

North American Underground The Glass Tank

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The future of the North American underground

<u>29</u> Appendix The cybercriminal underground in North America is open for business, and it has been so for quite a while. Unlike its counterparts in other countries or regions, the North American underground does not rely on limiting access for sustainability. It does not close its doors to novices. On the contrary, it encourages cybercriminal activity.

Many of the North American underground sites are easy to access, as they are often found in the Surface Web. This convenience lures more and more people to its various forums and marketplaces. Anyone armed with the right search query can enter. Simply looking for cybercrime how-to guides (on how to use virtual private networks [VPNs] or The Onion Router [TOR], for instance) can actually lead to related forums.

The North American underground is fiercely competitive. Over the years, several vendors have taken to selling highly similar products, driving down market prices. These have been beneficial to cybercrime newbies on the lookout for the biggest bang for their limited buck. This open underground offers a wide array of illicit wares. Apart from the usual crimeware and data dumps, which we've seen in other markets, goods and services used to physical fraud and murder, for example, run rampant in North America. These offerings could very well be by-products of the blanket of anonymity that the market players think comes with using virtual currencies.

Will the more open North American underground fare better than its better hidden and more exclusive counterparts? Is being open the secret to raking in more business? Or will this openness land the market right smack in the middle of the law enforcement radar?

This underground is not a locked vault accessible only to the tech-savviest of hackers, but rather a glass tank-open and visible to both cybercriminals and law enforcement. Cybercrime operations are treated like regular businesses. Several goods and services are blatantly advertised on Surface Web forums and even on popular sites like YouTube™ to draw in customers. This transparency creates a paradox. The supposed freedom and liberty this underground provides may allow cybercrime to thrive, but it does so under the watchful gaze of law enforcement, ready to serve their cease-and-desist orders at any time.

North American underground wares

SECTION 1

North American underground wares

The North American Underground primarily caters to customers within the region–users based in the United States (US) and Canada. Unsurprisingly, most of the offerings (stolen accounts, products and services, and fake documents) are US based. This is consistent with what we see in the Japanese¹ and Brazilian² undergrounds and suggests that US-based information is most sought after in it.

We classified the goods and services found in the North American underground into three major groups crimeware, stolen data dumps and fake documents, and drugs and weapons.

Crimeware

Hacking tools

We found several North American forums that solely sell hacking tools. These wares are considered basic essentials in any underground market—keyloggers, spamming tools, remote access tools (RATs), and botnets.

| CANNETE | Escrow A HawkEye keylogger \$0.70 USD / 0.002942 BTC | | | |
|-----------------------|---|--|--|--|
| (111) | Vendor: cyberseason Category: Software | | | |
| | Ships From: worldwide Ships To: Worldwide | | | |
| _ | Escrow 🖈 HawkEye Keylogger Cracked -Hacking Tool- | | | |
| <u> </u> | \$1.00 USD / 0.004203 BTC | | | |
| | Vendor: PaperAgent +155 | | | |
| | Category: Digital | | | |
| | Ships From: Worldwide Ships To: Worldwide | | | |
| | Escrow 🛧 HawkEye Keylogger Cracked -Hacking Tool- | | | |
| | \$1.00 USD / 0.004203 BTC | | | |
| - The second second | Vendor: BlackWanted +29 | | | |
| | Category: Digital | | | |
| allin allin allin | Ships From: Worldwide Ships To: Worldwide | | | |
| | Escrow 🛧 ★ HAWKEYE KEYLOGGER HACKING TOOL ★ | | | |
| - | \$4 USD / 0.016812 BTC | | | |
| | Vendor: Homodei +77 | | | |
| and the second second | Category: Digital | | | |
| | Ships From: Me Ships To: Worldwide | | | |

Figure 1: HawkEye, a keylogger, is sold for US\$1-4

| [OPEN-SOURCE] Quasar - Remote Administration Tool (Pages: 1 2 3 4 27) | 268 | [Full Tut] [HQ] LizardSquad Botnet [Updated Links] | Thread Option |
|--|-----|--|--|
| MaxX0r | 200 | (8-29-2015, 07:24 PM (This post was last modified: 09-07-2015 08:05 PM by | Post: #1 |
| LuminosityLink 1.3.1 Beta - Enter Now (Pages: 1 2 3 4 8) KPC Watermelon | | cojdump -s -j. rodata mips | Prestige: 35 Posts: 233 Joined: Apr 2015 |
| <mark>⊫ ⊳ crypt?</mark> Mcfellow | | 🖉 🛄 🐵 шван | Reputation: 7 |
| [CRYPT FUD] CRYPT LL1.3 FUD_Bypassing All ProActivate moody2000 | | .:: LizardSquad Botnet Tutorial :: | |
| [] [NcatRat] Full Remote Control Of CMD (FUD) (Pages: 1.2.) Icanok | 18 | • Benotation: Hello my name is I'm currently thinking about guitting from this community so felt obliged to | |
| RAT opinions on best for my \$\$\$ (Pages: 1 2 3) Weekend Offender | 29 | leak this very nice protocol w/ tutorial. Please show your support and appreciation and comment below | |
| ▶ Insight RAT Helpdesk Hinch | | - 2 x Virtual Private Servers * (At least 46B RAM) [Centos 6 Or Below Is Recommended!) - Mr Cuttom Files | |
| CyberRAT - Native C++ RAT [IN DEVELOPMENT] (Pages: 1 2 3 4 8) | 74 | Server.c ; dient.c] Custom LRAB Scanner | |
| #{Specialists}# EXE to Direct Link <> www.fastlink.xyz <> Free Premium for ALL <> (Pages: 1 2 #Gyneou Skobburgton | | Dedicated Scanning Server Fordicated Scanning Server Tex Code Server that is Capable Of Mass TCP Scanning] TIP: Code Server thats: | |
| LuminosityLink 1.2 - Crypto Miner Guide Full Setup and Walkthrough Support Thread (Pages: 123) | 29 | 1* Ectat - 1* - V950me - | |

