Cybersecurity Landscape in Nepal: 2025 Santosh Sharma

- Cybersecurity Practitioner and Academician for 15+ years

 Currently Cybersecurity Consultant @WorldbankGroup
- CISO/CEO @AbrikTech
- Certified EC Council Instructor (CPENT, CEH, CSA,CCT,CSA)
- Visiting Faculty (IOE, Pulchowk, The British College, Islington College)
- Previously CTO/CISO @ Eminence Ways, Cybersecurity company (9 years)

About Me Santosh Sharma





Companies

News

Sign Up

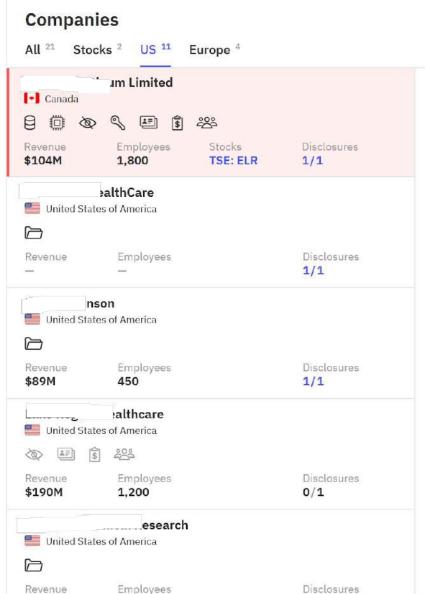
World Clocks Los Angeles € 08:45 PM -1d New York € 11:45 PM -1d London € 04:45 AM Paris € 05:45 AM Moscow € 06:45 AM Beijing 11:45 AM Tokyo

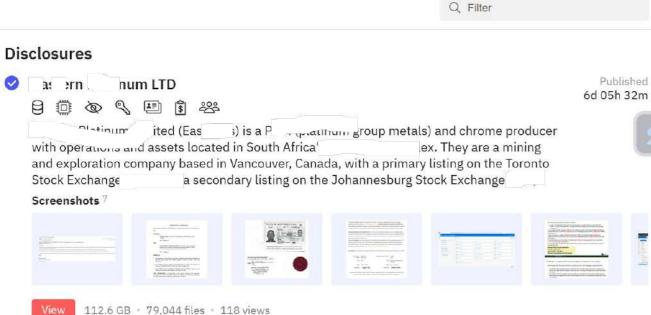
12:45 PM



\$5M

25





Website www.eastplats.com

1/1

Share on: 😘 💥 🚯









40,000 new vulnerabilities added in 2024 (33% increase from 2023)



331 zero-day vulnerabilities identified

Key Insights



55% with publicly available POC code



32% fully functional exploit code available



30% used in ransomware and APT campaigns



DeepfaceLab and Faceswap



FraudGPT and WormGPT





Al generated Phishing pages



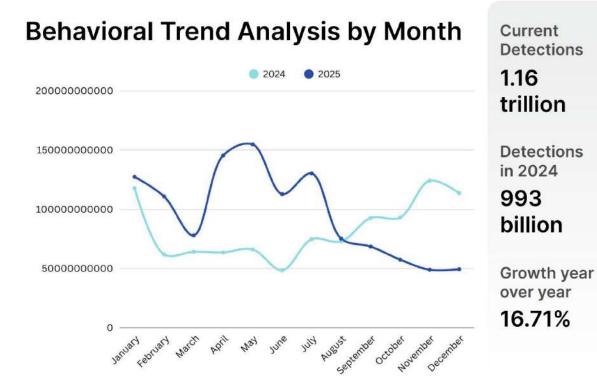
Eleven Labs and Voicemy.ai



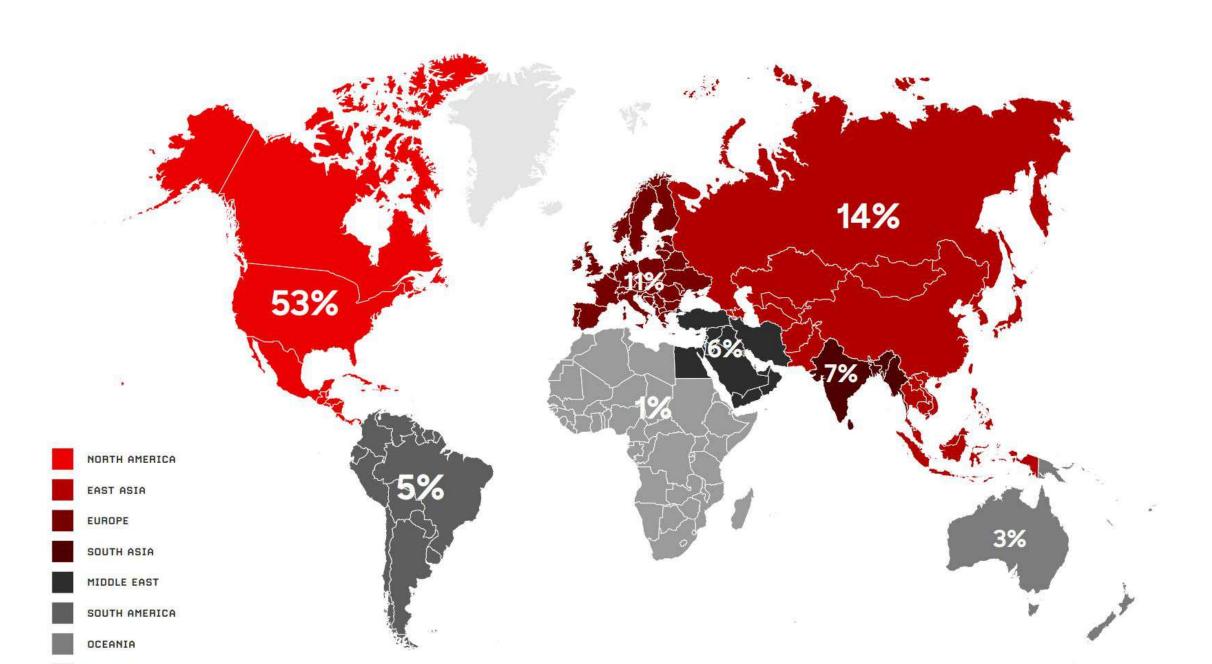
Al power social engineering bot

Rise of Automated Scanning

- Approx 36,000 scans per second (Rise of 16.7%)
- Targeted services include SIP, RDP, OT/IoT protocols



