



# HOYOS RISEN COIN WHITE PAPER LITE

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Note: RISEN Coin represents the latest unrivaled technologies and innovative solutions developed by the global team at HOYOS in secure communications and data services; secure cryptocurrency; secure identity protected transactional blockchain; and secure identity, all with the mission of protecting the security and privacy of individuals as well as institutions. Active research and development is underway, and this whitepaper may be updated periodically. The full version of the whitepaper can be found at [hoyosrisen.io/secure/RISEN\\_Coin\\_Whitepaper.pdf](http://hoyosrisen.io/secure/RISEN_Coin_Whitepaper.pdf)

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# 1. INTRODUCTION

Imagine never fearing that someone is listening to your most private conversations or stealing your most personal data. If you knew how to protect yourself, wouldn't you immediately do it? We can protect you today! At HOYOS Integrity Corporation (HOYOS), utilizing the same Operating System (OS) technology that protects the entire U.S. weapons arsenal, we have invented the world's most secure biometrics-enabled smartphone we call RISEN that is impervious to malware and hackers which will protect your voice calls, cryptocurrency, data, identity, transactions, and privacy. This is a brief of our white paper about our RISEN smartphone and its revolutionary new secure transactional platform that is changing the mobile wireless and cyber security industries, how we manage identities, protect communications, cryptocurrencies, data, transactions, and their respective security and privacy. Leveraging our unique RISEN smartphones, we have created a much-needed secure environment for applications that must be 100% secure and are biometrically authenticated with the individual's unique identity. We call the platform the **Hoyos Real-time Impervious Secure Environment (H-RISEN)**. Additionally, at Hoyos we believe that part of our mission is to educate about the benefits of blockchain and cryptocurrency. We know that change does not come easy, in particular to institutions such as multinationals and governments, so our platform also facilitates a transition path to such institutions that can ease their way into the world of cryptocurrencies. To that effect, these institutions will enter into a payment processing agreement with a CRYPTO BANK we are establishing that will enable them to pay in traditional currency, which in turn is exchanged into our own RISEN Coins (RSN) for corresponding payments of certain secure transactions.

Why is this needed? Because today, our smartphones have become as ubiquitous as the clothing we wear, making us completely dependent on them to stay connected to friends, family, and work. This started out as a good thing but has evolved into a real and active threat to our security and privacy, because everything we do on our smartphones is vulnerable. The most popular smartphone Operating Systems, including Android and iOS, have spyware/malware that have become so widespread and pervasive that everyone's digital lives are being watched, tracked, eavesdropped, and outright stolen. Google reads all of your email and tracks everywhere your smartphone goes-even if it is on "airplane mode". Criminals anonymously and unbeknownst to all of us inject malware into billions of smartphones to scrape logins and passwords, access bank accounts, steal our voice call/data in memory **before** it encrypts by means of RAM-scrapers. State-sponsored hackers steal sensitive corporate and government documents. There is no security at all for our communications, our data or even our identity, and much less, any privacy- at all.

H-RISEN is a platform impenetrable to malware and thus hackers, built from the ground up for security. Our platform ensures 100% security for your voice and data communications, your identity, your digital assets such as your personal photos, sensitive work data, medical records, and yes, your crypto-currency private keys. It also secures transactions such as financial trades and other transactions of any type, "signing" and protecting them with your unique biometrics, which in turn protects your identity and privacy.

H-RISEN is built around many unique elements, including:

