



8/28/2024

# EFFECT OF THE CHANGE: HACKERS GETTING EASY ACCESS





# WHO IS ON THE OTHER END OF COMMUNICATION?



# WHAT IS THE INFORMATION?

- Knowledge is something you know for eg the earth is spherical in shape, KJSCE is an engg college, amazon is a shopping website etc
- Data which is physicaly or electronically available like name, address, places etc
- Information is processed data for eg calculating age of a person by knowing the DOB, drawing some statistics by looking into the shopping or spending habit of a person etc
- Any More examples you can add

# IN TECHNICAL TERMS

**'Information is an asset which, like other important business assets, has value to an organization and consequently needs to be suitably protected'**

# WHAT IS CYBER CRIME

- First cyber crime took place in 1820
- Cybercrime can be defined as misuse of technology to do any unlawful activity.

# MOTIVE

- Just for fun
- Financial gain
- Revenge purpose
- Political gain
- Media coverage

# TYPES OF CYBER CRIME

- Computer used as a tool
- Computer used as a weapon
- Fraud and Crime



# TYPES OF CYBER CRIME

- Unauthorised Access and Hacking
- Web Hijacking
- Pornography
- Child Pornography
- Cyber Stalking
- Denial of Service Attacks
- Virus attacks
- Software policy
- Salami Attacks

# TYPES OF CYBER CRIME

- Phishing
- Sale of illegal articles
- Online gambling
- Email spoofing
- Cyber defamation
- Forgery
- Theft of information contained in electronic form
- Email bombing
- Data Diddling
- Internet time Theft

