



BREACHED DATA ANALYSIS



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#### **INTRODUCTION TO DATA BREACH**

Introduction to Data Breach and list of data breaches from way back in 2007 till 2020.

#### **DATA BREACH RECORDS**

Records contains a list of Data breach indexes contains name of the company whose data got breached.

#### **BREACH DATA SOURCES & REFERENCES**

List of Websites, Links of the breached websites data.

#### **DATA BREACH FORUMS**

List of Data Breach forum where any news & updates regarding any data breach is reported.

### WHAT CAN A USER LEGALLY DO WITH BREACH DATA

Enabling legal and ethical uses for breach data, Notifying prospective individuals or companies.

#### **PROHABITED USE OF BREACH DATA**

The restriction which might occurred while conducting a data breach analysis.





# INTRODUCTION TO DATA BREACH



## INTRODUCTION TO DATA BREACH



In Today's modern era where information is being sold for some amount of money which is critical for the one who is purchasing it. Information can be in any form or format which may be paperless or soundless. To protect critical information the need of information security was established.

Organizations spend a lot in securing their trade secret information from being published or exposed to the competitors or outside the network, but even after doing a lot of investment their information breaches (By staff, By systems, any Weakness of process or procedure) which could lead towards data breaches.

#### What is Data Breach?

"Breach Data" is data that is made publicly available by individuals or entities that perpetrate data breaches. While the act of the breach itself is illegal, obtaining and using the data after it has been leaked is both lawful and very useful in OSINT investigations. Most of the company breaches are simply usernames/email addresses and passwords, likely obtained from unsophisticated hacking crews scanning the Internet for unprotected servers left open for external connections.

Sensitive data sets are typically executed by more sophisticated actors and are often hacked government sites or protected data servers; Hacked data sets are routinely uploaded and provided (some free and others paid) to the public on various paste or file storage sites and also to more limited audiences via dark web forums or marketplaces.



### **DATA BREACH RECORDS**

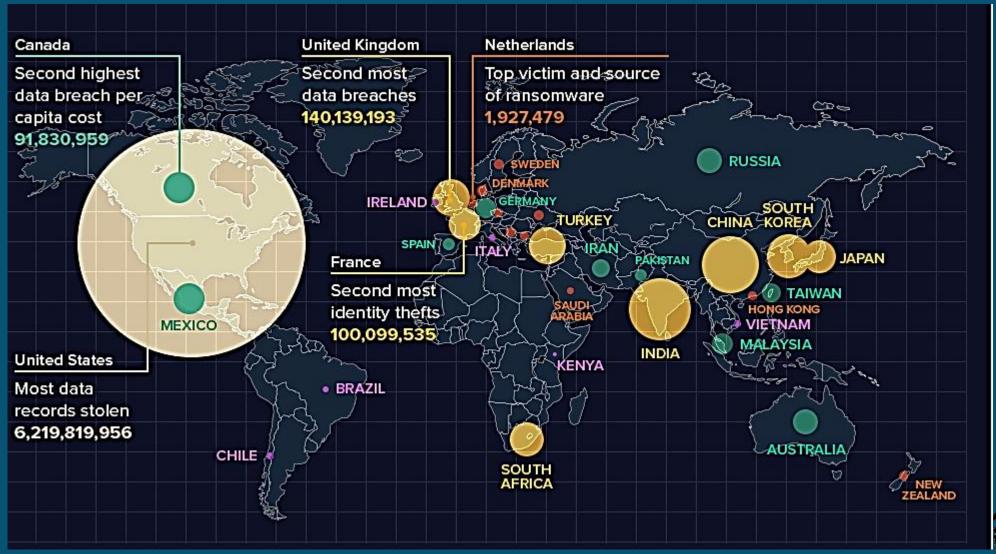




### DATA BREACH RECORDS



Distribution of breached data records across the world since 2013.