Interactive Intrusions by Region



Top vulnerabilities

Windows SMB Info Disclosure vulnerability

Apache Log4j RCE

Hardcoded password in IoT devices

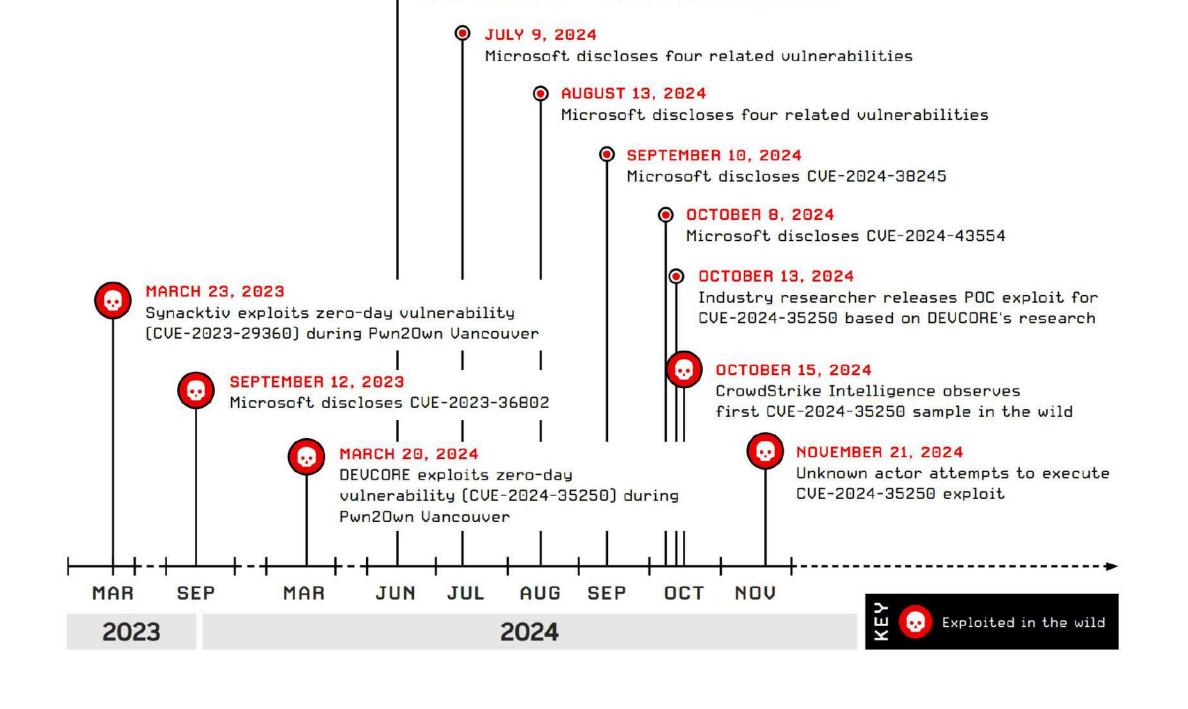
IOT device commonly exploited

- Netcore Netis Router
- Wifi P2P GoAhead Cameras
- •Zyxel Firewalls and Routers
- •TP-Link Archer Routers
- GPON Routers from multiple vendors

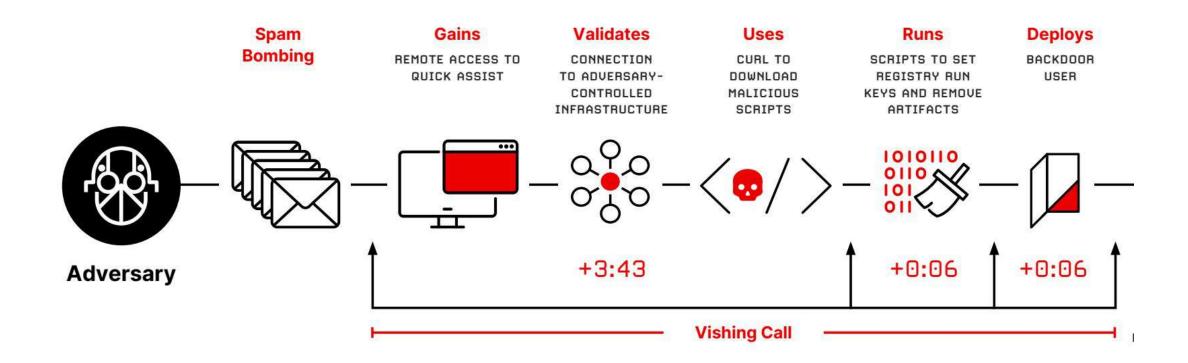
Google Chrome V8 Javascript engine

RCE vulnerability in Microsoft Outlook

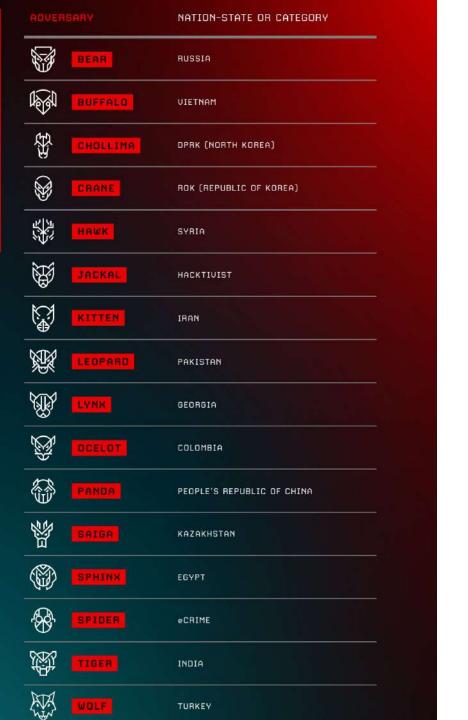
Oracle Web logic vulnerabilities to deploy crypto mining malware



