DNS Abuse in LAC region

NetBeacon MAP

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Today

- *Short* intro to the Institute & NetBeacon MAP
- Explore data from the LAC region compared to other regions
- Trends in the LAC regions
- Wrapping up and resources available

The NetBeacon Institute

Created in 2021 by Public Interest Registry (.ORG) in service of its non-profit mission (formerly: The DNS Abuse Institute)

Functionally separate from the operation of the registry

Graeme: Executive Director - 12 years of DNS industry experience, 4 years as Chair of the Registrar Stakeholder Group

Rowena: Director of Policies and Programs - Nominet (.UK), Ofcom, UK Gov

Everything we do is **free**

Mission: Reduce DNS Abuse.

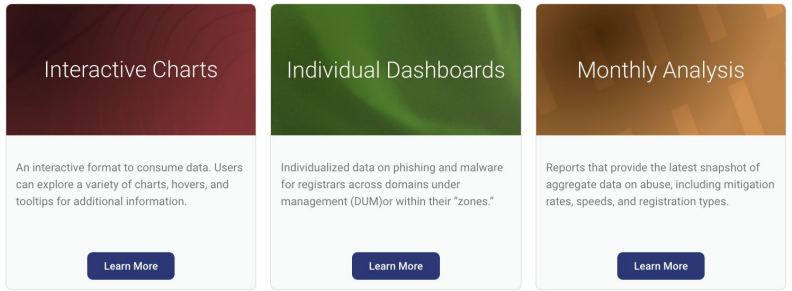
NetBeacon MAP: What

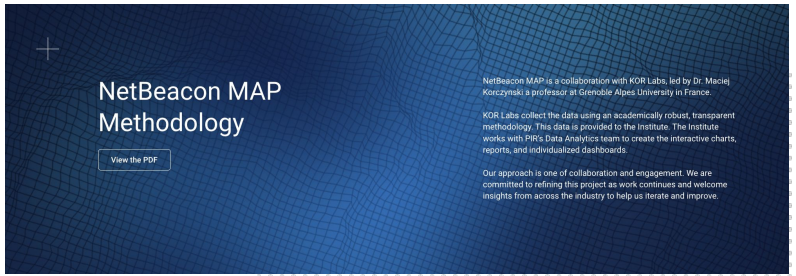
Intended to inform our activities and empower the community with data. More...

Principles:

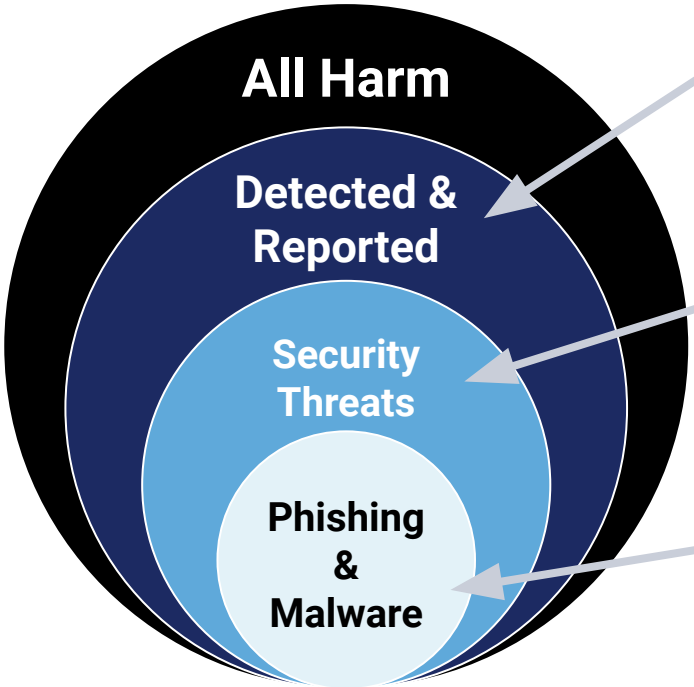
- Transparency
- Credibility and independence
- Accuracy and reliability

Collaboration with KOR Labs - Grenoble University





What do we measure?



