

## SCURDEX PURPOSE

To be the primary all-in-one platform for digital trade and investment – including to be able to transfer(for micropayment) and swap various digital currencies and financial instruments using a transparent and decentralized exchange.

## CORE FEATURES OF SCURDEX

Users of Scurdex app will be able to:

- a. Sell and Bid for Forex and Stocks(in a private fund raising) through auctions.
- b. Do micropayment transaction in retailers shops with our blockchain-enabled PoS
- c. Swap, Transfer, Trade and Invest in various cryptocurrencies and stocks of companies.

**SCURDEX BOLD PLAN & UNIQUE ADVANTAGE:** Scurdex is the only platform where users will be able to swap, transfer, trade and invest in combination of stocks, cryptocurrency, forex and private bonds in a fully decentralized way. No gate keeper, no permission and nobody is holding your hands. You are in-charge of your assets as you create your wealth. Scurdex is championing the adoption of cryptocurrency as a legal tender with blockchain-enabled PoS and store-value-card that will be totally un-connected to legacy payment network of banks, visa and mastercard.

## THE PROBLEMS & SOLUTIONS

The Problem of Centralized Financial Systems in Africa.

1. Forex trade is largely controlled by informal market operators at irregular prices
  - Importers of goods and services don't have a regular supply of Forex
  - Prices vary during the day depending on dealer and quantity
  - Real earners of Forex currently don't have way to easily sell to users
  - Informal markets operators and BDC participate in front-running to cheat users
  - Middle men including BDC and informal market dealers on the street contribute to increasing high cost of Forex
2. The new digital currency trade and investment entrants are losing money
  - Differentiating between assets as store-of-value and short-term investment strategy
  - Lack of simple investment and trading platform for crypto, stock and FOREX
  - High transaction fees for trade, swaps and transfer.
3. Financial Inclusion promises still unmet by FinTech startups, banks & CBN efforts
4. With traditional stock brokering firms, Investment in stocks of good companies is out-of-reach of ordinary citizens

## BUSINESS PROCESS

### Solutions, Features & Functionalities

Scurdex is a platform that offers its users a diverse opportunities to invest in crypto currency and trade various financial instruments like forex and stocks. The unique advantage of Scurdex is that it is fully decentralized and peer-to-peer system. It has a user minimal custodial risk and strong

data privacy. The users' assets are available on-ramp or on-demand directly from blockchain and protected by a secret key and twelve words mnemonics. Users are in-charge of their digital assets and enjoy low transaction fees.

Several problems, like high fees, associated with centralized financial instrument trade and investment platforms are eliminated with Scurdex decentralized advantages. No intermediary or whatsoever. Trades and investment are handled by smart contract algorithms running on blockchain. Transfer and swaps of digital assets are done peer-to-peer through the smart contract.

Because Scurdex is leveraging several decentralized financial instrument and crypto currency liquidity pools, artificial scarcity or surplus created by traditional trade and investment platform operators are completely eliminated. Traders buy and sell digital currency at market determined prices while investment in various financial instrument are done with clear understanding of their fundamentals by investors.

#### FIAT CURRENCY, STOCKS AND BOND TOKENIZATION

Tokenization in the scope of Scurdex project, is the digitizations with verified smart contract, of traditional and mainstream local fiat currencies, stocks and private companies bonds. The reason for tokenization is to make them storable, tradable, swappable and transferable on blockchains. The tokens are backed by an equivalent fiat currency, stocks and bonds liquidity pools provided by partner investors and held in certain "vaults" for the purpose of passive income earnings.

For example, for fiat currency, the "vault" is a bank account with deposited fiat funds to back the issued tokens. Currently, Nigerian Naira, NGN, has been tokenized(for Scurdex as KOBO) on Ethereum blockchain with total supply of 100,000,000,000,000 valued at \$2.5B but remains un-backed. The idea is, as Scurdex continue to gain market acceptance – supply, demand and market opportunity will determine which financial instrument Scurdex will tokenize and backed for trading, swap, transfer and investment.

The Scurdex is projected, in five years, to be able to tokenize and offer in auction, currencies of most Africa and emerging-market countries that are traded against USD for importation of goods and services. Stocks and bonds tokenization will be determined by forces of demand and supply. For example, because of established success stories, Scurdex team has been able to determine that most Africans in Africa will like to invest in stocks of America Fortune 500 companies. So, we will be tokenizing and backing 5% of those companies in the first year of launch.