Curly Spider Social Engineering Attacks



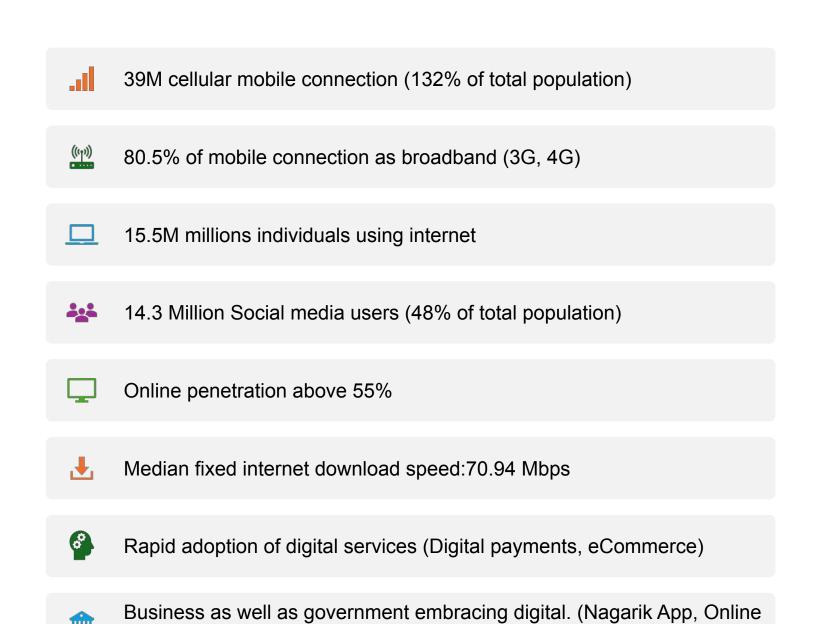
New Adversaries



NAMING

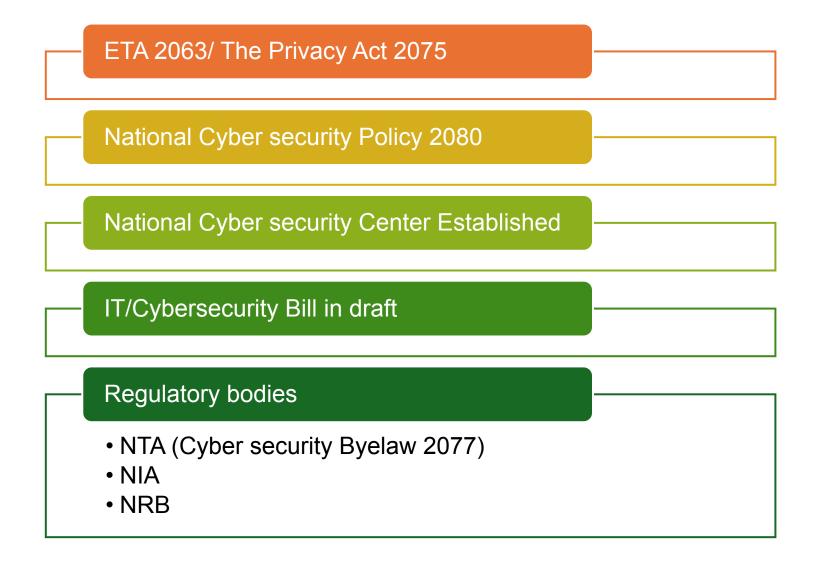


Digital Transformatio n



Password, Tax systems and more)

Policy and Regulations



Key Cybersecurity Threats (Nepal)











SURGE IN PHISHING CAMPAIGNS

MALWARE ATTACKS (RANSOMWARE) WEBSITE DEFACEMENT DATA BREACH

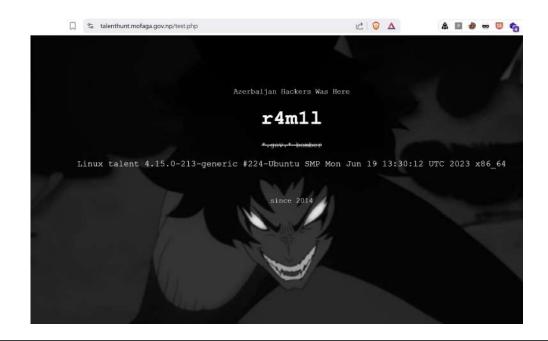
FINANCIAL FRAUD

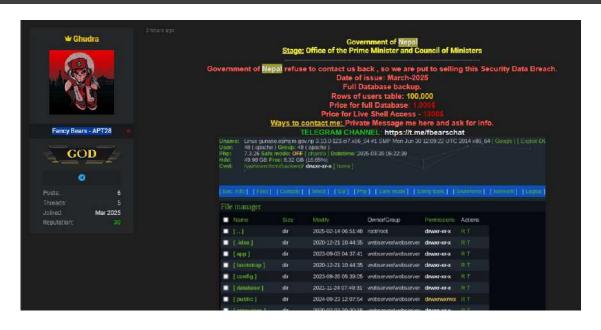


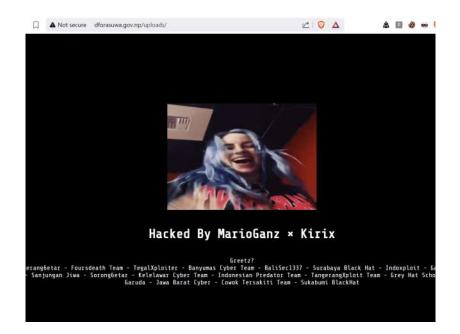


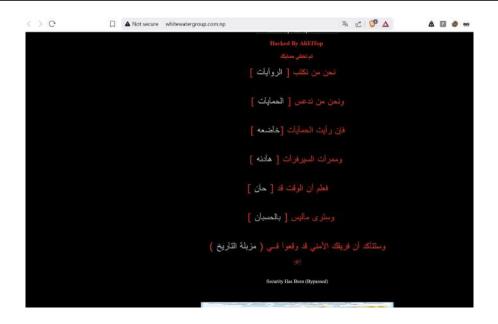
SOCIAL ENGINEERING (VIA SOCIAL MEDIA) **DDOS ATTACKS**

	Date	Target	Attack Type	Impact Summary
	2017	Multiple government websites defacement	Website defacement/data leak	Threatened data exposure
	2017	Class A Bank SWIFT Transfer	User compromise	Fund transfer to foreign account
Key Incidents (Nepal)	2020	Food Delivery & ISP Data breach	Data breach/domain intrusion	~50k user records leaked; threatened additional bodies
(1 t c p c 1)	2023	Government Servers	DDoS attack	~1,500 gov. sites offline; airport disruption
	2024	Government servers	DDoS reattack	Hundreds of websites down
	2025	Hello Sarkar (PMO)	Data breach	PII leaked/sold on darkweb
	2020-		Rise in data breach	Multiple org on Darkweb





