



TigoCTM Whitepaper

Authors:

Cindy Zimmerman <Cindy@tigoctm.com>

Judith Katzman <Judy@tigoctm.com>

License: CC-BY-4

DRAFT v0.1.0

Table of Contents

1. [Introduction to TigoCTM](#)
2. [Vision](#)
3. [ICO \(XCM\)](#)
4. [Device Timeline](#)
5. [Sourcing Process](#)
6. [Device Details](#)
7. [What is guldOS?](#)
8. [Hardware](#)
9. [Software](#)
10. [Security](#)
11. [Extended Functionality](#)
12. [Next Steps](#)
13. [Conclusion](#)

Introduction to TigoCTM

TigoCTM was founded in 2014 by bitcoin veterans Cindy Zimmerman and Judith Katzman. Initially a [Lamassu](#) teller machine upgrader, reseller and operator, TigoCTM has decided to pivot to manufacturing a range of crypto-specialized machines, from desktop, servers, and smart phones to a whole new line of teller machines.

These new machines will use the [guldOS](#) operating system, which will ensure security and privacy to the highest degree. They will be geared towards the cryptocurrency traders and hodlers as well as anyone that wants to have control of their computer files to avoid being hacked.

Assembly will occur in Panama in Panama Pacifico, [a special tax-free zone](#). This ensures no import / export fees and no VAT tax, therefore saving the consumer extra fees and allowing us to fund more research and development. This modern enclave houses companies such as Dell and 3M.

Vision

Enhancing SECURITY and PRIVACY is our prime goal at TigoCTM. Since Bitcoin merged the concepts of cryptography and decentralization together, it has opened a whole new world of possibilities. Here at TigoCTM, we believe that Bitcoin is only the beginning. There is a natural synthesis between cryptography and decentralization; and TigoCTM wants to explore this synthesis to the fullest potential.

TigoCTM is setting out to build a new Internet infrastructure. The new net will be decentralized, giving people power and control over their information. Every time a person purchases a device (computers, servers, tablets, cell phones) from TigoCTM, they will be able to connect freely and easily with other people in the decentralized guld network.

Using the guld file system people can share as much or as little information as they want. They can trade cryptocurrencies, become their own cryptocurrency exchange, or just use the open source system for secure data storage and sharing. This may even involve using their TigoCTM device as their own private digital safe. All of these possibilities are options with TigoCTM devices powered by guld software.

TigoCTM devices have a coordinated cryptographic backbone, starting with a hardware key ring. This unique structure will improve the security of our commonly used devices (computers, servers, cell phones) while not losing the ease of usability. In other words, we want people to feel secure that their digital data and assets are safe, without over-complicating the user experience with many passwords or numerous steps. To simplify the process we will be using a single hardware key ring, just like having one key that opens your car doors, trunk and starts the engine. We have gone to great lengths to secure the key ring using peer-reviewed cryptography and open source technology.

ICO (XCM)

TigoCTM is having an X Coin Machine (XCM) ICO for raising capital to develop these new secure and private devices. These coins are redeemable for TigoCTM services or devices.

