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1. Introduction

The cryptocurrency economy has grown enormously from May 22, 2010, when 10,000 bitcoins were first exchanged for two pizzas in Florida, USA. Today the cryptocurrency market is valued at around $2.5 trillion dollars. It is an expanding universe of more than 9,000 different cryptocurrencies that facilitate an endless variety of innovative and revolutionary applications and services.

Today, cryptocurrency is traded on innumerable platforms. It can be deposited and withdrawn at tens of thousands of ATMs around the world. Cryptocurrency finance platforms routinely offer interest rates of greater than 10% to lenders. Digital art and collectibles, known as NFTs, depend on cryptocurrency to be traded between buyers and sellers.

Yet this $2.5 trillion dollar economy remains quite separate from the larger world of fiat currency. It is still difficult for the average fiat currency holder to benefit from participation in the crypto world. And it remains difficult for crypto currency holders to access the benefits of the fiat world. This is a tremendous impediment to crypto adoption.

Alchemy Pay is building the bridge between the crypto and fiat worlds.

In this whitepaper, we describe the scenarios, protocols, and incentives Alchemy Pay has developed to achieve seamless transactions between the separate worlds of crypto and fiat. In short, we describe how the bridge is built.

2. Overview

As recently as 2017, when the total value of the cryptocurrency market was less than a tenth of what it is today, electronic payments outside of the fiat economy were largely unknown to the world. That is beginning to change. But even as the cryptocurrency value surpasses $2.5 trillion, the rules, protocols, verification, and access mechanisms of the fiat world remain native to highly centralized systems that are incompatible with the decentralized underpinnings of blockchains.

It is time to connect the fiat and crypto worlds.

Alchemy GPS Foundation Pte. Ltd. (Alchemy Pay) builds on open source protocols and rapid product development platforms for crypto-fiat bridging systems. We enable participants in both fiat and crypto ecosystems to achieve fast, secure, convenient, flexible and scalable global payment solutions, based on the decentralized smart contracts and consensus mechanisms of blockchain technology.

Our strength is in our team of payment industry veterans. We are experts in wallet payment, cross-border acquisition, enterprise collecting solutions for multi-level distribution, and other traditional payment programs. Combining that with our expertise in blockchain and decentralized ledger technologies enables us to play a leading role in building a bridge between the old world of fiat currency and the new world of crypto-currency.

The Alchemy Pay decentralized payment network offers the following capabilities:

- Open and scalable consensus protocols capable of seamlessly evolving payment industry norms to powerful next-generation standards
- Lightning network technology for real-time transactions

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- Comprehensive support for cryptocurrency payments in a variety of transaction scenarios
- Fast access to necessary SDKs, plugins, and APIs for online/offline "buy now" processing, including seamless integration with smartphone POS apps
- Decentralized network protocols for operation and governance networks, including dispute arbitration, custody, credit scoring, risk control, anti-fraud, clearing, etc., to greatly improve operational efficiency and reduce operating costs
- Basic payment functions and solutions for large-scale commercial applications
- "PullPay," "PushPay," combined payment, subscription payment, and targeted payment in multiple types of account systems
- Visual, simple, standardized smart contract interfacing to lower the threshold for commercial use of smart contracts
- Self-evolving communities and open ecosystems that more innovation technology companies to join the community and promote the development of the industry's public chain
- Robust localization compliance and anti-money laundering programs for different countries and regions

Through the above capabilities, Alchemy Pay makes it possible to integrate cryptocurrency into the global payment macroeconomy at a level that matches demand for speed, convenience, safety, and security for users, with added efficiency and reliability for merchants.

Through the veteran experience and knowledge of Alchemy Pay and its partners in mobile payment applications, Alchemy Pay intends to lead the payment industry's development of blockchain solutions in traditional and popular payment contexts. Blockchain protocols have opened up amazing new ways to incentivise, gain consensus, guarantee the transparent implementation of rules, and much more, and Alchemy Pay is extremely excited to be at the forefront of these developments.

3. Problems To Be Solved

Fiat Complexity & Crypto Bridging

3.1 Fiat Complexity

In order to interface with fiat payment systems, there are numerous challenges that are considered business-as-usual.

- There are many intermediate links to negotiate in the process, and each comes with its own costs and fees.
- Cross-border transactions are especially complex.
- Trusting each intermediary is key to completing any transaction, and the essence of almost any function or functionary in the industry is to facilitate the evaluation, establishment, and maintenance of trust.
- The complexity of these trust functions means commensurate complexity in security and privacy procedures.
- Overall, reconciliation, settlement, clearing, and dispute resolution involve many steps that take time.

The above challenges mean that in places like Southeast Asia, fees can add up to 30%-50% of a transaction, and numerous multi-channel strategies are employed to avoid such fees. Overseas laborers are hit especially hard in their efforts to send funds back home.

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On the other hand, at the enterprise level, a multinational retailer in the Asia-Pacific with retail stores in Sydney, Hong Kong, Dubai, Bangkok, Singapore, and Kuala Lumpur will work through separate sets of payment processing agencies in each country.

The service standards, clearing time, rates, and surcharges of each processor are all different, requiring dedicated departments to reconcile by country.

3.2 Crypto Bridging

Bitcoin was invented and other cryptocurrencies have developed to solve challenges like the ones described above. Tremendous efficiencies and simplifications have been achieved through the core principles of decentralized blockchain ledgers at the heart of cryptocurrency technology, and more are emerging as the industry grows. However, despite the continuous breakthroughs and recognition of many cryptocurrencies for their epoch-making advancements and applications, the current role of cryptocurrency for payment remains small and is growing at a snail's pace.

It can be argued that the reason for this is the sheer inertia of the $80 trillion fiat payment ecosystem. It can be argued that established commercial enterprises that profit from the existing system are resisting change. More fundamental, however, is the essential role of sovereign currency in the geopolitical realm. An especially significant impediment to the progress of cryptocurrency for payment has a lot to do with the prevailing assumption that the goal of cryptocurrency is to eliminate fiat currency altogether.

While many developers are indeed attempting this agenda, Alchemy Pay has chosen instead to build an interface--bridging rather than leaving the fiat world behind--applying our extensive experience in fiat currency payment processing, and leveraging our early entry in blockchain technology. Our bridging agenda divides the challenge into three broad categories:

● Payment functions for commercial applications

To realize large-scale commercial application, there are a number of essential functions, such as:

PushPay & PullPay

PushPay is the auto ACH transfer from payer to payee as initiated by the payer, such as through scanning a merchant's QR code. PullPay involves the authorization of the payee to initiate and complete some or all steps in the process from payer to payee. PullPay is often involved in metered services, such as taxi transportation and utility payments.

