

Security threats are often classified by their **origin** (who is attacking) and their **method** (how organized the attack is). Understanding these classifications helps organizations determine the necessary defence strategies.

a. External Threats

These threats originate outside the organization's network and are typically launched by individuals or groups without authorized access to internal systems.

- **Origin:** Hackers, organized crime syndicates, rival companies, nation-states, or even natural disasters (though the term usually focuses on human adversaries).
- **Access:** They must exploit vulnerabilities (weak points) to penetrate the network perimeter (e.g., firewall, exposed servers, public-facing applications).
- **Motivation:** Financial gain, espionage, political activism (hacktivism), or military intelligence.
- **Examples:** Phishing attacks targeting employees, Distributed Denial of Service (DDoS) attacks against a public website, and external zero-day exploits.

b. Internal Threats

These threats originate from **within** the organization's network and are carried out by individuals who already have **authorized access** to systems and data.

- **Origin:** Current or former employees, contractors, partners, or vendors who have/had legitimate login credentials and physical access.
- **Motivation:** Can be intentional (e.g., disgruntled employee seeking revenge, espionage for financial gain) or unintentional (e.g., employee negligence, error, or poor security awareness).
- **Danger:** Often considered more dangerous than external threats because the perpetrator **bypasses perimeter defenses** and is already familiar with the network architecture and location of critical data.
- **Examples:** A system administrator abusing their privilege to steal customer data, an employee accidentally emailing sensitive files to a personal account, or a contractor installing unapproved software.

c. Unstructured Threats

This classification relates to the **skill level and planning** of the adversary. Unstructured threats are characterized by a lack of sophistication.

- **Attacker Profile:** Typically **amateurs, novices, or "script kiddies."** They have limited technical knowledge.
- **Methodology:** They rely on **easily available, automated tools** (like shell scripts, public exploits, or password crackers) that require little modification.

- **Targeting:** Attacks are usually **unfocused, random, or opportunistic**. They often don't target a specific organization but rather sweep large ranges of IP addresses looking for simple, well-known vulnerabilities.
- **Motivation:** Often driven by curiosity, notoriety, or minor vandalism rather than high-value financial gain.
- **Prevention Focus:** Can often be prevented by simply keeping software **patched and up-to-date**, and applying basic security configurations.

d. Structured Threats

This classification represents the **most dangerous** and sophisticated type of threat, involving high levels of planning and technical expertise.

- **Attacker Profile:** Highly **skilled, organized, and well-resourced** groups, such as state-sponsored actors, organized crime, or Advanced Persistent Threat (APT) groups.
- **Methodology:** Involves extensive **reconnaissance**, developing **customized exploits**, and using complex tactics, techniques, and procedures (TTPs) over a long period.
- **Targeting:** Attacks are **highly focused** on a specific target (a bank, a government agency, a competitor) to achieve a clear, high-value objective.
- **Motivation:** Corporate espionage, large-scale financial theft, intellectual property theft, or disruption of critical infrastructure.
- **Prevention Focus:** Requires advanced defenses like **Threat Hunting, Security Information and Event Management (SIEM)**, and continuous monitoring to detect subtle anomalies.