

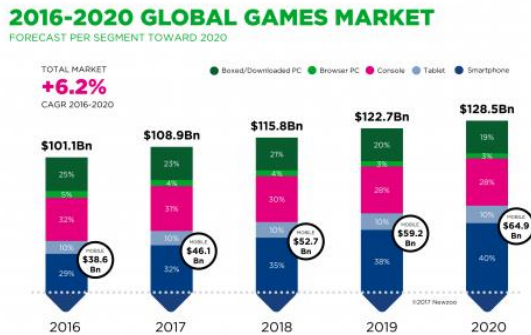


# HashCash in Gaming

*Gaming is now more Exciting with HC Net Blockchain*

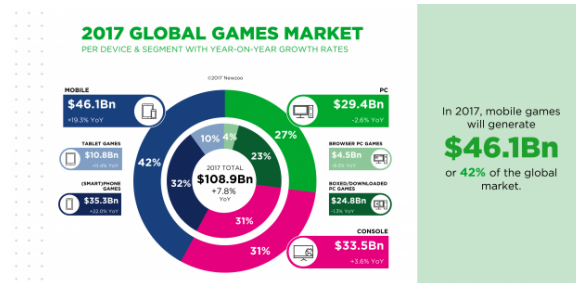
## AN OVERVIEW – CURRENT GAMING INDUSTRY

The computer and video game industry has grown from focused markets to mainstream. They took in about US \$9.5 billion in the US in 2007, 11.7 billion in 2008, and 25.1 billion in 2010. The international games industry will hit an astronomical \$108.9 billion in 2017, and continue to grow to \$128.5 billion by 2020, market analyst firm predicts.



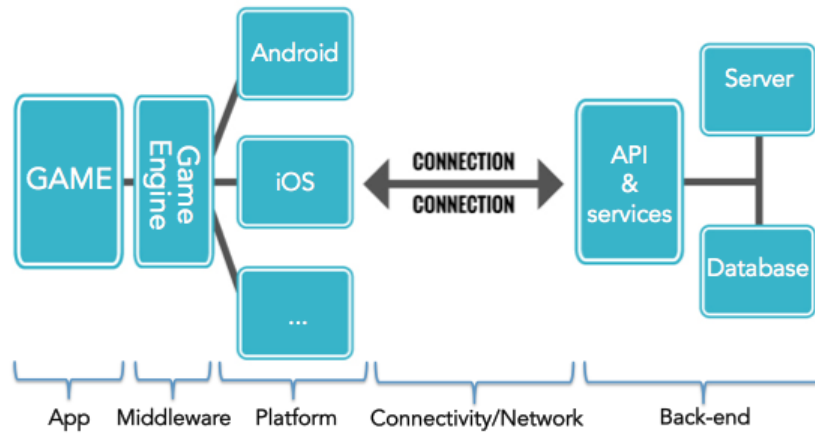
Global Games Market Report delivers some fascinating and mind-blowing predictions for the games industry, especially for mobile gaming. According to the report, 2.2 billion gamers are expected to a staggering \$108.9 billion in games market revenues in 2017 alone, which represents a year-over-year increase of 7.8% (or \$7.8 billion). The report also forecasts that digital will account for 87% of total revenues, or \$94.4 billion, but remember that digital includes all facets of digital gaming--not just game sales: subscriptions and subscription-based services, micro transactions/DLC/add-ons, live services, freemium mobile games, full game downloads across all platforms (PSN, Xbox LIVE, Steam, GoG, etc), and other content.

The analyst firm says that mobile is by far the most lucrative segment in global gaming, and is projected to make up more than half of the games market by 2020. In 2017, mobile gaming (smartphone and tablets) is expected to hit \$46.1 billion, or 42% of all revenues. This represents a 19.3% year-over-year increase. As mobile is digital-only, it's one of the major prime movers for the digital sector, and crosses over between full game downloads and in-game purchases.



