



# Access Control in University Accommodation

ASSA ABLOY

What degree of risk should  
students accept?

A discussion paper

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The global leader in  
door opening solutions

# Synopsis

University education in the United Kingdom is changing rapidly, with the steep rise in fees, the growth of overseas students attending UK institutions and the questions posed by “online lectures” and distance learning.

The reality is that, outside the handful of elite Universities, who have the luxury of “selecting” students from a global pool of highly talented applicants, Universities are increasingly having to ‘recruit’ students, as witnessed by their extensive marketing campaigns, including TV advertising.

It is notable that in every such advert, apart from the obligatory science lab, lecture theatre and sporting images, the style of accommodation is a prominent feature.

This recognises the reality that, today, a student’s decision whether to attend university at all and if so, which university, is now influenced by a wide range of factors and the quality, choice and price of student accommodation is a high ranking factor in their decision making process.

Student accommodation today consists of a very diverse estate, ranging from the traditional “grungy” bedsit or shared house, through to contemporary flats complete with en-suite bathrooms to every bedroom, high speed internet, LCD satellite TV screens and all the other modern facilities found in housing developments normally bought by young career professionals in major cities.

Yet in many cases, the security and access control systems have either not kept pace with the rest of the technology or remain as outdated as the concept of students having “landladies”.

Rapid advances in technology means there is a plethora of potential solutions for each security and access challenge, but the fact the choice is so wide is, in itself, a problem for time constrained university estates / facilities managers.

In addition, these changes are taking place against a backdrop of severe public sector financial constraints, with further “real term” cuts in expenditure over the next 3-5 years. This means the competition for those scarce resources, time and money, is fiercer than ever.

The question therefore is simple:

## **what degree of security risk should students accept in university accommodation today?**

The answers are complex and challenging but the issue is one of real importance for all Universities and by producing this Discussion Paper, ASSA ABLOY wishes to stimulate debate and encourage views and contributions from many voices.

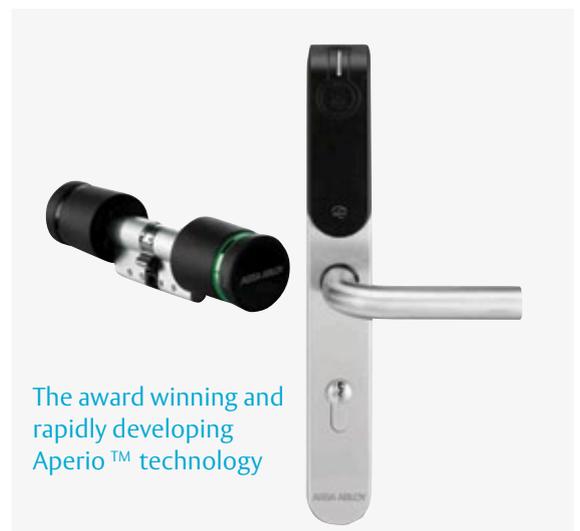
To contribute your opinion, experience or comment please visit: [www.facebook.com/ASSAABLOYUK](https://www.facebook.com/ASSAABLOYUK)

### **About the author**

Matt Thomas is a Civil Engineering graduate from Loughborough University and holds an MBA from London Business School. He has worked for ASSA ABLOY since 2008 and currently holds the position of Managing Director of ASSA ABLOY Access Control.

### **About ASSA ABLOY Access Control**

The ASSA ABLOY Access Control business was set up in 2011 to bring new technologies developed by the ASSA ABLOY group to market. Currently the award winning, and rapidly developing, Aperio™ technology is a main focus.



# The purpose of access control in University accommodation

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At its most basic level, access control is a system for enabling or preventing people from entering or exiting a location, whether a whole site or a single room or cupboard.

A secondary function may be to record the movements in and out of locations and provide a data trail for audit, traceability, compliance or improvement purposes.

The majority of access control systems rely on the person or asset transiting in or out of a location being recognised and validated, usually by a “credential”.