We can only measure what gets **reported** (“iceberg” principle)

Not all reports are Security Threats and are outside of our scope

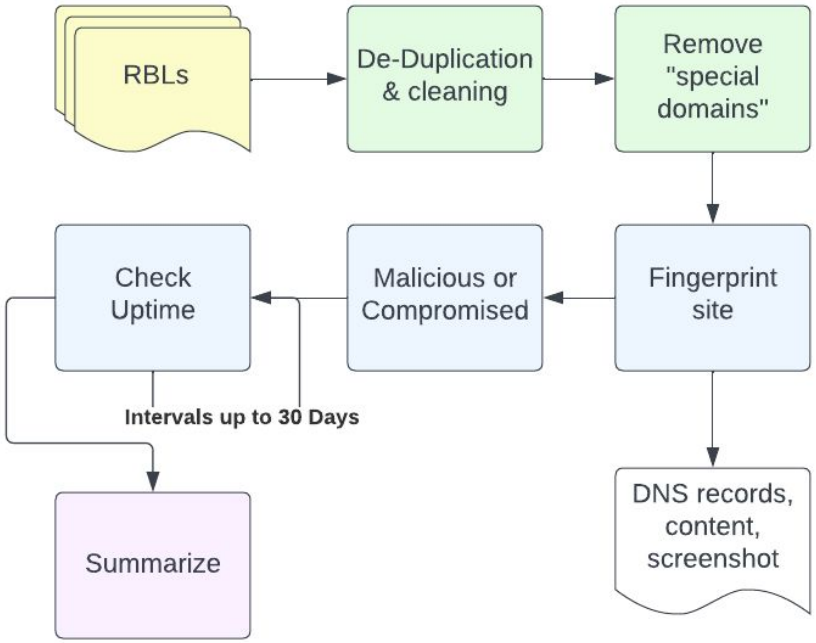
Focus on security threats we (KOR Labs) can **currently reliably evidence**

Input
APWG
PhishTank
OpenPhish
URLHaus

Analysis
Evidence collection
Registration type
Mitigation:
Minutes: 5,15,30.
Hour: 1,2,3,4,5,6,
Days: every 12h for 30 days.

Editorial
Monthly
Abuse 100K DUM
Exclusions*
Consistency & redaction*
Malicious*

MAP: How?



Methodology & Report on Measurement

* applies only to public reporting

Cleaning
Measure:
- Unique domain names (E.g. 70K+ URLs)

Remove IP addresses and **"special domains":**
- URL shorteners (e.g., bitly.com)
- Subdomain providers, for example, dynamic DNS providers (e.g., duckdns.org),
- file sharing services (e.g., docs.google.com)

Special Domains list is publicly available (methodology). You can help us update this.

Caveats

- We know this is isn't perfect, best efforts. Even the best feeds can have false positives
- Optimizes accuracy over coverage; best for comparisons between peers/over time
- Potential geographical/language bias in lists
- Today: an exploration in regional reporting
  - **TLDs** as a proxy for regions; reality is more complex
  - **Raw numbers** (unique domains), not normalized for abuse per 100,000 DUM