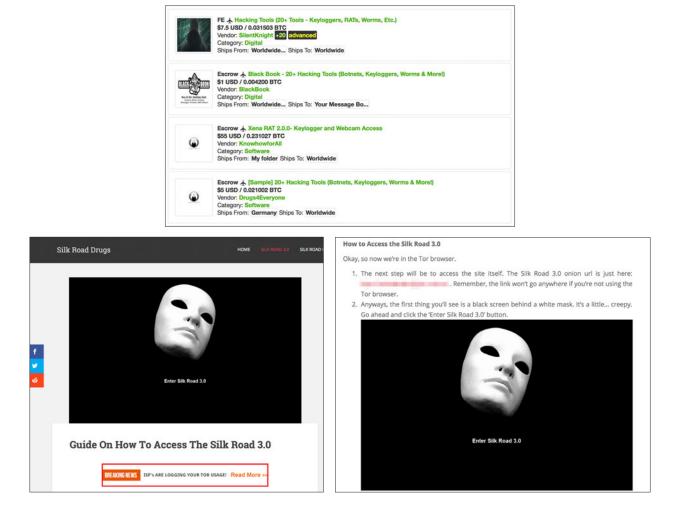


Figure 2: RATs, crypting services, and even botnet and Silk Road 3.0 access tutorials abound in the North American underground

In most cases, malware bought include technical support from their developers. The Xena RAT Builder, for instance, can be purchased with any of two service packages—Silver or Gold. The Gold package comes with crypting services to ensure that the malware the kit creates would be fully undetectable (FUD).



Figure 3: Xena RAT Silver and Gold package offerings

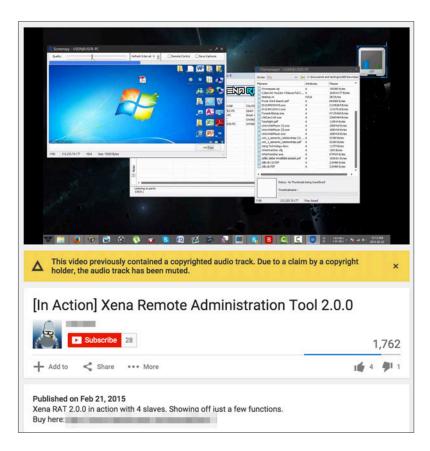


Figure 4: YouTube video showing off Xena's various features

| Offering | Price |
|------------------------------|-------------------------------------|
| Keylogger | US\$1-4 |
| Xena RAT builder | US\$1-50 |
| Exploit | US\$1+ (depending on complexity) |
| Botnet and/or botnet builder | US\$5–200 |
| Worm | US\$7–15 |
| Ransomware | US\$10 |
| Betabot DDoS tool | US\$74 |

Table 1: Crimeware often found in the North American underground

BPHSs

Any cybercriminal endeavor is built upon the use of bulletproof hosting services (BPHSs)³ to ensure smooth and undetected operation. BPHS providers allow users to store anything, including malicious content like phishing sites, pornographic materials, and command-and-control (C&C) infrastructure. As such, many major cybercriminal groups would not be able to operate without the aid of BPHSs with legitimate business fronts that shield them from the prying eyes of law enforcement.

Various BPHS offerings can be found in the North American underground. Custom BPHS tailored to specific needs can be obtained for US\$75 per month. This comes with a single Internet Protocol (IP) address and 100GB of hard disk drive (HDD) space on a machine with a 2GB random-access memory (RAM). Note though that basic access to a bulletproof server can also be obtained for as low as US\$3 a month.



Figure 5: Ad for customized BHPS priced at US\$75 per month



Figure 6: Ad for a Russian-based BHPS provider, touting the seller's success in hosting botnets, RATs, exploits, spamming tools, fraud forums, and pornographic content



Figure 7: Post made by a user looking for a BPHS provider

Crypting services

Crypting services, arguably the most sought-after crimeware in the North American underground to date, obfuscate malware binaries' creation dates and other malicious components. All customers need to do is send their malware to service providers who then check them against all standard anti-malware tools available in the market. Crypting service providers check how many products flag the code "malicious." They then encrypt the malware as many times as it takes until these are no longer detected.

Crypting service offerings vary though most providers encrypt files designed to run on Windows® XP, 7, and 8 and Windows Server 2003 and 2008, among others. These are generally affordable and criminals buying in bulk even get discounts. Typical customers include those on the lookout for cost-effective ways to evade detection via anti-malware, firewalls, and intrusion detection and prevention systems (IDSs/IPSs).

| SINGLE | DAILY | WEEKLY | MONTHLY |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|
| \$ 20 | \$ 65 | \$ 300 | \$ 1000 |
| * free customer service | * free customer service | * free customer service | * free customer service |
| API Support | API Support | API Support | API Support |
| Single crypt | Unlimited crypts | Unlimited crypts | Unlimited crypts |
| Single file | Unlimited files* | Unlimited files* | Unlimited files* |
| both checkers free | AV results from both checkers | AV results from both checkers | AV results from both checkers |

Figure 8: Ad for one-time, daily, weekly, and monthly crypting services that usually come with application programming interface (API) support with prices ranging from US\$8 per file to US\$1,000 per month for use on an unlimited number of files

VPNs and proxies

VPNs and proxies are crucial cybercrime tools, as they are the best means to conceal criminal communications and anonymize identities.

