PER-418
Network Traffic Analysis

No Cost Cybersecurity Training

24 Hours. Instructor-Led

An introductory course to teach network traffic analysis over three days.

This National Cybersecurity Preparedness Consortium (NCPC) training course is developed and delivered by the Criminal Justice Institute at the University of Arkansas System.

October 27-29 2025
Class starts at 8:00 am
Location of Training:
South Central Service Coop
Conference Center
2075 Lookout Drive
North Mankato, MN, 56003
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Course Description

Network Traffic Analysis (NTA) uses a blended learning approach to prepare first responders to effectively and efficiently act to counter network vector attacks against our nation's internet, communications and network-based infrastructure.

Students will be introduced to a wide variety of network traffice analysis information and methods including, but not limited to:

(1) Define the normal and malicious uses of network protocols within both the TCP/IP and OSI protocol stack.
(2) Using packet analysis and custom packet-crafting tools to understand communication and interoperability for functions of transport layer protocols; for functions of IPv4 and IPv6 network layer protocols; and for functions of ICMPv4 and ICMPv6 network layer protocols.
(3) Using packet analysis and custom packet-crafting tools to understand the function and security concerns involved in packet fragmentation and reassembly processes.

Target Audience

This course was developed for technical personnel and technical managers within the public and private sectors affiliated with an agency or organization considered as part of the nation's critical infrastructure.

Prerequisites

Designed as a progressive instruction class, this course material covers in-depth concepts that move from an intermediate to advanced level. This is a hands-on course where specific network and security knowledge and experience are required. A minimum of three years' experience as a system/network administrator or as a cybersecurity professional is required.

Required Materials

The exercises in this course immerse students in real-world Network Traffic Analysis examples. Students should bring a laptop computer to class to access the hands-on exercises. Additional information will be provided before the course date about the laptop requirement.