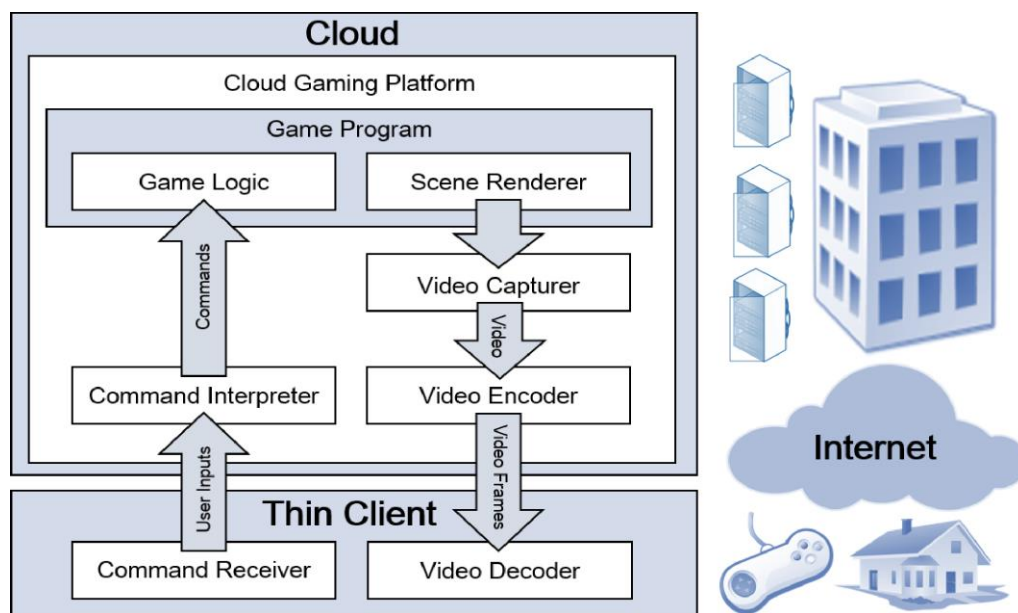
## CURRENT GAMING ARCHITECTURE

Online play comes in several forms, such as session-based multiplayer matches, massively multiplayer virtual worlds, and intertwined single-player experiences.



**Fig 1: Gaming Applications Architecture**

In the past, games using a client-server model required the purchase and maintenance of dedicated on-premises or co-located servers to run the online infrastructure, something only large studios and publishers could afford. In addition, extensive projections and capacity planning were required to meet customer demand without overspending on fixed hardware. With today's cloud-based compute resources, game developers and publishers of any size can request and receive any resources on demand, helping to avoid costly up-front monetary outlays and the dangers of over or under provisioning hardware.



**Fig 2: Cloud Based Gaming Applications Architecture**



## INTRODUCTION TO BLOCKCHAIN

Blockchain technology, also known as distributed ledgers, has a number of potential use cases within the wealth and asset management life cycle. Distributed ledgers are highly flexible; once implemented, they can be used to remove friction from the client onboarding process, streamline management of model portfolios, speed the clearing and settlement of trades, and ease compliance burdens associated with anti-money laundering (AML) and know your customer. The result is elimination of redundant functions, reduced operational expenses and increased opportunities to enhance the client experience. While blockchain technology is unlikely to replace current systems, it may be used to reconcile information across them or enable new infrastructure for new markets and products. By extension, these concepts can expand to broader applications, such as rollovers, trusts, estates, gaming, wealth & asset management, insurance and other transactions where assets are moved between parties or contracts are executed. A distributed ledger supports the validation and execution of a transaction in near real time. The client experience is enhanced and the process streamlined, and costs are reduced.

## BLOCKCHAIN IN GAMING

The collision of blockchain technology and gaming holds great promise for the growth of both industries. Innovations in the budding field of blockchain gaming have pushed the limits of non-fungible assets and are poised to keep supplying novel developments in other areas like scalability.

Gamers were some of the early adopters of cryptocurrencies as they were already familiar with many in-game virtual currency models and saw the benefits of integrating cryptocurrency networks into the domain. The eSports industry is booming, and it is only a matter of time before its rise is meaningfully coupled with cryptocurrency payment systems and decentralized models.

