Social Engineering Attacks and Security Measures





Information Security
Education & Awareness
Project Phase - II

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PURPOSE OF ISEA





Information Security Education & Awareness

Ministry of Electronics and Information Technology
Ministry of Communications and Information Technology
Government of India

- Generation of Core Research manpower
 - Formal, Non Formal Courses
 - Faculty Training
 - Short term/Specialized courses for Professionals
- Training for Government Personnel
- Awareness Campaign





Implementation Structure



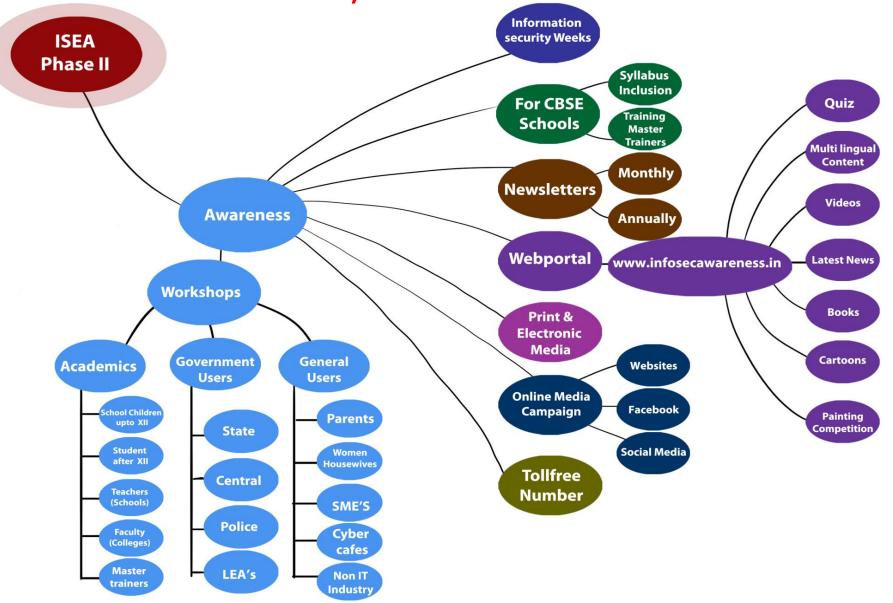
Area	Category	No's	Description										
Academic	ISRDCs	4	IISc. Bangalore, IIT – Bombay, Madras, Guwahati										
	RCs	7	IIT-Roorkee, Kharagpur ; NIT-Jaipur, Surathkal, Rourkela, Surat, Warangal										
	PIs												
	Category I	I 23 10 NITs, 5 IIITs, 2 CoE, etc.											
	Category II	13	13 CDAC & NIELIT Centres										
	Category III (Special Category)	5	5 State Technical Universities -Gujarat, West Bengal, Tamil Nadu, Madhya Pradesh and Telangana										
	Total	52											

Area	Category	No's	Description
GOT	Implementing Agencies	16	12 CDAC & NIELIT Centres, ERNET, NIC, CERT-In, STQC
Area	Category	No's	Description
Awareness		1	CDAC Hyderabad (through RCs, PIs, etc.)



Delivery Mechanism

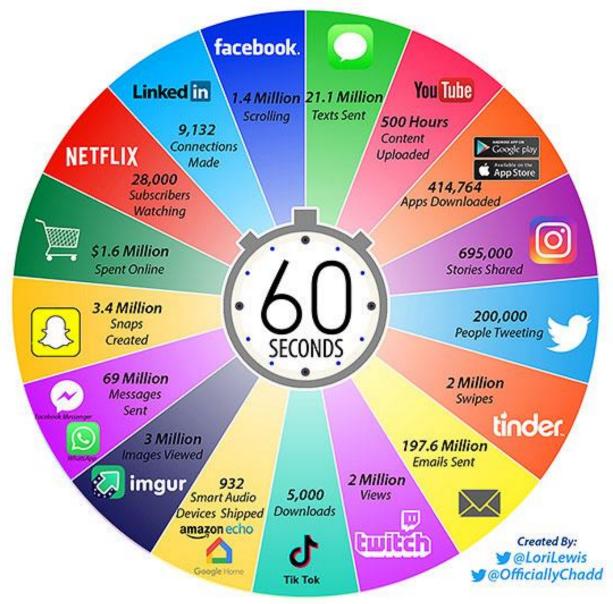






2021 This Is What Happens In An Internet Minute









Ten human negligence errors that can cause threat to any workplace:















awareness.in



Nature of crime



1. Fake online sites on the pretext of supplying food, medicine, oxygen & other essentials

- 2. Luring people into online transactions & hacking accounts
- 3. Creating fake social media accounts of influential officers, deceiving public using their names
- 4. Filming & circulating pornographic material online/blackmailing by threatening to share images of intimate moments



https://threatmap.checkpoint.com

Source: https://threatmap.checkpoint.com



Types of Social Engineering

Click here to access SBI Internet Banking



https://sbionline.com

Technical Social Engineering

- Phishing
- Vishing
- Spam mails
- Popup window
- Interesting Software



https://sbi0nline.in





Non-Technical

- Impersonation / Pretexting (retrieving the information via influencing)
- Dumpster Driving
- Spaying
- Acting as Technical expert

















40% fell victim to a phishing attack in the past month

The global shift to remote work has exacerbated the onslaught, sophistication, and impact of phishing attacks, according to Ivanti. Nearly three-quarters (74%) of respondents said their organizations have fallen victim to a phishing attack in the last year, with 40% confirming they have experienced one in the last month.



Eighty percent of respondents said they have witnessed an increase in volume of phishing attempts and 85% said those attempts are getting more





Social Engineering



Any act that influences a person to take actions that or may not be in their best intereswareness.

How it happens:

Fraudsters are able to trick people by playing on their emotions and getting people to act before they think, something people often do in an emotional state.

Example:

- **Desire to please**: Pretending to be your boss or other authority figure and telling you to do something that is critical, right away.
- Trust: Pretending to be a close friend or relative.
- Fear of scarcity: Saying offers are limited and/or will end soon.
- Threats to wellbeing: Pretending that access to critical resources such as your bank account, Card number
 OTP etc
- Greed/Entitlement: Saying you won something or you are getting a free gift.

