Digital Forensics in the Context of Pakistan

Dr. Shahzad Saleem
DSV SU/KTH Sweden
SEECS-NUST
Pakistan
Agenda

• What is Digital Forensics
• Importance of Digital Forensics
• Things to Do in the Context of Pakistan
What is Digital Forensics

- Digital Forensics (Digital Forensic Science) is a branch of Forensic Science dealing with the recovery and investigation of material found in Digital Devices, often in relation to a Digital Crime.
Abstract Digital Forensics Model with 2PasU

Preparation and Planning

Collection

Examination

Analysis

Reporting

Presentation

Archiving and Returning

KTH
Applied Information Security Lab

Department of Computing, School of Electrical Engineering and Computer Sciences, NUST – Islamabad
Importance of Digital Forensics

• ITU Statistics
  • Penetration 7 Billions (Total) 3.6 Billions (Asia & Pacific)
  • Growth Rate 1.5% (Developed Countries) and 3.1% (Developing Countries)

Note: * Estimate
Source: ITU World Telecommunication/ICT Indicators database

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Importance of Digital Forensics

- **ITU Statistics**
  - Active Mobile Broadband Subscriptions
  - Personal Behavioral Digital Archives.
  - More than 80% of Court Cases in the US
  - e-Discovery: 10.67 Billion Dollars in 2010, Growth Rate of 15.4% (2010-2017)

Note: *Estimate
Source: ITU World Telecommunication/ICT Indicators database
Things to Do in the Context of Pakistan

• Legal Context
  • Computer Fraud and Abuse Act
  • Electronic Transactions Act
  • Electronic Communications Privacy Act
  • Cyber Security Enhancement Act
  • Digital Millennium Copyright Act
  • Economic Espionage Act
  • Fraudulent Online Identity Sanctions Act
  • Computer Software Privacy and Control Act
  • Electronic Transactions Ordinance, 2002
  • Prevention of Electronic Crimes Ordinance, 2007
Things To Do in the Context of Pakistan

• Digital Forensics Management Context
  • American Society of Crime Laboratory Directors
    • Guidelines
    • Auditing and Certification
  • Tool Testing and Validation

• National Response Centre for Cyber Crime (FIA)
• Cyber Investigation Unit (CIU) and Computer Forensic Lab (FIA)
• National Forensic Science Agency
• Punjab Forensic Science Agency
Things To Do in the Context of Pakistan

• Technical Context
  • Need of Indigenous Tools Development
  • FORensic device for the acquisition and subsequent chain of custody of digital Evidence with guaranTee for the culprit (FORSETI)
Thanks

Dr. Shahzad Saleem (shahzad.saleem@seecs.edu.pk)