VPNs encrypt all the data sent and received within them while proxy servers reroute traffic from one IP address to another so it looks like it's coming from a computer other than the real source. VPNs and proxies thus help facilitate anonymous connectivity and communication.

Most criminals seeking complete anonymity fear that reputable VPN service providers keep track of and log account activity. As such, many of their peers offer anonymous VPN or proxy server access for an average price of US\$102 per year.

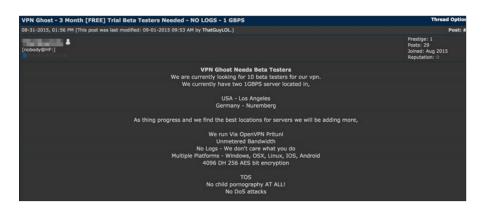


Figure 9: VPN access with unmetered bandwidth, guaranteed no activity logging, and works across platforms

DDoS attack or Web-stressing services

Distributed denial-of-service (DDoS) or Web-stressing attacks are a common component of cybercrime arsenals. DDoS offerings are, in fact, an underground staple available at fairly affordable prices.



Figure 10: Various DDoS attack and Web-stressing services available in the North American underground

Premium Web-stressing services boast of as much as 300GBps DDoS traffic attack capabilities that users can use on their intended victims.

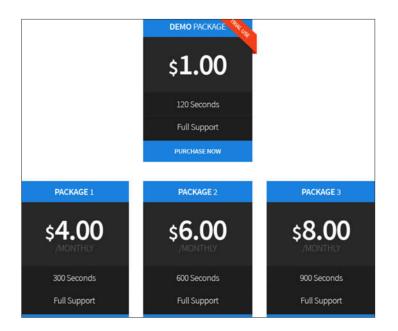


Figure 11: DDoS attack service packages available in the North American underground

| 7-20-2015, 10:13 AM (This) | ost was last modified: 10-03-2015 10:43 AM by | |
|-----------------------------|--|---------------------------|
| uying BTC | | |
| | Suspect Traffic | |
| | 246.9 Gbps | 76.0 Mpps |
| | 216.0 Gbps | 66.5 Mpps |
| | 185.2 Gbps | 57.0 Mpps |
| | 154.3Gbps | 47.5 Mpps |
| | 123.4 Gbps | 38.0 Mpps |
| | 92.6 Gbps UL | 28.5 Mpps |
| | 617 Gops | 19.0 Mpps |
| | 30.9 Gbps | 9.5 Mpps |
| | 7h 6h 5h 4h 3h 2h Ago Ago Ago Ago Ago Ago Ago | Last Current Hour Hour |

Figure 12: Post touting proof of a provider's DDoS attack service capabilities

| Offering | Price |
|---------------------------|--------|
| 40GBps for 300 seconds | US\$5 |
| 70GBps for 300 seconds | US\$9 |
| 40GBps for 2,700 seconds | US\$25 |
| 125GBps for 300 seconds | US\$25 |
| 70GBps for 7,200 seconds | US\$30 |
| 125GBps for 2,000 seconds | US\$60 |

Table 2: DDoS attack and Web-stressing services available in the North American underground

Access to compromised sites

Access to compromised sites, including via Remote Desktop Protocol (RDP), is also a notable North American underground offering. The prices of such services vary, depending on type. Sellers offer access to a single compromised site, multiple sites, and even full root access to servers.

Cybercriminals often use compromised sites or servers to distribute malware. These sites or servers act as jump-off proxies to launch attacks on chosen sites or servers.

| | Contact | ▼USD 240.27 ▼CAD 318.56 ▼EUR 215.59 ▼AUD 347.38 ▼GBP 158.05 | |
|---|--|--|--|
| Browse Categories | Sea | rch Results [Save Search] | |
| Fraud Drugs & Chemicals Guides & Tutorials Counterfeit Items Digital Products Jewels & Gold Weapons Carded Items Services | 7093 17005 3190 1178 2637 426 | SS Cpanel Item # 7809 - Hosting - Code (479) Views: 1190 / Bids: Fixed price Quantity left: Unlimited Item # 17809 - Hosting - pepsitwist (96) Views: 568 / Bids: Fixed price Quantity left: Unlimited | Buy USI (0.02 Buy USI (0.01 |
| Conter Listings Conter Listings Software & Malware Security & Hosting Hosting Hosting | 542 334 | Item # 8455 - Hosting - EuroRX (1650) | Buy USD (0.06 |
| Search Options | 28 | Hacked RDP Item # 8558 - Hosting - Code (479) Views: 1320 / Bids: Fixed price Quantity left: Unlimited | Buy USD (0.04 |

Figure 13: Cpanel sold for US\$4–10 that can be used for RDP access; available for US\$20 if customized with buyer's operating system (OS) and target country preferences

RDP access tools generally sell for US\$10–25, depending on the intended target region, victim type, and access rights. Access to hacked site management portals (Cpanel) ranges from US\$3–5.

Stolen data dumps and fake documents

Stolen credit card credentials and clones

Cybercriminals go underground if they wish to monetize stolen data. They most commonly sell information like credit card credentials. But credentials are not the only credit-card-related goods found in cybercriminal markets. Clones or copies of stolen credit cards also abound.

Selling credit card clones is quite common in the North American underground though we weren't able to find posts that detailed how these were used. Buyers, however, showed a preference for credit card credentials than clones since the latter brought risks of actually getting caught red-handed.