Social engineering is information security's weakest link



Social Engineering attacks



Phishing: Phishing uses emails that appear to come from legitimate sources to trick people into providing their information or clicking on malicious links and put end users into one of the emotional states that causes them to act without thinking.

Vishing: Attackers use phone calls to trick victims into handling over data. They may pose as bank managers or other trusted entities to supply your credentials and other important data.

Smishing: Uses SMS text messaging to get you to divulge information or click on a malicious link.

Spear Phishing: Similar to phishing but the attacker customizes the email specifically for an individual to make the phish seem more real. They often target key employees with access to critical and/or confidential data







Quid Pro Quo: Pretends to be a service provider who keeps calling people until they find someone who actually requested or needs the service.

Baiting: Attackers setup traps such as USB drives, Malicious links, free download offers to entice users

Whaling: Attackers target high ranking employees to gain access to high value data. Government agencies are frequently targeted

Al Powered Malware: Al can be used to bypass antimalware solutions and in some cases and even impersonate senior members of staff





Hello ail.com, Income Tax Refund ALERT! I-T Department issues Rs 51,531 cr refund till 23 August 2021 > Inbox ×



Income Tax Refund ALERT <info@e.decorx.in> Unsubscribe

Sep 1, 2021, 2:15 PM (2 days ago)

to me ▼

<u>Dear</u> j

Income Tax Refund ALERT! I-T Department issues Rs 51,531 cr refund till 23 August 2021

Income tax refunds of Rs 14,835 crore have been issued in 2,170,134 cases and corporate tax refunds of Rs 36,696 crore have been issued in 128,870 cases......[Read More Info]

For FY2021-22, ITD has issued refunds:: 👉

FULL DETAILS



Phishing



- E-mail sent by online criminals to trick you into going to fake Web sites and revealing personal information
- In other words It is the criminally attempting to acquire sensitive information such as
 - usernames
 - passwords
 - credit card details

BEWARE! YOU CAN BE NEXT VICTIM OF PHISHING



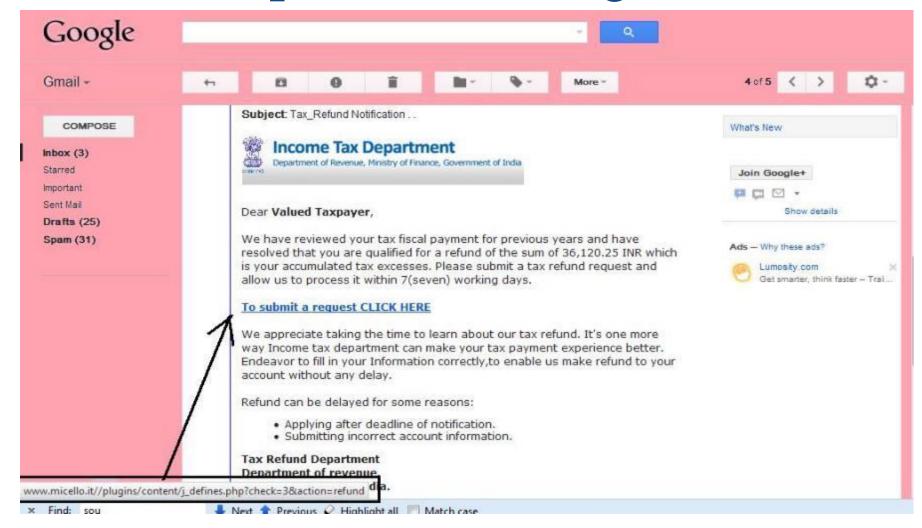


www.infosecawareness.in





Example of Phishing e-Mail



08-09-2021

www.infosecawareness.in

Subject: Tax Refund Alert..







Dear tax-payer,

This is to notify you that your tax-refund settlement of Rs 37,550.02 has been processed and is overdue for payment. Kindly re-submit a refund request through the reference below to receive you refund settlement within 7 working days.

CLICK HERE TO SUBMIT REQUEST

Note: you are advised to do the needful urgently as all uncompleted refunds are placed on hold till the next settlement year as mandated by RBI.

Income-Tax Dept. Ministry Of Finance, India India India



Language English +

Search 🖍 🔀













Administrative

Feedback On Website

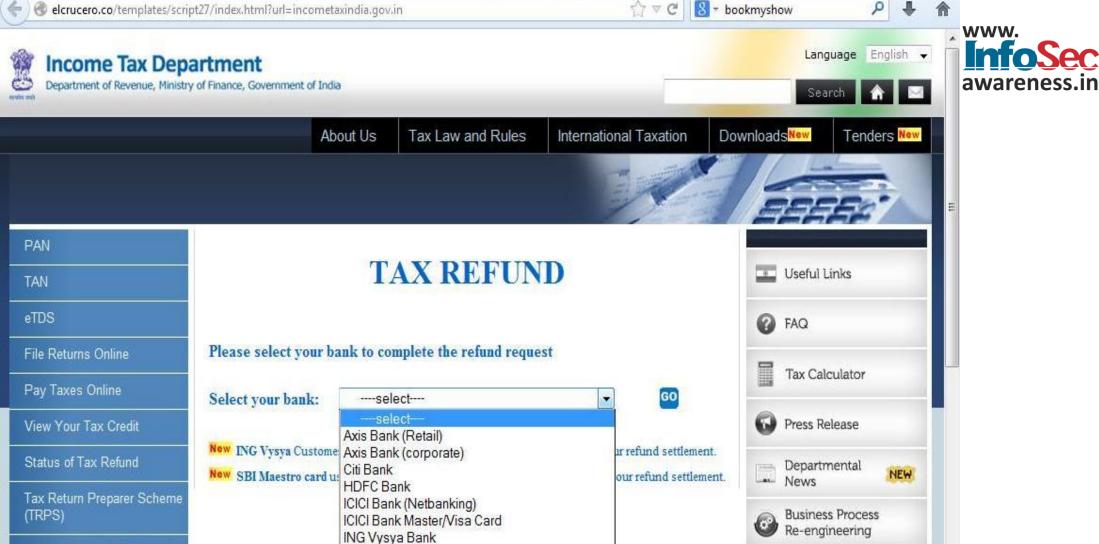
Report Phishing

Handbook 2012





0.00-2021





(ASK)