Abuse by ccTLD region: phishing & malware

ICANN Geographic Regions

AF = Africa

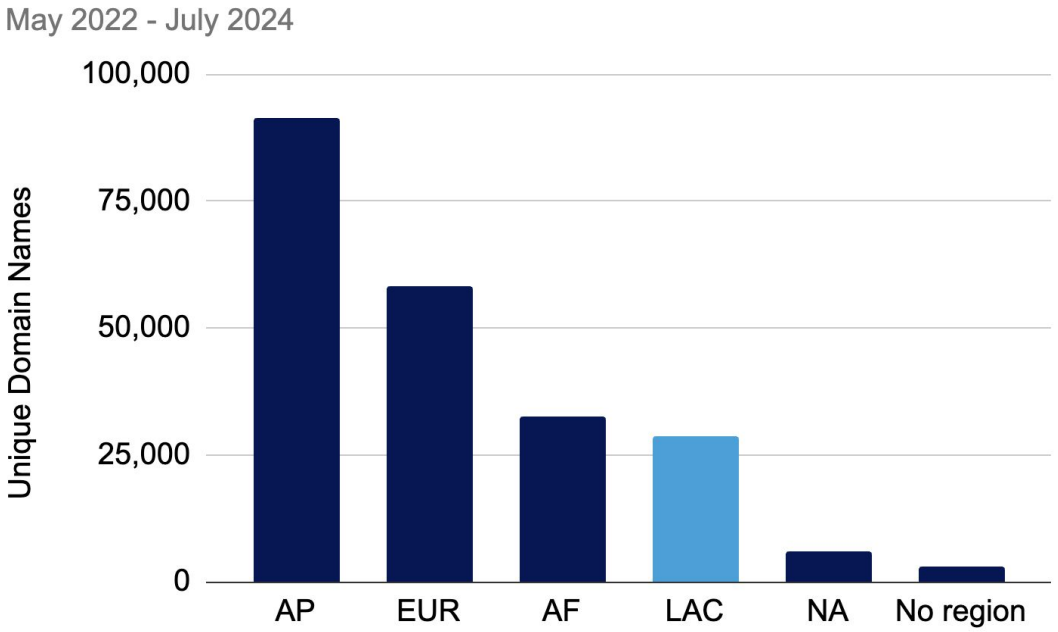
AP = Asia/Australia/Pacific

EUR = Europe

LAC = Latin America/ Caribbean

NA = North America

*Note: 'No region' unmapped in ICANN e.g. IDNs, .su, .gb, .tp



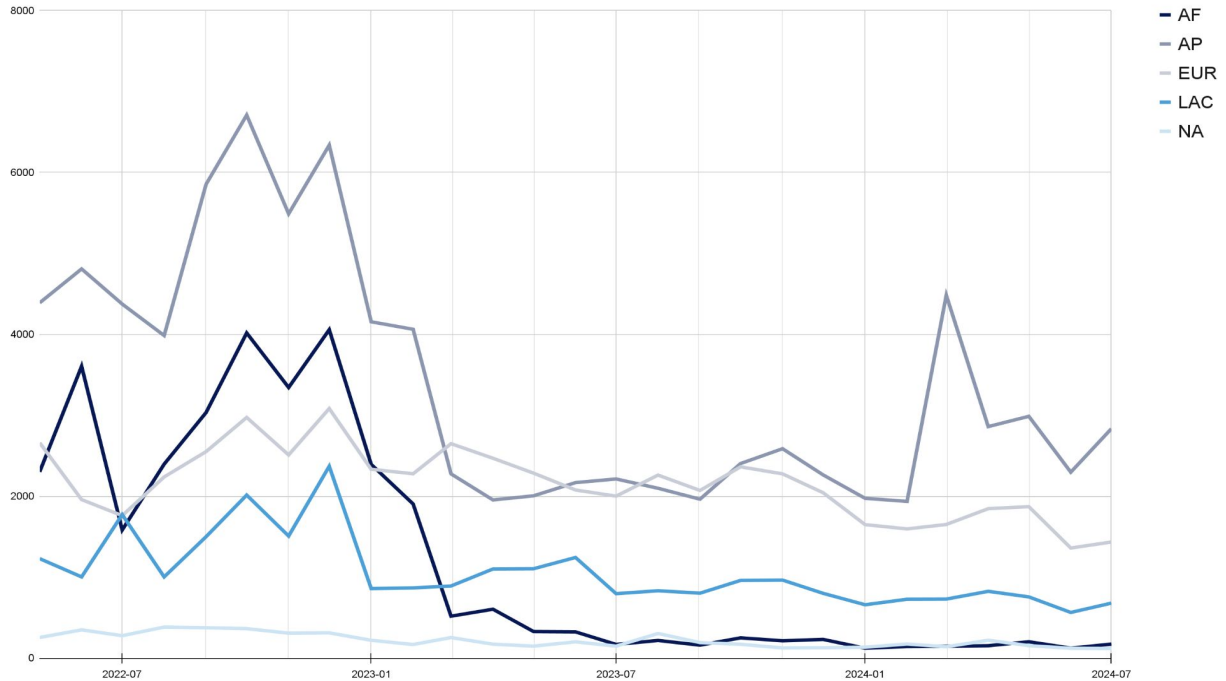
Phishing & Malware Trends

Unique Domain Names

May 2022 - July 2024

LAC: fairly stable, slight downward trend. Similar to **EUR**.

