



# **Will Thomas**

Gone Phishin' / Attack of the Phish (something something phishing)

30th October, 15:40 GMT

#BeerCon2

## \$~WHOAMI

SECURITY RESEARCHER

CYBER THREAT INTELLIGENCE

MALWARE ANALYSIS

OSINT



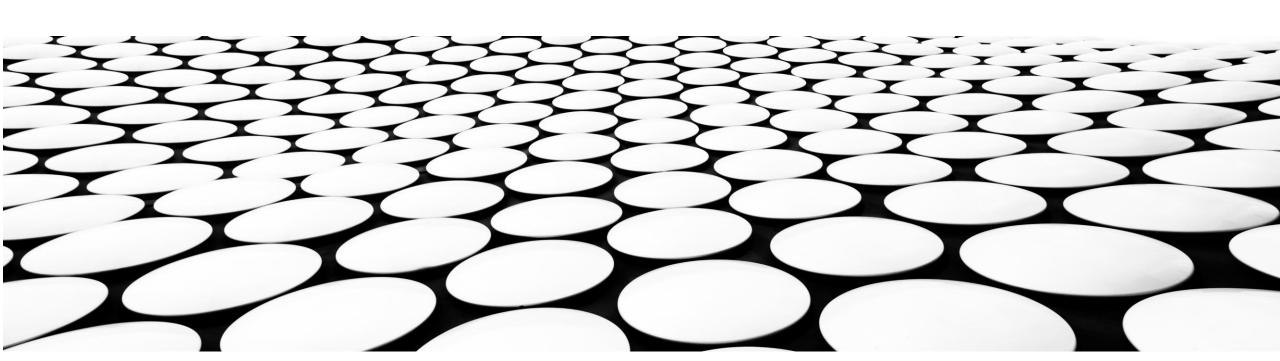
## \$~MAN

@BushidoToken

blog.bushidotoken.net

Moderator on The Many Hats Club

CTI League



### Your account has been suspen...













### service@paypal.com To

Today at 21:49

View this email in your browser



#### Dear Customer,

Your PayPal account has been temporarily restricted. We have found suspicious activity on credit cards linked to your PayPal account. You must confirm your identity to confirm that you own the credit card.

To maintain account security, please provide documents that confirm your identity.

Log in to PayPal

After you complete the requested task, we will review the account and contact you about its status within 5 working days.

Thank you for your attention to this problem.

Done Your PayPal account has been temporarily restricted At this time, you won't be able to: Send payment Withdraw funds

> Login to your PayPal account and take the steps requested.

> > Log in to PayPal

| Done | portal.bloodformercy.id | ΑА | S |
|------|-------------------------|----|---|
|      | P PayPal                |    |   |
|      |                         |    |   |
|      |                         |    |   |
|      |                         |    |   |
|      |                         |    |   |

## THE STATE OF PHISHING

- Leveraging the Cloud
- Mass Credential Harvesting
- Capturing 2FA Tokens
- Free Malware
- Evasion

- Organised
- Phishing-as-a-Service
- Business Email Compromise
- Emotet Spam Botnet
- Mitigation & Prediction



