



XCF Token

White Paper (2022.3.8)

8-March-2022

NOTE. This white paper is a frequently updated document, the latest version can be found from www.xcf-token.io/whitepaper

XCF TOKEN PROJECT AND BACKGROUND	3
XCF TOKEN PROJECT OBJECTIVES	3
CENFURA AND XCF SUPPORT	3
PROBLEM	4
1. DECENTRALIZED ENERGY INFRASTRUCTURE	4
2. MANY DIFFERENT STAKEHOLDERS – MANY DIFFERENT NEEDS	5
3. LACK OF TRANSPARENCY – LACK OF TRUST	5
4. ENERGY POVERTY	5
SOLUTION – PAYMENT PLATFORM	6
XCF TOKEN	7
XCF TOKEN – WHY DOES IT MAKE SENSE?	7
TOKEN FACTS	8
TOKEN CIRCULATION AND LOCKUP ADDRESSES	8
XCF TRADING IN CRYPTO EXCHANGES	9
CURRENT LIQUIDITY AND TOKEN TRADING ISSUE IN LIQUID.COM	9
RESTART: LISTING PLANS FOR 2022	9
XCF PAYMENT PLATFORM TECHNOLOGY OVERVIEW	10
ASSET AND PAYMENT TOKENIZATION	10
INTERFACING TO EXTERNAL EXCHANGE(S)	11
KEY COMPONENTS OF PAYMENT PLATFORM	11
TEAM	12
LEADERSHIP	12
CORE TEAM	13
KEY ADVISORS	14
COMMUNITY ACTION	15
COMMUNITY TEAM	15
COMMUNICATION	17
ROADMAP	18
CONCLUSION	19

XCF Token Project and Background

The XCF Token project began in 2019 at Cenfura Ltd. with the XCF token created in August of that year. The project's objective was to solve various challenges in green energy development and related financial processes and transactions. These issues also prevent many impact investors from financing green energy projects in developing countries. One of the main goals was to remove these obstacles and help the world solve energy poverty given that reliable energy is a significant bottleneck in providing employment, education, and healthcare in both developing countries and predominantly rural areas.

To date, the project has delivered the initial version 1.0 of the XCF payment platform, which was piloted successfully in 2020. The 2020-2022 global pandemic slowed progress, often making many plan mile-markers difficult, particularly green energy onboardings. Despite the adversity created by the COVID19, pandemic, the team has continued to focus on the platform's future, version 2.0, which will be launched in April 2022.

XCF Token Project Objectives

The XCF token project's key goals are the following:

- Promote the use of XCF tokens,
- Deploy XCF payment platforms,
- Build and drive global and local XCF communities,
- Scout and develop new technologies related to the XCF,
- Help potential customers to understand the benefits of XCF.
- Collaborate with humanitarian projects to address energy poverty in developing countries,
- Promote green energy development.

Cenfura and XCF Support

[Cenfura](#) has a critical role in XCF token project. Cenfura is developing and operating technology utilizing XCF tokens. In addition to the payment platform development, Cenfura's line of business includes financing and operating renewable energy assets and [energy projects](#), all using XCF.

Cenfura is a next-generation energy services company that builds, owns, and operates smart-technology-enabled solutions. Cenfura's smart solutions integrate dynamic, automatic load distribution and real-time control of distributed renewable energy. All Cenfura's energy settlement transactions drive the utilization of the XCF Token (XCF) and Cenfura's fintech overlay solutions can be incorporated into existing renewable energy assets/projects for tokenization and more efficient energy transaction settlement.

Powered by



[Cenfura to deliver green energy to 5 million homes in Nigeria](#)

[3rd Wave's sustainable green hotels to be powered by Cenfura in the US](#)

Problem

The energy industry faces multiple challenges due to legacy systems and infrastructure as well as the great difficulties in changing already existing processes at the same pace as the current business environment. For example, payments are slow and costly and energy assets have many different stakeholders, with each having different needs. Existing energy payment and settlement systems are designed to fulfill the requirements of a few large, centralized energy producers that act locally within the same legal frameworks. Meanwhile, green energy production is becoming ever more cost-efficient and commonplace, opening new opportunities to deliver clean energy to underserved populations.

1. Decentralized Energy Infrastructure

The use of renewable green energy increases exponentially as the component prices, for items such as solar panels, become lower by the year. This is causing a fundamental paradigm shift also in the energy supply business model. Suddenly, energy is being produced closer to consumers, with some consumers also becoming producers themselves. It means more efficient energy delivery, lower transmission costs, a greener environment, and energy available for the unserved population. At the same time, it creates a massive challenge for existing energy companies as traditionally, there have been only a few large-scale producers and many consumers. This traditional model has now been changed permanently since, there are now many new, small-scale producers, i.e., microgrids. The result was that the existing financial processes and systems were not designed to handle this change.

