

# Various Approaches of Investigation and Ways to Detect Cyber Crimes

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**Abstract – Cybercrime is one of the most secret crimes in the world. Worldwide, every second the amount of cyber criminals is rising. Of person who uses a computer and other network-connected devices must therefore be informed of various cyber crimes. In order to protect yourself from cybercrime, you have to recognise the various approaches to identify cybercrimes because various means of cyber securities can be found. For example, a password or other confidential details via call or email may help identify data theft. This article would explain in more depth how people should detect and not become victims of various types of cybercrime.**

**Cybercrime will stop every train on which it is, misguide aircraft during their flight by erroneous signals, bring any valuable military data into the hands of foreigners, stop the e-mail, and trigger any device to fail within a fraction of a few seconds. This taxonomy covers five broad subjects: physical or digital damage. Economic harm and psychological damage.**

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## IMPACTS OF CYBER CRIME

Including financial damages, infringement of intellectual property and customer confidence losses, the impacts of a single, effective cyber-attack may be important. In accordance with Section 67 of the IT Act, 2000, a first sentence imposes a penalty compounded by a fine that can extend to Rs in lakhs for any period of three (three) years. In order ever to make huge bucks, cyber criminals want a simple path. They threaten affluent individuals or wealthy organisations such as banks, casinos and finance institutions, who receive vast sums of money and receive classified details every day. Therefore, the amount of cybercrimes worldwide is increasing. It's not convenient to investigate a crime scene. It takes years of research to understand how to cope with difficult situations and, above all, solve these cases. This extends to real-world crime scenes as well as digital scenes. When new stories come to the attention of digital news media and cybercrime is increasing, the analysis of cybercrime plays a crucial role in safeguarding the Internet. Traditional law enforcement authorities are also being called in not only to prosecute actual crimes but also on the Internet. In the same manner as conventional crime people have been classified and publicized for many years, several well-known government departments have published and updated the "most wanted" list of cyber offenders. That's why everybody has to know "What is cybercrime investigation?" and discusses methods and strategies for addressing various forms of

cybercrime utilised by public and private cybercrime organisations.

## What is a Cybercrime Investigation?

Let's go back to the basics until we recognise the "investigation" section: The use of a machine or phone, or some other software technology attached to a network is a crime involving digital surveillance or cybercrime. This computer instruments may be used in two ways: by carrying out cyber terrorism (that is, by launching a cyber attack), or by becoming the target by other harmful outlets. The computer crime analysis is also the mechanism by which sensitive forensic digital evidence from the networks engaged in the assault - this may include the Internet and/or a local network - is investigated, analysed and recovered in order to locate perpetrators of the digital crime and its true aims. In order to learn not just applications, file systems and operating systems and how networkes and hardware function, cybercrime analysts can become specialists in computer science. They must be well aware of how these elements work, to provide a comprehensive understanding of what occurred, the reasons behind it, who was involved in the cyber crime itself and how victims might in future defend themselves from such cyber attacks.

## Who conducts Cybercrime Investigations?

There are some cyber-crime investigation departments that are as follows:

### Criminal Justice Agencies

Operations under cybercrime detection and investigation, surveillance and prosecution of internet offenders are Law Court departments. Criminal justice agencies A social enforcement department can deal with all electronic fraud incidents, depending on the country of origin. The FBI, the US Secret Service, the Internet Crime Complaint Center, the US Postal Inspection Service or the Federal Trade Commission may, for example, and rely on this situation, prosecute cybercrime. The national police and the civil guard are responsible for the whole process in other nations, including Spain, no matter what sort of cybercrime is prosecuted.

### National Security Agencies

It often varies from one nation to the next, but generally, cyber crimes specifically linked to the agency are investigated in this form of agency. For example, the security community may be responsible for monitoring cybercrimes, such as networks, personnel or data that have a link with their organisations or are carried out by intelligence actors. In the USA, the military, which carries out its own cyber-crime analysis employing specialised internal personnel rather than government authorities, is another clear illustration.