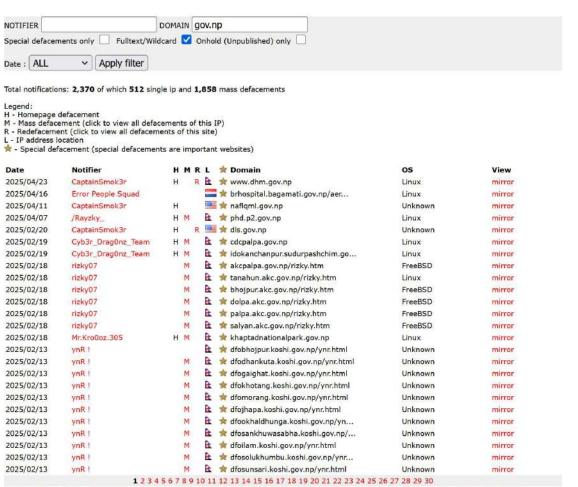




Website Defacement: stats

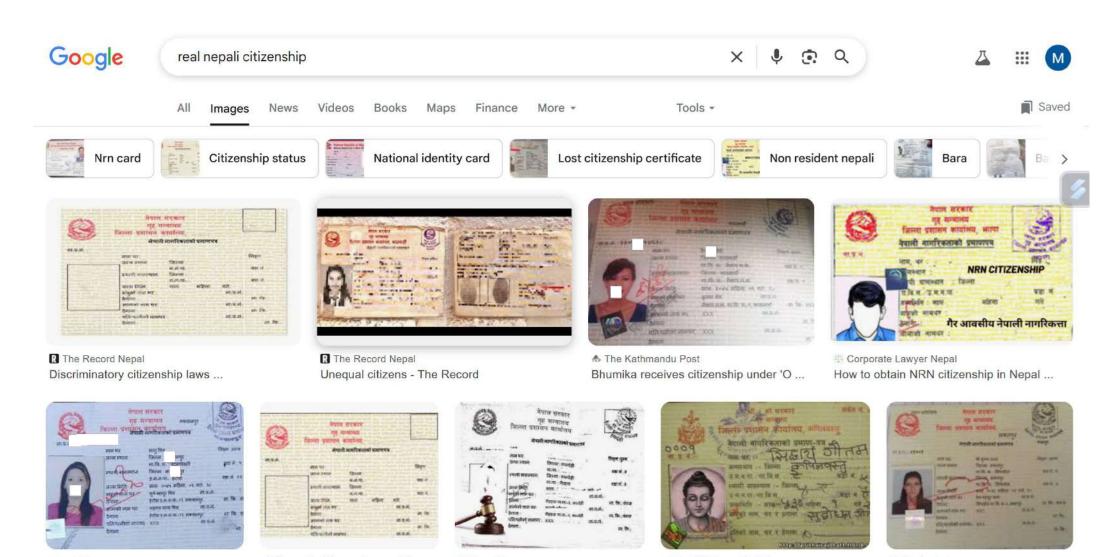
NOTIFIER		DOM	AIN	CC	om.	.np			
Special defacen	nents only 🗌 Fulltex	t/Wildcard	V	0	nho	old (Unpublished) only		
Date : ALL	✓ Apply filte	er .							
Total notification	ns: 5,012 of which 85	1 single ip	and	4,	16:	1 m	ass defacements		
H - Homepage		10000000		17200	276	1005			
	ement (click to view all ent (click to view all de								
L - IP address lo	ocation								
 Special def 	acement (special defac	ements ar	e in	npo	tan	nt w	ebsites)		
Date	Notifier	н	М	R	L	×	Domain	os	View
2025/05/22	lOxtOx		M		M .		www.jayakishan.com.np/ioxtox.php	Linux	mirror
2025/05/22	iOxtOx	н	M		100		www.lalupatetravels.com.np	Linux	mirror
2025/05/19	DimasHxR		M		W.		himalayanrangetreks.com.np/a.html	FreeBSD	mirror
2025/05/10	DimacHyP						hrworldsanijsa som an/a html	FreeRSD	mirror

Date	Nothier	п	I-I	r.	. ,	Domain	US	view
2025/05/22	lOxtOx		M		100.0	www.jayakishan.com.np/ioxtox.php	Linux	mirror
2025/05/22	iOxtOx	Н	M		100	www.lalupatetravels.com.np	Linux	mirror
2025/05/19	DimasHxR		M		W.	himalayanrangetreks.com.np/a.html	FreeBSD	mirror
2025/05/19	DimasHxR				-10	hrworldservice.com.np/a.html	FreeBSD	mirror
2025/05/19	DimasHxR		M		43.0	karmavahandicraft.com.np/a.html	Linux	mirror
2025/05/19	Mr. BDKR28		M			titankitchen1.pramsoft.com.np/	Linux	mirror
2025/05/19	Mr. BDKR28		M			ugc.com.np/BDKR28.txt	Linux	mirror
2025/05/19	Mr. BDKR28		M			cafe.pramsoft.com.np/BDKR28.txt	Linux	mirror
2025/05/13	Mr. BDKR28				100	mountech.com.np/a.htm	Linux	mirror
2025/05/09	CaptainSmok3r	н	M	R	100	nepalgas.com.np	FreeBSD	mirror
2025/04/29	ynR!					affiliate.bizbazar.com.np/ynr	Linux	mirror
2025/04/29	ynR!		M			chatbot.bizbazar.com.np/ynr.html	Linux	mirror
2025/04/29	ynR !		M			survey.bizbazar.com.np/ynr.html	Linux	mirror
2025/04/17	Simsimi			R	100	www.dryadavbhatta.com.np/image	Linux	mirror
2025/04/14	AnonSec Team		M		GA T	www.nap.com.np/ez.php	Linux	mirror
2025/04/14	F4st~03		M		Tion .	hariyaliabhian.com.np/y.txt	Linux	mirror
2025/04/14	F4st~03		M		64	sarbodaya.com.np/y.txt	Linux	mirror
2025/04/14	F4st~03		M		10	sbcb.com.np/y.txt	Linux	mirror
2025/04/14	ReflinP		M			ankitrawal.com.np/index2.html	Linux	mirror
2025/04/14	SMoker666	н			100.0	medcare.com.np	Linux	mirror
2025/04/09	VenoRyan		M		(A)	politics.manirajkatuwal.com.np	Linux	mirror
2025/04/09	VenoRyan		M		50.	ribeshbasnet.com.np/veno.htm	Linux	mirror
2025/04/09	KAKEGURAI		M			aaviss.com.np/ind.html	Linux	mirror
2025/04/07	/Rayzky_				-15-2	admaxconsultancy.com.np/yea.html	Linux	mirror
2025/04/07	/Ravzkv		M		100	www.nnlb.com.np/lovv.html	Linux	mirror



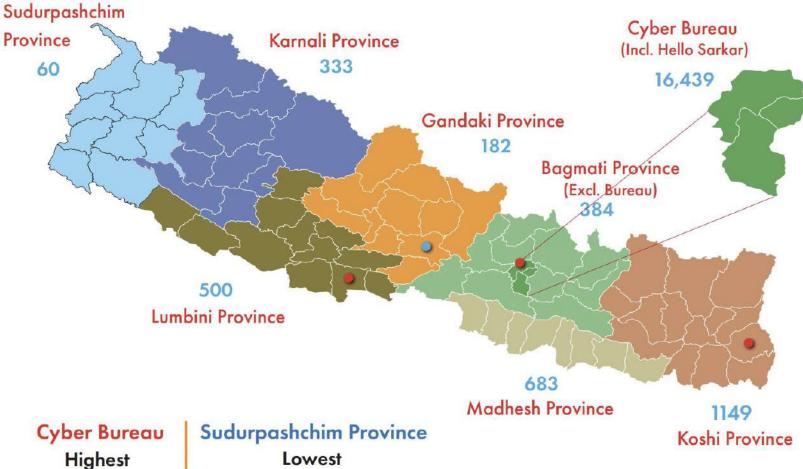
DISCLAIMER: all the information contained in Zone-H's cybercrime archive were either collected online from public sources or directly notified anonymously to us. Zone-H is neither responsible for the reported computer crimes nor it is directly or indirectly involved with them. You might find some