#### HOW SCURDEX FOREX, STOCKS AND BONDS AUCTION WORKS WITH DUTCH AUCTION

Scurdex's money market exchange(for tokenized Forex, Stocks and Bonds) is a fully decentralized exchange market based on the DutchX auction principle, featuring a price mechanism that starts with a high price which falls monotonically. Eventually, every successful buyer of certain tokens pays the same price once the auction closes, ensuring orders don't have to be cancelled when markets fluctuate.

**Exchange:** This mechanism allows for a more streamlined trading experience and, most importantly, eliminates the bottlenecks of formal financial instrument trade and investment platforms such as front-running and hoarding. The exchange runs as a set of token pairs, which do not have order: e.g KBO-USDT token pair is a USDT-KBO. Each pair consists of two opposite/symmetrical auctions – order does matter for an auction. Opposite auctions always begin at the same time (but may close at different times). “Closing” and “clearing” auctions are synonyms for the purposes of our exchange

**Auction:** Each auction follows the same mechanism: sell orders are accepted before an auction begins. We call the auctioned amount of sell tokens the sell volume. Consequently, an auction always has a constant sell volume while it's running. Buy orders are accepted only during an auction. The amount of buy tokens is called the buy volume, and an auction closes when the sell volume \* current price is smaller than or equal to the buy volume. In fact, the amount processed by the final buy order should be such that the sell volume \* current price is equal to the buy volume (up to rounding errors).

**Claiming:** At any point during the auction, a buyer may claim his/her intermediate funds. As long as the auction clears in a later, the price will drop after that, so he/she is guaranteed to get more tokens when claiming again in the future. A buyer's funds are given by his/her balance divided by the price (current or closing, depending on time of claim). Sellers may only claim their funds (in buy tokens ) after an auction has cleared. A seller's funds are given by his/her balance \* price.

**Scurdex Foreign Exchange Market Objectives:** Scurdex five objectives, with DutchX forex market auction, are to: 1. achieve an increased supply of foreign exchange to match an increased demand, 2. reduce the erratic behavior of foreign exchange rate, 3. decrease the spread between the highest and lowest bid (or marginal exchange rate), 4. narrowing the divergence between the auction and black market rate and 5. Mitigating against risk of front-running and high fees of dealing with parallel or black market operators(aboki).

**Scurdex Stock and Bond Exchange Market Objectives:** Users will have a simplified tool to trade and invest in stocks and bonds of private companies around the world. For the first time, transfer and swap of stocks and bonds for other financial instruments becomes an easy task.

#### Scurdex Cryptocurrency Decentralized Exchange

Scurdex is leveraging UniSwap liquidity pool to deliver instant trade, swap and transfer of 95 verified and investment worthy cryptocurrencies in decentralized manner. Scurdex take no custody of users' assets. Trade Limit feature of Scurdex allows users to set their trade buy or sell target for certain cryptocurrency and trade get executed automatically(usually at unpredictable time and day) when the target price is reached without the intervention of the user.

**Scurdex Cryptocurrency Exchange Objectives:** To provide a reliable trade and investment platform for users who are new to digital asset trade and investment. Users are guided by daily tips on real investment strategy which guarantees return over a medium and long term.

## MICROPAYMENT SERVICE OF SCURDEX

Financial inclusion solution offered by Scurdex will primarily cater for those transaction that are considered to be micropayment and have hitherto been conducted with cash informally. This solution is designed to be fast to deploy and use in the informal sector of under-served, unserved and semi-urban communities.

This service is provided by selling [store-value-cards](#) and low-cost blockchain-enabled POS to low-income consumers and informal businesses(retailers, food vendors, commercial buses and cab operators, etc) respectively. The informal businesses, e.g retailers, who purchase our POS, will serve as the sales and distribution partners/channels for the store-value cards and are incentivized by low-single-digit interest rate micro-credit or grant. The retailers and their customers per location, will be provided credit from the revenue earned from cost of transaction and margins made from the sales of store-value cards.