Not as much as **AP** (top grey) and **AF** (dark blue). **NA** trends along the bottom. Note: ccTLDs only.



AF = Africa, **AP** = Asia/Australia/Pacific, **EUR** = Europe, **LAC** = Latin America/ Caribbean, **NA** = North America

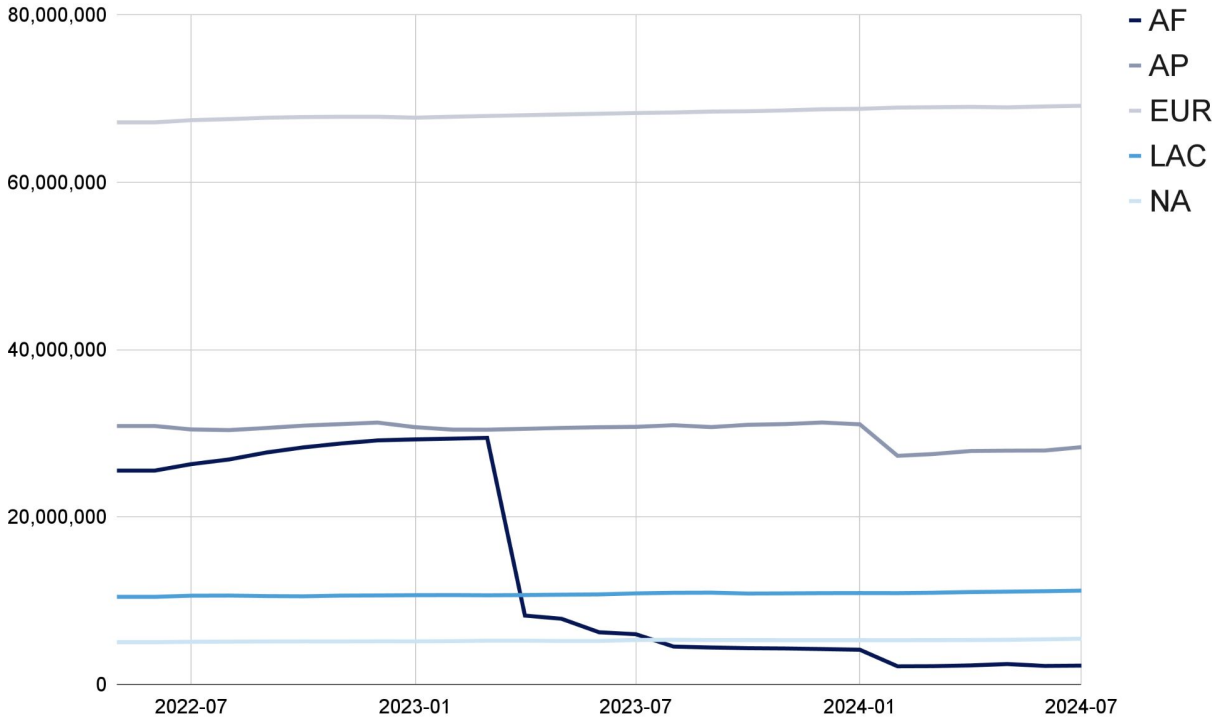
DUM Over Time

LAC: fairly stable, slight upward trend. Similar to **EUR**.