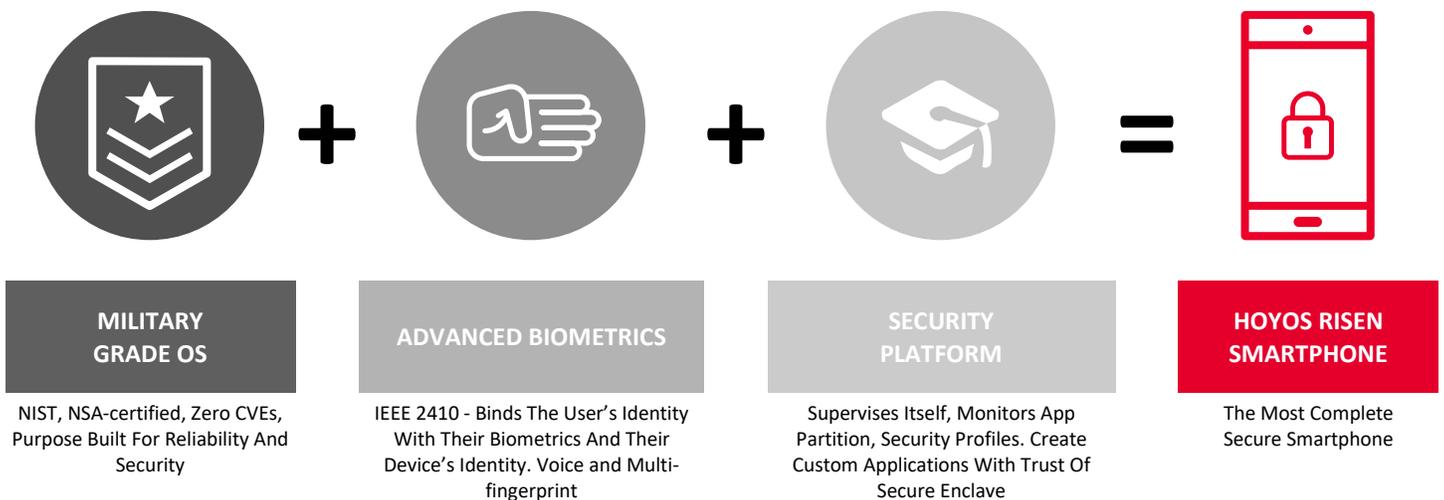
- A new type of smartphone running on a military-grade OS that has no vulnerabilities

- A suite of secure service apps including secure call, messenger, file share, and blockchain-based trades / transactions
- Advanced biometric 3D fingerprint image capture technology called DEDOS
- Blockchain-based IEEE 2410 protocol called BIBLOS that binds a user’s identity to their encrypted biometrics on the blockchain and links the user to every transaction, eliminating fraud
- A cryptocurrency called RISEN Coin that facilitates payments for all services running on H-RISEN
- A nationwide wireless 4G network providing wide area high speed data service with an upgrade path to 5G in the near future.

The H-RISEN platform secures your voice and data communications, and enables countless secure applications like financial trading, medical record access, secure payments, sensitive document sharing, and virtually any type of scenario where information needs to be sent securely with a complete guarantee of privacy-and yes it keeps your cryptocurrency keys secure and with you at all times without any risk of misplacing them, thus protecting your cryptocurrency.

HOYOS is a unique research and development organization, with vast expertise in cyber security, biometrics, identity, blockchain, and mobile communications. Our team is responsible for creating some of the world’s most successful smartphones that shipped hundreds of millions of units worldwide; developing innovation that became IEEE standard IEEE2410; developing unique biometrics technologies for others to follow; amassing over 125 patents issued/pending and counting. We are uniquely positioned to leverage our proprietary technology and know-how to deliver to the global markets a number of much needed secure services. This makes us a unique provider of secure Cyber and communications services, the only one that can guarantee the security of your identity, your privacy, and that of your digital assets. H-RISEN is available for anyone to build on and charge for usage with our RISEN Coin.

There are two types of H-RISEN. One that works only with our proprietary and secure “RISEN” line of smartphones, which provides you absolute security and privacy, because they are designed and built from the ground up with security in mind exclusively utilizing the same Operating System (OS), known as Integrity 178B, that for the last twenty (20) years has protected the US military’s nuclear assets without a single hack or vulnerability.



## 2. USE CASE EXAMPLES

H-RISEN can process all digital assets (files, trades, purchases) with smart transactions that go into the blockchain permanent ledger.

For example, a financial institution can issue Hoyos RISEN Smartphones to their traders. Before making **each trade**, the employee must biometrically authenticate using the device. Then the trade is executed using our Secure Transaction service and an audit trail of all the specifics is permanently logged in the blockchain, including the amount, time, trader identity, and other pertinent information.

Any legal document that requires access from multiple parties and may have a resulting action based on approval by all parties can be managed as a Secure Transaction “Smart Contracts”. An example would be payment from escrow in a real estate transaction. Hoyos provides security with biometric authentication, access control, and execution through the blockchain technology. The resulting agreement is captured using our blockchain technology and secured through Hoyos Biometrics for future reference so a clear path of “ownership” is identified and never in question. This reduces cost and effort avoiding potential disputes.