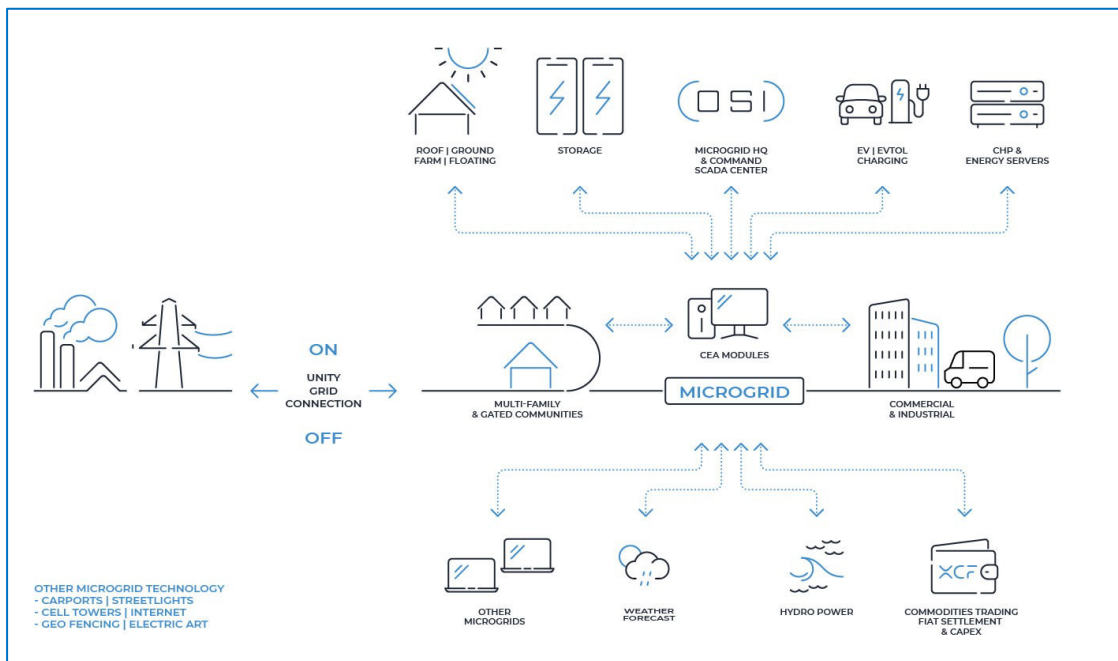
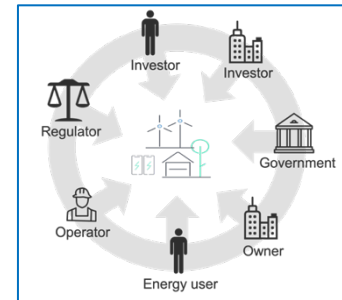


Figure 1: Modern microgrid visualized

2. Many Different Stakeholders – Many Different Needs

Each energy asset development project has several different stakeholders, each having different needs. For example, a single energy asset often has multiple investors to finance the creation of the asset including: Equity investors, Debt financiers and Development Banks, etc. each having their own needs. Also, governments are interested in energy security and taxation, having a different set of needs. Moreover, energy users, regulators, and operators have their own needs.



Traditional energy investments have been predominantly large-scale affairs. Legacy financial models were designed to accommodate one large provider servicing many outlying customers, thus easy to build and justify. If investment size is in tens or hundreds of millions of US dollars, yet only have the same stakeholders over and over, the same systems can be replicated to handle the data and information needs of the several different stakeholders.

The new Decentralized energy infrastructure has led to smaller energy investments with many more different stakeholders who have the same data and information needs. An adapted fintech solution is required to handle Decentralized energy production and infrastructure.

3. Lack of Transparency – Lack of Trust

Energy investments are long-term investments, often spanning over ten years. This is a fundamental issue for different stakeholders, how one can trust the production or the settlement data. A decentralized environment creates additional requirements, thus increasing the need for further transparency.

Traditionally, most database solutions are centralized and lack transparency in delivering payment and energy settlement transactions, as only a few entities control and view the data.

Transparency creates trust and goodwill which leads to sound and secure investments. Thus transparency, cost-efficiency, and secure processes are fundamental requirements to satisfy the future needs for green energy development from a funding perspective.

