

Understanding and Preventing Attacks at Layer 2 of the OSI Reference Model

Louis Senécal

Security Consulting Systems Engineer, Cisco Systems Canada

This session focuses on the security issues surrounding Layer 2, the data-link layer. With a significant percentage of network attacks originating inside the corporate firewall, exploring this soft underbelly of data networking is critical for any secure network design. Security issues addressed in this session include ARP spoofing, MAC flooding, VLAN hopping, DHCP attacks, and Spanning Tree Protocol concerns. Common myths about Ethernet switch security are confirmed or debunked, and specific security lockdown recommendations are given. Attack mitigation options include the new DHCP snooping and Dynamic ARP Inspection (DAI) functionality. Attendees can expect to learn Layer 2 design considerations from a security perspective and mitigation techniques for Layer 2 attacks.

Bio

Louis Senécal is a Certified Cisco Instructor and a dual Cisco Certified Internetworking Expert (CCIE-R/S and CCIE-Security) with over 18 years of successful experience as a Consultant/Instructor and System Engineer. An extensive educational background, specifically, MBA, Master of Science in Computer Science and Bachelor of Engineering have enabled Louis to develop a career in the telecommunications field and internetworking security. Louis' security telecommunication background includes work experience with RCMP, CSE and the Bank of Canada. His reputation as an Internetworking Security Expert has resulted in assignments to deliver presentation across Canada and in the US.