

# **Rail Transit Case Study**

## Title: Attack Tree Modeling Applied to Rail Transit Security

#### **Executive Summary**

The American Public Transportation Association (APTA) is a leader in public transportation. One of APTA's focuses is rail transit, including passenger safety and security.

In 2015, APTA published a white paper with the approval of its Control and Communications Security Working Group. The paper describes an attack modeling process for examining security issues in new rail systems or during major upgrades.

https://www.apta.com/wp-content/uploads/Standards\_Documents/APTA-SS-CCS-003-15.pdf

The paper not only provides guidance to project implementers but also suggests that system integrators and vendors should also follow its recommendations. Amenaza's Secur/Tree<sup>®</sup> software and methodology were used in the study<sup>1</sup>. The paper includes the case study of a transit agency in the northeastern United States.

## Amenaza's Approach

Many industries have their own hostile risk assessment methodologies. In fact, a U.S. research group found over one hundred threat-risk methodologies in existence. However, they noted that virtually all of these methodologies shared fundamental principles. They all need to evaluate both the likelihoods and projected impacts of possible attacks. And, almost without exception, the methodologies provide no guidance as to how attack likelihood should be determined.

The APTA white paper illustrates how Amenaza's methodology, consulting skills and software tools are applicable to a wide variety of fields. Whether in conventional IT, rail control, aerospace or medical devices, Amenaza's methodology is the gold standard of hostile risk assessment processes.

# Why It Matters

Rail transit operators are now aware of a cutting edge approach to evaluating threats – especially cyber threats – to their rail systems. Partnering with Amenaza Technologies will help them ensure safe, secure rail travel for passengers.

<sup>1</sup> Amenaza's Secur*IT*ree software was licensed by the authors of the study and Amenaza acknowledged in the paper's references.



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