CCNA Security Syllabus

NETWORK SECURITY - BASICS
NETWORK SECURITY ATTACKS & MITIGATION
THREAT DEFENSE TECHNOLOGIES & SECURITY DEVICES - OVERVIEW
CCNA SECURITY - LAB SETUP
CCNP ROUTERS - LAB SETUP
HOW TO INSTALL AND USE GNS3
How to add Cisco ASA 8.4(2) or ASA 9. J (5) to GNS3
NETWORK INFRASTRUCTION PROTECTION - DEVICE PLANES
LAB: Securing the Router for Administrative Access
SECURE SHELL - SSH
LAB: Secure Shell (SSH)
RESTRICT TELNET ACCESS
LAB : Restricting Telnet Access to the Router to Specified Networks or Hosts.
AAA - OVERVIEW.
LAB: AAA AUTHENTICATION USING LOCAL DATABASE
AAA using EXTERNAL SERVERS
LAB: AAA AUTHENTICATION USING TACACS+
AAA - AUTHORIZATION
LAB : USER ACCOUNTS AND PRIVILEGE LEVELS
ROLE BASED ACCESS CONTROL
LAB : ROLE BASED ACCESS CONTROL (VIEWS)
NETWORK & DEVICE LOGGING
LOGGING ON CISCO ROUTERS.
NETWORK TIME PROTOCOL
LAB :NETWORK TIME PROTOCOL
SIMPLE NETWORK MANAGEMENT PROTOCOL
CONTROL PLANE SECURITY
LAB RIPv2 AUTHENTICATION
L A B : EIGRP AUTHENTICATION
LAB : OSPF AUTHENTICATION (Interface level)
CONTROL PLANE POLICING
LAB : CONTROL PLANE POLICING
FIREWALLS - OVERVIEW
CISCO ASA FIREWALL
MANAGING CISCO ASA FIREWALL
LAB: Basic ASA Configuration
LAB: ASA BASIC INTERFACE CONFIGURATIONS.
ASA - ROUTING
ASA -Static & Default Routing
LAB: ASA Routing using RIPv2
LAB: ASA Routing using EIGRP
LAB: ASA Routing - OSPF
LAB: Redistribution
ASA - ACCESS CONTROL LIST
LAB: ASA Security policies & ACL :

ACL OBJECTGROUP
LAB: ACL & object groups
LAB: Remote Access of ASA
NETWORK ADDRESS TRANSLATION
LAB: NAT (Dynamic NAT / PAT)
LAB: Dynamic NAT/PAT combination:
LAB: Static NAT:
LAB: STATIC PAT:
IOS ZONE BASED POLICY FIREWALL
LAB: ZONE BASED FIREWALL
LAYER 2 SECURITY
VLAN HOPPING ATTACKS (NATIVE VLAN , DTP CONCEPTS)
LAB: VERIFYING DTP
CISCO DISCOVERY PROTOCOL
LAB: VERIFY CDP
SPANNING-TREE PORTFAST
LAB: STP PORT FAST:
BPDU GUARD & BPDU FILTER
LAB: BPDU Guard:
LAB: BPDU filter (interface level)
LAB : ROOT GUARD
MAC FLOODING & MAC SPOOFING ATTACKS- PORT SECURITY
LAB : PORT-SECURITY.
DHCP SPOOFING - DHCP SNOOPING
LAB : DHCP Snooping :
ARP SPOOFING - DYNAMIC ARP INSPECTION
LAB : Dynamic ARP inspection:
PROTECTED PORTS - PRIVATE VLAN EDGE
PRIVATE VLAN
LAB: PRIVATE VLAN
CRYPTOGRAPHY - CONCEPTS
WHAT ARE HASHING ALGORITHMS ?
WHAT ARE ENCRYPTION ALGORIHTMS ?
CRYPATANALYSIS - OVERVIEW.
PUBLIC KEY INFRASTRUCTURE
VPN - INTRODUCTION
IPSEC - OVERVIEW .
IPSEC VPN -CONFIGURATION - PHASES
LAB : IPsec Site-Site VPN
REMOTE ACCESS VPN
WHAT IS SSL/TLS ?
IDENTITY MANAGEMENT - DEVICE ACCESS -
INTRUSION PREVENTION SYSTEM - IPS
CONTENT SECURITY - WSA , ESA OVERVIEW