

PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY



Department of Computer Science and Engineering
SPECIALIZATION IN CYBER SECURITY

PRESENTATION

PHISHING ATTACK

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Introduction

Phishing is a type of social engineering attack often used to steal user data, including login credentials and credit card numbers.

What is Phishing Attack?

Phishing is one type of cyber attack. Phishing got its name from “phish” meaning fish. It’s a common phenomenon to put bait for the fish to get trapped. “Phishing” refers to an attempt to steal sensitive information, typically in the form of usernames, passwords, credit card numbers, bank account information or other important data in order to utilize or sell the stolen information.



Typical Scenario of Phishing Attacks



History of Phishing Attack

07

1990

The first phishing attempt is recorded on America online (AOL). Hacker attempt to steal login credentials & personal information from AOL to resell online.

2008

Bitcoin & crypto currency are launched this increases the creation of malware as it is easier for cyber criminals to securely receive payment from their victims

2019

Cyber criminals begin hiding malicious code inside image files to slip through user's anti-virus software

2000

The rise of E-commerce encourages cyber criminals to create spoofed websites, impersonating popular domain like ebay & PayPal.

2013

Phishing becomes the primary technique to deliver ransomware

Types of Phishing Attacks

EMAIL PHISHING



CLONE PHISHING

SPEAR PHISHING

VOICE PHISHING

Email Phishing & it's Example

The most widely known form of phishing, this attack is an attempt to steal sensitive information via an email that appears to be from a legitimate organization.



Spear Phishing & it's Example

These email messages are sent to specific people within an organization, usually high-privilege

There is **something unusual** about this email, please take care as it could be malicious.

Tessian has flagged this email because it matches some common patterns seen in email impersonation attacks. Tessian found the following unusual about the email:

- The email's subject contains language commonly used in email attacks
- The email contains an unusual link [REDACTED] that matches some patterns seen in previous attacks

Please be careful when replying to or interacting with this email.

Subject: Notification : Please verify your account details.

GoDaddy Verification [REDACTED]
to info, 20210217170319.215ECB62F41CDE7E ▾

GoDaddy®

Dear [REDACTED]

We noticed some unusual activity on your GoDaddy account and we are concerned about potential unauthorized account access.

We need your help resolving an issue with your GoDaddy account.

Until you help us resolve this issue, we've temporarily limited what you can do with your account.

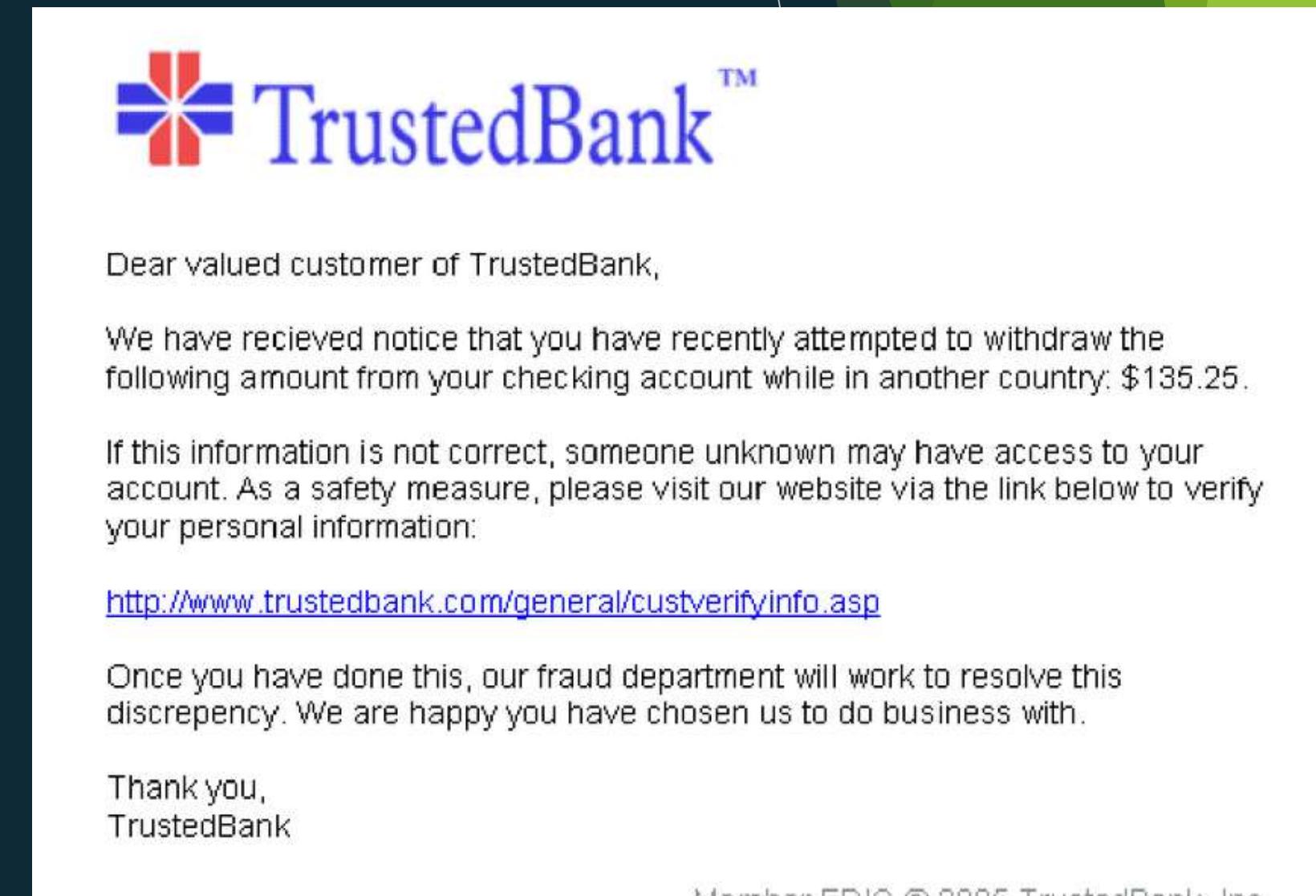
Please [click here and prove that you are the right account holder](#) in order to avoid account limitation.