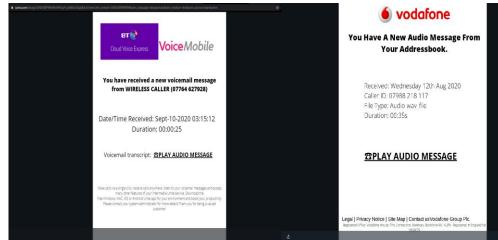






## **LEVERAGING THE CLOUD**





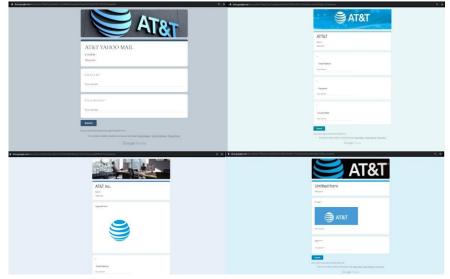




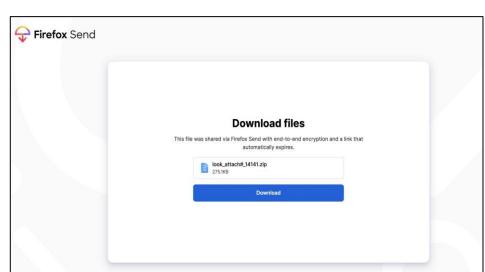
Google Docs

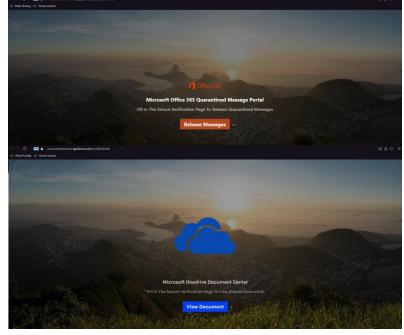


Google Forms











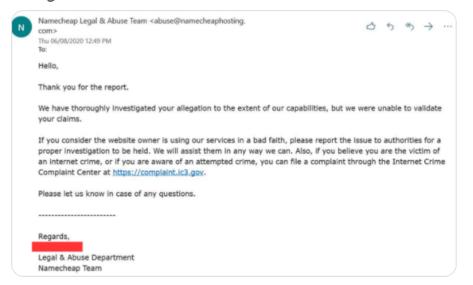
### MASS CREDENTIAL HARVESTING



Yet another battle lost with hosts that just don't seem to care

@BushidoToken sent full evidence to @namecheap of stolen credentials being stored on their servers IN PUBLIC VIEW

Namecheap claim they can't confirm it, after literally being sent a link to the stolen credentials



#### Hi Team,

I have an urgent request. I have submitted multiple takedown requests against one of your hosted domains. It is currently being used to exfiltrate credentials as part of a OWA phishing campaign.

Domain:

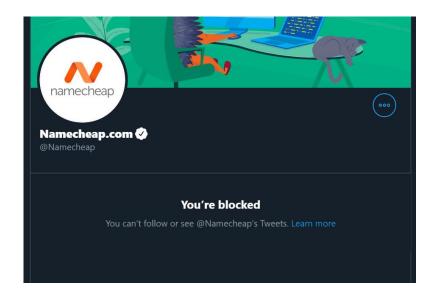
The domain has had over 1,500 credentials stored on it and it should be taken offline ASAP

Yesterday, 8:50 PM ✓



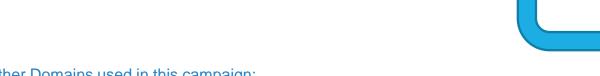
Hi! Thanks for bringing this to our attention. The tickets were prioritized. Our guys will get back to you asap.

Vesterday 8:55 PM









#### Other Domains used in this campaign:

- erased-voice.sfo2.digitaloceanspaces[.]com
- checking-voicenote.sfo2.digitaloceanspaces[.]com
- voicenote-ringer.sfo2.digitaloceanspaces[.]com
- voicenote-caller.sfo2.digitaloceanspaces[.]com
- voice-marketing.sfo2.digitaloceanspaces[.]com
- vmail.sfo2.digitaloceanspaces[.]com

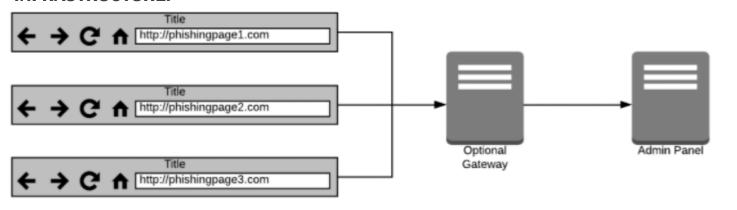


### Victim Organisations:

- UK Law Enforcement and the National Health Service
- Government Employees from UK, Australia, Canada, New Zealand, and the US
- Telecoms, Energy, Professional Services, Aviation, and more.
- Stolen Data: email addresses, passwords, IPv4, and geo-location.
- 1,500 credentials

## **CAPTURING TWO-FACTOR AUTHENTICATION (2FA)**

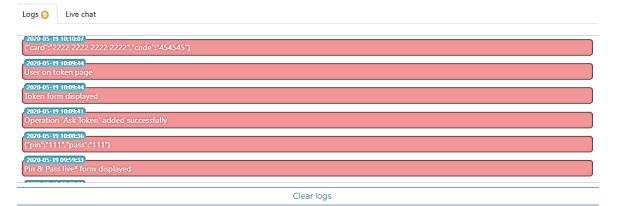
#### **INFRASTRUCTURE:**



#### **LIVE NOTIFICATIONS:**

| Last connected 1 | UI 11                            | Device              | Page ID 1 | Quik Data   |
|------------------|----------------------------------|---------------------|-----------|---|
| ••               | 5bc3925fc0547e21e6dd09b61285207e | <b>⊙</b> ? <b>≡</b> |           | loginType=rbcardnumber<br>username=2222 2222 2222 |

