

CONDUIT

CONNECT . COMPUTE . CONDUIT



ICO Whitepaper

Version 0.9

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1. Introduction

The Problems

Computers were created as tools for mankind. Starting in the mainframe era, computers were like a bicycle for the mind -amplifying human productivity and imagination. With the advent of the Internet Age, technology leveraged computers as means of connecting to one another. We created email, blogging, and social media. But, as our technology advanced we became overwhelmed with data. Data was everything and everywhere, and the question became: how do we analyze all of our data to make it useful? Technology responded with cloud computing. By leveraging the infrastructure of digital connections made by the Internet Era to utilize the resources that often go under-utilized, we could tackle the problems of Big Data with powerful solutions. Beginning in the late 2000s, cloud computing followed in the spirit of the computers of decades before and became a crucial tool for the IT industry. According to Forbes, 74% of Tech Chief Financial Officers (CFOs) write cloud computing has had a measurable impact on their business⁴. Today, the Cloud Computing industry is now worth over \$67 Billion in the United States, and over \$200 Billion² worldwide. With a growth rate of 19% a year, not only is cloud computing here to stay, but it's also expanding more than ever.

While cloud computing brought a great solution, it also brought great problems: high costs and the lack of expertise. According to RightScale's 2016 Annual Report on the Cloud, over 32% of cloud users struggle understanding how to use cloud in the first place³. Consequently, IT companies who looked to the cloud to prevent headaches only get more problems as they become overwhelmed with how complicated the technology and the pricing of cloud technology is. In the hassle of moving over their infrastructure from private data centers to cloud infrastructure to save cost, IT companies waste time, money, and precious resources in making sense of 'how to cloud.' In RightScale's 2017 Annual Report on the Cloud³, IT companies estimate they over-spend 30% of their budget on cloud-when in fact it's actually 45%. Meaning, companies are wasting half of the money they use in the cloud. This doesn't include money spent training or hiring staff for managing their resources on the cloud in the first place. Chief Financial Officers and tech teams across the board are struggling to reap the benefits that cloud computing promises. While the \$67 Billion Cloud Computing Industry is projected to grow to \$162 Billion by 2020, it still not only needs cheaper options, but options they can understand.

The Solution

Where AirBnB meets Cloud Computing, Conduit is a new path for the industry. Inspired by the goal of improving human productivity, Conduit utilizes the extra resources on everyday computers to provide cloud computing. Through Conduit, IT organizations and everyday people can rent out the extra RAM of their computers while cloud computing users can find the resources they need easily and affordably.

As a product, Conduit is easy to setup and to use. Users will be able to drag and drop items, and use pre-configured options for instances. For users who rent their computation, Conduit runs as a background application-never interfering with the computer owner's experience on their own device. In fact, should the owner begin to use significantly more computational resources we notify the computer user that they should lower how much of their computing power they're offering. This allows us to always maximize our resource utilization while preventing negative experiences from the people offering their resources in the first place-in other words-we make it easy for everybody.

From a pricing standpoint, one of the major problems cloud users face today is complex pricing. With hidden fees and surcharge costs, pricing has been just another confusion for the cloud industry. Conduit changes that. We provide simple pricing and without contracts that often serve to bind a customer to particular cloud provider rather than to help the customer in the first place. Conduit works off a simple GB*HOUR metric. If you use 1GB for 100 Hours or 100GBs for 1 hour, we measure that as "100 GB*HOURS." We then charge a standard rate per GB*HOUR which makes pricing very simple for the customer as well as being cheaper than other cloud providers. Not only that, but after researching the cloud industry as well as attending conferences such as the Strategic Analytics Summit we realized that most IT teams have a hard time monitoring their cloud expenses. Consequently, Conduit provides a budget option when setting up an instance. Should an organization never want to spend more than, say, \$10,000 a month on cloud services we notify the users if their current usage will surpass their budget before it does. Not only that, but users have an option of configuring their instance to stop once their costs reaches their budget. However, if it is crucial that a customer's instance be continuously running in order to ensure the quality of their service, then the Conduit can continue running the instance and simply notify them they have passed their monthly budget. Meaning, users can not only depend on Conduit to provide a quality experience but also a reasonable bill.

But there's more to a customer's need than the product experience. What the Cloud Industry needs is a company to provide value to the customer beyond just the product. Expertise and technical resources are crucial to any organization in using the cloud. As mentioned before, expertise is one the biggest challenges IT organization faces today. Cloud users need resources readily available and easily accessible. At Conduit we recognize that need. Conduit provides training videos, detailed documentation and excellent tech support to make the learning curve as easy as possible. Starting with training videos, we create short videos less than 10 minutes to teach users the basics of how to use our software as well as how to troubleshoot. Moving on to documentation, we start our documentation process early in the product development phase so that we have extensive records of how to use Conduit and how to troubleshoot Conduit in the case that user needs help. We also provide technical support, but rather than waiting for the customer to come to us we go to them. After registering on Conduit, we have our technical support team call our new user within 24 hours to ensure that their Conduit experience was helpful to their needs. We also use our customer's experience to see areas we can improve, pain points we can solve, and features we can add. For instance, should technical support see that customers have a hard time stopping their instance then we use that feedback to make it easier to stop an instance and satisfy our current customers while making way for future customers. After a user's first experience, we then follow up on a monthly basis and then quarterly basis thereafter to make sure the Conduit is providing high value to our customers. Conduit recognizes that business is not simply about the product but about the value we can add to an organization.

2. Background

The Conduit began at MIT. In 2014, the MIT Bitcoin Project offered \$100 in bitcoin to MIT undergraduates to foster innovation by some of the world's greatest engineers and scientists. Created by Jeremy Rubin and Dan Elitzer at MIT, the MIT Bitcoin Project understood that "giving students access to cryptocurrencies is analogous to providing them internet access at the dawn of the Internet Era" (2). Ryan Robinson, an undergraduate at MIT at the time, recognized opportunity in the underlying blockchain technology to provide computing resources to companies and researchers across the world. Robinson consulted with Harvard Professor and Director of the Banneker Institute John Johnson and Harvard Professor and Head of Sabeti Labs Pardis Sabeti to learn more about creating and leading a diverse team towards common goals. **As Robinson studied the mathematics of big data under Founder and Head of MIT's Lincoln Lab Supercomputing Center, Dr. Jeremy Kepner and worked with MIT's Venture Mentoring Service, Conduit gradually transformed from an economy based upon bidding for computational time into a service-oriented company focused on providing a seamless cloud computing experience to the expanding IT world.**



**Massachusetts
Institute of
Technology**

3. Team

Ryan Robinson

Jyotishka Biswas

Frank Chang

Shivani

Farhana Khan

Scott Heng

Luis F. Bermudez

Julia Han

Corttrell Kinney

David Hiel

Ryan Robinson

Founder & CEO of Conduit, is an MIT graduate who studied Information Theory and Literature.