Credit-card-related offerings varied in price, depending on reliability, anonymity (pre-, during, and postsales), issuing country, and credit limit. Most goods available for purchase were issued in the US, Canada, or European countries.

| Price and order HOW DO I PLACE AN ORDER? To place an order We will need few things from you: 1)The balance range you want. (Check price list below) 2)The number of cards you want. (Shcout on bulk orders) 3)We will calculate your order value and get back to you as soon as possible. 3)We will calculate your order wave and get back to you as soon as possible. 3)We will calculate your order wave of sending us your shipping address. 5)And then we feed you with payment details. WHAT ARE THE PRICES OF CARDS? US Balance between \$2000-52999 for \$250 Balance between \$2000-52999 for \$250 Balance between \$2000-58999 for \$550 Balance between \$2000-58999 for \$550 Balance between \$2000-58999 for \$550 Balance between \$2000EUR-2999EUR for 270EUR Balance between \$000EUR-2999EUR for 770EUR Balance between \$000EUR-2999EUR for 770EUR Balance between \$000EUR-2999EUR for 770EUR Balance between \$000EUR-8999EUR for 770EUR Balance betwee | C Sale | Home | Price & Order | F.A.Q. | Conta |
|--|--|------|---------------|--------|-------|
| HOW DO IPLACE AN ORDER? To place an order We will need few things from you: 1)The balance range you want. (Check price list below) 2)The number of cards you want. (Discount on bulk orders) 3)We will calculate your order value and get back to you as soon as possible. 4)Then, we will tell you a secure way of sending us your shipping address. 5)And then we feed you with payment details. WHAT ARE THE PRICES OF CARDS? US Balance between \$2000-52999 for \$250 Balance between \$2000-52999 for \$250 Balance between \$3000-53999 for \$350 Balance between \$000-58999 for \$550 Balance between \$000-59999 for \$550 Balance between \$000-59999 for \$550 Balance between \$000-59999 for \$550 Balance between \$2000-57999 for \$570 Balance between \$2000-57999 for \$570 Balance between \$2000-57999 for \$720 Balance between \$2000EUR-2999EUR for 270EUR Balance between \$000EUR-3999EUR for 370EUR Balance between \$000EUR-5999EUR for 670EUR Balance between \$000EUR-5999EUR for 770EUR Balance between \$000EUR-5999EUR for 770EUR Balance between \$000EUR-5999EUR for 670EUR Balance between \$000EUR-5999EUR for 770EUR Balance between \$000EUR-899EUR for 870EUR Balance between \$00 | | | | | |
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| To place an order We will need few things from you: 1)The balance range you want. (Check price list below) 2)The number of cards you want. (Discout no bulk orders) 3)We will calculate your order value and get back to you as soon as possible. 4)Then, we will real you a secure way of sending us your shipping address. 5)And then we feed you with payment details. WHAT ARE THE PRICES OF CARDS? US Balance between \$2000-52999 for \$250 Balance between \$3000-53999 for \$350 Balance between \$5000-55999 for \$550 Balance between \$5000-55999 for \$550 Balance between \$5000-55999 for \$550 Balance between \$2000-57999 for \$550 Balance between \$2000-57999 for \$550 Balance between \$2000-58999 for \$550 Balance between \$2000EUR-2999EUR for 270EUR Balance between \$2000EUR-2999EUR for 370EUR Balance between \$2000EUR-7999EUR for 670EUR Balance between \$2000EUR-7999EUR for 770EUR Balance between \$2000EUR-8999EUR for 870EUR DO YOU HAVE CARDS WITH HUGE BALANCES,OTHER THAN THE ONE LISTED ABOVE? Yes we do, but most at times we keep those cards to ourselves.Feel free to ask FOR FURTHER QUESTIONS AND ENQUIRY, CONTACT US | Price and order | | | | |
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| | CONTACT INFO | | | | |
| | | | | | |

Figure 14: Ad for credit-card-related offerings in a popular marketplace

| Offering | Price |
|---|----------------------|
| Classic US-issued credit card credentials | US\$19–22 (100 sets) |
| Gold, Platinum, or Business US-issued credit card credentials | US\$36-42 (50 sets) |
| Classic Canada-issued credit card credentials | US\$47–50 (40 sets) |
| Gold, Platinum, or Business Canada-issued credit card credentials | US\$50–65 (35 sets) |
| Fake US-issued credit card (physical) | US\$210-874 |

Table 3: Credit-card-related offerings in the North American underground

Europay, MasterCard, and Visa (EMV) standard-adhering and chip-and-personal identification number (PIN) (technology recently declared a European, US, and Canadian standard) cards and related goods are commonly sold in the North American underground. These generally cost US\$30–40 more than normal (non-EMV and -chip-and-PIN) cards.

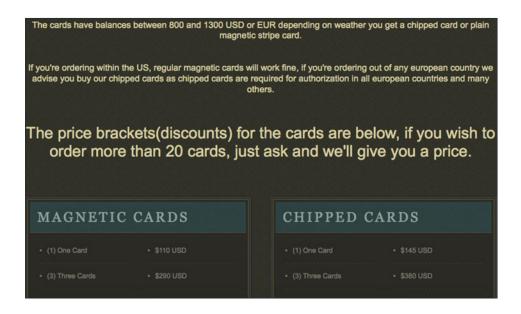


Figure 15: Users who buy cards with US\$800–1,300 remaining balances that work in the US and European countries in bulk (more than 20 cards in a single purchase) get discounts

| | FE FRESH CC/CVV FROM USA VISA/MASTER/DISCO \$14.00 USD / 0.058483 BTC Vendor: 609austin14 +565 advanced Category: Money Ships From: Unknown Anime Land Ships To: Worldwide | |
|------|--|--|
| VISA | Escrow 🖈 Carding CC to BTC in 5 steps (NEW) \$6 USD / 0.025064 BTC Vendor: etimbuk +1195 Category: Money Ships From: Me Ships To: Worldwide | |
| -00- | Escrow 2X USA FULLZ- SSN-DOB-BANK INFO ETC I g \$2.50 USD / 0.010443 BTC Vendor: CarderPro95 #30 Category: Money Ships From: Virtual message Ships To: Worldwide | |

Figure 16: Posts by sellers of stolen credit card information

Credit-card-related offerings often come with a disclaimer. Not all of the credentials in a dump bought will work. Users who buy 100 sets of credentials, for instance, are guaranteed the use of at least 15 cards or they can get their money back.