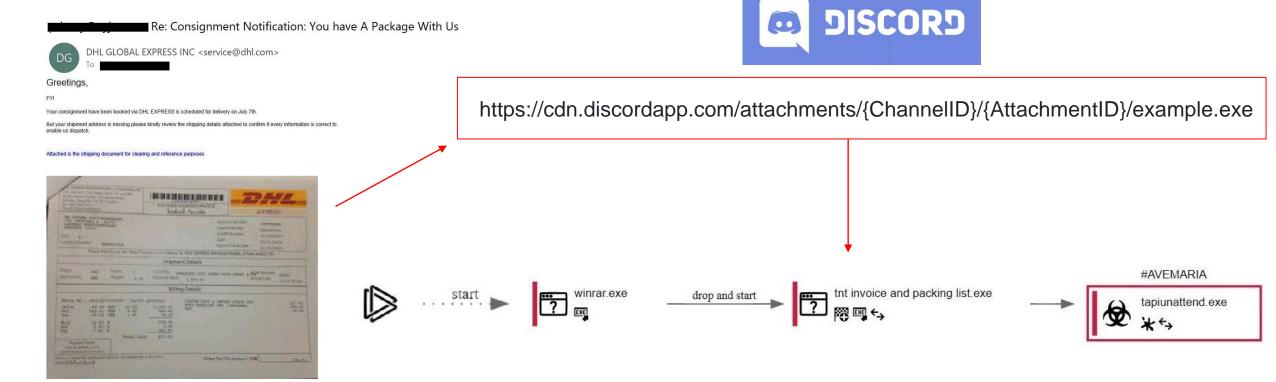
#### **DYNAMIC DATA:**



| Pin & Pass live* |  |
|------------------|--|
|                  | pin_indexes                                    |
| 3,4,5            |  |
|                  | pass_indexes                                   |
| 1,2,5            |  |
|                  | Ask Pin & Pass live*                           |
|                  | *If you want to ask specific letters or digits |

| Token               |                                  |
|---------------------|----------------------------------|
|                     | cards                            |
| 2222 2222 2222 2222 |                                  |
|                     | num                              |
| 123456              |                                  |
|                     | Ask Token Some extra information |

## FREE MALWARE HOSTING



If you would like to find out about the many ways DHL helps you to track your shipment, or if you would like to know more about the services provided by DHL, simply connect to www.dhl.com and select your location at any time

#### Best Regards,

Naveed Castro | Dispatch Manager - Business Development & Marketing DHL Global Forwarding.









## **EVASION**



### firebasestorage.googleapis.com

2a00:1450:4001:81b::200a Malicious Activity!

Submitted URL http://t61.emails.nationaltrust.org.uk/r/?id=h39b95d76,7e8399c0,621c601f&p1 Effective URL: https://firebasestorage.googleapis.com/v0/b/gvhjb-22bb8.appspot.com/o/LL23ween.html?alt=media&token=165d5249-2e02-4a13-bdfe-9aab56ae2d93

Show Scans 536

Show Scans 10000+

Submission: On September 24 via manual (September 24th 2020, 12:53:45 pm) from IN



#### Summary

This website contacted 10 IPs in 5 countries across 10 domains to perform 15 HTTP transactions. The main IP is 2a00:1450:4001:81b::200a, located in Frankfurt am Main. Germany and belongs to GOOGLE, US. The main domain is firebasestorage.googleapis.com. TLS certificate: Issued by GTS CA 101 on September 3rd 2020. Valid for: 3 months.

t61.emails.nationaltrust.org.uk scanned 536 times on urlscan.io

firebasestorage.googleapis.com scanned 10000+ times on urlscan.io Show Scans 10000+

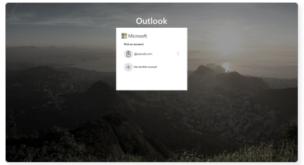
10000+ similar pages on different IPs, domains and ASNs found

#### Screenshot





Preport Crescan

















#스미싱 #Smishing #택배 #Parcel

h\*\*p://kutt[.]it/wPMB9a ->

h\*\*p://syeuof.rteyert.com[.]cn/

Download app: <Phone Number>.apk (36[.]233.58.3)

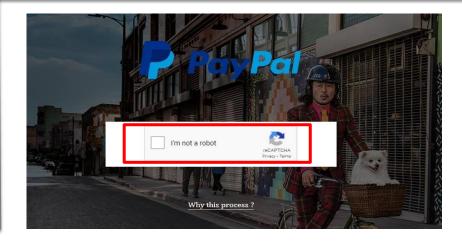
#Chunghwa\_Telecom

virustotal.com/gui/file/c716c...