Data on Internet



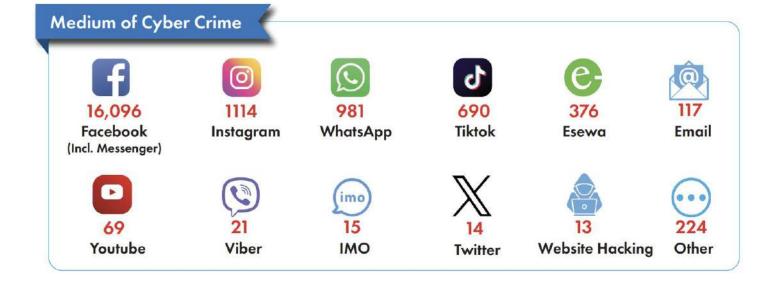
Nepal Police Cyber crime stats FY80/81





119% Rise from last FY







Around 15k cases till now

FY 2081/82 Stats



Telegram related Complain in rise



Rise in Whatsapp related complaints

Challenges Faced by Nepal

- Limited cybersecurity Awareness
- Skilled Professional Shortage
- Budget Constraints
- No proper centralized National level CERT
- No mandatory incident reporting
- Fragmented policies
- Insufficient public-private-acadmic coordination





Few Insights







Exposed devices, services and port

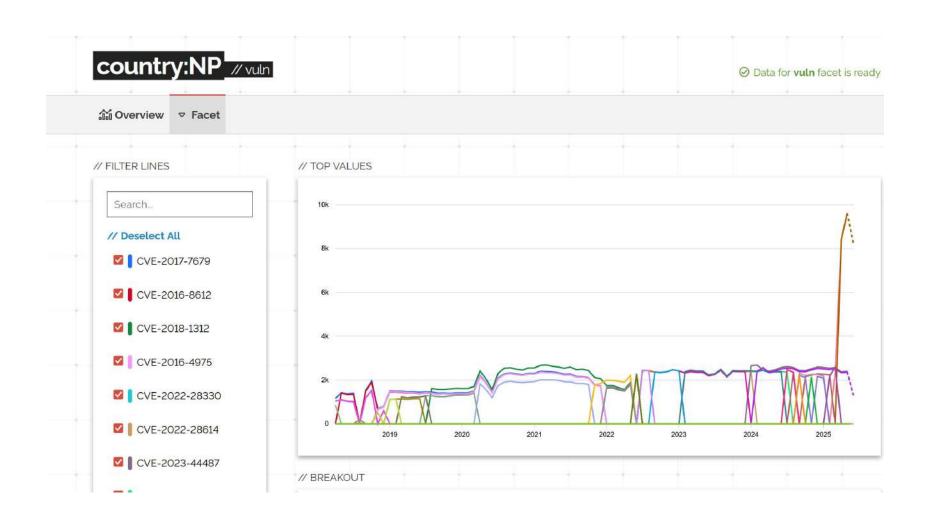
Vulnerable devices

IP observed in Malicious Activities

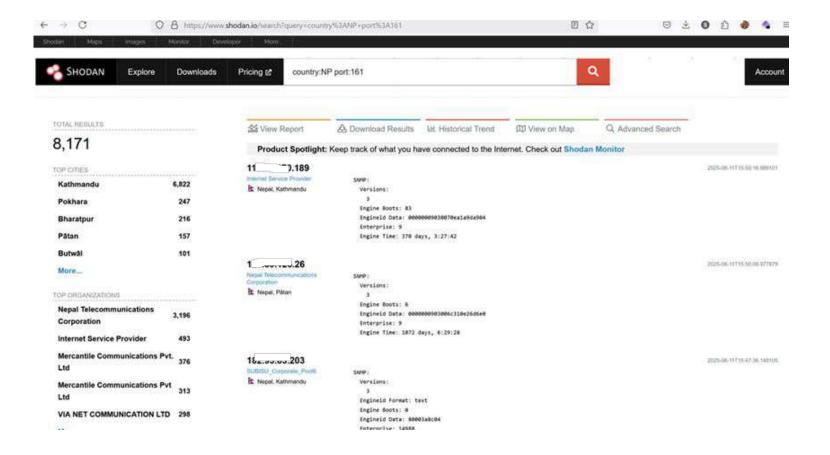


Sensitive information leaking online

Top Vulnerabilities:







7

7

5

TOP CITIES

More...

Bharatpur

TOP ORGANIZATIONS

Vianet Communications Pvt. Ltd 120 VIA NET COMMUNICATION LTD 58 Data Hub Pvt. Ltd. 34 IPv4 Superhub Limited 30 **WorldLink Communications** 27 More...





Ш Historical Trend

W View on Map

Q Advanced Search

Product Spotlight: Free, Fast IP Lookups for Open Ports and Vulnerabilities using InternetDB

Ncell Private Ltd.

\x83\x00\x00\x01\x81

Nepal, Kathmandu

.70

VIA NET COMMUNICATION LTD

Nepal, Kathmandu

SMB Status:

Authentication: enabled

SMB Version: 1

OS: Windows Server 2016 Standard 14393 Software: Windows Server 2016 Standard 6.3

Capabilities: extended-security, infolevel-passthru, large-files, large-readx, large-writex, level2-oplo

nection Solutions | Wifi Connection | Wifi solutions §

Cloud Innovation Ltd

Nepal, Kathmandu

















HTTP/1.1 200 OK

Composed-By: SPIP 4.1.11 @ www.spip.net

Connection: keep-alive Content-Length: 145192

Content-Type: text/html;charset=utf-8

Host-Header: 6d77dd967d63c3104bced1db0cace49c Last-Modified: Fri, 29 Jul 2022 16:53:01 GMT

Loginip: 224.57.220.104

Pragma: private

Sec-Websocket-Accept: MIGFMA0GCSq

Server: squid/3.5.25

database

Q Advanced Se

Search

TOP VERSIONS

TOTAL RESULTS TOP CITIES 207 Kathmandu Butwāl 3 Pokhara 3 Biratnagar 2 Dhulikhel 2 More... TOP ORGANIZATIONS Data Hub Pvt. Ltd. 45 Access World 20 **WorldLink Communications** 16 **National Information Technology** 15 Center Next Geekers Pvt. Ltd. 11 More...