Online account credentials

Stolen online account credentials also abound in the North American underground. Cybercriminals hack Spotify and Netflix accounts then sell access to these. Buying such wares allows users access to the services of their choice for a fraction of the legitimate price as long as the compromised account owners don't change their passwords.



Figure 17: Netflix lifetime-access account sold for US\$5 (cheaper by ~US\$3–4 compared with legitimate service offerings)

Origin, Spotify, and Hulu account access sells for very cheap prices. Access to Beats Music accounts is also sold at very low prices. We expect these offerings to disappear soon, as the service is no longer available.

| Offering | Price |
|---------------------------------------|-----------------|
| Origin account access | Less than US\$1 |
| Spotify account access | US\$2 |
| Beats Music account access | US\$2 |
| Hulu Plus account access | US\$4 |
| Netflix account access | US\$5 |
| Dish Network Anywhere account access | US\$7 |
| Luminosity account access | US\$7 |
| Verified PayPal account access | US\$9 |
| Sirius Satellite Radio account access | US\$15 |

Table 4: Stolen online account access offerings in the North American underground

Interestingly, access to North American underground forum accounts is also sold. Most of the forums these are associated with are closed environments and require invitations or access fees. These forums filter users to ensure the safety of already-existing members.

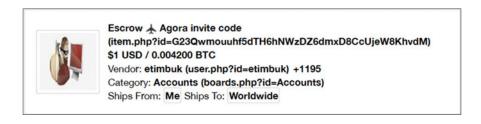


Figure 18: Ad selling an invitation code to Agora, a popular underground forum, for US\$1

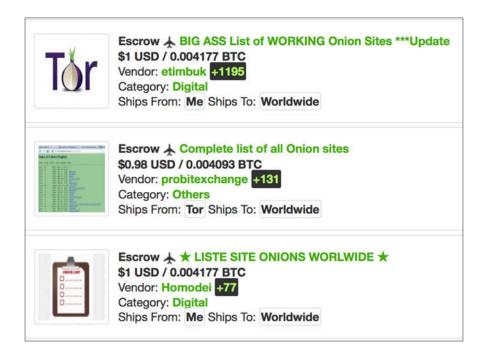


Figure 19: Posts touting access to a wide array of .onion sites for US\$1 each

Fake documents

Identity theft accounts for a huge chunk of the North American underground economy. This isn't limited to stealing access to victims' credit cards and online accounts. A market for fake identification (ID) cards and documents also exists. Buyers (mostly illegal aliens and criminals) flock underground in search of documents to support citizenship claims or applications, obtain lines of credit to put up a business, open untraceable bank accounts, prove their residence status, commit insurance fraud, and purchase illicit items that require valid IDs, among others.

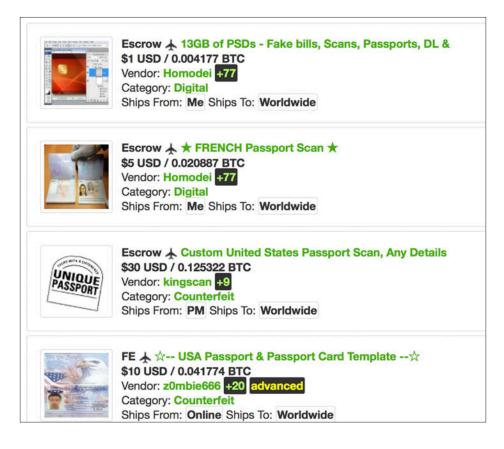


Figure 20: Forum posts selling fake passports



Figure 21: Underground marketplace for fake passports from various countries

Counterfeit documents are also widely available. These are also known as "manufactured documents" and are completely falsified. They typically use the personal information of deceased individuals. They can also be crafted using information provided by the buyers.

| Offering | Price |
|---------------------------------------|-----------|
| Canadian passport scan | US\$17–24 |
| UK passport scan | US\$28 |
| US passport scan | US\$30 |
| Counterfeit US auto insurance card | US\$38 |
| US driver's license scan | US\$145 |
| Counterfeit Canadian driver's license | US\$630 |
| Counterfeit Canadian passport | US\$670 |
| Counterfeit UK driver's license | US\$700 |
| Counterfeit UK passport | US\$730 |
| Counterfeit US driver's license | US\$727 |
| Counterfeit US passport | US\$780 |

Table 5: Fake documents sold in the North American underground

 (Note that prices vary, depending on the document quality but also on the buyer's nationality.)

Drugs and weapons

Drugs

Among the original purposes for establishing North American underground forums was to enable the sale of illegal drugs and paraphernalia. While they have moved far past selling drugs, these are still a core product in many underground forums.

Individuals involved drug-related transactions often hope to retain their anonymity. As such, many underground forums use code to conceal what they are looking for or selling. Some sell drugs in the guise of food. Cannabis-infused peanut butter cups, for instance, are openly advertised in many forums.