After studying mechatronics and finishing the content of the curriculum in two years, he transitioned to studying information theory and quantum computing under Seth Lloyd, who wrote the first paper on how to build a quantum computer. Then he created his own major titled "Quantum Engineering," which is a combination of computer science, information theory, quantum computing, mechanical engineering, electrical engineering, materials, systems, and design becoming the first "Quantum Engineer." Thereafter he finished his studies in graduate level computer science and Big Data and finally completed a degree in literature before graduating in 2017. Not only that, as a part of DECA's International Business Competitions Ryan Robinson placed in the top 99th percentile in Economics and the top 99th percentile in Marketing Management. He has also worked with startup businesses and commercial banking. He worked with Innovators 4 Purpose, a non-profit educational startup that teaches children in lower-income neighborhoods STEM skills as a business analyst. He also worked with the Presencing Institute and New Resource Bank as a data analyst. He is also on the Advisory Board for the Strategic Analytics Summit and a Mentor at Bootup.

Jyotishka Biswas, Conduit's Lead Developer, is not only an MIT graduate but has also worked at MarkForged, Intentional Software Corporation, and JetBrains. Jyotishka Biswas specializes in distributed systems, software development, and algorithms

Frank Chang, one of Conduit's software engineers, studied computer science graduated from MIT before obtaining his MBA from Harvard. He has worked everywhere from the Boston Treasury Systems to Melissa Data to ClickIT and MIT as a software consultant. Frank Chang specializes in Databases, SQL, Distributed Algorithms and Agile Development.

Shivani, Conduit's Quality Assurance Engineer, is a graduate of Symbiosis College. She has worked with COR Financial Solutions, Harte Hanks, and Moody's Analytics as a senior software quality assurance engineer. Shivani Daftardar specializes in software quality testing, SQL, Agile, and Databases.

Farhana Khan, one of Conduit's software engineers, graduated from MIT. She has worked with Grameen Bank, the Asian Youth Forum, and Yunus Centre. Farhana Khan's specializes in Data Analysis, Econometrics, and Full Stack Development.

Scott Heng also an MIT graduate has worked as a UI engineer at Sentient Technologies, a data science intern at Takeda Pharmaceuticals, Myerson Research Group, and Boeing. Scott Heng specializes in UI/UX design, Website Development, and SQL.

Kayode Ezike another software engineer is an MIT Masters graduate who has worked with Facebook, Intel, Goldman Sachs ,CODE 2040 and is also a part of the MIT Digital Currency Initiative. Kayode Ezike specializes in blockchain applications, software development, and data analysis.

Luis F. Bermudez, the Conduit's Marketing Manager, is a Carnegie Mellon graduate. He has worked as a Startup Consultant as well as an engineer and researcher at Oracle, NSF, Disney, and Intel. Luis Bermudez specializes in content marketing, agile development, and marketing management.

Corttrell Kinney is Conduit's U.S. Investor Strategist. He has served as CEO of Hyland William, a board member of Sunflower Solutions, a fellow of the Give1Project Global Leadership Program and a graduate of Morehouse College.

David Hiel, Conduit's Japanese Head of Business Development, was CEO of Emanant, Vice President of Credit Suisse, and graduated from Oxford. Hiel specializes in international economics.

Partners

Conduit has also **partnered with mentors through the MIT Venture Mentoring Service** and is a part of MIT's Sloan School of Management's Entrepreneurship Lab under the **head of MIT's Digital Currency Initiative, Professor Christian Catalini**.

Conduit is **advised by Daniel Santos, a Henley Business school graduate with over a decade of investment banking experience gained at Morgan Stanley, DB and Citi in London and Renaissance Capital in Moscow**. He is the Founder of Token Advisors and a World Economic Forum Summer Davos participant. With a specialty in token economics, international business development, and token game theory he was an early investor in IOTA and advisor to TRON's ICO.

Ashish Gaurav with an MBA from FMS Delhi, has seven years of experience across investment banking, financial market sales, strategy and change management. He currently leads Strategy & Change Management for the digital portfolio of Standard Chartered Bank with investments over \$150M in projects and strategic initiatives worldwide.

Chuan Jin (CJ) Fong, a double degree holder from Singapore Management University with ten years experience in investment banking from Morgan Stanley and Nomura he is the Asia CEO and Co-Founder at Token Advisors.

Yin Nawaday, a Harvard graduate, with seven years experience in global strategy at CNN and Hearst Corporation. As the founder of Icebox Consulting Group and the Strategic Analytics Summit (SAS) her specialty is in global strategy, analytics, Big Data and Business Transformation.

Carsten Stocker is also a Conduit Advisor, founder of Spherity GmbH, a decentralized platform. Stocker with a Ph.D from the University of Aachen. **He is a Council Member of Global Future Network and the World Economic Forum**. He has worked with the Machine Economy Innovation Programme. Conduit also receives legal counseling from WilmerHale, an international legal firm with offices in the United States, Europe, and Asia.