Corporate and government communications of sensitive material can be secured with confidence. Not only will your conference calls be secure through our Hoyos RISEN Smartphone, but our document sharing is also secured. Again, this is done exclusively with HOYOS’s devices. Providing biometric authentication of users, access controls, and blockchain encryption technology. Documents, blueprints, photos, presentations, etc. can be securely shared by only those who should have them. Additionally, the blockchain technology tracks who sees them, when, and what if any changes are made providing security and accountability.

These transactions are all handled in our devices with our Hoyos Blockchain technology which ensures total security as well as a thorough and complete audit trail of every document and all of its transactions. The transactions are all paid for with RISEN Coin, our secure cryptocurrency specifically designed to support secure file transactions at a fixed price.

## 3. MARKET OPPORTUNITY



### MARKET RESEARCH

The market recognizes the need for more IT security. In fact, global demand for cybersecurity products and services is projected to grow to US\$205 billion by 2025, a 169% increase and a 12% CAGR from US\$76.4 billion in 2016, North America will account for US\$67 billion of this demand.

## CONSUMER MARKET

Consumers can have digital security offered through the unique combination of device security and blockchain technology available only on the Hoyos RISEN Smartphone. In the 2017 Consumer Cybersecurity Confidence Index, 60% of consumers cited password breaches as their biggest concern about online security.<sup>1</sup> The biometric integrated into the Hoyos RISEN Smartphone provides the security to address these concerns and give confidence to the consumer as their data identity continues to grow.

## ENTERPRISE AND GOVERNMENT MARKETS

Enterprises and governments recognize the threat and are willing to pay significant expense to protect themselves and their profits. HOYOS can deliver a solution that will provide security where enterprises and governments see the greatest risks.

86% of IT professionals see Mobile devices as the fastest growing risk to corporations. Their concern is real, causing worldwide security service spending to top \$7B in software alone. HOYOS can provide the security solution to help alleviate this additional cost to enterprises.

## ICO MARKET

Per data from ICO Raises<sup>2</sup>, ICOs have raised approximately \$3.494 billion through Dec 15, 2017. As of December 19th, 2017, according to Coin Market Cap<sup>3</sup>, the total value of the tokens held by crypto market participants, the market cap, is roughly \$600 billion USD. Therefore, financial experts agree there is significant capital still available in the market for ICOs. Block X Bank & Company<sup>4</sup> estimates that there is additional demand for \$3B to \$5B in ICOs as of December 2017.

# 4. BUSINESS MODEL

## A SECURE TRANSACTION ECOSYSTEM

The H-RISEN platform introduces a complete secure mobile ecosystem for safe, secure communications, identity authentication, apps, file transactions, trades, and payments with no centralized banking authority; and, yet no potential for fraud, and a 100% verifiable public audit trail.

Hoyos RISEN Smartphones can be deployed as Point-of-Sale (POS) devices as well as digital wallet (payment devices) which ensure the security of all data and transactions created and received. All payments are transacted using RISEN Coin (RSN) cryptocurrency.

## HOYOS RISEN SMARTPHONE

This is the device that makes all of the secure services possible. We include the Hoyos RISEN Smartphone as part of a monthly subscription, similar to the way your cable box is included when you sign up for cable service. The Hoyos RISEN

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<sup>1</sup> RSA.com: <https://www.rsa.com/content/dam/pdfs/5-2017/rsa-consumerconfidenceindex-ebook.pdf>

<sup>2</sup> ICO Raises: [www.icoraises.com](http://www.icoraises.com)

<sup>3</sup> Coin Market Cap: <https://coinmarketcap.com/>

<sup>4</sup> Block X Bank & Co: <https://www.blockxbank.com/>

Service is an all-inclusive wireless bundle that includes unlimited calls, texts, and data as well as the cost of the smartphone and the Hoyos Secure Application Suite, without transactional costs.

## **SECURE TRANSACTION SERVICE**

Our blockchain-based transaction service allows a Hoyos subscriber to create and share a document, a payment, or a trade with others in a 100% secure manner, with a completely biometrics-identity-secure and tamper-proof audit trail. Digital assets can be edited, viewed, shared, copied, stored and merged; and, every one of these actions can, depending on customer requirements, add an indelible record to the file-associated blockchain that is linked to the digital identity of the person that performed the action on the document validated by their unique biometrics.