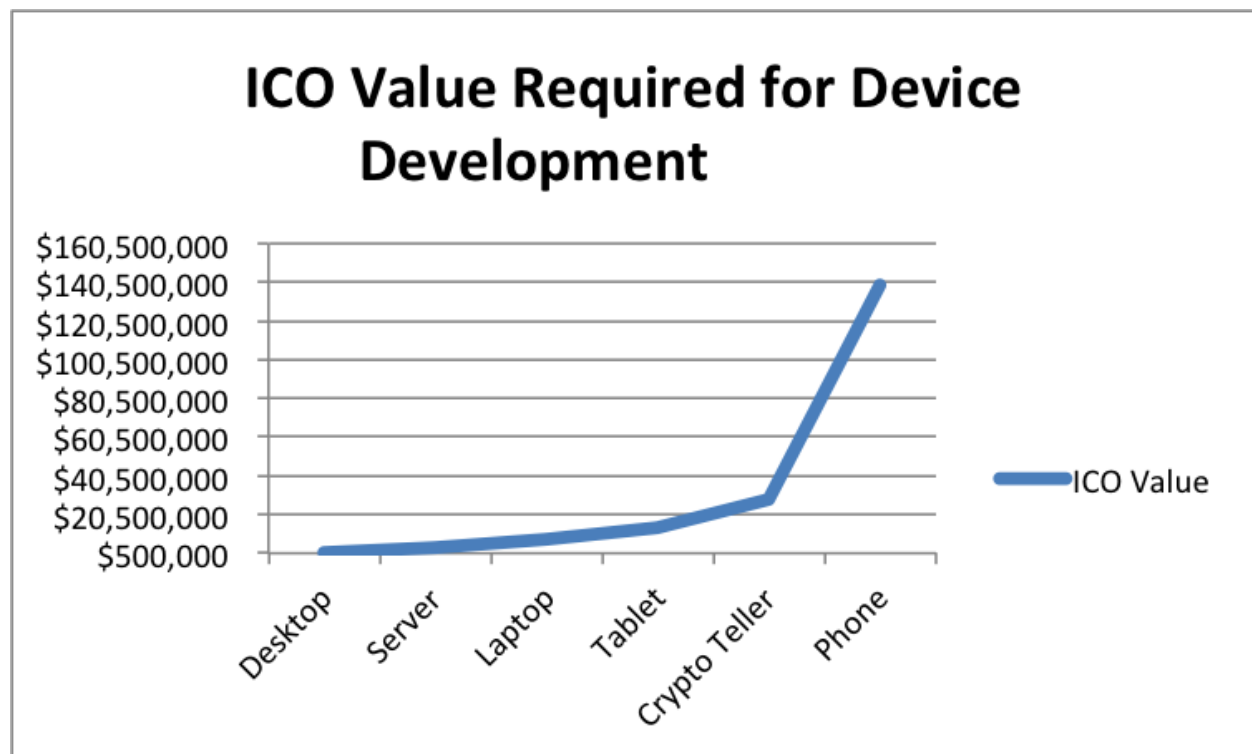
XCM has 10 tranches for purchasing XCM. As each tranche is filled, the price will increase. For example, in tranche 1, for each XCM costs \$5.00. In tier 5, each XCM costs \$8.00, and lastly, in tier 10, XCM can be purchased at \$9.75. All XCM are redeemable for exactly \$10 worth of TigoCTM devices or services. See the following chart for specific tier values:

Tranche	Cost	Supply	Revenue
1	\$5.00	100,000	\$500,000
2	\$6.00	250,000	\$1,500,000
3	\$7.00	500,000	\$3,500,000
4	\$7.50	750,000	\$5,625,000
5	\$8.00	1,000,000	\$8,000,000
6	\$8.50	1,250,000	\$10,625,000
7	\$9.00	1,500,000	\$13,500,000
8	\$9.25	2,000,000	\$18,500,000
9	\$9.50	3,000,000	\$28,500,000
10	\$9.75	5,000,000	\$48,750,000
total	\$9.06 (mean)	15,350,000	\$139,000,000

As more ICO funding targets are achieved, TigoCTM will be able to manufacture more and more complex machines. In this way, ICO participants may guarantee the future availability of those same products. In electronics, miniaturization increases complexity, so the highest target

unlocks the smallest machine (a smart phone). While it may seem counter-intuitive, a secure, linux-based smart phone will definitely require tens of millions of US dollars in funding beyond what a desktop device would require.

The following chart shows the device schedule based on the ICO funding.



The lifecycle of an XCM token is create -> circulate -> redeem -> burn. It is expected that 100% of the XCM will eventually be burned, so the supply will trend toward 0 (zero) over time. No explicit expiration date will be enforced, but users are warned that TigoCTM will not take inevitable US Dollar inflation into account, and therefore, the \$10 face value will have less purchasing power in years to come.