4. Energy Poverty

The lack of reliable access to electricity is known as “Energy Poverty.” Energy Poverty has been identified and recognized by the United Nations as a significant global problem that impacts nearly half of the world’s population. Energy poverty is the main obstacle for providing education, creating employment opportunities, and improving health care in developing nations. To that end, the United Nations has set a goal to achieve universal energy access by 2030. Energy poverty is exacerbated by lack of investment. Many of the places where it is prevalent are remote and traditionally would require immense amounts of investment to provide reliable and cost-effective energy solutions.

Traditionally Energy poverty in rural areas has been managed with unreliable, diesel generators, which are very expensive to run and pollute the surrounding environment. Typically, places served by these only run them for a few hours per day, making it impossible to have a functioning modern society with reliable access to energy. Urban areas are also affected as the energy grid is often unreliable and current providers cannot keep up with demand in most developing countries.

Solution – Payment Platform

XCF Payment platform refers to a dedicated energy payment and settlement system that utilizes XCF tokens in transactions. The XCF project team and Cenfura have developed this platform. The initial version 1.0 of the payment platform pilot started in August 2020. Version 1.0 was implemented with a ‘minimum viable product’ level of functionalities. The full-featured Version 2.0 is set to be launched in April 2022.

The payment platform addresses the issues discussed in the previous chapter by having the following key features.

- All transactions are stored in a dedicated XCF blockchain.
- Storing transactions on the blockchain makes them virtually indelible and impossible to change, building trust and transparency for the accounting and business side of the firm, allowing investors to invest more freely and quickly.
- Each energy asset is modelled in smart contracts, still retaining the business confidential information as confidential.
- Smart contracts not only automate the processes that in the past would have taken time, effort and expense to make and create, both saving money and keeping confidential information safe.
- Different stakeholders can easily produce DeFi (decentralized finance) and DApps (decentralized applications) or integrate their internal systems into the blockchain.
- One of the key things that is needed to be considered is how to allow stakeholders to participate in the energy economy. In the past, it has been very difficult to include certain subsets of stakeholders, and the ability to integrate DeFi and DApps into the XCF Ecosystem is a key advantage.
- All payments are real-time and transparent, without any additional steps or intermediaries.
- Efficiency is key, and the XCF Token ecosystem’s ability to create that efficiency in a transparent and simple interactive way makes an excellent solution for the next generation of energy-based financial services.
- Transparency and Trust via the XCF Platform allow ease of investment, and therefore a route to reduce energy poverty.

More technical details can be found in the chapter [“XCF Payment Platform Technology Overview.”](#)

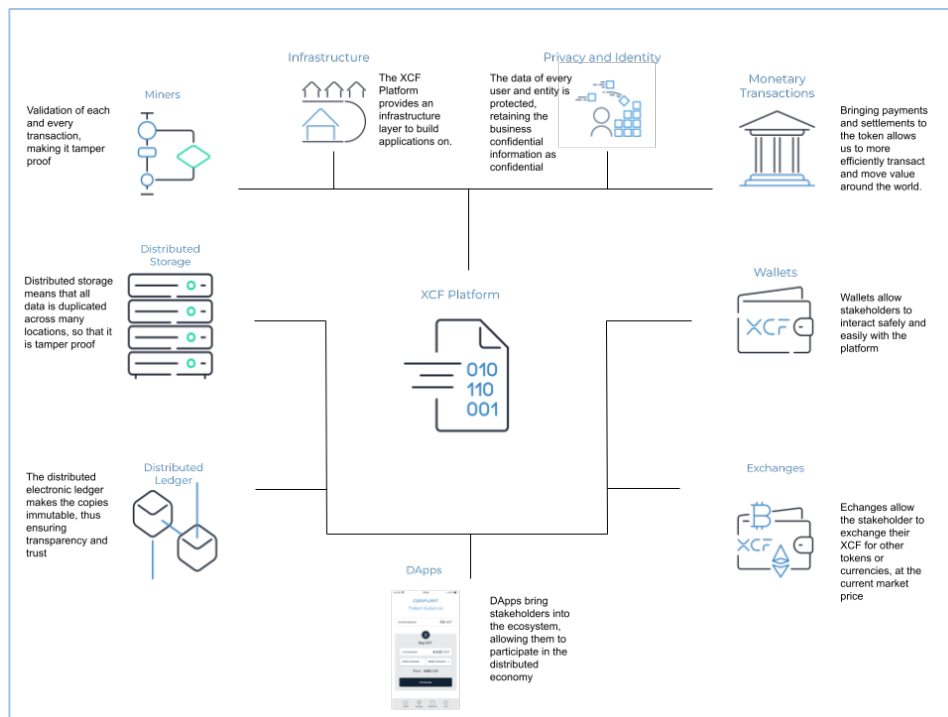


Figure 1: Payment Platform using XCF

XCF Token

XCF Tokens are utility tokens. XCF tokens are used as payment for products and services offered in the XCF ecosystem on the Payment Platform. Therefore, transactions initiated with an accepted local currency or other allowable tokens will be automatically converted into XCF tokens at the equivalent current market value.


