

United Africa Shilling Ecosystem (Formerly CashTelx)

Dr. Aboamama Atahar Ahmed
<https://www.unitedafricashilling.com/>

Abstract—Cryptocurrencies in the current state are suffering from several drawbacks and issues related to absence of stability, scalability and most importantly security. Several algorithms and techniques were recently introduced aimed at addressing those issues. Unfortunately, those attempts met with one solid drawback from cryptocurrencies giant Bitcoin price volatility. This instability of the main markets pair resulted into the almost daily market volatility. This is expected specifically, when measurements are against an unstable metric. As a result, you will always end up with volatile unstable value which is here considered as price of the currency. The main reason for this instability and extreme volatility is absence of structured backing system which is supposed to be in a form of assets. Assets backing for any currency is an important element in order to allow stable value, and preservation of capital. This paper addresses those issues and introduces a new Proof of Wealth (PoWL) to solve the above problems. We present United Africa Shilling Ecosystem to demonstrate the use of Proof of Wealth (PoWL) algorithm. The solution requires several components to work together in order to achieve the desired scalability, stability and a secure environment. The described solution aims to enhance participants' asset value, preserve initial contributions, and ultimately provide a reliable payment solution.

Index Terms—United Africa Shilling , Block-Chain, UAS, Proof of Wealth (PoWL), Ledger, Decentralized, Dynamic Diversified Assets, Exchange

1 INTRODUCTION

The emergence of Bitcoin marked a revolutionary milestone in digital payment systems, introduced by Satoshi Nakamoto [1]. While Bitcoin demonstrated the potential for peer-to-peer electronic transactions without intermediaries, establishing the foundation for decentralized financial services, current blockchain implementations face significant challenges in transaction speed, network scalability, and service accessibility.

The United Africa Shilling (UAS) protocol introduces innovative technological solutions to address these fundamental challenges. At its core, the protocol implements a high-throughput transaction processing system built on a scalable infrastructure, enabling rapid and reliable financial services. Through its advanced consensus mechanism, UAS achieves both security and efficiency, allowing for widespread adoption of decentralized financial services.

The UAS ecosystem's architecture emphasizes practical utility through seamless payment processing and cross-border transaction capabilities. By reducing traditional barriers to financial services, the protocol enables broader access to essential banking functions while maintaining robust security standards. The system's user-centric design ensures that participants can easily interact with various services while benefiting from reduced transaction costs and improved processing speeds.

Through the innovative Proof of Wealth (PoWL) consensus mechanism, UAS achieves rapid transaction processing while maintaining network security and stability. This technological advancement represents a significant step forward in blockchain utility, enabling practical, everyday use of digital financial services.

2 PROTOCOL ARCHITECTURE AND NETWORK SERVICES

The UAS protocol implements a sophisticated multi-layered architecture designed to support diverse financial services and user interactions. This comprehensive structure addresses key challenges in current blockchain implementations while establishing a foundation for sustainable network growth and service expansion.

At the network layer, UAS deploys a distributed node infrastructure that forms the backbone of the ecosystem. This foundation implements the protocol's consensus mechanism and security protocols, ensuring reliable transaction validation across the network. The distributed nature of this architecture enhances both security and performance, allowing for efficient processing of transactions while maintaining network integrity.

Building upon this foundation, the service layer enables core platform utilities through an integrated set of financial services. This layer manages payment processing and cross-border transfers, implementing sophisticated protocols for efficient transaction routing and settlement. Through careful optimization of these core services, UAS achieves significant improvements in transaction speed and cost efficiency compared to traditional financial systems.

The application layer facilitates seamless interaction between users and the network's services through a comprehensive set of interfaces and tools. This includes support for decentralized applications (dApps) and standardized APIs, enabling third-party developers to build and deploy additional services within the ecosystem. The protocol's

modular design allows for continuous expansion of services while maintaining consistent performance and security standards.

Technical implementation of the UAS protocol centers on three key innovations. First, the advanced PoWL consensus mechanism ensures efficient block validation while maintaining strong security guarantees. Second, the protocol's service integration framework enables seamless interaction between different components of the ecosystem, supporting a wide range of financial services. Third, sophisticated network optimization algorithms ensure consistent performance under varying load conditions.

These technical innovations deliver significant advantages for all participants in the ecosystem. Users benefit from reduced transaction costs and faster processing times, while service providers can easily integrate with the platform to offer enhanced financial services. Network participants contribute to security and governance while receiving clear utility value through their involvement in protocol operations.