Wiew Report **८** Download Results W View on Map Access Granted: Want to get more out of your existing Shodan account? Check outeverything you have access .111 hosting.cyberlinknepal.com MySQL: Access World Protocol Version: 10 Nepal, Kathmandu Version: 5.7.44 Capabilities: 65535 database eol-product Server Language: 8 Server Status: 2 Extended Server Capabilities: 49663 Authentication Plugin: mysql_native_password 7.89 c3-89.accessworld.net MySQL: Access World Tech Pvt. Ltd. Protocol Version: 10 Nepal, Kathmandu Version: 5.7.36 Capabilities: 65535 eol-product Server Language: 8 Server Status: 2 Extended Server Capabilities: 49663 Authentication Plugin: mysql_native_password .173 Cloud Himalaya Pvt.Ltd MySQL: Nepal, Kathmandu Protocol Version: 10

Version: 8.0.33

Server Status: 2

Capabilities: 65535 Server Language: 255 2025-06-11T14:02:3

2025-06-11T11:33:2

level2-oplocks, lock-and-read

2025-06-11T10:34:5

Content-Type: text/html

X-Content-Type-Options: nosniff Date: Wed, 11 Jun 2025 21:21:44 GMT

ETag: 1725461428 Content-Length: 481

X-XSS-Protection: 1; mode=block

Last-Modified: Wed, 09 Dec 2020 06:45:20 GMT

Connection: Kee...

103.41.173.18

VIA NET COMMUNICATION LTD

Nepal, Kathmandu

HTTP/1.1 200 OK

Vary: Accept-Encoding X-Frame-Options: SAMEORIGIN Content-Type: text/html

X-Content-Type-Options: nosniff

Date: Wed, 11 Jun 2025 20:23:05 GMT

ETag: 1739961773 Content-Length: 481

X-XSS-Protection: 1; mode=block

Last-Modified: Mon, 19 Jun 2023 06:07:25 GMT

Connection: Kee...

SHODAN

TOP CITIES

Siddharthanagar	462
Kathmandu	128
Pātan	6
Bharatpur	5
Butwāl	5

Explore

Downloads

TOP PORTS

More...

80	82
81	18
443	12
82	10
8080	7

Product Spotlight: We've Launched a new API for Fast Vulnerability Lookups. Check out CVEDB

Pricing 2

Wiew Report

♣ Download Results

W View on Map

Q Advance

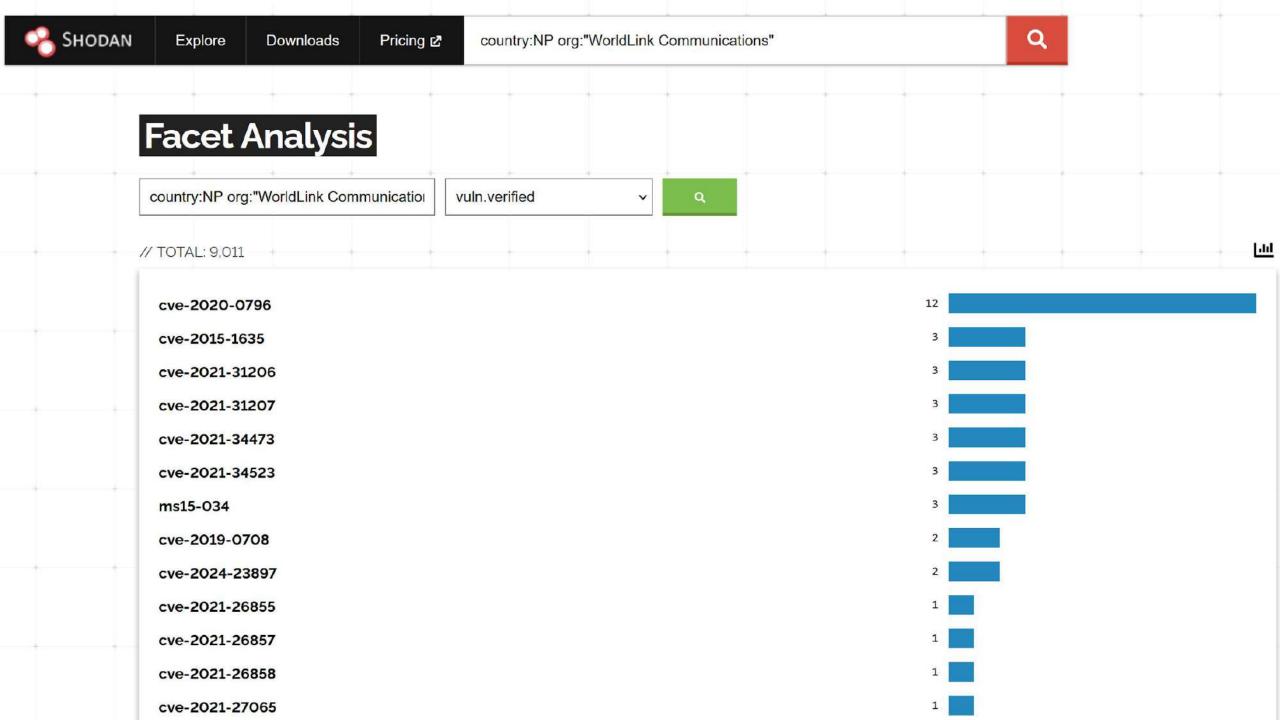
Q

170.213.41.124.dynamic.wlink.co m.np

Static subnet for enterprise at BTW-BHW

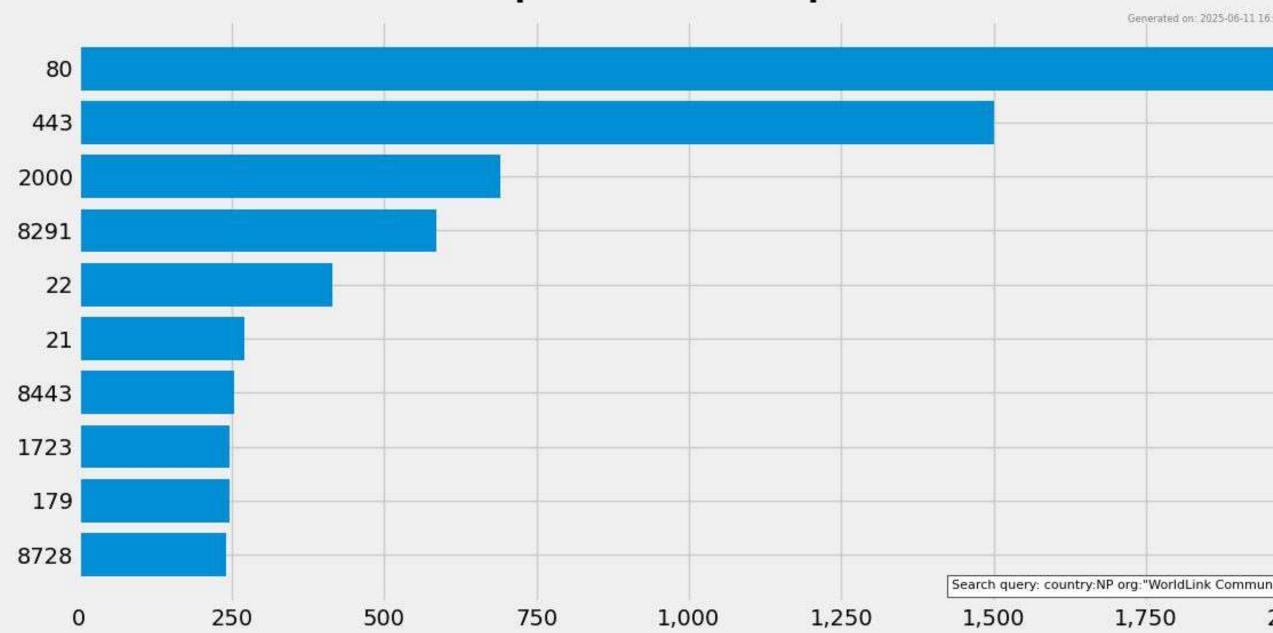
Nepal, Siddharthanagar

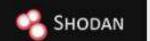
More...



