

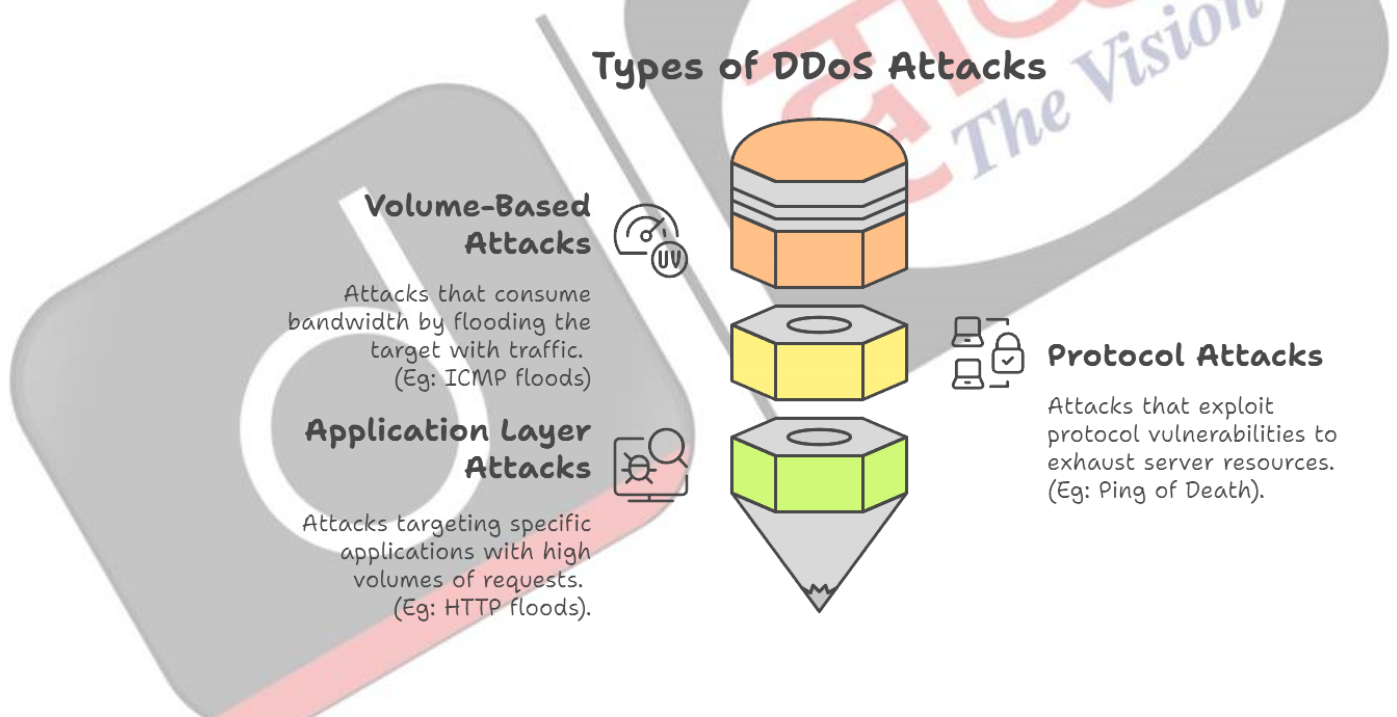


DDoS Cyber-Attack

[Source: TH](#)

Karnataka's Kaveri 2.0 portal that deals with property registration faced severe disruptions due to a **Distributed Denial of Service (DDoS) attack**.

- This overloaded the system with **fake accounts and automated requests**, causing **downtime**.
- **Distributed Denial of Service (DDoS) Attack:**
 - **About: DDoS attack** is a **cyberattack** that **floods** a website or **network with malicious traffic** making it inaccessible.
 - **DDoS attacks** are **large-scale versions of [Denial of Service \(DoS\) attacks](#)** that use **multiple compromised systems (botnets)** instead of a single source to **overload the target**.
 - **Types:**

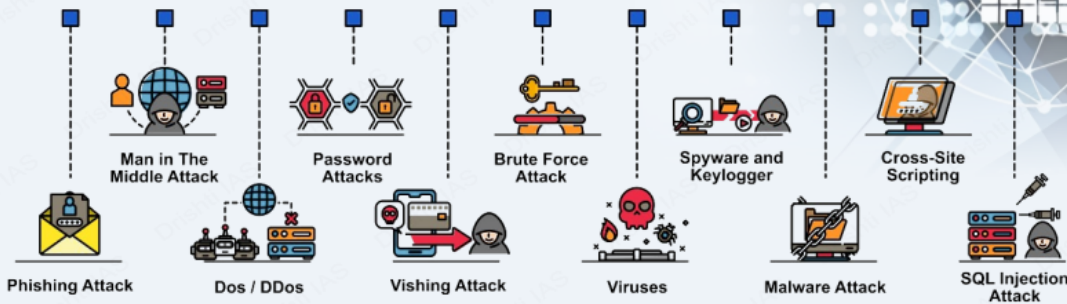


- **Impact:**
 - DDoS attacks **disrupt services, impact revenue**, and expose cybersecurity vulnerabilities, damaging an organization's reputation.
- **Mitigation Strategies**
 - **Traffic filtering, rate limiting, bot detection** (CAPTCHA, behavioral analysis), security audits, incident response plans, and **multi-factor authentication** enhance defense against DDoS attacks.

CYBER SECURITY

Cybersecurity refers to any technology, measure, or practice for preventing cyberattacks or mitigating their impact.

CYBER SECURITY ATTACKS



'Crime in India' Report 2022 (NCRB) highlighted 24.4% surge in cybercrimes in India since 2021.

Common Cybersecurity Myths

- Strong passwords alone are adequate protection
- Major cybersecurity risks are well-known
- All cyberattack vectors are contained
- Cybercriminals don't attack small businesses

Cyber Warfare

- Digital attacks to disrupt vital computer systems, to inflict damage, death, and destruction.

CYBER THREAT ACTORS

CYBER THREAT ACTOR

MOTIVATION

NATION-STATES	Geopolitical
CYBERCRIMINALS	Profit
HACKTIVISTS	Ideological
TERRORIST GROUPS	Ideological Violence
THRILL-SEEKERS	Satisfaction
INSIDER THREATS	Discontent

Types of Cybersecurity

- Critical infrastructure security (Robust access controls)
- Network security (Deploying firewalls)
- Application security (Code reviews)
- Cloud Security (Tokenization)
- Information security (Data masking)

Recent Major Cyber Attacks

- WannaCry Ransomware Attack (2017)
- Cambridge Analytica Data Breach (2018)
- Financial data of 9M+ cardholders, including SBI, leaked (2022)

Regulations & Initiatives

- International:**
 - UN Group of Governmental Experts (GGE) on Advancing Responsible State Behaviour in Cyberspace
 - NATO's Cooperative Cyber Defense Centre of Excellence (CCDCOE)
 - Budapest Convention on Cybercrime, 2001 (India not a signatory)
- India:**
 - IT Act, 2000 (Sections 43, 66, 66B, 66C, 66D)
 - National Cyber Security Policy, 2013
 - National Cyber Security Strategy 2020
 - Cyber Surakshit Bharat Initiative
 - Indian Cyber Crime Coordination Centre (I4C)
 - Computer Emergency Response Team-India (CERT-In)

Steps Needed for Cyber Security

- Network Security
- Malware Protection
- Incident Management
- User Education and Awareness
- Secure Configuration
- Managing User Privileges
- Information Risk Management Regime



Read More: [Denial of Service \(DoS\) Attack](#)