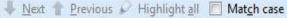
Aaykar Sampark Kendra

Tax Information Network

Annual Information Return







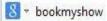
State Bank Of India (Maestro Card)

State Bank Of India (Master/Visa Card)

others (select if your bank is not listed above)

Standard Chartered Bank

Next 1 Previous Prighlight all Match case







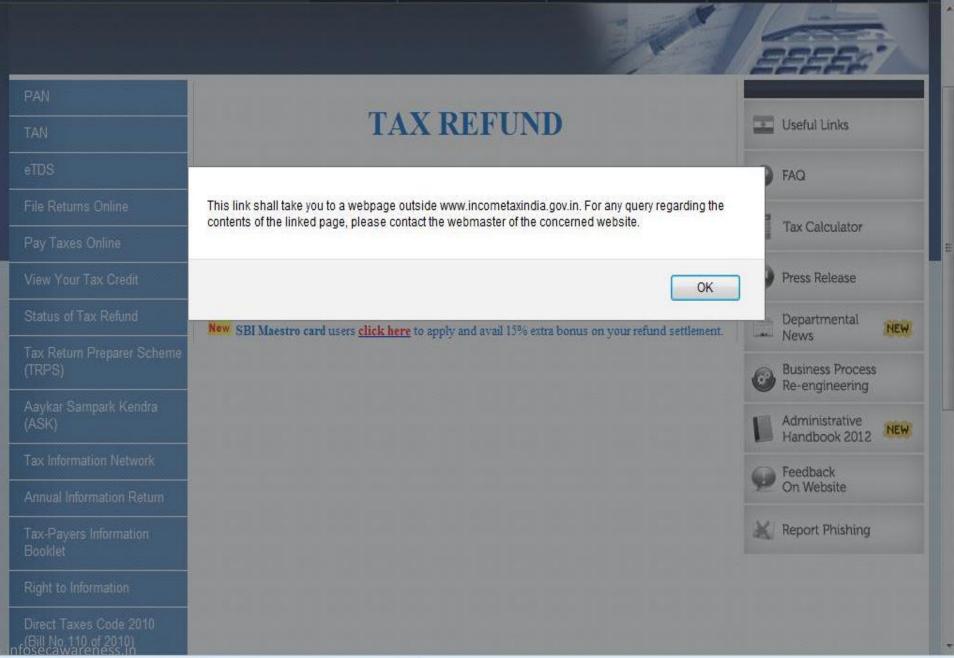
www.

awareness.in





08-09-2021







0.00-2021

Draft Direct Tax Code

PAN

TAN

eTDS

AIR

OLTAS

PAY TAXES ONLINE

VIEW YOUR TAX CREDIT

Tax-Payers Information Booklet

BPR

Foreign Remittance (Form 15CA)

Aaykar Sampark Kendra (ASK) PAN/TAN/OLTAS & eFiling queries

0424 2420000



Where's My Refund

Dear applicant,

After the last annual calculation of your fiscal activity we have determined that you are eligible to receive a tax refund of 820.50 Rupees.

Please submit the tax refund and allow us 3-5 business days in order to process it.

If you don't receive your refund within 5 business days from the original IRS mailing date shown on Where's My Refund?, you can start a refund trace online.

To get to your personal refund information, be ready to enter your:

Full name, Address and the Debit/Credit Card where refunds will be made.

To access the form for your tax refund, please click on the "Where's My Refund?" above image or Tax Refund Online Form.

Note:

- For security reasons, we will record your ip-address and date.
 Deliberate wrong inputs are criminally pursued and indicted.



Press Release



Educational Institutions under section 10(23 C)



Industrial Parks u/s 80 IA(4)(iii)



