



Cyber Security

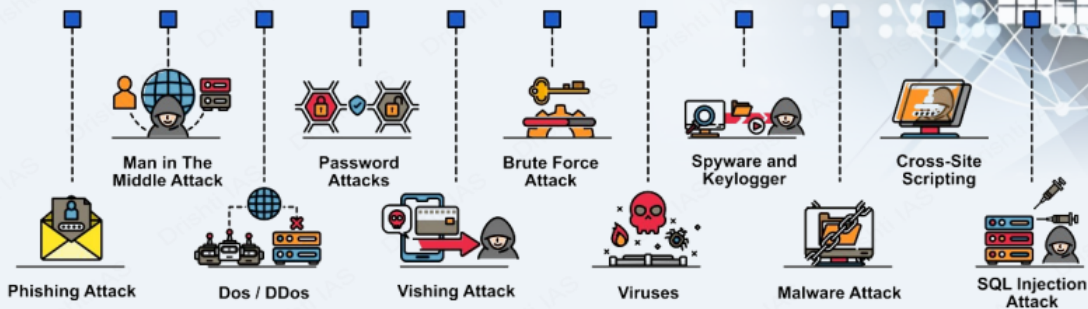
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CYBER SECURITY

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

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