The UAS protocol's emphasis on practical utility extends to its governance structure, where participants can actively contribute to the network's development and decision-making processes. This participatory approach ensures that the protocol continues to evolve in alignment with user needs while maintaining high standards of security and performance.

Through this comprehensive architecture, UAS establishes a robust foundation for the future of decentralized financial services. The protocol's focus on practical utility, combined with its innovative technical solutions, creates an ecosystem capable of supporting a wide range of financial applications while maintaining the high standards of security and reliability required for widespread adoption.

3 UNITED AFRICA SHILLING ECOSYSTEM SOLUTION

The United Africa Shilling (UAS) ecosystem introduces a comprehensive technological framework designed to address fundamental challenges in blockchain-based financial services. While traditional solutions have attempted to tackle issues through cross-chain implementations or new cryptocurrency layers, they often leave underlying problems of latency, scalability, and service accessibility unresolved. UAS takes a systematic approach to these challenges through an integrated protocol architecture.

The UAS solution implements a dual-perspective framework:

First, the technological infrastructure leverages advanced blockchain architecture to create a robust foundation for financial services. Through its multi-layered design, UAS effectively addresses network latency, enhances scalability, and maintains consistent service quality. The Telex Decentralized Exchange and the underlying blockchain infrastructure work in concert with optimized algorithms to ensure reliable transaction processing and service delivery.

Privacy and security features are deeply integrated into the protocol, creating a secure environment that promotes user trust and service reliability.

Second, the protocol implements innovative economic mechanisms to maintain network stability and service quality. The UAS token serves as the primary utility instrument within the ecosystem, enabling access to financial services, transaction processing, and network participation. Through carefully designed tokenomics, the protocol creates sustainable incentives for network participants while ensuring efficient service delivery. This includes a dynamic fee structure that adjusts based on network utilization, helping to maintain optimal performance under varying load conditions.

The UAS ecosystem's service framework encompasses:

3.1 Network Service Infrastructure

The protocol's service infrastructure establishes a foundation for reliable financial operations. Transaction processing occurs through a distributed network of nodes, each contributing to system security and performance. The network employs advanced routing algorithms to optimize transaction paths, reducing latency while maintaining security. This infrastructure supports a wide range of financial services, from basic transfers to complex cross-border transactions.

Service quality is maintained through automated monitoring and adjustment mechanisms. The protocol continuously evaluates network performance metrics, automatically adjusting operational parameters to maintain optimal service levels. This dynamic approach ensures consistent service delivery even during periods of high network utilization.

3.2 Financial Service Integration

UAS implements comprehensive integration frameworks for financial services. The protocol's modular design allows for seamless addition of new services while maintaining system stability. Service providers can easily connect to the network through standardized APIs, enabling rapid deployment of new financial products and services.

Each service integration follows strict security protocols while maintaining high performance standards. The system's architecture enables parallel processing of multiple service requests, ensuring responsive performance even under high load conditions. This approach allows the ecosystem to scale effectively as service adoption grows.

3.3 Governance and Network Participation

Network participants engage with the ecosystem through multiple channels, each designed to enhance overall utility. Token holders can participate in protocol governance, contributing to system improvements and service expansion decisions. The governance framework ensures that protocol development aligns with user needs while maintaining technical excellence.

Participation mechanisms include:

- Protocol governance through voting rights
- Service provider validation roles
- Network security contributions

- Community development initiatives

3.4 Technical Operation Framework

The UAS protocol implements sophisticated operational mechanisms to ensure reliable service delivery. These include:

1. Transaction Processing The system employs advanced algorithms for transaction validation and processing, ensuring rapid settlement while maintaining security. Multiple validation layers work in concert to prevent fraudulent activities while minimizing processing overhead.
2. Service Routing Intelligent service routing mechanisms direct requests through optimal network paths, reducing latency and improving user experience. The routing system automatically adapts to network conditions, ensuring consistent performance.
3. Security Implementation Multi-layer security protocols protect all aspects of system operation, from transaction processing to service delivery. Advanced cryptographic techniques ensure data integrity while maintaining user privacy.

This comprehensive approach enables the UAS ecosystem to deliver reliable financial services while maintaining the high performance standards required for practical utility. The system's architecture supports continuous evolution, allowing for integration of new services and capabilities as user needs expand.