Multilevel Accounts

This type of account involves the coordination of multiple authorities in an organizational structure and multiple stream categories such as receive-only and disburse-only. These accounts may be organized within hierarchies of super and sub-accounts for both receiving and disbursing..

● Support functions for commercial applications

Systems like these can only be automated to a certain extent. Constant adjustments must be made as accounts are constantly created and closed and put into different hierarchies as organizations change and adapt to markets and evolving business models. Efficient and knowledgeable operational support for the functions is therefore just as important as the technical functions themselves.

● Performance issues with cryptocurrency itself

Liquidity, cross-chain payment, volatility, and even transparency are among the prevailing issues that remain pervasive in the cryptocurrency realm. In addition, the compromises of cryptocurrency's non-custodial processes are not well understood, and incorrectly viewed as beneficial, rather than as opportunities that still depend on well-designed and executed implementation.

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4. Vision

Alchemy envisions a world of greater financial empowerment, dependability, and transparency for individuals, enterprises, institutions, and governments, regardless of location or wealth, enabled by technologies that bridge the gap between crypto and fiat payment systems.

5. Mission & Goals

Alchemy Pay's mission is to lead in making blockchain services and value accessible with fiat currency and making fiat-based services and value accessible with cryptocurrency. We drive blockchain adoption by bridging the gap between crypto and fiat. Within this mission, we have five goals:

5.1 Decentralization

Decentralization is a core principle of blockchain-based cryptocurrencies, as it has the profound advantage of eliminating highly inefficient, arbitrary, and proprietary procedures for establishing and maintaining trust.

Decentralization of the Alchemy Pay payment network allows access to various assets that can be liquidated without the need for expensive and time consuming trust procedures, including but not limited to various cryptocurrencies, tokens, credit payments and points of credit service providers, various forms of digital assets, and fiat currencies. In each case, decentralization helps us bring users and merchants closer together and reduce transaction costs.

The product architecture of Alchemy is composed of five layers: the access layer, the solution layer, the product layer, the core layer, and the blockchain network layer. Each layer is decentralized and defined through an open payment consensus protocol to ensure consistency with decentralized applications. The consensus protocol can be seamlessly deployed in all major public chains and integrates layer 2 networks such as Lightning Network to meet the demand of real-time transactions and avoid the risk caused by price fluctuations.

Decentralization allows the merchant onboarding process, reconciliation, and settlements to be facilitated through the automated and transparent execution of smart contracts; dispute settlement, exchange, and automated clearing all benefit from decentralized processes. Alchemy Pay adds value by ensuring quality and efficiency with these decentralized operations.

5.2 Large Commercial Application

Alchemy Pay meets the needs of large-scale enterprises by supporting complex account infrastructure, complex PUSHPAY and PULLPAY payment models, and complex transaction types with the efficiency and cost savings of decentralized applications.

We answer the following core demands:

- Support for complex account infrastructure

Including hierarchy accounts, "payment collection parallel" accounts, and payment consolidation accounts, escrow accounts, credit accounts, joint accounts, and high-frequency hotspot accounts.

- Support for complex payment models

This includes C2C (Customer-to-Customer), C2B (Customer-to-Business) and B2B (Business-to-Business). Different business models have corresponding payment models.

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For example, the PushPay & PullPay models discussed earlier, transactions involving escrow, batch payments, salary payments, capital consolidation, fund appropriation, supply chain factoring, etc. With Alchemy Pay, these can involve cryptocurrency transactions, bonus point payments, coupons, tickets, and any other assets that can be represented or constructed digitally.

- Support for complex transactions

Such as combination payments, subscription payments, batch collections, restricted payments, secured payments, split payments, and corporate payments.

- Better support for payment service flow

Traditional electronic payment is variously impeded not only by government administered rules and regulations, but also the interface limitations of centralized payment institutions. Alchemy Pay's decentralized hybrid crypto-fiat infrastructure can reduce the problems of business flow and capital flow, both within and across international borders.

- Smart contracts need to become easier to use and meet the requirements of commercial scalability

Alchemy Pay implements a large number of smart contracts to automate payments. The deep technical expertise required to build and execute a smart contract is entirely different from the knowledge required to determine the appropriate results. Alchemy Pay enables financial experts and others with smart contract needs to work directly with smart contract drafting and implementation tools that are suitable for non-technical users. We also provide convenient smart contracting tools for DAPP developers as well.

5.3 Security and Trust

Alchemy is building a certainty-driven ecosystem through credit scoring architecture.

Decentralized blockchains gave rise to the concept of a "trustless system." It is a reference to the many financial arrangements in the fiat world that rely on a certain degree of faith, or probability, as opposed to certain types of absolute guarantees that a blockchain-based arrangement can establish even between two perfect strangers involved in a transaction.

Nevertheless, blockchains do not eliminate the need for trust-based protocols altogether. Even simple arrangements in the blockchain world can benefit from trust-based tools like credit scores in certain circumstances. The absolute transparency of blockchain transactions, in fact, give blockchain-based credit scores a certain predictive advantage that Alchemy Pay can bring to client enterprises who have related risk-mitigation requirements.

5.4 Sustainable Evolution

Alchemy Pay's ecosystem promotes sustainable evolution through consensus.

Consensus promotes sustainability. Ecosystems that build in consensus mechanisms inevitably and necessarily evolve, too. The key is in how consensus and governance mechanisms promote innovation. The Alchemy Pay team's long experience developing electronic payment systems has demonstrated the importance of granting power to the innovators who are closest to the market, supported by appropriate incentive mechanisms.