Tax Information Network



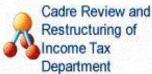
TIN Helpdesk



Tax Calculator



Departmental News





Tax return proparore echomo





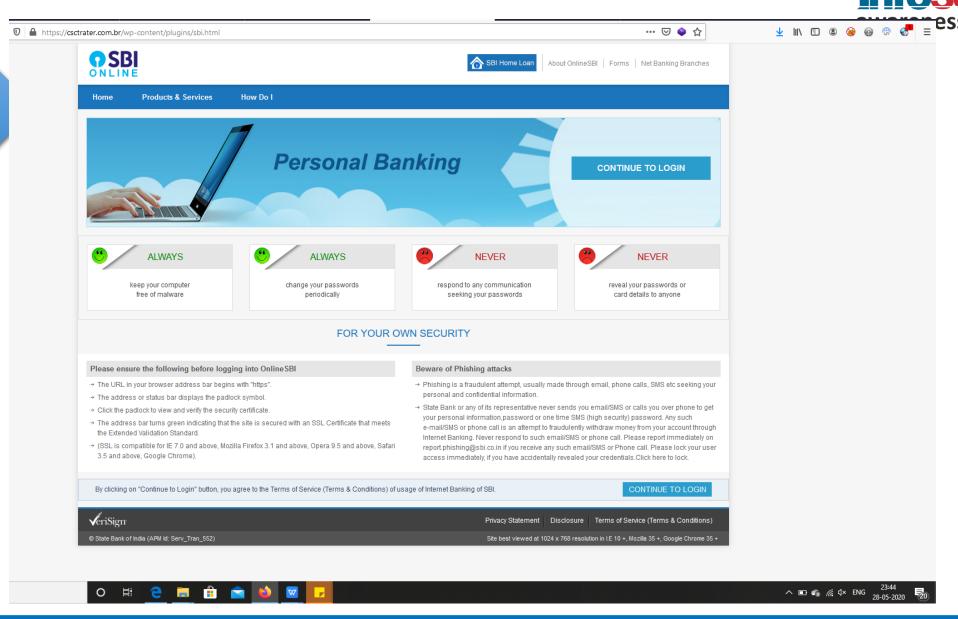




Draft Direct Tax Code	Tax Refund Online Form	Press Release
PAN	• Please enter your information where the refund will	Institutions under
TAN	*Cardholder Name:	section 10(23 C)
eTDS	*Date of Birth: Month ▼ Day ▼ Y	ear ▼ Industrial Parks u/s 80 IA(4)(iii)
AIR	*Mother Maiden Name:	Tax Information
OLTAS	*Address:	7 TIN
PAY TAXES ONLINE	*Town/City: *State/Province/Region:	Helpdesk
VIEW YOUR TAX CREDIT	*Postal Code:	Tax Calculator
Tax-Payers Information	*Phone Number:	Departmental News
Booklet	*Bank Name:	Cadre Review and
BPR	*Card Number:	Restructuring of Income Tax
Foreign Remittance (Form 15CA)	*Expiration Date: Month ▼ Year ▼	Department
	*Card Verification Number:	
Aaykar Sampark Kendra (ASK) PAN/TAN/OLTAS &	*ATM Pin:	tros TAX RETURN PRIMARENS
eFiling queries	Submit	Tax return



Another example of Phishing website for banking



www.



www.isea.gov.in

Is this SBI Login Page?







Home	Products & Services																										
Lo	gin			Welcom	ne to Pe	ersona ⁰	al Banl	nking	1																		
	To access your accounts Login to OnlineS													0	nli	ne V	'irtua	al Ke	yboa	ard							
	User Name*														~	1	@	#	\$	%	Λ	8 t	*	()	_	+
			=												•	1	9	7	2	6	3	8	5	4	0	-	=
	Password*		=												r	t	w	0	а	i	v	n	0	ш	Į	1	1
	Profile Password*																VV	-	Ч		. y	P			1	1	1
	Email Id*														d	a	g	Ť	S	h	J	K		[1	1	1
	Email Password*													,	V	X	С	Z	m	n	b	<	>	;	:	1	"
	Mobile No*	y*											CA	PS L	OCK			1	CLEAF	2		,		?			
				login. Mo aging in E	Password															3							
		Sect	ecured	encrypte																							















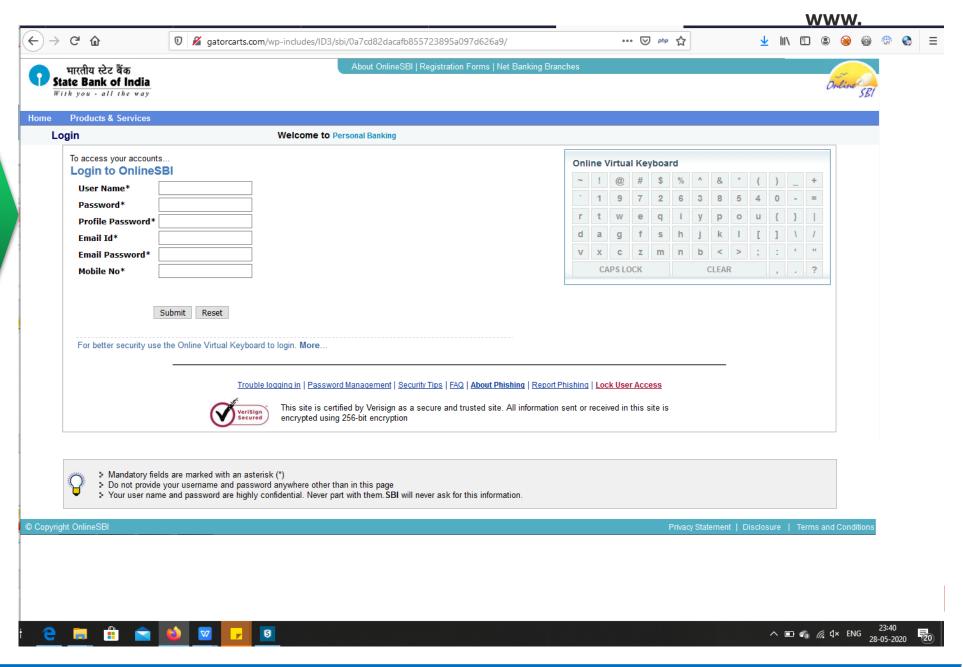
Mandatory fields are marked with an asterisk (*)
 Do not provide your username and password anywhere other than in this page
 Your user name and password are highly confidential. Never part with them. SBI will never ask for this information.







- Login page would never ask profile password
- Email password is never asked by bank or any other websites







How to recognize??





Tall Evan No. 4000 42E C20

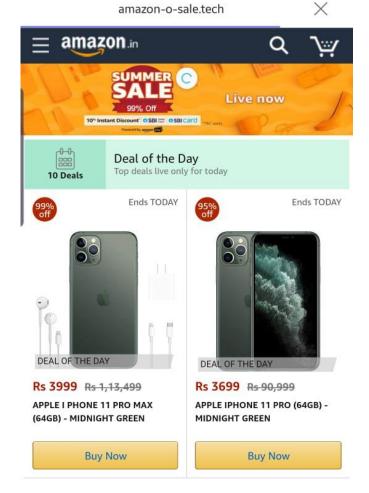


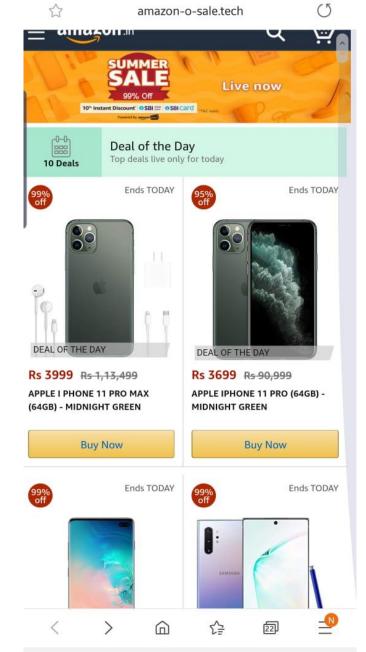


- Phishing attacks remain an effective method of stealing credentials and identities,
 distributing malware, eliciting fraudulent payments etc.
- Research shows that a new phishing site is launched every 20 seconds
- 87% of successful mobile phishing attacks take place outside of e-Mail
- 60% of mobile phishing attacks occur over HTTPS