Through this robust framework, UAS establishes a foundation for accessible, efficient financial services. The ecosystem's focus on practical utility, combined with its sophisticated technical implementation, creates a platform capable of supporting diverse financial applications while maintaining consistent performance and security standards.

United Africa Shilling Dynamic Diversified Assets

United Africa Shilling Dynamic Diversified Fund Solution is to back the UAS token functions as a utility token enabling access to the UAS payment and financial services ecosystem. While the ecosystem may maintain stability through reference to various assets, tokens themselves represent access rights to network services rather. The United Africa Shilling Network implements a sustainable economic model driven by utility-based value accrual. The UAS token serves as the fundamental unit of network access and service utilization within the ecosystem. To maintain network stability and promote sustainable growth, the protocol implements: 1. Dynamic Fee Structure - Transaction fees adjusted based on network usage - Service access fees scaled to utilization levels - Network resource consumption charges 2. Token Utility Mechanisms - Service activation requirements - Network participation stakes - Protocol governance rights. This will also guarantee the capital preservation in addition to providing a well-structured solution which solves problems associated with extreme periods of

volatility of the cryptocurrency market. Our dynamic solution of structured assets to back each UAS will effectively work to continually adapt to the changing market prices and will reduce volatility. This is accomplished by the following formula

Multi-asset structure with varying periods and strategic reallocation

"If we consider that there are $n+1$ asset allocation options, as described in (Dynamic optimal capital growth of diversified allocations) [5]

$$G(f_{t_0}, f_{t_1}, \dots, f_{t_n}) = \sum [p_t(\cdot) \ln(1 + f_{t_0} r_{t_0} + f_{t_1} r_{t_1} + \dots + f_{t_n} r_{t_n})]$$

$$= E \{ \ln [f_{t_0}, f_{t_1}, \dots, f_{t_n} / W_0]^{1/t} \}$$

$$\left(\frac{1}{t} \right) E \{ \ln [f_{t_0}, f_{t_1}, \dots, f_{t_n} / W_0] - (1/t) \log W_0 \}$$

The wealth of portfolio at time t

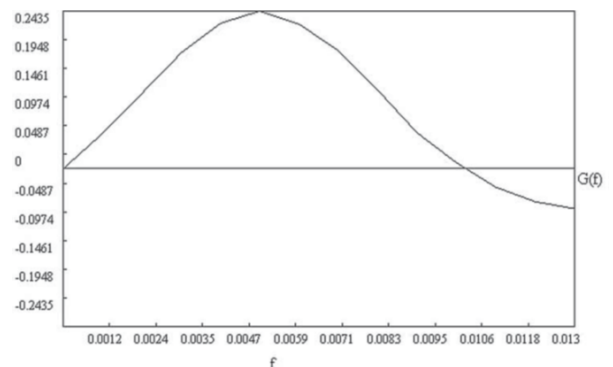
$$W(f_{t_0}, f_{t_1}, \dots, f_{t_n}) = W_0^T (x + a)^n = \sum_{t=1}^T (1 + f_i r_i)$$

Additionally, our asset allocation structure involves acquiring additional high-performing assets at each stage of market valuation, thereby enhancing the overall asset base..

The application of the above function is designed to optimize the overall value of participants' holdings when the chosen fraction is maintained below a critical threshold. To enhance value further, selecting an optimal fraction at each allocation decision is recommended. Empirical data supports this approach, showing that allocation within feasible parameters can promote steady value growth without undue risk in either the short or long term.

In this scenario, the anticipated outcome is that the value of participants' holdings will increase over time, demonstrating stability and positive growth. This stability is supported by a diversified asset base, which is inherently structured to preserve value across various market conditions, reinforcing the strength of these assumptions.

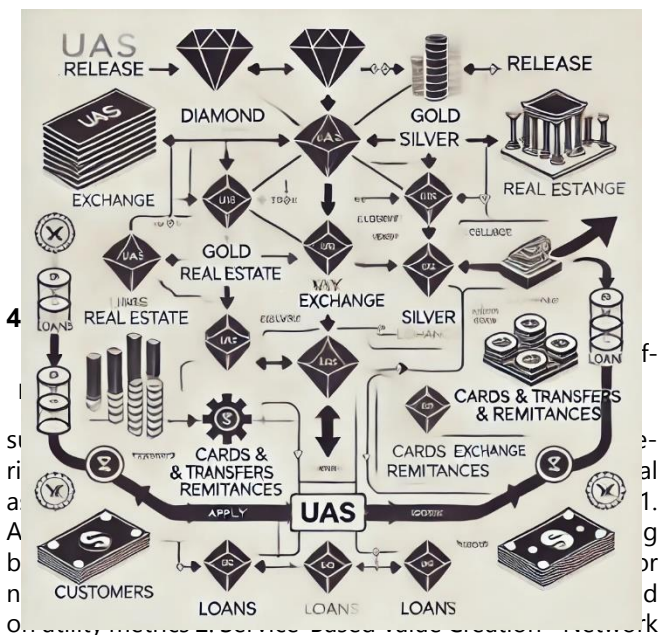
Fig.1.shows the relationship between growth and the fraction.