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5.5 Low Cost & High Efficiency

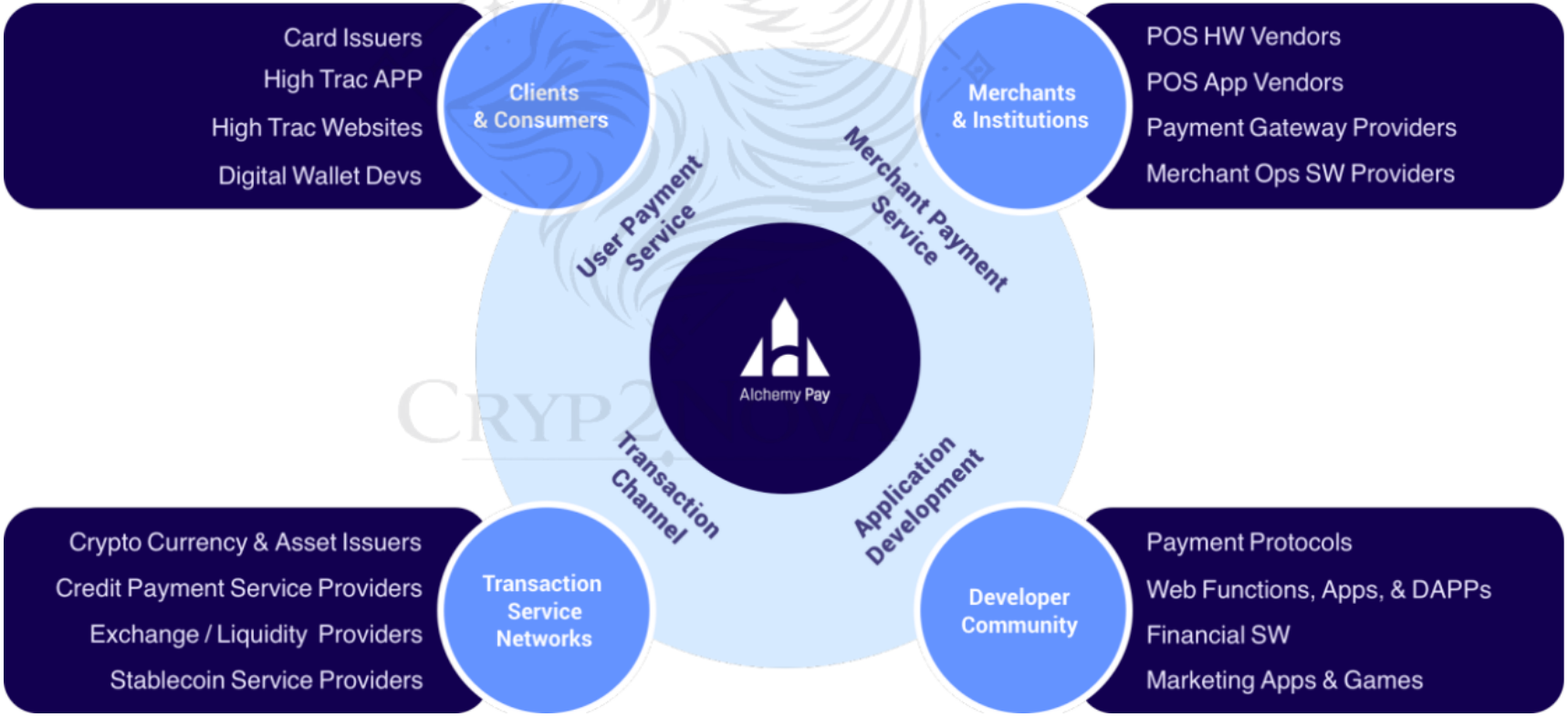
Achieved through the decentralized operational support infrastructure.

Operational tasks include merchant onboarding, merchant IT support integration, merchant customization, dispute resolution, clearing and settlements, customer service, risk management, anti-fraud, and more. In all of these areas, there are opportunities for scalable efficiency through the application of smart contracts within Alchemy Pay's decentralized operational support infrastructure.

6. Ecosystem

The Alchemy Pay ecosystem is composed of partners at the users' end, partners at the merchant/business end, partners of transaction service networks, and our developer community.

Alchemy Pay ecosystem (below)



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6.1 Partner with the User End

Stakeholders	Requirements & Interest	Responsibility in the Ecosystem	Product Form
User	Hold various cryptocurrencies; require attractive consumption scenes; Can overdraw as a credit card; Safe consumption and avoid malicious merchant fraud; Control the consumption data and avoid privacy leakage; tokenization data income Can exchange mobile credit, with universal usage of points obtained from various merchants	Online Purchase; Offline Purchase;	User wallet In-app payment Online payment
E-wallet developer	They have user base and need to provide more usages for wallets	User wallet integration with Alchemy payment solution	User wallet Digital identity APP
Issuers	Bank cards and virtual cards issuers and able to utilize the acquiring network of influential card association such as Visa, MasterCard, Union Pay	1. Apply for Visa/MasterCard, etc. 2. Apple Pay and Google Pay integration 3. Smart POS integration	Virtual card
High traffic website/APP	They have end consumer base and need to provide a secure, fast and low-cost payment for users	Website/APP integration with Alchemy payment solution	Payment SDK/ Plugin/API/ Gateway

6.2 Merchant / Business Partnership

Stakeholders	Requirements & Interest	Responsibility in the Ecosystem	Product Form
Smart POS manufacturer	Integrate Alchemy payment solution with smart POS	Smart POS integration Alchemy solutions	Wallet at the merchant side; Lightning Network+NFC payment solution; Virtual card solution
Merchants/ Corporate service provider	They have merchant base and charge service fees by providing payment solutions	Expand merchants in their respective regions and provide them with ACHPAY payment network solutions including cryptocurrency receipts, universal points, corporate payments	Sales toolkit
Payment gateway service provider	Current payment solutions integration with cryptocurrency related payment solutions	Customized development of payment gateways for various industries and regions; merchant technical access support	SDK Plugin.API.gateway sidechain (may issue their own tokens)
Software developer	Integrate competitive payment solutions in their software (multilevel account fund collection)	Software integration with Alchemy Pay payment solutions	SDK.Plugin.API.gateway.
Industry solution provider	Integrate competitive industry payment solutions into their solutions	Cooperate with Alchemy and ecosystem partners in customizing industry solutions	Industry solutions sidechains (may issue their own tokens)

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6.3 Txn Service Networks Partnership

