

Spotlight: Securing High Rise Buildings with Jim Flint

Securing high rise buildings creates many challenges for security consultants and their customers. Jim Flint, Director of Information Technology for Swanson Rink Consulting Engineers discusses how to approach these challenging projects, the factors involved, and the security features needed to successfully secure these buildings.

1. You've been doing a lot of work on high rise buildings. How do you approach a project of this size?

During the design kick-off, our security engineers meet with the Owner to discuss their goals and objectives of the security system. Once we understand the needs of the Owner, we discuss each piece of the project including card access and system monitoring. When the scope of the project is finalized, we determine if the client has a preference for specific platforms and systems. If we are given a clean slate, then we review the project criteria and recommend the top two or three vendors and technologies we think best fit the project.

2. What factors do you have to consider when securing a high rise building?

Actually it really depends on the client. And even then, their security requirements and approach to security changes over time. The security system chosen must be able to define zones of coverage that have programmable rule sets to allow for flexibility in use. I like the condensed description used by a CISSP manual that states that Physical Security requires that buildings need to be designed to minimize risk from theft and destruction, and in that design, considers the building construction, layout, emergency evacuation route and procedures, and regulations covering that design. For example, we see great variation in the Life Safety codes in different municipalities that can have overlap into the security and telecom design.

3. What kind of security concerns do high rises have? How do you protect them against those threats?

The challenge that a high rise building presents is the sheer density of the building. Whether for a single tenant or multiple tenants, a high rise building has the same challenges as other buildings, just more systems that need to be coordinated. Areas that need to be considered range from the simplest low-tech physical barriers to

prevent unwanted vehicle intrusion, to high-tech active security analytics and systems to prevent unwanted entry to highly secure areas like court rooms, council chambers, Senior Leadership areas or even jails. If the building under design has a considerable data center operation, you may have need for environmental security systems monitoring that a typical office building may not require. During the design phase, the criteria that must be addressed includes the following:

- Do the systems need to interact?
 - Will they reside on the same physical network (VLAN), or will they require separate physical networks (like many Life Safety systems still require).
 - Will they require different physical network transport technologies (say 50 or 75 Ohm coax), or will you be specifying Cat 5e or 6 IP network cables?
 - Does the cable need to be plenum rated?
 - Will you be designing MDF and IDF rooms for clients on each floor or will the client wish to sublet the space?
 - Is it a single client?
 - What type of conduit sizing for inter-floor chase runs should you specify?
 - Will supplemental power and UPS be roof mounted, or located in the basement?
 - Will the Security system tie into an overall building management system, or will the building management system tie into the security system? Or do both need to tie into some other system?
4. What kind of security systems are you seeing being installed? Are there any special requirements or features that are more in demand? Why?

We are seeing new security systems that are easier for the client to use and deploy with integrated security and video management systems all controlled by a single browser based Graphical User Interface. An additional advantage of browser based portals in managing both security and VMS is that they can be outsourced to cloud based services. This has enormous potential for Integrators that are willing to either invest in cloud based monitoring systems, or at least partner with vendors that make it easy to take their security systems and integrate into a cloud environment. The economies are just too great to ignore cloud based services. But that does not mean public clouds have to be used. We think the greatest use of cloud-based services will lie in hybrid systems that leverage economies of scale; however, don't put your IP at risk on some platform you may have no control over. Here is a question I would like to ask readers of this interview. If you have system data on a remote site you don't control and that data is frozen for some type of legal or financial reason, do you have options to quickly access that information elsewhere? This brings up areas that need to be considered in designing a system. We call it DLP or Data Loss Prevention. This has two primary components: Data at Rest and Data in Motion. Both require entirely different approaches.

5. AMAG has just released its Symmetry V7 with intrusion management product. Intrusion management is an important component in an overall security plan. Will Symmetry V7 with IDS be a product that high rise security staff find beneficial? How?

Clearly, Symmetry V7 is on the right track. One of the benefits of V7 is you have a unified system which is considerably easier to learn. Complex systems of the past that required multiple databases and interfaces just ended up not being used. The flexibility of Symmetry V7 to use the right card technology which best meets the client's needs will be a great advantage.

Additionally, we see a real trend in advanced applications using smart phone technologies. AMAG clearly is not ignoring this important area of growth. Our research shows mobile traffic is exploding while revenue for cellular carriers is leveling off. This means most cellular companies will likely put types of data caps in place. If that trend continues, you will want to partner with companies that will leverage the latest technologies to help mitigate these constraints. The fact that AMAG's Symmetry Visualizer supports the H.264 video standard is a good sign that AMAG will be one of those technology companies helping to leverage technology for their customers while keeping the other constraints in mind as they bring new products and services to the market.

Based in Denver, CO, Swanson Rink is a multi-discipline engineering firm with specialists in security and telecommunications engineering. Swanson Rink's clients include corporate, nonprofit and government entities. A few notable high rise projects include the RE/MAX Corporate Headquarters and the Davita World Headquarters buildings located in Denver, Colorado.