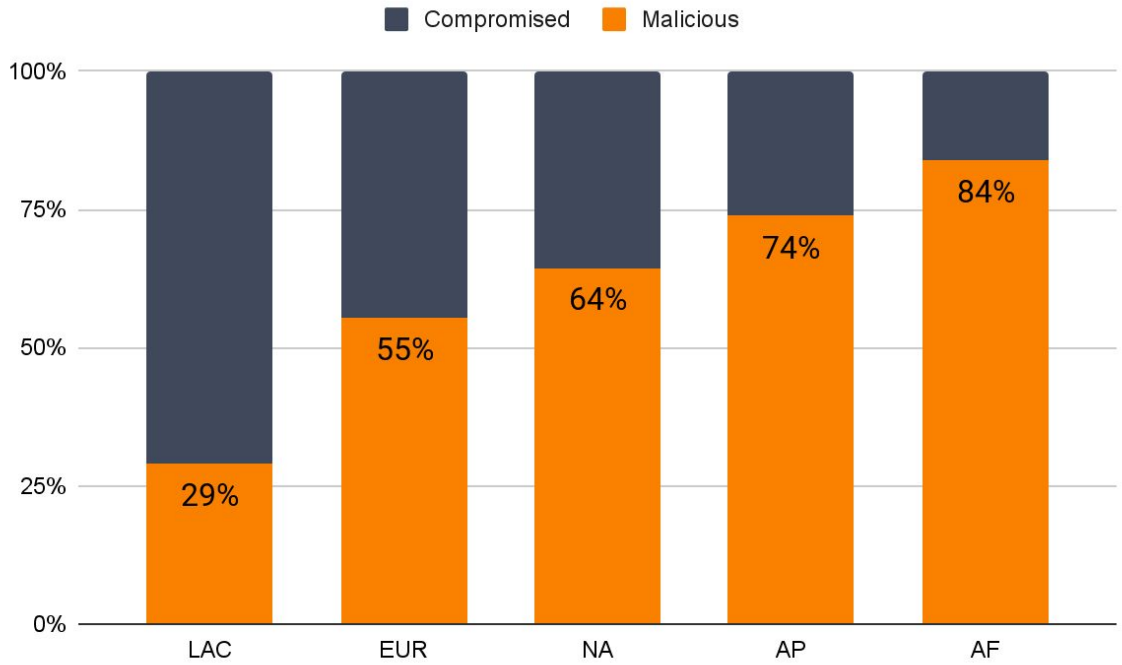
Dips in **AP** (middle grey)

NA trends along the bottom. Note: ccTLDs only.

Big drop for **AF** (dark blue). Freenom?



Type of registration

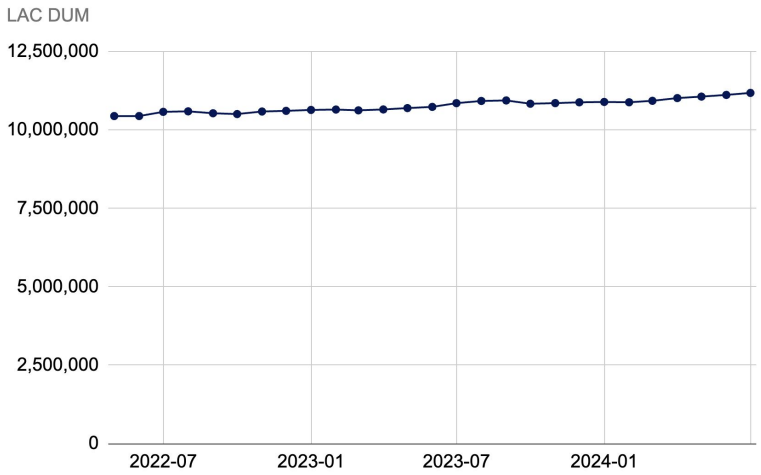


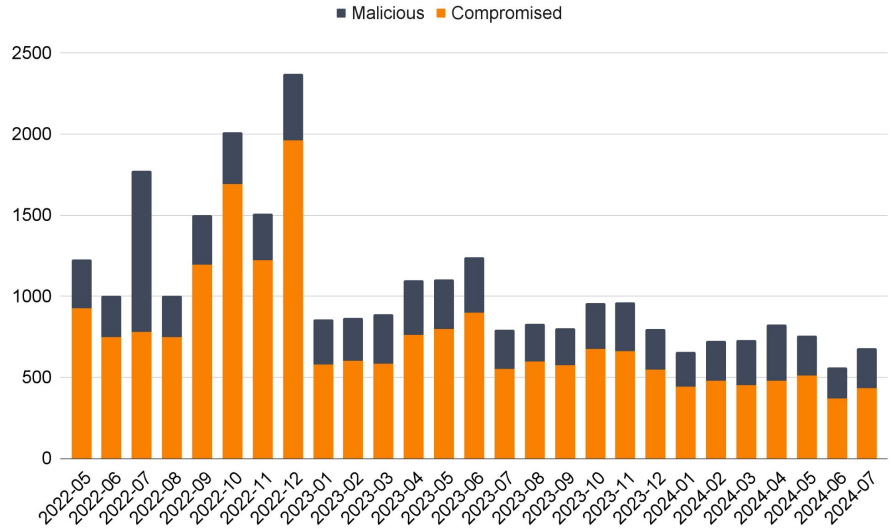
Malicious: appears to be registered for the purpose of phishing and malware.

