

Penetration Testing

12

Certified
Ethical Hackers

122

Pentest projects per
year

180+

Apps security testing
projects completed

Our Customers are brands you know and consume daily



Top Clients 12

Certified
Ethical Hackers

120

Pentest projects per
year

280

Apps security testing
projects completes

BILL & MELINDA
GATES *foundation*



Volkswagen

MIO

McKinsey Investment Office

KARSTADT

betsson group

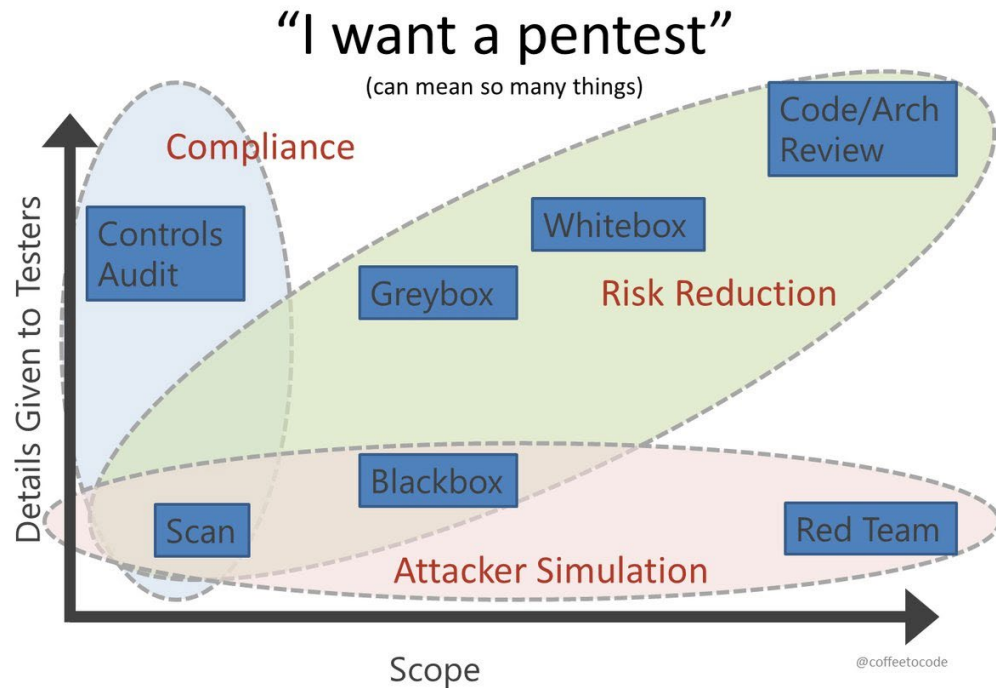
CASCADE
INVESTMENT GROUP, INC.

What is Penetration Testing

Penetration Test (other words - Ethical hacking) is a **simulation of a real world cyber attack**. Our goal during the project is to discover the weaknesses and **prevent risks of A POTENTIAL INTRUSION**

During the test we can find weaknesses in services and exploit them, access and exfiltrate sensitive data, discover gaps in network security and flaws in code.

We do everything the real hacker does, but with good intentions



Penetration Testing

Find vulnerabilities in your systems before the hackers use them against you

Types of a penetration test we provide

Network – External or Internal

Web Application

Mobile Application

Hack your THINGS

IoT, Cars, 5G, SCADA,
Robots

Social Engineering

Wireless Network

Red Team Attack Simulation

Benefits:

Pay for result

Fast & Innovative

Security Guarantee

Business risks mitigated

- Full web application compromise
- Admins accounts compromise
- Users accounts compromise
- Full infrastructure compromise

Financial loss



10 000 000 €

Reputational damage



Data loss



Loss of clients' trust



Why Perform a Penetration Testing

Technical Reasons:

1. To get true knowledge about the real state of Security and secure your sensitive information
2. Learn your defense capability, check holes in the infrastructure, understand how secure you are to prevent data leakage or operations block:
 - Identify all application-related vulnerabilities of measurable risk
 - Design, Business Logic and compound flaw risks identification
 - Diagnosis of network vulnerabilities from an external hacker perspective
- 3 To check intrusion detection and incident response

Business Reasons:

1. Increase value and attract more customers, you differentiate by having security autestation
2. To obtain compliance
3. Penetration testing report that can be shared with any client on their request as proof of passing compliance or security audit.