### DRIVING FACTORS

- ✓ Continuous and Parallel Gaming Universes
- ✓ Using encrypted blockchain ledgers to store digital assets will guarantee safe storage of game items, permanently.
- ✓ Items could be customized by players allowing them to re-create and trade upgraded assets with unique properties.
- ✓ The ability to take micro-payments quickly, easily and affordably will give developers new ways to monetize their games.
- ✓ Democratization using voting features will make the Gaming World a Better Place
- ✓ Increasing the functional, economic & social value of Gaming Items
- ✓ The public blockchain ledger will allow game developers to create rare virtual items, and prove their scarcity.
- ✓ Decentralized payment gateways will allow users to make payments with a fraction of the fees that are currently paid to credit card companies.
- ✓ Drastically reducing fraud and ending lost revenue



## **HASHCASH STRIKERS – WHITE LABEL BLOCKCHAIN NETWORK IN LINE WITH HC NET**

A ledger that drives the immutability, trust and transaction capability between the gaming platforms, the gamingExchange and the gamingWallet. The blockchain network tracks the movement of the native gamingTokens within the gaming ecosystem. The choice to use public blockchain technology for the ecosystem player interface and an “off-chain” technology choice for the gaming platform interface is based primarily on the need for higher transaction speeds in the backend processes.

## USE CASE: DECENTRALIZED GAMING PLATFORM & OWN CRYPTO-COLLECTIBLES

### HURDLES

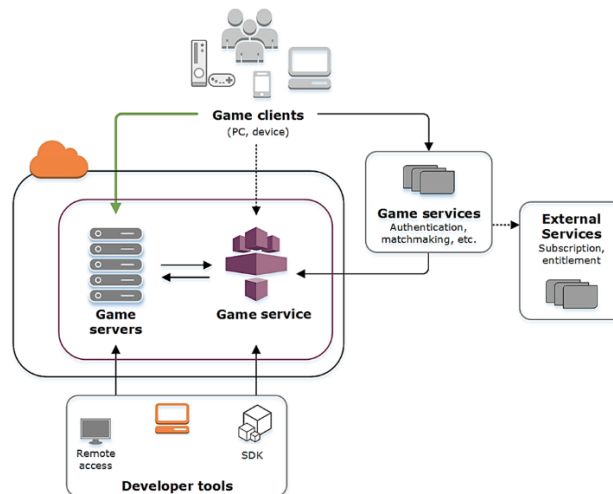
- With the emergence and trend of VR, AR, A.I., and smart technology, the dependency on new gaming consoles are also emerging. Thus it becomes challenging for gamers to keep on upgrading their gaming consoles with match to the gaming specifications.
- Oversaturated Market for Gamers, Developers and the Content providers because of centralized ecosystem is hampering the functional, economical & social value of gaming industry.
- Lack of incentivization or disproportionate rewarding mechanism for gamers resulting in reduced engagement.
- Lack of accessibility for gamers due to lack of universal index or recommendation generator of games.

### THE ULTIMATE ENCOUNTERS

- ✓ *Setting up dedicated cloud infrastructure for gamers to experience boundless arena of games.*

It will provide with the universal index of games that gamers would prefer to play. It will also minimize the overwhelmingly stressful thought of gamers over the gaming console or other hardware dependencies that reduces the level of gamer’s participation in the gaming platform.

- ❖ HashCash assists in setting up the cloud infrastructure for Gaming Providers.
- ❖ HashCash assists in setting up security configurations such as IAM, ports routing, IP Tracking, DDoS & Malware protection, Wallet Security using AES 256 & Md5 encryption standard & SSL Configuration.



✓ *Setting up of Decentralized Gaming Ecosystem for Gamers to participate*

- ❖ Assisting in setting up blockchain network in line with HC NET
- ❖ Assisting in setting up blockchain network node. The blockchain core is compatible with other leading blockchain networks. Thus supporting other coins and ERC tokens to be easily integrated with the network.
- ❖ Setting up the blockchain wallet
- ❖ Setting up compliance server for managing KYC details.
- ❖ Assisting up API layer for blockchain network to integrate with the gaming platform.
- ❖ Creating Network performance dashboard for monitoring the performance of the blockchain nodes.
- ❖ Creating blockchain IO for monitoring the transactions ledger.