	Requirements & Interest	Responsibility in the Ecosystem	Product Form
Crypto-currency Issuers	The cryptocurrency issued needs to have a consumption scenario	Integrate with Alchemy payment network to improve payment efficiency	Payment channel gateway
Credit payment service providers	Record user's credit score and create more consumer scenarios	Credits are granted to users and merchants, and the credit line is used on the Alchemy Pay payment network. The risk of bad debts is borne by the credit service provider.	Credit payment gateways
Crypto-Currency assets issuers	Issued cryptocurrency assets require circulation or consumption scenarios	Integrate with Alchemy payment network to achieve asset circulation	Cryptographic currency asset channel gateway
Exchange	More cryptocurrency transactions	Provide cryptocurrency, fiat currency exchange and cryptocurrency transactions	Exchange channel gateway
Stablecoin service provider	Stablecoins need more application scenarios	Provide clear settlement currency for ACH	Stablecoin channel gateway
Liquidity service provider	Holding legal currency, cryptocurrency to maximize revenue	Provide crypto and fiat liquidity	Alchemy node; Credit payment liquidity; Lightning Network node

6.4 Developer Community Partnership

Developers are a vital part of progressing the Alchemy Pay ecosystem. Building a developer-friendly community is a core task, which we segment as follows:

- Payment consensus protocol developers participating in the development of interfaces, services, and products related to existing consensus protocols
- Application developers participating in the development of Alchemy Pay's ecosystem-related apps and services
- DAPP developers participating in the development of various DAPPs in the Alchemy Pay ecosystem
- Marketing developers participating in the development of incentives for the community

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7. Product Features

The core concept is to integrate fiat and crypto payments in whatever settlement system merchants use. The integrated product records data and statistics so that merchants and users can view historical transactions and critical information about those transactions.

7.1 Smart POS for Cryptocurrency

- Cryptocurrency and Fiat Currency Acceptance
- Lightning Network Express Payments
- PushPay / PullPay
- NFC Lightning Network Payments
- Cryptocurrency Prepaid Card

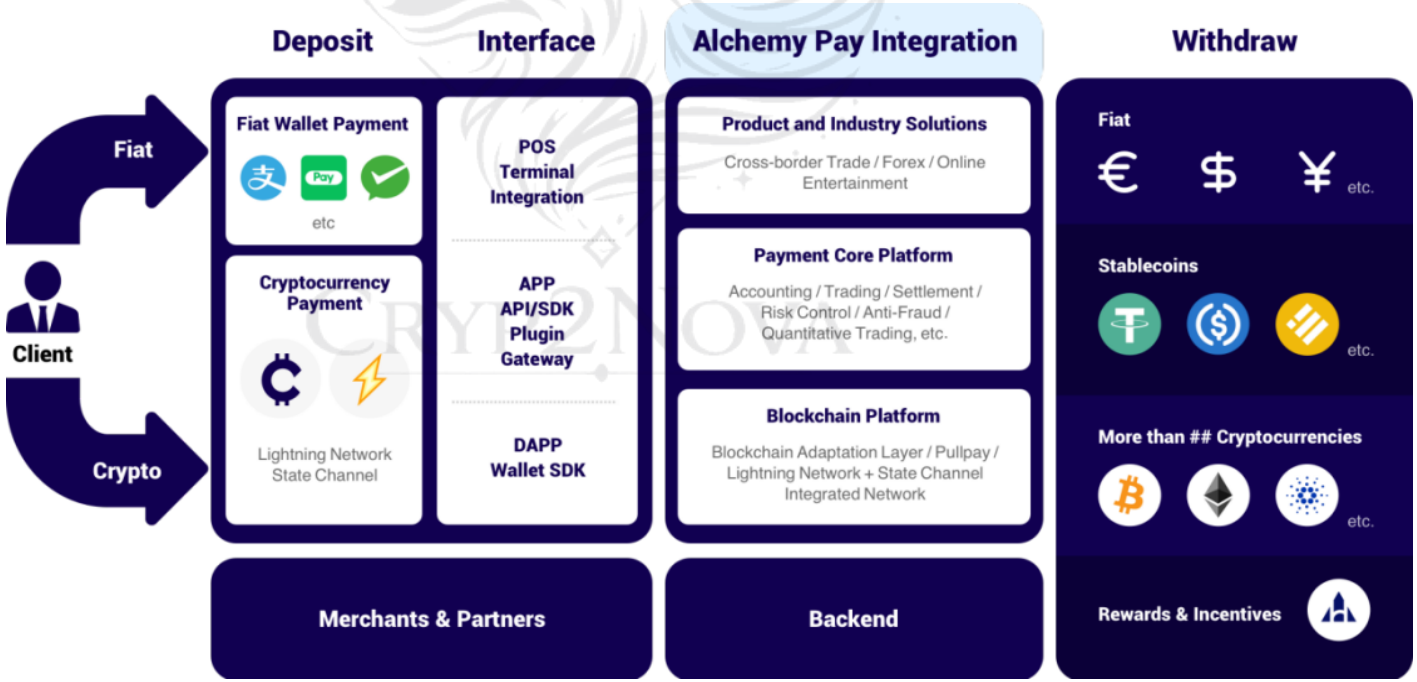
7.2 Cryptocurrency Payment Gateway

- Online and Offline Access Schemes including SDK/Plugin/API/Gateway
- Supporting Lightning Network Express Payments
- With PullPay + PushPay lightning network, PullPay supports preauthorization

7.3 In-APP Payment SDK

Providing partners with a Lightning Network based in-app payment SDK.

Alchemy Pay product features (below)



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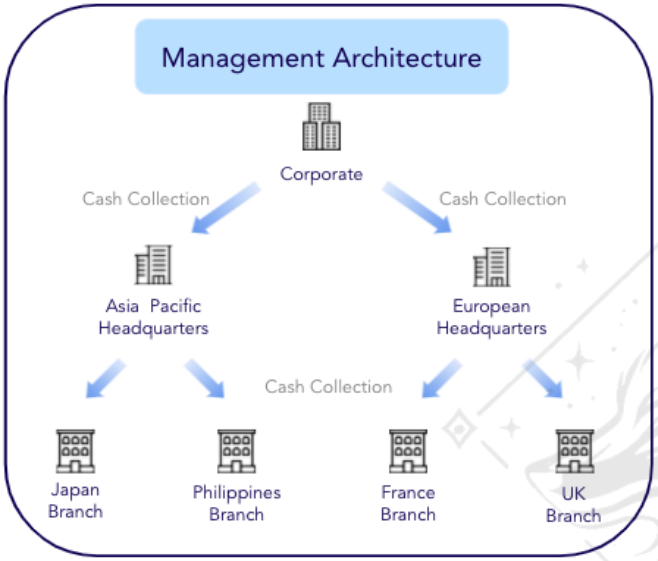
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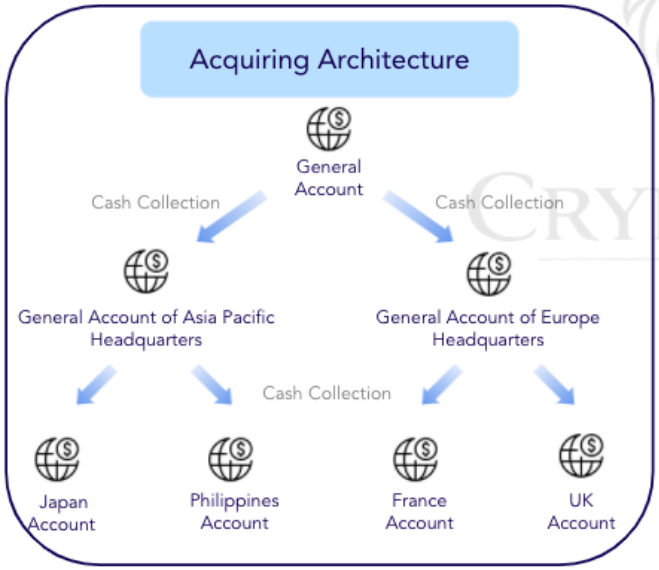
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8. Application Scenarios