@kisa118 @ZeroCERT

Translate Tweet



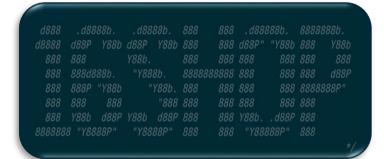






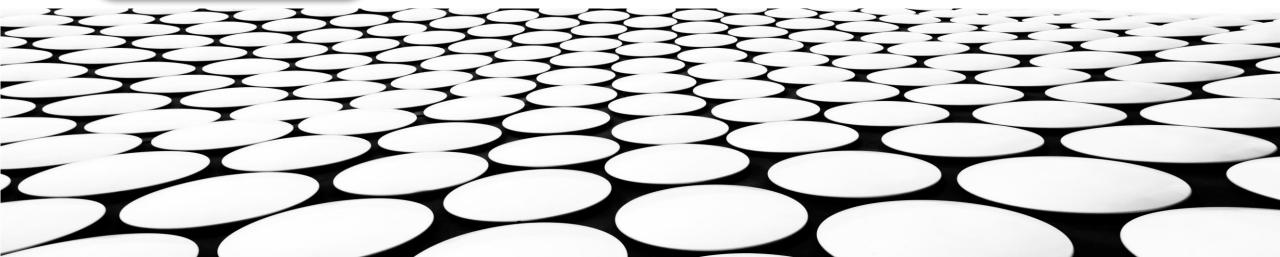
## **ORGANISED CYBERCRIME**



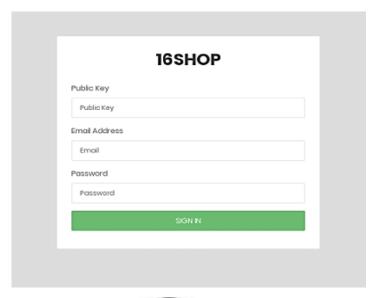


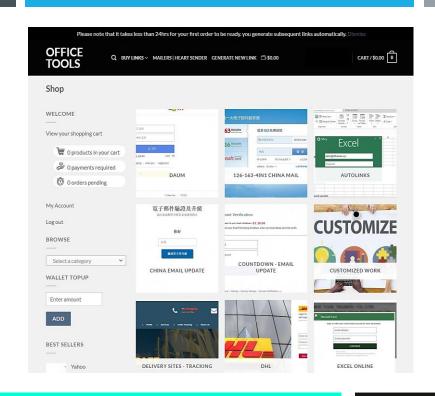


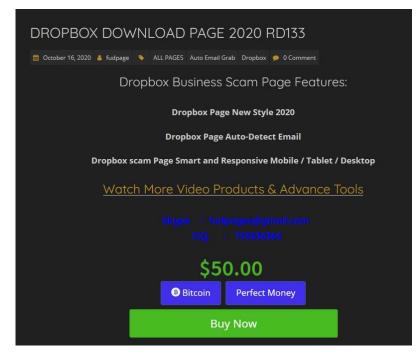




### **PHISHING-AS-A-SERVICE**

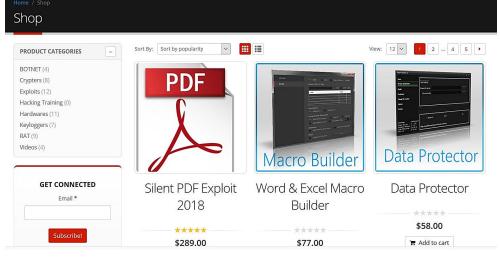






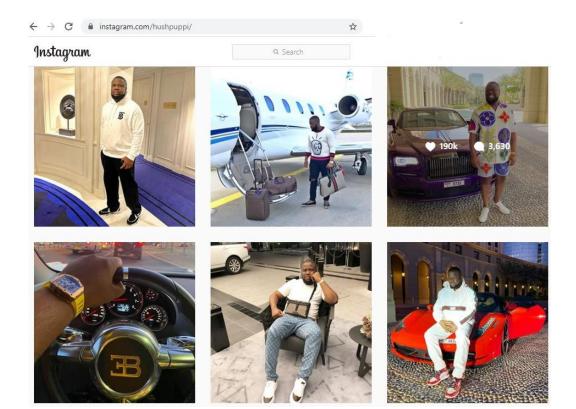






### **BUSINESS EMAIL COMPROMISE**

- Ray Hushpuppi, a Dubai-based Nigerian BEC scammer, was arrested by Dubai police in June 2020, in a case called Operation Fox Hunt 2.
- Responsible for stealing millions of USD via BEC attacks against large enterprises, such as a US law firm, a foreign bank, and an English Premier League football club.