RETURNS DISTRIBUTION AND PARTICIPANT REWARDS

The UAS Network implements a balanced tokenomics model designed to promote network sustainability and service quality: 1. Token Burning Mechanism - A portion of all transaction fees is permanently removed from circulation - Service usage fees contribute to systematic supply reduction - Automatic burn rate adjusts based on network metrics 2. Network Incentive Structure - Validators earn fees for processing transactions - Service providers receive compensation for network contributions - Active participants gain enhanced network privileges 3. Staking Benefits - Reduced service fees for staked tokens - Priority access to network services - Enhanced governance weight - Network security contributions. This distribution will occur in the form of rewards.

4 UNITED AFRICA SHILLING ECOSYSTEMS



fees tied to service utilization - Value accrual through ecosystem expansion - Utility-driven price discovery 3. Network Effect Amplification - Increased value with growing user base - Enhanced utility through service expansion - Network growth incentive alignment. The value of UAS is represented through an Optimal Growth Function (OGF) that reflects the ecosystem's overall assets. The OGF calculates value adjustments based on contributions from various components within the ecosystem, promoting a steady and resilient foundation for UAS over time.

4.1.1 Gold, Diamond, Silver and Real Estate

The initial acquisition of assets for United Africa Shilling, funded by proceeds from the ICO, will establish a strong foundation for UAS. Collected fees from services such as exchange transactions, and other activities will be strategically reallocated back into the ecosystem. These services

will utilize UAS, fostering sustained demand for the token. To ensure transparency and asset accuracy, a quarterly audit will be conducted to assess the total value of assets within the ecosystem. Within the United Africa Shilling Ecosystem, the quarterly asset evaluation will set a new baseline for UAS's capital backing, strengthening its foundation and supporting stability in token value. Additionally, asset acquisition will prioritize partnerships with direct miners of precious resources, allowing for secure, reliable sourcing. United Africa Shilling may also collaborate with active mining entities, potentially acquiring tokenized interests in mining operations to enhance the ecosystem's asset diversity and value stability.

4.2 DECENTRALIZED EXCHANGE

The current concept of decentralized exchange (DEX), provides an infrastructure that allows different traders to exchange two different coins or tokens directly on-chain. Achieving this in the current implementations of decentralized exchanges associated with several drawbacks resulted from the technologies and the inherited latency from the block-chain execution. This is currently known as the scaling problem. Other implementations tuned to hybrid mix of centralized and decentralized implementation to resolve these issues. The traders slowly learning that depositing funds directly to centralized exchange wallet is a great risk, for this reason, and others, the future of trading on the block-chain is definitely with the decentralized solutions.

At the time of this writing there are a few well known decentralized platforms which are different in their implementations. The following table summarizes and highlights some of these differences.

Attribute	IDEX	EtherDelta and 0x	Oasis
Concept	Off-chain trade matching with on-chain settlement enforced by smart contracts and arbiter	Off-chain orderbook hosting with on-chain settlement and matching determined by miners	Orderbook on the blockchain with matching determined by miners
Trustless	Yes	Yes	Yes
Trade speed	Real-time	Slow - Filling orders is limited by block time	Slowest - Placing and filling orders are both limited by block time
Orderbook update speed	Fast	Slow	Slow
Time to cancel an order	Real time	Slow - Limited by block time	Slow - Limited by block time
Automatic trade matching	Yes	No	No
Fill many orders at once	Yes	No	No
Gas cost to place limit orders	No	No	Yes
Gas cost to cancel orders	No	Yes	Yes
Gas amount per trade	High	Medium	Medium
Race conditions	No	Yes	Yes
Scaling	Moderate	No	No

Fig4. DEX Comparison.