4. The Limitations of Bitcoin

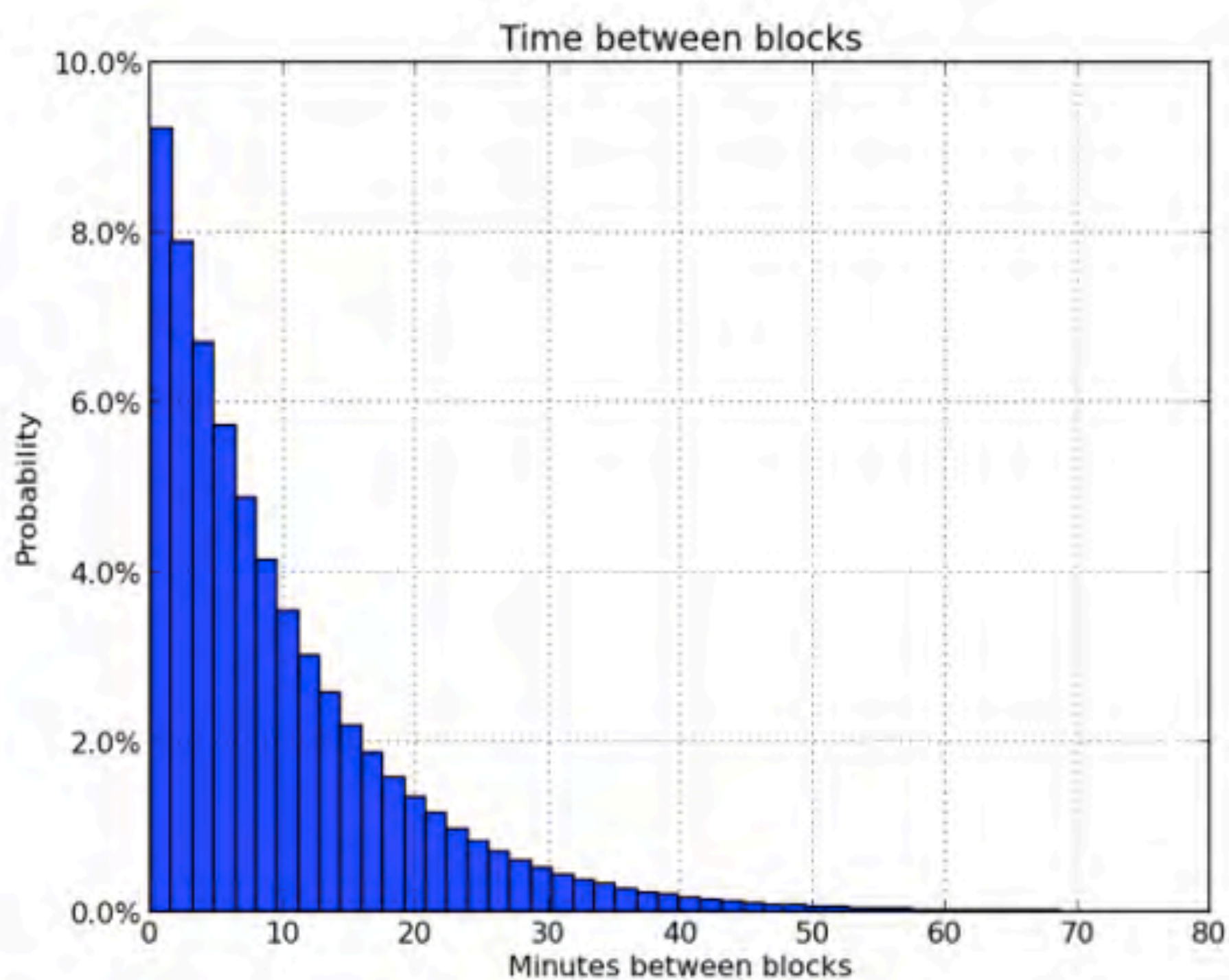
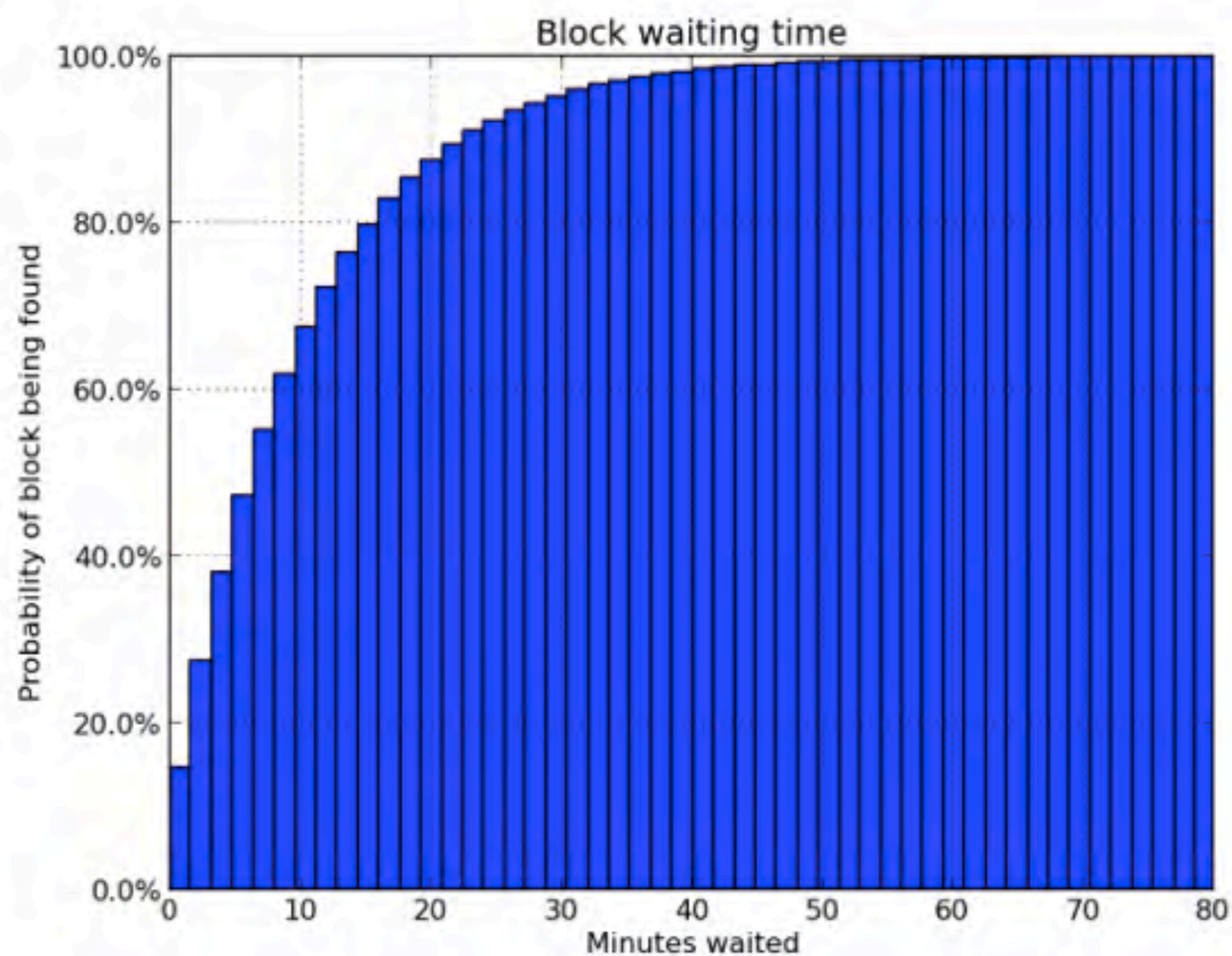
One of the most fundamental features of Bitcoin technology is the use of confirmations to secure against double spending. Yet, the confirmation time required to publish a block throughout the Bitcoin Network is grossly impractical for the aim of general purpose computing. According to the Bitcoin Wiki,

A block of transactions is required to have to wait until six later blocks are added to the blockchain before being considered confirmed (3). Newly-minted coins, which serve as rewards for Bitcoin miners, cannot be spent until 100 later blocks of transactions have been confirmed. Assuming a computational model that completely imitates Bitcoin-with an average block interval of 10 minutes-it would require 60 minutes or an hour for computation to be verified and 1000 minutes or 16.67 hours for miners to be able to spend the coins they earned. Yet, because block intervals follow a poisson process (3), not every confirmation time or block interval is 10 minutes and can take possibly hours. Here, it is clear that a computing model that relies as conventional blockchain would only be useful for computation that afford delays of ten minutes or more.

However, that is not the only limitation. In Bitcoin, coins are a reward for a specific algorithm. By obtaining a hash using SHA-256 equal or lower to the target, the miner obtains a reward in the form of a Bitcoin. While the target gets lower and lower, the amount of “work” per coin is easily comparable. However, in a general purpose computational model it is exceedingly difficult to compare the “work” or effort behind each reward. How does the difficulty compare of running a merge-sort algorithm compared to a proportional integral derivative algorithm? Computing the two would be akin to comparing the work of doing an algebra problem to doing a geometry problem. Not only that, the effort required per computational task would vary across computers. A computer’s performance is dictated by a range of variables such as processor speed, cache size, system bus, RAM, and hard drive size. In the case of a Bitcoin Blockchain computing model, each coin would be incomparable to another and thereby defeating its own monetary purpose as a medium of exchange and an incentive to provide computing power.