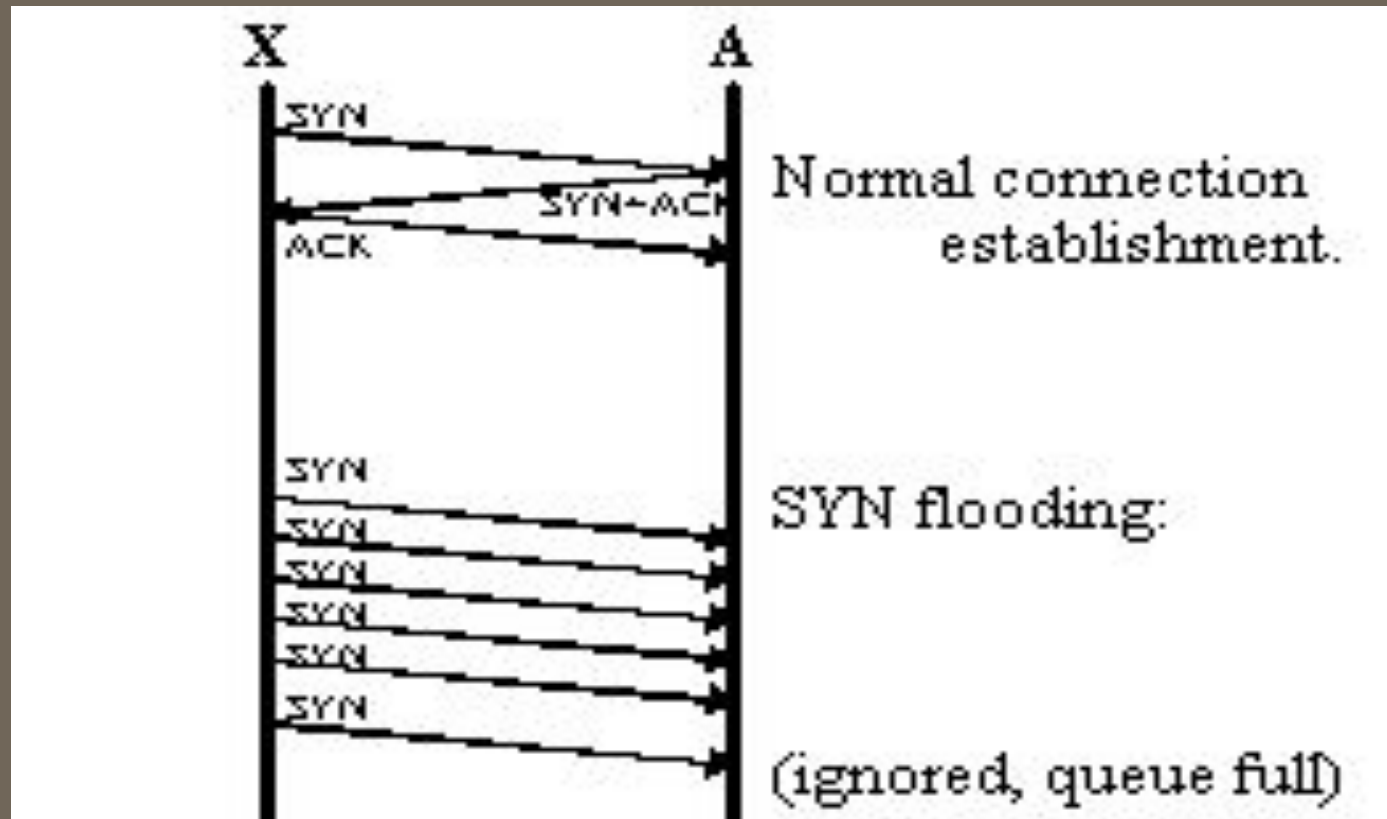
# TYPES OF CYBER CRIME

- Theft of Computer system
- Physically damaging a computer system
- Breach of privacy and confidentiality
- E-commerce / investment frauds
- Cyber Terrorism

# DENIAL OF SERVICE ATTACK

- <http://study.com/academy/lesson/what-is-a-denial-of-service-dos-attack-definition-types-examples.html>

# DOS ATTACK AND DDOS ATTACK





# WHAT IS MALWARE?

- Malware is an abbreviated term meaning “malicious software.” This is software that is specifically designed to gain access or damage a computer without the knowledge of the owner.

# Most common types of Malware of 2020

- **Virus:** Spreads with user action, such as opening an infected file. They depend on a host file.
- **Worms:** They replicate themselves automatically, without the use of a host file.
- **Trojan Horse:** Malware that disguises as legitimate software. Once you install the “legitimate software” the malware takes control of your system.
- **RootKit:** Hidden deeply within the computer files. It provides continued privilege or backdoor access to the computer.

# Most common types of Malware of 2020 cont..

- **Logic Bomb:** A set of instructions inserted into software that sets off a malicious action when a certain condition is triggered.
- **Exploit Kit:** Searches for software vulnerabilities. It is very effective on unpatched systems.
- **Adware:** Stands for Malicious Ads. It presents continuous unwanted ads on a computer. Some adware monitors the user's behavior so it can serve tailored ads.
- **Ransomware:** It blocks (kidnaps) key files or data on the computer and asks for money so they can be liberated.

# CHALLENGES OF TECHNOLOGY

- Lack of Awareness
- Lack of Training
- Lack of Security standard model
- No international collaboration to combat the attacks
- Sophistication of the Hackers

# Hacking



**BBC NEWS TECHNOLOGY**

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13 January 2014 Last updated at 11:28 GMT

## Microsoft hit in weekend of hacking attacks



The anniversary of the death of activist Aaron Swartz was marked by an attack on the website of MIT

Microsoft's official blog and two of its Twitter accounts are believed to have been hacked by the Syrian Electronic Army.

You are here: Home » India

## DRDO computers 'hacked'

READ MORE » Networks | DRDO | Defence Research And Development Organisation | Defence Ministry | A K Antony



**NEW DELHI:** The computers of highly-sensitive Defence Research and Development Organisation (DRDO) have reportedly been hacked.

The hacking is suspected to have been carried out by Chinese hackers and there are fears that some sensitive information could have been compromised.

When asked about it, defence minister **A K**

## Two techies arrested for hacking cell recharge site

Vandana Keelor, TNN | Sep 2, 2012, 12:40AM IST

Article Comments (7)

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NOIDA: Two members of the hacker group

**India**

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## CBI website hacked by 'Pak Cyber Army'

Press Trust of India, Updated: December 04, 2010 22:51 IST

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**MSMCA Network Security** - AICTE DEC approved 2 year MSc Classes at 110 training centers

[ApplOnline.com/Special-MBA-degree](http://ApplOnline.com/Special-MBA-degree)



**New Delhi:** In a major embarrassment, the website of the Central Bureau of Investigation (CBI) was hacked on Friday night by programmers identifying themselves as "Pakistani Cyber Army".

The home page of the CBI website had a message from the 'Pakistani Cyber Army' warning the Indian Cyber Army not to attack their websites.