There are numerous points related to factors affecting different scenarios of implementing decentralized exchanges, some of the important factors discussed by [7].

4.2.1 Telex Decentralized Exchange (Crypto—Fiat)

UAS implementation of DEX infrastructure is based on our newly designed Telex Dynamic protocol which is similar to what has been described in [8] utilizing layered infrastructure, however, we are more interested in the concept and the distribution of products infrastructure. Our strategy is based on providing faster response time to trader's orders and secure trading environments. The following represent

part of what we have achieved through our initial design and implementation in Telex Decentralized Exchange. Our main differences with what was described in [8] is we integrated our Proof of Wealth (PoWL) algorithm which is discussed in the coming sections of this paper.

Attributes	Telex Decentralized Exchange
Concept	On Chain Trading
Trustless	Yes
Trade speed	Real Time
Order update speed	Fast
Time to cancel an order	Real Time
Fill many orders at once	Yes
Gas cost to place limit orders	No
Gas amount per trade	No
Race conditions	Medium
Scaling	Yes
Privacy	Yes

From the comparison of Telex Exchange and other exchanges, United Africa Shilling Exchange is clearly equipped with better features than the others in addition to privacy features inherited by utilizing our Telex Dynamic protocol integrated with (PoSS) protocol structure.

4.3 CONSENSUS MECHANISMS AND NETWORK SECURITY

Before introducing the Proof of Worth and Labor (PoWL) algorithm, we examine existing consensus mechanisms to establish context for our innovation in network security and transaction validation.

4.3.1 Evolution of Consensus Mechanisms

The blockchain ecosystem has seen multiple iterations of consensus mechanisms, each addressing specific challenges in network security and transaction validation. The original Proof-of-Work (PoW) algorithm, introduced by Bitcoin [1], established fundamental principles for decentralized consensus but faces challenges in energy efficiency and network scalability. Proof-of-Stake (PoS) emerged as an alternative, improving energy efficiency while introducing new considerations for network security and participation.

4.3.2 Proof of Worth and Labor (PoWL) Algorithm

The PoWL algorithm introduces an innovative approach to network consensus and security. Unlike traditional mechanisms that focus solely on computational work or staked assets, PoWL implements a multi-dimensional validation framework that evaluates transaction legitimacy and network participation quality.

Key components of the PoWL mechanism include:

1. Transaction Validation Framework The algorithm employs a sophisticated scoring system for transaction validation, considering multiple factors:
 - Transaction history integrity
 - Network participation metrics
 - Node reliability scores
 - Service quality indicators

2. Network Security Enhancement PoWL strengthens network security through:
 - Multi-layer validation requirements
 - Dynamic security threshold adjustments
 - Reputation-based node evaluation
 - Automated threat detection and response
3. Performance Optimization The algorithm maintains network efficiency through:
 - Adaptive validation parameters
 - Load-based processing allocation
 - Parallel validation pathways
 - Resource utilization optimization

4.3.3 Technical Implementation

PoWL operates through a structured validation process:

1. Initial Validation Phase When a transaction enters the network, the algorithm initiates multiple concurrent validation checks:
 - Cryptographic signature verification
 - Historical transaction analysis
 - Network participation assessment
 - Node reputation evaluation
2. Consensus Building The algorithm aggregates validation results across multiple nodes:
 - Cross-validation of results
 - Weighted consensus calculation
 - Automatic dispute resolution
 - Performance metric tracking
3. Final Validation Transaction confirmation occurs through:
 - Multi-node agreement verification
 - Security threshold validation
 - Performance requirement checks
 - Network state updates

4.3.4 Network Benefits

The PoWL algorithm delivers several key advantages:

1. Enhanced Security
 - Multiple validation layers prevent single points of failure
 - Dynamic security parameters adapt to threat levels
 - Automated anomaly detection and response
 - Comprehensive transaction verification
2. Improved Performance
 - Efficient resource utilization
 - Reduced validation times
 - Scalable processing capacity
 - Optimized network throughput
3. Network Reliability
 - Consistent transaction processing
 - Stable operation under varying loads
 - Predictable performance metrics
 - Robust error handling

4.3.5 Practical Applications

The PoWL mechanism enables several practical improvements in network operation:

1. Transaction Processing
 - Rapid validation of standard transactions
 - Efficient handling of complex operations

- Scalable processing capacity
 - Consistent performance metrics
2. Network Security
 - Advanced threat prevention
 - Real-time security monitoring
 - Automated response mechanisms
 - Continuous security updates
 3. Service Quality
 - Reliable transaction processing
 - Consistent network performance
 - Predictable operation metrics
 - Enhanced user experience

Through this comprehensive approach, PoWL establishes a robust foundation for secure and efficient network operations. The algorithm's focus on practical security and performance metrics ensures reliable service delivery while maintaining the high security standards required for financial transactions.

