

# Security Considerations for Manager-Less Facilities

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Recently, it appears that there is increasing interest in building or converting facilities to 24/7 rentability, manager-less sites or sites with reduced on-site management. The advantages are many over the current configuration.

## Advantages:

- 1) Manager-less sites require limited personnel
  - a) No apartment is necessary allowing increased rentable square footage for a given location
  - b) Lower variable (labor) costs and the associated problems that almost always seem to accompany having employees.
  - c) Obviously, there is still the need for a visiting manager to clean the property and recently vacated units.
  - d) Retail sales still possible with certain Kiosks or other vending machines
  - e) No apartment construction or maintenance costs
- 2) 24 Hour Access, even for certain tenants provides options for:
  - a) Increased rent
  - b) Implied greater customer service and convenience
- 3) Ability to rent units 24/7 provides
  - a) Greater opportunity to maintain a higher occupancy level

## Security Challenges:

1. Unlocked, vacant units allow
  - a) Opportunity for a tenant to use > than the number of units they rented
  - b) Vandalism
  - c) Illegal use
2. Locked out tenants cannot gain access to their unit until a manager can take payment
3. Locked out tenants cannot gain access to their unit until a manager can remove the overlock
4. Units who have had their tenants locked out cannot be easily overlocked without human interface.
5. Reliable means of accepting payments
6. Immediacy of posting payments
7. No manager means less observing eyes on site

To successfully develop, market and take advantages of the manager-less facility concept, the owner/operator must learn what technologic solutions are available maximize the returns on this concept.

One easy and affordable method to gain some of the advantages of this concept, is to add a full service Kiosk. The kiosk, which acts a user interface to the management system by gathering all of the tenant information including finger print, drivers license and a picture which often times is more than what would be gathered by a human manager, then relaying this data to your choice of Management Software which in turn relays this information to the Security Software. These transactions occur virtually instantaneously and without the need for human intervention!

However, by incorporating Individual Electronic Door Locks such as e-LocX a solution can be developed that will solve all of the goals, and most all of the challenges, for the manager-less site. In addition, these solutions do not **encumber** the typical operation of the facility. The lease terms remain the same, and it remains the tenants responsibility to lock their unit with an external lock for which they have a key and provide appropriate insurance for the contents.

### How it all ties together

In this scenario, the “conventional” operation of the facility remains intact. A number of access control keypads are strategically placed on both the inside and the outside of the facility. These are used as normal, to enter a gate code and open the gate. The challenge comes to unlock the vacant (or newly rented or just removed over-locked) unit(s). If a tenant was to arrive a 2AM and needed to rent a unit, the Kiosk is there to facilitate that request. The security system controlling the site, including the e-LocX electronic locking system, will make use of the newly assigned PIN when entered into the access control keypad performing a combination of unlocking the unit(s), disarming the integrated alarm(s) and opening the gate!

A well thought out and designed electronic lock product becomes a “system” by integrating the electronic lock feature with a built in individual door alarm. Not only does this reduce overall cost of the security system by incorporating, rather than adding, the alarm functionality into the lock, it also enables a quality lock design to be somewhat “smart”. A smart lock knows, on its own, if the door is opened, closed or in-between and should not lock when the door is not ready. It should also be able to report all changes of door state to the controlling computer as well as its current lock position.

### More considerations

More considerations may include somewhat technical questions about how the security system operates.

Three very important considerations are:

1. Communication speed - the faster the more secure
2. Can the security devices both send and receive information from the Personal Computer (PC) – closed loop system
3. Acknowledgement capability – no loss of data

### Communication speed - the faster the more secure

In general, self storage security systems use a method called “polling” to communicate with the remote devices such as keypad access controllers, and multiplexed alarm system components. Using this method the PC sends a message to all remote devices at the same time, but addressed to only a specific device. The intended device then performs the command. In many cases this is a status request whereby the PC is asking the remote devices if “anything new” since the last status request. The response could be a gate code was entered, a door was opened or a lock changed from locked to unlocked following a previous command.

There are 2 basic reasons to feel the need for speed:

1. How long it takes to send data to the remote and how long it takes the PC to receive data from the remote.
2. How often devices are polled – the more frequently these are polled, the less wait time to respond to an event, be it gate code entry or change in door status that yields an alarm.

So if there are 10 Multiplexers and 4 keypads installed, a total of 14 devices must be continually polled by the PC. If a tenant came to the entrance gate, the tenant does not want to wait very long for the gate to open. The faster the PC complete the loop to the waiting keypad, send its

status request and receive the data (PIN etc) the less time the tenant must wait at the gate for it to open. In the meantime, the other 13 devices need attention since there may have been doors opening or closing or even another tenant at a different keypad.

Poll rate is the number of times the security software on the PC sends a status request to a device and receives an answer (a full cycle) per second.

Fast systems poll at a rate around 10 times or more per second. Faster is always better so if your brand exceeds this rate, you are in great shape.

#### Can the security devices both send and receive information to the PC – closed loop system?

This is especially important for single unit door monitoring alarm systems. Although most have a 24hour check in, what about in the time in between? In a manager-less environment, it would be paramount to know that devices, including muxes or single door alarms, are working properly. When a failure does occur, immediate notification should be enabled anywhere in the world! Another benefit of smart devices is their ability to listen to the PC and answer it! This is just one step to a closed loop system.

#### Acknowledgement capability – no loss of data

By incorporating acknowledgment features into the smart devices and the security software the loop can be completely closed. For example, when speaking to another person, both people acknowledge what they have heard either verbally or through body language. The same is true for a quality security system. If only one end has the ability to ask a question, it is probable that data loss will occur, sometime. So, for example, a door opens. The alarm component that is monitoring the door detects this change of door state. In a system that does not feature status requests from each device, the alarm component will simply transmit the data to the PC. Similarly, in a polled response environment where a PC continually requests status from alarm system components, the component will dutifully hand the PC the information it requested (the door opening). However, neither the PC nor the alarm system component actually “knows” that the data was properly and fully received by the PC. In either of these cases if the PC did not receive the entire message properly, the door opening event is lost forever resulting in NO ALARM!

Using a true closed loop system featuring acknowledgement codes at both the remote device end (the alarm system component in this example) and the PC end, data loss will NEVER occur! The system is designed so that the alarm system component does not delete the change of door state detected UNTIL it receives the proper acknowledgement code back from the PC. So the ability to re-send this information is still available and will be re-sent on the next status request from the PC. The result; a truly secure, security system!

#### Remote means of communicating with your facilities security system

The internet is a great way to communicate with your systems security. Many kiosks have a means of dialing in either directly or over the internet as does your security system. In addition, some security software systems have the ability to send an email to the tenant each time their unit(s) are accessed or gate codes entered. This provides yet another means for you to see what is happening without actually going there! And your tenant can receive notification that someone was using their gate code and/or accessed their units.

By incorporating these feature sets into access controllers, electronic door locks/door monitoring alarm system and quality security software you will achieve not just a “monitored” facility, but a truly “controlled access” facility suitable for a manager-less facility!