The CBI website, supposed to be one of the most secure websites, is connected to the command centre of world police organisation - Interpol - 24x7.

## Hack attack

Internet saboteurs are becoming more daring and more damaging. San...

### Australian Website victim of hackers' raids

By KATE SYDNEY Web site falls prey to US-style hacker attack

By KIRSTY NEEDHAM

How cyber pirates attack



# Hacking



targetgoa.com

Awareness is all

03, Nov 2014



Home Goa Buzz Entertainment New In Goa Directory Goa Govt Nice News Heroes

## 15 Goa govt websites hacked claims ehacking site

07, Jul 2013

Unknown column '3www.targ  
clause'

According to Sabari Selvan reporting for e-Hacking News claims that a hacker known as "H4x0r Hu5sY" from Pakistan has managed to take control of few Indian Government websites and has defaced them. All of the hacked websites belong to Goa State.

The affected websites includes NRI Commission of Goa ([nri.goa.gov.in](http://nri.goa.gov.in)), Directorate of Agriculture ([www.agri.goa.gov.in](http://www.agri.goa.gov.in)), Directorate of Art and Culture ([artandculture.goa.gov.in/uploads/index.html](http://artandculture.goa.gov.in/uploads/index.html)), Directorate of Fire & Emergency Service ([goadfes.gov.in/media/index.php](http://goadfes.gov.in/media/index.php)), Goa Dental College([gdch.goa.gov.in](http://gdch.goa.gov.in)), Government Printing Press & Stationery([goaprintingpress.gov.in](http://goaprintingpress.gov.in)). Other affected websites: [dfda.goa.gov.in](http://dfda.goa.gov.in), [dsya.goa.gov.in](http://dsya.goa.gov.in), Deapartment of Labour & Employment ([labour.goa.gov.in](http://labour.goa.gov.in)), Captain of Ports Department ([ports.goa.gov.in](http://ports.goa.gov.in)), River Navigation Department ([rnd.goa.gov.in/uploads/index.php](http://rnd.goa.gov.in/uploads/index.php)), Department of Sainik Welfare Govt. of Goa([www.dosw.goa.gov.in](http://www.dosw.goa.gov.in)), [socialwelfare.goa.gov.in/media/index.php](http://socialwelfare.goa.gov.in/media/index.php), Department of Tourism([goatourism.gov.in/images/index.php](http://goatourism.gov.in/images/index.php))

This is not the first time Indian websites being hacked by this hacker. In the past, he hacked into a number of Indian Government websites and left them defaced.

Back

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Latest News > Fwive News

Goa governor's website hacked

by fwive Oct 26, 2014 01:15 IST  
#Goa #Chrome #Cinema #Games #India #Japan #News #NewsTracker #Opera #Science #Technology

0

Panaji, Oct 25 (IANS) Goa Governor Mridula Sinha's website has been hacked by unknown people, the police said Saturday.

According to a complaint registered by Shilpa Shinde, secretary to the governor, some hackers gained control of the website and deleted photographs posted on it.

According to police, a First Information Report has been registered under Section 66 of the Information Technology and other sections of the Indian Penal Code. Police, however, have not been able to track the identity of the hackers yet.

On Saturday, a note on the website [www.rajbhavan.goa.org](http://www.rajbhavan.goa.org) read: "Our website is currently undergoing maintenance. Work in progress."

This is not the first time that a Goa government website has been hacked. The state government portals were hacked by a Pakistani cyber expert in July 2013 when 13

Modi congratulates new president of Indonesia

Bangladeshis war criminal buried

US to blame for a-tails

THE TIMES OF INDIA

Mangaluru



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Breaking News: next session of Parliament: Finance minister Arun Jaitley

## Email ID hacked, Rs 1.13 crore withdrawn from NRI's account

PTI | Nov 25, 2014, 09:05 PM IST

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[rsec.co.in/Request a Call](http://rsec.co.in/Request-a-Call)

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#72HoursOfCrazy is Ending Soon. Grab A Bargain Before It's Gone!

[www.gosf.in](http://www.gosf.in)

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READ MORE > Email Id Hacked | Rs 1.13 Crore Withdrawn From NRI's Account | FCNR | Manipal Branch Of Syndicate Bank



The fraud was committed after hackers made their way into the NRI's personal email ID and sent mails to the Manipal Branch of Syndicate Bank

MANGALURU: A Canada-based NRI has lost Rs 1.13 crore from his account with a bank in Manipal after hackers made their way into his email account and got the money transferred to two of their accounts overseas, according to a complaint lodged with the police.