### Private Security Agencies

Private security companies, particularly during the investigative phase, are often critical in combating cybercrime. As governments and national organisations operate their own networks, servers and apps, they still constitute a small fraction of the huge systems and code operated by private firms, ventures, organisations and individuals worldwide. With this in mind, it is no surprise for private cyber security experts, research companies and blue teams to play a critical role in the prevention, monitoring, mitigation and investigation of all types of cyber security crimes in relation to networks, systems or data running on private 3rd party data centres. There are, but are not restricted to, hacking, breaking, the spread of viruses and ransom ware, assaults on DDoS, internet piracy, data stealing and social engineering among the large number of cybercrimes prosecuted by private entities.

## CYBERCRIME INVESTIGATION TECHNIQUES

While the procedures will differ according to the kind of cybercrime being examined and who is conducting the investigation, certain standard technologies employed during the investigation most computer criminals are subjected to.

- **Background check:** The development and definition of the criminal history with existing evidence can help to determine what they face and how much detail they have in managing the initial cyber-crime report.
- **Information gathering:** One of the main aspects that data security researchers ought to do is to gather as much details regarding the event as possible. Was this an automated assault or a targeted crime focused on human beings? Was this assault possible? Was there an available opportunity? How much is the effect and scope? Will everybody or those individuals with special abilities execute this attack? Who are the suspected potential? What were the committed digital crimes? Where will the proof be found? Have we access to certain sources of evidence? This and other issues are important factors in the method of knowledge collection. Often state and federal authorities use cybercrime evidence through interviews and intelligence records. Surveillance includes not only security cameras, videos and images, but also monitoring of the electronic device which describes what is used, where, how it is used and other digital behaviour. One of the most popular methods to gather cyber criminals' data is to create a honey pot that acts as a victim and collects information to be used later on.
- **Tracking and identifying the authors:** This next move is sometimes done during the knowledge collection period, based on the amount of information already available. Two private and public intelligence services also partner with ISPs and networking firms to detect perpetrators who are behind the cyber assault and get useful log-related information as well as historical service information, domains and protocols they used throughout the link period. This is also the slowest period since lawyers and a court order need judicial consent to gain access to the required records.
- **Digital forensics:** Having gathered adequate information on cybercrime, it is time to investigate the impacted digital platforms or supposedly participants in the initiation of the assault. In this step, the raw data, hard drives, file systems, cache devices, RAM and more are analysed for network connectivity. As forensic analysis begins, the participating researcher traces fingerprints in machine archives, network and service records, electronic correspondence, online browsing history, etc. On the participating tracks.

## **VARIOUS EFFECTIVE CYBERCRIME INVESTIGATION AND FORENSIC TOOLS**

Depending on the methods and the step of transit, cybercrime research strategies provide a large number of utilities. Nevertheless, realise that most of these instruments are committed to forensic data processing until the proof is accessible. It is also not a complete list, but just a brief glance at some of the best available services to carry out forensic activity, that there are thousands of techniques available for any kind of cybercrime.

### **SIFT Workstation**

Incident Reaction Teams and forensic experts analyse automated forensic evidence in many systems, the SIFT is a forensic method set. It supports various file system models such as NTFS, HFS+, EXT2/3/4, UFS1/2V, vmdk, swap, RAM dta and RAW. It supports a wide range of file systems. The image support can be easily supported in a raw image format, AFFs (Advanced Forensic Format), EWF, AFM (AFP with external metadata), etc. When it comes to proof image support. Additional major features include: the LTS 16.04 64-bit framework, the new forensic software, Linux-Windows cross-compatibility, standalone installation options, as well as extensive documentation for responding to all the forensic requirements. It's open source and completely accessible, best of all.

### **THE SLEUTH KIT**

The Sleuth Kit is an open source series of Unix and Windows related forensic software designed for the analysis of disc images by researchers and the recovery of data from such computers. Written by Brian Carrier and known as the TSK. Its capabilities provide complete support for decoding various file systems including FAT/ExFAT, NTFS, Ext2/3/4, UFS 1/2, HFS, ISO 9660 and YAFFS2, which contributes to the analysis of almost any picture or drive for operating systems focused on Windows, Linux, and Unix. Data recovery for those involved in data collection on file systems and in the raw-based disc photos is available on a command line or used as a library.