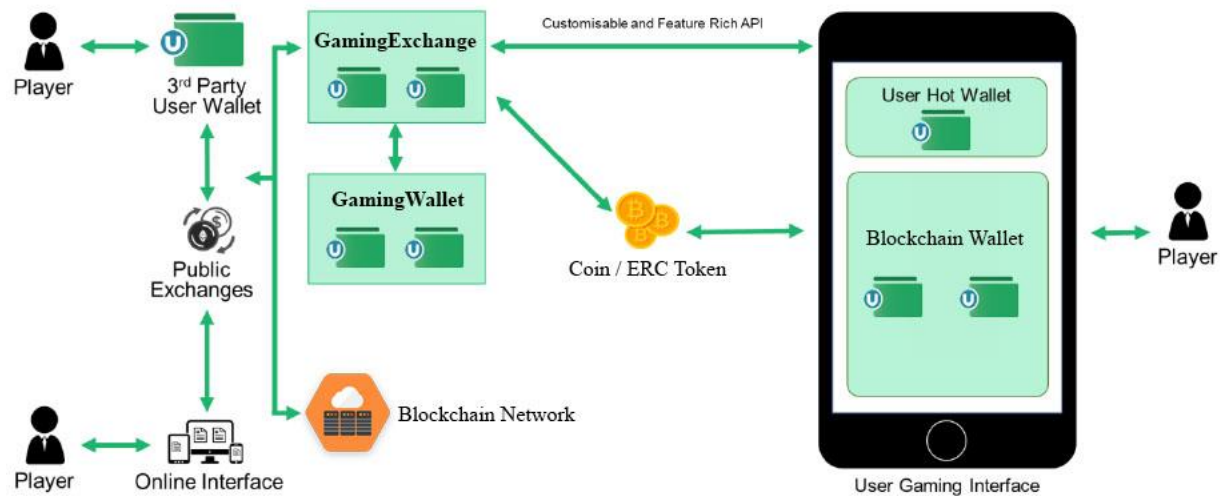


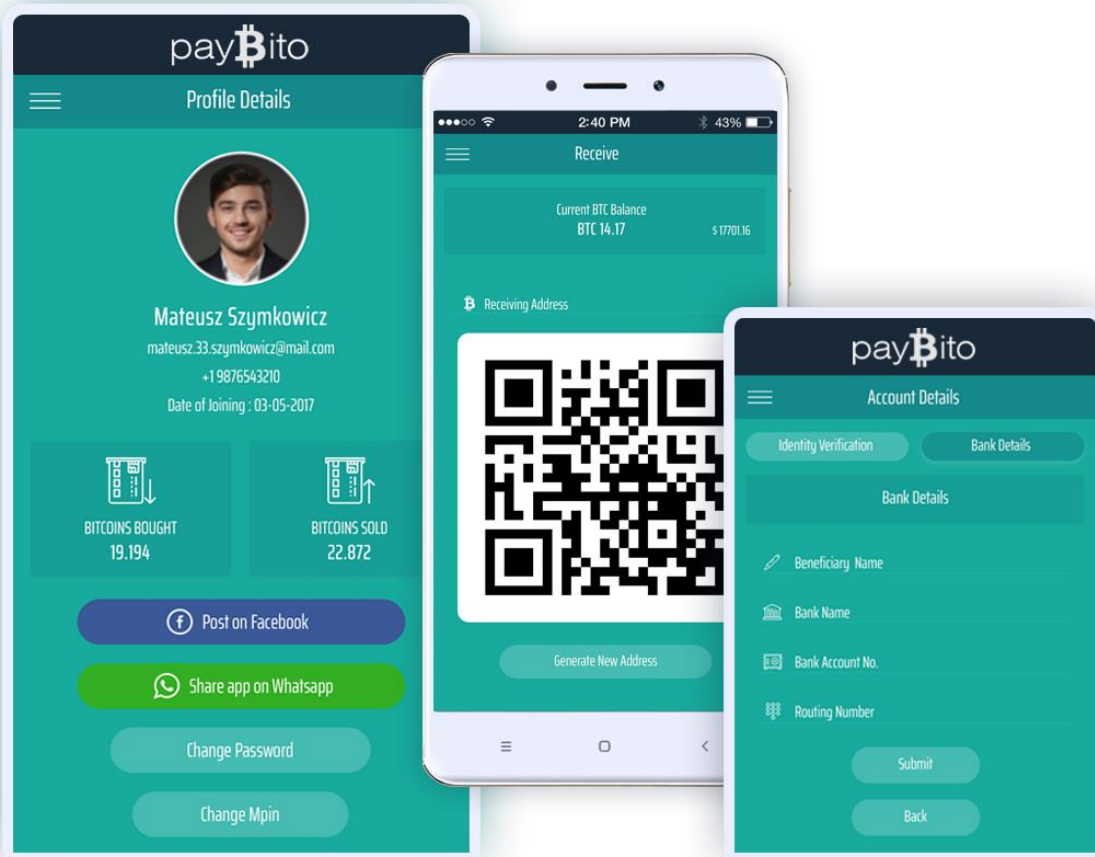
Fig 3: Gaming System Architecture





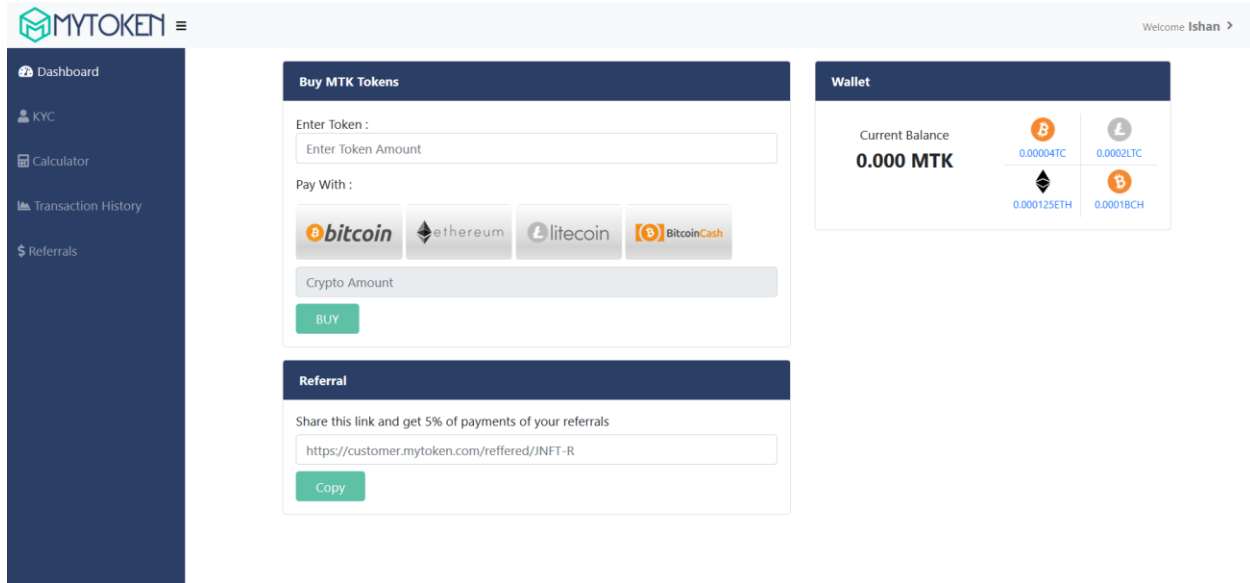
## ✓ Create / Integrate your Gaming Token

- ❖ Create the native digital asset on the blockchain or integrate your created ERC token on the network
- ❖ Create root account or integrate the contract's owner account with the blockchain wallet
- ❖ Flush root accounts with initial number of coins / tokens in wallet
- ❖ Exposing API's for Sending and Receiving Coin / Token



