



COVID-19 and Cyber Heists: Financial System Under Attack

July 2020
Private and Confidential

vmware®
Carbon Black.

NORTON ROSE
FULBRIGHT

Kroll | A Division of
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Agenda

01

Threatscape

02

**Destructive
Attacks**

03

Island Hopping

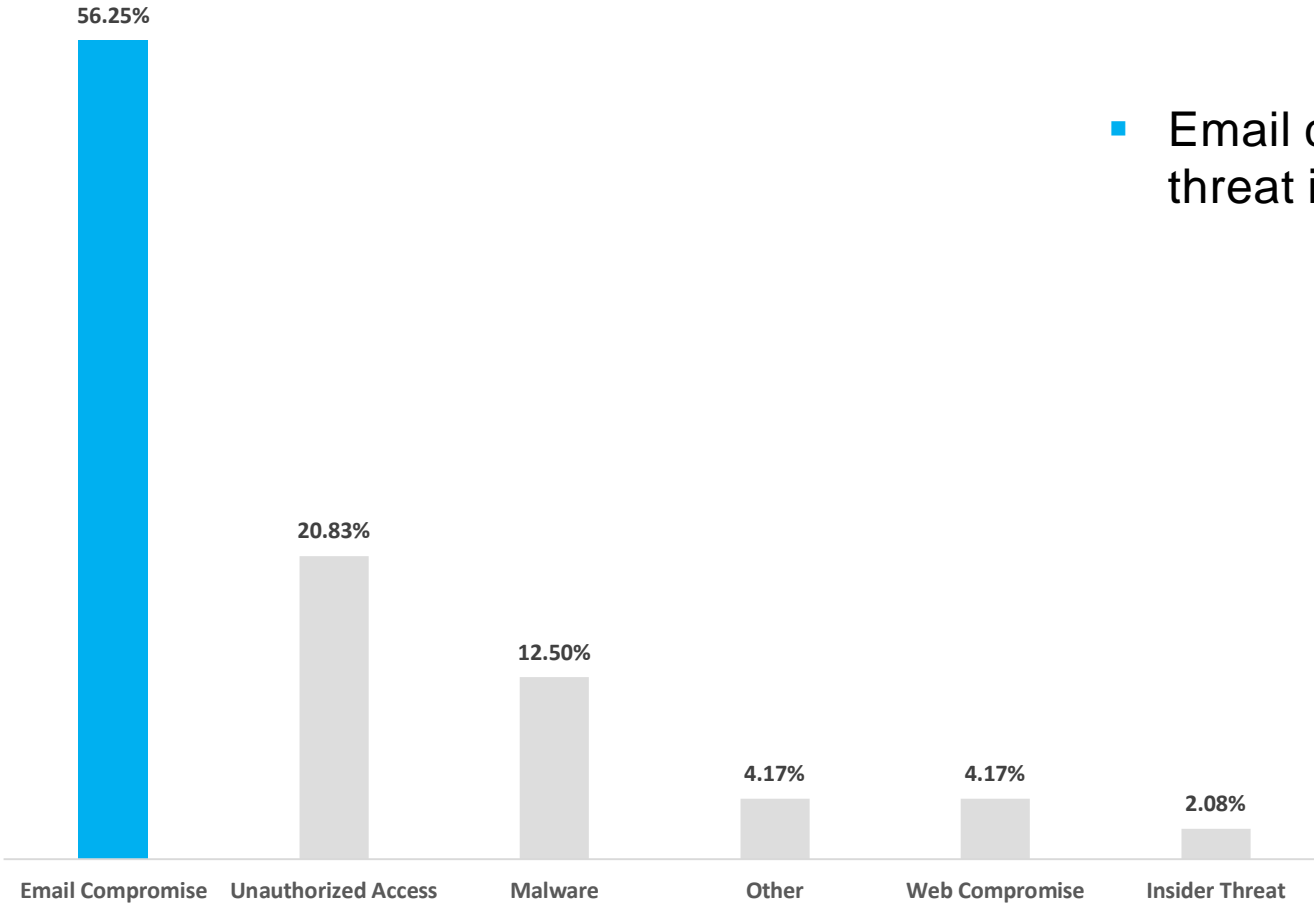
04

Access Mining

05

**Investigations
and Privilege**

Financial Services by Threat Incident Type



- Email compromise was the most observed threat incident type YTD.

