THE ULTIMATE CERTIFICATION FOR NETWORK ADMINISTRATORS

C|ND Certified Network Defender

IF YOUR IT CREW IS NOT INTO **SECURITY,** YOU JUST WON’T HAVE **SECURITY**

PROTECT - DETECT - RESPOND.

EC-Council

CERTIFIED NETWORK DEFENDER

Course Description

Certified Network Defender (CND) is a vendor-neutral, hands-on, instructor-led comprehensive network security certification training program. It is a skills-based, lab intensive program based on a job-task analysis and cybersecurity education framework presented by the National Initiative of Cybersecurity Education (NICE). The course has also been mapped to global job roles and responsibilities and the Department of Defense (DoD) job roles for system/network administrators. The course is designed and developed after extensive market research and surveys.

The program prepares network administrators on network security technologies and operations to attain Defense-in-Depth network security preparedness. It covers the protect, detect and respond approach to network security. The course contains hands-on labs, based on major network security tools and techniques which will provide network administrators real world expertise on current network security technologies and operations. The study-kit provides you with over 10 GB of network security best practices, assessments and protection tools. The kit also contains templates for various network policies and a large number of white papers for additional learning.

Course Duration: 5 days

Time: 9.00 AM to 5.00 PM

Exam details:

Exam title:
Certified Network Defender (CND)

Exam code:
312-38

Number of questions:
100

Duration:
4 Hours

Availability:
ECCExam

Test Format:
Interactive Multiple Choice Questions

What will you learn?

Student will learn about various network security controls, protocols, and devices

Students will able to troubleshoot their network for various network problems

Student will able identify various threats on organization network

Student will learn how to design and implement various security policies for their organizations

Student will learn the importance of physical security and able to determine and implement various physical security controls for their organizations

Student will able to harden security of various hosts individually in the organization's network

Student will able to choose appropriate firewall solution, topology, and configurations to harden security through firewall

Student will able to determine appropriate location for IDS/IPS sensors, tuning IDS for false positives and false negatives, and configurations to harden security through IDPS technologies

Students will able to implement secure VPN implementation for their organization

Student will able identify various threats to wireless network and learn how to mitigate them

Student will able to monitor and conduct signature analysis to detect various types of attacks and policy violation activities.

Student will able to perform risk assessment, vulnerability assessment/scanning through various scanning tools and generate detailed reports on it

Student will able to identify the critical data, choose appropriate back up method, media and technique to perform successful backup of organization data on regular basis

Student will able to provide first response to the network security incident and assist IRT team and forensics investigation team in dealing with an incident.

Why Certified Network Defender?

Organizational focus on cyber defense is more important than ever as cyber breaches have a far greater financial impact and can cause broad reputational damage.

Despite best efforts to prevent breaches, many organizations are still being compromised. Therefore organizations must have, as part of their defense mechanisms, trained network engineers who are focused on protecting, detecting, and responding to the threats on their networks.

Network administrators spends a lot of time with **network environments,** and are familiar with network components, traffic, performance and utilization, network topology, location of each system, security policy, etc.

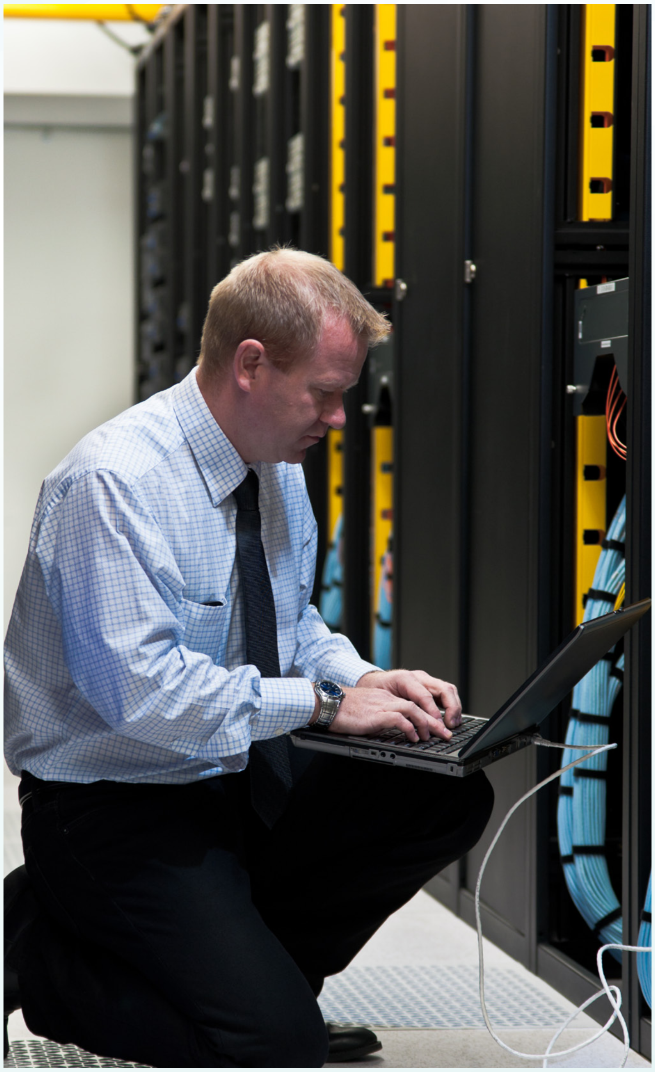
So, organizations can be much better in defending themselves from vicious attacks if the IT and network administrators equipped with adequate network security skills .Thus Network administrator can play a significant role in network defense and become first line of defense for any organizations.