✓ ICO

- ❖ Integrating the web-wallet with the blockchain wallet for coin distribution
- ❖ Creating Referrals and Promotional programs for ICO distribution
- ❖ Assisting in dissemination of coins / tokens to ICO participants
- ❖ Assisting in listing of coins / tokens in leading & affiliate exchanges



The screenshot displays the MYTOKEN dashboard interface. On the left is a dark blue sidebar with navigation options: Dashboard, KYC, Calculator, Transaction History, and Referrals. The main content area is divided into three sections:

- Buy MTK Tokens:** A form for purchasing tokens. It includes an input field for "Enter Token Amount", a "Pay With:" section with buttons for Bitcoin, Ethereum, Litecoin, and BitcoinCash, and a "Crypto Amount" input field with a "BUY" button.
- Referral:** A section for sharing a referral link. It contains the text "Share this link and get 5% of payments of your referrals" and a text box with the URL <https://customer.mytoken.com/referred/JNFT-R>, accompanied by a "Copy" button.
- Wallet:** A summary of the user's current balances. It shows "Current Balance 0.000 MTK" and four sub-balances: 0.00004TC (Bitcoin), 0.0002LTC (Litecoin), 0.000125ETH (Ethereum), and 0.00018CH (BitcoinCash).

The top right of the dashboard shows the user's name "Welcome Ishan" with a right-pointing arrow.

## ✓ Gaming Exchange & Integration with Gaming Platform

- ❖ Setting up the white label gaming exchange
- ❖ Pairing with base currency like Fiat (USD) or Crypto (BTC / ETH / Crypto of choice) for coin / token to trade.
- ❖ Setting up features like Market, Limit, Stop Orders, Margin for placing orders and increasing the volume of trade.
- ❖ Setting up of Admin Console to manage gamers, developers and other stakeholders
- ❖ Setting up Multiple Access Control levels for Admin console
- ❖ Setting up Admin Panel for managing & creating trading pairs
- ❖ Setting up incentivization and reward modules for gamers.
- ❖ Exposing exchange API's for integrating with the Gaming Platform