Poisson Process

$$P(X = x) = \frac{\lambda^x e^{-\lambda}}{x!}$$



Reference: <https://en.bitcoin.it/wiki/Confirmation>

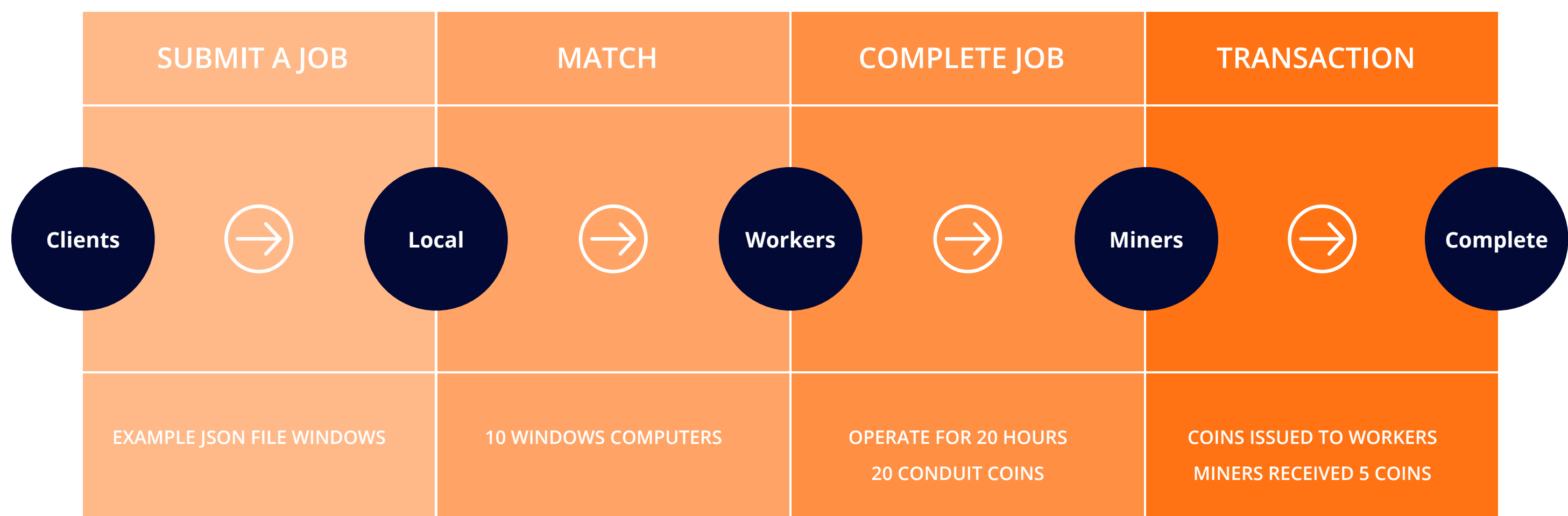
5. Technical Overview

(In this section we discuss Conduit’s innovative approach to provide cloud computing using blockchain methodology. The purpose of this section is to provide a brief overview of the computational limitations of Bitcoin’s blockchain as well as task assignment, Conduit mining, and token economics.

The concrete implementation of Conduit’s protocol is not discussed.)

THE CONDUIT PROCESS

example



While Bitcoin confirmation times and mining system would make cloud computing using blockchain monetarily and technologically inefficient, Conduit’s approach adapts blockchain principles to create a robust computing platform. In a general sense, Conduit’s technology works in the following way. When a client sends out computational tasks to the Conduit Network, it is coupled with proof of work algorithms that work as a speed test-providing the fastest computers available to work on the tasks. Each worker computer completes their respective computational subtasks but also verifies others. Upon completion the workers request transactions corresponding to the work done. Conduit “miners” not only approve the transactions but also compile the computation. Then relying upon the fastest three compilers, the fastest miner is rewarded a “bounty” of newly created Conduit Coins. primary innovation is in the patent pending “C2 Block” that Conduit utilizes to compile and verify computation.

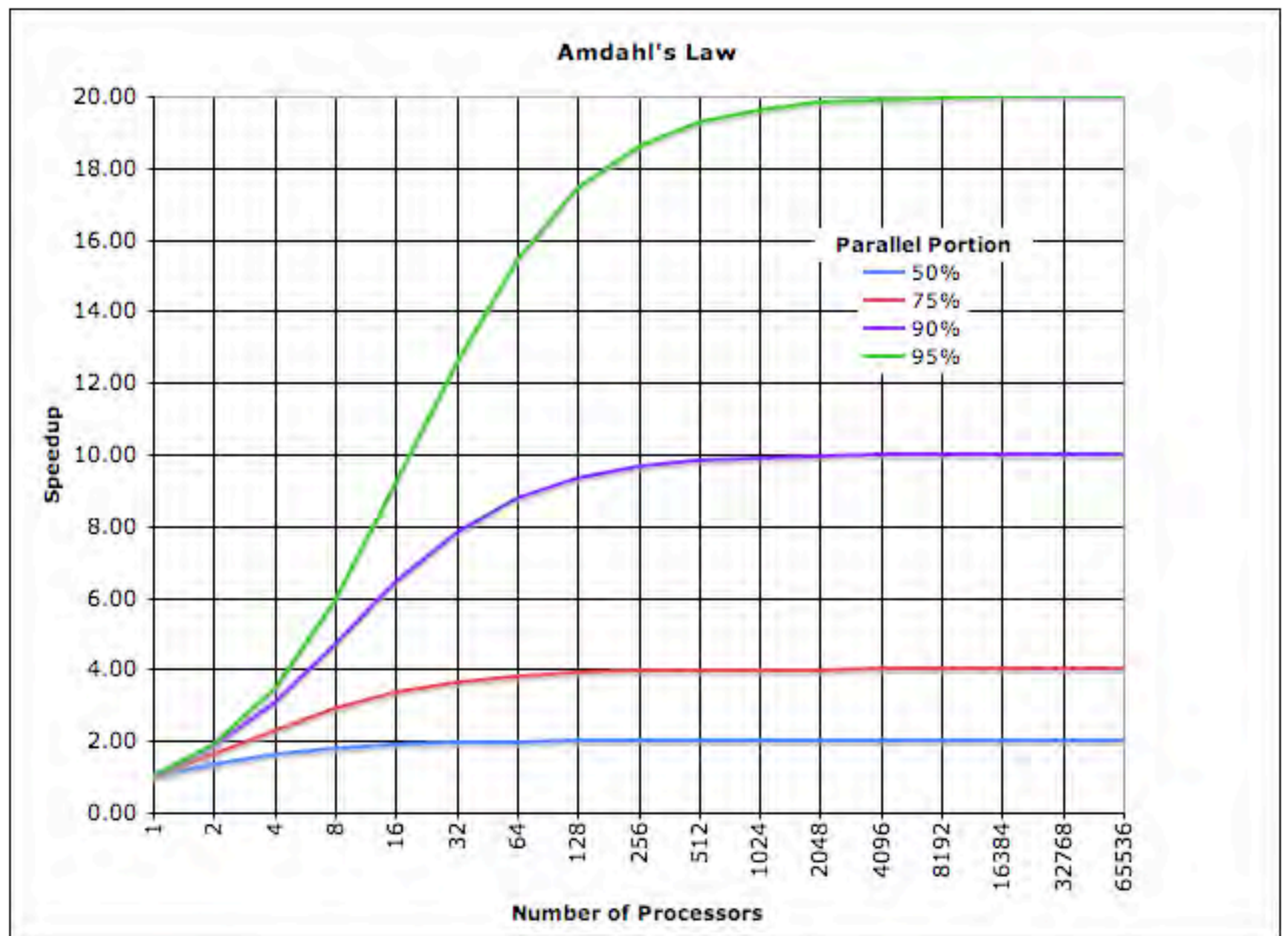
5A. Types of Computation

Conduit's C2 approach (Patent Pending) is particularly useful for parallelizable computation. "Embarrassingly Parallel" and NC level type computation will greatly benefit from the Conduit's decentralized structure. Focusing on the former, Conduit's computational abilities extend to but are not limited to the following very easily:

- Neural Networks
- Parallel Merge-Sort
- Parallel Fast Fourier Transform
- Machine Learning
- Facial Recognition
- Integer Factorization
- Computer Graphics Ren
- March Square's Algorithm
- Data Compression
- Secure Hash Algorithms (i.e. Bitcoin Mining)

Citing Amdahl's Law, the more parallel an algorithm is the higher the speedup that can be obtained using the Conduit.

$$S_{\text{latency}}(s) = \frac{1}{(1 - p) + \frac{p}{s}}$$



5B. Submit a Job

In this section we define the process of submitting a job to the Conduit Network. First, the client selects the specification needed to complete its computational tasks. The tasks are then divided into subtasks or “chunks” which are then assigned a random number and proceeded to be bundled together with proof-of-work tasks that work as “buffer algorithms,” creating a Conduit Block that filters out the fastest computers available for the client’s tasks. The Conduit Block is then transmitted to the Conduit network, prioritizing the closest computers first. In the case that a computer does meet the specifications required by the job it transmits the block to other computer nearby until the necessary amount of computers are found.

5C. The Computational Tasks

Upon meeting the required specifications and completing the short proof-of-work algorithms, the computers (workers) begin the task corresponding to the “position” they finished the proof-of-work and the position thereafter (i.e. the first computer to ‘mine’ its Conduit Block is assigned task number one and number two)). The number of positions are equal to the number of chunks the computational tasks was divided into. For example, a task that has four chunks will use four computers. The first one computer assigned the first and second tasks, the second computer assigned the second and third tasks, the third computer assigned the third and fourth tasks,, and the fourth computer assigned the fourth and first tasks. During the computation, the amount of time it took to complete both tasks is monitored. Upon the completion of the tasks, the computers submit their results and request a transaction for payment to the network based on the time required to complete the tasks.

5D. Conduit Bounty Mining

The transaction request and the computational results are broadcast through the Conduit network, upon receiving the request Conduit miners compete to (1) compare the results of the computational tasks and (2) compile the computation. Should two results for the same task disagree then the miner completes the task itself. Upon confirming the results and compiling the results the network waits for two additional miners who have reached the same results. The miner with the lowest overall time is awarded a bounty that is equal to the amount of Conduit Coins involved in the transaction multiplied by a fractional factor (K). The fastest miner is awarded a bounty of newly created Conduit Coins and the results are sent back to the client.

5E. Security

Currently, the world relies on online networks for everything from peer-to-peer interactions, content streaming, and financial data. Consequently, Conduit provides cloud computing that is not only reliable but secure. Conduit technology ensures a safe experience for both the user and the miner. The Conduit provides security features integrated into the software. Conduit uses a multi-layered approach verified by industry level software engineers. Conduit addresses security aspects such as malicious client inputs and malicious miner outputs by limiting file types, restricting system access, monitoring resources, and creating miner time delays to create a safe network.

5E.i. Malicious Client

In the case of malicious client inputs, Conduit ensures benign inputs to the network by limiting the file types to exclude common malicious content. Common file types for malicious content will be screened and barred from submission. The registry of file types will be consistently updated and reviewed to ensure quality of job submission. In addition to that, Conduit proceeds to analyze the data given and then tests the computation before officially accepting the job submission. In addition to that, once a job is submitted Conduit miners can submit a request to halt the job should the work assigned to them is unexecutable or otherwise.

Furthermore, once a computer begins renting their compute capacity or Conduit mining, the Conduit software prevents unnecessary access to hardware and software and restricts system privileges to only what the Conduit miner allows. In addition to that, the Conduit miner will have the option to stop providing their spare capacity should they feel it necessary. Conduit software proceeds to monitor CPU usage and memory utilization of miners to ensure proper use of resources. Jobs that lead to over-utilization or request further access will be aborted or halted across the network. Conduit's security not only prevents issues but also ensures the miner maintains control of their own hardware and experience.

5E.ii. Malicious Client Problem

One of the major concerns cloud computing users have is the security and reliability of the data provided to cloud companies. Users Conduit addresses user concerns for data security and reliability by combining technological design and economic incentives.

Conduit maintains high quality results by “time delaying” Conduit miners for erroneous outputs or poor performance. In the Conduit, miners are placed to jobs by the latency of their computers in relation to the client. Intuitively, the more latency a miner has the less jobs it will receive. Consequently, in the case that a miner is faulty or a malicious agent and fails to complete the assigned job then the miner will be “timed” via a time delay that delays the miner when competing for jobs. For example, a fast and close computer would lose jobs to other computers as its time delay inhibits it from accepting jobs before other computers. In a race for computation, the timer delay performs like dead weight. Not only that, as more computers join the network, the Conduit becomes increasingly secure as more computers compete for job submissions. Combining the technological design with economic competition, Conduit is constantly optimizing to be as secure as possible.

In addition to that, Conduit “taxes” bad results. During the Conduit’s task sharing process, each miner computer does two jobs. Upon completion, the subtasks are submitted for verification. In the context upon which the tasks are shown to be false the task is reassigned and each miner is taxed a small fee, the fee must be paid before the miner computer can begin another job. Consequently, users are not charged for erroneous work and the Conduit token economy disincentivizes malicious miners as well as making it increasingly harder to do so. Overall, Conduit uses these security features to provide a smooth and reliable software experience for both aspects of the Conduit Network. Conduit is currently working with 2,000 companies and several MIT research labs-none of which have experienced a security issue. Conduit technology is not only revolutionary but also trustworthy.

5F.i. Use Cases Example

One of the major applications of the Conduit Network is running Secure Hash Algorithms, in particular, Bitcoin's SHA-256 Algorithm. (6)

Using the Conduit, a client could submit the SHA-256 algorithm and a range of nonces to input into the algorithm. The client would then specify the desired configuration (ex: GPUs with 10 TH/s). Upon completing the configuration, the job would be paired with proof of work buffer algorithms and sent out to the nearest 100 computers. Computers that meet the specification will begin calculate the buffer algorithms while computers that did not would reach out to an additional 100 local computers until the computers receive a message from the network that enough computers have been found for the task. Upon completing the buffer algorithms, the worker computers will begin working on 2 parts job assignment that have been randomly assigned. Upon completion, the workers will issue a transaction to the Conduit Network to compensate them for the work based on the time and usage required for the task. Conduit miners will begin verifying the results then issue "charges" to GPUs that provided incorrect results. The Conduit miners will compete to compile the results of the algorithm, in this case, effectively creating a "receipt" for inputting the nonces. After also being verified by two other Conduit miners, the bounty is awarded to the fastest miner and then the results are sent back to the client.

