Banking on the Right Protection:

4 Use Cases to Stop Financial Sector Cyber Attacks

- The financial sector is a prime target for cyber attacks. Financial organizations and their customers and clients feel the fallout of major ransomware and phishing campaigns more than ever, and there's often more at stake.
- Finance needs a new approach to deal with the ongoing rise in cybercrime. The right tools coupled with unique data function as preventative measures against threat actors using innovative methods to target and exploit organizations and individuals alike.
- Even the most sophisticated ransomware attacks and phishing campaigns are not invulnerable. Leveraging advanced cyber threat intelligence and investigative tools powered with the right data can stop those responsible for cybercrime in the financial sector a lot more easily.

DAVID BRUNSDON, Threat Intelligence Security Engineer at HYAS, shares four popular attack vectors targeting major financial sector institutions every day and details how HYAS solutions identifies and stops it.

USE CASE #1

Passive DNS: The Context of IP Addresses

When threat actors target financial institutions using ransomware, they deploy it via multiple IP addresses. (If they use a single IP address, cybersecurity monitors pick it up too easily.)

Workstations infected by ransomware communicate with attackers' command and control infrastructure (also called C&C and C2), which is a requirement for conducting a successful cyber attack. Cybersecurity professionals rely on this telemetry – data obtained from networks and analyzed for monitoring network security – which typically confirms what IP addresses the threat actors are likely to use in the attack as part of their C2.

To prevent cyber attacks wreaking havoc and causing fallout for organizations, cybersecurity professionals monitor the domain name system (DNS), which is increasingly used by cyber criminals for these nefarious ends.

Passive DNS – automatic, continuous monitoring of potential threats – is (and should be) a feature of complete DNS protection solutions.

Most people don't tend to read or type IP addresses like they do domain names. IP addresses are domain names that have been translated so computers communicating with each other can read and understand them. This process of translation is known as resolution: DNS resolves to IPs. As such, if you can identify domain names used by attackers, then pivot to their (domain name) registration details, you're able to gain valuable C2 data in helping thwart attacks.

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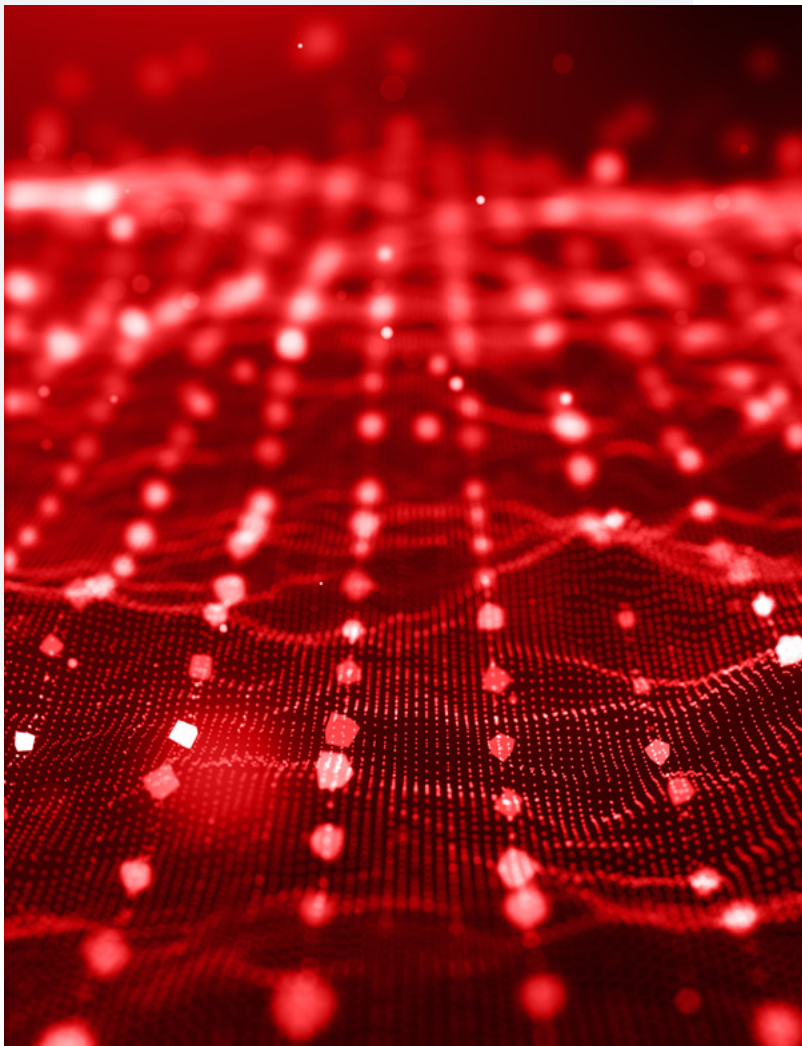
Using passive DNS is an essential tool for tracking bad actors. Searches on particular IP addresses reveal the locations around the world as the sources of those addresses, but passive DNS shows the domain names that have resolved to the specific address. This provides context for IP addresses so that cybersecurity professionals can see how threat actors are using their C2.