Compromised: Otherwise benign registration which has been compromised, usually at the website CMS level.

LAC: lowest proportion of malicious registrations.

Trends over time: LAC

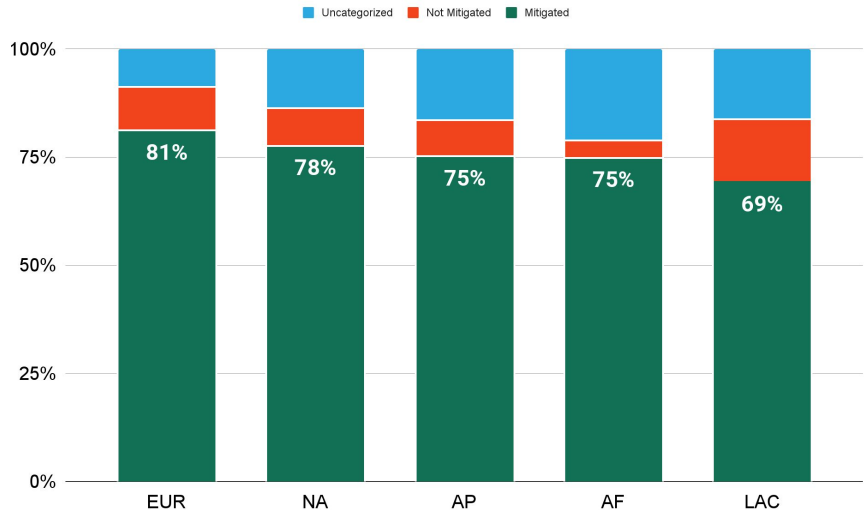




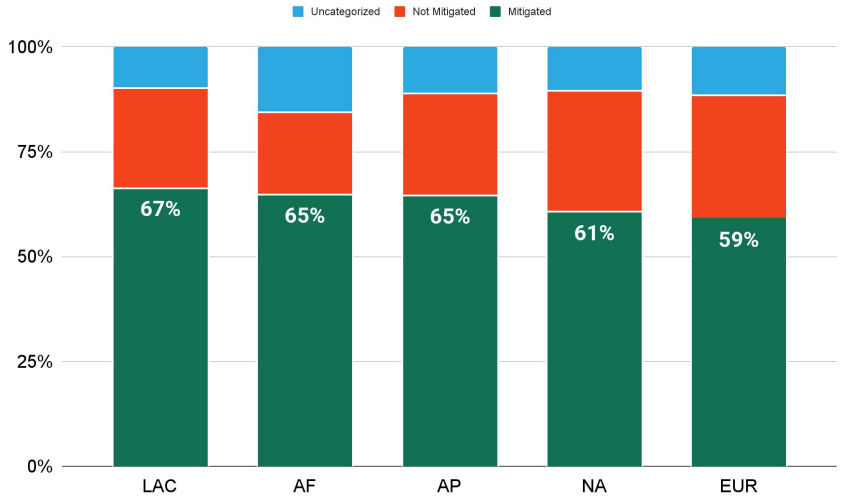
While DUM increased over this 2 year period (~1M)
It looks like phishing and malware is trending down for the region. Proportion of Compromised v Malicious seems consistent.