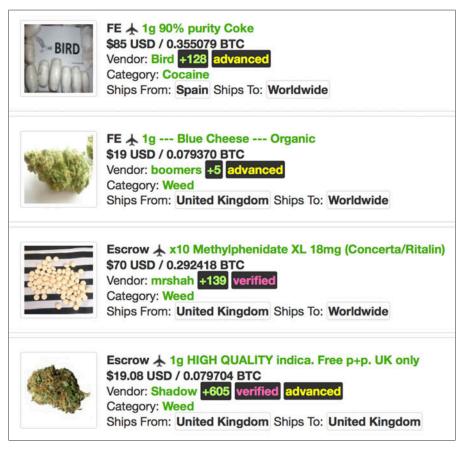


Figure 22: Forum posts selling all kinds of drugs

Since drug sales involve sending and receiving physical items (as opposed to virtual wares or digital information), transactions that occur in the North American underground involves several steps to keep both buyers' and sellers' anonymity.

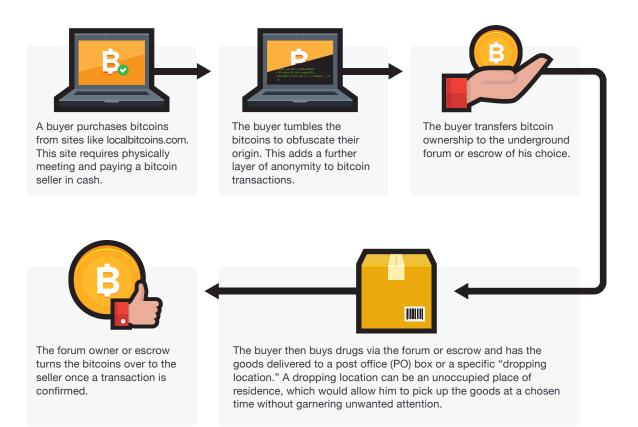


Figure 23: Sample drug transaction flow

(Bitcoin tumbling, also known as "bitcoin mixing" or "bitcoin laundering," is the process of using a third-party service to break a connection between a sender's and receiver's addresses⁴. Since the bitcoin blockchain is a public ledger that records every transaction, mixing coins is critical for anyone who doesn't want the entire world to know exactly where he sends/receives bitcoins to/from.)

Apart from actual drugs, forged prescription labels for use in the US are also gaining traction. We saw posts selling fake prescription labels for establishments like Walgreens, CVS, and Walmart. These labels can help addicts evade arrest if they are caught in possession of prescription drugs.

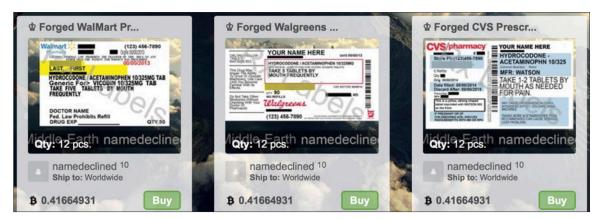


Figure 24: Forged prescription labels for use in the US

| Offering | Price |
|---|------------------------|
| Blue cheese marijuana | US\$19 per gram |
| THC vape oil | US\$24 per cartridge |
| Sharif hash | US\$53 per 5 grams |
| Valium | US\$66 per 75 pills |
| High-quality Bolivian cocaine | US\$69 per gram |
| Methylphenidate (18mg) | US\$70 per 10 pills |
| Clonazepam | US\$71 per 100 tablets |
| MMDA | US\$86 per pill |
| Counterfeit CVS, Walgreens, or Roland prescription labels | US\$100 per 3 labels |
| Methamphetamine | US\$136 per gram |
| Afghan heroin | US\$209 per gram |

Table 6: Drugs and related goods sold in the North American underground

Apart from actual drugs, guides on producing them or the tools needed to do so are also available. We found a guide for making crack, for instance, sold for a mere US\$5.

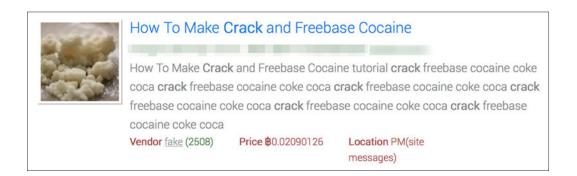


Figure 25: How-to guide for making crack

Weapons

Weapons ranging from batons to high-powered guns are offered in the North American underground. We found a Midwest-based seller peddling handguns, shotguns, rifles, and all kinds of ammunition. We also came across forums dedicated to selling batons and all sorts of knives.

| Browse Categories | | Search Results [Save Search] | |
|---|----------------------------------|---|--|
| Fraud Drugs & Chemicals Guides & Tutorials Counterfeit Items | 7093 17007 3190 1178 | markedone [MS] [Bulk] iPhone Stun Gun (Taser) Item # 744 - Other - markedone (206) Views: 5185 / Bids: Fixed price Quantity left: Unlimited | Buy price USD 27.76 (0.1154 BTC) |
| Digital Products Jewels & Gold Weapons Ammunition Pistols | 2638 426 396 42 110 | MSJ [Bulk] Telescopic Baton Item # 755 - Other - markedone (206) Views: 2055 / Bids: Fixed price Quantity left: Unlimited | Buy price USD 22.19 (0.0822 BTC) |
| Long-Range Gur Explosives Hand Weapons Other | ns 27 41 45 131 | Example 2 (MS) [Bulk] CS-Gas (Pepperspray) Item # 754 - Other - markedone (206) Views: 1694 / Bids: Fixed price Quantity left: Unlimited | Buy price USD 8.86 (0.0366 BTC) |
| Carded Items Services Other Listings Software & Malware Security & Hosting | 645 1601 542 334 128 | (MS) [Bulk] Butterfly Knife (Balisong) Item # 751 - Other - markedone (206) Views: 2461 / Bids: Fixed price Quantity left: Unlimited | Buy price USD 22.19 (0.0922 BTC) |
| Search Options Search terms: | | markedone (MS) [Bulk] Knuckle Duster (Black) Item # 749 - Other - markedone (206) Views: 2082 / Blds: Fixed price Caractitus Left: Universe | Buy price USD 16.63 (0.0691 BTC) |