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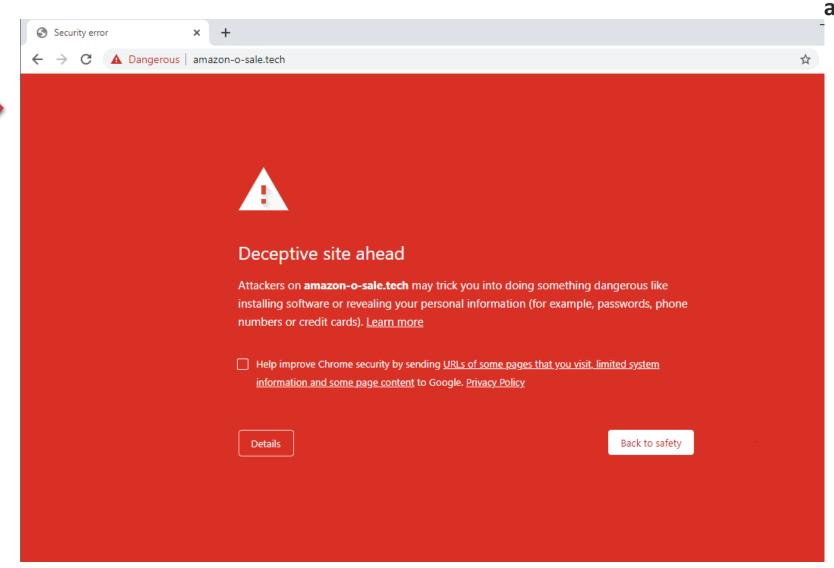




www.
InfoSec
awareness.in

Whats this?

Have you seen this page anytime?





HOW TO DETERMINE FAKE WEBSITES







Type the website's name into a search engine and review the results

The address bar contains a vital information. Always check the url before browsing / buying / registering





Look at the website's connection type
Make sure the website connects securely over
http (https, not http)



Verify website certificate and trust seals

Always check for SSL Certification, to confirm its legitimacy. Trust seals are commonly placed on homepages, login pages, and checkout pages.



http://www.gmailCOI

Look for bad English on the site

If you notice a large number of poorlyspelled (or missing) words, generally bad
grammar, or awkward phrasing, you
should question the site's reliability



Watch out for invasive advertising

If your selected site has a stunningly large number of ads crowding the page or ads that automatically play audio, it's probably not a credible site



For more details / queries on Cyber Security visit or call us to our Toll free number



InfoSec awareness.in



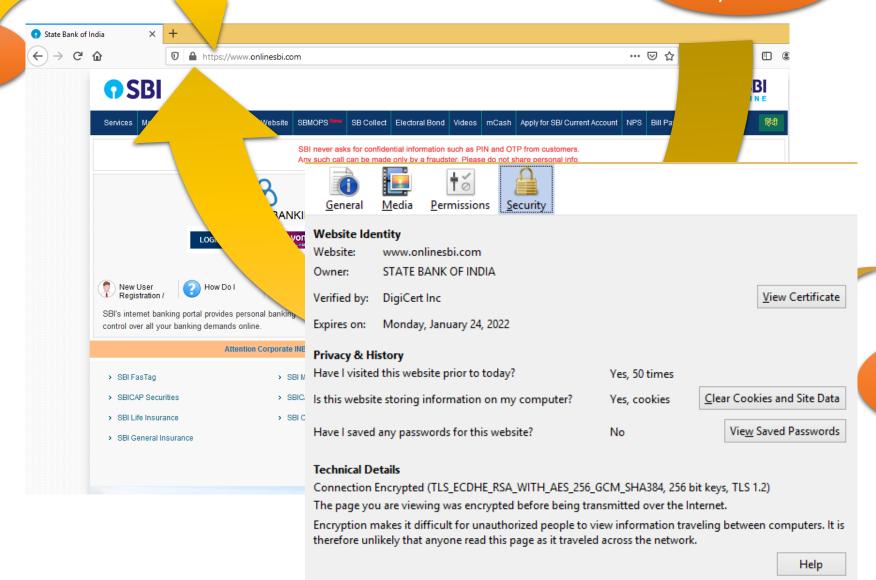




How to be Safe – Always look for

Padlock Symbol





Digital Certificate



Tips to avoid Phishing



- Never click on any link in emails, sms, whatsapp messages etc.,
- Never access important websites from search engines
- Type the website address in browser manually or copy paste the link if its correct website address
- Always check the link before clicking. Hover over it to preview the URL, and look carefully for misspelling or other irregularities.
- Enter your username and password only over a secure connection. Look for the "https" prefix before the site
 URL, indicating the connection to the site is secure.
- Be cautious about opening any attachments or downloading files you receive regardless of who sent them.
- Look for the sender email ID before you enter/give away any personal information.
- Use antivirus, antispyware and firewall software (update them regularly too).
- Always update your web browser and enable phishing filter.
- If you receive any suspicious e-mail do call a company to confirm if it is legitimate or not.
- Do use a separate email accounts for things like shopping online, personal etc.



Vishing & Smishing



Vishing - Phone calls made by fraudsters to steal your personal information and sensitive information