8.1 Transnational Centralized Collection

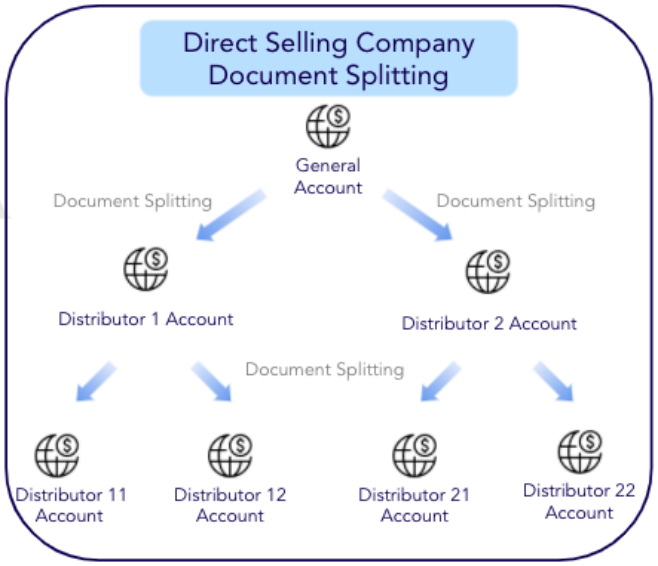




Alchemy Pay supports hierarchical "payment-collection parallel" models (commonly used in the financial management of a group) that involve separate accounts for collection and payment and hierarchical authorization to both mitigate risk and coordinate a variety of roles and functions that are involved in the process. For example, account viewing, transacting, and amount permissions can be limited to collection-only or payment-only, or to certain types of collections or payments for designated accounts. These accounts are plugged into hierarchies that fit into and evolve with the international and subsidiary structure of the enterprise, aggregating revenue to appropriate accounts in the upper levels of the organization.

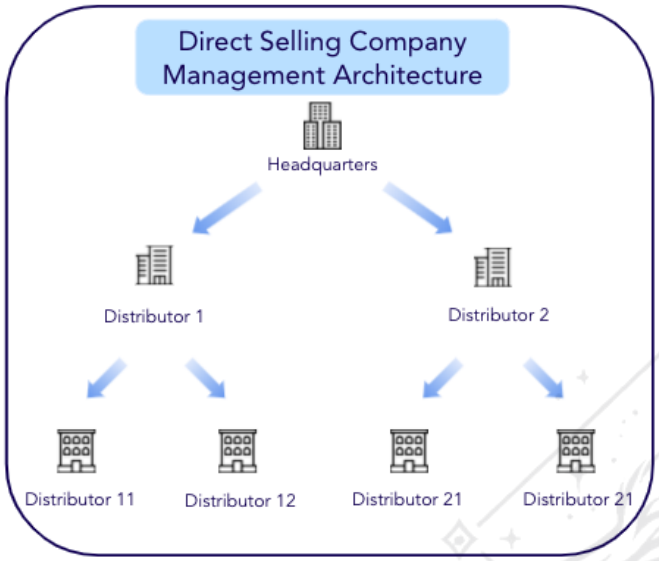
8.2 Account Hierarchies of Direct-Sales Companies

Distribution and direct-sales enterprises make extensive use of document splitting and batch payments. At each level, accounts support sub-accounts for payment and collection, and document splitting rules can be applied automatically through smart contracts.

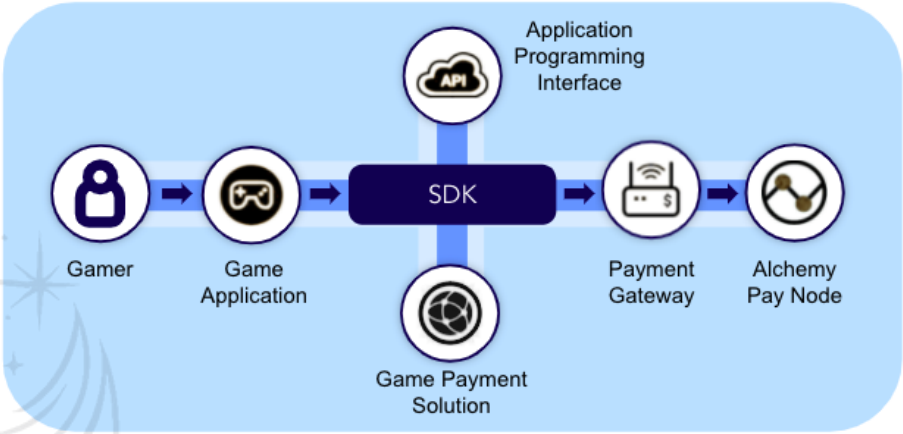


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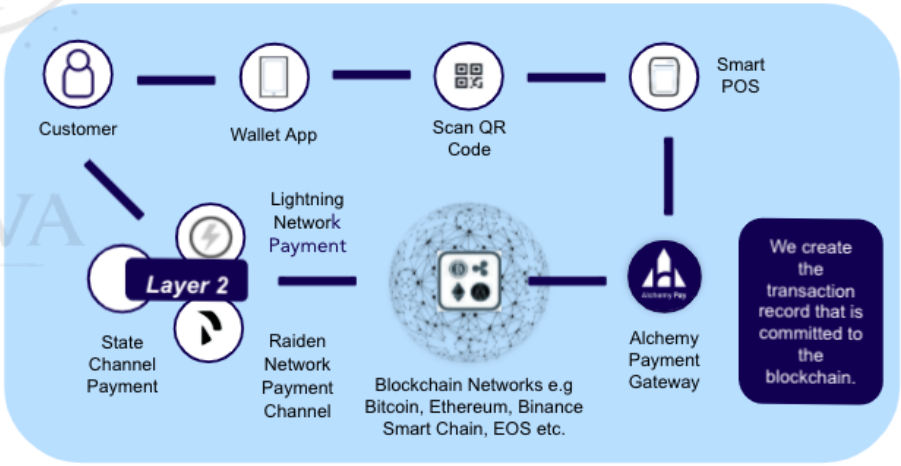
Digital industry payment process (below)