Figure 26: Stun guns and batons advertised in the North American underground

Weapons marketplaces often had foreign contacts and so could deliver goods outside North America. We found one such seller capable of shipping (through partners) to Canada, Australia, the United Kingdom (UK), Germany, and Russia.

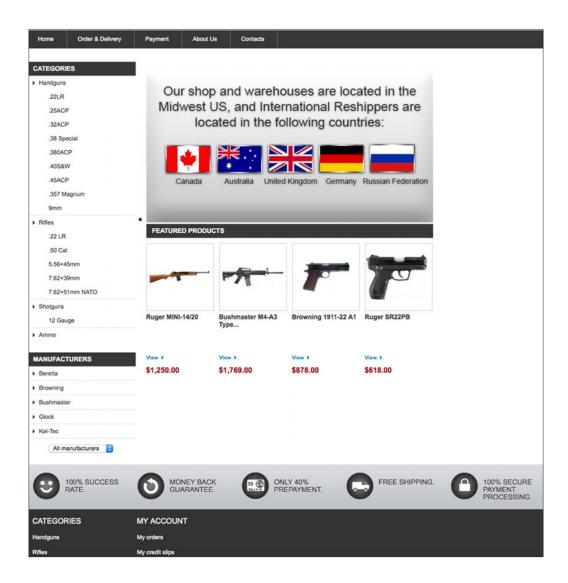


Figure 27: Weapons available for shipping outside the US



Figure 28: A weapons site that offers firearms to almost anyone anywhere in the world

The weapons forums and marketplaces we studied had similar offerings at standard prices.

| Offering | Price |
|--------------------------|--------------------------|
| Aerosol pepper spray | US\$8 per can |
| A pair of brass knuckles | US\$18 |
| Knife | US\$20 |
| Stun gun | US\$30 |
| .45ACP ammunition can | US\$450 per 1,000 rounds |
| .30-06 ammunition can | US\$490 per 1,000 rounds |
| Beretta handgun | US\$550 |
| AK-47 machine gun | US\$800 |
| Handgun with silencer | US\$1,500 |
| .50-caliber rifle | US\$6,500 |

Table 6: Weapons offered in the North American underground

Murder for hire

Perhaps more disturbing than drugs and weapons is the ubiquity that murder-for-hire services are enjoying in the North American underground.

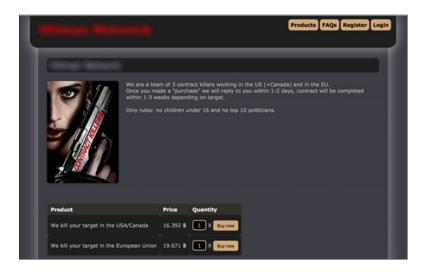


Figure 29: Murder-for-hire ad seen underground

Some murder-for-hire sites even itemized their service offerings. The more popular or important the victim and the greater the damage inflicted it seemed, the more expensive the service was.

| Murder Types | Regular Person | Public Persons | 1-2 Guards | 3-5 Guards |
|-------------------|----------------|----------------|------------|------------|
| Regular | \$45,000 | \$180,000 | \$360,000 | \$540,000 |
| Missing in action | \$60,000 | \$240,000 | \$480,000 | \$720,000 |
| Death in accider | nt \$75,000 | \$300,000 | \$600,000 | \$900,000 |
| Criple Types | Regular Person | Public Persons | 1-2 Guards | 3-5 Guards |
| Regular | \$12,000 | \$48,000 | \$120,000 | \$180,000 |
| Uglify | \$18,000 | \$72,000 | \$160,000 | \$240,000 |
| Two Hands | \$24,000 | \$96,000 | \$200,000 | \$300,000 |
| Paralyse | \$30,000 | \$120,000 | \$240,000 | \$360,000 |
| Rape | Regular Person | Public Persons | Family | Members |
| Regular | \$8,000 | \$16,000 | \$32,000 | \$32,000 |
| Under age | \$21,000 | \$32,000 | \$36,000 | \$36,000 |
| Bombing | Regular Person | Public Persons | Family | Members |
| Simple | \$7,000 | \$28,000 | \$32,000 | \$32,000 |
| Complex | \$21,000 | \$32,000 | \$48,000 | \$48,000 |
| Beating | Regular Person | Public Persons | Family | Members |
| Simple | \$3,000 | \$12,000 | \$30,000 | \$30,000 |

Figure 30: Heinous crime service offerings with their prices

Many murder-for-hire sites guarantee a certain level of "professionalism." Hit men provide certain guarantees of keeping their clients anonymous. They offer varied menus with services ranging from beating regular individuals for US\$3,000 to killing public figures for US\$180,000.