This credential may be something the person has (key, card, identification tag or within the next 12 months, a smartphone with an access control “App”), something they know (password, PIN) or something intrinsic to them (biometric data such as iris recognition, fingerprints).

In many systems, more than one layer of credential may be required and some systems require a second party credential (second keyholder, visual recognition by an approved inspector via CCTV link).

The more layers and sub systems, the greater is the complexity of integrating the systems and storing, accessing and making use of the data.

Within University accommodation, the purpose of access control is relatively simple to define:

- a) To protect students from unauthorised access, which may threaten their personal safety or their possessions.
- b) To ensure the institution meets its statutory duty of care and other legal responsibilities, including health and safety compliance
- c) To provide the university with the versatility to manage different occupiers of the accommodation at different times of the year (eg conference guests during vacation periods; managing the end of term and end of academic year student arrivals and departures)
- d) To contribute to the effective life cycle management and costing of the University estate, including maintenance, repair and refurbishment.

In addition, many Universities prefer to keep the number of credentials required by any one student to a minimum, (reducing the problems and costs associated with loss/replacement) so the same credential may be used to authorise access to other premises besides accommodation, such as study areas, laboratories, sports facilities or as payment/authorisation for the use of facilities like libraries, restaurants and dispensing/vending equipment.



# The challenges presented by University accommodation

## 2

The main challenges faced when assessing security /access control for student accommodation fall into five main areas.

2.1) Who owns and manages the accommodation and who is responsible for the access control/security? This is not a simple question as Universities operate with a “mixed estate”.

Many Universities have their own accommodation units, either “on campus” or nearby, yet it is rare that there is sufficient quantity to house all students for the full period of their studies.

This means that in every University town there is also a very wide choice of privately rented accommodation, aimed at students. Indeed many landlords/ property investment advisors recognise student towns as locations offering a relatively high rental return on capital.

In some cases, these private landlords will be ‘approved’ by the University, which poses interesting questions about where the responsibility /liability lies.

Finally, in the last decade there has been an explosion in purpose built student accommodation built and operated by companies such as Unite in partnership with the educational establishment in a variation of a PFI arrangement.

This has led to the establishment of the National Codes for Assured Accommodation, which are voluntary schemes where providers commit to maintaining professional benchmark standards for managing large student developments ([www.nationalcode.org](http://www.nationalcode.org))

This Code applies specifically to accommodation that is occupied solely or principally for persons for the purpose of undertaking a full time course of further or higher education at the institution providing the accommodation.

It establishes a set of management standards for all residential developments managed and controlled by educational establishments (with the exception of head leased properties) and specifies appropriate controls to ensure that the particular needs of students are delivered effectively.

The Universities UK Code of Practice for the management of Student Housing also sets out to offer similar arrangements A third related Code also exists, specifying the requirements for the provision of student housing by private sector providers.



The importance of access and security is shown by the following sections, taken from the Code:

Managers will ensure that:

14. 6.14 All buildings have a security plan detailing an appropriate level of management to maintain security standards and this plan can, on request, be shown to tenants;
15. 6.15 The security plan stipulates what security information will be supplied to tenants and particularly any additional information which is to be provided to tenants of ground floor rooms;
16. 6.16 Buildings and individual flats or rooms have an appropriate level of security to prevent unauthorised access including:
  - Securely constructed external doors and windows;
  - Secure locking systems;
  - Methods to determine the identity of a caller if access to a flat or room is via communal areas.

Managers will ensure that:

1. 4.1 Where a tenant has reported the need for a repair, access to their room for the purposes of maintenance is authorised unless the tenant provides specific instructions to the contrary. Records that their room has been entered, what work has been carried out and any further activities that are planned are also provided to the tenant;
2. 4.2 Where access is required to a tenant's room or communal areas for other purposes each affected tenant receives appropriate notification of the date, time, estimated duration and purpose of the visit, except in the case of access needed in an emergency situation;
3. 4.3 Where access is required for routine inspections each tenant will be given at least 24 hours notice of the date, time and purpose of the visit;
4. 4.4 Where regular and pre-planned access is required (i.e. to provide a periodic cleaning service) the details of the access and services to be provided are stated in the information provided when the tenancy commences. If these arrangements are permanently rescheduled during the tenancy, then at least 24 hours notice of the changed arrangements is provided before any work commences.