Penetration Testing Methods

We distinguish the Pen Tests classification by the level of access permission and divide it by three main methods.

Black Box:

The full simulation of external cyberattack, when we are simply given the link for a domain or application environment and try to penetrate the company.

Grey Box

(most common) when we already have some minimum access (f.e.: accounts created for our pentesters or system documentation) and try to discover the holes in the security system.

White Box:

insider threat simulation, when we have the full internal vision of system and its functionality (this may also include source code review for product)

Vulnerability scan vs. Penetration Test

Scanners - Cannot THINK....

Looking for known, defined and predictable patterns

Scanners create an Illusion of SAFETY

Manual pentest searches for:

- Logical defects
- Rights separation
- Complex attack vectors
- Defects in architecture and design
- Real Cryptography level

UnderDefense MPT is designed to complement and extend an automated assessment

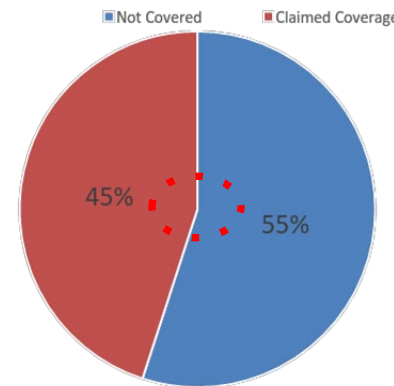
Manual penetration testing adds **the benefit of specialized human expertise** to our automated static and dynamic analysis — and it **simulation of the same methodology cyber-criminals use to exploit application weaknesses such as business logic vulnerabilities.**

The goal of such testing is to determine the potential for an attacker to successfully access and perform a variety of malicious activities by exploiting vulnerabilities, either previously known or unknown, in the software.

Tools - At Best 12%

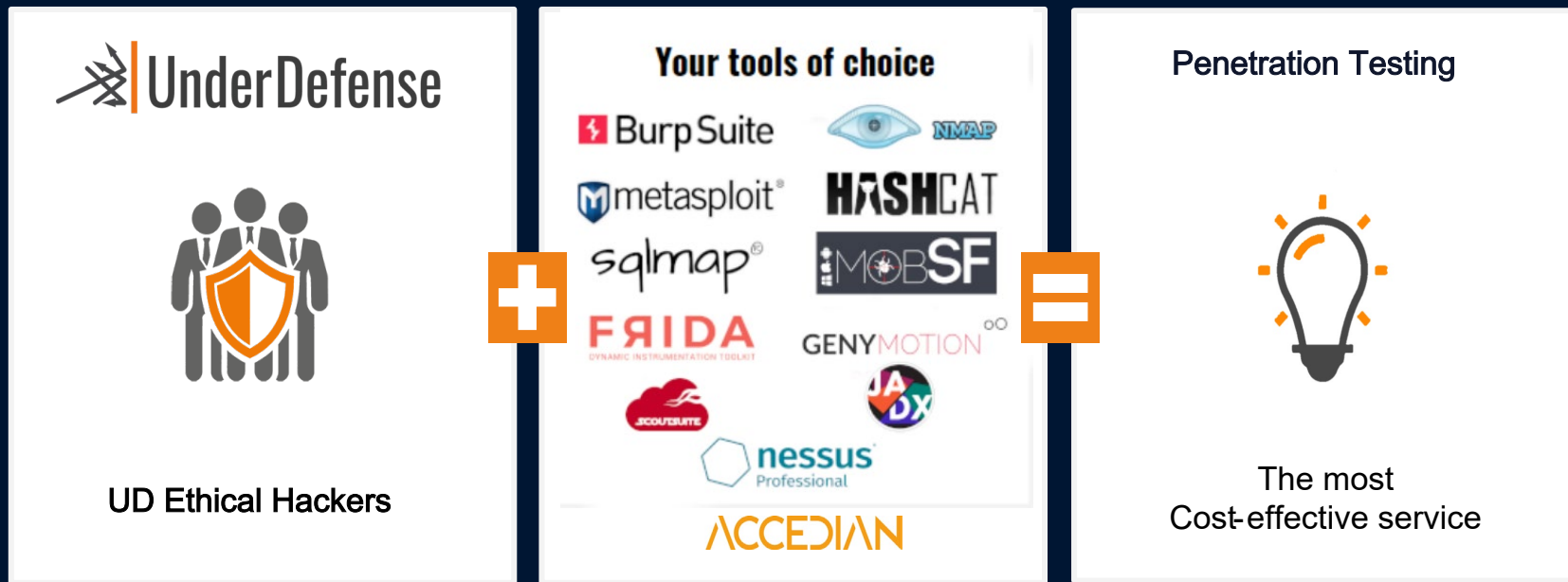
- MITRE found that all application security tool vendors' claims put **together** cover only 45% of the known vulnerability types (695)
- Based on this new data from the CSA at the NSA, **SAST has 12% vulnerability coverage**