## Hackers Stole 13 Million Euro From One Of The Largest Banks In Malta



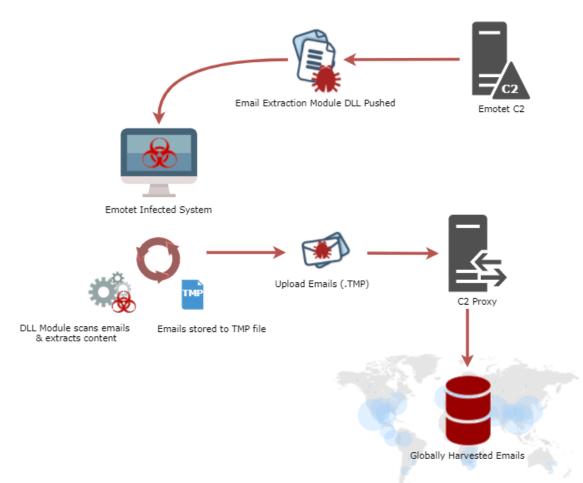
The Hushpuppi Indictment revealed how BEC scammers work with Russian cybercriminal gangs, such as FIN7, to launder stolen funds from elaborate bank heists.

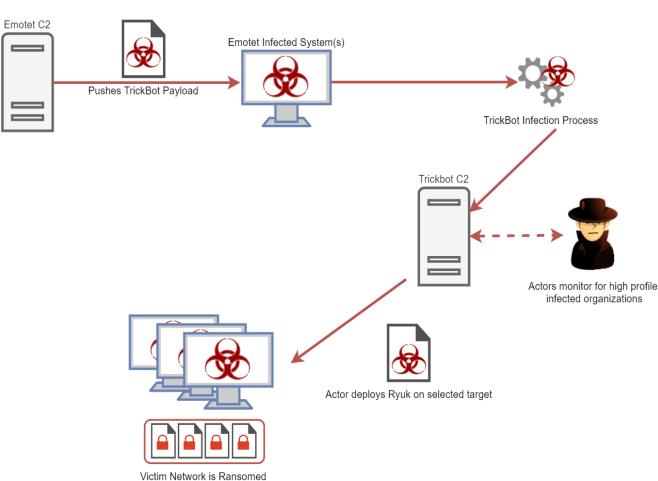




## **EMOTET SPAM BOTNET**



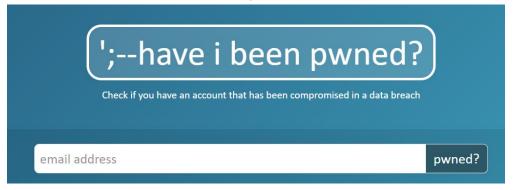




### **MITIGATION**

- MFA/2FA Prevents compromise if credentials are stolen
- Block List Add malicious domains to protection systems
- Takedown Requests Identify the host/registrar and submit a takedown
- Password Security Password Resets / Password Formula
- Anti-Malware Best Practices Updated Software, Logging, and Isolate Infected Systems
- Simulation Red Team tests to identify weaknesses
- Awareness Training Onboarding security training & simple to report something
- Email Forwarding Rules Usually the first thing an attacker will setup (so check them!)

### haveibeenpwned.com



### haveibeenemotet.com



## **PREDICTIONS**

- SMiShing Traditional Phishing will eventually be overtaken by SMiShing
- TTPs Upgraded and deployed in new geographies

- Collaborative Applications Email comms now done on Teams & Slack + Zoom & WebEx
- Increased Losses In 2019, the FBI's IC3 received 23,775 BEC complaints with adjusted losses of over \$1.7 billion.













# **THANK YOU!**



### **REFERENCES**

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- https://phishunt.io/community/
- https://urlscan.io/search/#domain%3Anationaltrust.org.uk
- https://twitter.com/olihough86/status/1291347834650886145
- https://twitter.com/ian\_kenefick/status/1319332152283115525
- https://twitter.com/ffforward/status/1318558802099273730
- https://twitter.com/malwaretracekr/status/1255805990865268736
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- https://pdf.ic3.gov/2019\_IC3Report.pdf