### DATA BREACH RECORDS



## Total Data Records Lost or Stolen by Country



1 billion+

United States 6,219,819,956



100 million to 1 billion

India 394,307,531

China 350,752,955

South Korea 228,726,843

United Kingdom 140,139,193

Turkey 132,312,866

Japan 114,769,575

South Africa 106,654,166

France 100,099,535



10 million to 100 milion

Mexico 98,252,295

Canada 91,830,959

Russia 56,740,681

Australia 50,342,722

Malaysia 46,347,351

Germany 44,887,197

Taiwan 35,414,686

Iran 23,562,000

Spain 11,159,702

Pakistan 10,748,176



1 million to 10 million

Serbia 7,276,605

Ukraine 7,000,000

Denmark 6,203,195

Sweden 6,174,257

Hong Kong **4,422,998** 

Czech Republic 3,504,000

Bulgaria 2,832,312

Netherlands 1,927,479

New Zealand 1,686,928

Saudi Arabia 1,000,000



100,000 to 1 million

Italy 862,218

Vietnam 735,000

Ireland 382,899

Chile 308,189

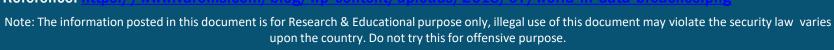
Brazil **285,373** 

Kenya 134,000

**TOTAL DATA RECORDS LOST OR STOLEN SINCE 2013:** 

9,727,967,988

#### Reference:









## BREACH DATA SOURCES & REFERENCES



## BREACH DATA SOURCES & REFERENCES



Following are the list of Websites which keeps you update regarding the data breach if happen, it might be conducted using your email address, a company name, username or IP Address.

a company name, username or IP Address.					
S.No	Website/ Domain Name	Description	Detect Breach of		
		Have I been pwned? is a site to check if you have an account that has been compromised			
		in a data breach. The site came about after what was, at the time, the largest ever single			
1	https://haveibeenpwned.com/	breach of customer accounts	Email Address		
		get a full report on your compromised accounts and notifications any time your accounts			
2	https://monitor.firefox.com/	appear in new data breaches.	Email Address		
		DeHashed is a hacked-database search-engine created for security analysts, journalists,			
		security companies, and everyday people to help secure accounts and provide insight on	Email, IP Address, Username, Phone		
3	https://www.dehashed.com/	database breaches and account leaks.	Number, Domain Name		
		GhostProject.fr is a Fastest Free Database Lookup of Recent 1.4 billion password breach			
4	https://ghostproject.fr/	compilation, Ghost Project allows you to Search by email or username.	Email Address, Domain Address		
5	https://www.hotsheet.com/inoitsu/	Use this free service to see if an email address is in any hacked data from known breaches	Email Address		
		BreachDirectory.tk allows you to search through all public data breaches to make sure			
6	https://breachdirectory.tk/	your emails, usernames, passwords, and domains haven't been compromised.	Email Address, Username		
	https://breachdirectory.com/home?l	BreachDirectory.com allows you to search through all public data breaches to make sure	Email Address, Domain Name, IP		
7	ang=en	your emails, usernames, passwords, and domains haven't been compromised.	Address, Username		
		Vigilante.pw aims to raise awareness regarding database breaches by providing as much			
8	https://vigilante.pw/	necessary information as possible regarding security breaches.	Domain Name		
		With the HPI Identity Leak Checker, it is possible to check whether your email address,			
		along with other personal data (e.g. telephone number, date of birth or address), has	Email Address, Domain Name, IP		
9	https://sec.hpi.de/ilc/	been made public on the Internet where it can be misused for malicious purposes.	Address, Username		
		EmailRep uses hundreds of factors like domain age, traffic rankings, presence on social			
		media sites, professional networking sites, personal connections, public records,			
		deliverability, data breaches, dark web credential leaks, phishing emails, threat actor			
10	https://emailrep.io/	emails, and more to answer	Email Address		

## BREACH DATA SOURCES & REFERENCES



Following are the list of Websites which keeps you update regarding the data breach if happen, it might be conducted using your email address, a company name, username or IP Address.