INCOME TAX ASSESSMENTS UNDER SCHEDULE D.

	1877.	1886.	Per Cent. of Increase or Decrease.
Between £150 and £500	285,754	347,021	21.4 (Increase)
" 500 " 1,000	32,085	32,033	nil
" 1,000 " 5,000	19,726	19,250	2.5 (Decrease)
Over 5,000	3,122	3,048	2.3 (Decrease)

outstandings. Those balances and outstandings will have three different scenarios to measure in order to get the overall Block-chain wealth. It has some form of complexity when the measurements are linked to the above physical assets representations. In this case, measurement will require at minimum the following: total number of assets available for participation, the percentage representation of each asset within the blockchain, and the value of each asset within the blockchain. This is all at the specific point of time. The wealth projection is an issue with dynamic attributes and changing the number of traders (populations of the Block-chain). This goes together with the changing price of Gas or fees required to complete each transaction.

5 UNITED AFRICA SHILLING FINANCIAL SERVICES

The United Africa Shilling ecosystem revolutionizes financial services delivery through an innovative blockchain-based architecture that prioritizes accessibility, efficiency, and security. At its core, the system implements a sophisticated service layer that enables seamless delivery of essential financial operations while maintaining the highest standards of security and reliability.

Central to the UAS ecosystem is its advanced payment processing capability. The system employs intelligent transaction routing algorithms that optimize payment paths in real-time, enabling rapid settlement regardless of transaction size or complexity. This dynamic routing system automatically adjusts to network conditions, ensuring consistent performance even during periods of high demand. By implementing smart contract automation for complex payment scenarios, the system can handle sophisticated financial operations while maintaining simplicity for end-users.

Cross-border remittances, a crucial component of global financial inclusion, receive particular attention in the UAS ecosystem. The protocol implements direct settlement pathways that significantly reduce traditional intermediary dependencies, resulting in faster transfers and lower costs. Through innovative liquidity management and real-time exchange rate optimization, the system minimizes the friction typically associated with international money movement. This efficiency is further enhanced by automated compliance systems that ensure regulatory adherence without compromising transaction speed.

The UAS lending infrastructure introduces a new paradigm in decentralized financial services. By leveraging blockchain data analytics, the system provides sophisticated creditworthiness evaluation while maintaining user privacy. Smart contract-based loan origination and servicing automate traditional lending processes, reducing operational overhead and improving service delivery. The system's collateral management protocols enable secure, transparent lending operations while protecting both lender and borrower interests.

Service integration within the UAS ecosystem follows a sophisticated yet elegant approach. Rather than operating

Class. (Dollars.)	Wealth of each Individual in each Class. (Dollars.)	Number of Individuals.
0 to 9	1, 3, 5, 7, 9	5
10 to 24	10, 12, 14, 16, 18	5
25 to 49	25, 28, 31, 34, 37	5
50 to 99	50, 60, 70, 80, 90	5
100 and over	100, 110, 120, 130, 140	5

Now imagine the wealth of each specific individual doubled. The relation between the wealth of individuals has not changed, and hence the degree of concentration must be the same.* The classification will now be as follows:—

Class. (Dollars.)	Wealth of each Individual. (Dollars.)	Number.
0 to 9	2, 6	2
10 to 24	10, 14, 18, 20, 24	5
25 to 49	28, 32, 36	3
50 to 99	50, 56, 62, 68, 74	5
100 and over	{ 100, 120, 140, 160, 180 } { 200, 220, 240, 260, 280 }	10

We find that the movement between classes has been as follows:—

	Number.	Per Cent. of those originally in the Class from which the Movement took Place.
I to II	3	60
II to III	3	60
III to IV	5	100
IV to V	5	100

* It has been objected that doubling incomes does not leave individuals in the same relation to each other because (owing to the law of diminishing utility) doubling a rich man's income does not add proportionately as much to his well-being as in the case of a poor man. But this does not affect the argument above, because, according to this view, doubling incomes would tend to diffuse enjoyment, not concentrate it, as Wolf's method would indicate. In the present problem no error will result from confining our attention to nominal incomes.