XCF token's maximum supply is 1,500,000,000 XCF. Creating any additional tokens is prevented in XCF initial creation contract ([contract 0x...8f7c48e](#) and [contract src](#)). Please note: The official name of the token is "Cenfura Token" within the initial creation contract and blockchain but is known and traded as "XCF Token".

XCF Token – Why Does It Make Sense?

The idea and the benefits behind cryptos or utility tokens are sometimes somewhat difficult to understand. Let's have a completely different view of the mechanism to make it easier to understand. Let's compare it to non-technical, but fundamentally, similar phenomena, 'digital gold'. Traditionally gold has been bought as physical gold coins or bars. Physical gold is easy to understand but creates other issues, e.g., transporting or storing safely and legally. Markets have created a new mechanism to address these issues, Digital Gold. Let's look at the principles of how Digital Gold works. Firstly, the gold company has certified and audited gold in storage. Gold investors can buy virtual gold certificates (Digital Gold) with their local currency and receive a right to a certain weight of actual physical gold in the storage. How much gold is allocated depends on gold's market price. The digital certificate can be easily moved, stored, traded, or even used as collateral for a loan. Or an investor may take his portion of the gold out of storage with the certificate, i.e., use the certificate.

The idea of the XCF token is very similar. The cost of the energy varies by location, time, and buyer's profile. There is no universal cost. It is also always priced in local currency. Payments are made differently country by country, often slowly and costly. XCF simplifies the process. XCF is global, and the payment process is always the same. XCF can be sold as prepaid cards, mobile apps, or many other ways, or more tech-savvy users may buy XCF at market price from the crypto exchange. XCF is the payment in the ecosystem, but tokens can also be stored or traded. All energy contracts globally are always valued in the local currency, but inside the ecosystem, regardless of the country, they are permanently settled in XCF, matching the value in local currency.

Token Facts

Token name	'XCF Token' Originally known in contract as 'Cenfura token'
Token ticker	'XCF'
Token symbol	
Token type	ERC-20
Number of tokens	1,500,000,000 XCF
Possibility to mint new tokens	No
Etherscan <i>XCF Contract</i>	0x...8f7c48e
Coin Gecko	XCF Token
Coin Market Cap	XCF Token
Twitter accounts <i>Project has been using until now Cenfura twitter, in future most information in dedicated twitter</i>	Cenfura Powered by XCF and XCF token project (NEW)
GitHub <i>Contract source codes</i>	GitHub
Crypto exchanges	www.liquid.com

Token Circulation and Lockup addresses

All updated circulation numbers and lock-up addresses can be found from a dedicated page, [XCF Token Circulation](#). Initially, the project has locked up 600M XCFs for future use. These tokens will remain locked up until further notice. Tokens are released later as a part of energy asset owners' incentive plan. The plan will be launched in 2022, the plan aims to increase the rate of the XCF adaptation and to promote green energy production.

'XCF promotion' tokens are dedicated to XCF token project's use. These tokens will be used to (1) increase the adoption rate of the XCF token (e.g., marketing and community sponsorship) and (2) increase the number of green energy assets using the XCF payment platform.

The project also provides REST compliant APIs for the token circulation, available in the token circulation web page.

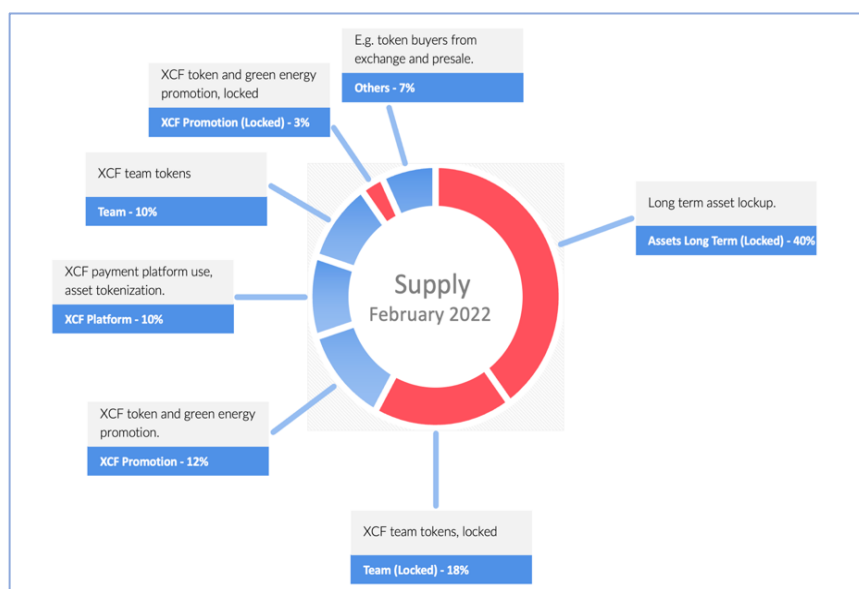


Figure 3: XCF Total Supply, Allocations.