TigoCTM will issue all tokens on Nov. 1 2017, but will not distribute them until Jan 2018 at the earliest. This is to ensure that no XCM are burned before the ICO ends. Any ICO tokens which are not purchased will be burned on April 1, instead of being transferred.

After distribution, XCM tokens circulate using generic transfer functionality, which is supported by every major Ethereum wallet. This makes XCM easier and more fungible, since no hosted

wallet is required, and enterprise users, like exchanges, do not need to implement any special functionality.

The redeem step is simple: purchase an item from the <https://tigocm.com> store, choosing XCM as the payment option (not available until ICO completion), then send your XCM to the address given.

Upon receiving payment in XCM, TigoCTM will process your order, and burn the tokens. This permanently removes them from circulation, proportionally reducing the XCM supply. While, technically, users can burn their own XCM, TigoCTM will not provide a user interface for accomplishing this. Any such user-burned XCM will still be redeemable, by contacting TigoCTM support with cryptographically signed proof of ownership of the burning address.

Investors in the XCM ICO will have some advantages:

- XCM bought as part of the ICO are redeemable for more than their purchase price. (up to 2x)
- Priority to pre-order products
- Stake XCM to earn [guld token](#) rewards - email, wallet, hosting/trading, dns server, file backups

Staked, Hosted Nodes

TigoCTM will create data centers worldwide, and users will be able to stake their TigoCTM issued XCM tokens to a cloud server. This server would provide services on the Guld network, and offer stakers 90% of net fees earned.

Services to be provided by staked nodes are:

Service	Suggested Cost
guld node	\$1/mo/GB
file backup	\$1/mo/GB
email	\$1/mo/address + \$1/mo/GB
website	\$1/mo/domain + \$1/mo/GB
multisig wallet	\$1 init + \$.10/cosign
trade bot	\$10/mo + 1% profit/Q.

Device Timeline

Devices will be created based on the challenge of development. Knowledge gained during development of simple devices will ease the obstacles for the more complex devices due to security and supply chain concerns. Cell phones are the most difficult to manufacture, so they will be “last” in the line up. The development and delivery of the devices are contingent upon the ICO fundraising tranches.

Device	Pre-Order Using XCM	Estimated Delivery (Starting)
Desktops	Feb 1, 2018 - September 30, 2018	October 1, 2018
Servers	October 1, 2018 - December 30, 2018	January 1, 2019
Laptops	January 1, 2019 - April 30, 2019	May 1, 2019
Tablets	May 1, 2019 - July 31, 2019	August 1, 2019
Crypto Teller Machines	August 1, 2019 - October 31, 2019	November 1, 2019
Cell Phones	November 1, 2019 - January 31, 2020	February 1, 2020

Machine assembly will take place in the tax free region of Panama Pacifico located less than a mile from a port on the Panama Canal which will allow us access to ship machine parts in and machines out easily. This Special Economic Zone gives companies that set up within the area special tax, labor, and legal incentives. This area has modern infrastructures with new warehouses and office buildings holding more than 160 companies including eight in the Fortune 500.

Sourcing Process

For each device, there are different supply chain issues. Phones are much more difficult to create than desktops due to less standard parts and drivers. TigoCTM aims to use as much open source technology as possible. For each part, the preference is for open source hardware, otherwise open source firmware. If no open hardware or firmware parts are available, we will either try to do without that part, or warn users and lobby manufacturers for the next generation. This gives users as much transparency as possible into the operation of their TigoCTM device.

Hardware will be selected based on security, speed and privacy. For example, bluetooth will not be supported due to numerous security issues. Each part will be individually chosen, and built according to best practices and requirements to obtain the best device possible.

The software stack starts with guldOS a variant of Gentoo Linux. TigoCTM and guldOS use 100% open source code.