Realistic Templates



IMPORTANT ACCOUNT INFORMATION FROM VERIZON WIRELESS.

Update Your Profile Information

It has come to our attention that your payment method is out of date. Please update your payment method as soon as possible.

To update your profile, click: [Sign in to My Verizon](#) account and proceed with the update process

www.verizonwireless.com



<http://ag.my/wp-admin/js/.sc/index.html>

Thank you for using My Verizon.



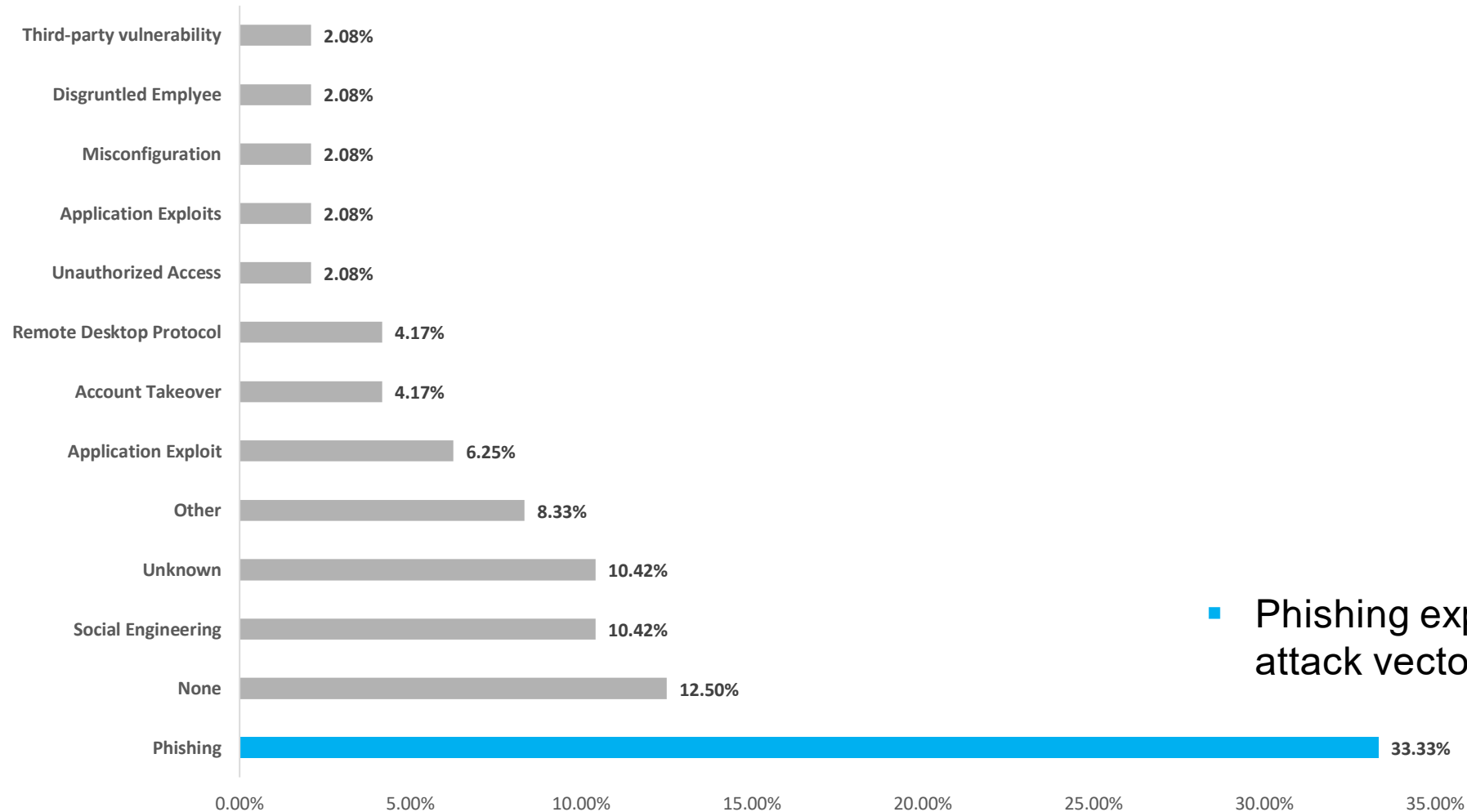
Verizon. America's Largest 4G LTE Network.