### **X-Ways Forensics**

This software is one of Windows operating system's most complete forensic suites. It's commonly supported by almost any Windows edition and can easily operate with versions like Windows XP/2003/Vista/2008/7/8/1/2012/10\* which support both 32 bit/64 bit. This version is one of the strongest in this specific sector. It is completely lightweight, allows you to operate it from a memory stick and take it seamlessly from one device to the next. His key characteristics include: disc and imagery capability, raw image file read partitions, HDDS, RAID arrays, LVM2 and many more. It also provides advanced

detection of the deleted partition on FAT12, Ext3, Ext4, etc, and advanced gravure of file and index file and archive. Currently, the programme also provides advanced detection of the deleted partitions.

### **CAINE**

CAINE is a complete Linux distribution used for automated forensic research, it is not only a computer crime detection tool or suite. This functions on the live CD and will help you retrieve data from other operating systems like Linux, Unix and Windows. CAINE will do it all with the best forensic tools available on both command line and GUI interfaces, like file system, memory or network data retrieval. It also contains common apps including The Sleuth Kit, Autopsy, Wire shark, Photo Rec, Tinfoleak, and several more.

### **Digital Forensics Framework**

Known as DFF, Digital Forensics Framework is an open source machine forensics programme that enables practitioners in digital forensics to discover and save systems operation on operating systems on both Windows and Linux.

It provides researchers with links to remote and local computers including external discs, local drives, remote machine file systems and VMware virtual disc reconstruction. When using FAT12/16/32 file structures, data can be extracted on all folders and directories from FAT12/16/32, EXT 2/3/4 and NTFS. And it also helps inspect and retrieve memory stick data including network links, directories and local processes.

### **Oxygen Forensic Detective**

This tool represents one of the strongest multifunctional forensic software for the purpose of scanning sensitive data in a single location for security investigators and forensic practitioners. You can extract data from various mobile devices, drones and computer systems, such as: password collection, screen locking over Android, obtaining vital call data, drone flight data collection, Linux, MacOS and Windows records. It supports the extraction of IoT system info.

### **Open Computer Forensics Architecture**

OCFA is a forensic analytics system developed by the Netherlands National Police Agency, Open Computer Forensics Architectures. The programme was designed to accelerate their digital crime analysis and allow researchers to access information through a Single UX-friendly gui. The Sleuth Kit, Scalpel, Photo Rec and others have been used or are part of several other prominent cyber crime research resources. This technique is now one of the most advanced forensic solutions among organisations from across the globe, although the official project was stopped some time

ago. The OCFA Code Base also works on several similar initiatives that can be listed on the official Source Forge website.

### Bulk Extractor

Bulk Extractor is one of the most common applications for digital proof data collection. The role is to extract features such as URLs, email addresses, credit card numbers and more from ISO discs and folders, including photographs, videos, bureau and input data, and to extract them from ISO files.

It is a method that not only helps to gather data, but also to analyse and collect data. And its wide support for almost every OS platform like Linux, Unix, Mac and Windows without any trouble is one of its strongest qualities.

### Exif Tool

Written in Perl, this Phil Harvey's forensic application is a command-line utility capable of reading, writing, and manipulating metadata from many media formats, including videos and photographs. Exif Tool allows the extraction of EXIF (Common and Basic Metadata) photos and videos (GPS images thumbnail coordinates, type of file, permissions, size of file, form camera). You may also save data in a document or a plain HTML file.

### Surface Browser™

Surface Browser™ is the best partner to identify every company's comprehensive online infrastructure and to collect precious DNS, domains and ancient WHOIS information, exposed subdomains, SSL certificates and more from intelligence. It is almost as crucial that the surface area of an organisation or domain name is analysed in the Internet as the local discs or ram sticks, so sensitive information can be found and may be related to cybercrimes.