8.3 Digital Entertainment Industry Payment

This segment makes extensive use of SDKs, APIs, and gateways which Alchemy Pay provides to game developers as a selectable menu. These powerful tools can be initiated by developers in a few simple steps, and allow the developers to have a high degree of control over the payment process, while providing appropriate levels of support and access depending on the developer's proficiency in the payment aspects of their development environment. Transaction types include cryptocurrency payments, subscription payments, credit payments, combined payments, and revenue splitting.

8.4. Offline Consumption



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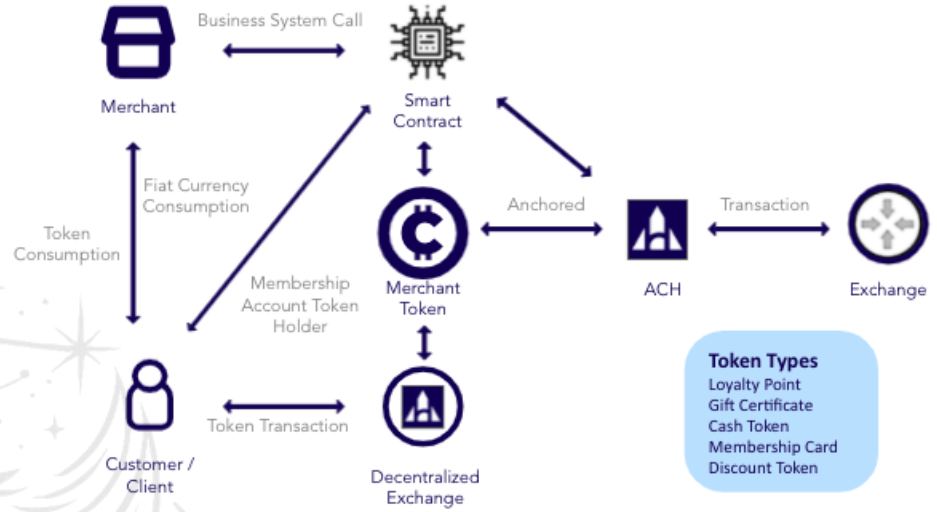
Alchemy Pay facilitates the following typical scenario:

1. Customer at an offline merchant chooses cryptocurrency payments.
2. Merchant creates a sale order with their cash register app or mobile-device POS. The app calls the Alchemy Pay SDK to acquire the collection address of the transaction.
3. Alchemy Pay's transaction processing system generates the payment transaction order.
4. Payment gateway returns the collection address and transaction order to Alchemy Pay SDK.
5. Alchemy Pay SDK creates QR code for user to then scan and pay.
6. User scans with a wallet APP to authorize the payment.
7. Alchemy Pay gateway checks transaction status of the block chain order.
8. Alchemy Pay processor writes transaction order into blockchain payment network.
9. Alchemy Pay gateway pushes real-time payment status to POS through WebSocket, notifying merchant of successful payment.
10. User can also pay through the Lightning Network with a similar process.

8.5 Bonus Point Campaigns and Programs

Alchemy Pay's role in a typical scenario flows as follows:

- Alchemy Pay issues a unique crypto token for a merchant's loyalty program
- When users shop with the merchant Alchemy Pay's bonus point gateway registers the transaction



Bonus point program (above)

- Based on a smart contract setting, the user receives a set amount of the merchant's tokens into a wallet they have registered with the merchant
- Users can spend the rewarded tokens in future payments to the merchant

Loyalty tokens can be listed on exchanges or traded for ACH tokens (see ACH token section below) at incentivised rates.

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8.6 Escrow Payment

Alchemy Pay infrastructure makes it easy for two parties in a potential transaction to automate escrow terms when the potential transaction can be verified by smart contract. For off-chain assets, we provide secure arbitration tools for trusted third parties to the potential transaction. The typical configuration is set so that the escrow funder receives 100% of their escrowed funds if the transaction fails.

8.7 Local currency exchange

Tourists traveling overseas, migrant workers sending remittances back home, and international students traveling abroad for short periods of time are all faced with the problem of local currency exchange. The problems are particularly acute in southeastern Asia, where high fees for transnational remittance service providers/exchange service providers are the norm.

Through Alchemy Pay's solutions and numerous online and offline partner networks, users can exchange local currency easily.

Alchemy Pay's solutions for currency exchange merchants include escrow services that provide the customer peace of mind as well, in which the merchant can agree to receive the funds only after the customer confirms receipt of the exchange.

8.8 Credit and Lending

The key to growth for small and medium-sized businesses is credit, and decentralized applications offer profound new potential for this huge class of businesses to establish credit. While credit scoring is a cornerstone of the payment industry, Alchemy Pay adds the crypto dimension that can help accelerate small and medium-sized businesses past the typical credit score barriers that they face – enabling capital and credit flow by leveraging the uniquely transparent information flow of blockchain payments and holdings. Furthermore, digital assets offer small and medium-sized businesses a new class of highly liquid collateral that not only can be pledged or staked, but also earn interest.

Consumer credit can work in the same way, adding such conveniences as "buy now, pay later" to the menu of consumer options.

- For merchants, Alchemy Pay can provide unsecured short-term digital currency loans based on their credit scores derived from historical transaction data. The loan assets would include, but not be limited to ACH tokens and other mainstream crypto tokens.
- For individual consumers, Alchemy Pay can provide limited loans, based on historical payment data, and charge competitive interest based on the score derived from the data.
- For partners, Alchemy Pay can provide digital currency credit lines and charge interest based on their historical transaction flow within the apps that we provide.