XCF Trading in Crypto Exchanges

XCF trading has been challenged by two unrelated but major issues. Firstly, the global pandemic postponed onboarding energy assets to tokenization. Secondly, Liquid Exchange had a “security incident”, which severely negatively impacted XCF trading volume.

Current Liquidity and Token Trading Issue in Liquid.com

XCF was initially traded in a highly regulated Japanese exchange, [Liquid \(CoinMarketCap\)](#). The token was listed in November 2020. In August 2021 ([news](#)) Liquid reported a significant security incident.

All trading, including XCF, in Liquid exchange was fully halted immediately. Once the trading resumed, was addressable audience significantly reduced. As a result, XCF trading volume drastically dropped, and the price followed as liquidity remained non-existent.

In the aftermath of the hack, the exchange is in the process to be acquired by FTX Trading Ltd ([read more](#)).



Figure 2: XCF trading in Liquid exchange, 03/2021 - 02/2022

Restart: Listing Plans for 2022

The XCF project is currently proceeding with new crypto exchange listings. The project expects to build needed liquidity for the XCF payment platform shortly.

XCF Payment Platform Technology Overview

Full technical details of the XCF payment platform will be released during spring 2022, after the commercial launch of Version 2.0. However, if you are interested in information, please contact the team by email at ask.anything@xcf-token.io.

Key features of the payment platform:

- Open ledger for all energy and payment transactions. All energy production, consumption, and end-user payments are stored in blockchain within the platform.
- Secure and trusted transactions. Once in blockchain, no transactions can be changed, making all transactions trusted and tamper-free.
- Fast and predictable transaction times.
- End-user payment applications.
- Asset analysis and optimization applications.
- Asset and payment tokenization.
- Community-driven apps for a new way to utilize XCF, a basis for extended innovation.
- Needed transparency for various stakeholders through dedicated applications or APIs.
- Basis (secure data) for various customized applications, such as DeFi (distributed finance), DApps (Distributed apps), mobile apps, web apps, and 3rd party system integration.
- Flexible interface different assets to interact with, for seamless tokenization.
- Integration to 3rd party crypto exchanges to buy and sell XCF tokens outside the ecosystem.

Asset and Payment Tokenization

The essential part of the solution is the concept of tokenization. When Cenfura's assets buy and sell products and services, smart contracts are automatically created. These smart contracts work in the following way: When an asset produces energy, a smart contract kicks in and calculates the selling price of the energy in local fiat currency, and this price is then converted into XCF tokens at the current market exchange value. The buyer then purchases the energy using XCF tokens, and the asset has its share of tokens deposited into its account. These tokens can then be sold back into the market for local currency, leaving the ecosystem, or the tokens can be held in reserve. Again, all assets in the Cenfura ecosystem will use XCF tokens.

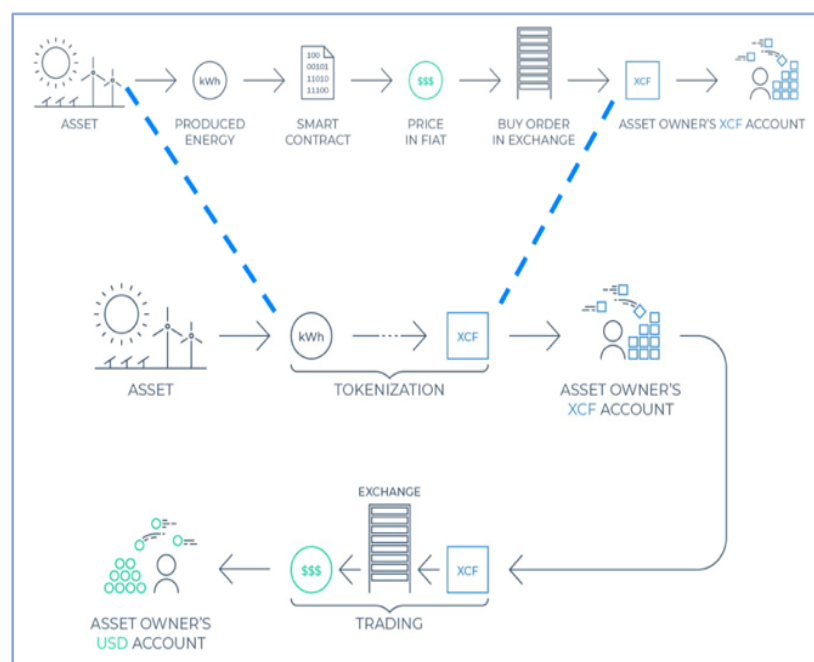


Figure 6: Tokenization

Interfacing to External Exchange(s)