Device Details

A lot of decisions go into the development of computing devices, and we take this challenge seriously. For each device we will research the available open source hardware/software parts to create the most secure, trustworthy and usable products possible.

Desktops/Servers/Laptops - These will be very powerful machines, with the capability of running the major blockchains (Ethereum, Bitcoin, Dash) for a period of at least 2 years.

Tablets/Cell phones - These will have “light” clients that will be able to interact with guld wallets. Working as mobile interfaces, they will be paired with servers and desktops to access files, emails, etc.

Crypto Teller Machines - These machines will be able to convert from fiat currency to cryptocurrency, using an artificial intelligence (AI) algorithm to find the best conversion rates.

See the following chart for timing and pricing for each device:

Device	Est. MSRP	ETA	Specs	Tranche Dependency
Desktop	\$5,000	6 months	TBD	1
Server	\$12,500	9 months	TBD	3
Laptop	TBD	12 months	TBD	5
Tablet	\$800	15 months	TBD	7
Crypto Teller Machines	\$10,000	18 months	TBD	9
Phone	\$1,000	21 months	TBD	10

What is guldOS?

GuldOS is a privacy focused variant of Gentoo Linux. GuldOS uses [openPGP](#) paired with a TigoCTM hardware security module to encrypt your disk, folders, emails, passwords, blockchain wallets, and more. Open source software will be used and visible to all for complete transparency.

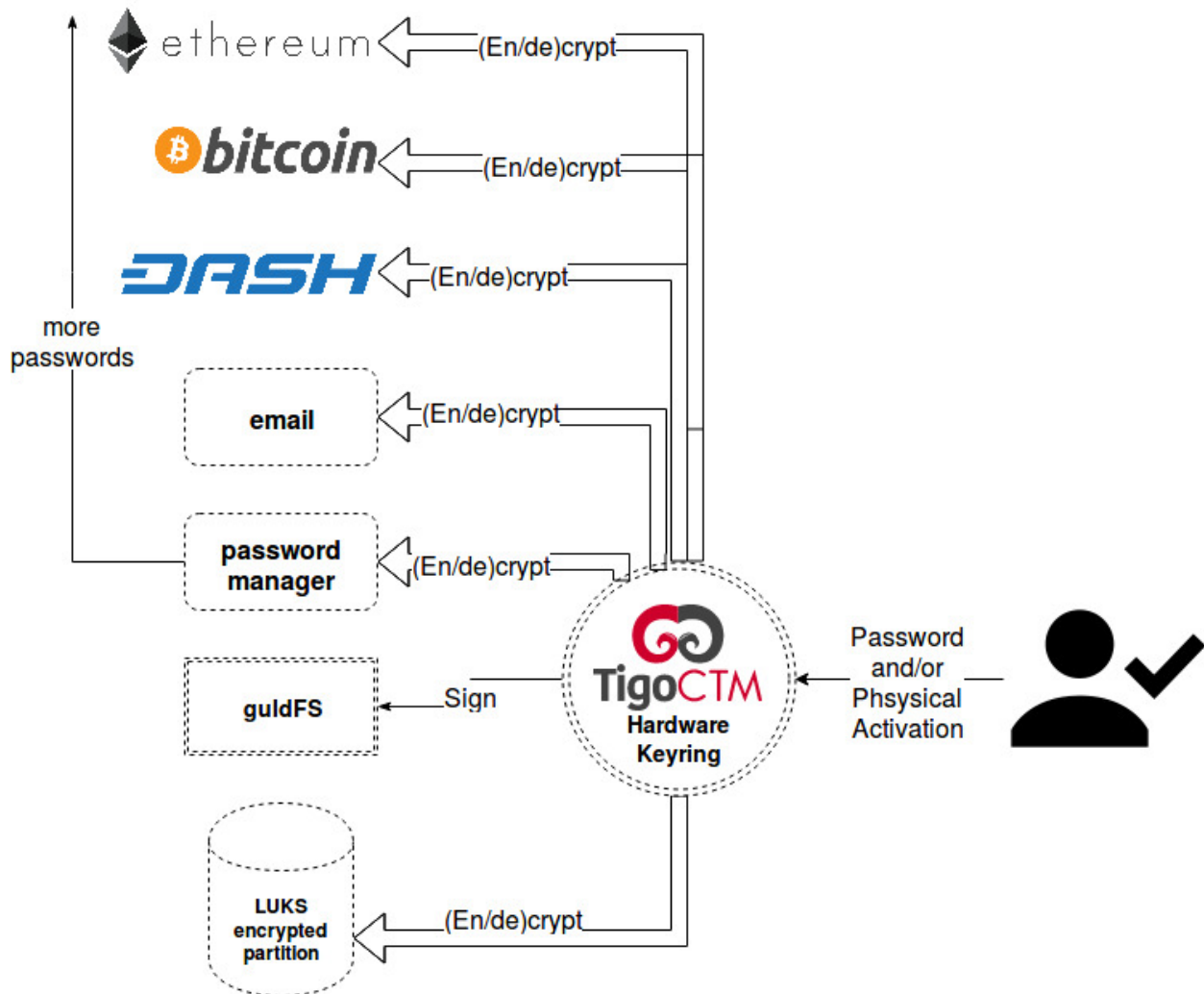
The decentralized guld file system allows you to securely share data between your different TigoCTM devices. You can use this as your secure, private cloud, or to interact with other members of the guld network.