### What can you do with Surface Browser?

- **Get current DNS data**

In cyber defence, DNS records are a store of infinite knowledge. They are essential for all network, e-mail and other resources that are openly exposed to the public. Surface Browser™ lets you immediately see latest records A, AAAA, MX, NS, SOA and TXT:

- **Analyze historical DNS records**

Often hackers appear to modify DNS documents as they do malicious operations online, leaving behind traces of when and how they do it at the level of DNS. You can explore every A, AAAA, MX, NS SOA or TXT record, regardless of the kind of DNS record you use. We are protected by you.

- **Explore the WHOIS history timeline**

If the assault is aimed not to servers and applications but to domain names, the WHOIS data is also used. With this case, the Surface Browser™ WHOIS background timeline would be your best friend and enables you to imagine all the WHOIS details updates at the registrar stage. In this WHOIS history, you will hop back and forth in mere seconds to receive accurate details on the domain registrar, WHOIS registration officer, manager and technology touch.

- **Grab full IP block data**

Download the complete IP map of the infrastructure involved in the investigation of a digital criminality involving businesses, networks, and especially IP addresses. Surface Browser™ helps you to discover single, complete IP and regional registrar or subnet sizes for the filtration of maximum IP lines. Upon receiving all IP blocks, each user agent, RIR, hostnames concerned, host domains and ports are completely IP counted. You will be sent a complete list of IP blocks.

- **Explore associated domains**

Often you would be surprised to discover that the case that you are researching is not alone, but that is in fact connected to others and functions as a malicious network that includes multiple fields while investigating ransom ware, viruses or phishes or online frauds.

### How one can detect this? By using Associated Domains feature.

Related Domains lets you explore and conveniently filter the result by registrar, entity, establishment, and year of expiration for domain names associated with the business or key domain you are investigating.

What's the hosting place? What's the provider of e-mail? When has it been recorded? What is the enterprise behind all these sites? The solutions are available to us. If you load results, all data including the hostname, Alexa rankings, the name, the registrar, date of expiry and development, the mail provider and the hosting provider will be shown.

- **Visualize the full sub-domain map**

It is very simple to create a curated and full map of the apex domain. Our Sub-domain discovery functionality Surface Browser™ allows all of the crucial data to be received in seconds; no manual scans, no waiting, there's everything. See a complete image of all the sub-domains involved with every cyber attack; get to see where they are hosted, what IP and more.



- **Access reverse IP intelligence**

Reverse DNS is one of data security's most precious secret treasures. If you open this interface, you can access and quickly link PTR records with IP addresses from our vast store of rDNS intelligence files.

Research on cybercrime is not a simple science. The right skills and various strategies and instruments to spring successfully and efficiently onto the interactive crime scene are essential. If all this is in hand, data can be thoroughly analysed and the root cause investigated and writers tracked behind cybercrime. When you serve with a state or private corporation as a cyber-crime detective, this is your fortunate day. Surface Browser is the supreme remote infrastructure audit platform combining cyber security information insight from all walks of life: IP, domain, web, DNS, SSL and server side.

## **BASIC STEPS FOR CYBERCRIME INVESTIGATIONS BY THE OFFICERS**

Cybercrime inquiries by officials are truly a harsh process, and they must take a few key precautions, such as these, to recognise possible digital data and deal through various kinds of digital evidence, appropriate throughout the inquiry (e.g. mobile devices, social media, IP addresses, etc).

### **Assess the Situation**

The officer can first identify the basic aspects of the offence and, like every investigation, decide whether or not the statute under their jurisdiction supports prosecution. May accusations be upheld, for example, except when there is evidence of guilt? In view of the numerous emerging innovations in operation, common law and the federal and state law have most much failed to comply with these violations. The global existence of the internet is often a consideration to take into account when solving cyber crimes. It is also useful to contact the lawyer to learn more about these offences.

### **Conduct the Initial Investigation**

Standard research techniques continue to be relevant when performing a cybercrime investigation. I'm always thinking about who, when, where, where, why and how. The researcher may also pose the following questions:

- Who are the victim potential?
- What have been the crimes?
- Where have offences been perpetrated?
- Were these crimes restricted to the competence of the United States?
- Which proof could be gathered?

- Where will tangible and digital proof be found?
- What kinds of facts is used in the crime real and digital?
- Is any proof automatically needed to be photographed/preserved?
- How will facts for legal cases be safeguarded and maintained?

