■ Nottingham Trent University

Grosvenor Technology's JANUS access control system is at the heart of an advanced integrated smart card system at Nottingham Trent University (NTU). Over the last 10 years the university has deployed the JANUS system for their campus-wide access control and has developed it into one of the most sophisticated integrated access and student management systems in the education sector. The system typically has 45,000 smart cards programmed for students, staff and visitors allowing controlled entry to over 300 access points around campus.

"The JANUS system is a robust, flexible and open architecture solution that has allowed us to develop an integrated approach to access control," said Nigel Smith, NTU's Resources Manager. "Not only does it interface with hardware such as the fire alarm system; automatically opening doors in the event of a fire, but also interfaces to other software applications, through the JANUS Enterprise software."

The open database structure of JANUS Enterprise has allowed the university to streamline its student enrolment and smart card production process. When a student is first enrolled, the open structure of JANUS Enterprise automatically allows the creation of an access control profile for the student based on their course code, discipline and year of study. This ensures that the student can only gain access to the appropriate campus buildings and facilities. The contact-less MIFARE smart cards are also used for cash-less vending, photocopying, printing, sports membership, car parks, library book loans and as a Student Union card. They can also be used for unlimited transport on Nottingham's bus and tram network. This integrated approach allows the university to efficiently manage large numbers of students that change on a regular basis.

"JANUS Enterprise also offers us a powerful set of analysis and reporting tools," added Nigel. "We use this to produce a range of reports that are an invaluable aid to analysing building usage and footfall. Together with other building management data, these reports allow us to measure the utilisation of our buildings and areas and make decisions such as opening times etc."

The university uses real time analytics within JANUS to automatically manage its car parks. The system maintains an accurate count of the number of vehicles currently in each car park, enabling large car park entrance displays to show if space is available and restricting entry when full.

The reporting tools allow the university to establish whether a student has recently accessed the university in the event of an emergency or if a student welfare issue arises. Building and room occupancy can also be quickly checked for security or health & safety reasons.

The JANUS system is a distributed fault-tolerant solution based around its Intelligent Door Controller (IDC). Each IDC is a robust standalone unit that can control two doors/locks and interface to a wide range of industry standard card readers and lock mechanisms. Each IDC is networked to the JANUS Server either via serial communications or an IP network. Every card profile associated with an IDC is downloaded to the controller to ensure continued operation even in the event of a network or power failure. Each new IDC design maintains backwards compatibility with older units, which has provided NTU with a continued expansion path always making the latest technologies available, whilst maintaining complete compatibility with the existing JANUS hardware installed over the last 10 years



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