Passive DNS tools can also provide information about C2 attribution: Other cybersecurity teams provide data that identifies C2 infrastructure, which then alerts all teams looking at a particular likely threat actor that there is definitive nefarious activity going on. It also provides threat intelligence teams with bad actor IP addresses to pivot off from C2 domains used by these actors.



USE CASE #2

Bypassing GDPR: Superior Domain Registration Data

Financial institutions and their customers are no strangers to phishing campaigns. Cyber attackers using this method frequently employ misspelled domains luring unsuspecting users to malicious corners of the internet. And with so many banks in the U.S. alone, it's all too easy to impersonate even mid-sized outfits while convincing the unfortunate of their veracity.

Trying to establish phishing campaign culprits, cybersecurity professionals often rely on WHOIS – an internet protocol used to query databases about domain names. Traditional WHOIS data is rarely useful for stopping modern cyber attacks. And thanks to the EU's General Data Protection Regulation (GDPR) introduced in 2018 – and which tightly controls privacy – it's generally now even harder to obtain useful data.

HYAS Insight provides results for domain registrations that other solutions can easily miss. It's then possible to pivot to other domains registered by the same bad actor.

Due to strong European privacy protection laws, threat actors can easily hide behind GDPR-masked domain data: that which, under GDPR, would not normally be viewable. But HYAS Insight can pivot off this GDPR-masked domain registration to uncover hosts of phishing domains utilized by threat actors. Sometimes phishers register hundreds of domains with a single email address. Successful identification can ultimately uncover huge phishing campaigns.