The fraud was committed after hackers made their way into the NRI's personal email ID and sent mails to the Manipal Branch of Syndicate Bank asking for transfer of the money from his Foreign Currency Non-Resident Account (FCNR), police said.

# Ecommerce Frauds



## Back of Your Credit Card



# Case:- Paytm Database Hacking



# CASES

- <https://economictimes.indiatimes.com/tech/software/whatsapp-says-it-moved-fast-to-contain-spyware-attack-damage/articleshow/69435047.cms>
- <https://economictimes.indiatimes.com/magazines/panache/mumbai-police-initiates-probe-into-hacking-of-big-bs-twitter-account-informs-maharashtra-cyber-unit/articleshow/69737199.cms>
- <https://economictimes.indiatimes.com/industry/banking/finance/banking/un-security-council-panel-finds-cosmos-bank-cyber-attack-motivated-by-n-korea/articleshow/68589549.cms>



# CURRENT ATTACKS

- <https://www.cisomag.com/amazon-suffers-fraud-attack-from-cybercriminals/>
- <https://www2.deloitte.com/be/en/pages/risk/articles/insurance.html>



# CYBER WARFARE

- <https://www.bbc.com/news/world-us-canada-48735097>

# THE UNPROTECTED CONNECTED

**71%**

**Vs**

**6%**

**of smartphones  
have no antivirus**

**of PCs have  
no antivirus**

## TOP 3 MOBILE SECURITY CONCERNS



**Bank details  
stolen**



**Online  
fraud**



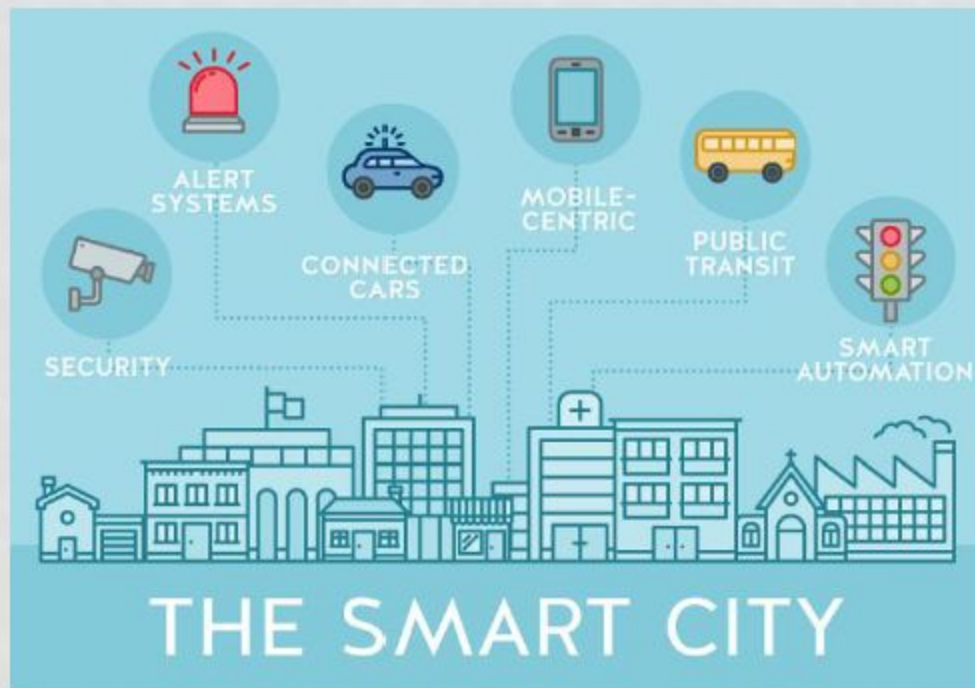
**Phishing attacks for  
personal information**

## HIGH-RISK MOBILE SPYWARE OF THE RISE

**80%**

**of emerging mobile malware threats  
monitor location, calls, text and emails  
and track the victims' web browsing.**

# TOP 7 SMART CITIES PRONE TO CYBER ATTACKS



Below is the list of Top 7 developed smart cities around the world, but also labelled the most vulnerable Cities to Cyber threats:

