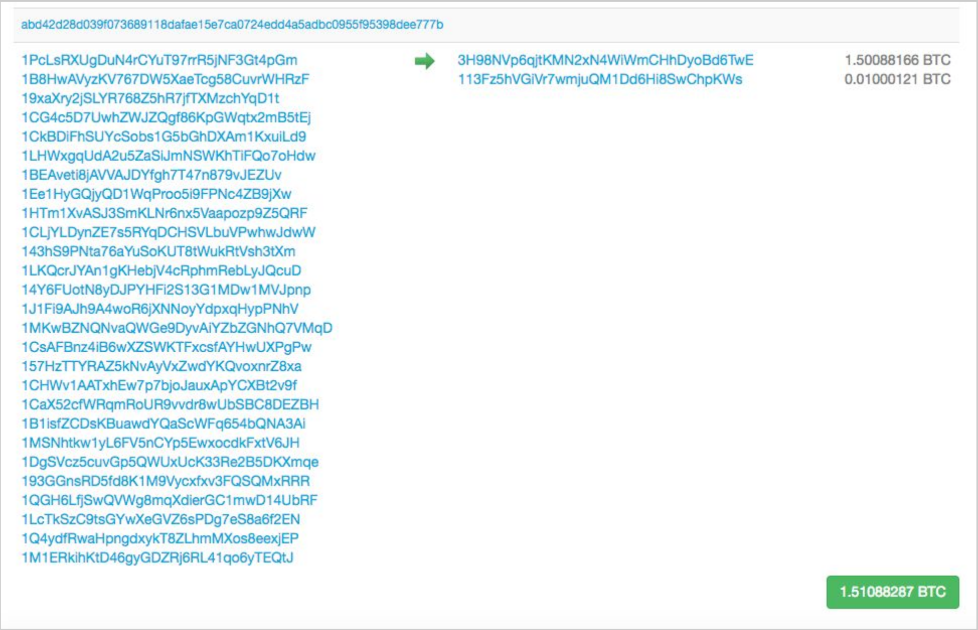
Chainalysis

Cryptocurrency Tracing

Workshop on Crime and Cryptocurrencies
November 17, 2021

Chainalysis maps addresses to entities

What you see on the blockchain



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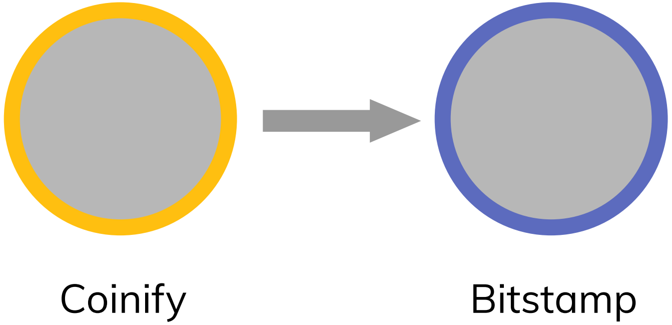
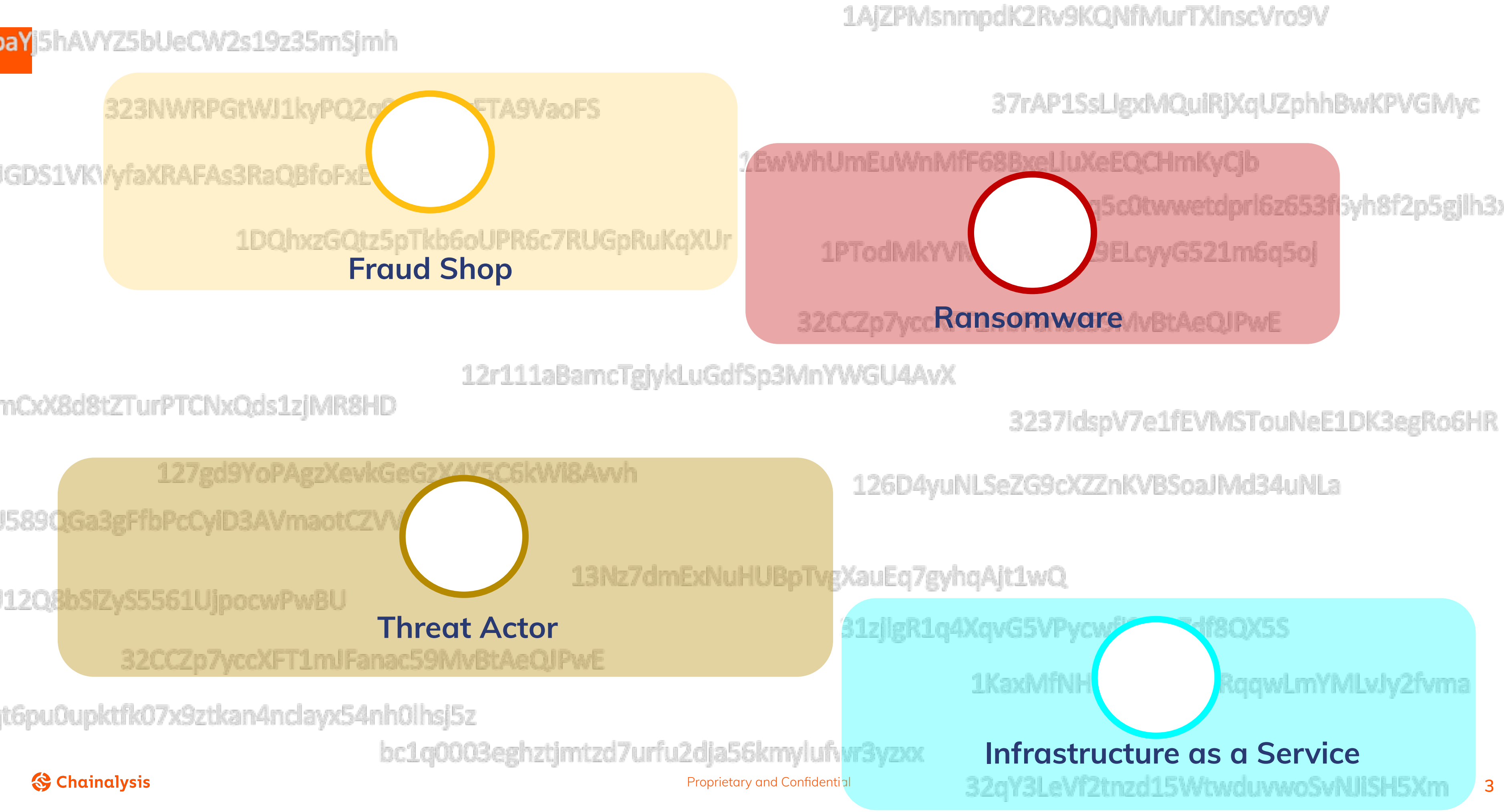
What you see in Chainalysis



Services can have thousands to tens of millions of addresses


Fraud Shop
Ransomware
Threat Actor
Infrastructure as a Service
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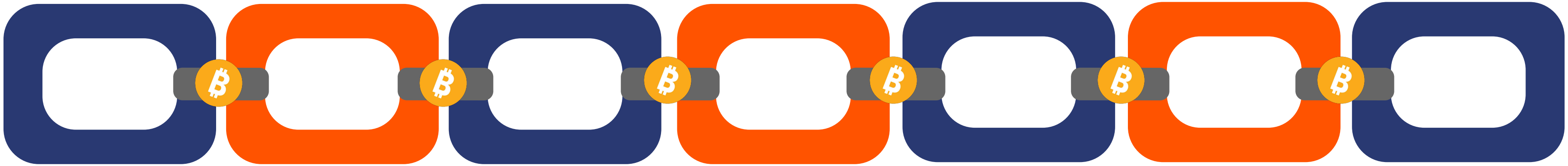
Blockchain Meets Cyber Kill Chain



RECONNAISSANCE
- Infostealer
- Network access
- Scanning Tools
- Pentesters

WEAPONIZATION
- Botnets
- Exploit kits
- Malware

DELIVERY
- Phishing kits
- Affiliates
- Domains
- Bulletproof hosting

EXPLOITATION
- Exploits
- Brute forcing tools

INSTALLATION
- RATs
- Tools (Cobalt Strike)
- Miners

COMMAND & CONTROL
- C2 Infrastructure
- Stolen creds

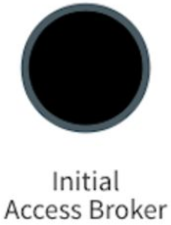
ACTIONS ON OBJECTIVES
- Ransomware
- Cryptojacking
- Data encryption/ exfiltration
- Account takeover

Threat actors use cryptocurrency to propel cyber intrusions through each stage of the kill chain