The National Union of Students is one of the bodies that participates in the development of this code and so it is fair to assume these access and security issues are all areas of real concern for students.

2.2) The second challenge is the varied age and physical condition of much student accommodation.

This can range from the medieval "College Quads" at the oldest Universities, through listed building from many periods; the "red brick" Universities founded in the major industrial cities prior to the first World War, to the 1960's "concrete campus".

Each era presents its own challenges for access and security, ranging from the impossibility of installing wired systems in many listed buildings to the proliferation of linking corridors, stairways, footbridges on many 1960's and 70's campuses.

The physical condition alongside Building Regulations or other controls such as listed building or conservation area status all impact on the choice and cost of the security and access system.

2.3) The third challenge lies in the dispersed geographical location of student accommodation throughout a town or city. This can lead to a plethora of "building by building" solutions with no common systems or technologies, making such as issues as key management very challenging and potentially expensively bureaucratic.

Even in campus locations, accommodation is usually distributed across the site and there are still issues surrounding public access to many different areas of the University, whether by right or by invitation (non students paying to attend on campus entertainment /events)

2.4) The fourth challenge for security and access lies in the 'itinerant' nature of students and the resulting rapid changeover in occupancy.

Students will rarely be in the same accommodation for more than 52 weeks and many University rental periods are much shorter 26/30/40 weeks.

Some Universities even expect students to completely vacate their rooms every term, as their rooms are required for paying guests attending conferences/summer schools or private hire functions.

In addition, the number of exchange students is increasing, with overseas students arriving for one/two or three terms and often they are given priority for university accommodation.

This is all in addition to the "normal" occupancy changes caused by students leaving or "swopping" accommodation for various financial, educational or emotional reasons.

This presents very clear challenges for credential issuing and revocation and for the management of physical credentials such as keys.

2.5) The fifth and perhaps most significant challenge to arise in the past decade has been the dramatic change in student and parental expectations and the standards they demand.

Every University has its own stories of first year students arriving and being horrified at the idea of sharing a bathroom or shower and the tales of "helicopter" parents virtually moving in with their offspring are now too frequent to be discounted as urban myth.

This is partly explained by rising consumer affluence and the "middle class" domination of University access. But also the fact that students are now paying up to £9,000 a year for their courses and their living costs are not subsidised, has brought a sharp change in attitude. Universities now operate in a competitive market economy and students and their parents are consumers in the fullest sense, who demand value and know their rights.

This increasing affluence is also reflected in the value of student's possessions with one UK insurer, specialising in the student market, estimating the average student takes £4,000 worth of goods to University (at 2010 values)

Many students also now live in homes with sophisticated locks, alarm systems and even CCTV and take these things for granted.



In some cases, overseas students arriving from less stable countries will be used to security checks, including scanners and searches, for any public access building and some wealthier students may even be used to having personal protection.

In addition, students are usually very technology savvy and “expect” the latest technology. (An interesting example is the ASSA ABLOY/HID access control system, which uses the student’s mobile phone as the credential, being pioneered at Universities in the USA. Within days of installation, students were not only completely familiar with the system and taking its functionality for granted, there were even complaints that they had to stop talking on their phone in order to hold the phone near to the lock to open it, rather than being able to carry on talking and walk on through!)

Parents can also, perhaps understandably, have real fears about the potential risks to the personal safety of their children, who may be “leaving home” for the first time. Although attacks on students living in University accommodation are still very rare, it only takes one of two headlines plus the “urban myths” for anxious parents to be convinced their child will be attacked by someone who has the keys to their room.

