

# Tokenize Payroll: Using Blockchain Technology and Cryptocurrency to Revolutionize Global Payroll

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Jarib Figueredo, International Payroll Analyst and Founder at HorusPay



[www.HORUSPAY.io](http://www.HORUSPAY.io)

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## 1.0 ABSTRACT

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HorusPay is a decentralized Global Payroll Portal that allows global entities to exchange private, encrypted, secured data with international payroll vendors using blockchain technology. As an alternative payroll solution, HorusPay offers distinct benefits. With HorusPay, global entities can:

**Eliminate the middleman.** By eliminating legacy payroll providers and aggregators, global entities can avoid high fees and inefficient, triangulated communications.

**Choose in-country vendors.** HorusPay is the only Global Payroll Portal that allows global entities to bring their own payroll provider—letting them select the best vendor.

**Use one global portal.** Global entities can standardize the payroll process and reduce their workforce by consolidating their efforts with HorusPay's Global Payroll Portal.

**Streamline paying employees.** Global entities can streamline payroll by paying employees with cryptocurrency. In the future, recipients will be able to convert cryptocurrency into fiat currency\*.

**Integrate with common Human Capital Management (HCM) systems\*.** In the future, data will flow automatically from HCM systems to the HorusPay portal—reducing errors and delays.

HorusPay is set to be the first Global Payroll Portal using blockchain technology and cryptocurrency—revolutionizing the way global entities pay employees. This whitepaper outlines the problems with legacy global payroll providers and aggregators, the HorusPay solution, the token model, and the core benefits of using blockchain and HorusPay for global payroll.

*\*Future capability.*

## 2.0 PROBLEM

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Global payroll is a common headache for global entities. The current system is complex and faulty because it's plagued by obscure laws and regulations, inefficient communications, and middlemen who strive to simplify global payroll, but complicate it further. When a company outsources payroll to a global payroll provider or aggregator, the entity experiences four common problems.

**2.1 Problem One: Low quality vendors with high fees.** The vast majority of organizations that use legacy global payroll services don't contract with a global payroll provider, they contract with a global payroll aggregator. These aggregators are incentivized to hire the lowest bidder in each country rather than the vendor that provides the best service. Furthermore, these aggregators charge a substantial premium to the corporation. Comparatively, HorusPay expenses are 50%-80% less than legacy system costs (depending on the payroll vendor).

**2.2 Problem Two: Inefficient, error-prone communications.** These aggregators relay questions and requests from the global entity to the local payroll vendors. These triangulated communications can lead to missed messages, incorrect translations, and payroll data entry errors. In other models, global entities are asked to create and use customer relationship management (CRM) shared inboxes. Unfortunately, these inboxes are not monitored consistently, and global entities experience frustrating delays.

## 2.0 PROBLEM (continued)

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**2.3 Problem Three: Slow international transactions.** According to a report published by The Clearing House and Federal Reserve Financial Services, "...the process of reconciling incoming wire transfer payments with invoice information remains manual, time consuming and prone to error."<sup>1</sup> Wire transfers generally take 1-5 days and can cost up to \$65 per transfer<sup>2</sup>. Similarly, with traditional automated clearing house (ACH) transfers, although same-day processing is an option, most ACH deposits take several business days to complete<sup>3</sup>.

**2.4 Problem Four: Security concerns.** Even payroll giants that spend millions of dollars on security cannot fully protect payroll data and information. Many global payroll providers have been hacked. For instance, as reported in 2016, cyber thieves stole employee tax and salary information from a dozen companies that use a leading global provider of cloud-based HCM solutions<sup>4</sup>.

## 3.0 HIGH-LEVEL SOLUTION

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HorusPay is using blockchain technology and cryptocurrency to revolutionize global payroll. HorusPay's decentralized Global Payroll Portal will let global entities exchange private, encrypted, secured data with international payroll vendors.

### 3.1 How It Works: HorusPay Token Model and Distribution

Horus token is a utility token. Owners of Horus token can access the HorusPay Global Payroll Portal to host and exchange payroll data. Each individual Horus token represents a single employee in a company. In turn, global entities should have an equal number of tokens and employees (e.g 500 employees and 500 tokens)—more employees warrant more payroll data hosted in the HorusPay Portal. To ensure the initial distribution of tokens is fair, HorusPay used a June 1, 2018 EOS token sale snapshot and will distribute tokens on a one-to-one basis with EOS holdings. The HorusPay token airdrop is scheduled for June 30, 2018.

- Total supply: 1,200 million
- Airdropped to EOS holders: 900 million
- Horus Foundation: 300 million

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<sup>1</sup> Isaacson, K., Farrar, H., Valentine, S. E., & Fiorillo, M. (n.d.). *Business-to-Business Wire Transfer Payments: Customer Preferences and Opportunities for Financial Institutions*(Rep.). Retrieved June 3, 2018, from The Clearing House and Federal Reserve Financial Services website: <https://www.frbservices.org/assets/news/research/wire-transfer-research.pdf>

<sup>2</sup> Moon, C. (2017, March 14). Wire Transfers: What Are They and How Much Do They Cost? Retrieved June 3, 2018, from <https://www.valuepenguin.com/banking/what-are-wire-transfers>

<sup>3</sup> Tierney, S. (2018, May 10). ACH Transfers: How They Work. Retrieved June 3, 2018, from <https://www.nerdwallet.com/blog/banking/ach-transfers/>

<sup>4</sup> Pagliery, J. (2016, May 4). Cyber thieves siphon tax forms from ADP payroll data. Retrieved June 3, 2018, from <http://money.cnn.com/2016/05/03/technology/adp-w2-forms-stolen/index.html>

## 3.0 HIGH-LEVEL SOLUTION (continued)

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### 3.2 HorusPay Proof of Stake Details

In order to access the portal, users need to stake the Horus token. Every 30 days—until Horus dollars reaches its distributed consensus of \$1,200,000,000.00 (approximately 82.19 years)—the Horus token will generate another digital asset called Horus dollar at a 0.1% rate. When Horus dollars reaches its distributed consensus, the Horus token will no longer be stakeable.