## **5. GO-TO-MARKET STRATEGY**

HOYOS is launching its service globally as a bring-your-own-SIM global secure smartphone service. Users will contract with Hoyos for monthly secure service paid in local currency or our RSN tokens. The service will include the RISEN smartphone, which will be sent to the user from our DC.

In the U.S. HOYOS is launching its service as a Mobile Virtual Network Operator (MVNO) on the T-Mobile network. This strategy allows us to own the customer relationships, sales process, promotions, and set the rate plans and launch dates, essentially controlling our own destiny. Lastly, by launching our own service, we can ensure the integrity of our security solution by maintaining ownership of both the network and devices.

HOYOS will pursue both a direct approach and a channel approach in targeting the US market utilizing distribution partners. In both cases, we will adopt a three-pronged strategy focused on consumer, enterprise, and government channels. Each strategy will address the nuances of each channel while delivering the same underlying security allowing for secure voice service, secure texts, and secured exchange of data files.

In international markets, the initial strategy is a bring-your-own-SIM business model in order to offer service from day one. However, over time we will offer the HOYOS service on the networks of established wireless carriers and utilizing specialized channel partners to sell our services to their enterprise and government accounts as well as high-end consumers. This affords us a fast ramp to providing service without having to install our own local service infrastructure in each market. Overall, we plan to launch in 26 markets outside the US.

While our government and enterprise customers will be on a large account structure, our consumer customers will use RISEN tokens to pay for their service. Customers will have unlimited voice, text and data in the US and unlimited data roaming to select markets. International data roaming will be provided to select markets, similar to T-Mobile's international data roaming offering today. The unlimited usage will be subject to some restrictions to avoid abuse.

This offering is unique in that it will be the only fully-bundled mobile service offering that is 100% payable with cryptocurrency. In addition, the service is 100% secure, offering the user complete security and anonymity.

## 6. COMPETITION

**All commercially available smartphones are based on vulnerable operating systems. Ours is not.**

A quick check of the National Vulnerability Database<sup>5</sup> will show all known vulnerabilities of commercially available software, including operating systems. A query on Android will, at the time of this writing, yield 4,166 vulnerabilities. iOS shows 2,575.

Customers using any type of secure file sharing service such as Signal or WhatsApp are vulnerable to a large number of widely used malware attacks that can hit any Android or iOS smartphone and steal data before it is encrypted or listen to conversations before the voice stream is encrypted.

Customers using blockchain based file services can take advantage of the blockchain permanent ledger features, however the transactions on those files are not immutably linked to the biometrics of the individual accessing the file and further, the file can still be stolen when it is accessed on the endpoint smartphone or computer.

Our service is the only one that combines all three necessary elements: 100% secure endpoint access, blockchain permanent ledger audit trail, and complete biometric authentication integration.

## 7. TECHNICAL OVERVIEW

Hoyos delivers the IEEE-2410 Standard to validate biometric authentications on the secure device. We utilize our proprietary biometric technology that we call DEDOS. DEDOS is a touchless fingerprint reader using the high-resolution camera of the secure device thus providing 150 DOF (degrees of freedom). The data encryption and decryption flow is run through IEEE-2410 which interacts with the blockchain as outlined in the following diagram. The combination of IEEE-2410 and DEDOS guarantees the identity of the secure device's owner and proof of ownership of device and blockchain addresses.

## 8. INITIAL COIN OFFERING PRESALE

A presale offering of RISEN Coin is schedule to begin May 1, 2018. For more information please contact Hoyos Integrity at HoyosRISEN.IO

## 9. HIC MANAGEMENT TEAM



**HECTOR HOYOS**  
CHAIRMAN, CEO & CTO

Hector Hoyos is a leader in the biometrics and IT industries. As the founder and president of various cutting-edge companies with extreme vision, he has created state-of-the-art technologies such as fingerprint, face and iris identification systems, and interactive financial transaction systems. He holds 100+ patents issued/pending, an IEEE standard in IEEE2410, and has developed solutions being used by millions of people around the world. *(The complete management team can be viewed on HoyosRISEN.IO website.)*

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<sup>5</sup> National Vulnerability Database: <https://nvd.nist.gov/>

## 10. NOTICE AND DISCLAIMER

The complete Whitepaper is important and should be read in its entirety. This is a brief of the whitepaper. To obtain a copy of the complete Whitepaper please contact Hoyos Integrity through their website [HoyosRISEN.IO](https://HoyosRISEN.IO)

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