

CONTEMPORARY ISSUES RELATING TO CYBER SPACE AND CYBER SECURITY

Group Captain P Aanand Naidu (Retd)

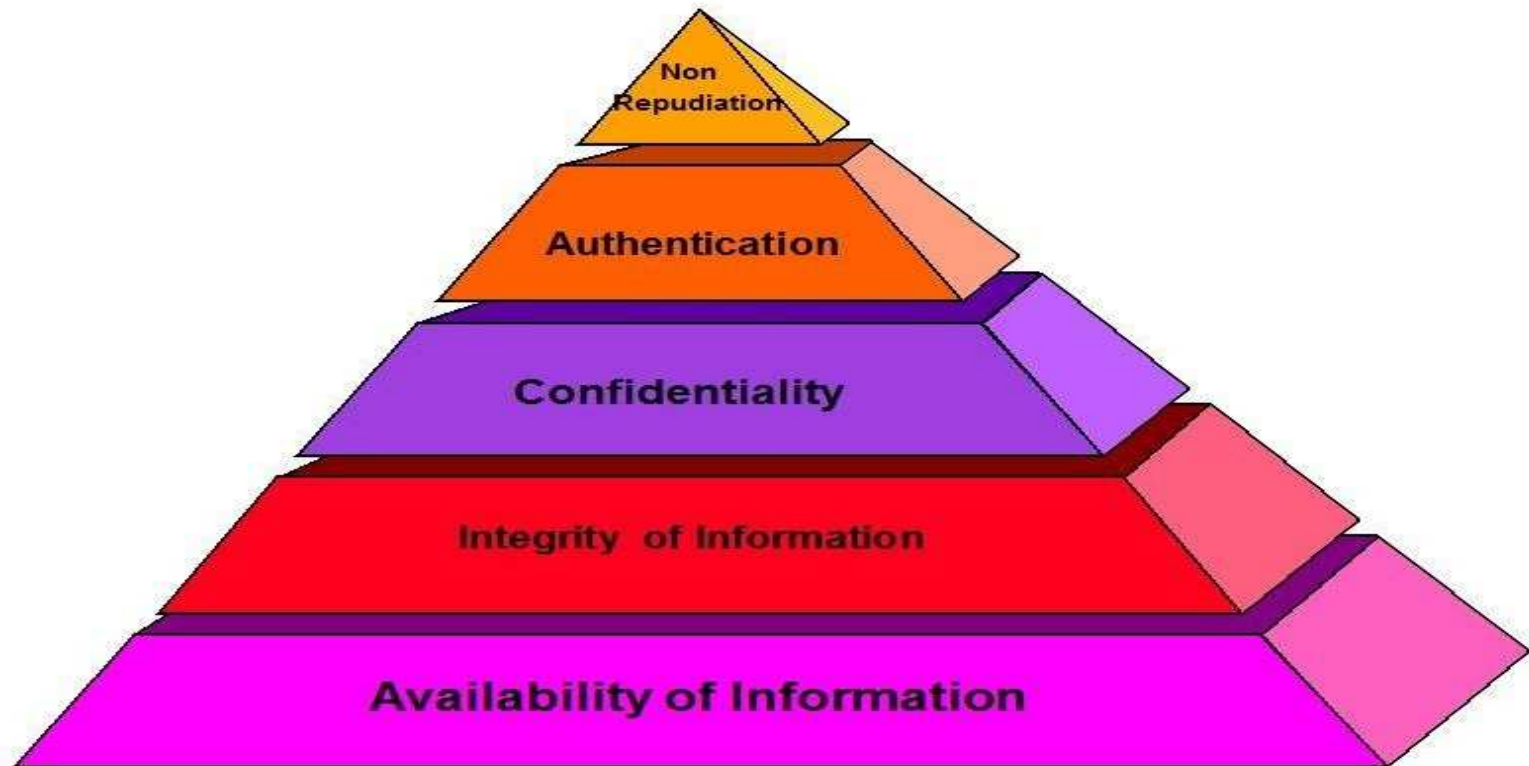


CONCEPT OF DATA PROTECTION

- “Data Protection” as “Protection of Data”
- Evolution of Data Protection Laws:
- Data and Human Experience of Data
- Nature of Binary Data
- The CIA Principle of Data Protection

CONCEPT OF DATA PROTECTION

➤ Prioritization of Information Assurance Principles





PENTAGON MODEL OF DATA SECURITY

- Classification of Personal Data for protection
- Assignment of Responsibilities for Data Protection
- Technical Controls for Managing protection of Personal Data
- Compliance of Data Protection Regulations
- Building a Culture of compliance