**Scurdex store-value cards and PoS will not work with legacy VISA and MasterCard network but rather on blockchain** with capacity to facilitate, scale and process large numbers of transaction and microfinance services at a combination of speed and cost currently unmatched by legacy payment network.

## HOW SCURDEX PoS & STORE\_VALUE-CARDS WORKS

Scurdex PoS is using blockchain as its primary and ONLY network with the support of smart contract for transaction validation. For online PoS use cases, the transaction request is sent to/from blockchain along with inserted card's user data. During production, user cryptographic data(public key, private key and twelve words mnemonics), serial number of the card and default PIN data stored on the card's microchip memory make it work like a classical hardware wallet. The card also has storage space for user's bio data including fingerprint for on-card verification.

The cards are configured, at production, to be used in default offline network mode. For a card network mode to be switched to online, there is need for internet connectivity to enable card transaction data and balance to be updated. Cards in offline mode, the actual feature of store-value-cards, can only be used on the PoS device(at retailer shop) that changed its network mode to offline. This is especially useful in location where there is limited availability of internet service e.g rural communities. Users can also credit their card even in offline network mode at the retail shop. Scurdex support will effect network mode switching for users with confirmed evidence of the unavailability of the host retailer or sudden internet outage.

When a card is switching network mode(from offline to online and vice versa), the PoS smartcontract on the blockchain takes the latest balance(and currency data) sent from the user card to update user balance on the blockchain ledger. This prevents users from re-spending an already spent token while switching network mode. This flexibility of using Scurdex card as both store-value-card and hot wallet is the core of its advantage to cater for wide range of use cases.

The question one may ask is why is Scurdex offering retail payment on a decentralized exchange platform? The answer is simple, a card issued by a small road-side retailer in a certain remote community in Africa can be used for payment in Europe and around world with Scurdex's PoS. The Scurdex as a decentralized exchange provides an advantage of swapping the local currency of

remote Africa user to Europe or Asia acceptable currency in case of location change or international trade.

#### User Onboarding Process.

New user card can be activated with Scurdex wallet's Add Card button of Explore tab. It requires a combination of the card's serial number, custom PIN or fingerprint and NFC technology of the smartphone. Once the card is confirmed to have been activated, its private and public key could be set as default wallet data for outward and or inward transactions. Scurdex will provide 3<sup>rd</sup> party library that will enable other cryptocurrency wallet support the use of its cards.

To activate a card using PoS device, as will be the case mostly in rural communities, the user(sometimes with the support of host retailer) is required to input the serial number of the card and at PIN prompt request, change the default PIN to custom PIN. Optionally, during activation process, user may also request to be sent the twelve words mnemonics and public key or wallet address via phone number or email address. Henceforth, the user can either use the card on PoS at the retailer shop(either in offline or online) or with Scurdex wallet for transfer of tokens in payment for goods and services.

#### PoS and Card Distribution

Businesses can order PoS and cards through [scurdex.com/order](https://scurdex.com/order) and the expected fulfilment to be completed by major designated ecommerce websites.

#### Enabling Technology and Development of Scurdex

Scurdex is a combination of three components 1. Mobile Android OS client available in Google Play Store for download through [www.scurdex.com](https://www.scurdex.com), 2. Blockchain smart contract algorithms that handle trades, investments, transfers, swaps, trade limit functionalities and other decentralized exchange features and 3. Several micro-services hosted in the Google Cloud for handling user management, market and trade data analytics, etc

Scurdex complex and myriads of services, as can be seen above, is developed locally by Samson Amosu, the CTO and Co-founder of Nichie Systems. For Scurdex development and its code verification, several open-source project and tools are used with legal adherence to all associated licenses. Scurdex development has reach the status of minimum viable product, MVP by 90%.