- Santander, Spain
- New York City, USA
- Aguas De Sao Pedro, Brazil
- Songdo, South Korea
- Tokyo, Japan
- Hong Kong
- Arlington County, Virginia, USA

# ATTACKS THROUGH EMAIL

## Malicious Email Per User by Industry (per year)

Industry	Users Targeted (%)
Mining	38.4%
Wholesale Trade	36.6%
Construction	26.6%
Non-classifiable Establishments	21.2%
Retail Trade	21.2%
Agriculture, Forestry & Fishing	21.1%
Manufacturing	20.6%
Public Administration	20.2%
Transportation & Public Utilities	20.0%
Services	11.7%
Finance, Insurance & Real Estate	11.6%



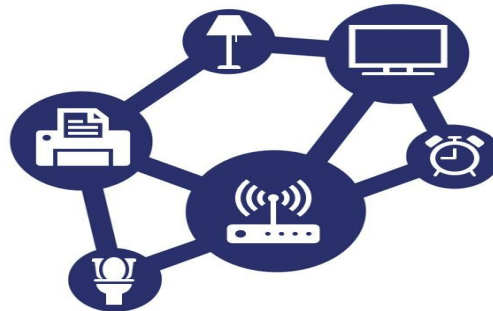
# CYBER SECURITY STATISTICS FOR 2019

**540 Million**



Facebook users exposed in breach

**20.4 Billion**



IoT Devices will exist by 2020

**Microsoft Office**



Microsoft office files accounted for **48%**  
of all malicious email attachments in 2018