### **Identify Possible Evidence**

Many styles and sizes of files will produce digital proof. See Most Popular Electronic Devices, for example. In addition, the proof can be encrypted, safeguarded or otherwise secret. If your department does not dispose of the appropriate personnel, equipment or special skills to locate and obtain such information, suggest working in partnership with other agencies. For more details, see the Community tab.

### **Secure Devices and Obtain Court Orders**

Researchers can seize electronic devices without a warrant in certain situations, but have a warrant to carry out a computer check (s). When a single computer is linked to certain offences, several warrants can need to be issued. Warrants shall explicitly define as precisely as necessary all files, data and devices to be scanned for and require consent to perform off-site research (e.g. at a specialised forensics laboratory). Digital proof can also be obtained by using subpoenas. Many organisations dependent on the Internet and networking provide guidelines that help police forces consider their knowledge exchange policy (see Handling Evidence from Specific Sources). Non-Disclosure Arrangement (NDA) is also used when law enforcement requires ESP records, and may not want the ESP to alert the consumer about anyone seeking their account. The ESP shall be compelled by court order to obtain details beyond the simple information of its subscriber. This may involve message headers or IP addresses but not restricted to them. Content is not included.

### **Analyze Results with Prosecutor**

Working with the Public Prosecutor would also be critical in identifying relevant charges (based on current common law, state and federal status), as well as determining whether further facts or proof will be required before charges are filed. At the heart of the market, the infrastructure gives cyber criminals countless ways to access classified details. Thankfully, the same technology provides a strong level of security against cybercrime and measures to detect or deter cybercrime. However, it is not stupid. It is, therefore, the responsibility to guarantee the dignity of company, consumer privacy and details through device software, internal procedures, general knowledge and organisational

due diligence. However, once an event happens, the business must be prepared to respond quickly in determining when and how the violation happened in order to pursue corrective measures within a system that safeguards the forensic credibility of facts. If it is not done, all information obtained in any proceedings (defence or indictment) or criminal prosecution may very well be worthless. A Forensic Preparedness Plan is important for organisations who maintain and process critical information, particularly financial and personal data, since these forms of data are rapidly utilizable by hackers, even before a violation is detected and rectified.

### Types of incident

The list is comprehensive, as it may include almost every aspect of business technologies or the data contained or utilised inside enterprise systems and processes. So here's a list of some examples:



**Internal systems abuse:** Where staff mistreat the website, such as pornographic content, gaming or social networking pages.

**Hacking the company's systems:** This may occur on any side of the firewall by red or uncomfortable staff, who are trying to disrupt access info, either by blogs, customer face pages, or by denial of service assaults. or externally.

**Financial fraud:** Both the domestic and global threat to accounting system misuse, false documentation, stealing of money, theft of financial information from scuba credit and bank accounts and unauthorised entry to the starting processes.

**Espionage:** Not just the subject matter of spy film, a very serious challenge from IP hacking, marketing strategies, model specs, deal information and other trade secrets.

**Forgery and counterfeiting:** Used mostly to allow unauthorised access to accounts, documents, contracts and unauthorised copies of goods and packaging.

**Bribery:** Where a company's officials got credit for knowledge or access in exchange. This may be as obvious as the acceptance of money and commodities to use entertainment more subtly, which affect contract bidding processes.

### Sources of Evidential Data

A double-edged sword is the sophistication of database networks and technology that citizens need to connect and resources. On the one hand, there continue to be several opportunities and means for obfuscating and glossy efforts to obtain sensitive info, while on the other, it becomes more impossible for one to hide the tracks. It is also possible to retrieve either lost data or damaged data, and missing data may often provide useful evidence about the identification of an individual. As well, it is essential that the "crime scene" – machines, devices, procedures, data... involved with the incident – respond quickly to protect the dignity. This can be seen in several ways including: newsletters, social networking threads, telephone files, SMS and IM, forum messages, CCTV-shots, conversation records, communication databases.

### GPS Data

The forensic credibility of the data can only be maintained through a precisely organised and coordinated strategy. If forensically trained inspectors in a regulated setting even use a handheld device or a tablet, it will jeopardise the obvious integrity of the data it contains.