5F.ii. Artificial Intelligence

Conduit is currently working with Posh Development to provide VPCs for client chatbot deployment. We provide provisioned compute clusters and tensorflow networks to help Posh Development create A.I. enabled chatbots. Through the Conduit, PoshDevelopment can easily scale up or down their computational needs in response to their workloads.

5F.iii. Performance Engineering

Conduit has partnered with Keaton Consulting to provide virtual machine software to assist with the companies' consulting services and performance engineering. Keaton Consulting uses Conduit to run performance analytics to assist companies with automation, strategy, analytics and cloud migration. Keaton Consulting uses Conduit for its scalable compute capacity to deliver data-driven strategies and recommendations to companies as fast as possible.

5F.iv. Graphics Rendering

Conduit has allied with FreshEpidemic to provide graphics rendering for its graphic design service. FreshEpidemic uses the parallel computing feature of the Conduit's computing network to reduce the time needed for rendering. Fresh Epidemic can use Conduit to specify what type of computers (i.e. GPU's) and the type of compute capacity needed per project. Using the Conduit, Fresh Epidemic has reduced their rendering time by a factor of 50.

6. ICO

6A. Overview

Conduit is a powerful tool for both cloud computing and the cryptocurrency mining communities. In our roadmap we create a network of tech supports and high quality computers to service two multi-billion dollar industries. Not only that but to succeed Conduit needs an engaged community to help us provide computing power to the world. Consequently, Conduit's ICO is an opportunity for the organization to not only fund raise but also "crowd raise," and create a fostering community.

6B. ICO Specifications

ICO Start Date: March 14th, 2018 00:00 EST

ICO End Date: April 14th, 2018 00:00 EST

COND Tokens Issued: 1 000 000 000

Token Exchange Rate:

ICO: 1 ETH = 2200 COND

Minimum Amount: .045 ETH

Total ICO Distribution Goal: 5 000 000 000 (COND)

Minimum ICO Distribution Goal: 100 000 000 (COND)

- Pre-ICO Start Date:

February 20th to 28th, 2018 00:00 EST

- Pre-ICO End Date:

February 28th 2018 00:00 EST

- Pre-ICO Discount: 30%

Crowd Raising Goal (Measured in Computers Pledged)

Community Goal: 1,000,000

Minimum Community Goal: 100,000

CONDUIT
ICO
MARCH 17th

6D. Budget Allocation

Product Awareness: 35% of the Total Budget

Technology that fails at advertising and exposure fails as technology. No matter how great a technology is it requires considerable amount of advertising to ensure it reaches the hands of consumers. Because Conduit must reach the cloud computing audience, the cryptocurrency/ blockchain community, and the general public across the World a considerable amount of the budget will be used on ensuring awareness of Conduit as a service and a cryptocurrency. Channeling every media outlet across every country from traditional media to social media, Conduit intends on becoming a household name.

Product Development & Testing: 35% of the Total Budget

Unlike most technology companies, Conduit's software must be tested across tens of thousands of algorithms and even more general use cases.

Not only that, but Conduit technology must be able to scale to billions of computers across the world that both enter or leave at any time. A notable amount of the budget will go into not just into extensive product development but also testing and quality assurance at increasingly higher orders of magnitude.

Network Infrastructure: 20% of the Total Budget

Upon product release, it is crucial that Conduit is able to ensure a quality customer experience across the world-anywhere in the world. Since Conduit utilizes computing power across the world, urban centers will have an advantage in computation available while rural regions will not. Conduit will install computers distributed throughout the world in order to ensure that the Conduit provides a reliable and quality experience to all users everywhere.

6D. Budget Allocation

Tech Support: 10% of the Total Budget

One of the major issues in the current experience of technology users everywhere is tech support. As technology gets more and more complex users have less and less resources available to troubleshoot their issues. With customers across the world with different uses and different issues, it is crucial that customers can get the technical support they need-in any country and at any hour.

6E. Referrals

Conduit's ICO will provide two distinct opportunities for referral bonuses. The first referral bonus will equate to 7% of the tokens bought by the referred.

7. Token Economics

The Conduit Coin (COND) is the medium of exchange for all transactions and services provided on the Conduit Network. Conduit clients pay for services and both Conduit workers and miners receive Conduit Coins. Conduit is planning to list its coin on cryptocurrency exchanges to promote usage and provide token holders with as much convenience as possible when using Conduit Coins. In the Conduit Computational Economy, the supply of coins is a result of the coins bought in the ICO, the K factor, and the hard cap. During the ICO, 5 billion Conduit Coins will be available for purchase. Thereafter, the amount of new coins created is based on the amount of computation completed on the Conduit Network until the number of coins reaches 25 billion.

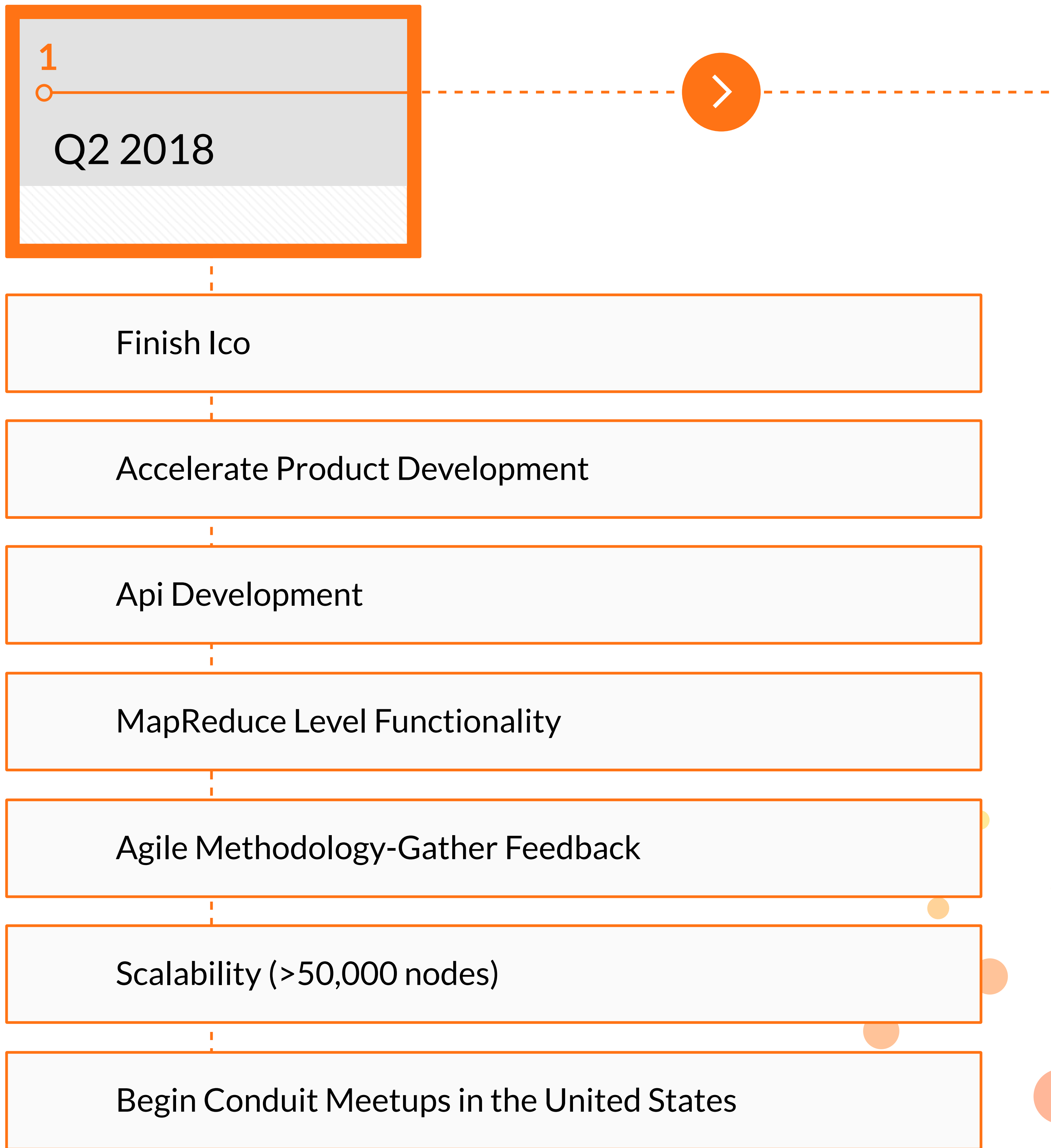
7A. Paying For Cloud Computing with Conduit Coins