**95% of Servers**



Are vulnerable to Man-in-the-  
Middle attacks



# CYBER SECURITY STATISTICS FOR 2019

**86% of Phishing Attacks**



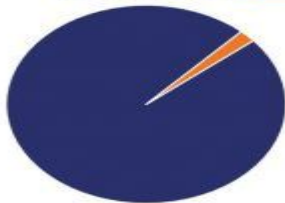
**Target the United States**

**46% of Websites**



**Have high-severity cybersecurity vulnerabilities**

**Just 2%**



**Of the average IT Budget gets spent on cybersecurity**

**68% of Businesses**



**Don't have Cyber Insurance coverage**

# TAYLOR ARMERDING CSO

## Biggest **DATA BREACHES** of the 21st century

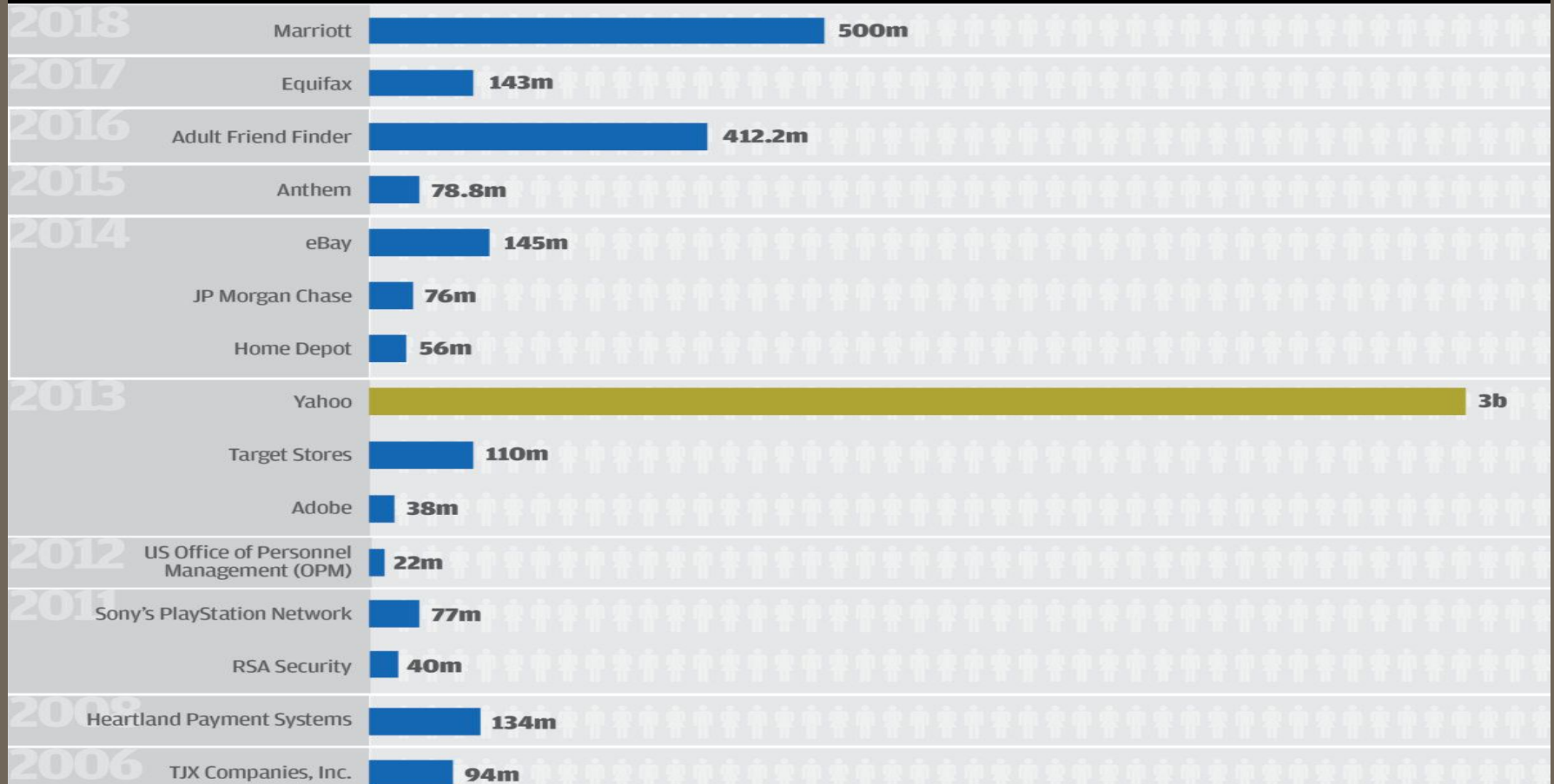
Accounts  
Compromised



by the millions



by the billions



# CLOUD SECURITY

According to  
**Gartner**

**Through 2020, more than half of security failures**  
associated with IaaS and PaaS will be attributable to significant  
security gaps caused by *failure to adopt Privileged Access  
Management* technology and processes.<sup>2</sup>



>50%

## Cyber crime: average company loss in selected countries 2016



Average costs of cyber crime in selected countries as of August 2016  
(in million U.S. dollars)



Evolution average costs US  
(in million U.S. dollars)



Information loss: almost 40% of the damage.  
Information governance reduces losses by \$1 million annually

Average annual losses to companies worldwide exceed \$9.5 million

Source: Ponemon Institute - HP Enterprise Security (August 2016)

<http://www8.hp.com/us/en/software-solutions/ponemon-cyber-security-report/>  
<https://www.hpe.com/h20195/V2/getpdf.aspx/4AA6-7930ENW.pdf>

# AADHAR CARD DATA BREACH, WORLD'S LARGEST BREACH

- <https://www.moneylife.in/article/aadhaar-data-breach-largest-in-the-world-says-wefs-global-risk-report-and-avast/56384.html>  
1

- <https://krebsonsecurity.com/2019/05/first-american-financial-corp-leaked-hundreds-of-millions-of-title-insurance-records/>
- <https://www.forbes.com/sites/zakdoffman/2019/04/18/facebook-illegally-harvested-data-from-1-5m-users-as-it-leveraged-its-data-machine/#3761d2f26a2e>

# PREVENTIVE APPROACH EXPECTED IN INDIA

- <https://www.pwc.in/consulting/cyber-security/blogs/seven-cyber-security-trends-that-india-will-witness-in-2019.html>



# INDIAN MARKET DEMAND

- [https://www.business-standard.com/article/companies/india-needs-3-million-cyber-security-professionals-right-now-ibm-118051300153\\_1.html](https://www.business-standard.com/article/companies/india-needs-3-million-cyber-security-professionals-right-now-ibm-118051300153_1.html)