#### PRICING OF SERVICES

Every transaction on the digital wallet including swap, transfer, buy, sell and claim will be charged as follows:

1. 1.99% per transaction value up to \$3000
2. 1.49% per transaction value greater than \$3000(i.e 1.99% on \$3000 and 1.49% on additional)
3. Debit card fees per transaction is 3.9%
4. Minimum fee per transaction is \$3.49

#### Micropayment with Point-of-Sale and Store-value-cards

5. Selling of Blockchain-enabled mini-POS: N25,000.00(\$37.00)/unit
6. Sales of Store-value-cards: N1,100.00(\$2.67)/unit.
7. Cost per transaction is \$0.005

### Profitability

Scurdex operation team, post VC investment or grant, will consist of CEO & Co-founder, CTO & Co-founder, Social Media Manager, Content Writer, Customer Support and two Software Developers. Below is the list of monthly cost items:

1. Salary of Seven Employees – \$4,247.60
2. Ads(Google, Facebook & Twitter) – \$1,802.40
3. Cloud Hosting & App Service Subscription \$606.80
4. Office Rent, Groceries, Internet & Utility Bills – \$606.80

The total operation cost per month – \$7,263.60

Scurdex, by usage, will reach a break-even-point when it starts doing 2,081 transactions per month to cover the \$7,263.60 cost of operation.

### MARKET OPPORTUNITY

#### Target Audience/Customer

1. Customers of Scurdex Foreign Exchange Market: Eligible bureau de change, authorized dealer banks, Nigerians(as sellers of forex) in diaspora and officially approved Importers(as buyers of forex) of goods and services. Nigeria's FOREX market is estimated to be \$2.5B a year and the largest market in the world.
2. Customers of Scurdex Exchange Stock and Bond Markets: Individuals and Institution Investors.
3. Customers of Scurdex Cryptocurrency Exchange: Regular Nigerians that are currently investors and traders of cryptocurrency. The market size is currently estimated as \$600million.
4. Informal Retailers

#### Scurdex Marketing Plan

Scurdex is available for download on Google Play store and scurdex.com as a primary and secondary distribution channels respectively. Both distribution channels will be promoted on social media, videos distribution platforms like youtube.com, blogs and through email marketing as listed below:

1. Social Media – YouTube, Twitter, Facebook & Telegram
2. Videos & Graphics Content Development with Doodly, Videoze & Figma
3. Ads – Twitter, Facebooks & GoogleAds
4. Email Marketing & Blogs

The target, through all social media platforms, is to reach two(2) millions audience per month and convert 0.1% to active Scurdex users. Scurdex has a built-in chat feature to deliver a personalized customer support service to users. There is also built-in promo feature to reward loyal customers for certain milestone of transaction value and numbers.

## BUSINESS ANALYSIS

### SWOT:

Strength: Lean team that is capable of handling all technical and software development requirements to according financial and money market dynamics.

Weakness: Lack fund raising skills and access to investors.

Opportunities: It is believed that during the gold rush, the providers of tools for miners are those that are predetermined never to loose money. Cryptocurrency is currently undergoing a global boom and citizens of Nigeria and around the world are getting into it. Also, FOREX market has never gone online, at least in Nigeria, and we are the first going into this.

Threat: We are weary of copy cats of our FOREX and other financial instruments decentralized trading features.

To mitigate the risk of copy cats, we intend to launch early and dominate the market.

## BUSINESS NEEDS

Resource Requirments: Our main resource requirement is investment capital to cover our monthly operation cost of \$7,263.60 for minimum of three(3) months pre-launch and total of \$87,156.00 for twelve months operational cost.

### Building A Team

Scurdex development team is deep in terms of technical expertise and understanding of Africa's money and digital currency market. We have traded and still trade stocks, forex and digital currency in the old and new era exchange. Most importantly, we are passionate and love the idea of building what nobody has built before – a decentralized exchange(DEX) for the combination of cryptocurrency, foreign exchange and stock markets. This team is a proponent of the new era of Decentralized Finance(DeFi) and opportunities that it offers as an alternative to legacy centralized financial systems.

## THE PLAN

### The Business Forecasting and Plans

Scurdex is currently available for download in Google Playstore or through scurdex.com as MVP. The cryptocurrency decentralized exchange feature is fully completed and ready for market. The DutchX auction smart contract algorithm for trading, swapping and transferring of FOREX, stocks and bonds is fully completed, tested and deployed to Ethereum blockchain.

### Next steps for the business

The business next step is to complete the pending feature(within three month of funding), then launch Ads on social platforms in order to reach two million audience per month. With two million audience reached and 0.1% conversion rate, we will reach a break-even-point of \$7,263.00 monthly revenue which can be enable us to increase our Ads budget by net profit. We hope to grow organically after first round of seed capital raise.