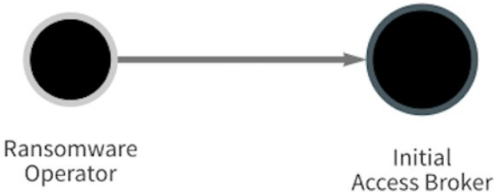
Lockheed-Martin
Cyber Kill Chain

Identify the ‘Who’ and ‘How’

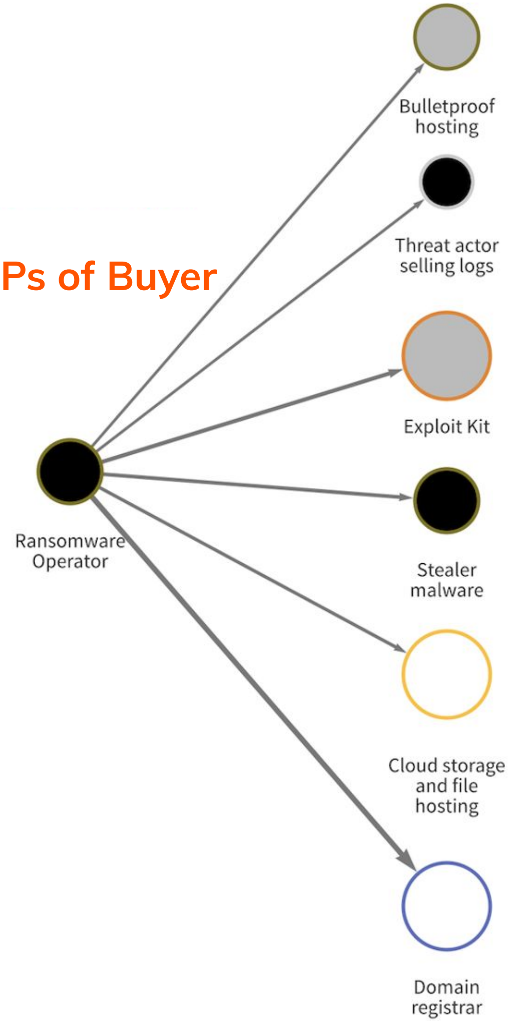
Selling Access



Buyer Identified



TTPs of Buyer

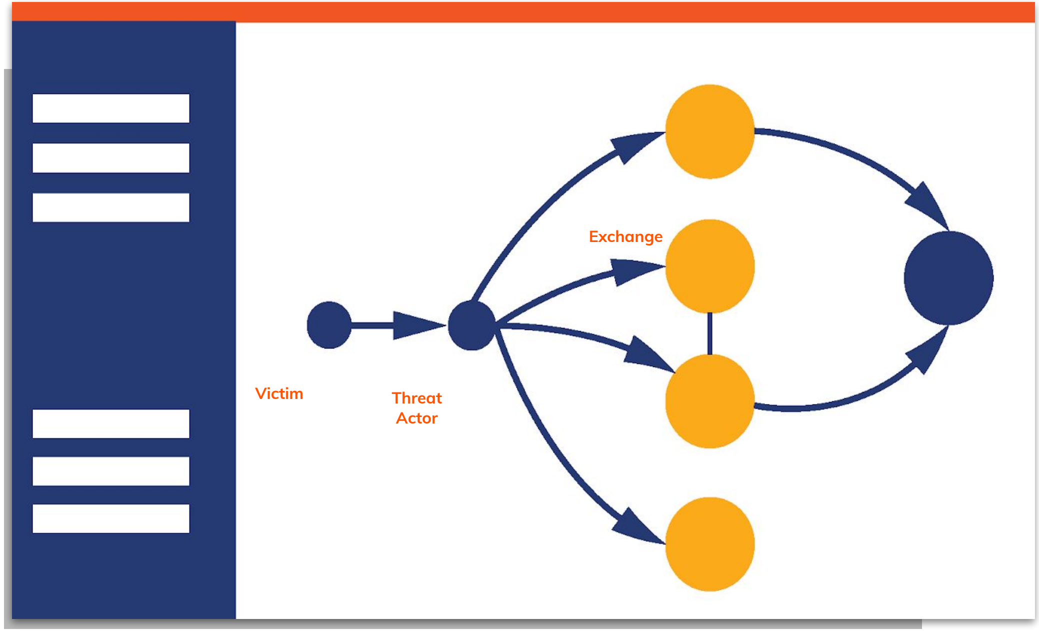


Role of Exchanges

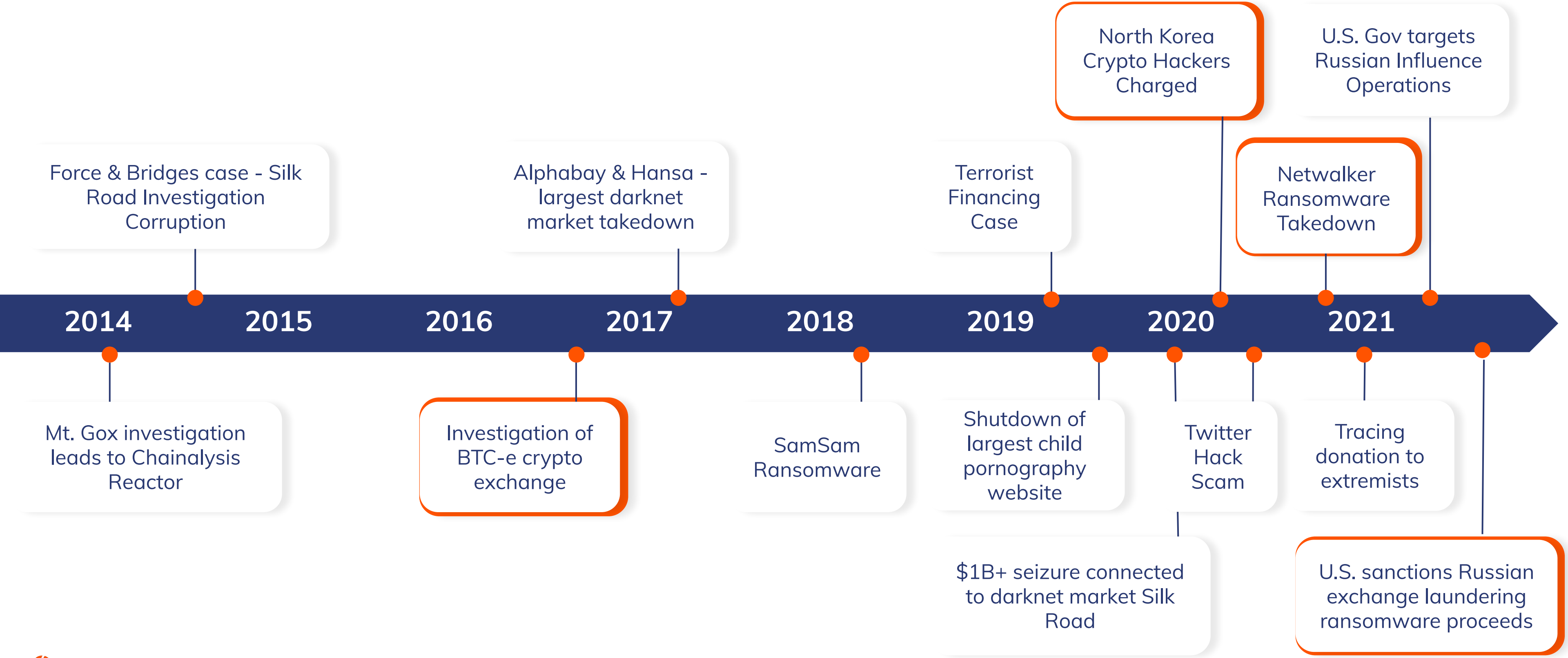
Financially-motivated cyber criminals eventually need to move their crypto into fiat currency.

This means that, more than likely, they must interact with **an exchange.**

Exchanges are cryptocurrency services that play vital roles in attributing and disrupting the ransomware supply chain.