<https://www.interpol.int/en/crimes/cybercrime/covid-19-cyberthreats>

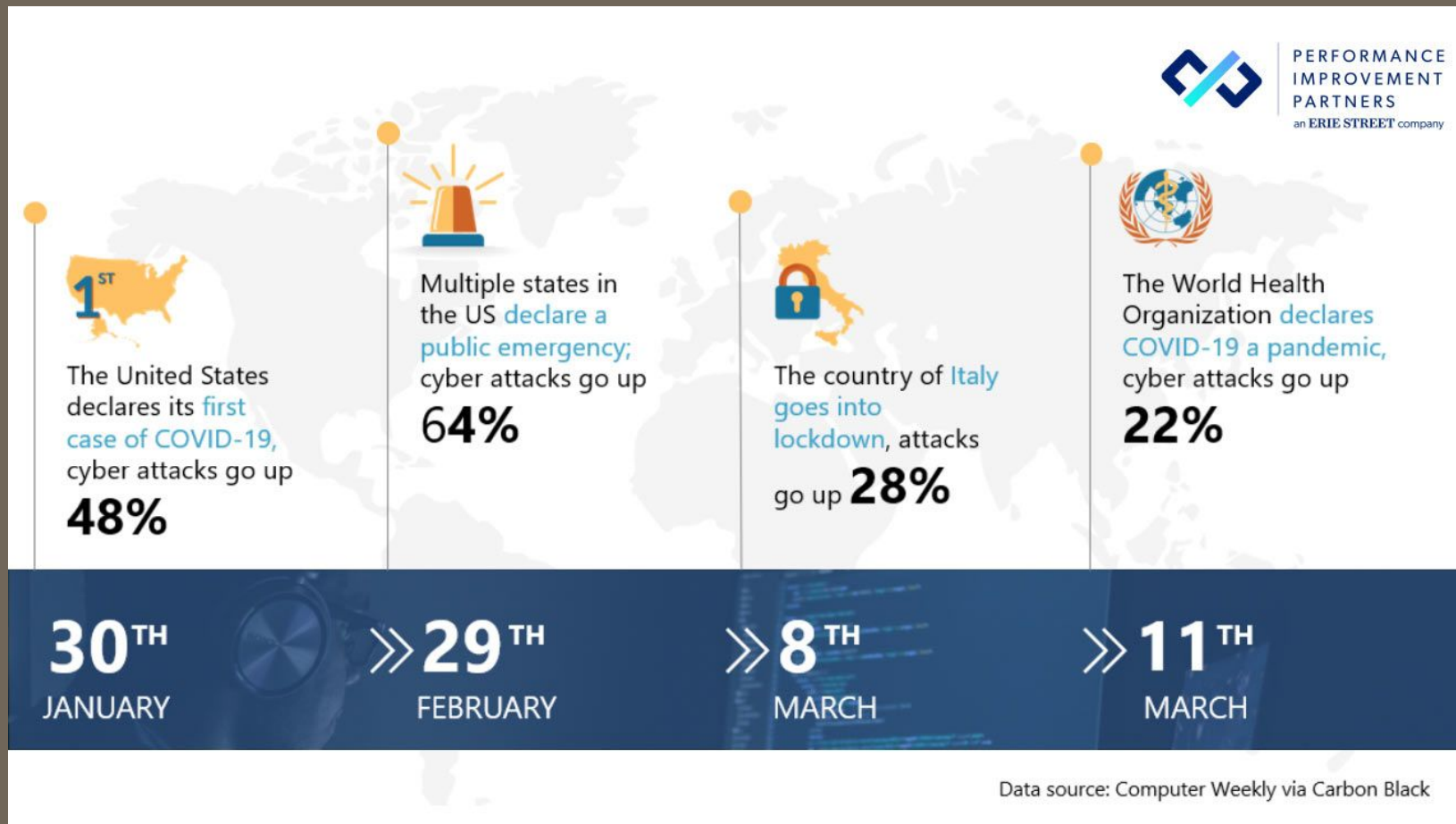
**Distribution of the key COVID-19 inflicted cyberthreats based on member countries' feedback**



- <https://www2.deloitte.com/ch/en/pages/risk/articles/impact-covid-cybersecurity.html>
- <https://www.thehindubusinessline.com/info-tech/surge-in-cybercrime-amidst-covid-pandemic-86-involved-in-phishing-study/article34140656.ece>

- <https://economictimes.indiatimes.com/news/company/corporate-trends/3x-increase-in-cyber-attacks-results-in-increased-budgets-and-attention-on-cyber-security-issues-etilc-members/articleshow/83949181.cms>

<https://www.pipartners.com/covid-19-cyber-security-statistics-40-stats-and-facts-you-cant-ignore/>



THANK YOU