When Conduit Clients utilize Conduit's network for cloud computing clients will be able to pay in Conduit Coins. However, to prevent fluctuations in the Conduit Coin from destabilizing or diminishing the availability of the cloud computing service, prices will be set in USD and potentially other currencies. For example, should the value of the Conduit Coin increase from \$5 (USD) to \$10 (USD) the price for our infrastructure-as-a-service will continue to be \$.20 (USD) per gigabyte hour (GB HOUR) despite the increase.

7B. Creating New Conduit Coins

As mentioned in the technical overview, the method for creating new Conduit Coins is to assist in computational tasks by specifically compiling results together. For example, a parallel merge-sort algorithm that cost 10 Conduit Coins could provide a bounty of 5 Conduit Coins to the Conduit Miner that compiled the results for the client. In the Conduit, the quickest compiling miner gets the bounty in order to reward swiftness and efficiency for the benefit of the client. However, to compensate for the increasing hardware speed as well as an increasing pool of miners the K factor used to calculate the bounty decreases over time equating to a deflationary pressure on the Conduit Coin until ultimately approaching the asymptote and hard cap of 25 billion. Added with the locked-in prices mentioned above, Conduit coins appreciate in value while the Conduit service remains stable.

8. Roadmap



2



Q3 2018



Complete Functionality for Secure Hash Algorithms (SHA)

Convolutional Neural Network Functionality

Expand Conduit Meetups

Expand Partnerships

Scalability Tests (>100,000 Nodes)

3

Q4 2018



Begin Testing with Conduit Early Miner Community

Finish UI Design

Expand Partnerships

Scalability Testing (>500,000 Nodes)

International Product Testing

4



Q1 2019



Begin Installing Global Tech Support Bases

Expand Testing within Conduit Community

Full IaaS Functionality

Complete Virtual Machine Testing

5



Q2 2019



Scalability Testing (> 1,000,000)

Initiate Product Release Advertising

Complete Performance Analysis

Limited Beta Release to Conduit Community

6

Q3 2019



Global Product Release Advertising

Complete Tech Support Bases

International Product Release

9. Conclusion

With great problems come great solutions. In the 21st century, we face the problem of dealing with overwhelming amounts of data and our growing technological needs. Yet fundamentally, the 21st century struggle is the same as the 20th's, 19th's, 4th, and 1st. In fact, it is a problem that humanity has faced from our prehistoric beginnings: how do we get the resources we need to solve the problems we have? From abacus to printing press to the Internet, each technology brought an answer to the same fundamental question. Now, in the 21st century our answer is not just innovation but efficiency. More than just a cryptocurrency, Conduit answers an age old question by harnessing the excess computing power of the world, we channel our common inefficiencies into a universal solution. Conduit is not just a technology but a global community that congregates what the world has to provide us what we need. On February 17th, 2018, Conduit's ICO does not spark the creation of a new technology but also a new future where the world is better because we work together.

Welcome to the Conduit. Welcome to the Future.

10. Legal

Conduit coins are products, not a security or an investment; they will not give you any voting rights or any other rights in the company. Conduit coins may not be available in certain countries or for certain individuals. You alone are responsible for the purchase of conduit coins, and any risks attached to it, for an indefinite period of time. You must inform yourself on the relevant laws that are upheld in your country or state regarding cryptocurrency. Conduit cannot be held responsible. Please also review our terms of use before purchasing conduit coins. If you are in any doubt as to the action you should take, you should consult your legal, financial, tax or other professional advisor(s). No part of this whitepaper is to be distributed or disseminated without including this section 'legal aspects and disclaimer'. Conduit shall not be liable for any indirect, direct, special, incidental, consequential or other losses of any kind, including but not limited to loss of revenue, income or profits, and loss of use or data, arising out of or in connection with any acceptance of or reliance on this whitepaper or any part thereof by you. Conduit does not make or purport to make, and hereby disclaims, any representation, warranty or undertaking in any form whatsoever to any entity or person, including any representation, warranty or undertaking in relation to the truth, accuracy and completeness of any of the information set out in this whitepaper.

By accessing and/or accepting possession of any information in this whitepaper or such part thereof (as the case may be), you represent and warrant to Conduit as follows: (a) You agree and acknowledge that in the case where you wish to purchase any coins, the coins are not to be construed, interpreted, classified or treated as (I) any kind of currency other than cryptocurrency, (II) debentures, stocks or shares issued by any person or entity, (III) rights, options or derivatives in respect of such debentures, stocks or shares, (IV) units in a collective investment scheme, (V) units in a business trust, (VI) derivatives of unities in a business trust, or (VII) any other security or class of securities (b) You are fully aware of and understand that you are not eligible to purchase any Conduit Coins if you are a citizen, a resident (tax or otherwise) or a green card holder of

a geographic area in which access to or use of or the acceptance of delivery of coins is prohibited by applicable law, decree, regulation, treaty, or administrative act.