> ***"While there will be over 1.5 million cyber security jobs that remain unfilled by 2019, millions of IT and Network administrators remain untrained on network defense techniques"***
>
> ***- Michael Brown, CEO at Symantec,***
> ***the world's largest security software vendor.***

There is no proper tactical network security training that is made available for network administrators which provides them core network security skills.

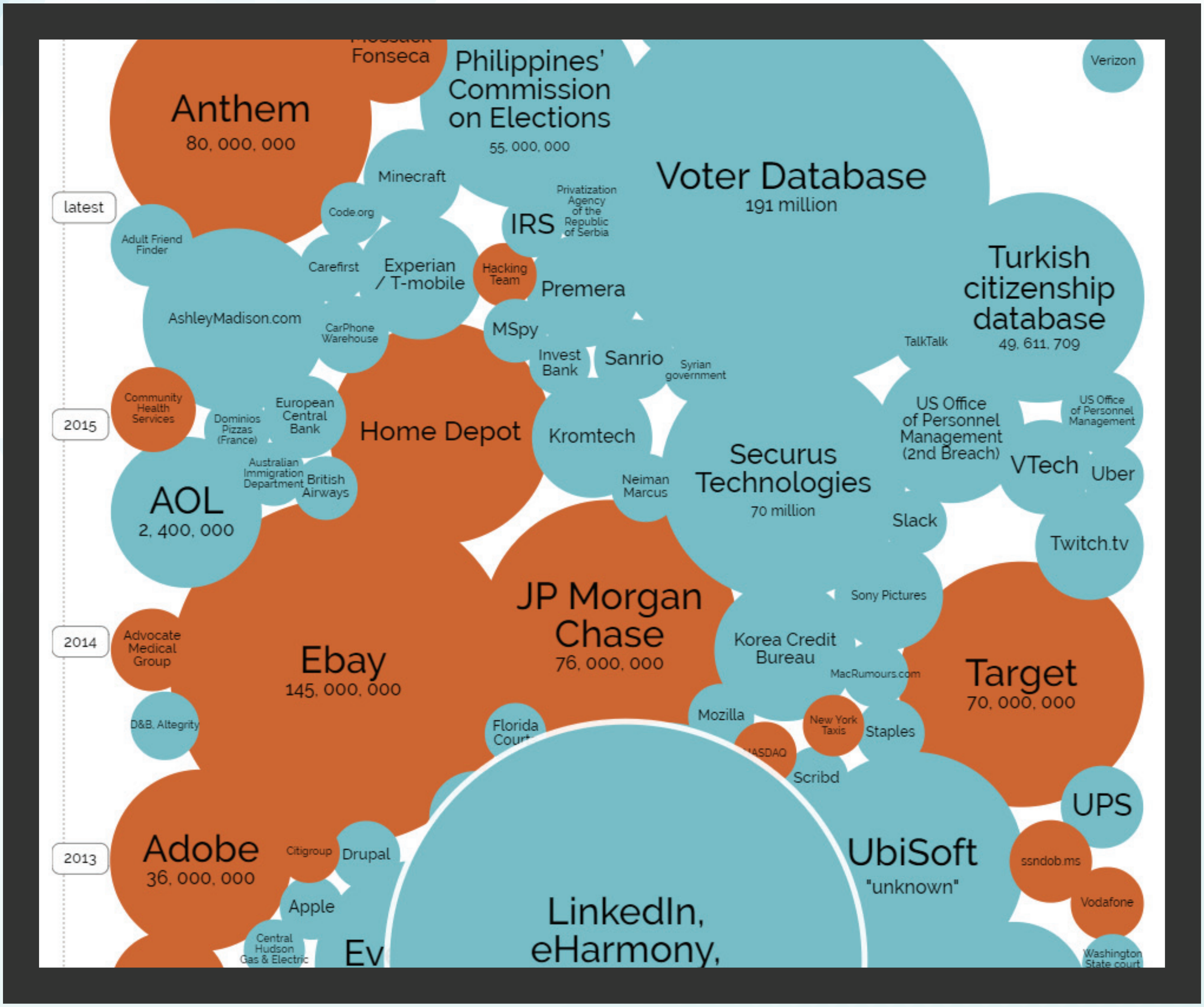
Students enrolled in the Certified Network Defender course, will gain a detailed understanding and hands on ability to function in real life situations involving network defense. They will gain the technical depth required to actively design a secure network in your organization. This program will be akin to learning math instead of just using a calculator. This course gives you the fundamental understanding of the true construct of data transfer, network technologies, software technologies so that you understand how networks operate, understand what software is automating and how to analyze the subject material.