The tokenization process is the core platform function, which will transact with the platform exchange to acquire needed XCF tokens for tokenization events. Furthermore, to satisfy the availability requirement of XCF tokens for tokenization, the platform exchange interacts with external 3rd party exchange to acquire the XCF tokens from open markets.

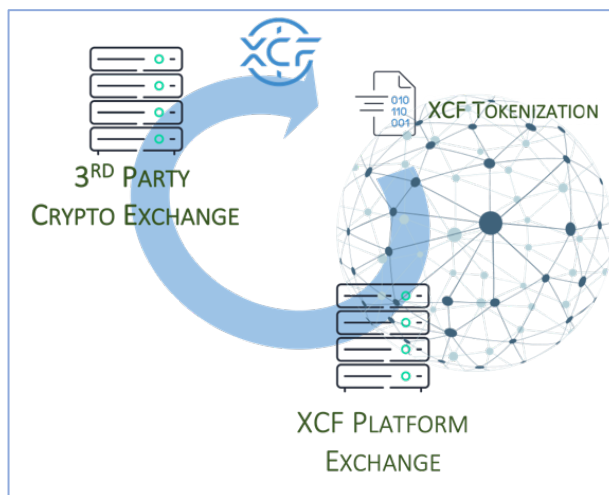


Figure 4: Platform's XCF acquisition outside ecosystem

Key Components of Payment Platform

Validator Node - Validates new blocks to be added to platform blockchain, using Proof of Authority (PoA) as a consensus algorithm. The Validator Node also keeps the blockchain transaction ledger.

Blockchain Gateway - Provides seamless movement of tokens between the public blockchain and the platform, publicly notarizing the state of the platform blockchain to outside and exposing needed parts of the platform blockchain securely.

Asset Node - Each asset will have a dedicated, standardized node server. The asset node acts as a blockchain light node. Light nodes keep only part of the ledger and cannot add new blocks to the blockchain. Additional functionality includes asset data/control data communication and buffering in data communication failures.

Application Gateway - Serves as the interface for various applications, providing a view of the data in a secure manner.

Platform Exchange - Serves as an internal exchange to the XCF ecosystem. The platform exchange is dedicated to tokenization and internal XCF transactions.

Tokenization - smart contract(s) provide core asset and payment tokenization functionality.

Asset Contract - Each (energy) asset's financial behavior is modeled as a smart contract for tokenization.

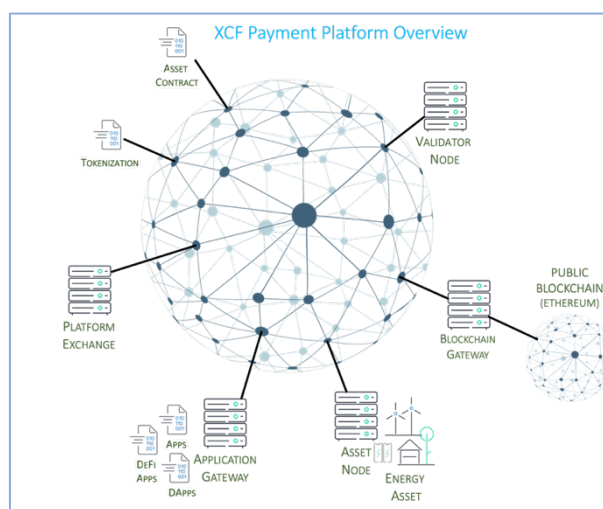


Figure 5: XCF Payment Platform Overview

Team

XCF token project's key strength is the team, a rare combination of broad experience in Software, Finance, Fintech, and Green Energy. People introduced here represent the project publicly, in the project leadership, key advisors, and community support. The easiest way to reach out to the team members is to contact us in our telegram or directly relevant person through LinkedIn, included in the profile. Most people working on the project come from Cenfura, as Cenfura initially created XCF token project.

The project does not publicly list 'Core Team' members' profiles, only people working in the public interface.

Leadership



Pasi Nieminen 

XCF PROJECT LEAD AND FOUNDER

Pasi is a globally recognized entrepreneur whose start-ups and interests span a variety of technologies, including telecommunications, real-time control systems, blockchain, and renewable energy systems.