Ability of Security Tools to identify real vulnerability



Penetration Testing Service

We do everything the real hacker does, but with good intentions.

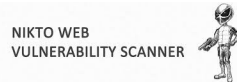
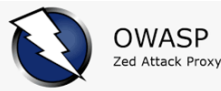


Benefits:

- Hacking ethically
- Training Blue Team
- Uncovering security gaps
- Collaborate on resilience

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LIST of TOOLS:



,Kali Linux, OpenVAS, Acunetix, Qualys, WireShark, Nmap, hping3, socat, scapy, Firefox, ike-scan, whois, BeEF framework, Metasploit, PortSwinger Burpsuite PRO, Google, Cain &Abel, Maltego, Paterva, Colasoft Packet Builder, Fiddler, Mantra Security Framework, SAINT, Vega, WebScarab, Xenotix, John the Ripper, Colasoft Capsa Network Analyzer, OWASP Zed Attack Proxy (ZAP), Nikto Web Scanner, THC-Hydra, w3af, SQLmap, Karma, Kismet, NetStumbler, VisualCodeGrepper (VCG), onlinehashcrack.com, sslstrip, Pineapple, Reaver, reaver-wps-fork-t6x, Flawfinder, RATS, FindBugs, CodePro Analytix, PMD, Graudit, wpscan.

Methodologies used for Penetration Testing



Penetration Testing Execution Standard



OWASP Testing Guide



Open Source Security Testing Methodology Manual



Information Systems Security Assessment Framework



A Web Application Hacker's Methodology (WAHH)



