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Cyber trends in 2019 and predictions for 2020

The year that was and the year that will be

Introduction

2019 witnessed some destructive cyber-attacks, data breaches and IT outages that made cyber risk a core concern for customers and businesses across the world and pushed cyber security to the very forefront. As threat actors started adapting to advanced cyber-attack techniques for targeting various geographical locations, sectors and end users, it became essential for people to adopt more robust information security safeguards.

This paper talks about some of the key Cyber Trends in the year 2019 and the trends that one can expect on Cyber Security in the year 2020.

> " Cyber attacks are on the rise and will continue to rise. It's not a matter of if but a matter of when. A framework-driven approach with continuous monitoring will help companies mature their cybersecurity posture and address incidents proactively."

Akshay Garkel,
Partner, Cybersecurity &
IT Risk Advisory,
Grant Thornton India LLP

Key facts 2019 - Global

4.1 billion estimated records were **breached** in the first half of 2019

54% increase in the number of reported breaches in 2019 as compared to last year[2]

34% of reported cybersecurity breaches involved **internal actors**[3]

Every **14 seconds**, a **ransomware attack** was expected to be carried out on businesses in 2019[4]

71% of reported breaches were **financially motivated**[5]

Cyberattacks are one of the top 10 global risks of highest concern in the next decade, with an estimated price tag of USD90 trillion if cybersecurity efforts do not keep pace with technological change.

- World Economic Forum 2019

Key cyber trends 2019 - India

Data breaches

Airtel
Data: Names, date of birth, emails, residential addresses and IMEI number
Quantum: More than 300 million users
Cause: Unprotected application programme interface (API)

Nuclear Power Corporation of India
Data: Administrative function of power plant
Quantum: One power plant
Cause: Undetected malware in system

Various banks
Data: Customers' debit and credit card information
Quantum: More than 1.3 million credit/debit cards
Cause: Unprotected database

Regulations

Data Protection Act
Bill approved by the Cabinet – to regulate processing of personal data and establish a Data Protection Authority. Expected to come to force in 2020.

Data localisation norms
Data localisation was mandated by RBI for global payment firms in 2018 and a lot of efforts were put in to comply with the direction in 2019.

National Cyber Security Strategy
National Cyber Security Council Secretariat is seeking comments until 31 December 2019 for formulation of National Cyber Security Strategy to secure national cyberspace and to synergise resources.

1 2019 Midyear Quickview Data Breach Report published by RIsk based Security (https://pages.riskbasedsecurity.com/2019-midyear-data-breach-quickview-report)
2 2019 Midyear Quickview Data Breach Report published by RIsk based Security (https://pages.riskbasedsecurity.com/2019-midyear-data-breach-quickview-report)
3 Verizon 2019 data breach investigations (https://enterprise.verizon.com/resources/executivebriefs/2019-dbir-executive-brief.pdf)
4 2019 Annual Cybercrime report by Cyber Security Ventures (https://cybersecurityventures.com/global-ransomware-damage-costs-predicted-to-reach-20-billion-usd-by-2021/)
5 Verizon 2019 data breach investigations (https://enterprise.verizon.com/resources/executivebriefs/2019-dbir-executive-brief.pdf)

Predicted trends for 2020

Mobile devices to become more threat-prone

- Significant rise in the number of mobile-focused malware and banking Trojans is predicted.
- 5G - increase in speed of data and also increase in speed of cyber threats.

36% of mobile users in India expected to use a smartphone by 2022, up from 26% in 2018[6]

Targeted internet of things (IoT) based attacks expected to increase

- IoT will throw new challenges to data security.
- Scalability and simplicity of IoT increase its vulnerability.

32× growth in the number of IoT devices in India - 1.9 billion by 2020[7]

Paradigm shift – artificial intelligence (AI) driven cyber attacks

- Threat actors are expected to deploy advanced AI-led attacks to boost the speed and impact of their campaigns.

India ranks among top 3 countries in AI skills - More the skills, more the threat[8]

Humans to remain the weakest link in information security chain

- Human-centric security continues to be a major concern.
- Human risk requires people-centric solutions as well as technology.

95 % of cybersecurity breaches are expected to arise due to human error[9]

Critical cybercrime and cybersecurity attacks expected to rise

- Cybersecurity incidents including cyber bullying have skyrocketed by more than 6 times from the last year.
- Data analytics will be critical to predict crime patterns and to reduce cybercrimes.

Cyber crimes up 19 times over 10 years – Increase in need for analytics[10]

Phishing to continue to be the most popular attack vector

- Phishing remains one of the cheapest ways to compromise targets.
- These attacks have become difficult to recognise, even for tech-savvy users.

India is 2nd in list of top phishing hosting nations[11]

Our service offerings

- Cyber strategy and governance
- Cyber vulnerability management
- Cyber threat management
- Compliance and attest services
- Cyber forensics
- Data privacy and protection
- Security and identity solution
- Data privacy and protection

6 Statistica Smartphone user penetration in India (https://www.statista.com/statistics/321487/smartphone-user-penetration-in-india/)

7 NASSCOM Report- The Internet of Things: Revolution in the making (https://www.nasscom.in/natc2017/images/white-papers/internet-of-things.pdf)

8 LinkedIn Report - Advancing your career in the age of AI (https://learning.linkedin.com/blog/advancing-your-career/the-age-of-ai-is-here--here-s-how-to-thrive-in-it-)

9 IBM Security Services - Cyber Security Intelligence Index (https://media.scmagazine.com/documents/82/ibm_cyber_security_intelligenc_20450.pdf)

10 IndiaSpend Research (https://archive.indiaspend.com/cover-story/as-net-use-spreads-cyber-crimes-up-19-times-over-10-years-49007)

11 RSA Quarterly Fraud Report - Q1 2019 (https://www.rsa.com/en-us/offers/rsa-fraud-report-q1-2019)

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