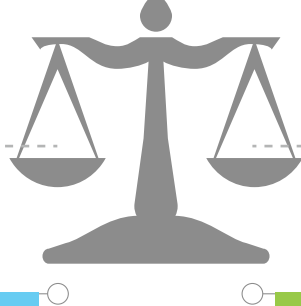


Evolving cyber risk in commercial real estate

What you don't know can hurt you

New technology brings business benefits, but what about new risks?

Commercial real estate (CRE) companies are implementing highly sophisticated technology solutions referred to as intelligent buildings. While these solutions offer many benefits, systems can be vulnerable to cyberattacks.



Pros

- Increases connectivity with tenants and vendors through integration of building management, communication technology, and business systems
- Allows a comprehensive and real-time view of facilities
- Enables better adaptability to the requirements of specific tenants and buildings

Cons

- Adds layers of complexity
- Interconnectedness through internet protocol-based networks, HVAC and other industrial control systems, and open Wi-Fi networks increase data vulnerability
- "Boundaryless" operating ecosystem creates a much broader "attack surface" for threat actors to exploit



#1 at risk

While all property owners and tenants have some degree of exposure to cyberattacks, our analysis suggests that *hotel and retail property types are relatively more vulnerable.*

Broadening attack surface by property type

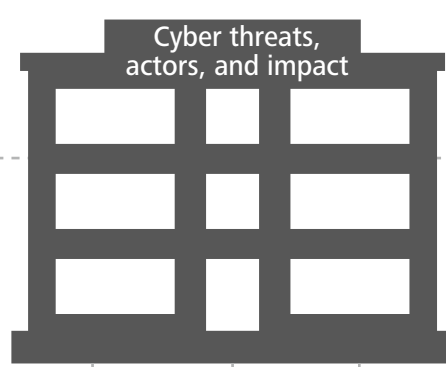
Systems involved	Owner/tenant	Owner/tenant	Owner	Owner/tenant	Owner/tenant	Owner
Entry points by property type	Mobile/web applications	Online payments/ POS	Industrial control systems/ HVAC/BMS	Employee devices	Web server/network/cloud	Open Wi-Fi access
Hotel	High	High	Medium	High	Medium	High
Retail	Medium	High	High	Medium	Medium	High
Health care	Medium	Low	High	Low	High	Low
Multifamily	Medium	Medium	Low	Medium	High	Medium
Data center	Medium	Low	High	Low	High	Low
Office	Low	Low	Medium	Medium	Medium	Low
Industrial	Low	Low	Medium	Low	Medium	Low

High Medium Low



What are the risks?

SpectorSoft study suggests that 37% of data attacks in the real estate sector are perpetrated through insiders.¹



Theft of PII and other sensitive information

Intrusion of treasury management transactions

Attack on tenants through building systems

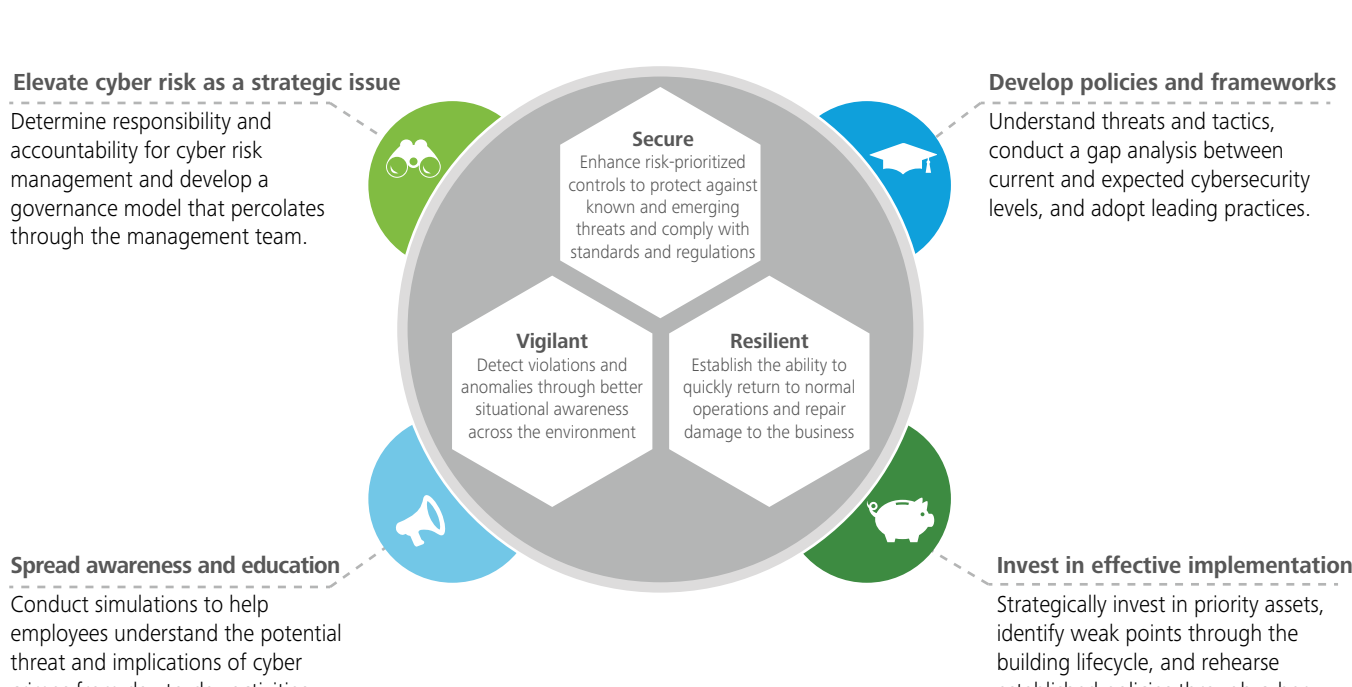
Damage to physical infrastructure

Organized criminals and/or insiders

A secure, vigilant, and resilient cyber risk management plan

Companies may be unprepared for attacks because in general, system control and integrity may take priority over data protection. To prepare, CRE companies will need to consider a targeted and multipronged approach to manager cyber risk.

Cyber risk management strategy



¹ "SpectorSoft 2014 Insider Threat Survey," spectorsoft.com. This infographic is based on the Deloitte Center for Financial Services report "Evolving cyber risk in commercial real estate: What you don't know can hurt you." For the full report, please visit <http://www2.deloitte.com/us/en/pages/real-estate/articles/evolving-cyber-risk-in-commercial-real-estate.html>.



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