FUNDAMENTAL RIGHT TO PRIVACY WOULD COVER AT LEAST THE FOLLOWING THREE ASPECTS

- Right to move freely
- Informational privacy
- The privacy of choice



Privacy is a State of Mind

- Puttaswamy judgment
- Cyber Jurisprudence
- PDPA 2018



TECHNOLOGY TRENDS

- Quantum Computing
- Super Positioning
- Entanglement
- Artificial Intelligence
- Big Data
- Internet of Things (IoT)
- Block-Chain Technology



SOME KEY DATA PROTECTION LEGISLATIONS

- **HIPAA**
 - **Covered Entities**
 - **Administrative Simplification**
 - **Privacy Rule**
 - **Security Rule**
 - **Compliance officials**
 - *Data Breach Notification*
 - **Penalties**
- **GDPR**



SOME KEY DATA PROTECTION LEGISLATIONS

- **GDPR**
 - GDPR in essence
 - Data Subject's Rights
 - Principles of Privacy Protection
 - Responsibilities of the Data Controller/Data Processor
 - Personal Data Protection Act 2018
 - Principles of Privacy Protection
 - Responsibilities of the Data Controller/Data Processor



PERSONAL DATA PROTECTION ACT 2018

- Structure of PDPA 2018
 - 15 chapters and two schedules
 - Schedule I relates to the removal of Section 43A of ITA 2008
 - Chapter XIV relates to the transitional provisions and the time schedule
 - Chapter I contains the preliminary aspects including the definitions
 - Chapters II to XIII contain the other details of the Act
 - GDPR model of fixing penalties for non compliance upto 4% of the global turnover of a company



THE CONCEPT OF DATA FIDUCIARY

- PDPA 2018 is that the Act does not define “Personal Data” as “Property”
- ITA 2000/8
- Personal Data Repository



DATA PRINCIPAL'S RIGHTS

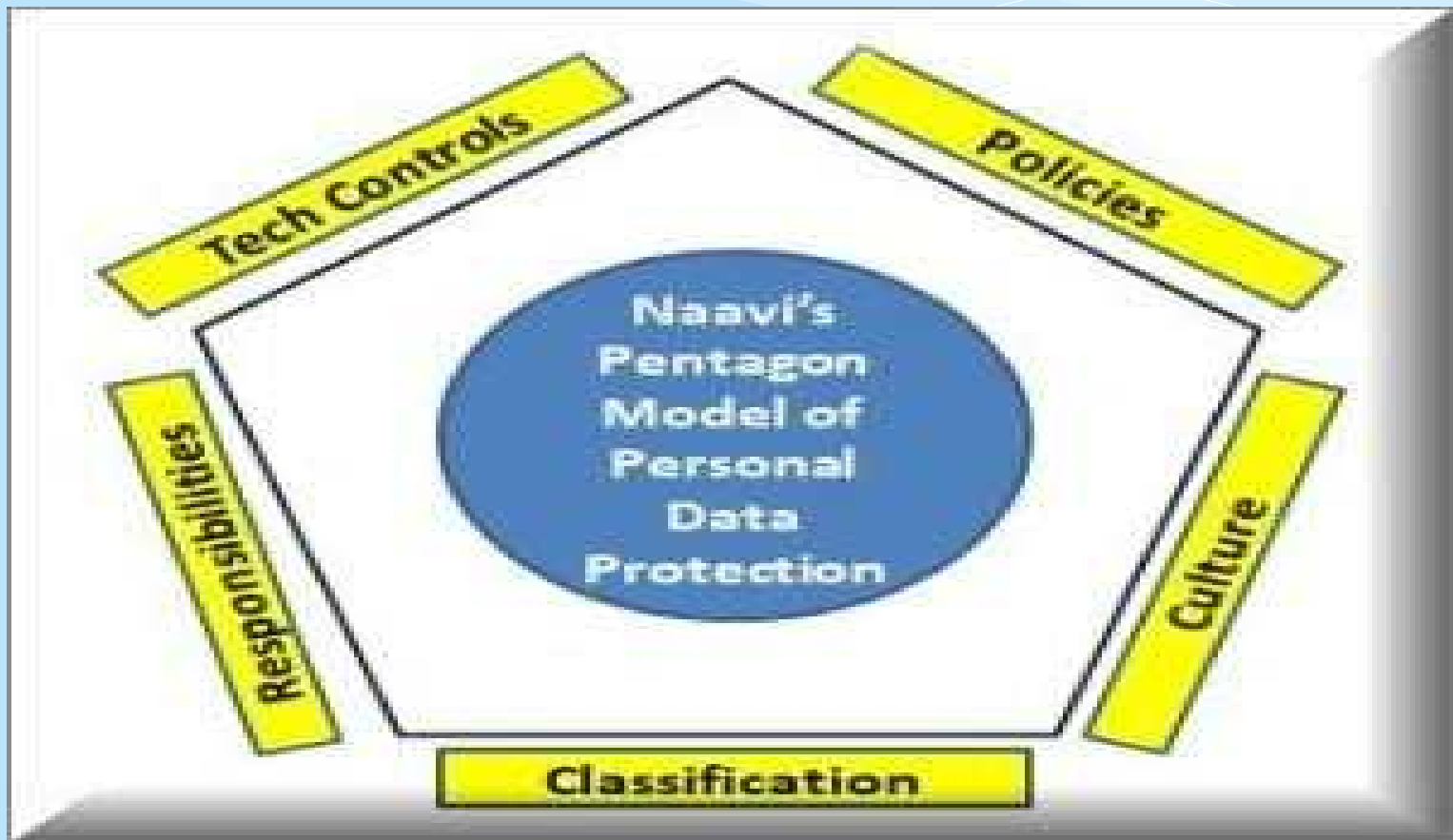
- Right to Confirmation and Access
- Right to Correction
- Right to Data Portability
- Right to be forgotten