Dr. Albert Ogugua Okorogu 

LEAD - AFRICA XCF DEPLOYMENTS

Dr. Okorogu has over 28 years of technical and management experience spanning Alternative/Renewable Energy, Energy Efficiency, Transmission Management, Power Generation, Energy Economics, and other related industries. As a result, he brings both depth and breadth of leadership and technology-related experience to his role.



Jaakko Autere 

FINANCE

Finance and B2B professional with 16 years of experience in sales and managing technology companies administration, finance, accounting, HR, IT, and operations in 24 different countries and states over four different continents.



Lauri Bäckman 

PROJECTS

Lauri brings over 20 years of experience working with multi-national companies in the offshore energy and telecommunications sectors worldwide. His ability to seek solutions makes him a person who can negotiate challenging issues.



Pieter Tsiknas 

FINANCE

Pieter is an experienced Accounting, Finance, Planning, Analysis, and Business Intelligence professional. He has previous experience working in Fortune 500 companies, Small & Medium Size Enterprises (SME's), and Start-up Businesses across Asia.



Jussi Schultink 

COMMUNICATIONS AND COMMUNITIES

Jussi is an experienced PR and marketing professional with a long history in open-source communities. Jussi’s track record includes brokering partnerships with major sports franchises and major car manufacturers, journalistic, and management work.

Core Team

In addition to the team members listed above, the project has a large number of other team members working on many different non-public functions, e.g., security or development.

The core team is responsible for developing, operating, and deploying the existing XCF energy payment platform in day-to-day businesses as well as various marketing and communication functions. These core team members work as a distributed organization, located in the US, Europe, Asia, and Africa.

Versatile and Experienced Team



As the project is an essential component of many Cenfura’s financial solutions (all using XCF), are many core team members working in Cenfura but fully contribute to the project.

Key Advisors

The project has advisors in various areas, from cyber security to international financing and legal advisory. Find here some of our advisors who are in a critical position to make the XCF payment platform successful during 2022.



Nicolas Schlumberger 

FINANCE

Nicolas has been active in international finance for over 40 years. Since 2000, he has also been a serial entrepreneur, a founder of SICAT, and in various Hi-Tech ventures (France, China, terrestrial broadcasting, wireless services).



Harri Hursti 

CYBER SECURITY

Harri is an Internet visionary, entrepreneur, and world-known data security expert. He is famously known for developing “the Hursti Hack,” altering the results of the voting machines used in the 2000 USA Presidential elections.



Myles Mantle 

LEGAL

Myles is a lawyer with over 20 years of experience advising on the development, financing, and acquisition of various energy projects, globally.



Greg Ashley 

ENERGY

Greg is a well-recognized veteran with over 30 years of experience in the energy sector. He is best known for his extensive connections and in-depth understanding of the solar energy industry.

Community Action

Community engagement is a central part of the project. Without community involvement, the platform's total capacity cannot be achieved. Decentralized Finance (DeFi) Dapps on a platform addressing local markets, or supporting 'impact projects'. Communities will be the most visible part of the project in 2022.

The project has begun community engagement in dedicated Telegram channels for Indonesia, Vietnam, and South Korea. In spring 2022, efforts will expand to local communities in the US, UK, and Nigeria. In addition, XCF has a joint global Telegram channel with a broader number of people involved, giving people the opportunity to address globally shared topics.

Local communities are planned to pave the way to various local face-to-face meetings and activities, such as roadshows. These local communities give the project vital visibility to local opportunities and feedback from the market. The project will also deploy local communities for various promotional ventures. Local communities are also key to identifying the best 'impact' projects that the XCF token project could support, e.g., providing projects to help to bring green energy to rural areas.

Communities are the project's top priority, especially local communities, where we can make a difference.