You will learn how to protect, detect and respond to the network attacks. You will learn network defense fundamentals, the application of network security controls, protocols, perimeter appliances, secure IDS, VPN and firewall configuration. You will then learn the intricacies of network traffic signature, analysis and vulnerability scanning which will help you when you design greater network security policies and successful incident response plans. These skills will help you foster resiliency and continuity of operations during attacks.



> ***"Cyber Security is commonly the first thing on the minds of CIO but is, in many cases, an after thought for the IT department"***
>
> ***- Jay Bavisi***
> ***President, EC-Council***

World's Biggest Data Breaches



Research by Miriam Quick, Ella Hollowood, Christian Miles, Dan Hampson

Source: http://www.informationisbeautiful.net/visualizations/worlds-biggest-data-breaches-hacks/

What are the Domains of CND?

Module 01	Computer Network and Defense Fundamentals
Module 02	Network Security Threats, Vulnerabilities, and Attacks
Module 03	Network Security Controls, Protocols, and Devices
Module 04	Network Security Policy Design and Implementation
Module 05	Physical Security
Module 06	Host Security
Module 07	Secure Firewall Configuration and Management
Module 08	Secure IDS Configuration and Management
Module 09	Secure VPN Configuration and Management
Module 10	Wireless Network Defense
Module 11	Network Traffic Monitoring and Analysis
Module 12	Network Risk and Vulnerability Management
Module 13	Data Backup and Recovery
Module 14	Network Incident Response and Management

Who Is It For?

Network Administrators

Network security Administrators

Network Security Engineer

Network Defense Technicians

CND Analyst

Security Analyst

Security Operator

Anyone who involves in network operations

What job roles would need the CND specific skills?

MAPPING SUMMARY

I/A Framework Categories	I/A Framework Specialty Areas	EC-Council Certification	Estimated Framework Proficiency Level Match (1-4)	C3 Relation Category
Securely Provision				
Specialty areas responsible for conceptualizing, designing, and building secure information technology (IT) systems	**Information Assurance (IA) Compliance**	**CND**	**2**	**Related**
	Software Assurance and Security Engineering	**ECSP**	**2**	**Related**
	Systems Security Architecture	**CND**	**3**	**Related**
	Technology Research and Development	**CND**	**3**	**Related**
	System Requirements Planning	**CND**	**2**	**Related**
	Test and Evaluation	**CND**	**3**	**Related**
	Systems Development	**CND**	**2**	**Related**
Operate & Maintain				
Specialty areas responsible for providing support, administration, and maintenance necessary to ensure effective and efficient information technology (IT) system performance and security.	**Data Administration**	**N/A**		
	Knowledge Management	**N/A**		
	Customer Service and Technical Support	**CND**	**3**	**Specialist**
	Network Services	**CND**	**3**	**Related**
	System Administration	**CND**	**3**	**Specialist**
	Systems Security Analysis	**CND**	**3**	**Specialist**

I/A Framework Categories	I/A Framework Specialty Areas	EC-Council Certification	Estimated Framework Proficiency Level Match (1-4)	C3 Relation Category
Protect and Defend				
Specialty areas responsible for identification, analysis, and mitigation of threats to internal information technology (IT) systems or networks.	**Computer Network Defense (CND) Analysis**	**CEH**	**2**	**Related**
	Incident Response	**ECIH**	**3**	**Related**
	Computer Network Defense (CND) Infrastructure Support	**CND**	**3**	**Specialist**
	Vulnerability Assessment and Management	**ECSA/LPT**	**3**	**Specialist**
Investigate				
Specialty areas responsible for investigation of cyber events and/or crimes of information technology (IT) systems, networks, and digital evidence.	**Investigation**	**CHFI**	**4**	**Specialist**
	Digital Forensics	**CHFI**	**3**	**Specialist**
Collect and Operate				
Specialty areas responsible for specialized denial and deception operations and collection of cybersecurity information that may be used to develop intelligence.	**Collection Operations**	**ECSA/LPT**	**2**	**Related**
	Cyber Operations Planning	**CND**	**3**	**Specialist**
	Cyber Operations	**ECSA/LPT**	**3**	**Specialist**

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Analyze				
Specialty areas responsible for highly specialized review and evaluation of incoming cybersecurity information to determine its usefulness for intelligence.	**Threat Analysis**	**ECSA/LPT**	**3**	**Specialist**
	Exploitation Analysis	**CHFI**	**3**	**Specialist**
	Targets	**ECSA/LPT**	**2**	**Related**
	All Source Intelligence	**ECSA/LPT**	**2**	**Related**
Oversight and Development				
Specialty areas providing leadership, management, direction, and/or development and advocacy so that individuals and organizations may effectively conduct cybersecurity work.	**Legal Advice and Advocacy**	**CCISO**	**3**	**Specialist**
	Education and Training	**CEI**	**3**	**Related**
	Strategic Planning and Policy Development	**CCISO**	**3**	**Specialist**
	Information Systems Security Operations (ISSO)	**CCISO**	**4**	**Specialist**
	Security Program Management (CISO)	**CCISO**	**3**	**Related**

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