- they communicate
- as bank officer
- referring your shopping

OR you may land up callin phishing number through search engines







Vishing & Smishing



← AD-ROLEXS

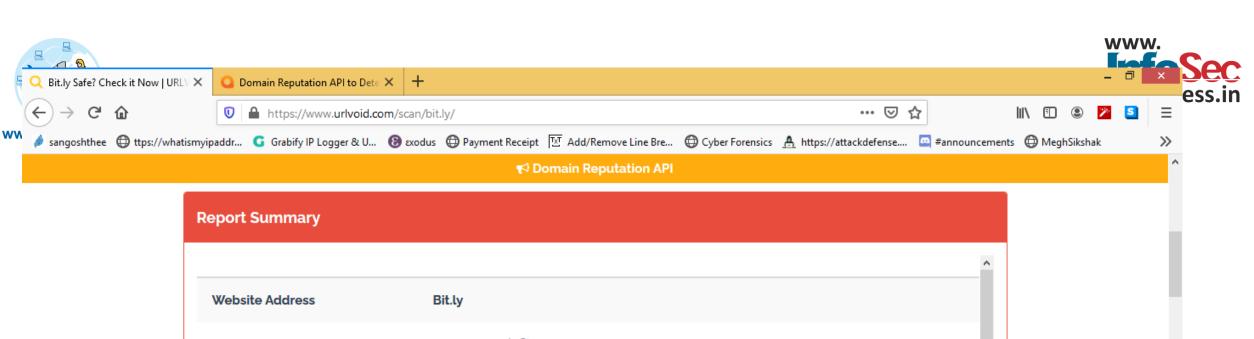
9/17/20 Thu 21:59

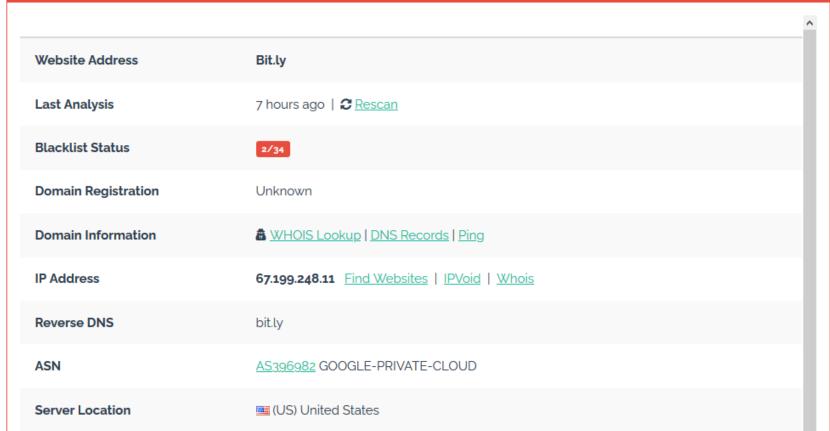
Hi Jagadish Babu, Last Day of RADO, ROLEX Flat 80% OFF SALE. LUXURY WATCHES & more. Hurry!

Visit: https://bit.ly

/2GWuz8T



















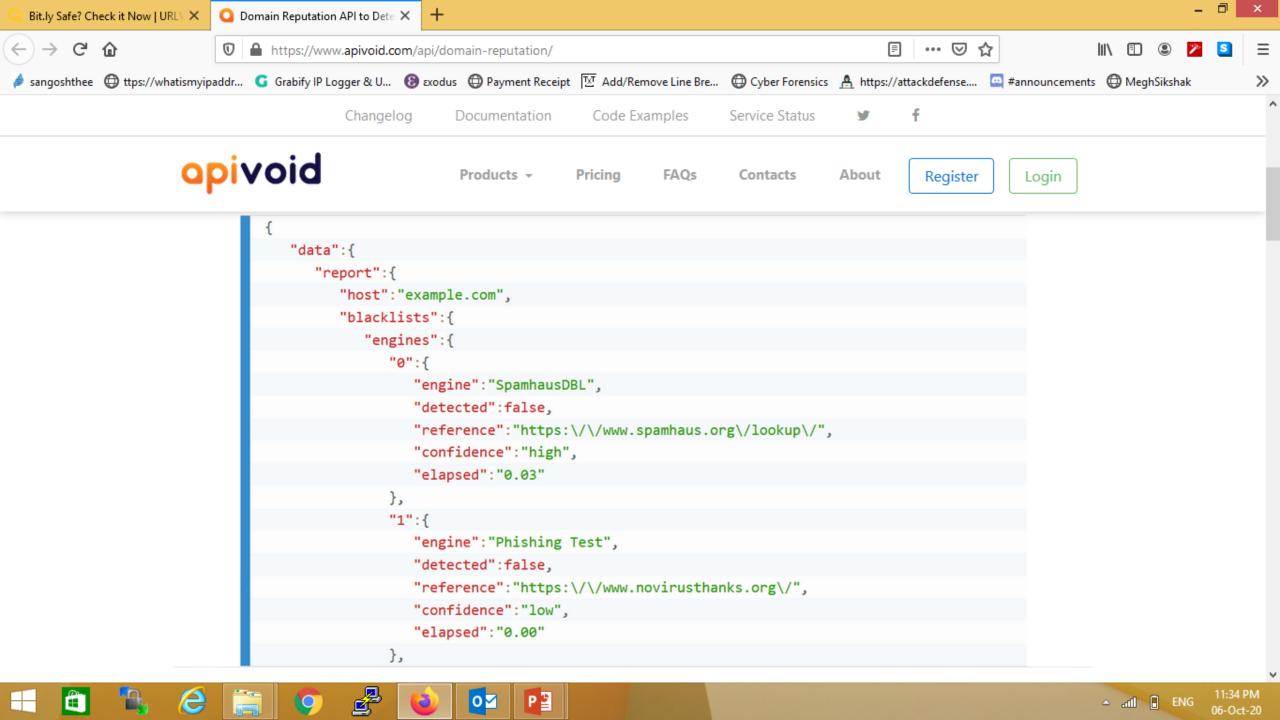








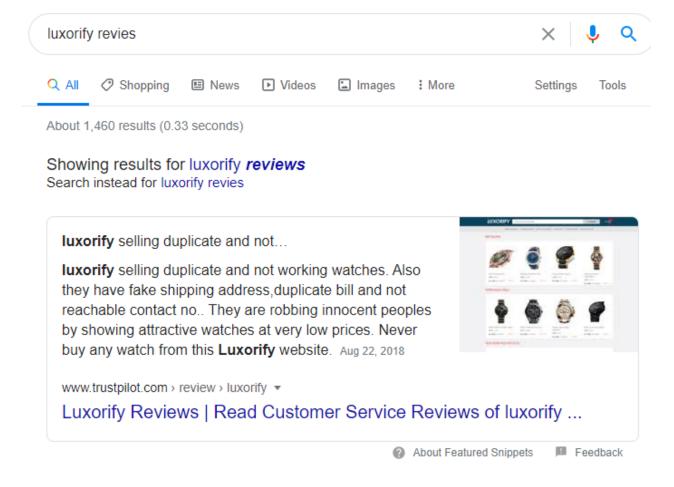






Check on Reviews





www.quora.com > How-can-Luxorify-sell-RADO-watches...