Mitigation

Malicious

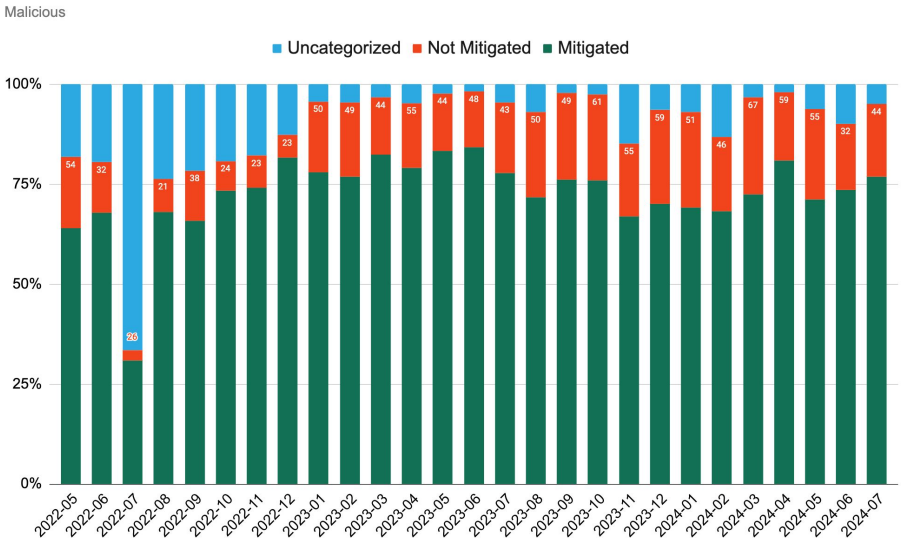


Compromise

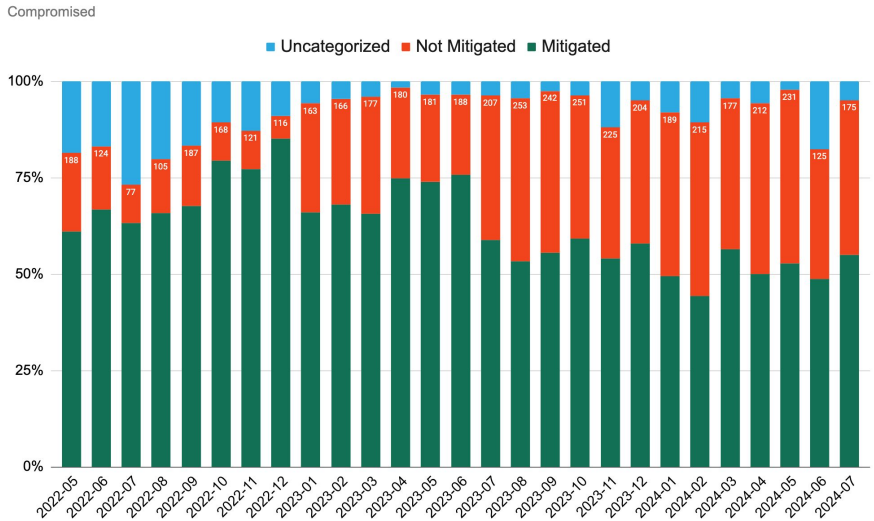


Mitigation: Malicious (LAC)

Malicious



Compromise



Wrapping up

- LAC ccTLDs do not stand out as a problematic region. Your abuse rate (phishing and malware) appears to be trending down while your DUM is growing.
- Every TLD and registrar should dive into their own data with a free individual dashboard
- Educational tools and articles:
  - E.g. A Holistic Approach to Tackling DNS Abuse or Fraud prevention for retail registrars
- You can receive reports through NetBeacon Reporter

NETBEACON INSTITUTE

Thank you! Gracias!

Update on IWF Program

- Since launching in February of this year:
  - 43 additional TLDs are now enrolled and covered by the programs
  - 18 registry operators (several have multiple TLD portfolios)
  - More than 35M domains now covered that were not previously receiving IWF alerts
- Includes several many ccTLD registry operators
- Includes "Domain Alerts" and the "TLD Hopping List"
- These programs are free to registries to use
- To sign up visit: https://www.iwf.org.uk/membership/iwf-domain-services/

PIR Proprietary