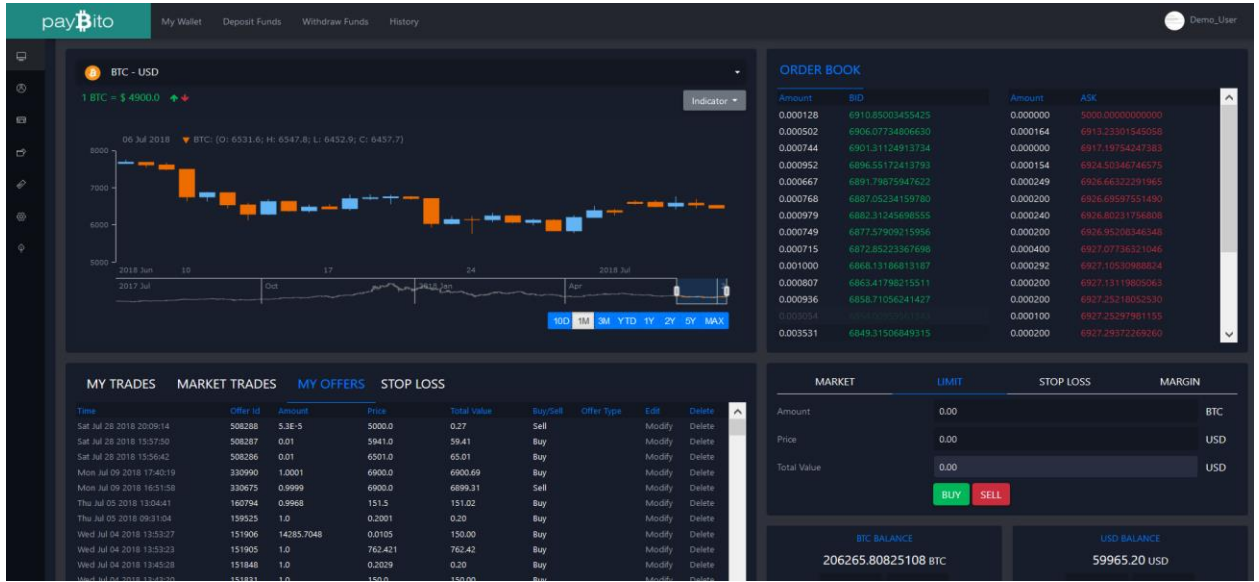


Fig 5: White Label Exchange for Gaming