### 3.3 HorusPay Payroll Vendor Access

Any payroll vendor can use the HorusPay Global Payroll Portal for free if they agree to accept Horus dollars as payment (from token holders) in exchange for payroll services. This requirement will only be enforced in countries with Horus dollar liquidity (i.e. the payroll vendor can immediately exchange Horus dollars for fiat currency when they are paid). The alternate option is for vendors to acquire 1000 Horus dollars Payroll node. Once a vendor has access, the vendor can exchange data with multiple clients and be listed in HorusPay's International Payroll Vendor Marketplace (details in section 3.4.3) for the lifetime of the Payroll node.

### 3.4 HorusPay Three-Phase Implementation

The HorusPay Global Payroll Portal simplifies enterprise adoption by eliminating the middleman and integrating with HCM systems. HorusPay will be implemented in three phases.

**3.4.1 Phase 1: Eliminate the middleman.** In phase one, HorusPay will deliver on the core functionality—enabling direct and secure communication of payroll information with in-country payroll vendors. Global entities will be able to bring their own preferred payroll vendor or adopt a fully vetted HorusPay partner vendor.

**3.4.2 Phase 2: Integrate with HCM systems.** In phase two, HorusPay will deliver on key connectivity components. This will allow data to automatically flow from HCM systems to the HorusPay Portal. The payroll team will no longer need to manually enter data for each country. The data can be reviewed by the assigned payroll specialist and once approved, it will be visible to the in-country payroll vendor for processing.

**3.4.3 Phase 3: Disburse payroll using cryptocurrency (Optional).** In phase three, HorusPay will enable a cryptocurrency payroll disbursement option. HorusPay strives to be the first enterprise-ready global payroll portal with cryptocurrency disbursement. This eliminates the wait time and cost associated with current international transaction options like wire transfers and ACH transactions.

HorusPay's International Payroll Vendor Marketplace will also be implemented in phase three. This marketplace will list all participating international payroll vendors and HorusPay partners. It will include a review rating system of international payroll vendors validated by blockchain technology—making it transparent, incorruptible, and trustworthy.

## 4.0 SOLUTION DETAILS AND BENEFITS

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### 4.1 Benefits of Using Blockchain for Global Payroll

By using blockchain technology for global payroll, global entities can complete faster transactions, reduce costs, and experience better security. By creating uneditable, transparent records and vendor reviews, blockchain makes it easy for global entities to research new payroll vendors.

### 4.2 Benefits of Using HorusPay for Global Payroll

As an alternative payroll solution, HorusPay users can work with high quality vendors, minimize expenses, and automate data flow, while increasing accuracy and improving communications.

**4.2.1 Control of high quality vendors.** As the only Global Payroll Portal that lets global entities bring their own payroll providers, global entities can choose the best provider for their payroll needs. With HorusPay, global entities become a direct client of the in-country vendors. This puts global entities in control of the vendor relationship, rather than the middleman. Since token holders can access the HorusPay Global Payroll Portal, they can eliminate the high fees traditionally paid to the middleman. These savings can be used to purchase services from higher quality vendors.

**4.2.2 Employee and cost reduction.** By using a single payroll portal, global entities can easily document payroll processes on a global level. With HorusPay, one payroll specialist can handle up to eight countries and the HCM integration can save up to 16 hours per week of data entry per global payroll specialist. This equates to 832 hours each year (16 hours X 52 weeks). On average, a Senior Payroll Specialist makes \$49,829 per year or \$23.96 per hour<sup>5</sup>. This could lead to a corporate savings of \$19,931.60 per year, per payroll specialist. By simplifying payroll, global entities can consolidate their payroll efforts, standardize the process, and reduce their workforce.

**4.2.3 Automated data integration and increased accuracy.** In addition to a manual upload option, HorusPay will use an application programming interface (API) to integrate connector files to support various HCM systems. With this future HCM integration, data will automatically flow (via connector file) from the global entity's HCM system to the HorusPay portal. This data can be accessed by each in-country payroll vendor. This interoperability will minimize costly payroll errors and delays.

**4.2.4 Effective communications.** Without a middleman, global entities can communicate directly with in-country vendors, or HorusPay partner vendors. This direct communication eliminates triangulation issues and minimizes preventable errors.

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<sup>5</sup> Senior Payroll Specialist Salaries. (n.d.). Retrieved June 6, 2018, from <https://www.simplyhired.com/salaries-k-senior-payroll-specialist-jobs.html>

## **4.0 SOLUTION DETAILS AND BENEFITS (continued)**

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**4.2.5 Streamline paying employees.** Global entities can streamline payroll efforts by paying employees with cryptocurrency. In the future, recipients will be able to quickly convert cryptocurrency into fiat currency. Unlike wire transfers and ACH transactions, HorusPay's cryptocurrency disbursement can be completed in minutes rather than days.

## **5.0 SUMMARY**

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HorusPay is a decentralized Global Payroll Portal designed to dramatically reduce the friction and cost of onboarding and disbursing payroll to international employees. Using blockchain technology, HorusPay will dramatically reduce payroll costs, errors, and delays, while increasing accuracy and security. The HorusPay solution will give global entities more control over their payroll processes and ultimately lead to faster payroll disbursement for global employees. HorusPay sincerely believes cryptocurrencies are key to creating a single, cost-effective, global monetary system.