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as isolated components, financial services interact through a unified protocol layer that enables seamless operation while maintaining security boundaries. This integration extends from the core blockchain infrastructure through to user-facing applications, creating a cohesive system that simplifies complex financial operations.

The technical implementation prioritizes security without compromising usability. Each transaction undergoes multiple validation stages, from initial authentication through final settlement, ensuring complete transaction integrity. The system implements real-time compliance checking and fraud detection while maintaining rapid processing speeds. This security-first approach extends across all services, creating a trusted environment for financial operations.

User interaction with UAS services occurs through multiple channels, each optimized for specific use cases. The protocol provides direct integration options for service providers and developers, while end-users can access services through intuitive web and mobile interfaces. This multi-channel approach ensures that services remain accessible to all users while maintaining consistent security and functionality across platforms.

Transaction processing within the UAS ecosystem follows a sophisticated yet efficient path. Each transaction moves through carefully designed stages that ensure proper validation, optimal routing, and secure settlement. The system automatically handles complex operations such as currency conversion and regulatory compliance, presenting users with a streamlined experience regardless of the underlying transaction complexity.

As financial services evolve, the UAS ecosystem maintains its relevance through continuous adaptation and improvement. The protocol's modular design enables seamless integration of new services and features while maintaining backward compatibility. This evolutionary approach ensures that the ecosystem can adopt emerging financial technologies and adapt to changing user needs while maintaining operational stability.

Looking forward, the UAS financial services framework establishes a foundation for sustained innovation in decentralized finance. By combining sophisticated technical capabilities with practical utility, the system creates an environment where traditional financial services can be delivered more efficiently and securely than ever before. This commitment to practical innovation, coupled with robust security and compliance frameworks, positions UAS as a leader in the evolution of digital financial services.

Through this comprehensive approach to financial services delivery, UAS demonstrates how blockchain technology can be applied to create genuine utility in the financial sector. The system's focus on practical functionality, combined with its sophisticated technical implementation, establishes a new standard for decentralized financial services.

6 DIGITAL MARKET CAP

The current market dominance by some cryptocurrencies reporting platforms suffers from several issues such as misleading reports and other technical problems such as unreliability due to unsuitable underlying structure. Cryptocurrency market capitalization and coins such Bitcoin came to existence before designing, or having suitable infrastructure to accommodate them, or report their performance in a fair transparent methodology. Platforms such as coinmarketcap [16] are currently facing several challenges because, its initial structure and design did not put into consideration the future challenges which are currently faced at the time of its development. In addition to that, its current implementation involves human approval for listing and delisting of cryptocurrencies coins and tokens.

In this paper we introduce the first accurate reporting platform for digital market cap. This Platform is designed to give accurate digital market capitalization reports. It offers systematic listing approval based on preset conditions programmed in its contract. This implementation utilizes assets backed coins and Tokens as performance metrics against other. This will give significantly better and accurate reporting for each cryptocurrency in addition to accurate over all cryptocurrencies market capitalization.

The following table provides initial comparison between digital market cap presented in this paper and the existing coinmarketcap implementation at the time of this writing.

DigitalMarketCap.com	CoinMarketCap.com
✓ DigitalMarketCap.net will include all the coins and token and digital money (e-money)	✓ CoinMarketCap.com only focuses on Cryptocurrency
✓ DigitalMarketCap.net It offers systematic listing approval based on preset condition programmed in the smart contract (Blockchain based)	✓ CoinMarketCap.com is not Blockchain based and addition of coin is manual by human
✓ DigitalMarketCap.net better design with Assets backed coins as a reference for other coins and tokens	✓ CoinMarketCap better design with Assets backed coins as a reference for other coins and tokens

Fig. 5 Digital Market Cap Comparison

7. CONCLUSION

The presented United Africa Shilling ecosystem with Proof of Wealth (PoWL) integration could be used as solution, as a payment system, and it will provide a stability and scalability. Providing scalable, reliable and a fast network is essential to issues faced by traders today. Telex protocol decentralization of trade and wealth representations are currently considered the only method to avoid

extreme volatility. This will enable a decenteralized structure to have fast orders, and other features which are essential for secure decenteralized trades. Future work will focus on the details and the implementation of Proof of Wealth (PoWL) and United Africa Shilling Ecosystem with Telex protocol.

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