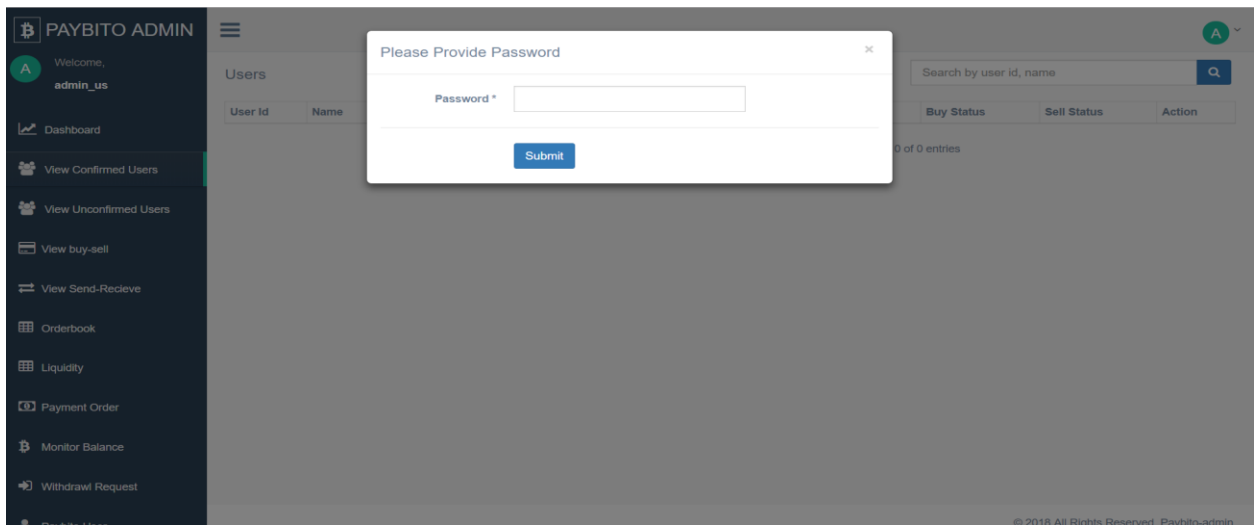
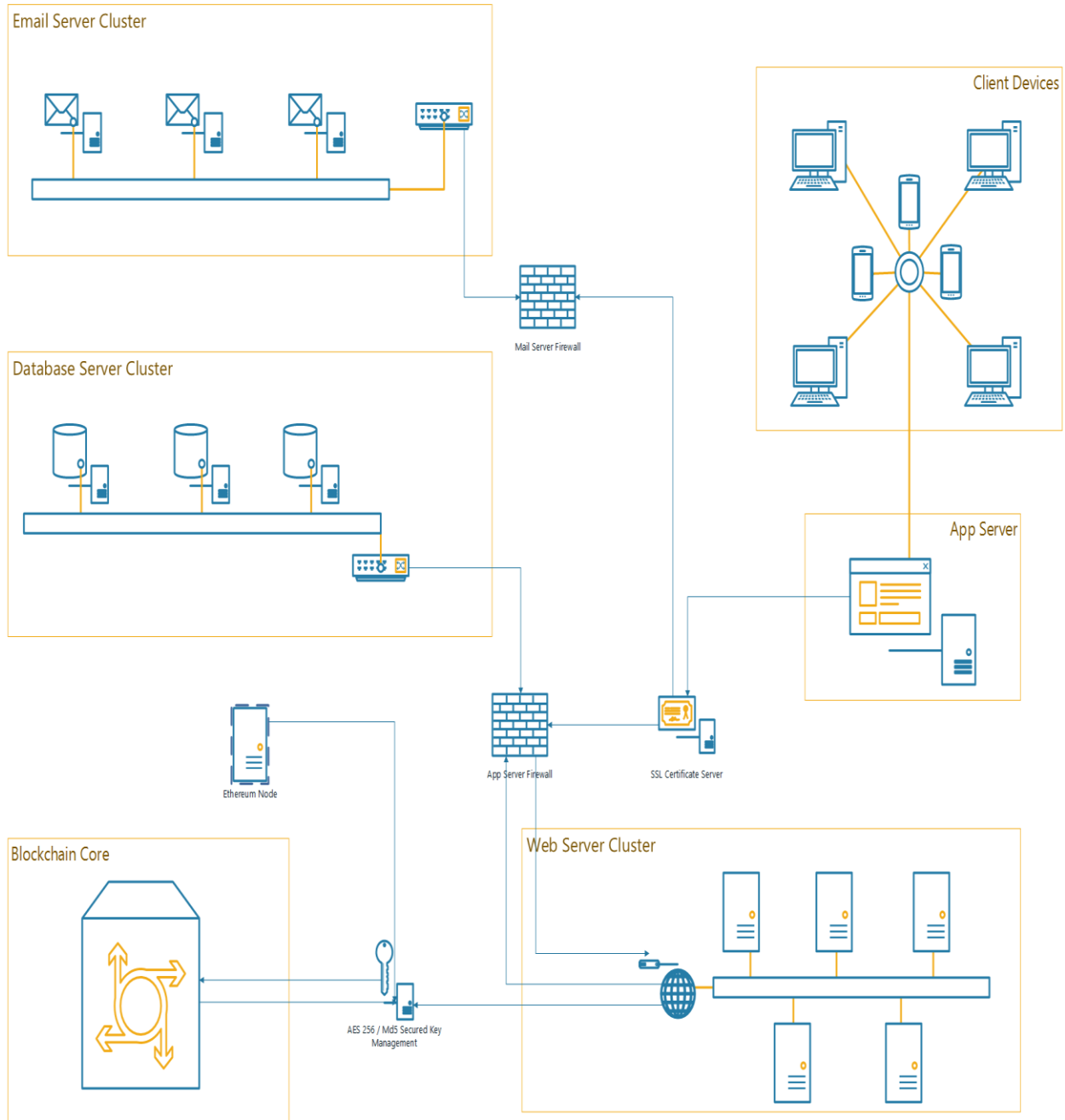