Community Team

INDONESIA



Maralus Pangidoan

COMMUNITY MODERATION TEAM - INDONESIA

Telegram ID: @maraluspgbn

NIGERIA



Saviour Dickson

COMMUNITY EVANGELIST - NIGERIA

Telegram ID: @DSSonTECH

SOUTH KOREA



Lee Nam Yong

COMMUNITY MODERATION TEAM – South Korea

Telegram ID: @Zacngo

VIETNAM



Nguyễn Trọng Hiệp

COMMUNITY MODERATION TEAM - VIETNAM

Telegram ID: @DZ0Phong



Ngô Hoàng Phúc

COMMUNITY MODERATION TEAM - VIETNAM

Telegram ID: @NgoHoangPhuc



PK. Pikar

COMMUNITY MODERATION TEAM - VIETNAM

Telegram ID: @Mrsidaa



Hoang Ngoc Thach

COMMUNITY MODERATION TEAM - VIETNAM

Telegram ID: @Moonskycrypto2021

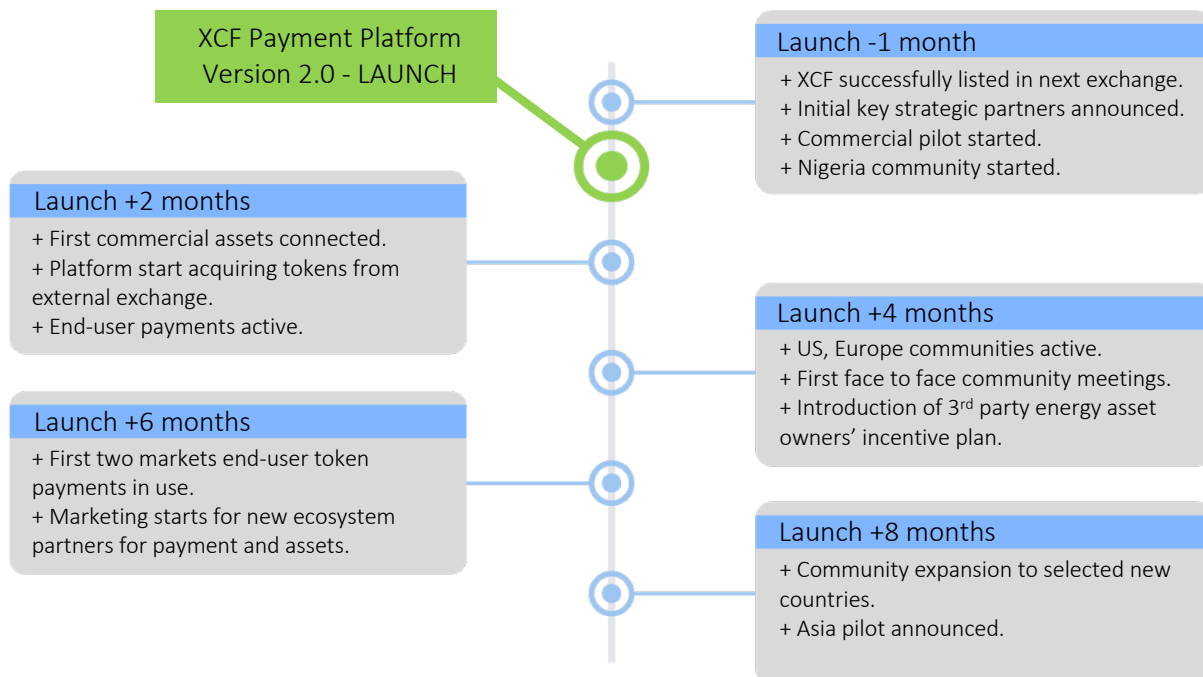
COMMUNICATION

Existing communication in different medias		
Twitter (Cenfura)	Original channel shared with Cenfura.	https://twitter.com/CenfuraEnergy
Twitter (XCF)	XCF token focused.	https://twitter.com/XCFtoken
Telegram - XCF Global Channel	Global channel	https://t.me/CenfuraEnergy
Facebook	Coming in 2022, dedicated to local face-to-face meetings and activities.	https://www.facebook.com/XCF-Token-100100562225706
Reddit	New reddit, content coming soon.	https://www.reddit.com/r/XCFToken/

Existing community Telegram channels for local regional communities.	
XCF Indonesia	https://t.me/XCFToken_id
XCF Nigeria	https://t.me/XCFToken_ng
XCF South Korea	https://t.me/XCFToken_kr
XCF Vietnam	https://t.me/XCFToken_vn

Roadmap

The project is preparing to launch the XCF payment platform version 2.0. The XCF and payment platform's daily use depends on the XCF platform 2.0 launch. Thus, the roadmap has been tied to the launch date. Find here key targets on technology deployment, token trading, commercial partners, and community development, for the following eight months.



CONCLUSION

The XCF project's journey has been inspiring and challenging. Expected opportunities have been growing more extensive than expected. Sametime, the project has not been short of big surprises on asset onboarding delays due to global pandemics or issues with token trading. As the project is about to get support and exposure due to launching the long waited 2.0 version of the payment platform, 2022 will be the year colored by the XCF and multiple payment platform deployments and many "Powered by XCF" green energy projects. The project is welcoming you to join us.

Have ideas or questions?

Visit us at www.xcf-token.io

Drop us an email at ask.anything@xcf-token.io

Join us [XCF Telegram](#)

And remember to

Follow us on our new Twitter twitter.com/xcftoken