These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual future results, performance or achievements of Conduit and/or its affiliates and/or its products to be materially different from any future results, performance or achievements expected, expressed or implied by such forward looking statements. These factors include, among others: (I) changes in political, social, economic and stock or cryptocurrency market conditions, and the regulatory environment in the countries in which Conduit conducts its respective businesses and operations; (II) the risk that Conduit may be unable to execute or implement their respective business strategies and future plans; (III) changes in interest rates and exchange rates of fiat currencies and cryptocurrencies; (IV) changes in the anticipated growth strategies and expected internal growth of Conduit; (V) changes in the availability, fees payable to, salaries of employees, future capital needs or preferences of customers of Conduit; (VI) war or acts of international or domestic terrorism; (VII) occurrences of catastrophic events, natural disasters or and other disaster that affect the business and/or operations of Conduit. Nothing contained in this whitepaper is or may be relied upon as a promise, representation or undertaking as to the future performance or policies of Conduit.

Indemnification To the fullest extent permitted by applicable law, you will indemnify, defend, and hold harmless Conduit and our respective past, present and future employees, officers, directors, contractors, consultants, equity holders, suppliers, vendors, service providers, parent companies, subsidiaries, affiliates, agents, representatives, predecessors, successors and assigns from and against all claims, demands, actions, damages, losses, costs and expenses (including attorneys' fees) that arise from or relate to (i) your purchase or use of the coins, (ii) your responsibilities or obligations under these Terms, (iii) your violation of these Terms, or (iv) your violation of any rights of any other person or entity. **Translations** This whitepaper contains translations of the English version of the white paper.

These translations are provided to you only as a convenience. In the event of any conflict between the English language version of the whitepaper and the translated version of the whitepaper, the information on the English language version shall take precedence. If you notice any inconsistency, please report them on/to support@Conduit.org. Changes to the Terms of Use We may revise and update these Terms at any time, in our sole discretion and without prior notice. All changes are effective immediately upon posting. Your continued use of our products following the posting of the revised or updated Terms means that you accept and agree to the changes. Please refer to the header of these Terms to view the date of the last updated version. Intellectual property rights Conduit and its entire contents, features and functionality (including but not limited to all information, software, text, displays, images, video and audio, and the design, selection and arrangement thereof), are owned by the Company, its licensors or other providers of such material and are protected by copyright, trademark, patent, trade secret and other intellectual property or proprietary rights laws. These Terms permit you to use the whitepaper for your own personal, non-commercial use only. You must not reproduce, distribute, modify, create derivative works of, publicly display, publicly perform, republish, download, store or transmit any of the material in the whitepaper.

11. F.A.Q.

What Can It Be Used For?

Almost anything. The Conduit acts a supercomputer. What Conduit is best suited for is cloud computing (IaaS) and parallelizable algorithms. Conduit can also run algorithms specifically suited for GPUs as our mining pool will include CPUs and GPUs as Conduit miners across the world join the Conduit Network.

Who Is Working On Conduit?

Based out of MIT, most of Conduit's team are MIT graduates that have partnered with experienced professors and advisors with years of experience in the financial services industry and business operations.

How does Filecoin Relate to Conduit?

Filecoin is strictly for data storage while as Conduit provides computing services in addition to limited data storage in order to perform the computational and cloud computing service.

When Will Conduit Be Released?

Our current projected release time is the third quarter of 2019. In the meantime we will be working with our current ensemble of pilot customers as well as the Conduit Community to gather feedback for product development.

How Can I Keep Updated on Conduit?

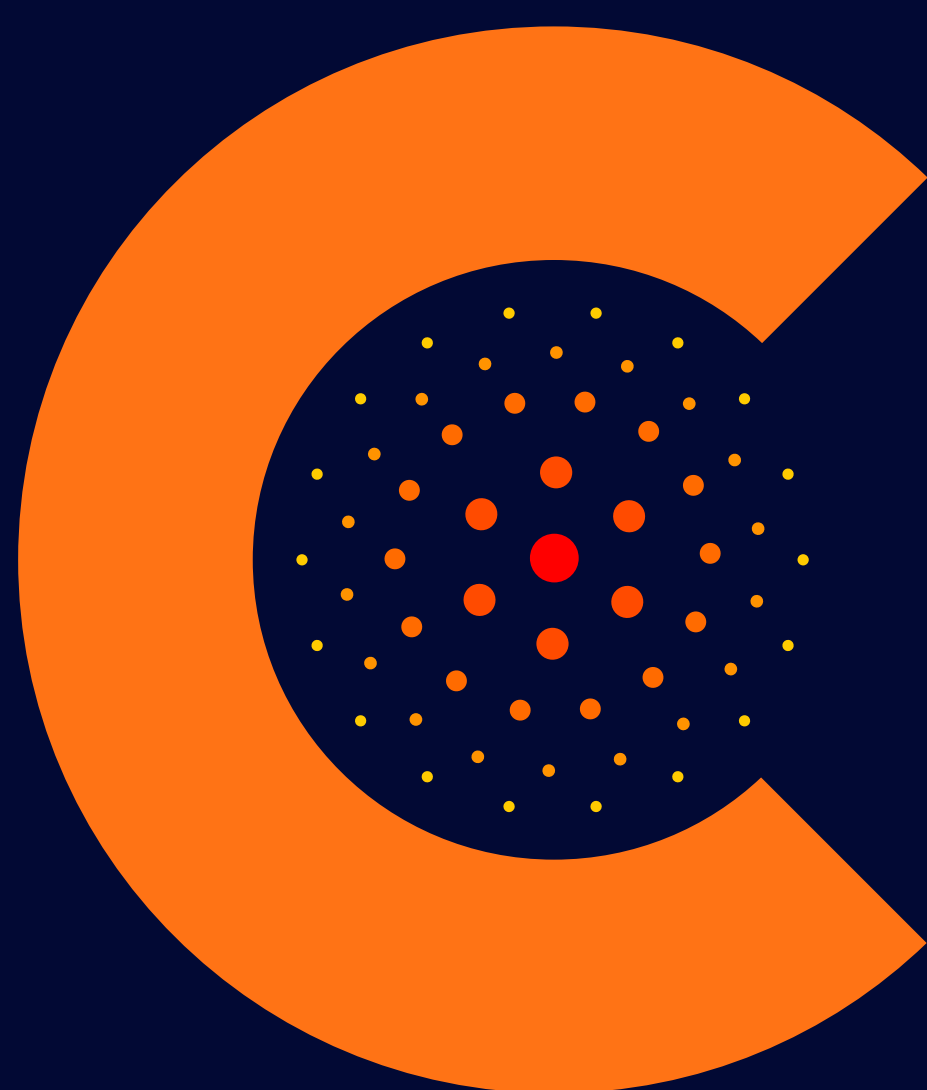
Visit our website at conduitcomputing.com and join our official Conduit Community. The Conduit team sends out a newsletter frequently to keep the community involved and informed.

Is there going to be a Pre-ICO?

Conduit will be hosting a Pre-ICO February 20th to February 28th for a 30% bonus. Conduit also has a referral program to encourage people to invite their friends to the Pre-ICO and the Conduit Community.

12. References

1. <http://www.internetlivestats.com/internet-users/>
2. <http://bitcoin.mit.edu/announcing-the-mit-bitcoin-project/>
3. https://en.bitcoin.it/wiki/Confirmation#Confirmation_Times
4. <https://ipfs.io/ipfs/QmXoypizjW3WknFijnKLwHCnL72vedxjQkDDP1mXWo6uco/I/m/AmdahlsLaw.svg.png>



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