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Financial Services by Infection Vector



- Phishing exploits were the leading attack vector in Kroll's cases

Thread Hijacking Exponentially Increases Efficacy

Invoice Available

1.  Weinberg, Jacob
To: Weinberg, Jacob
Accounting - Email (2 years) Open 2/16/2021
 You replied to this message on 2/16/2021 at 11:56am

Invoice Attached

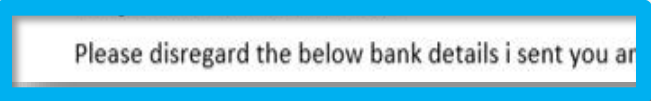
From: Weinberg, Jacob <Jacob.Weinberg@fidelity.com>
Sent: Wednesday, February 10, 2021 11:56 AM
To: Weinberg, Jacob <Jacob.Weinberg@fidelity.com>
Subject: RE: Invoice Available

2. Based on the confirmation letter from assignee that has been obtained, ~~Efficient~~ is prepared to settle ~~and independently~~ accordingly. To that end ~~Revenue~~ for their bank wire instructions? If obtained promptly we should be able to effect the transfer by Friday of this week.

From: Weinberg, Jacob <Jacob.Weinberg@fidelity.com>
Sent: Wednesday, February 10, 2021 11:57 AM
To: Weinberg, Jacob <Jacob.Weinberg@fidelity.com>
Subject: RE: Invoice Available

3. Here are the payment instructions you requested, attached. Please confirm with an email when payment is sent, any questions please let me know.

From: Weinberg, Jacob <Jacob.Weinberg@fidelity.com>
Sent: Wednesday, February 10, 2021 11:57 AM
To: Weinberg, Jacob <Jacob.Weinberg@fidelity.com>
Subject: RE: Invoice Available

4.  Please disregard the below bank details i sent you and check attached Letter of authorization with our updated bank details for payment.



Destructive Attacks e.g. Attrition Has Increased 102%



Extracting as Much as Possible Before Detonating



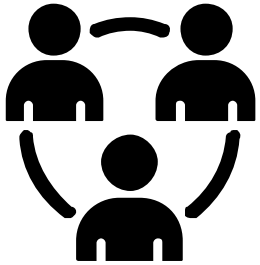
- Sample observed timeline for Ryuk
- Similar patterns for Maze, Ragnar, etc.

Island Hopping Is Metastasizing

Your Digital Transformation will be Commandeered



3 Forms of “Island Hopping”



Network-based
“island hopping”



Website
converted into a
“watering hole”