The unfortunate incidents of “random killings” in some schools and Colleges in the USA and other countries, only serves to feed this anxiety.



# Core issues in implementing effective access control

## 3

For many student accommodation premises, the core issues lie in three main areas: responsibility; understanding; and finance.

- **Responsibility:** One of the key issues is to establish the ‘responsibility chain’ for security matters.

This will usually be the landlord, which in many cases will be the University itself but, as stated previously, where a private sector landlord has some level of University endorsement/approval or where the management arrangements are shared or outsourced, the responsibility chain can be confused.

There may also be several different stakeholders involved: the private landlord, and /or their letting/managing agent; the maintenance and cleaning contractors; the University student welfare/admissions departments; the National Union of Students; and the insurers for the different risks ranging from public liability and building fabric to the insurance of contents and student possessions.

Finally, even on University controlled campuses, some aspects may be outsourced (manned guarding, managing CCTV) to private contractors and /or involve local community police initiatives (knife crime prevention and use of search/wands etc)

Unless the responsibility chain is mapped, recorded and communicated, any access control system will fail at the first hurdle and in the real world, all of the above groups are busy, with multiple responsibilities and concerns, so sustaining security as an area of attention is challenging but essential.

- **Understanding:** Essentially, many property managers lack a clear, independent and up to date source of guidance and advice on school security and access control.

This has two consequences: either security is ‘forgotten’ until a headline scare or the organisation become over reliant on the specialist suppliers of security systems and equipment

- **Finance:** There is no question that financial constraints are now a major factor in decisions in all public sector organisations. In the remaining large new build University projects, on ‘green field’ sites, installing a purpose designed full access control system is still feasible.

However, if the organisation is looking to overhaul, renew or extend an existing system, the investment is competing with many other priorities.

At the same time, educational bodies would be unwise to ignore the reputational damage and financial risk of claims for compensation, which would be inevitable in the event of a serious security breach.

# Options and solutions

## 4

Faced with this complex balance of competing priorities, how can those responsible for student accommodation navigate an effective way forward, ensuring adequate security within the financial and technical parameters of their premises?

As discussion points, the following may provide useful indicators:

- Implement an up to date risk assessment using the free survey services provided by many leading access control providers and by engaging in a serious debate within the governing and management structure within the University and with external accommodation providers about the level of risks in different spaces /times.
- This risk assessment must start with the likely level, frequency and severity of threat to student security and safety, quickly followed by the safety and security of students and other staff, and then considering the security of other visitors and users of the site.
- It is important this risk assessment is informed by credible, relevant statistics and not by headlines, rumours, urban myths or local prejudices.
- Having identified the risks, consider the number of barriers or preventative measures that need to be implemented to provide the commensurate level of security. How long would each barrier take to be breached and how quickly would an alarm be raised and a response mobilised? Finally take a hard look at the likely level of loss and the consequences.
- Whereas student safety may justify complex access control on a large multiple occupancy, such as a multi storey halls of residence in a vibrant city centre, it may not be sensible in real terms to apply the same criteria to a University owned townhouse, divided into post-graduate apartments in a quiet residential neighbourhood
- Implement a “bottom up” ground level approach to access control. At its simplest, start with the most important entrance and exit points and the critical access doors inside the buildings. In many instances the 80: 20 rule will apply and 80% of any access control system’s effectiveness may be achieved by securing 20% of the doors.
- Select appropriate technologies. The latest ‘all singing and dancing’ access control systems offer a bewildering array of sophisticated options, all at a price. Yet in many instances changing mechanical lock cylinders, implementing a master keying system with effective key management is often the most cost beneficial option.
- Where a complex already has an existing access control system but needs to be extended to include new additions and extensions, consider using “bridge” or interim technologies which can link and connect existing mechanical or electromechanical locks to the main access control system in a very cost effective manner.

These technologies can help to extend the protection offered by the access control system to new areas and zones without the need for full system replacement.