In case you ignore this automated email, your account will be limited permanently.

Thank you.

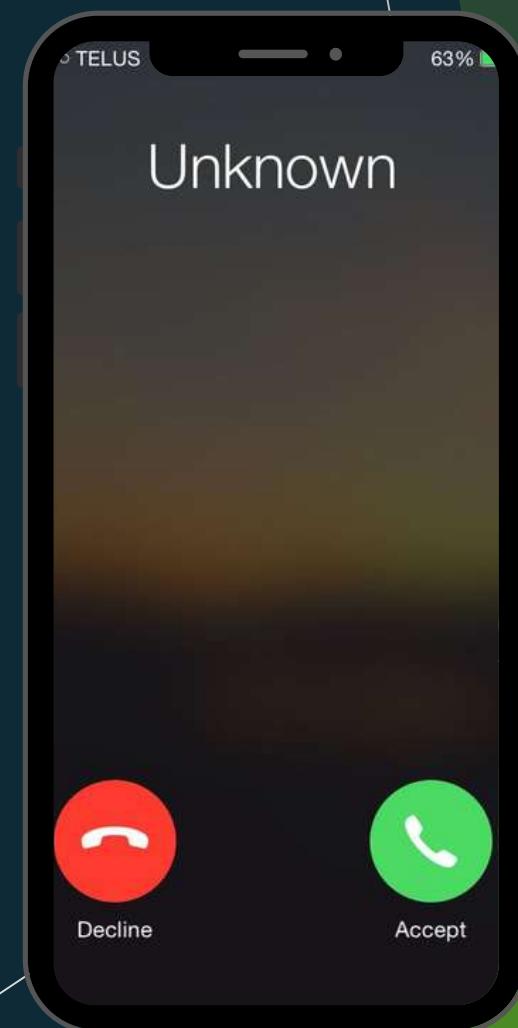
Clone Phishing & it's Example

In this type of phishing, the attacker clones a genuine or legitimate email that you might have received from an authentic sender but sent from a spoofed email id