Reverse
Business Email
Compromise

Access Mining Marketplaces




It's Never Been Easier to Buy Hacking Assistance and/or Tools

HACK & SECURITY	
 <h3>Security and Hacking</h3> <p>Hacking and protecting computers (locally and remotely), networks, programs, databases, web applications. Vulnerabilities, exploits, descriptions. All about hacking and protection:</p> <ul style="list-style-type: none">- web applications - sites, forums, cms, blogs, chat rooms, e-mail, social networks- remote applications - remote computers, servers, workstations- local applications - programs, software, win / nix applications, etc.	44987 posts
 <h3>Malware</h3> <p>Everything related to the study, description and analysis of malicious code (bots / trojans / viruses), reversing, methods of studying malware in general. Work with debuggers, sniffers and analyzers.</p>	39906 posts
 <h3>Wardriving & Bluejacking</h3> <p>Methods of hacking and protection of wireless networks (Wi-Fi), wardriving, bluejacking, encryption algorithms and authentication methods. Construction of wireless networks.</p>	4303 posts
 <h3>IM messengers & social networks</h3> <p>Messengers: Jabber, ICQ, Skype, WhatsApp, Viber, Telegram, Tox. As well as social networks - VK, Facebook, Odnoklassniki, Instagram. Hacking and protection methods, vulnerabilities, client-server software, news, discussion.</p>	13569 posts
 <h3>Social Engineering</h3> <p>Social engineering, hacking information systems using deception / human factor. Phishing, fake making, etc</p>	9206 posts
 <h3>Anonymity and privacy</h3> <p>Questions of anonymity, hiding network activity, privacy. Discussion Proxy / socks / VPN / anonymizers. What to do to not find you.</p>	15716 posts
 <h3>Cryptography</h3> <p>Questions concerning cryptography, encryption, steganography, discussion of algorithms, protocols, keys. Hacking and password protection, hashes. Software for cryptography, packaging.</p>	10997 posts
 <h3>Spam, mailings</h3> <p>Issues of spam, flood and mailings - software, problems, discussion. E-mail spam, mobile (sms), forum, social networks and another. Spam protection!</p>	22709 posts
 <h3>Money</h3> <p>↳ ● Articles All about e-money systems, methods of their work, e-banking.</p>	38896 posts

Forums (Exploits, Malware, and data dump focused)

COMMERCE


Auctions

 Sale of goods and services in an auction format: with a starting price, rates, bidding for a lot. Read the rules!
Do not participate in auctions if you are not sure of your capabilities.


Buying/Selling

└─ RULES, VERIFICATION and ESCROW

- [Software] - malware, exploits, bundles, crypts
- [Access] - FTP, shells, root, sql-inj, DB, Servers
- [Servers] - VPN, socks, proxy & VPS, hosting, domains
- [Social networks] - accounts, groups, hacking, mailing
- [Spam] - mailings, databases, responses, mail-dumps, software
- [Traffic] - traffic, loads, installations, iframe
- [Mobile communication] - receiving calls, sms, breaking through, detailing
- [Payment systems] - exchange, sale, identification, distribution
- [Finance] - billing, banks, accounts, logs
- [Job] - search, execution of work
- [Other] - everything else

 Commercial section. Purchase, sale of various information products and services.

Black List




 └─ ● Arbitration
● Black List

Commercial disputes, positive and negative reviews about users, suspicious individuals, the list threw.




366535
posts

Monetization schemes exist for every type of stolen data

Bots

BOT NAME /  /  SORT FP  RESOURCES KNOWN / OTHER

Filter bot name: Any Filter resource name/domain: paypal, ebay.com, hotmail.com...

AC5E1A81-86C3DFC7-E9A182FD-F7A51992-4997EB4F		Google	Shopify
7B09BD30-E544B574-5A459104-0BCB329B-392E59C0		Google	Indeed
2019-04-15 13:25:12 2019-04-15 13:34:04	192.168.1.254 home.bt.com www.roblox.com		discordapp.com www.bt.com
BB2A6378-E544B574-284A3722-0C5CFE60-B1241F9E		WEBde Live Amazon Fiverr PayPal	Steam Ebay EANetwork Instagram MmogaStore
2019-04-15 13:23:43 2019-04-15 13:34:04			Twitter Spotify Google GMX

“Fingerprinted” browser IDs help bypass MFA



05

Investigations and Privilege

Moving Forward

SOPHISTICATED ATTACKS DEMAND SEASONED RESPONSE TEAM

- Custom malware, dark web marketplaces
- Access mining, island hopping, counter incident response

PRIVILEGE CONSIDERATIONS

- Current litigation decisions may impact privilege protection

SECURITY INTEGRATION

- Cyber and privacy converging throughout organization; security-first design

Q&A



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