

# HIGHWAY CYBERSECURITY FUNDAMENTALS



## Audience

A great benefit for transportation operators and owners including: Engineers, Technical Managers, ITS Professionals & those who are involved in ITS infrastructure security, decision making and implementation.

## HCSF Training

1. **Read Ahead & Quiz:** the intent of the Read Ahead is to expose each participant to a wealth of information that will provide a solid knowledge-base and foundation specific to Highway Infrastructure Cyber Security. The Quiz is basically a review of the Read Ahead and is intended to reinforce definitions and concepts; a passing grade of 70% is required to attend the workshop.
2. **Introduction & Scanning the Perimeter – Breaching the Network.** (Module 1)
3. **Network Discovery & Mapping.** (Module 2)
4. **Exploitation & Egress.** (Module 3)
5. **Defense in Depth.** (Module 4)
6. **NIST Cyber Security Framework Overview.** (Module 5)
7. **Compendium of Resources & References.** (Module 6)

## Overview

Concerns about cybersecurity for the type of control systems used in ITS and traffic management deployments are related to both current technologies as well as legacy systems, coupled with the growing trend to integrate ITS deployments with other networks. Another dimension of cybersecurity involves the reliable and trustworthy operation of these transportation management systems. As the transportation infrastructure is operated in a more active manner, it becomes important that the ITS components and processes are dependable, resilient, authenticated and used appropriately. When it comes to securing your enterprise, there is no single technology that is going to solve all your security issues. However, by implementing defense-in-depth strategy that includes multiple risk-reducing measures, you can go a long way toward securing your enterprise.

## Learning Objectives

At the conclusion of this training you will:

- Be able to identify potential threats to ITS infrastructure, networks, operations, data and personnel.
- Have a better awareness of cyber security fundamental concepts and strategies.
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