8.9 Big Data

The inherently transparent and immutable nature of blockchain technology makes the trillions of transactions on blockchains a profound resource for discovering predictive trends and probabilistic behaviors. Alchemy Pay's existing business processes already process this scale of data and are well suited to deliver such value to enterprise partners in addition to shaping our own initiatives.

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9. The Token: ACH

9.1 The Alchemy Pay Crypto-Fiat Ecosystem

Alchemy Pay's ACH token is the supply-capped, smart contractible ERC-20 utility token that sits at the heart of the world's first hybrid crypto-fiat payment infrastructure, which Alchemy Pay developed to build an essential bridge between the crypto and fiat worlds. Pre-mined at its cap of 10,000,000,000 tokens on September 4, 2019, the ACH token supports a comprehensive crypto-fiat transaction infrastructure, facilitating smooth exchange between major currencies and major exchange-traded crypto assets for businesses, institutions, and individuals.

It was first listed on the Huobi exchange on September 7, 2020, and on Coinbase on August 3, 2021.

For Businesses: Crypto-fiat B2C & B2B payment
We enable businesses to transact with retail consumers as well as other businesses through crypto-fiat payment gateways. This includes crypto-exchanges, e-commerce platforms, offline retail merchants, and more.

For Institutions: Crypto investment
We enable financial institutions, such as banks and fund management firms, to offer crypto investment services to their clients by brokering the exchange between fiat and crypto.

For Individuals: Crypto-fiat shopping & investment
We enable individuals to borrow, make purchases with both regular and crypto holdings, earn interest through staking, and buy and sell crypto assets directly. This includes crypto-linked cards, applications and softwares, whether developed in-house or by third parties.

In this ecosystem, ACH tokens can be pledged, staked, rewarded, accumulated, and paid as fees by participants in the above segments to drive and incentivize all the functions of the Alchemy Pay ecosystem--plus confer voting rights in token governance or community scenarios.

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9.2 Token Allocation

The overriding strategy behind this ACH allocation is to incentivize the enthusiastic participation of all key roles in the Alchemy Pay crypto-fiat hybrid ecosystem.

Proportion	Allocation	Description	Lock-up Period
62% Total		**UTILITY** *Refers to tokens reserved to reward participants for transactions and other types of participation in the ecosystem.*	
40%	Enterprise Transaction Rewards	Rewards enterprises for using Alchemy Pay's payment channels and transaction functions for sale of goods & services.	Unlocked in equal portions monthly for 60 months, starting 7 months from the date of first token listing.
	Consumer Transaction Rewards	Rewards consumers for transactions taking place on Alchemy Pay's gateways	
11%	DeFi Transaction Rewards	Rewards for transactions within the Alchemy Pay DeFi ecosystem.	Unlocked in equal portions monthly for 60 months, starting 7 months from the date of first token listing.
6%	Transaction Mobility	Reserved to expedite timely transfers and usage of ACH.	Can not be sold into secondary markets without 1-to-1 replacement.
5%	Enterprise Partners	Incentivizing early enterprise partners to drive use cases and contribute to the ACH community.	Unlocked in stages according to agreed milestones.
38% Total		**STAKEHOLDERS** *Refers to everyone involved in the development and launch of the ecosystem, from the founding team and our advisors to enterprise partners and backers who believed in and committed resources to the project from the earliest stages.*	
18%	Team	Reserved by Alchemy Pay team for market expansion and operational growth.	Unlocked in equal proportions for 36 months from date of first token listing.
18%	Backers	Funds raised for early development, marketing and operations.	Varies from 8 to 56 months from date of first token listing.
2%	Advisors	Incentive for the board of advisors for consultation, industry networking and other resources.	Unlocked in equal proportions for 24 months from date of first token listing.

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9.3 The Role of ACH Token

A. Access to Alchemy Pay Services

i. Pledging

Ecosystem partners – such as crypto-exchanges, e-Commerce platforms, payment companies, and financial institutions – buy and lock-up ACH in proportion to the partner's client network size and projected transaction volume through Alchemy Pay's services. Pledged ACH can be returned immediately upon cancellation of the partner's access to the service or forfeited in cases of unfair or fraudulent behavior.

ACH holders that pledge ACH can gain access to different tiers of DeFi products and services depending on the size and duration of the stake. This may come in the form of spending rebates, staking yields, and others.

B. Ecosystem Incentives

i. Fee Discounts

Fees for transactions, investments, processing, etc., are payable either in the local fiat currency or ACH. Opting to pay for fees in ACH will result in various fee discounts depending on terms and conditions for the participants.

ii. Enterprise Payment Network

Enterprises such as financial institutions, payment companies, e-commerce platforms, developers, etc., are the primary use case builders, and earn enterprise transaction rewards at set rates based on their network size and transaction volume.

iii. Consumer Payment Network

Consumer transaction rewards are earned through spending rebates, and other consumer-targeted payment solutions within the Alchemy Pay Network.

iv. DeFi Rewards

DeFi transaction rewards are earned by all DeFi participants for staking and for various transactions in the process of either providing or using DeFi services in the Alchemy Pay ecosystem.

As described above, ACH payment ecosystem is primarily designed around incentivising payment behaviors. However, referral incentives play an important role in the beginning while the number grows from its core early adopters. These incentives will be reduced over time.

C. Decentralized Governance

Rights to vote on key business decisions and protocol changes will be granted in proportion to ACH holdings. Some of these decisions and potential changes include:

- Types of tokens to be integrated on Alchemy Pay's payment system.
- DeFi services to be integrated on Alchemy Pay's platforms.
- Ecosystem incentive mechanisms, such as use of reward reserves.

Individuals or groups with more than 5% of ACH's existing circulating supply can submit a proposal for votes. Proposals are executed if total votes exceed 10% of ACH's current circulating supply and more than 51% of the votes are in agreement.

D. Value-Added Voting

We also anticipate non-governance voting scenarios conducted by enterprise partners or Alchemy Pay itself, which can be facilitated by ACH holdings, such as opinion polls and various kinds of contests in promotional

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or otherwise competitive settings. ACH can be used to qualify and incentivize both ACH holders and non-holders to vote (or simply participate in some way) in various initiatives and promotions.

E. Transaction Rewards

Enterprise, Consumer, and DeFi Transaction Rewards play a critical role in incentivising early participation, innovation, and growth of the Alchemy Pay ecosystem. These rewards are disbursed through algorithms that moderate inflation while appropriately incentivising transactions.