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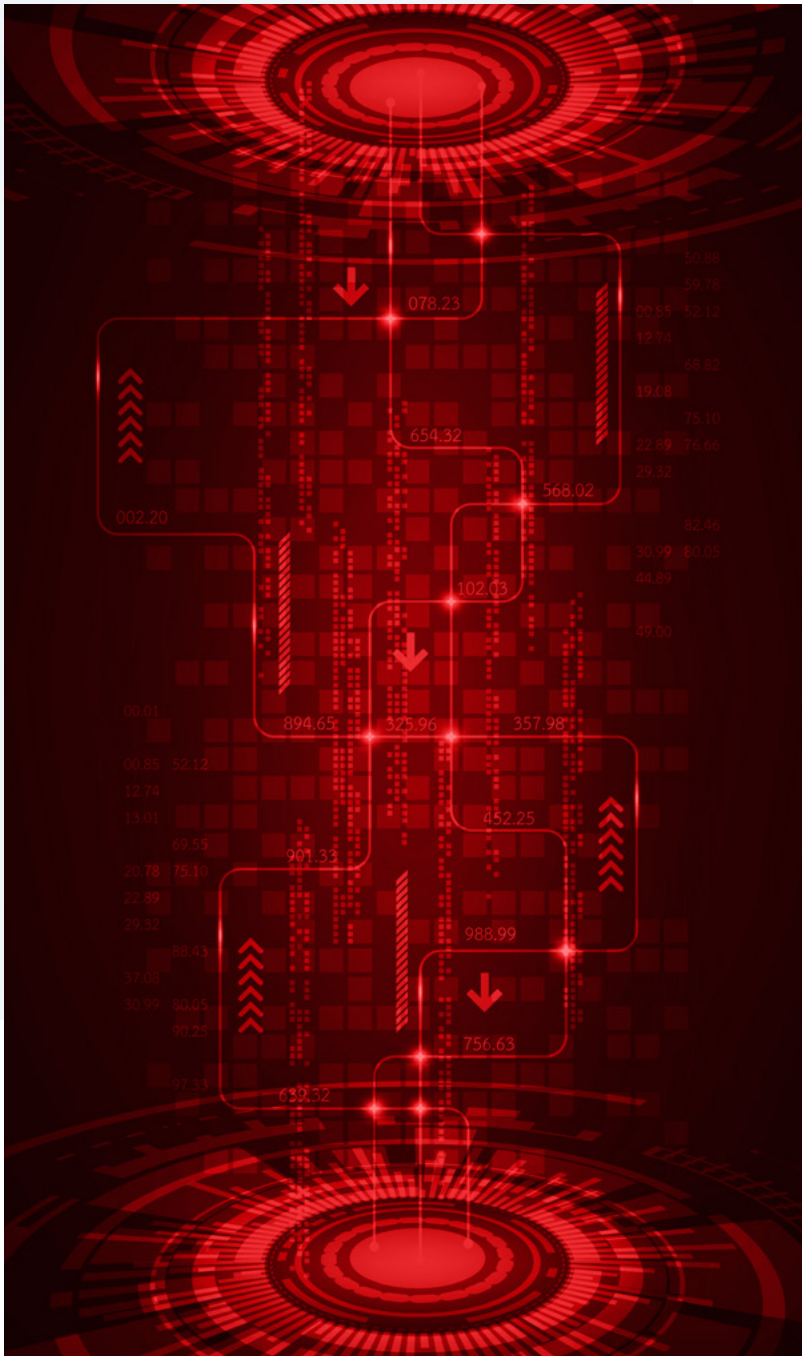

USE CASE #3

DuckDNS: **If It Looks and Acts Like Dynamic DNS ...**

IP addresses are usually allocated dynamically to users by internet service providers. But DuckDNS is a dynamic DNS provider that gives everyone – normal users and bad actors – more freedom and control over their own IP addresses. It's free to link addresses to domain names with DuckDNS, making it perfectly enticing for those with nefarious ends.

Phishing attacks are probably one of the biggest threats financial institutions and their customers or clients face. It should therefore come as no surprise that cybercriminals conducting phishing attacks on those organizations naturally gravitate towards using DuckDNS to send malicious emails to financial institution customers to trick them into providing their login credentials on fake websites.

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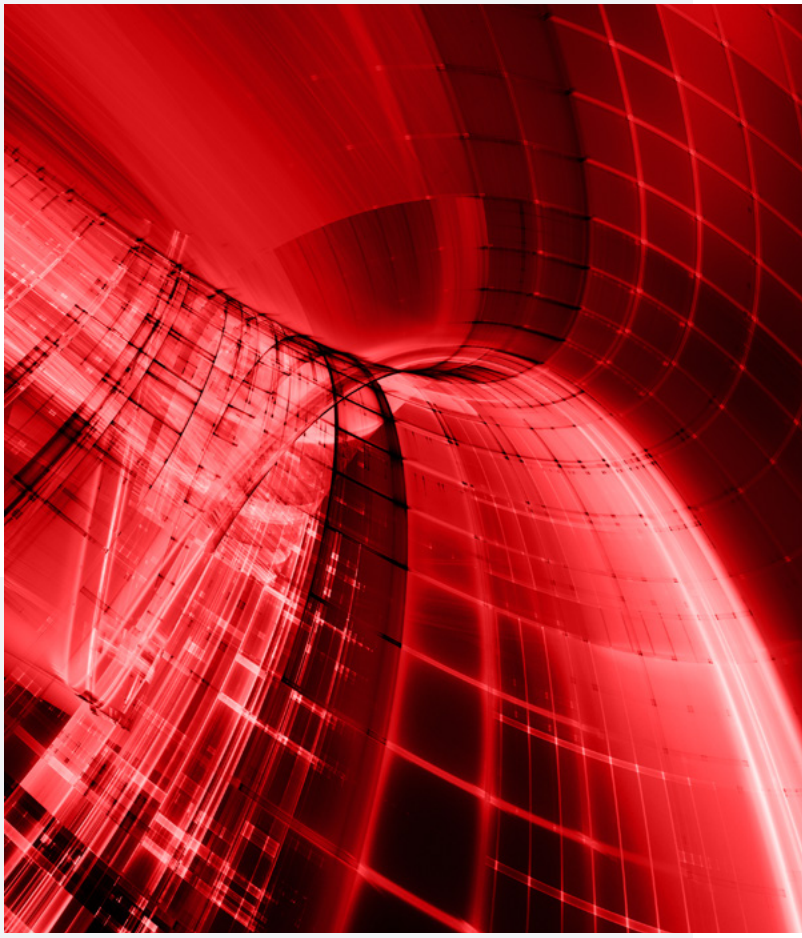
Crucially, HYAS Insight provides additional useful information about DNS registration which helps teams locate threat actors by mapping them to IP addresses anywhere in the world. Even if domain registrees are located elsewhere when they register, DuckDNS still logs their actual IP addresses. It turns out that DuckDNS is very much a double-edged sword for threat actors, and yet another mode of defense for those monitoring threats.