Voice Phishing & it's Example

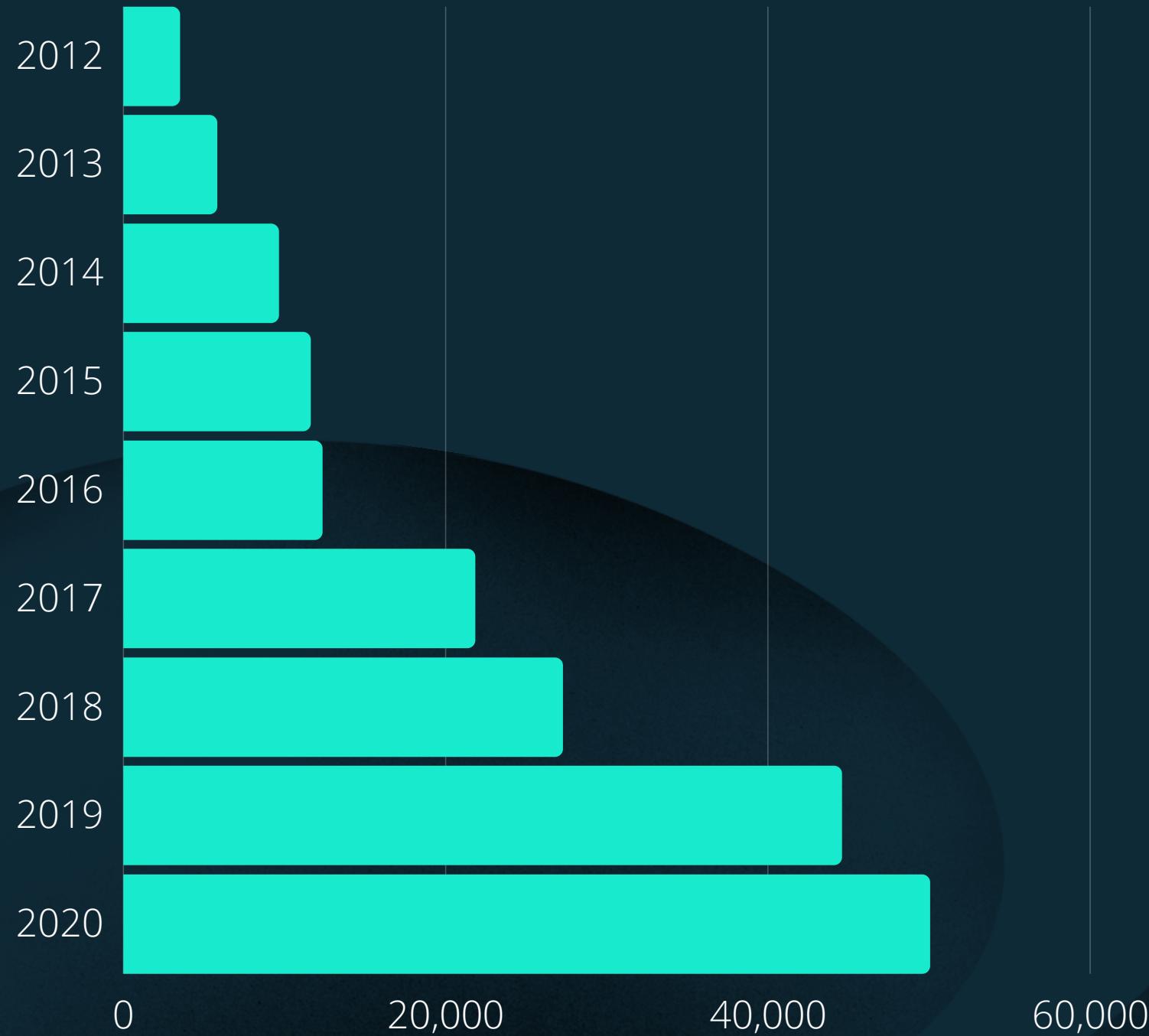
Vishing—or voice phishing—is the use of fraudulent phone calls to trick people into giving money or revealing personal information.



Impact of Phishing Attack

- ▶ **Financial Loss:-** It's often target financial information, such as credit card numbers and bank account login credentials.
- ▶ **Identity Theft:-** such as Social Security numbers and date of birth
- ▶ **Damage to Reputation:-** Organizations that fall victim to phishing attacks can suffer damage to their reputation.
- ▶ **Disruption to Business Operations:-** It's can also cause significant disruption to business operations,
- ▶ **Spread of Malware:-** which can infect a victim's computer or network and cause further harm.

