How to build a website/shop that cannot be shut down by Law enforcement

Currently (Web 2.0) the websites are running on a server which is connected to the internet. So the Law Enforcement can identify the location of the server and disconnect it from the internet. With darknet sites it is a bit more difficult, but still possible. It works almost the same way, but the website is hidden behind the TOR (onion routing). So once the Law enforcement identifies the location of the server, the server is disconnected from the internet.

Next-gen (Web 3.0). The IPFS decentralized web is made up of all the computers connected to it, known as nodes. Nodes can store data and make it accessible to anyone who requests it. If someone requests a file or a webpage, a copy of the file is cached on their node. As more and more people request that data, more and more cached copies will exist. Subsequent requests for that file can be fulfilled by any node —or combination of nodes—that has the file on it. The burden of delivering the data and fulfilling the request is gradually shared out among many nodes ^{*howtogeek.com}. Because of this, the only way for the Law enforcement to disable websites is to disable all nodes across the world. And this is impossible!



Figure 1: Centralized vs Decentralized networks

Before we start, we'll need

- **IPFS pinning service account** so we can upload our website to IPFS. For example: <u>https://filebase.com/</u>, <u>https://fleek.co/</u>, etc. (google for "ipfs pinning service")
- Download DeCommerce Decentralized ecommerce for Web3: <u>https://www.ivyca.com/decommerce/download.html</u>
- **Buy an NFT domain** Decentralized domain. Currently here are 2 players: <u>https://ens.domains/, https://unstoppabledomains.com/</u>

1. Build a website/shop in DeCommerce

Download & Unzip DeCommerce.

Open the file <u>config.js</u> and set the variables

- Setting the Access Key to receive Emails

Go to <u>https://www.staticforms.xyz/</u> and enter your email to get an Access Key. Once you receive your Access Key, set it as a variable for "emailAccessKey".

var emailAccessKey = "**c3c0f26e-369c-4a84-9368-cfb04234b485**";

- Setting your store's currency

Supported currencies: "XMR", "BTC", "ETH", "USDT" and "USD".

var selectedCurrency = "USD";

- Setting your cryptocurrency address

Your public address for receiving funds. If you selected **XMR**, then set **moneroAddress**, if you selected **BTC**, then set **bitcoinAddress**, if you selected **ETH**, then set **ethereumAddress**, etc.

var moneroAddress = "44J1eG83mrNYyNQzR5QkCwAPkPMVVqAZ4eH2sRZuwpFSMvCH W1m24PmSxodG8TVdk3DENGuzLq7muABLM1RtYmRfLpT3TYB";

```
// **************
2
     // - Main elements
     // *************
 3
    // If you own a purchase code for DeCommerce Premium, Enter it here.
// For Free version, leave the variable empty.
// Learn More: https://www.ivyca.com/decommerce/download.html
var purchaseCode = "";
5
6
10 // https://www.staticforms.xyz/ - Access Key: replace here
11
     var emailAccessKey = "c3c0f26e-369c-4a84-9368-cfb04234b485";
    // Redirect users to a specific url after payment
13
     var redirectTo = "https://www.ivyca.com/decommerce/success.html";
14
16
18
19
    // *************
20
     // - Payments: Monero, Bitcoin, Ethereum, Tether
    // *************
21
    // Prices displayed in the currency. Supported currencies: "XMR", "BTC", "ETH", "USDT", and "USD".
// Please note: if you select "USD", you have to set your Monero address as receiving address. Your customers are asked to p
var selectedCurrency = "USD";
23
24
25
26
27
    // Setting number of decimal places for rounding prices. E.g. 3 for "0.001".
28
    var numberOfDecimal = 2;
29
30
    // Shipping Costs in the currency selected above. E.g. "0.005" or "0" for free shipping.
31
     var shippingCosts = 10;
32
33 // Your Monero public address where you get paid (Standard address).
// We use this Monero Standard address to generate Monero Integrated Address: https://monerodocs.org/public-address/integrat
// Address Test: https://xmr.llcoins.net/addresstests.html
var moneroAddress = "44J1eG83mrNYyNQzR5QkCwAPkPMVVqAZ4eH2sRZuwpFSMvCHW1m24PmSxodG8TVdk3DENGuzLq7muABLM1RtYmRfLpT3TYB";
    // Your Ritcoin nublic address where you get nat
                                                                    Figure 2: config.js
```

After this basic configuration our website works and we can accept payments for goods/services.

Please read the DeCommerces users guide so you can understand how to add products, categories, and content for the website: <u>https://www.ivyca.com/decommerce/download/Users_Guide.pdf</u>

2. Upload DeCommerce on the IPFS Network

IPFS pinning service

- Go to https://filebase.com/ and open a Free account*
- Create new bucket with a parameter "Storage Network: IPFS (All data is public)"

- Go to the newly created bucket and click at the "Upload" button, then select the option "Folder" and choose the folder containing decommerces files from your computer.

- Upload the folder

- Your uploaded folder gets a CID



Figure 3: IPFS Upload process – filebase.com

NAME	CID	STATUS	LAST MODIFIED	SIZE
decommerce	QmQ2bzmZWRy1Cwm3s8xPyuCwiR7xucUMneSjZdQQKRGQuX 🥚	Pinned	2022-08-17 14:03:02 -0400	5.44 MB

Figure 4: A content identifier (CID) for your website on the IPFS network

* Just for understanding purposes. You can use different **IPFS Pinning service** (pinata, fleek etc.), or you can run your **own IPFS node** (IPFS Desktop).

Done! Website is live on the IPFS network

- Copy the CID of the website: *QmenhKTrYoAt1gxFqLy5LDSGtiCHJeinskV4RXRSYhsoSF*

- Load the CID of the website using an IPFS gateway: *https://{gateway URL}/ipfs/{CID}* List of public IPFS gateways: <u>https://ipfs.github.io/public-gateway-checker/</u>

https://ipfs.filebase.io/ipfs/QmenhKTrYoAt1gxFqLy5LDSGtiCHJeinskV4RXRSYhsoSF



Figure 5: Website on the IPFS network

3. Set up an NFT domain

NFT domains are stored in a wallet by the owner, much like a cryptocurrency, and no third party can take them away. This is what makes your domain decentralized.

Currently here are 2 players: <u>https://ens.domains/</u> or <u>https://unstoppabledomains.com/</u>. It is up to you which registrar you choose.

<u>ENS Domains:</u> *domain.eth* <u>Unstoppable Domains:</u> *domain.crypto, domain.nft, domain.x, domain.wallet, domain.dao etc.*

- Once you own an NFT domain, point it here: *ipfs://{CID}*

For example: ipfs://QmenhKTrYoAt1gxFqLy5LDSGtiCHJeinskV4RXRSYhsoSF

Congratulation. Your decentralized website is live and accessible through its domain or its CID. Be careful what you upload on the website.

Everything you upload is public and it is online forever!

References

https://www.howtogeek.com/784295/what-is-the-interplanetary-file-system-ipfs/ https://www.ivyca.com/decommerce/download/Users_Guide.pdf