How can Luxorify sell RADO watches at an 80% discount? Are ...

Dear brother this is a big fraud watches quality is good but not original this all is duplicate I have buy a rado watch from luxrofy price is 11000 rs but I am not ...



Phishing with Unicode Domains



https://www.apple.com/

https://www.apple.com/





Another Example for smishing



Text Message Today 1:17 PM

Because of the COVID-19 outbreak we are giving out free iPhone 11 smartphones to help you spend time at home: Katie, go to appie10.info/DI7uxPFI0t





2020-02-14 FRI

Hello Dear, You're selected_under BusinessLoan_Yojana of Rs. 69,85000. Verify your details>> http://bit.ly/2NNjSpW

Loan for existing Business only!



New Scam:

9766XXXX23, received payment of Rs 3500.00 by PAYTM. Txn ID 9908XX25X.

Download now and Register to Receive your amount. TnC http://i3fq.com/L3lh2



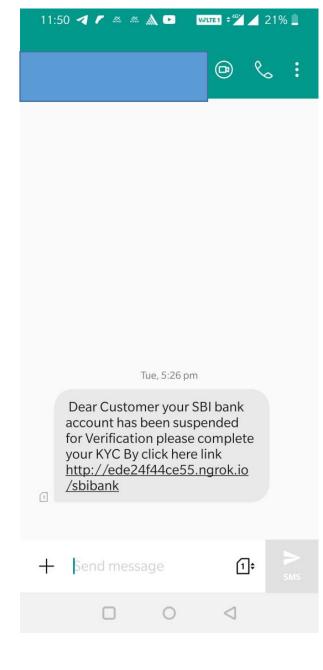
Tips to avoid Vishing & Smishing

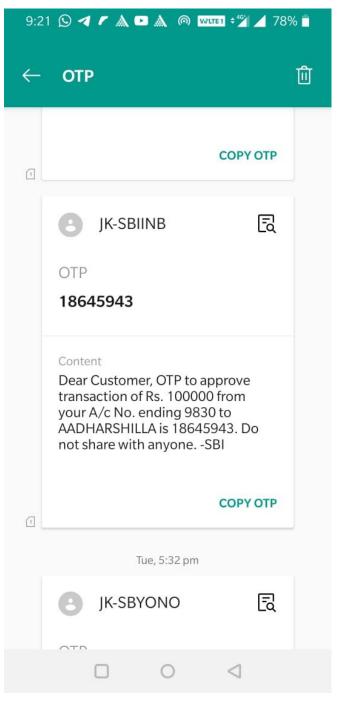


- Never reveal any information over phone calls
- Call the original company like bank, shopping toll free and enquire about the call received
- Avoid picking calls from unknown numbers
- Never respond to sms recevied from unknowns
- Avoid clicking links received on sms



KYC Frauds







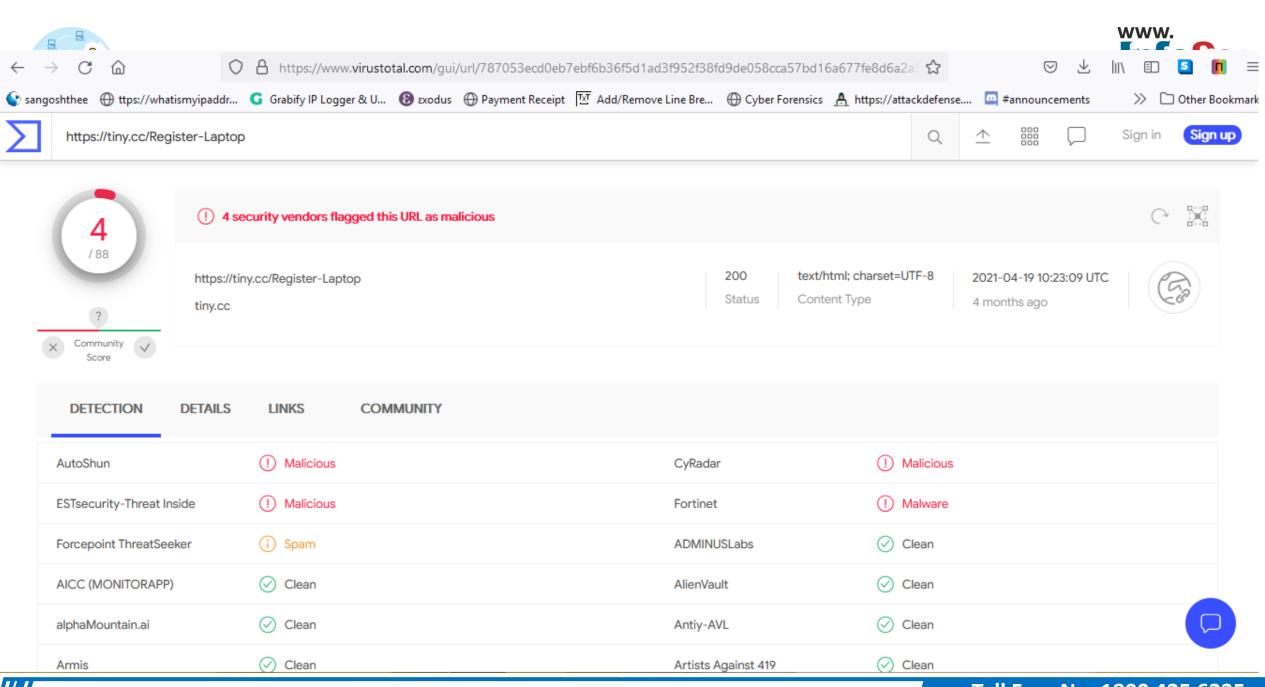


Free-Laptop

tiny.cc

https://tiny.cc/Register-Laptop







Tips to Stay Safe from Social Engineering



Don't click on direct links in emails, especially the ones asking for sensitive or personal details

