

60 Martin Place - End of Trip Electronic Locker Solution



ACG Fire & Security was chosen along with Lockin (a part of ISM interiors) as the security integrator and locker joinery providers to deliver the integrated locker security and access control solution for Investa's new end of trip (EOT) facility at 60 Martin Place. This included the provision of access control for 450 lockers. ACG provided a locker management system called LoQit which utilised the new version 3.0 LoQit self-adjusting lock released in July 2019 with integrated USB charger and Internal LED lighting.

60 Martin Place showcases the latest innovations in EOT design, delivering a comfortable and convenient facility for its tenants to be able wash after riding, running or walking to work. When tenants arrive, they are greeted by 1 of the 14 LoQit custom branded Investa touch screens and integrated multifunction readers with Bluetooth. The tenant presents their card and are issued a secure locker for the day.

The construction of the 60 Martin Place EOT facility took just over 6 months. ACG was engaged with Willow a specialist in building digital twins. These are virtual replicas of physical buildings that business analysts and IT personnel can use to run simulations before actual devices or systems are built. ACG provided a virtualised locker system that replicated the locker system to be installed so that ACG, Willow, JCI and Siemens could build and develop and test their interfaces prior to installation. This proved to be a valuable investment and enabled early detection of additional software development works prior to the actual installation date.

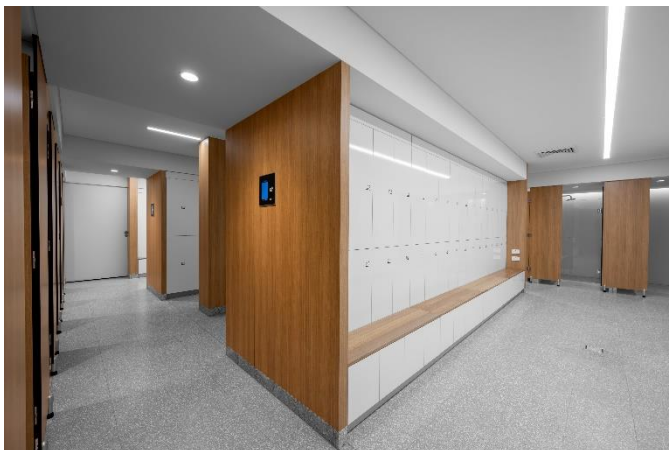
**FINALIST**CATEGORY:
**INTEGRATED SECURITY
SOLUTION UNDER \$500K****WINNER**CATEGORY:
**PRODUCT OF THE YEAR -
ACCESS CONTROL**

There were a lot of challenges and complexities that ACG had to contend with in delivering EOT security for the 60 Martin Place EOT. Some of these items that Investa required were:

- A custom branded web-based locker management system accessible from anywhere in the building via any web browser without the installation of any software.
- A smart flexible locker solution where lockers could be easily reassigned to either male or female areas depending on the position of 4 adjustable walls which allows the shower and locker facilities to be reallocated to either male or female depending on peak usage requirements.



- REST API (application programming interface) for integration of the LoQit locker management system into the base building data collection BIM system, base building access control system and the base building mobile app.
- Siemens required a REST API for collection of data points, which included the status of each individual locker, including availability, lock status, USB status, door status and if the locker was blocked or offline.
- Willow required a REST API to the LoQit locker management system for the base building mobile application they were developing to enable tenants to pre book a locker using the Investa mobile application. The ability for users to pre book a locker, link the locker to their user credentials and set their pin code prior to their arrival. This was expanded on to be able to open their assigned locker from the Investa app as well.
- Investa required a combination of different credentials to be used to open users' lockers. LoQit built in the ability to program multiple credentials against each user. This function was also made possible via the REST API and user import feature for importing users from the JCI base building access control database. Users can open their assigned locker using any combination of their assigned credential which includes physical card, mobile bluetooth credential, pin code, LoQit mobile app or Investa mobile app.



- Investa had promised several lockers to certain tenants to ensure their allocation of lockers was not taken by others. LoQit implemented a locker grouping function which was used to assign selected tenants with a reserved number of lockers ensuring they always had a locker when arriving to work.
- Investa had also promised select individuals permanently allocated lockers which would not be cleared every night.

- Investa required all temporary lockers to be automatically cleared at 11pm every night which ACG provided via a customised scheduled task. After lockers are cleared a cleaner with the use of a master card can clean out all lockers, bag and label left items for collection the following day.

- To ensure the EOT lockers were utilised at their full potential ACG developed a custom dashboard to allow the building managers to see when the peak usage was and if they were required to make any changes to the male or female locker allocations.



Lend Lease provided ACG with a 12-week program from the contract start date to deliver the above project whilst being faced with very tight delivery timeframes. LoQit is manufactured in the Netherlands and due to other projects meant the lead time was 12 weeks which was luckily shortened to just 10 weeks. This only provided ACG with 2 weeks to install 450 Locks, all internal cabling and 14 touchscreens with readers.

Throughout the delivery of this project there were multiple variations to joinery design as the architects modified the design for a better user experience.

One of these changes was the reduction of the ceiling height for above services which resulted in the accessible bulkhead being reduced from the standard 200mm to 80mm. This meant that the LoQit lock controller and other equipment would not fit. To resolve the issue ACG modified the locker controller mounting plates in order work around the limited space allocation.

Also, due to some modifications by Lend Lease, ACG had to run additional cabling that was not installed by the building ICN provider in order to meet the completion date.

To ensure the project was run well and customer expectations were managed ACG provided;

- A joinery coordinator to liaise with the joiners for the customised cable routing and lock mounting holes which were pre-cut by the joiners CNC machine in Melbourne prior to being shipped to Sydney.
- An Integrations manager for setting up and coordinating the integration to LoQit into the various other building sub systems.