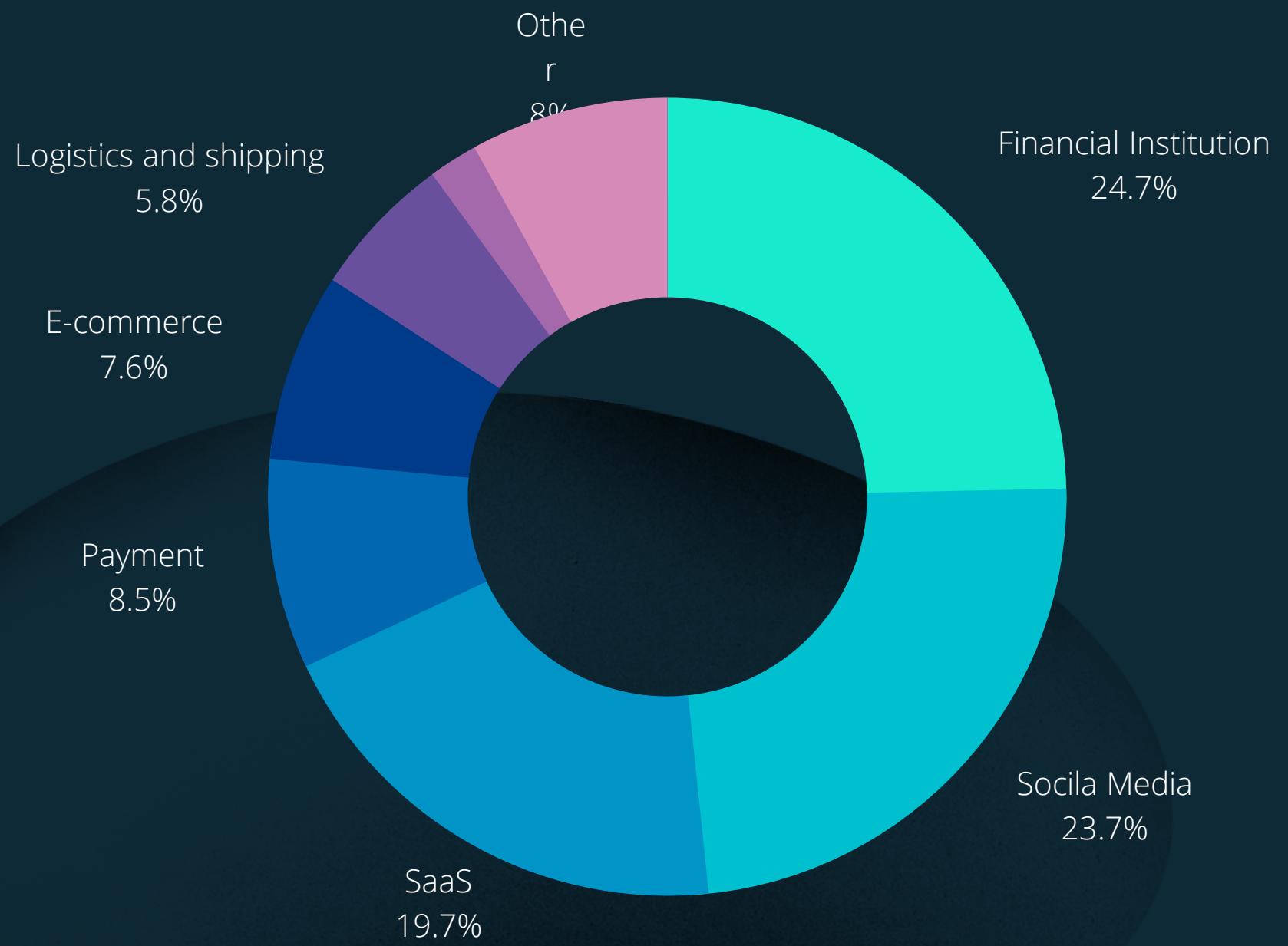
PHISHING ATTACK STATISTICS IN INDIA



Number of cyber crimes
reported across India

Around 83% of IT teams in Indian organizations said the number of phishing emails targeting their employees increased during 2020

PHISHING ATTACK STATISTICS IN INDIA



Most targeted industry in India,
first quarter of 2021

During the first quarter of 2021,
24.9% of phishing attacks
worldwide were directed towards
financial institution

On top of that, social media
accounted for 23.6 percent of
attacks making these two the
highest targeted industries when it
came to phishing during this
period.

PREVENTIONS FROM PHISHING ATTACK

- Know what a phishing scam look like
- Don't click on that link
- Don't give your information to unsecured site
- Rotate your password regularly
- Install Firewalls
- Install Anti-phishing software
- Be suspicious of password reset emails.

ANTI-PHISHING SOFTWARE

01 Area 1 Horizon

Cloud based service that offer protection from phishing on Email & network based vectors

02 GreatHorn

This cloud- native email security service protect from phishing attack on office 365, email carrying ransomware

03 IronScale

This is a self learning email security platform powered by AI. It can help you to detect & predict phishing attacks.

PUNISHMENT AND CYBER LAW

Hacking into a computer network, data theft, introducing and spreading viruses through computer networks, This is a punishable offence under Section 43 of the Information Technology Act, 2000 with the maximum punishment for the above offences is imprisonment of up to 3 years or a fine or Rs. 5,00,000 (Rupees five lac) or both.

CONCLUSION

- ➡ No single technology will completely stop Phishing Attacks.
- ➡ However a combination of good organization and practice, proper application of current technologies and improvement in security technology has the potential to drastically reduce the prevalence of phishing and the losses suffered from it.

Analysis & Resources



Websites for analysis

<https://www.virustotal.com/>



Websites

www.phishing.org

Thank You