### Recognizing and combating cyber crime

This is one of the subjects frequently discussed in recent years in the newspapers and in the boardroom. For several organisations, it is a huge concern and obstacle. The estimated duration of living (the average period until a corporation identifies an infringement) is more than 200 days. This is because not all cyber violations are inherently destructive. Very many, businesses find just a "smoke" cyber violation

Many businesses are not searching proactively for security violations because they just know that the enterprise has suffered a cyber infringement when it detects "smoke." For instance, Ransom ware can prevent sensitive data on networks before the victims, usually bitcoins, pay a financial charge to obtain the data-opening key. Similar to distributed denial of service assaults, this kind of cyber assault can be quickly found when it suddenly becomes inaccessible to part of the company's Service. The

problem of Ransom ware has developed and would spend \$1 billion on cyber-crime.

### **Many cyber-attacks are far less conspicuous in their destruction**

Not all cyber-attacks are too disruptive and often businesses see no smoke because of it. Therefore, everything is all right and nothing is in danger. The truth, however, is that a hacker or cyber thief already has financial crime, waiting for, monitoring and stealing info, usually utilising passwords and accounts of a trusted insider. The trick to their hacking efforts is to stay anonymous because hackers and computer criminals who are financially inclined or focus on intelligence. To remain undetected to conceal every sign of their activity or footprint. Those forms of intrusion tactics complicate the recognition and fight against cybercrime in industries. They are hard to identify because everything seems to function normally.

### **So what can companies do recognize and combat cyber crime and improve their cyber hygiene?**

Any tips and best practises are given that allow everyone and businesses to identify and fight cybercrime.

### **Education and Cyber Security Awareness**

This is one of the most efficient and instantly winning cyber protection initiatives. Train staff to stop suspicious activities on their devices:

- Detect suspected running programmes, pop-ups, error notes, etc. (emails with attachments, sender unknown, hyperlinks and unusual requests)
- Be alert to website navigation
- Ensure that web pages are reliable prior to accessing passwords
- Limit practises whether utilising vulnerable public Wi-Fi networks or using a VPN

Through training staff about what they are looking for, they would be able to identify computer fraud at an early stage and also cyber crime prevention. It can also be shared and helps the organisation to maintain its own personal data safe not just cyber hygiene. Training at the top of the organisation should commence and work out. A data security ambassador should be appointed to help identify and react incidentally to the possible threats and risks to cyber security within each agency. This aims to improve the performance of every IT security unit by ensuring there is a person responsible for enforcing and managing cyber security policies within the organisation.

### **Collect security logs and analyze for suspicious or abnormal activities**

One critical activity and best practise for businesses is to ensure the surveillance records for unauthorised incidents are compiled and analysed. Logs would probably detect abnormal behaviour in certain protection scenarios. Search for credentials or executions of applications during non-business hours, for instance. Not only can security records help track cyber crime, but they can often become very important to identify root cause analysis and to help with potential mitigation efforts when working with digital forensics.

### **Keep systems and applications patched and up to date**

Many hackers and computer criminals do not obtain entry to networks by exploiting proven exploits and weaknesses to maintain up to date systems to applications and use the new protection updates. This isn't a complete evidence counter measure, but makes it more difficult for cyber offenders to hack successfully.

### **Use strong passwords and keep privileged accounts protected**

Make it a good password that is exclusive to that account and update it regularly when you need a password. Today's total age is several years, and the social network does not do a great deal to warn you to the oldness, weakness and the time to update your password. You must secure your account, and it must be wisely protected. Using a company password and a privileged vault to help maintain and protect several accounts and passwords. Must not use several times the same password.

If the organisation has local administrator or preferential access to the staff, therefore this severely weakens the cyber protection of the enterprise. This can undermine the distinction between a particular machine and user account and the whole computer system of the enterprise. The usage of preferred accounts in all Advanced Persistent Threats differs from a single perimeter violation to a large loss of records, fraudulent activities, financial theft, or the worst scenario: rankings. Organizations can immediately ensure that privileged accounts and programmes that need privileged access are continually checked and discovered, that administrator privileges are not needed to be deleted and that two-factor authentication is used for easily breach user accounts.