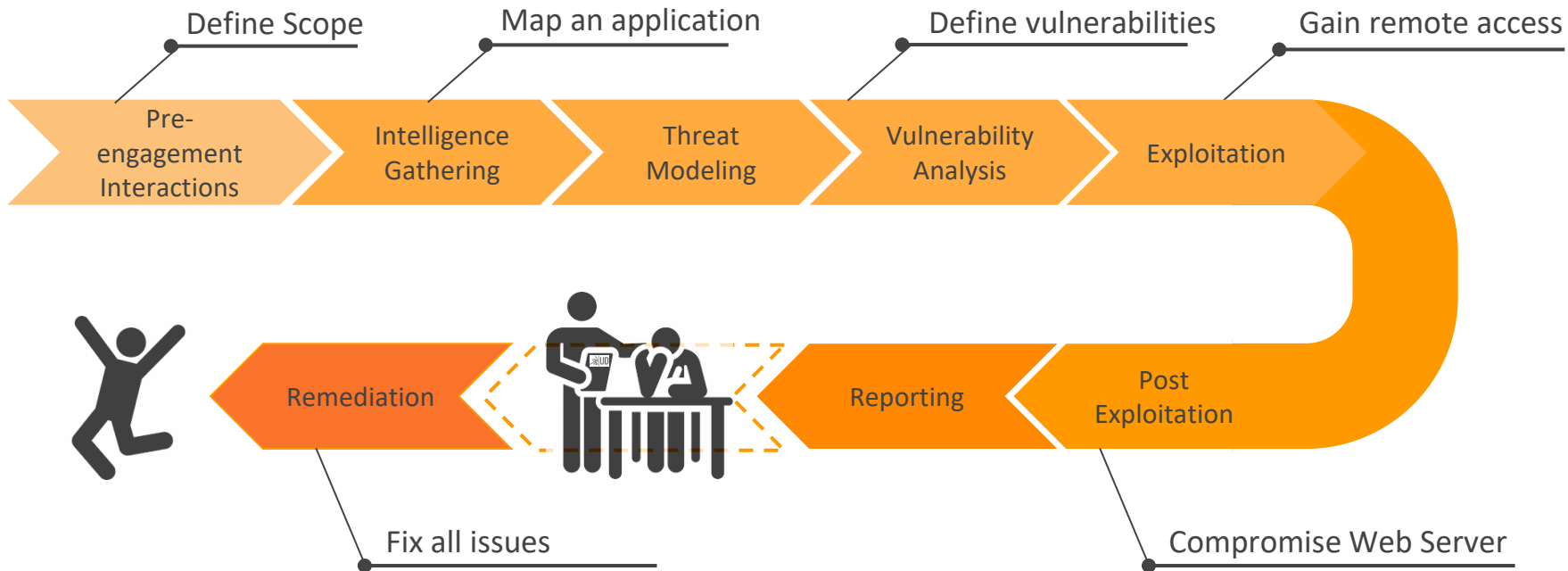
SANS 25 Security Threats

SCOPE

The stated objectives of this penetration test are:

- Circumvent authentication and authorization mechanisms
- Escalate user privileges
- Hijack accounts belonging to other users
- Violate access controls placed by the administrator
- Alter data or data presentation
- Corrupt application and data integrity, functionality and performance
- Circumvent application business logic
- Circumvent application session management
- Break or analyze use of cryptography within user accessible components

Project Planning and Goals



Penetration Testing at UD

- ★ Detailed technical report, Analysis of vulnerabilities identified during the Penetration Test
- ★ Attack-Defense game for the IT/Security team to let you objectively evaluate current security investment and readiness of the team to face modern threats.
- ★ One-day free remediation test, conducted 2-3 months after the initial test to check how you have improved the system with our recommendations.
- ★ The letter of attestation to present your clients.

Duration:

2-3 weeks

Team composition:

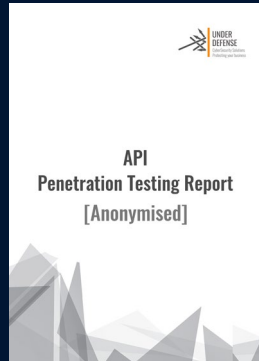
2 CEH Certified
Penetration Testers

The PenTest Report includes:

As a result of our testing, the UnderDefense will prepare detailed work papers documenting the tests performed, a report of UnderDefense findings including recommendations for additional security controls as required.

- ★ The following information will be included in final report:
 - Proofs of successful vulnerability exploitation
 - Vulnerability exploit procedures, references and sources
 - Categorized risks and mitigation strategy
 - UnderDefense recommendations for closing vulnerabilities and technical references
- ★ Presentation for management and video for development team

Case Studies and Additional Materials





Thank you for your trust

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