# Summary

## 5

Access control in University accommodation is a complex and challenging issues which is at risk of being ignored and overlooked, given the background of rapid change taking place in the University 'ecosystem' and the severe financial constraints in public finances.

Unfortunately the risks to students are increasing. The following report from The Independent from November 2011 is typical:

"Security has been stepped up at one of Britain's leading universities after an outbreak of "town and gown" violence.

Ten people – including six students - were assaulted and robbed of their smartphones and cash during a series of seven attacks by gangs of hooded youths in an area close to University of Leeds halls of residence on Wednesday. Two required hospital treatment.

It followed an earlier spate of 10 violent muggings - five against students - on bonfire night weekend around the Woodhouse and Hyde Park areas of the city. Students described how they were surrounded by a gang up to 20 youths, who demanded they hand over their possessions. One first-student year said he was punched to the ground while another said attackers had repeatedly stamped on his jaw.

The robberies have spread fear among Leeds' 30,000 student population and prompted threats from parents to withdraw their children from the university.

Or this from the Manchester Evening News in March 2012:

Street thefts in Manchester's student areas have more than doubled in a year, shock new figures reveal.

Pickpocketing and bag snatching along the university corridor between Withington and the city centre have soared despite other types of crime falling.

Worried town hall and university chiefs are now stepping up plans for a string of 'safe havens' in the area. Businesses are being urged to sign up as boltholes for students who feel unsafe on the streets at night.

While Liberty Living, another leading provider of student accommodation, reports on its website that:

"Student housing tends to congregate in one area, meaning that burglars do too. Theft from student houses is reported as one of the biggest crimes in major University cities."

So the question to be asked is what degree of security are we willing to afford to protect students?

This is not scare-mongering or exaggerating the level of risk or threat to students but a simple desire to start a debate and discussion and to raise awareness of the issues and some of the possible solutions.

After all, awareness and vigilance are the cornerstones of all good access control and security systems.

### **Action Point:**

To add your voice to the debate, please visit [www.facebook.com/educationsecurity](https://www.facebook.com/educationsecurity) and share your views and opinions.

### **Thank you.**

To contact the author, please email: [accesscontrol@assaabloy.co.uk](mailto:accesscontrol@assaabloy.co.uk)

# Appendix 1

ASSA ABLOY is leading provider of doors solutions used in many access control systems

Aperio™ is a new global ASSA ABLOY Access Control technology that enables mechanical locks to be wirelessly linked to a new or existing access control system without any need to modify the door.

The heart of Aperio™ is a short distance wireless communication protocol designed to link an online electronic access control system with an Aperio™ enabled electronic cylinder or escutcheon.

This means that

- Additional doors can be integrated into access control systems at a low cost
- Aperio™ can be combined with new and existing access control systems
- Easy to install with no structural alterations to the door
- Standard RFID technologies are supported
- Battery-operated Aperio™ cylinders and escutcheons provide an RFID-Card reader
- Aperio™ can update room access authorisations online and in real time

The open architecture of Aperio™ provides a convenient way of connecting with most access control systems via almost any interface. The Aperio™ cylinders or escutcheons communicate via an encrypted wireless link to a communication hub that is wired directly to the system.

Aperio™ locking technology is also able to upgrade master key systems to instantly introduce access control convenience to any premises.

The ability to integrate into an existing master key suite, provides end users with a high quality and secure solution, with all the benefits of access control where it is required.

By utilizing Aperio™ in this way, requests for access control can be achieved, whilst retaining existing card credentials and removing key control issues, providing an overall cost effective solution, with minimal modification to doors and premises.

Aperio™ can be used to develop a truly bespoke cost effective security solution, which is quick and easy to install, that offers the additional convenience and flexibility inherent with an access control solution, whilst also solving key management issues.

For more information please visit [www.assaabloy.co.uk/aperio](http://www.assaabloy.co.uk/aperio)

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