### **Do not allow users to install or execute unapproved or untrusted applications – stop malware and ransom ware at the endpoint**

The user's right to deploy and conduct programmes, no matter whether or how they have installed them is an important danger for companies — by having privileged access. This can pose a big danger that ransom ware or malware can infect and spread to the company. The attacker can also install tools which enable it to return easily whenever it wants. If a privileged user reads emails, opens notes, browses the internet and clicks several links, or just plugs a USB computer into the machine, contagious or destructive devices may unknowingly be installed. Under the worse case situation, the device and confidential data will be encrypted and started from inside the boundary of an intruder – a financing fee would then be requested, in order to disconnect them. Organizations must enforce protection checks to avoid the use of the Application White listing, Black Listing, Dynamic Listing, Elevation of Real-time Privilege, and Application Reputation and Intelligence with any app or method. Which is one of the most important strategies to combat computer fraud.

### **Be deceptive and unpredictable**

Being disappointing, erratic is important. Most organisations search for automation to aid in their cyber securities, but in certain instances this gives them predictability: tests are conducted simultaneously each week, patches take effect once a month, evaluations once a quarter or annually. Predictable companies are fragile, so a thinking approach can be developed to upgrade and ad hoc evaluate processes. Make your business random. This increases the ability to spot ongoing cyber threats and infringements. These good practises and tips are designed to enhance company coverage and improve the likelihood of successful cyber-attacks through reducing cyber infringements' length. It also increases visibility in the company and involves workers in the detection of criminal activity.

### **CONCLUSION**

It's rampant cyber-crime! Everywhere are viruses! Viruses! But how do you guard yourself against ransom ware, malware and cybercrime? Let's begin with becoming more intelligent than the offenders. They rely on the idea that you will be frightened when you click on something they bring before you and figures prove that they are very correct. Now that I have spoken for you, let's only speak about how convenient it is to adjust the chances to be a suspect. You can shield yourself and your data from cyber-crime better than you thought. Here is an initial, however contact a lawyer if the cyber criminals are to be locked out. Using various login / password combinations to stop writing them down for different accounts. Combine letters, numbers and particular characters (minimum 10 characters in total) to confuse

passwords, and alter them regularly. Enable the firewall – Blocking access to unauthorised and fake websites and preventing such forms of malware and hackers are Firewalls the primary line of cyber security.

Using malware/anti-virus tools. Prevent viruses from infecting your device by downloading and modifying virus control software on a regular basis. Prevent spyware from infiltrating the device with anti-spyware programme installation and update. Ensure that the accounts in social networking are private (i.e. Facebook, Twitter, YouTube, MSN, etc). And be aware what you posted online. It's still there once it's on the internet! Be mindful that you are susceptible to malware and hackers on your mobile computer. Download trusted source software.

Install the most recent changes to the operating system. Make the new device patches available to both the software and operating system (for example, Windows, Mac, Linux). Turn on automated upgrades to avoid possible old tech assaults. For the more personal data like tax returns or financial statements, use coding. Make all the valuable data regularly backups and archive them somewhere. If the networks are not protected adequately, Wi-Fi networks are susceptible to interference. Often insecure is public Wi-Fi, a.k.a.. "Hot Spots." Avoid financial or business transfers on these networks. Be careful to include your name, location, telephone number or financial details on the Internet. Ensure website security (e.g. when shopping online) or privacy controls are available (e.g. when viewing / utilising social networking sites). Care about a connection or unknown source file before you click on it. Don't get email-pressured. See the message root. Check the source in case of uncertainty. Never answer emails requesting you to check or validate your user ID or password. Don't worry! Don't panic! Don't panic! When, when you are suspects in a cyber fraud, identity stealing or business racket, you find illicit internet material (e.g. child exploitation) you send it to the local police. Consult your service provider or a licensed technical engineer if you require assistance with repair or installation of software on your computer. Finally, have an annual compliance evaluation. This ensures you keep up to date with the security of your network.

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