Fig 6: Exchange Admin Console for Backend Operations

## STRATEGY – The Network Playground



## Scoreboard!!

- ✓ Simple, Secure and Fun to use
- ✓ trustworthy mechanism for storing and moving funds
- ✓ Support for ICO
- ✓ Manage transaction costs using Admin Console
- ✓ Support for cold wallet, hot wallet and hardware wallet integration with multi-signature security
- ✓ Compatible with ERC tokens and other blockchain coin integration
- ✓ Customized module for gaming payment options
- ✓ Support for customized KYC and IAM to honor regulatory norms of
- ✓ Dedicated infrastructure for supporting 99.9% uptime
- ✓ Manage transaction costs using Admin Console
- ✓ Exchange margin features enabled for higher transaction
- ✓ Well defined access controls to manage funds
- ✓ Full functionality accessible from smart devices
- ✓ Support for coin / token dissemination to ICO participants
- ✓ Easy to integrate with third party exchanges for liquidity management
- ✓ Support for third party wallet integration
- ✓ Support for single Sign-In for Exchange, Admin console and gaming interfaces
- ✓ Customized module for incentivization and reward mechanism
- ✓ Support for high value concurrent transaction
- ✓ Customized Reporting for detailed user information's, transaction details, promotional details and network details
- ✓ Integrated security measures such as AES 256 & Md5 encryption support, DDoS & Malware protection, Firewall, Port Management, IP Tracking & Auditing enabled, BIP 32, Firebase & SegWit
- ✓ Support for both Fiat and Crypto base to trade



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