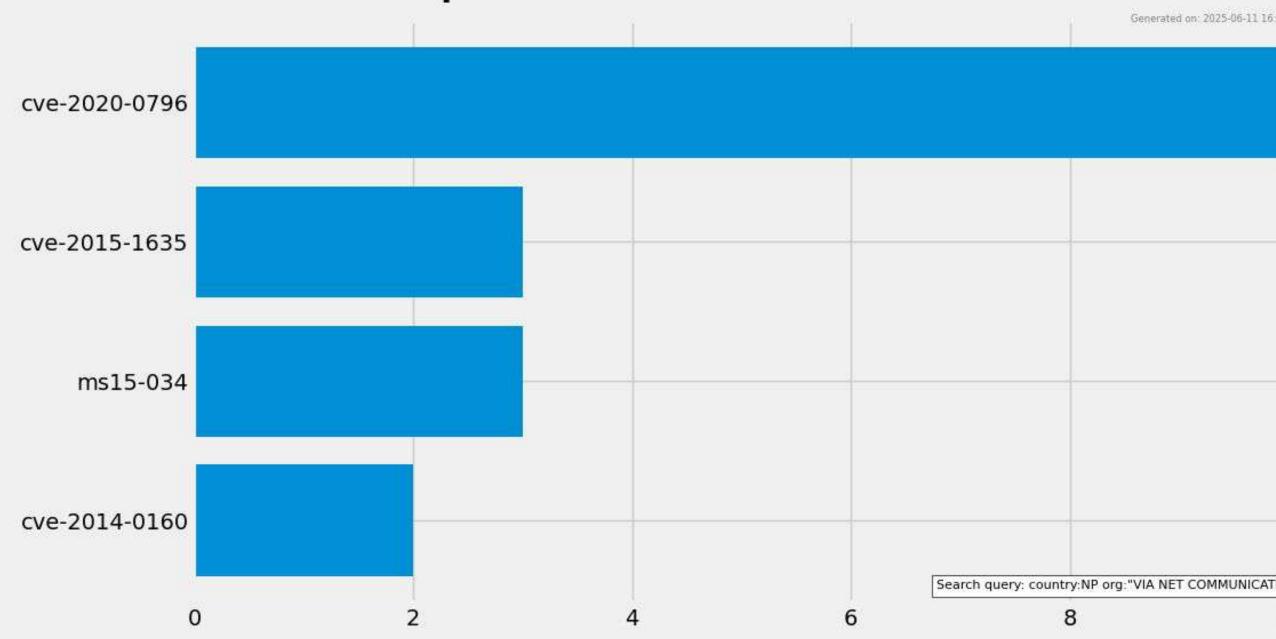


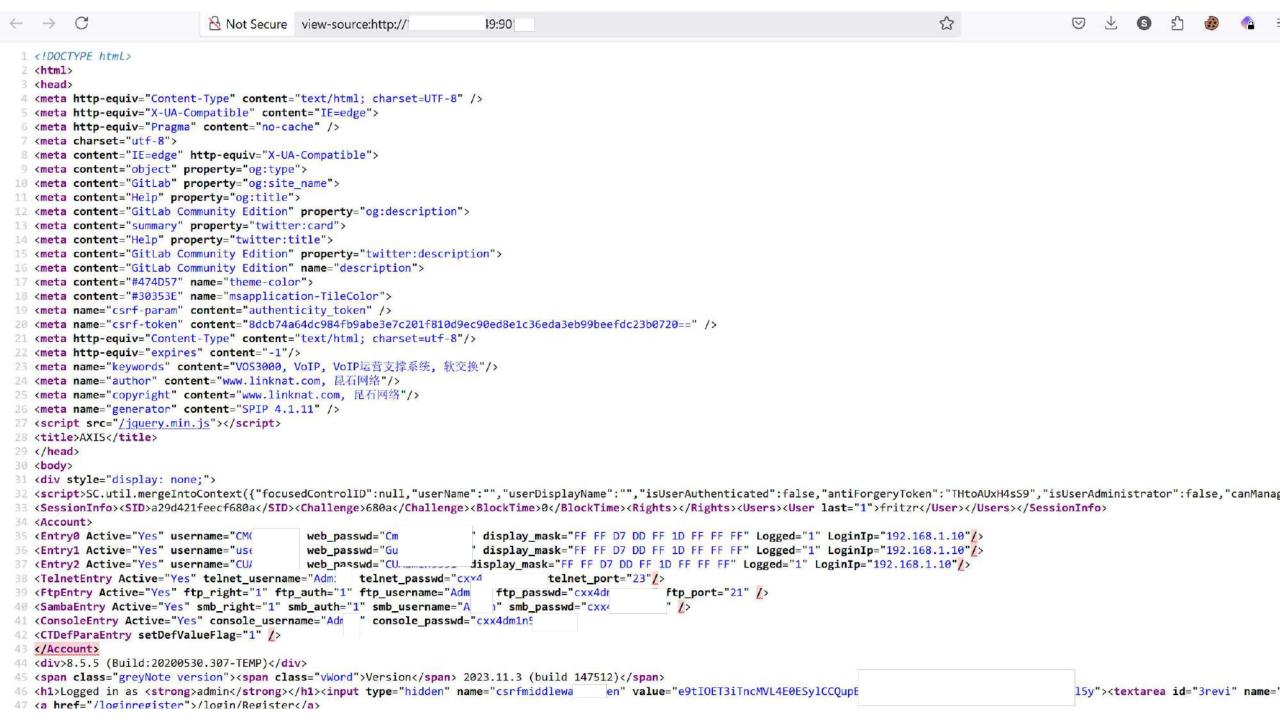
Top 10 Values for: port





Top 10 Values for: vuln.verified



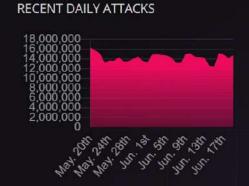


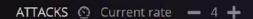


LIVE CYBER THREAT MAP

2,316,513 ATTACKS ON THIS DAY









- Cross-Site Scripting Over HTTP

 09:36:28 Canada → Canada
- Cross-Site Scripting Over HTTP

 09:36:27 Canada → Canada
- PDF Containing Obfuscated Name O... 09:36:27 Canada → Canada



19:36:27 Canada — Canada

U9.50.27 Callada - Callada

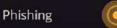
Cross-Site Scripting Over HTTP

Attack Trends: Nepal











PREVENTION ST

DON'T WAIT TO

TOP TARGETED CC

Highest rate of attack in the last day.