S.No	Website/ Domain Name	Description	Detect Breach of
		The Domain Search lists all the people working in a company with their name and	
		email address found on the web. With 100+ million email addresses indexed,	
11	https://hunter.io/search/	effective search filters and scoring, it's Hunter's most powerful email-finding tool.	Email Address
	https://weleakinfo.com/search?type	Get access to an ever growing collection of over 7,000 data breaches. Hundreds	
		of exclusive databases only available on We Leak Info such as Shein, Sephora, and	Email Address, IP Address,
12	<u>com</u>	Adult Friend Finder!	Domain Name, user name
		scylla.sh has two major goals. One is to have a community-oriented database leak	
13	https://scylla.sh/	community that is a useful tool for security researchers.	Email Address
		Leak-Lookup allows you to search across thousands of data breaches to stay on	
		top of credentials that may have been compromised, allowing you to proactively	
14	https://leak-lookup.com/databases	stay on top of the latest data leaks with ease.	Domain Name





## BREACH DATA FORUMS



### **BREACH DATA FORUMS**



In order to monitor data breach, list of forums where information is uploaded at earliest of the breach data. The list is not extensive and doesn't contains the limited links it may vary from forum to forum. But most likely these are the common forums where breach data information is uploaded.

S.No	Website/ Domain Name	Description
1	https://www.reddit.com/r/pwned/ https://twitter.com/haveibeenpwned	These are two of the most active threads posting information about new breach leaks.
2	https://raidforums.com/Announcement- Database-Index-CLICK-ME	This forum contains thousands of dataset of compromised websites which is being sold for thousands of dollar
3	https://nuclearleaks.com/	This site has a great list of historical breaches, the original date of breach, number of records compromised, and hashing algorithm (very helpful to know whether you are getting a .txt file or a list of hashed passwords, for example). This site does not allow for downloads of the breach files themselves and instead claims its primary purpose is to raise awareness about database breaches.
4	https://databases.today/	This site claims it has "the biggest free-to-download collection of publicly available website databases for security researchers and journalists." The site contains 1385 databases (totalling 73 gigabytes) of the most popular leaks over recent years (LinkedIn, Ashley Madison, Yahoo, DropBox, MySpace, etc.)
5	https://snusbase.com	This site offers a paid search and API capability against what appears to be all the databases from other Databases.





## WHAT CAN A USER LEGALLY DO WITH BREACH DATA



## WHAT CAN A USER LEGALLY DO WITH BREACH DATA



There are many legal and ethical uses for breach data, which includes acting as a critical source for enabling OSINT investigations. There are several recommendations for responsibly using this information:

- Enable your own investigative efforts or OSINT trade craft;
- Support only current clients and services. Notifying prospective individuals or companies;
- Understand your company or unit's policies for collecting, securing and storing, and using this data;
- Finding patterns in passwords or usernames, and other methodology or research interests;
- Being a security advisor or Professional of a company, you can randomly check company's published email addresses over these websites;





# PROHABITED USE OF BREACH DATA



## PROHABITED USE OF BREACH DATA



There are numerous challenges while assessing a data breach for individual or for a company becomes a serious issue for those countries where privacy is the concern.

Here are some list of limitation & challenges which may occur during the data breach analysis phase:

- 1. Reputation management is another strong concern since the general public is often uncomfortable with companies or government agencies collecting citizens' personal information (even publicly available);
- 2. If you are storing this data (particularly in a cloud environment), it is in your interest to take all necessary measures to comply with applicable data and privacy laws\*;
- 3. Do not illegally profit from the breach data (i.e. cannot use it to commit another crime);
- 4. Do not sell breach data to third parties (enabling your own investigative capabilities as opposed to selling data for profit);
- 5. Do not, or induce others to, encourage or pay hostile actors to acquire this data;
- 6. Most people will not understand how you obtained the data, will likely be suspicious of what you are trying to do and could misint erpret your actions as blackmailing.





## **THANK YOU**