SECTION 2

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The future of the North American underground

The future of the North American underground

Law enforcement efforts in North America are generally much stronger compared with any other region's worldwide. The US and Canadian governments have always been committed to protecting their citizens from cybercrime by continuously beefing up their legislative and enforcement efforts. The fruits of which, we've seen over time. Just this year, we at Trend Micro aided US law enforcement agencies in taking down DRIDEX⁵, SIMDA⁶, and BEEBONE⁷ — major botnet operations that previously served as backbone to many cybercriminal operations. But despite these major hits against cybercrime, we are still seeing a brazen and thriving underground economy in the region.

The open nature of North American underground can mean greater profit for sellers and overall market growth. Accessibility may help underground sellers gain more and more customers at the expense of visibility. This may encourage rapid albeit fluctuating transactions between cybercriminals, but this also presents a challenge to law enforcement. As previously stated, this underground is a glass tank, as much as it is transparent, it is also fragile. Although several criminal transactions are done out in the open, they are very fickle. The life span of most underground sites is short. They could be up one day and gone the next. Investigations will have to keep up with this fast pace.

To make the Internet safer for our customers and the rest of the world, we will continue to closely work with law enforcement agencies in both the US and Canada and support their efforts to topple cybercrime. With these ongoing partnerships, we expect to see more takedowns and arrests in the near future.

Appendix

Anonymizing underground transactions

Underground buyers know that using credit cards and other traceable payment methods to purchase goods and services is likely to lead to arrests. To mitigate related risks, many underground sellers accept alternative means of payment. Virtual currencies like bitcoins and WebMoney, along with payment transfers through service providers like Western Union and MoneyGram are thus often used. These modes of payment allow for maximum shielding by keeping transfers anonymous. Unlike traditional online payment service providers like PayPal, which requires ties to legitimate bank accounts, these alternative payments don't.

Western Union and MoneyGram

Western Union and MoneyGram are two of the most popular international money-transfer service providers. They are, however, legitimate businesses that are, unfortunately, often abused by cybercriminals. These services allow anyone to send money almost instantly to anyone anywhere in the world. They have thousands of establishments worldwide that intended recipients can collect payments from. Senders and receivers don't even need bank accounts to avail of their services. They can even use fake identities (as long as they have IDs [usually counterfeit] as proof of identification) to send and receive payments, leaving virtually no trace of ties to illegal transactions.

Every underground forum and marketplace we visited accepts Western Union or MoneyGram payments.

Bitcoins

As expected, bitcoins are also accepted in any North American underground forum or marketplace. Forum and marketplace owners even provide step-by-step instructions on how to use the virtual currency.

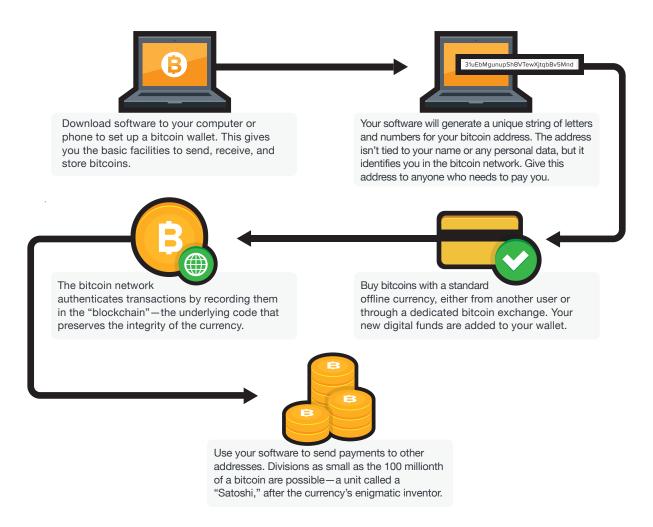


Figure 31: Step-by-step guide on using bitcoins for payment

Bitcoin users rely on the inherent level of ambiguity that the currency's infrastructure provides. All that changes hands in transactions are blockchain addresses, which isn't enough to attribute wallet ownership to any individual. Anyone can anonymously buy bitcoins online or in person.

WebMoney

WebMoney is also a widely used payment means in the North American underground. It is, in fact, a heavily advertised payment-settlement service in forums and marketplaces. WebMoney use involves "guarantors" or escrows who underwrite transaction amounts. Guarantors or escrows ensure that funds are smoothly transferred from buyers to sellers.

WebMoney offers "services that allow clients to keep track of their funds, attract funding, resolve disputes, and carry out safe transactions. The technology that WebMoney uses offers all users a set of standardized interfaces to allow them to manage their valuables. All of which are kept safe by specialized companies—guarantors."⁸ That said, it does not only offer anonymity but also insurance that transactions are properly settled.

What makes up the North American underground?

We used the following criteria to determine what sites are part of the North American underground:

- Marketplaces and forums that primarily catered to North American clientele (based on regional focus and target audience)
- Marketplaces and forums hosted within North America
- Marketplaces and forums that primarily used English (based on textual analysis)
- Marketplaces and forums that had ties to leaked domain information that helped attribute location

Note that the North American underground (which primarily uses English) is open to virtually anyone worldwide. Anyone who can understand English can find his way to its various forums and marketplaces. Several sellers ship even physical items to other countries outside the region.

Breakdown of the North American underground sites monitored

Staying true to its roots, drugs remain the primary North American underground commodity. More than half of the sites we found in it sold various kinds of drugs; crimeware like malware code and stolen account information only followed.

This trend likely sets the North American underground apart from its peers. While other underground markets focus more on crimeware trade, North American underground forums can be better categorized North American underground buyers could be taking advantage of the anonymity that it offers to support their drug addiction, as opposed to trading traditional cybercriminal wares.



Figure 32: North American underground site type distribution*

^{*} Note that the sites classified were limited to those that we visited and analyzed during the course of research.

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