USE CASE #4

Geolocation: **Find Them and Destroy Them**

Threat actors utilizing several different IP addresses can also prove a boon for threat intelligence teams in terms of locating where they're operating from.

Bad actors might register numerous domains connected to services like DuckDNS, rather than just one. But single IP addresses can also be registered multiple times by different actors. If these actors are located all over the world, tracking operations is more difficult.

However, HYAS Insight can provide highly accurate data on the geolocation of trackable IP addresses – wherever they are. Pivoting off given searches is possible but not necessary. When bad actors register dynamic DNS addresses, HYAS obtains the IP addresses used during the registration process. It can then pinpoint clusters of hits for registered domains within approximately one meter of accuracy.

HYAS Insight Into Every Use Case

Threat and fraud researchers and investigators in the financial industry can easily build up dossiers of attacks to take to and promptly notify relevant law enforcement agencies. We have unique data. And being able to pivot from one data point to another data point, especially when we've got unique data, becomes extremely valuable.

HYAS Insight offers threat intelligence, data point pivoting and unique data capabilities invaluable for financial organizations who want to stop the myriad cyber threats that they face. The ability to uncover domain registrations not available to most other cybersecurity solution providers delivers the whole financial sector with the confidence to conduct business operations in the face of malware attacks and phishing campaigns.

Pivoting from single suspicious domains and IP addresses can ultimately uncover vast campaigns designed to destabilize business purely for financial gain. But organizations armed with relevant, unparalleled insight can ensure that bad actors don't get far.

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Additional Resources

Case Study: HYAS Insight Shines a Light on Financial Fraud

How HYAS Protects the Financial Services Industry

HYAS Insight Threat Intelligence and Investigation

HYAS Protect Protective DNS

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INVESTIGATE ATTACK INFRASTRUCTURE FURTHER **AND IDENTIFY FRAUD FASTER**

HYAS INSIGHT

An efficient and expedient investigation is the best way to protect your enterprise. HYAS Insight provides threat and fraud response teams with unparalleled visibility into everything you need to know about the attack. This includes the origin, current infrastructure being used and any infrastructure.

HYAS

PROTECTING BUSINESSES AND SOLVING INTELLIGENCE PROBLEMS THROUGH DETECTION OF ADVERSARY INFRASTRUCTURE AND ANOMALOUS COMMUNICATION PATTERNS

HYAS is a world-leading authority on cyber adversary infrastructure and communication to that infrastructure. HYAS is dedicated to protecting organizations and solving intelligence problems through detection of adversary infrastructure and anomalous communication patterns.

We help businesses see more, do more, and understand more in real time about the nature of the threats they face. HYAS turns meta-data into actionable threat intelligence, actual adversary visibility, and protective DNS that renders malware inoperable.

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