

DEF CON 24 DEMO: Double Tagging VLAN Hopping Attack Against the Microsoft Server 2012 Hyper-V Cisco Nexus 1000v Virtual Network Using One Physical Switch

This post demonstrates the effects of using a double tagging VLAN hopping attack to send an ICMP packet to a virtual machine located on a separate VLAN than the physical attacking system. In this scenario the attacker is using a physical Kali 2.0 system connected to a native vlan access port on a Cisco 2950 switch and targeting a virtual machine located on a separate VLAN within the Microsoft Server 2012 Hyper-V hypervisor environment using the Cisco Nexus 1000v virtual network switch.

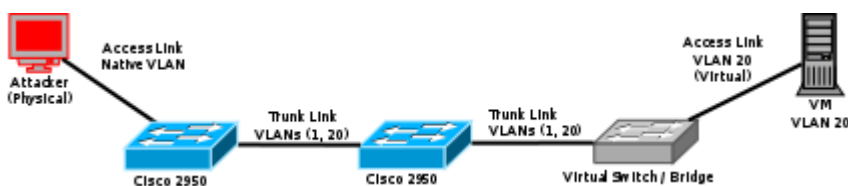
This experiment was performed on seven different hypervisor/virtual network configurations in order to perform a systematic evaluation of the effects across all of the major enterprise level virtualization platforms. The following network diagram illustrates the configuration used for each of the experiments:



The following video walks through the attack process and results.

DEF CON 24 DEMO: Double Tagging VLAN Hopping Attack Against the Proxmox Virtual Network Using Two Physical Switches

This post demonstrates the effects of running a Double Tagging VLAN Hopping attack against the ProxMox hypervisor environment. In this scenario there are two Cisco 2950 switches in between the attacker and the virtual network. The experiment was performed on seven different hypervisor/virtual network configurations in order to perform a systematic evaluation of the effects across all of the major enterprise level virtualization platforms. The following network diagram illustrates the configuration used for each of the experiments:



The following video walks through the attack process and results against a virtual machine hosted within the ProxMox hypervisor environment.

DEF CON 24 DEMO: Switch Spoofing Attack Against a Cisco 2950 Switch from the VMWare ESXi 6.0 Hypervisor Environment

This post includes a demo video which illustrates the effects of a Switch Spoofing attack launched from within a virtualized networking environment. The experiment was performed on seven different hypervisor/virtual network configurations in order to perform a systematic evaluation of the effects across all of the major enterprise level virtualization platforms. The following network diagram illustrates the configuration used for each of the experiments:



The following video walks through the attack and results under VMWare ESXi 6.0 using the standard ESXi virtual switch.