REGISTRATION OF FIDUCIARIES

- Registration of Fiduciaries
- Data Audits and Data Trust Score
- Data Protection Officer
- Data Localization
- Data Protection Authority
- Staggered Implementation

PERSONAL DATA PROTECTION STANDARD OF INDIA (PDPSI)





PERSONAL DATA PROTECTION STANDARD OF INDIA (PDPSI)

- Appropriate Classification of Personal Data
- Appropriate Responsibility distribution
- Installing adequate and necessary Technical Controls
- Adopting appropriate Policy Formulations
- Developing a Culture of Privacy Protection.



A GIST OF THIS STANDARD

- Objective
- Implementation Responsibility
- Data Classification
- Technical Controls
- Policy Controls
- Culture of Privacy/Personal Data Protection
- Concluding Remarks



CYBER TORTS

- BIRTH OF INTERNET LITIGATION
- DISTINCTION BETWEEN CONVENTIONAL AND CYBER TORT
- REASON FOR OCCURRENCE OF CYBER TORT
-



MODE AND MANNER OF COMMITTING THE CYBER TORT

- Email bombing
- Data diddling
- Denial of Service attack
- Virus/worm attacks
- Logic bombs
- Trojan attacks
- Internet time thefts
- Web jacking



CYBER CRIMINALS

- Category of cyber criminals
 - Children and adolescents between the age group of 6–18 years
 - Organized hackers
 - Professional hackers/crackers



A BROAD CLASSIFICATION OF CYBER TORT

- Harassment via e-mails
- Cyber-stalking
- Dissemination of obscene material/ Indecent exposure/ Pornography / Polluting through indecent exposure
- Defamation
- Unauthorized control/access over computer system
- E mail spoofing



A BROAD CLASSIFICATION OF CYBER TORT

- Computer vandalism
- Intellectual Property crimes / Distribution of pirated software
- Cyber terrorism against the government organization
- Trafficking
- Fraud & Cheating



DISTINCTION BETWEEN CYBER CRIME AND CYBER TORT

- Ethics and Morality
- Who commits cyber-crimes
 - Insiders
 - Hackers
 - Virus Writers
 - Foreign Intelligence
 - Terrorists



CYBER TERRORISM



TERRORISM AND CYBER TERRORISM

- What is terrorism
- What is cyber terrorism
- CYBER TERRORISM
- Historical perspective of cyber terrorism
- Characteristics of Cyber Terrorism



TERRORISM AND CYBER TERRORISM

- Cyber Terrorist
- Cyber terrorism – an appealing choice
- Cyber Terrorism – Are They Actually a Hazard
- Identifying Cyber Terrorism



FORMS OF CYBER TERRORISM

- Privacy Violation
- Secret information appropriation and data theft
- Demolition of E-Governance Base
- Distributed Denial of Services Attacks
- Network Damage and Disruption



ROLE OF ICT IN ANTI TERROR

- Traditional methods of cyber security
- Use of AI / ML in anti-terrorism
- Amalgamation of technologies facial recognition
- Social media
- OSINT



ROLE OF ICT IN TERRORISM

- Ease of accessibility and reach
- Cost effectiveness
- Ease of re-inforcement
- No substitute for in person meetings
- Influencers/ Ideologists
- Narratives



SOME INCIDENTS OF CYBER TERRORISM

- In 1998, ethnic Tamil guerrillas swamped Sri Lankan
- Kosovo conflict in 1999
- Electronic Disturbance Theater (EDT)



LAW RELATING TO CYBER TERRORISM

- Indian Law and Cyber Terrorism
 - Protection available under the Constitution of India
 - Protection Available under the Other Statues
- Difficulty identifying the attackers
- Possible Effect of Cyber Terrorism



Thank You