Most ACH will be rewarded to both parties involved in a payment transaction. The core infrastructure that supports the operations of the payment system is the merchant node network. Merchants using Alchemy systems are defined as nodes, and payment and settlement transactions by merchants and payers take place on the merchant node network. The merchant node network is responsible for operations and maintenance of Alchemy's payment scenarios and capital flow operations.

After each transaction is completed, the node network will receive a corresponding amount of ACH rewards based on the transaction volume. This reward will be distributed to merchants and users participating in the transaction in accordance with smart contracted rules, with logarithmic increment functions so that the difficulty of obtaining rewards will increase as the user base increases.

i. Enterprise Transaction Rewards

Half of this allocation is disbursed according to the network size of each enterprise and half is disbursed according to their transaction volume.

The network portion is applied based on Alchemy Pay's assessment of the enterprise's total business network size. It is disbursed in equal portions every month during the 60-month lockup period, and autoACHally locked up for an additional three months after each disbursement.

The transaction volume portion is also divided into equal portions over the 60-month lock-up period, but in this case the total reserve for each month is disbursed in proportion to each enterprise's share of the month's transaction volume. Therefore, if a month's transaction volume of an enterprise is 20% of the total transaction volume of all enterprises in the ecosystem, then that enterprise receives 20% of the total portion reserved for rewards that month. Through this protocol, enterprises have a strong incentive to join the ecosystem as early as possible, as the earlier months will be divided among fewer enterprise participants.

ii. DeFi Transaction Rewards

DeFi transaction rewards can be earned by all DeFi participants on a native or partner wallet for staking and for various transactions in the process of either providing or using DeFi services in the Alchemy Pay ecosystem. These rewards would work the same way as the transaction volume portion of the Enterprise Transaction Rewards, except the rewards are for the transacting entity rather than the facilitating enterprise.

The ACH token's total allocation of 10B tokens is divided over a 60 month period (commencing 7 months after the date of first token listing) and each month's rewards are disbursed in proportion to the transaction share of total transactions for that month. This is a strong incentive for the early participants in the ecosystem, as rewards are exceptionally generous in the beginning and become increasingly scarce as ecosystem participation increases.

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10. Risk and Disclaimer

This white paper is a general description of the project to solicit feedback from investors. Alchemy Pay's directors, consultants, and legal counsel have the right to review and revise the document. Please do not copy or distribute any part of this white paper without including this Risk and Disclaimer section. No part of this white paper establishes a legal relationship with the recipient of this white paper nor makes any claim by the recipient legally binding or enforceable against Alchemy Pay. Updates may be published at any time.

You acknowledge and agree that there are numerous risks associated with purchasing ACH Token, holding ACH Token, and using ACH Token for participation in the ACH Network. In the worst scenario, this could lead to the loss of all or part of the ACH Token which had been purchased. If you decide to purchase the ACH token, you expressly acknowledge, accept and assume the following risks:

Uncertain Regulations and Enforcement Actions: The regulatory status of ACH Token and distributed ledger technology is unclear or unsettled in many jurisdictions. The regulation of virtual currencies has become a primary target of regulation in all major countries in the world. It is impossible to predict how, when or whether regulatory agencies may apply existing regulations or create new regulations with respect to such technology and its applications, including ACH Token and/or the ACH Network. Regulatory actions could negatively impact ACH Token and/or the ACH Network in various ways. The Foundation, the Distributor (or its affiliates) may cease operations in a jurisdiction in the event that regulatory actions, or changes to law or regulation, make it illegal to operate in such jurisdiction, or commercially undesirable to obtain the necessary regulatory approval(s) to operate in such jurisdiction. After consulting with a wide range of legal advisors and continuous analysis of the development and legal structure of virtual currencies, a cautious approach will be applied towards the sale of ACH Token. Therefore, for the token sale, the sale strategy may be constantly adjusted in order to avoid relevant legal risks as much as possible.

Inadequate disclosure of information: As at the date hereof, the ACH Network is still under development and its design concepts, consensus mechanisms, algorithms, codes, and other technical details and parameters may be constantly and frequently updated and changed. Although this white paper contains the most current information relating to the ACH Network, it is not absolutely complete and may still be adjusted and updated by the ACH Development team from time to time. The ACH Development team has no ability and obligation to keep holders of ACH token informed of every detail (including development progress and expected milestones) regarding the project to develop the ACH Network, hence insufficient information disclosure is inevitable and reasonable.

Competitors: Various types of decentralised applications are emerging at a rapid rate, and the industry is increasingly competitive. It is possible that alternative networks could be established that utilise the same or similar code and protocol underlying ACH token and/or the ACH Network and attempt to re-create similar facilities. The ACH Network may be required to compete with these alternative networks, which could negatively impact ACH Token and/or the ACH Network.

Failure to develop: There is the risk that the development of the ACH Network will not be executed or implemented as planned, for a variety of reasons, including without limitation the event of a decline in the prices of any digital asset, virtual currency or ACH Token, unforeseen technical difficulties, and shortage of development funds for activities.

Security weaknesses: Hackers or other malicious groups or organisations may attempt to interfere with ACH Token and/or the ACH Network in a variety of ways, including, but not limited to, malware attacks, denial of service attacks, consensus-based attacks, Sybil attacks, smurfing and spoofing. Furthermore, there is a risk that a third party or a member of the

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Foundation, the Distributor or its affiliates may intentionally or unintentionally introduce weaknesses into the core infrastructure of ACH Token and/or the ACH Network, which could negatively affect ACH Token and/or the ACH Network. Further, the future of cryptography and security innovations are highly unpredictable and advances in cryptography, or technical advances (including without limitation development of quantum computing), could present unknown risks to ACH Token and/or the ACH Network by rendering ineffective the cryptographic consensus mechanism that underpins that blockchain protocol.

Other risks: In addition, the potential risks briefly mentioned above are not exhaustive and there are other risks (as more particularly set out in the Terms and Conditions) associated with your purchase, holding and use of ACH Token, including those that the Foundation or the Distributor cannot anticipate. Such risks may further materialise as unanticipated variations or combinations of the aforementioned risks. You should conduct full due diligence on the Foundation, the Distributor, its affiliates and the ACH Development team, as well as understand the overall framework, mission and vision for the ACH Network prior to purchasing ACH token.

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