Don't entertain any phone request asking for personal or financial details o

In case of doubt call the company or financial institution's number by yourself

Avoid sharing too much information on social media like your location, phone number and email id

Always think before you share

Don't panic, always go slow in case you receive any emails or phone calls asking for your personal details

Most of the fraudsters seek an advantage by asking you to act urgently





Social Engineering Red Flags





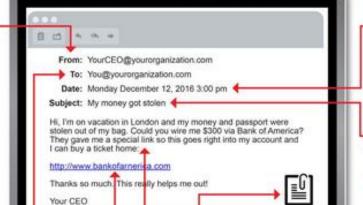
- I don't recognize the sender's email address as someone I ordinarily communicate with.
- This email is from someone outside my organization and it's not related to my job responsibilities.
- This email was sent from someone inside the organization or from a customer, vendor, or partner and is very unusual or out of character.
- Is the sender's email address from a suspicious domain (like micorsoft-support.com)?
- I don't know the sender personally and they were not vouched for by someone I trust.
- I don't have a business relationship nor any past communications with the sender.
- This is an unexpected or unusual email with an embedded hyperlink or an attachment from someone I haven't communicated with recently.



- I was cc'd on an email sent to one or more people, but I don't personally know the other people it was sent to.
- I received an email that was also sent to an unusual mix of people.
 For instance, it might be sent to a random group of people at my organization whose last names start with the same letter, or a whole list of unrelated addresses.



- I hover my mouse over a hyperlink that's displayed in the email message, but the link-to address is for a different website. (This is a big red flag.)
- I received an email that only has long hyperlinks with no further information, and the rest of the email is completely blank.
- I received an email with a hyperlink that is a misspelling of a known web site. For instance, www.bankofarnerica.com — the "m" is really two characters — "r" and "n."





 Did I receive an email that I normally would get during regular business hours, but it was sent at an unusual time like 3 a.m.?



- Did I get an email with a subject line that is irrelevant or does not match the message content?
- Is the email message a reply to something.
 I never sent or requested?

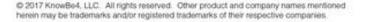


- The sender included an email attachment that I was not expecting or that makes no sense in relation to the email message. (This sender doesn't ordinarily send me this type of attachment.)
- I see an attachment with a possibly dangerous file type. The only file type that is always safe to click on is a .txt file.



- Is the sender asking me to click on a link or open an attachment to avoid a negative consequence or to gain something of value?
- Is the email out of the ordinary, or does it have bad grammar or spelling errors?
- Is the sender asking me to click a link or open up an attachment that seems odd or illogical?
- Do I have an uncomfortable gut feeling about the sender's request to open an attachment or click a link?
- Is the email asking me to look at a compromising or embarrassing picture of myself or someone I know?

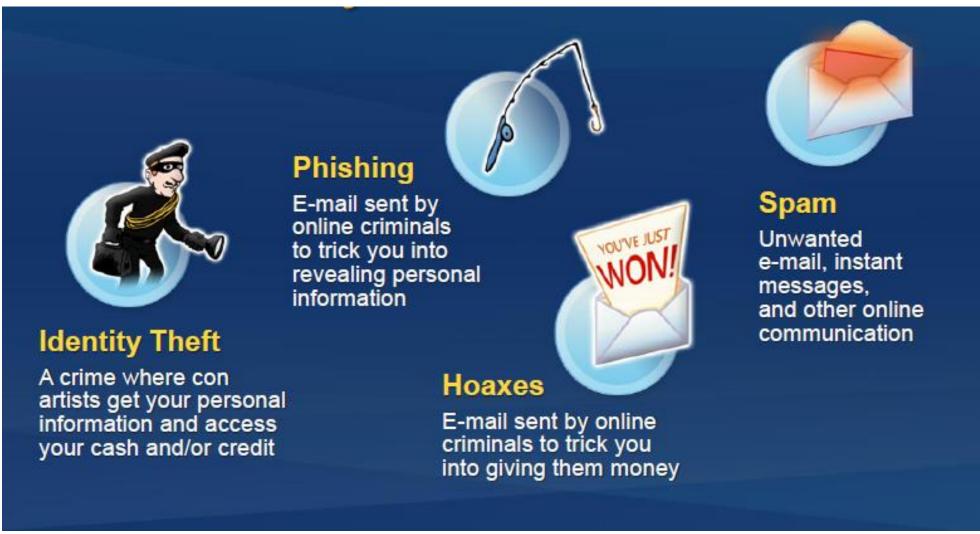


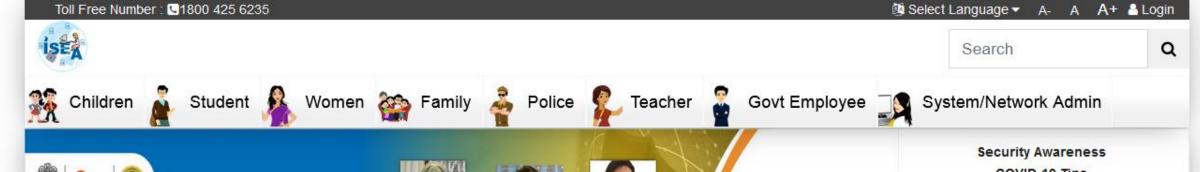




Personal threats to personal online safety









COVID-19 Tips



Not all cold and cough are symptoms of COVID-19. Get

proper information from genuine sources

Not all free antivirus software protect your systems. Install genuine paid antivirus software and protect your systems

Seemore ®

₹ ANNOUNCEMENTS

C-DAC Organizes Webinar on

6th Sep 2021 | 15.00 - 17.00 hrs

ast date for submission of entries by 31 August, 2020.

National Level Competitions on Informa

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♥ Tip of day



WORKSHOPS 326 PARTICIPANTS 32730



WORKSHOPS 758 PARTICIPANTS 88269

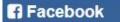


WORKSHOPS 54 PARTICIPANTS 17935

Ⅲ Latest Events



■ Latest News » Basics of software vurnerablity » The 17th International Conference on Information Systems Security



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ISEA WhatsApp Number: **94907 71800**

Email id: isea@cdac.in

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