Each TigoCTM device will ship with some guld tokens so it can register on the global, decentralized guld network. Through the guld network, any file or directory can be shared and trustlessly governed by a user defined consensus group.

For additional information see the guld consensus [whitepaper](#) and the [guld file system whitepaper](#) and the [guldOS Operating System Specification](#).

Hardware

Each machine will be hand built and set up by an open source engineer certified for guldOS. The disk will be encrypted using PGP and digitally signed by the engineer that built the machine. Decryption will be accomplished by using openPGP hardware keys, which will unlock all files on the machine, similar to how a car key unlocks all functions on a car. This “vault” will hold all of your private effects, including private keys. See the diagram below for an example:



The hardware components are optimized for security and enterprise usage, with the ultimate goal to create a fast and safe environment for cryptocurrency trading or other functions that

desire a hack-free environment. Open source hardware and firmware will be used wherever possible.

Software

The open source guldOS is a variant of Gentoo Linux, so the user has all the GNU/Linux functionality as well as the advantages of the encryption that comes with guld. Besides guldOS, each machine (except phones) will come with guld coins and wallets for guld, Bitcoin, Ethereum and Dash.

The guld network allows the user to share files with other guld users or devices via universal file permissions. This means that you can have different “groups”, and “personal” areas set up according to your desired read/write permission set.

Transparency is important to us, so all software is open source, and available on git.

Security

Due to the cryptographic encryption used on the devices, the user gets protection from “common” hacker attacks such as Ransomware, Phishing and Man In The Middle (MITM) attacks.

Backups are always important, so guldOS offers cryptographically secure backup of:

- Emails
- Messages
- Files
- Cryptocurrency wallets
- System configuration settings
- Passwords

Extended Functionality

Since users will want services to complement light devices such as phones and these devices are not capable of maintaining a full node, node hosting services will be created. This will open an area of opportunity for end users to host services.

Another area of opportunity will be using machines as cryptocurrency servers and nodes.

Next Steps

Decide which device(s) you are interested in purchasing. After purchasing enough XCM from the ICO, pre-order your devices(s) during the pre-order window, and get your device shipped as soon as it comes off the assembly line.

Conclusion

To summarize, TigoCTM will create devices that fit into today's ever changing interconnected world. A world that needs more SECURITY and begs for more PRIVACY. A world where users are empowered to do more without giving up their basic rights and liberties.