Attribution & Disruption in Action



2014 2015 2016 2017 2018 2019 2020 2021

Mt. Gox investigation leads to Chainalysis Reactor

Force & Bridges case - Silk Road Investigation Corruption

Investigation of BTC-e crypto exchange

Alphabay & Hansa - largest darknet market takedown

SamSam Ransomware

Terrorist Financing Case

Shutdown of largest child pornography website

North Korea Crypto Hackers Charged

$1B+ seizure connected to darknet market Silk Road

Twitter Hack Scam

Netwalker Ransomware Takedown

Tracing donation to extremists

U.S. Gov targets Russian Influence Operations

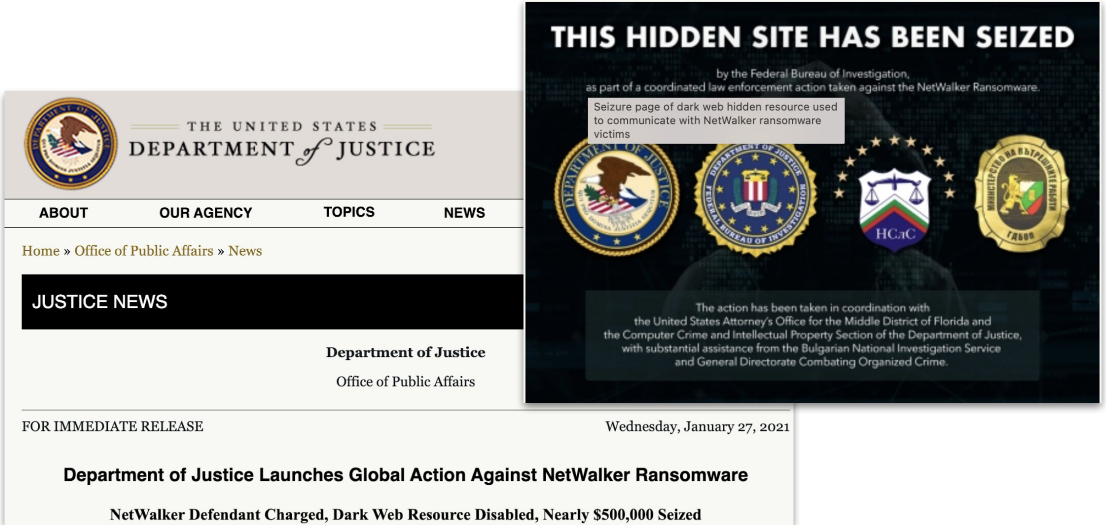
U.S. sanctions Russian exchange laundering ransomware proceeds

Investigation & Disruption

NetWalker ransomware affiliate and Canadian national Vachon-Desjardins arrested and charged in January 2021

- Allegedly responsible for at least 91 attacks, and received $14 million worth of bitcoin at the time of receipt

- Nearly $500,000 seized



THE UNITED STATES DEPARTMENT of JUSTICE

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JUSTICE NEWS

Department of Justice

Office of Public Affairs

FOR IMMEDIATE RELEASE Wednesday, January 27, 2021

Department of Justice Launches Global Action Against NetWalker Ransomware

NetWalker Defendant Charged, Dark Web Resource Disabled, Nearly $500,000 Seized

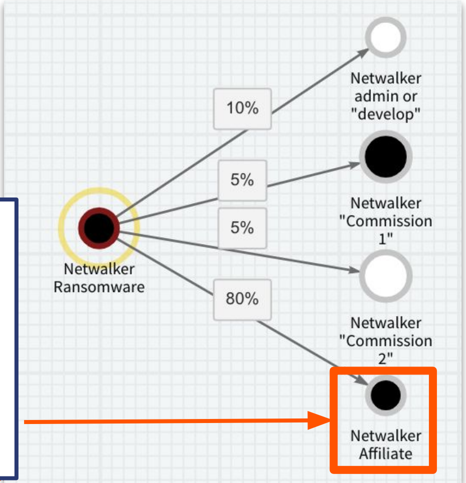
THIS HIDDEN SITE HAS BEEN SEIZED

by the Federal Bureau of Investigation, as part of a coordinated law enforcement action taken against the NetWalker Ransomware.

Seizure page of dark web hidden resource used to communicate with NetWalker ransomware victims

The action has been taken in coordination with the United States Attorney's Office for the Middle District of Florida and the Computer Crime and Intellectual Property Section of the Department of Justice, with substantial assistance from the Bulgarian National Investigation Service and General Directorate Combating Organized Crime.

Affiliates are responsible for finding access to victim networks and ultimately deploying the ransomware. Hence, affiliates receive the lion's share of the profits-- typically 76-80% commissions for NetWalker affiliates as shown in Chainalysis Reactor.



During a ransomware event

Payment Made

A ransomware payment is made by or on behalf of a victim in response to an attack

Tracked by investigators

Professional investigators follow the money and track attempted laundering

Criminal attempts to cash out

The threat actor moves funds to an exchange we work with regularly

Chainalysis alerts exchange

Chainalysis representative alerts exchange that a live ransomware payment has landed in their system to stop the movement of funds

Compliance actions taken

The compliance team takes whatever actions their compliance team deems correct. OFAC guidance is to contact law enforcement immediately and report to OFAC.

Ransomware disincentivized

The profitability of ransomware schemes is reduced. We make it much more difficult for criminals to launder their ill gotten gains.

Thank you!
Questions?

Chainalysis.com

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