Section 2: Week 5: Appraise Risk Analysis, Frameworks, and Models

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# Appraise Risk Analysis, Frameworks, and Models

Hi-Tech Manufacturing (HTM) operates electronic car assemblies plants across North America, Europe, and Asia. Their proprietary technologies provide a strategic advantage that international competitors desire to acquire. Since HTM has been unwilling to license these solutions, the business continuously fights forced acquisition across many battlefields. These arenas include targeted attacks against employees, social media smear campaigns, malicious assaults against the digital infrastructure, and espionage attacks against the physical plants. Additionally, internal sources create risks to the institution through a spectrum of malicious and negligent behaviors, such as an employee could interact with malware, and this spreads across the network. Team members might also lack security awareness and training, causing them to misapply safe equipment and processes. Regardless of the origin of the risk, organizations need to ensure their integrity, confidentiality, and availability, or it faces a disruption delivering their mission and objectives. Addressing these challenges requires a risk management framework that iteratively identifies, assesses, and then constrains the blast radius of decisions. Technicians will eventually fat-finger a database command, which controls prevents the cascade and revert the system to the previous state? These scenarios are a matter of ‘when-not-if,’ and choosing to acknowledge these issues upfront allows HTM to choose the battlefield. The approach to handling these concerns needs to a basis within academic and industry best practices. For instance, the Nation Institute of Standards and Technology (NIST) provides standards, such as ISO27000 and the Cybersecurity Framework. NIST’s guidance allows the institution to adopt different risk profiles, so that the implementation is neither too hot nor too cold. After weighing the cost-benefits of acceptable risks, a formal review of those decisions needs to occur on a given cadence, ensuring those decisions are still valid.

# What risks exist to the institution

## Identify critical external and internal influences

## Outline the most important influences

# How to approach these risks

## Appropriate laws

## Standards

## Frameworks

## Theories

# Use an established framework

## Describe practical issues and values