Ethiopia

Nepal

Indonesia

Mongolia

😾 Vietnam

TOP TARGETED IN

Highest rate of attack in the last day.

Education

Healthcare

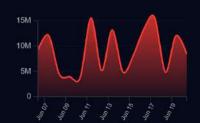
O Phishing

Adware



LIVE CYBER THREAT MAP





☆ RECENT DAILY ATTACKS

Phishing Campaign - Toronto

◆ CA • Jan 01, 2025

Banking System Exploitation - Sao Pa...

BR • Jan 01, 2025

Exploit Kit

Malware Distribution - Seoul

(e) KR • Jan 01, 2025

Financial Services Attack - Dubai Ban...

AE • Jan 01, 2025

Malware

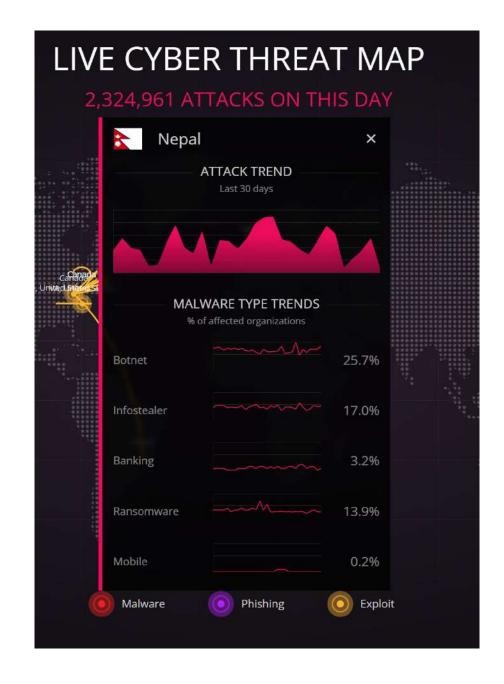
Tech Company Data Theft - Paris

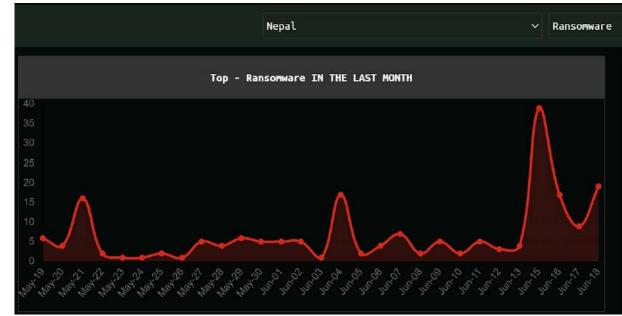
FR • Jan 01, 2025

Dataevfi



Attack Types





Top - Ransomware IN THE LAST MONTH	
1 <u>Trojan-Ransom.WIN32.Phny.a</u>	31.16%
2 <u>Trojan-Ransom.Win32.Gen.abxr</u>	11.06%
3 <u>Trojan-Ransom.Win32.Blocker.jaic</u>	9.05%
4 <u>Trojan-Ransom.Win32.PornoBlocker.vho</u>	7.04%
5 <u>Trojan-Ransom.Win32.PornoBlocker.pef</u>	6.53%
6 <u>Trojan-Ransom.MSIL.Blocker.gen</u>	5.53%
7 <u>Trojan-Ransom.Win32.Foreign.vho</u>	5.03%
8 <u>Trojan-Ransom.Win32.Convagent.gen</u>	4.52%
9 <u>Trojan-Ransom.Win32.Encoder.adlb</u>	2.51%
10 <u>Trojan-Ransom.Win32.Blocker.gfeq</u>	2.51%

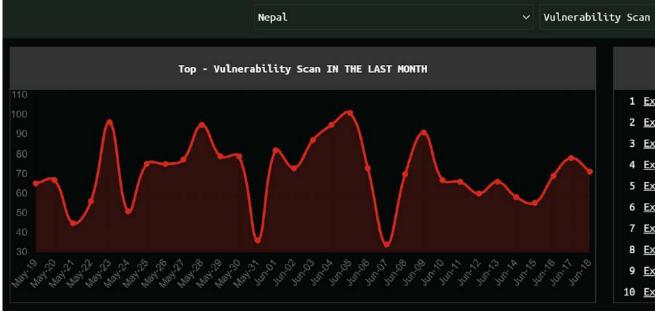
→ TIME PERIOD:

□ Last week

□ Last month

✓ TIME PERIOD:

○ Last week
○ Last month



Top - Vulnerability Scan IN THE LAST MONTH	
1 <u>Exploit.Win32.Convagent.gen</u>	51.39%
2 <u>Exploit.MSIL.ChecksumController.gen</u>	6.94%
3 Exploit.MSOffice.CVE-2017-11882.gen	6.94%
4 Exploit.RTF.CVE-2018-0802.gen	2.78%
5 <u>Exploit.MSWord.Agent.gen</u>	2.78%
6 Exploit.RTF.CVE-2017-11882.gen	2.78%
7 Exploit.AndroidOS.Lotoor.cc	2.78%
8 <u>Exploit.Script.Petitpotam.a</u>	2.78%
9 Exploit.Multi.CVE-2020-1472.gen	2.78%
10 <u>Exploit.Win32.CVE-2012-0158.j</u>	2.78%

Recommendation s for Strengthening Cybersecurity



MFA Implementation / Identify and Access Management



Regular updates/patches



Periodic Audit / Penetration testing / Risk Assessment



Cyber security awareness and training



Reduce Attack surface exposure / Secure by design principle



Develop a robust vendor management program



Leverage Dark web and threat intelligence



Thank you

References

- https://www.nepalpolice.gov.np/media/filer_public/fd/3e/fd3e1c95-aaa1-41bd-815e-0221254141d4/f
 v 2080-81 suicide cyber crime en.pdf
- https://datareportal.com/reports/digital-2025-nepal
- https://www.fortinet.com/content/dam/fortinet/assets/threat-reports/threat-landscape-report-2025.pdf
- https://www.checkpoint.com/security-report/?flz-category=items&flz-item=report--cyber-security-report-2025
- https://go.crowdstrike.com/rs/281-OBQ-266/images/CrowdStrikeGlobalThreatReport2025.pdf?version=0
- https://www.shodan.io/
- http://www.zone-h.org/archive